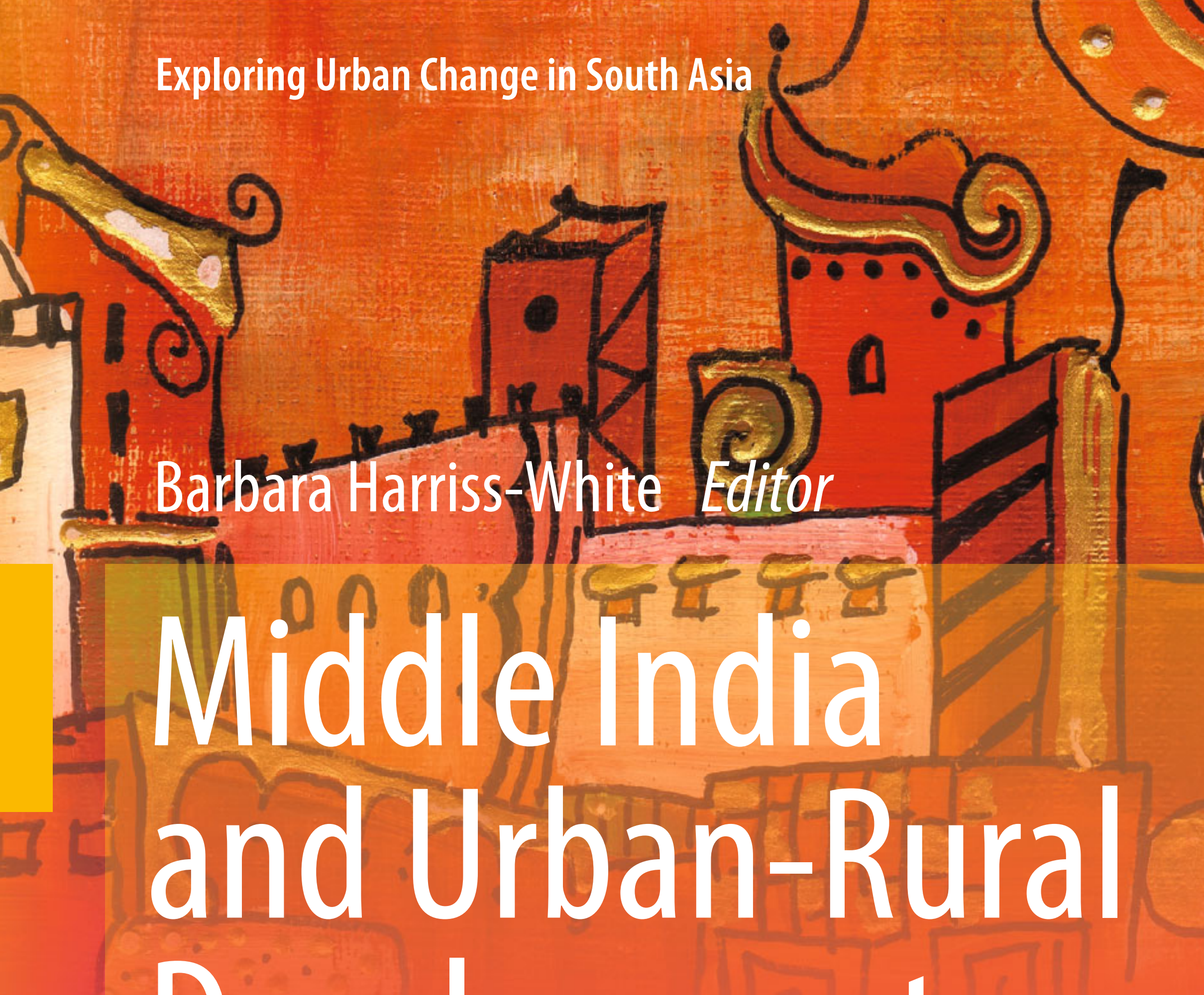

Exploring Urban Change in South Asia

Barbara Harriss-White *Editor*

Middle India and Urban-Rural Development

Four Decades of Change

Springer

Exploring Urban Change in South Asia

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To the people of Arni, in memory of PJK and G. Jothi, and to Elinor, with gratitude

Preface

Aam admi, India's 'common man', would ask us a sensible question.

Why bother to sweat it out in episodes of field research over four decades in a rapidly growing and changing town—Arni—that is obscure to all but those who live there?

With a touch of incredulity local businessmen enjoyed the sight of a European woman—tailed in those days by a twitching line of small, ragged children—making maps of the businesses of the town. It became known locally as 'professor's work'. So the first question in this Preface is why indeed did a dozen of us—plus committed research assistants—do 'professor's work' over such a long time? In the twenty-first century, penetrating questions about the accountability of such research are also routinely asked by politicians and research funders. So the second question is how could it be justified: what use was it? The editor is British and the British government's development research agencies now require scholars pleading for research funds to pre-judge the extent to which their proposal will be 'value for money' in policy relevance and will have impact (defined ever more narrowly, to refer to benefits to business). After four decades did this work have any 'impact', and if so what sort of impact and impact on what?

This preface explains why this project has been addictive—question 1—and will attempt to answer the common man's reasonable question about its purposes, after which we will attempt to respond to question 2 about its practical relevance.

On question 1, ever since 1973 the economic and social dynamics of urban growth and urban–rural relations have been being tracked every ten years or so in a long-term research project involving business histories in a South Indian market town, Arni. While towns have been the object of study in sociology, geography, politics and urban planning,[1] we have been told by urban studies experts that this project on a small-town *economy* is now uniquely long-lasting. It has been closely

[1]See for instance, E. Thompson, T. Bunnell and D. Parthsarathy 2013, *Cleavage, Connection and Conflict in Rural, Urban and Contemporary Asia*, Ari–Springer Asia series, especially the Introduction, p 4.

associated with the long-term village studies of agrarian change in northern Tamil Nadu (Maps 1, 2 and 3). These randomly selected villages were part of Tamil Nadu's rice bowl in the 1970s. Several of these villages were in the hinterland of the market town—off the beaten track of the Madras-Bangalore highway (now a globalized industrial corridor) but at the dynamic centre of the Green Revolution on Tamil Nadu's Coromandel plain. Over four decades, this research has explored a rolling agenda of questions about 'Middle India', non-metropolitan India's economic and social development, which cannot be answered in any other way than through sustained or long-term rural and urban field research. In so doing, it has been compelled to engage with a great range of theoretical ideas from social science disciplines.

The agenda has included:

- economic linkages from agriculture
- the social structure of rural–urban credit, savings and investment flows
- the role of market exchange and transactions in agrarian development
- the structure and trajectories of the urban economic base—local capitalism
- rural–urban labour processes, markets and institutions
- forms of socialization to wage work
- the role of caste, gender and religion in the modern, supposedly 'secular' urban economy
- the informal economy and its corporatist social regulation
- the centralization and decentralization, concentration and dispersion of craft production
- technological change, innovation and its institutional consequences in the informal economy
- the role of institutions in the development of local hard and soft infrastructure and utilities
- rural–urban revenue and expenditure relations
- the role of rents, corruption, tax evasion, concepts of merit, honour and trust in local development
- the spatiality of consumption
- the causes of rural and urban poverty

From the mid-1990s, this research was Indianized, much further internationalized and it crossed a generation (see the bibliographical appendix to this book). Yet the eight researchers who had worked there in the twenty-first century[2] had never

[2]The town has not been exhausted by five doctoral theses: E. Basile, 2011, *A Marxist Institutionalist Analysis of Rural Capitalism in South India: The Case of a Tamil Market Town after the Green Revolution*, D.Phil Thesis, Oxford University; M. Cavalcante, 2006, *La Liberalizzazione nell'India Rurale. Uno Studio su Tre Villaggi nel Nord del Tamil Nadu*, Available at: http://padis.uniroma1.it/getfile.py?recid=546; C. Roman, 2008, *Learning and Innovation in Clusters: Case Studies from Indian Silk Industry*. D.Phil. Thesis, Oxford University; M.V. Srinivasan, 2010, *Segmentation of Urban Labour Markets in India: A Case Study of Arni, Tamil Nadu*. Ph.D. Thesis, Jawarhalal Nehru University; and Arivukkarasi,

met one another together until June 2009 when a workshop was convened to discuss the rich dispatches of nearly four decades of enquiry. This book of essays—an 'economic biography' of a market town that has developed in a remarkably dynamic way—is a consequence of that meeting.

All along, the intellectual challenge has been to avoid a narrow focus on the town itself but to use a market town and its rural hinterland (originally chosen to study the impact of the green revolution in northern Tamil Nadu) as a lens through which to examine aspects of its life and times. 'Life and times' has meant the development of the informal, 'rurban' and agrarian economy and how this economic development is understood.

Since the crises in grand theory a generation ago (when powerful criticisms were made of neo-classical economics and neo-liberal politics on the one hand and of Marxism and socialism on the other)[3] understandings of development have been shattered into subfields, swaddled in discourse analysis and frequently driven by technique. In this book, we cannot—and do not—escape issues of concepts, theory, method and practical policy. But like the three others that tell the story of this region, our book is *theoretically pluralist*. With many ways of understanding both the institutional structure which gives character to an economy and the motors of its dynamism, researchers have been free to reason about, and choose, their own theoretical frames.

In an earlier book synthesizing an All-India literature, Arni's socio-economy was used to exemplify how even in the era of liberalization, institutions of culture such as caste, gender, religion and locality are reworked to regulate the stability of accumulation in the informal economy that is out of direct state control. They form a social structure of accumulation (Harriss-White 2003). Others have used cross-sectional samples of business in the town to explore its economic integration and diversification (see Basile, Chap. 2). Yet others have researched a theme, such as clustered development or technology and innovation (respectively Stanley, Chap. 5; Roman, Chap. 7). Aspects of the town's economy and its urban–rural linkages have now been examined from a rich range of theoretical perspectives. They range from rigorous comparisons of old and new institutional economic theories as applied to rural credit (Polzin, Chap. 9) through labour market theory (Srinivasan, Chap. 3), Marxist institutionalism (Basile, Chap. 2) and Gramscian hegemony (Basile, Chap. 6) to

(Footnote 2 continued)
forthcoming, *The Silk Industry in Northern Tamil Nadu,* Ph.D. Thesis, MIDS/Madras University, Chennai. Three Oxford M.Phil. theses have also been based on it: J. Stanley, 2002, *A Common Cluster in a Crowded Market: The Gold Ornaments Cluster in Arni, Tamil Nadu, India*, M.Phil. Thesis, Oxford University; C. Roman, 2004, *Skills and Silks: Learning to Work in the Informal Sector*, M.Phil. Thesis, Oxford University, and C. Polzin, 2007, *Credit in South India—An Empirical Critique of Competing Frameworks of Institutional Change*, M.Phil. Thesis, QEH, Oxford University.

[3]D. Booth, 1985, Marxism and Development Sociology: Interpreting the Impasse. *World Development*, 13(7) July; but also see Q. Skinner, 1985, *The Return of Grand Theory in the Human Sciences*, Canto; and C. Leys, 1996, *The Rise and Fall of Development Theory*, London, James Currey.

contested theories of mass consumption (Cavalcante, Chap. 10). Development theories generated to account for the way the economy is embedded in social and political relations are tested against the ground realities of Middle India and insights from this interaction suggest ways to improve our understanding.

This commitment to theoretical pluralism has been accompanied by a wide range of practical research methods. To study a single town means attempting to manage the ambition of understanding how a complex and open socio-economic system works in urban space with the help of the fine-grain of detail usually associated with village level studies. At the same time, it is a struggle with the complexity of the urban economy and with the difficulties of making it tractable—let alone comparable over time. Over the period from 1972 the population of the real town (as opposed to the smaller 'census' town) has grown from about 30,000 to over 1,00,000; from a place with no court or college to one with both court and seven private colleges; from one with sufficient water to one where water is available one day in four and where even the fire brigade has had to borrow it; from a local agricultural marketplace to a settlement importing yarn from China and exporting de-oiled bran to Europe for fodder, sarees to South-east Asia and rice to Sri Lanka, Malaysia, France and the USA. Throughout all this change it has remained filthy and congested; but its congestion has been transformed from that of hand- and bullock-carts, jutkas and bikes to lorries, tractors, motorbikes and Korean-Indian cars. Its filth is now a lot more non-biodegradable. Its carbon footprint has ballooned. It might be possible for an organization like the National Sample Survey Organization (this we doubt), but it is certainly no longer possible for individuals or small teams like ours to scale-up a village level study and patiently to piece together our sample survey data so that they would enable quantitative generalizations about this single place. Let alone extrapolations to other non-metropolitan spaces. So in the twenty-first century the task has been tackled differently, each researcher focussing on a specific research question and collecting their own evidence as systematically as they could.

Our research methods include population studies (Arasi for silk weaving households in Chap. 8, Basile for all the business associations, Chap. 6, Polzin for all credit institutions, Chap. 9), sample surveys (Basile, Chap. 2, Srinivasan, Chap. 3, Harriss-White, Chap. 4, Stanley, Chap. 5, Cavalcante, Chap. 10), case material (Cavalcante for rural consumption behaviour, Chap. 10; Srinivasan for low caste power-play in trade and labour markets, Chap. 3) and ethnography (Roman for Arni's silk industry, Chap. 7; Stanley in the gold cluster, Chap. 5).

This theoretical and methodological pluralism and the reasons put forward for the range of approaches to the economy taken in this book, we think, enrich it. We also hope they make the study of an urban economy an activity that others will find approachable.

The contributors to this book hold, however, that these explorations of substance and ideas are not irrelevant to modern India more widely, where the informal economy is estimated nationally at two-thirds of GDP and nine-tenths of all livelihoods. Over the last two decades it has been the informal economy rather than the registered one that has generated the growth in jobs. At the same time, with notable exceptions (such as a belt from Gujarat to Jharkhand) the part of the informal economy that is agricultural has been growing at indifferent rates or, as in central India, has languished in outright crisis. The Arni region in Northern Tamil Nadu has passed through periods of both accelerated agricultural growth and stagnation. Its impacts on the non-farm economy and its labour force may resonate with developments elsewhere.

The *purposes* of this book are to assemble the contemporary rounds of research to write an 'economic biography' that relates the life of a town to India's accelerating and dynamic growth *outside its major economic poles* because the vast bulk of India's population lives outside them. It therefore examines twenty-first-century development as a combination of path-dependent and discontinuous activities. It locates the dynamics of general economic processes in the social specificities of a given place, and, since all economies are local in their dynamic expression, it examines how we can evaluate the character of a local economy. Not setting out, as so much contemporary scholarship does, deliberately to position the research in relation to world economic processes, it examines globalization and liberalization insofar as these processes relate to the local economy. However, despite Srinivasan's fine-grained analysis of the caste politics of segemented labour markets (Chap. 3), there is much about the sociology (household, caste, and gender relations), the party politics of the town and their embedding in wider Tamil welfare-oriented mobilizations[4] and even about small-town urban land use—at the intersection of urban studies and the study of informality—urban governance and planning[5] that remains beyond the scope of this book. They are for future scholars to take up, with this book as background.

This is also the fourth in the line of books on research into agrarian change through village level studies in northern Tamil Nadu—in what started as North Arcot District and is now Vellore and Tiruvannamalai districts. The others are: B.H. Farmer (Ed.), 1977, *Green Revolution?* Macmillan; P. Hazell and C. Ramasamy (Eds.), 1991, *Green Revolution Reconsidered*, Johns Hopkins; and B. Harriss-White, S. Janakarajan and others, 2004, *Rural India Facing the Twenty-first Century*, Anthem.[6] The fourth round of research has not abandoned the study of agrarian change and rural economic relations with the town. For, while evolving in a dynamic way, increasingly integrated with national and international markets, the town is embedded in its rural hinterland.

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[4]See for example, M.S.S. Pandian, 2007, *Brahmin and Non-Brahmin: Genealogies of the Tamil Political Present*, Delhi, Permanent Black; B. Harriss-White, 2004, Nutrition and Its Politics in Tamil Nadu. *South Asia Research*, 24(1), 51–71; K. Kapadia, 1995, *Siva and Her Sisters: Gender, Caste and Class in Rural South India*, Westview Press.

[5]See the Review of Urban Studies, *Economic and Political Weekly*, May 31, 2014, xlix(22) for cases illustrating the problems of unplanned development in small towns, especially P. Mukhopadhyay and A. Mariganti, 2014, Articulating Growth in the Urban Spectrum. *Economic and Political Weekly*, xlix(22), 44–45.

[6]Other books emerging from the same project in this region are J. Harriss, 1982, *Capitalism and Peasant Farming*, Oxford University Press; B. Harriss, 1981, *Transitional Trade and Rural Development*. The Nature of Agricultural Trade in a South Indian District, Vikas; B. Harriss, 1991, *Child Nutrition and Poverty in South India*, Concept; S. Wanmali and C. Ramasamy, 1994, *Developing Rural Infrastructure for Poor People: Studies from North Arcot, Tamil Nadu, India*; ICAR New Delhi and IFPRI, Washington.

The last part of this book engages with rural development and the long-term study of villages not just in their own right—as the fourth round of the research started in 1972 and updated by Cavalcante (Chap. 10)—but more importantly because the story of Arni cannot be told without those of its surrounding villages. We have, however, shifted the long-term project's centre of gravity in this book and we focus on what has been happening to the local town in its interaction with the rural economy: urban–rural relations rather than rural–urban ones.

There are other long-term *rural* studies of Tamil Nadu's development, notably those on the Cumbum valley,[7] wet and dry villages near Tirunelveli,[8] and the Slater villages, studied since 1916.[9] The *urban* ready-made garments cluster of Tirupur is currently more renowned as a magnet for sustained research[10]—'Tirupur studies' is

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[7]V.K. Ramachandran, 1991, *Wage Labour and Unfreedom in Agriculture*, Oxford: Oxford University Press; V.K. Ramachandran and M. Swaminathan, 2005, Financial Liberalization, Rural Credit and Landless Labour Households: Evidence from a Tamil Nadu Village, 1977, 1985 and 1999. (pp. 157–177). In V.K. Ramachandran and M. Swaminathan (Eds.), *Financial Liberalization and Rural Credit in India*, New Delhi: Tulika Books.

[8]V. Athreya, G. Djurfeldt and S. Lindberg, 1990, *Barriers Broken: Production Relations and Agrarian Change in Tamil Nadu*, New Delhi, Sage; G. Djurfeldt, V. Athreya, N. Jayakumar, S. Lindberg, A. Rajagopal, and R. Vidyasagar, 2008, Agrarian Change and Social Mobility in Tamil Nadu. *Economic and Political Weekly*, 43(45), 08–14 November, pp. 50–61.

[9]See references to the history of Slater village studies in J. Harriss, J. Jeyaranjan and K. Nagaraj, 2010, Land, Labour and Caste Politics in Rural Tamil Nadu in the 20th Century: Iruvelpattu (1916–2008). *Economic and Political Weekly*, 45(31), 31 July–06 August, pp. 47–61.

[10]P. Cawthorne, 1993, The Labour Process under Amoebic Capitalism: A Case Study of the Garment Industry in a South Indian Town. (pp. 47–75). In I.S.A. Baud and G.A. de Bruijne (Eds.), *Gender, Small-Scale Industry and Development Policy*. London: IT Publications; B. Harriss-White, 1996, *A Political Economy of Agricultural Markets in South India: Masters of the Countryside*, New Delhi, Sage; P. Swaminathan, 1999, The Knit-wear Cluster at Tiruppur. An Indian Industrial District in the Making?, co-authored, In A.K. Bagchi (Ed.), *Economy and Organization: Indian Institutions under the Neo-Liberal Regime*, Sage; J. Gomes, 2002, Textiles: New Vistas for Tirupur, *Economic and Political Weekly*, 37(48), p 4783; S. Chari, 2004, *Fraternal Capital: Peasant-Workers, self-made men, and globalization in provincial India*, Palo Alto, Stanford University Press, and Permanent Black, Delhi (co-publication), M. Vijayabaskar, 2005, Labour under Flexible Accumulation: Case of Tiruppur Knitwear Cluster. In K. Das (Ed.), *Industrial Clusters: Cases and Perspectives* (Aldershot: Ashgate); N. Singh and M. Sapra, 2007, Liberalization in Trade and Finance: India's Garment Sector. In B. Harriss-White and A. Sinha (Eds.), *Trade Liberalisation and India's Informal Economy*, New Delhi, Oxford University Press; G. De Neve, 2009, Power, Inequality and Corporate Social Responsibility: The Politics of Ethical Compliance in the South Indian Garment Industry. *Economic and Political Weekly,* 44(22). pp. 63–72; J. Heyer, 2010: Improving Labour Standards: Lessons from the Tiruppur Region, paper presented to the 21st European Conference on Modern South Asian Studies, 26–29 July 2010, Bonn (currently submitted to the *Global Labour Journal* for publication); M. Vijayabaskar, 2011, Global Crises, Welfare Provision and Coping Strategies of Labour in Tiruppur, *Economic and Political Weekly*, 46(22), 28 May–03 June, pp. 38–45; G. Carswell and G. De Neve, 2013, Labouring for Global Markets: Conceptualising Labour Agency in Global Production Networks. *Geoforum,* 44(1). pp. 62–70; G. Carswell and G. De Neve, Geert, 2013, From Field to Factory: Tracing Bonded Labour in the Coimbatore Powerloom Industry, Tamil Nadu. *Economy and Society,* 42(3). pp. 430–454; G. De Neve and G. Carswell, 2013, T-Shirts and Tumblers: Caste, Dependency and Work under Neo-liberalisation in South India. *Contributions to Indian Sociology*, 48(1). pp. 103–132.

a growing sub-field in its own right—but Arni's research has been going for longer. While until very recently Tirupur's research has been focused on the industrial district, Arni's has been centred on the local economy and the hinterland of settlements that generate and contain 'common clusters' and retail services. The very obscurity of Arni also makes it interesting.

'*Our* '*middle path*' *needs the constant grafting of knowledge-based policies*'[11]

Our engagement with questions of policy—question 2—can now be appreciated. Whereas international development policy has been paying extensive lip service to how Washington understands development, local development policy is crafted through managing many tensions. The most notable involve engaging with Washington's intellectual and political project, coping with the relentless commodification of politics and policy, responding to local civil society's waves of single-issue mobilization, managing the entanglement of policy with party political factions (with arrangements that look suspiciously like political markets) and building and demolishing relations of patronage in policy making.[12] This book has been written in what Mao Tse Tung called, not very positively, 'interesting times'.

All four rounds of the Arni studies have been motivated by development policy issues of the day, and have shed light from the town on the ideas and assumptions of development theorists who would make policy.

But the Arni project has never been required to be '*policy relevant*'. We see it as highly relevant for education and learning—but the advancement of understanding has never received much favour as a criterion of research 'relevance'. Yet the research in this book has certainly been relevant to our team's own education and our practice as teachers of economics, of development and of policy in Europe and India—as well as to the public understanding of India—and we hope it will interest others with the same vocation. Perhaps our work could never be very 'policy relevant' because by definition we are mostly researching what happens in the informal economy outside the regulative reach of the state, rather than evaluating the state's formal policies.

But the site and the questions we have asked have been *relevant for policy*. 'Non-policy research' helps society understand the processes that may need managing through public policy. It may even help society understand why policy has unintended impacts. For examples: (i) early research on Tamil Nadu's noon meals scheme explained the multiple labels through which it would persist even had it failed as a nutrition intervention; (ii) the very poorly theorized and *not* predicted connection between liberalization (expected to reduce corruption) and the

[11]Y. Alagh, *The Hindu*, 16 March, 1994.

[12]A de Waal, 2010, 'Dollarised' *London Review of Books*, 24 June, pp. 38–41, looks at the process of political markets and their consequences in 'failing states'; C. Leys, 2001, *Market Driven Politics*, London, Verso, and 2007, *Total Capitalism*, New Delh: Three Essays Press, looks at it in advanced states, and M. Khan and K.S. Jomo, 2001, *Rents, Rent Seeking and Economic Development in Asia*, Cambridge University Press look at it in South and South-east Asia.

blossoming corruption that has resulted from liberalization drew attention both to private corruption and to the significant power of 'clients' in relations of political-economic patronage; it lent support to the expansion of civil society's role in monitoring good governance; and (iii) research on the social regulation of the informal economy has not been without influence on preparations for the inclusive development agenda.

Then situated research like the North Arcot project and the Arni research within it can evaluate—and often has evaluated—the *impact of policy practices*. Implementation is the poor relation of policy research. Exposing in the 1970s the adverse welfare impact of unsystematic and politicized post-harvest procurement practices for the public distribution system informed the forces that then expanded targeted food to rural areas and for a while made procurement more consistent and less amenable to speculation. Though it was early to attempt it, the 1993–5 round of research had an evaluation of the impact of India's liberalization in the villages at its heart.[13]

Policy relevant findings from research are not always heeded however—even when policy makers know of it. Evidence for evidence-based policy has been ignored, e.g. very early warnings about water table depletion, only exacerbated by free agricultural electricity; quite early warnings about the relationship between property ownership and declining girl child sex ratios; about the hidden costs of targeted interventions; and about the role of exchange relations in preventing wealth accumulation by small-scale producers. Policy has *political rationales* that over-ride those based on evidence unless that evidence has factored in politics—which it is rarely able to do. 'Policy relevant' research dominated by political agendas which are always short-term may then be reduced to the supply of *policy-based evidence* rather than evidence-based policy research and recommendations. And even policy-based evidence is often ignored.

Field research has led us to understand development policy as a set of conflictual (bureaucratic) *political processes*—discursive, legal or procedural, resource-mobilizing and allocative. Research relevant to one kind of policy politics—usually the discursive, agenda-forming politics—commonly omits the others—let alone the links between them. '*Policy implications*' of 'policy relevant' research conventionally residualize this entire complex process, especially (i) the resources required for a policy and (ii) the policies needed to buy off opposition to it and to compensate its victims. Policy relevant research in the narrow sense is therefore most unlikely ever to be complete. *Unintended outcomes* and *spillover* are embedded in policy relevant research and can be more fertile and powerful than intended outcomes. In fact, research findings from our long-term project, results inspired by a policy question in one field, have had impacts on policy changes in other fields. For example, the early research on the impact of technological change in agricultural production produced results which halted state support for what was then inappropriate technological change in post-harvest processing.

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[13]B. Harriss-White and S. Janakarajan, 2004, *Rural India Facing the 21st Century*, London: Anthem.

While policy is shaped through processes of labelling, so is the landscape. The Maps we use here demonstrate that the English spelling of Tamil place-names has not stabilized, including that of the central character in this book. We use the labels Arni, Tiruvannamalai and Kancheepuram for local places of note.

None of us would have made any progress without the generosity with their time and initiative of what now amounts to thousands of Arni's businessmen and workers, together with matching numbers of farmers and labourers in the surrounding villages who have told their stories and answered our questions over the four decades. To say we are grateful is a gross understatement. Gratitude is also expressed by the contributing authors in their individual chapters. Here we also thank the leaders of trades unions and workers' organizations, political party members, the Lions, Rotary, Chamber of Commerce and over three score other business and caste associations.

Though all the collectors of undivided and divided North Arcot District have been supportive, the support of N. Narayanan, IAS, has endured and we thank him for his sustained interest. We remember the late S. Guhan, IAS, for his keen questions and help behind the scenes from the time when he worked on the 1980s round of Slater village surveys—and for nearly two decades after that. Many officials in the districts' tax, development, food, public works, co-operatives, regulated market, sanitation, electricity, police, fire and postal services, municipal government and banks have spared time for us. We are grateful for the very interesting talks we had and the official material we could collect. Apart from experienced and knowledgeable research assistants, a set of scholar-colleagues worked on the town before the twenty-first century—notably John Harriss,[14] S. Janakarajan,[15] the late G. Jothi, the noted field researcher, and last but not least D. Jayaraj and K. Nagaraj,[16] the influence of all whose work we wish to recognize with thanks. Kaveri Harriss Qureshi and Elinor Harriss's roles in coding and interpreting the schedules of their parents during school holidays and university vacations from 1998–2002 also deserves warm acknowledgement. The research of several of us also relied on years of conversation, correspondence, friendship and

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[14]Most notably J. Harriss 1982, *Capitalism and Peasant Farming* New Delhi, OUP; B. Harriss and J. Harriss, 1984, 'Generative' or 'Parasitic' Urbanism? Some Observations from the Recent History of a South Indian Market Town. *The Journal of Development Studies,* 20, pp. 82–101; J. Harriss, 1991, The Green Revolution in North Arcot; economic trends, household mobility, and the politics of an "awkward class", pp. 29–56 in (eds.) P. Hazell and C. Ramasamy *The Green Revolution Reconsidered,* Baltimore and London, Johns Hopkins Press; J. Harriss 2006, 'Postscript: North Arcot Papers' in *Power Matters* OUP; J. Harriss and B. Harriss-White 2007, The North Arcot Papers *QEH Working Paper no 146,* Queen Elizabeth House, Oxford University.

[15]S. Janakarajan 1996, Complexities of Agrarian Markets and Agrarian relations: A Study of Villages in Northern Tamil Nadu; paper presented to the ODA-Oxford-MIDS Workshop on Adjustment, Markets and Social Welfare in Northern Tamil Nadu, MIDS Chennai.

[16]D. Jayaraj and K. Nagaraj 2006, Socio-economic factors underlying the growth of silk-weaving in the Arni Region—A Preliminary Study, *S. Guhan Memorial Series Monograph 5*, Madras Institute of Development Studies.

the odd dispute with a deeply knowledgeable, engaged and reflective teacher of physics in the town, who enjoyed his role of key informant, P.J. Krishnamurthy, who died in 2007.

We are also grateful for their comments to the 2009 Oxford workshop discussants, not all of whom are active contributors to this book, but all of whom are committed to rural and urban field research: the political-social historian Nandini Gooptu, the political economists Judith Heyer and K. Nagaraj, the anthropologist Karin Kapadia and micro-finance specialist Suyash Rai.

Finally we wish to thank our funders. This project has mainly been funded out of the living allowances provided for other research and from the varied resources that supported a set of seven M.Phil. and doctoral projects. The editor acknowledges with gratitude the far sightedness of the International Food Policy Research Institute, Washington, in 1981 for finding funds for the 1982–3 round; and support from the Institute for Financial Management and Research Trust, Chennai, in 2009. The latter made possible the workshop—the first workshop of Oxford's new Contemporary South Asian Studies Programme in the School of Area Studies—that triggered this book. It goes almost without saying that the project has been carried out in a way that critically engages with some of the ruling ideas of research funding agencies, but is independent of them. She also acknowledges with great gratitude visiting fellowships to the University of Rome, 'La Sapienza', to the Jawaharlal Nehru Institute of Advanced Studies and the new Centre for the Informal Sector and Labour Studies at JNU, all very congenial environments in which to prepare and complete the project of this book.

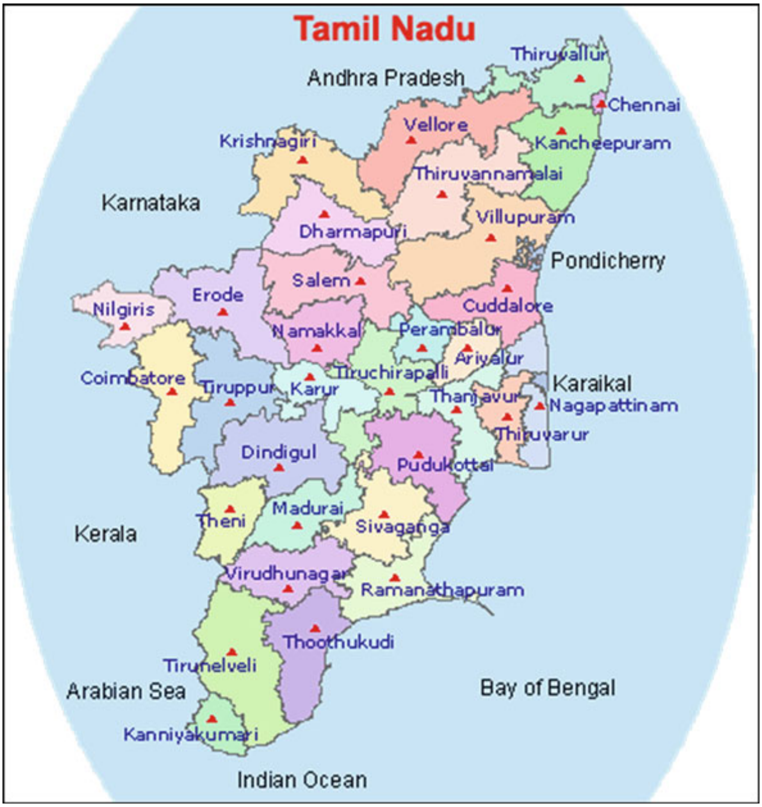
We remain frustrated that, despite all this research and all our attempts to disseminate it, in the twenty-first century there are people in the village of Veerasambanur near Arni who are still poverty-stricken enough to contract leprosy and not be able to have it treated despite a leprosy hospital sited a short distance away.[17]

We would like to encourage readers and researchers able to commit themselves to a long-term field engagement to help take this project in urban–rural research forward in new ways into the future.

Barbara Harriss-White

[17]Anirudh Krishna and Devendra Bajpai have now generalized this finding in an important All-India study of distance-decay in many dimensions of development: A. Krishna and D. Bajpai, 2011, Lineal Spread and Radial Dissipation: Experiencing Growth in Rural India, 1993–2005, *Economic and Political Weekly*, xlvI(38), pp. 44–51.

Maps



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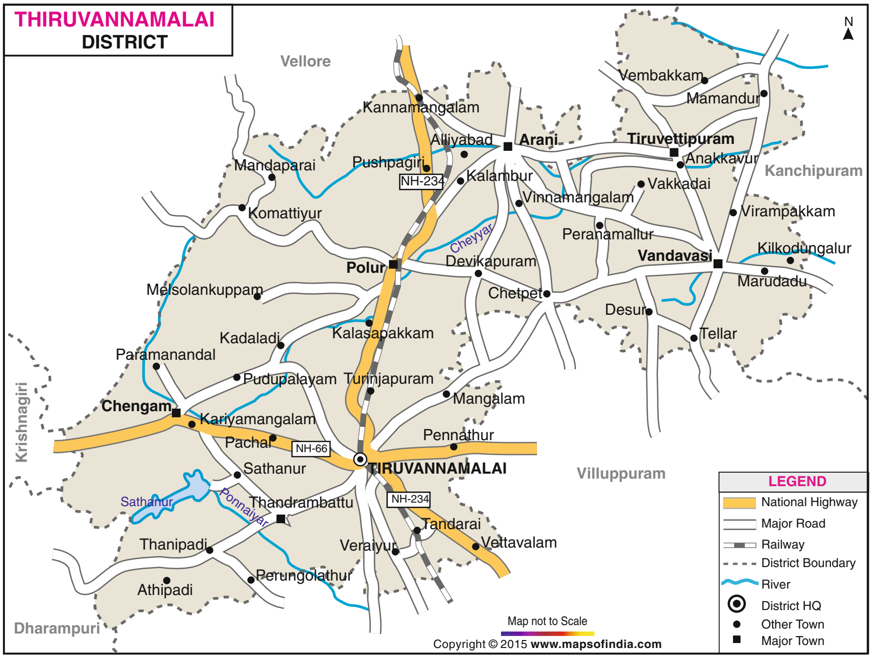

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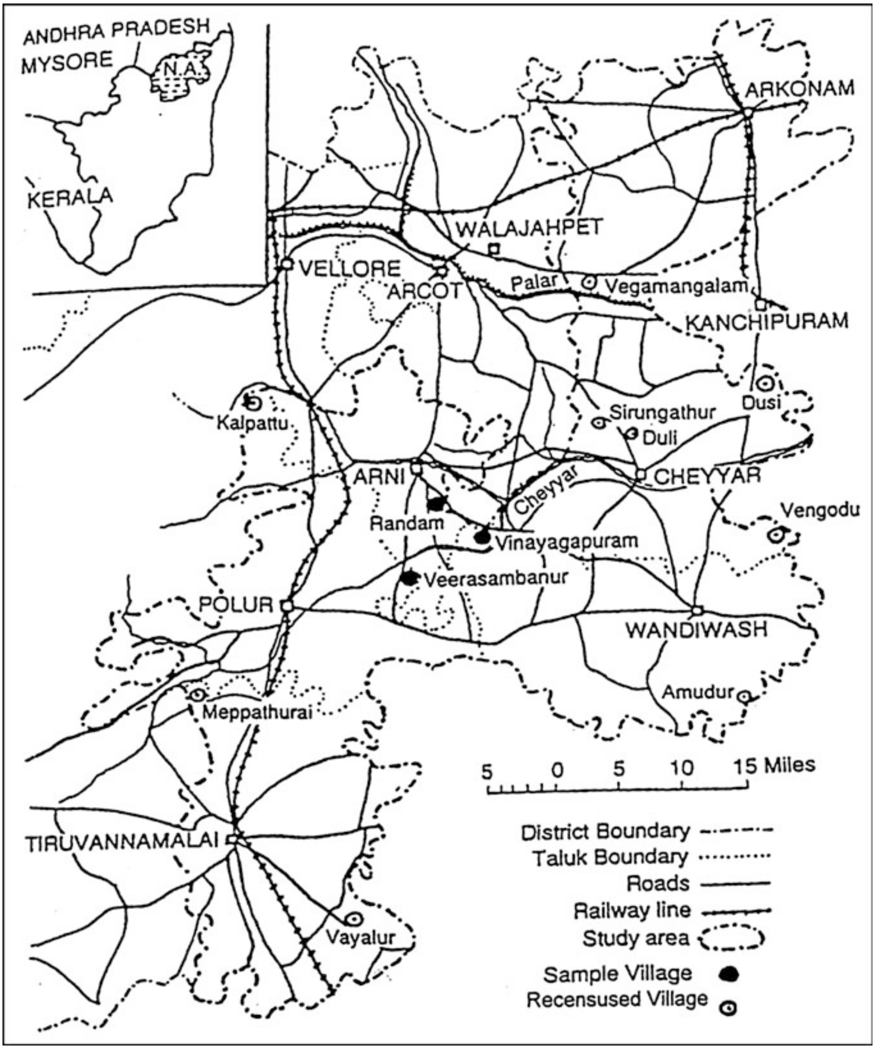

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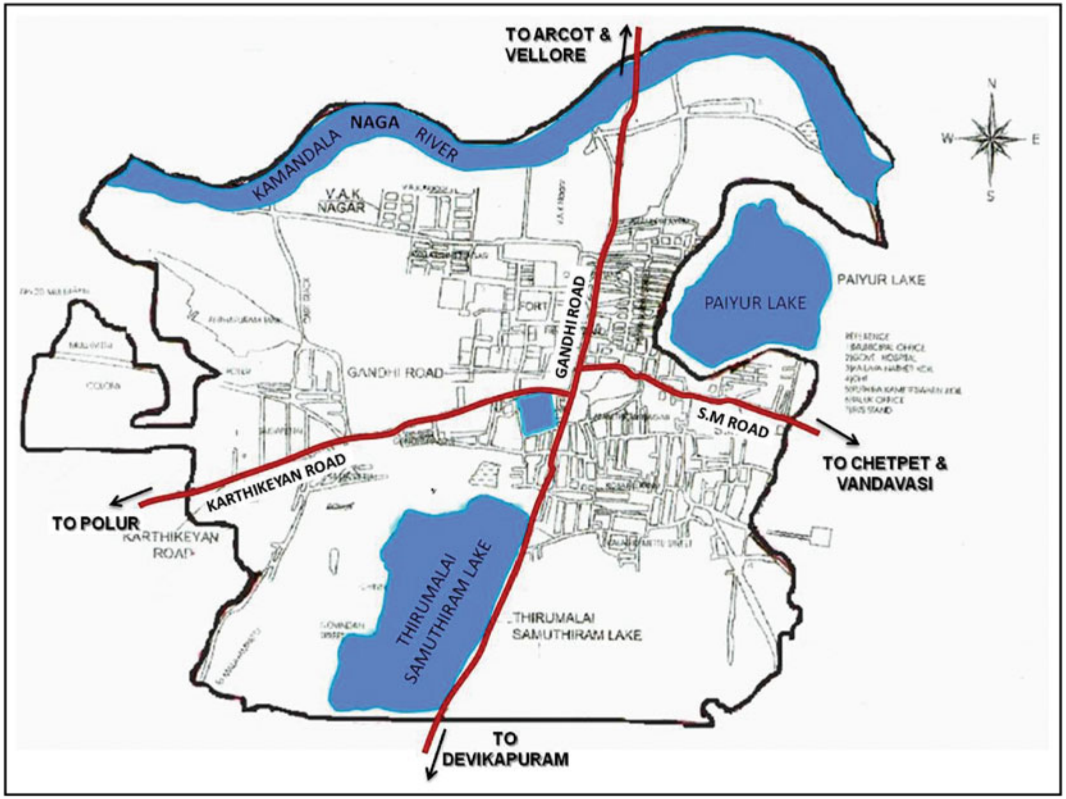

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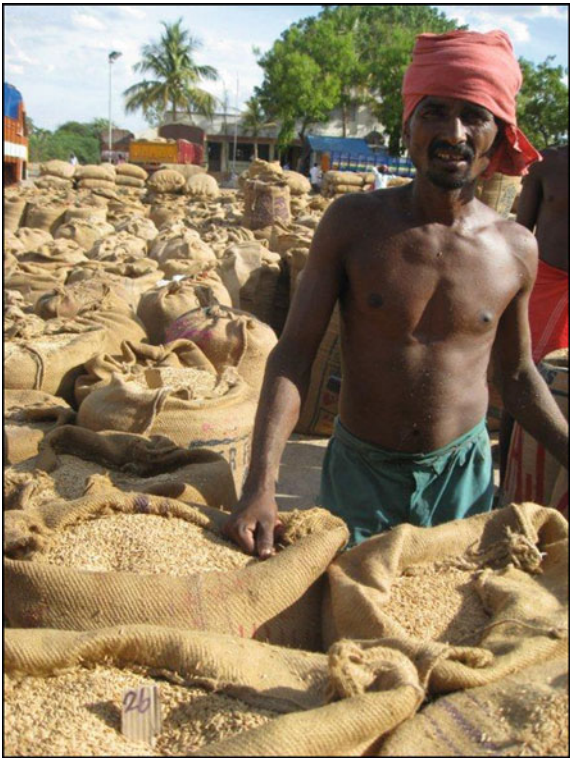

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Chapter 1
Introduction: The Economic Dynamism of Middle India

Barbara Harriss-White

> 'My fascination with the energies exploding inside the bazaar always delays me … (Gita Mehta 1994, A River Sutra)

Indian towns and cities have fascinated a number of gifted writers. Ahmed Ali's poetic fiction captured the twilight of Muslim bourgeois rule in Delhi. Sujata Patel and Alice Thorner have chronicled the staggering cultural diversity of contemporary Bombay/Mumbai. Chennai's history has been told through a vignette for every decade since the Portuguese, Dutch and English scrambled for control in the seventeenth century. Contemporary Kolkata has been brought to life in a series of affectionate obituaries of its notables by Ashok Mitra. And now Rana Dasgupta has written the story of the capital's capital, melding an observer's narrative of its reckless criminalization and contempt for consequences with sympathetic yet often repulsive accounts by the many actors involved of what it feels like to be at its epicentre.[1]

This book, by contrast, makes no pretension to be poetic, and is anything but fictional. It is about Arni, a small town in 'Middle India', and especially about its economy. We will be happy, though, if Arni comes to be more widely remembered, however modestly, as a result of this book, since it is written with no less dedication than that which the great cities of Delhi, Mumbai, Chennai and Kolkata have evoked from their memoirists.

[1]Respectively; Ali (1940/1994), Patel and Thorner (1995), Mitra (1977), Dasgupta (2014).

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1.1 Middle India

India's remarkable twenty-first century growth spurt—with an economy expanding on average at 7.2 % a year from 2000 to 2008 (Denis et al. 2011)—has been widely attributed to the vitality of the corporate sector[2] and metro-cities.[3] According to Sen (2014), this growth has been driven by India's 285 million urban dwellers, concentrating in the largest cities. He points out that

> the share in total urban population of towns with a population of less 0.1 million decreased from 55.4 per cent of the total urban population in 1951, to 29.8 per cent in 2011. Much of the increase in urban population has occurred in cities with a population of more than 5 million and between 1 to 5 million.[4] (Sen 2014, p. 56)

Sen identifies a paradox, however: as GDP growth has accelerated, the growth rates of these metros has slowed down. He finds this hard to explain.

But the answer to this paradox is to be found in towns like Arni. Some 60–68 % of India's townspeople are thought to live and work in non-metros (Sharma 2008), and over two-thirds of GDP is generated by the non-corporate informal sector. In addition, the corporate sector employs well under half as many people as the non-corporate sector.[5] It is the latter that is driving both GDP growth and the growth of livelihoods.[6]

Middle India has been defined as the India of towns between 1 and 10 lakhs population.[7] It is also defined by its economy, variously described as local, real, 'actually existing', 'authentic'; as the bazaar economy, the India of 'mud-floored markets', the unorganized and informal economy. Middle Indian towns are 'mofussil' ('upcountry')[8]; and represent 'Bharat'[9] rather than India.[10] Middle India certainly includes 'Malgudi', the Tamil town in which the novels of R.K. Narayan are set, but it now involves larger scale activity than that of his 'painters of signs' and 'vendors of sweets'. In short, there is no consensus about Middle India, and one of the questions we want to answer in this book is why.

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[2]Sen (2014) is citing De Long (2003) and Rodrik and Subramanian (2004).

[3]For example, Datta (2013), Sen (2014), Brar et al. (2014).

[4]'The percentage of urban population in these two city size-classes increasing from 15.6 % in 1981 to 22.6 % in 2011, and 12.1 % in 1981 to 20.0 % in 2011 respectively' (Sen 2014, p. 56).

[5]From data in Eswaran et al. (2009).

[6]See Corbridge et al. (2014), Chandrasekhar and Ghosh (2007), Sinha et al. (2007).

[7]Laungani (2013); They are Tier 2 and 3 towns in the census classification. Arni has become a class 2 town http://forbesindia.com/blog/category/middle-india/#ixzz2t6v2Ivk7 governed by a municipality promoted to grade one status in 1983 (TNUIFSL 2009).

[8]This, however, has no implications for the organization of labour, or for the regulation or governance of contracts in the informal economy.

[9]The ancient Sanskrit name for a culture area—roughly the Maurya empire—stretching from modern Afghanistan to Bangladesh.

[10]See de Alcantara (1992) and the discussion of terms in Jeffrey (2001, p. 222), Crow (2001, p. 4), Harriss-White (2003), Kaviraj (1991).

1.1.1 Metropolitanization Versus Subaltern Urbanization

In the twenty-first century, startling new insights are beginning to emerge about India's non-metro urban world. Critical studies of Census reclassifications (themselves given to arbitrariness) reveal that urban settlements[11] are proliferating as never before, many of them quite small and still governed politically as though they were villages.[12] The process is most marked in UP and WB in the north, and in Kerala and Tamil Nadu (where Arni is sited) in the south. Driven by official statistics, the discovery has been supplemented by 'Indiapolis', a new and meticulous Franco-Indian approach to urban settlements which sees towns in terms of the way they evolve from previously separate smaller settlements, redefining them through mutual proximity. This has greatly boosted estimates of both the sub-urbanization of towns and cities, and the rate of low-end urbanization (Denis et al. 2011). Middle India is constituted through as many as 7,438 smaller towns—about twice the number recognized in the Census (De Bercigol and Gowda 2014). Even in 2001 this meant that the urban population was 37–10 % points greater than the official estimate. In some states such as Tamil Nadu the re-estimate yielded a population that was by then already 44 % urban (Denis et al. 2011). This urbanization from 'below' in the rural economy is being recognized in a spate of new terms that indicate its reach, its invisibility and its non-elite provenance: urbanization that is 'extended', 'diffused', 'unacknowledged', 'spontaneous', 'denied', 'other', 'subaltern'.[13]

It is widely acknowledged that the social processes of subaltern urbanization and the economic development of these 'secondary' towns have been greatly neglected.[14] Even the powerful case for the analytical re-spatializing of economic flows, capital stocks and the rural-urban, formal–informal and regional politics of caste, faction and class still sets the rural against 'the city' and neglects the town (Parthasarathy 2013). Nowhere is this neglect more marked than in the practical provision of infrastructure. For the High Powered Expert Committee (HPEC) (2011, p. xix) the 'towns of India are visibly deficient in the quality of services they provide'. Kamala Sharma evokes their 'pitted roads, piles of garbage, open drains, stagnant pools of water, overhead electric wires' (Sharma 2008). Electricity, water, sanitation and garbage collection are available at best sporadically. The water supply may be polluted by industrial effluent (Coelho and Vijayabaskar 2014). Street lights are perched haphazardly on electricity poles (TNUIFSL 2009, pp. 45–46). While cities are accepted as strategic sites for global integration and key

[11]Defined through population threshold and densities and the proportion of the non-agricultural population.

[12]Between a third to a half of urban growth is estimated due to census reclassifications, Pradhan (2013).

[13]See Pradhan (2013), Mukhopadhyay et al. (2012), Denis et al. (2012), Samanta (2014).

[14]Bhagat (2011), Denis et al. (2011), Ghosh (2012), Lucci (2014), Parthasarathy (2013).

drivers of economic growth,[15] huge and persistent discrepancies in infrastructural provisions are recorded inside cities, let alone between capital cities and the rest. Take water for instance. The official norm for water supply is 150 L/person/day. Mumbai's average (268 L) hides the fact that the vast majority have a mere 80 L. Yet even this meagre 80 L is greater than what is available to most inhabitants of Middle India (Sharma 2008). In Arni in the mid-1990s it was 60 (Harriss-White 2004, p. 225) and quality is still poor.[16] The 'Report on the Status of Water Supply, Sanitation and Solid Waste Management' prepared by the National Institute of Urban Affairs (2005) speaks of urban drinking water supplies of a 'few minutes per week'—and less than a third of Middle India's waste water is treated. For want of proper control over revenue and finance in many smaller towns, 'the local [governing] body is able to deal with less than half that waste' (Sivaramakrishnan 2011). The National Urban Renewal Mission, evaluated by Khan (2013), has practised a 'capital city bias' across the infrastructural board, resulting in only 21 % of financial allocations being given to the smaller towns that account for 57 % of the (underestimated) total official urban population. So another feature of Middle India is of dynamic urban population growth together with relative infrastructural deprivation.[17]

But the Middle Indian economy is found to tell a very different story. It is in Middle India that the demand for high income goods and services is growing most rapidly and converging with that of metros. In 2011 alone, in towns of a lakh and less, demand for fast-moving consumer goods ('FMCGs') increased by 19 %, compared with the all-India rate of 12 %. These small towns now account for 40 % of demand for FMCGs.[18] Online shopping is set to be a $84bn industry by 2016—up ten times its worth in 2010—and small town India is predicted to account for two thirds of it (Reuters 2012). So infrastructural deprivation, however miserable, does not seem to hinder the dramatic development of the consumer economy described in this book.[19] Datta (2013) attributes it to the multiplier effects of the Indian state's new focus on cities as engines of growth.[20] But the metropolitan bias of the Indian state makes it hard to see how its infrastructure spending 'multiplies' to Middle India.

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[15]See Kennedy and Zerah (2008), for the evolution of the spatial planning process for partially commodified metro-city infrastructure and economic zoning and Sharma (2012) for small towns.

[16]In 2009, water supply was reckoned to be at 63 % of need. Total dissolved solids (TDS) were at 2000 or more against the WHO standard of 0–500 (TNUIFSL 2009, pp. 35–36).

[17]See Datta (2013) for Malegaon. Datta goes so far as to call Malegaon a 'city forgotten', seeing an epicentre of de-development, public and private poverty, a male labour fortress and a society vulnerable to communal riots.

[18]In 'specialty ' and 'evolved' categories such as baby foods, baby oils, cheese, pre- and post-wash products, hair conditioners, air fresheners, home insecticides prickly heat powder, 'classy' mobile handsets and TV upgrades (Laungani 2013).

[19]See chapters by Harriss-White, Stanley, Roman, Arivukkarasi, Cavalcante in this book.

[20]Citing evidence in Kennedy and Zerah (2008), for this effect.

Other forces must be at work. Mukhopadhay et al. (2012), developing their concept of 'subaltern urbanization', argue that the dynamism of these towns reflects the agency of 'people on their own', without growth impulses from the state or the corporate sector (and something that is hard to trace in official statistics). This is an apt description of the informal urban economy which is a central concern of this book.

1.2 Informal Urban Economies and Economic Order

The informal economy is a concept whose definition has shifted as its size and diversity of forms have come to be accepted; as it became impossible to wish away as a transient phenomenon; as its dynamic linkages to global value chains have developed through production, trade and services; and as its expanding role in the labour forces of India's corporate economic structure and public sectors have come to underpin corporate profits and the downsizing of the state.[21] 'Informality' is no longer defined solely in terms of small size, use of family labour, or illegal status, but is now understood as a wider phenomenon. It is that part of the economy, those kinds of labour relations, and those contractual forms, where regulative law is unenforced, and so flouted or ignored. Not all of it is criminal: some kinds of informal activity are legally exempt from registration or regulation. While poverty is inherent in the informal economy, and while right-less, unprotected labour is always weak in its dealings with employers and traders, not all informal activity yields low returns. But all of it is socially-regulated rather than state-regulated. India's informal economy is arguably the most extensive in the world and the major source of her competitive advantage, driving domestic growth, exports and livelihoods. And Arni is a paradigm case in point.

The anthropologist Akhil Gupta (2006) envisages a place where laws designed to cover the whole country—society and territory—fizzle out in practice as a 'blurred boundary', but we find that it is better seen as a political space that is complex rather than 'blurred', each real application of regulative law depending on a balance between the state's capacity and intent to regulate, on the one hand, and social structure and culture on the other (Gupta 2006). And the state's capacity to regulate cannot be separated from its capacity to police—and to tax. When the state cedes its regulative and disciplining capacities to society it is effectively subcontracting the management of economic conflicts and awarding itself political patronage instead. Meanwhile cheap, and right-less livelihoods are being provided and growth generated at least cost and least revenue to the state. The informal economy is not an admission of failure on the part of the Indian state, which can after all send rockets into space. It is the result of a policy of deliberate neglect.

[21] See Basile and Harriss-White (2010), Chen (2005, 2007), ILO (2002, p. 38).

The extent to which the informal economy is deliberately not regulated at all, or 'self-regulated' or socially regulated, is debated. Small-scale capital may well avoid state regulation but in so doing it engages in exchange relations with bigger capital on unregulated terms, which means that it pays the cost of failing to accumulate.[22] On the other hand, the deliberate non-regulation of labour ensures employers can impose what the ILO calls 'indecent' work conditions (Srinivasan Chap. 3; ILO 2002) and consolidate distributive shares in favour of profit (see Harriss-White, Chap. 4).[23] In failing to stimulate accumulation, the absent state ensures growth occurs through the multiplication of tiny firms that is so distinctive of neo-liberal India—something still not well understood and which the story of Arni's economy illuminates.[24] It is the varying balance of forces within different kinds of local social networks and systems of authority and trust that generates such wildly different verdicts on Middle India, from motors of growth and even 'urban bias'[25] to sinks of social backwardness and deprivation.

What goes on in the socially regulated 'local' urban economy is the mystery this book is intended to help to solve. In Arni, as in India generally, gender relations persist as pervasive regulative institutions (see Srinivas Chap. 3, Arivukkarasi Chap. 8). Informal firms rest on the oppressive control of female workers as well as the exercise of hierarchical authority relations between men—patriarchy in its oldest sense. As Basile explains here, religions—and India has a plurality of them—supply collective identities that provide institutional bases for both the regulation of capital accumulation and the collective redistribution of resources. Caste and ethnicity are the basis of corporatist ideologies as well as of institutions that regulate the local economy. Caste is used to screen entry to labour gangs as well as to occupational sectors; its institutions are developed to define proper contracts, settle disputes, organize collective insurance, mobilize representation to the state, create rents and share them with state officials, control labour and influence price-formation. The role of caste as a regulator is shaped by the social status of occupations and their labour forces.[26] While for *dalits* caste is a choice-restricting social force, for higher castes caste is a question of difference, mapped onto occupational opportunities and often weakening under various pressures.

All these forms of regulation also have a spatial dimension, which is closely related to India's distinctive spatio-sectoral 'clustering'. Taking Tamil Nadu, for instance: the Palar Valley specializes in leather, Cheyyar in mats, Arni and Kancheepuram in silk, Vellore and Salem in construction; Tiruchengodu in drilling equipment and lorry bodies; Salem and Bhavani in textiles; Tiruchirapalli in gems;

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[22]See Harriss (1982, 2007).

[23]The distributive share is the relation between total wages to labour and net profit to the owner.

[24]See Basile and Harriss-White (2010), Harriss-White (2012, 2014), Adnan (2014).

[25]The controversial phrase is Michael Lipton's (1977).

[26]See Basile and Harriss-White (2014).

Coimbatore in textiles and engineering; Tiruppur in knitted cotton garments[27]; Sivakasi in matches; Palladam in chewing tobacco; Annur in cooking oil; Kangeyam in cattle—and so on; this list is far from comprehensive. Clusters vary in character according the local structure of property ownership, the distributions of castes (especially business castes) and state regulative capacity. These keep the social structure of the informal economy localized and 'embedded' in civil society, even in the era of globalization.[28]

In the twenty-first century, however, despite confident predictions about how liberalization and globalization will dissolve archaic economic arrangements and despite some success (see Basile Chap. 2), Arni's informal economy has actually grown more complex, not less. While home-working is unregistered (although the competence of homeworkers is increasingly 'informally certified'), most firms are registered. Yet most firms see no reason to comply with laws regulating labour, price formation, land use and the environment, and while the state may be appealed to for concessions as well as rights, tax obligations are resisted. Contracts for raw materials, commodities and money remain by and large verbal. Even the local manifestations of the state cannot avoid engaging informally with labour—be it masons, construction managers or the 60 sanitary workers.

1.3 The Dynamism of Middle India

The word 'dynamic' comes from the Greek word for power. In western music it refers to the physical energy of playing. In the natural sciences it refers to motion. In computer programming it is a method for decomposing complex entities by breaking them down into simpler ones. In the social sciences it is a field of activity, forces, processes and change. We may take something from all these interpretations of dynamics for the project of this book.

The power relations of the urban economy are central to the book: the relations involved in its evolving capitalism and its corporate regulation, in its persistently segmented labour force in the rice, gold and silk sectors; in the extinction of some rural credit institutions and the creation of others. Changes in power relations involve growth in the number, size and concentration of businesses, the size and social composition of the labour force, in the balance between the sectors of the urban economy, and the economy's spatial expression, and its capacity to innovate.

None of these dynamics is visible in official statistics. All of it must be known through field enquiry—what the great economic anthropologist Polly Hill called

[27]Since 1980, 'Tiruppur studies' have developed into a wide-ranging field. See references in the Preface here.

[28]This paragraph draws closely on Basile and Harriss-White (2010). For elaborations, see Basile and Harriss-White (2003), Harriss-White (2003, pp. 239–247), Harriss-White and Vidyarthee (2010), Kapadia (2010), Harriss-White and Heyer (2014); and see Thompson et al. (2013) for South East Asia as a whole.

'field economics'. In turn, no field economics can be innocent of theory. As da Corta (2010) argues with respect to agrarian change, theory drives methods which drive results. Since all theories are partial, this book has to engage with a plurality of them as different aspects of Arni's economy come successively into view. It is, in that respect, dynamic too. Tony Lawson, the feminist, realist economist, has justified this approach, arguing that any attempt to be comprehensive cannot avoid theoretical pluralism (Lawson 1999). Being explicit about theory is being honest; and justifying theoretical choices allows them to be open to debate, and thus to be democratic.[29] Over the decades it is classical political economy together with 'old' institutional theory that has stood most of the empirical tests of time. These are critically discussed here in the chapters by Arivukkarasi, Basile, Harriss-White, Polzin, Roman and Stanley, while labour market theory is introduced and criticized by Srinivasan and non-income-based theories of consumption are examined and tested by Cavalcante. We are keen that our arguments about small town economies, and about how we know what we know—our epistemologies—are clear and accessible to any social scientist and as far as possible, to any interested reader. The accounts of the economy in this book are intended to help bridge what has now become a stultifying chasm between economics and the other disciplines with which we engage.

This 'economic biography' is an approach to economics in which we take an entity and write the story of its economy. In a Walrasian economy dominated by markets, everything is interlinked and any borders are arbitrary. But in a small Indian town everything is not seamlessly interlinked—neither within the town, nor in its relations with the surrounding rural economy. Despite the urban–rural flows of money, goods and labour it is a meaningful economic entity to seek to understand. There is also another sense in which this book is a 'economic biography' in that it tells economic life-histories of people who came of age during the green revolution and are moving towards old age in the era of globalization and the mobile phone.

1.4 Case Studies

This book is also a case study—a closely observed account of a particular case of small town development in India. Speaking of his fine and exhaustive study of Danish small-town politics, Bent Flyvbjerg asked 'Who will want to learn about a case like this, and in this kind of *detail*?' (2006, p. 22). Publishers often ask this question too! Flyvbjerg listed five common misunderstandings about case studies. (i) Empirical knowledge is of less importance than theoretical knowledge. (ii) Case studies are not a valid basis for generalization (iii) Case studies are inappropriate for testing hypotheses; they can at best generate hypotheses. (iv) Case studies contain a bias in favour of verification—i.e. they encourage the researcher to find what

[29]See http://www.isipe.net/ for a contemporary call for pluralism and http://en.wikipedia.org/wiki/Mouvement_Anti-Utilitariste_dans_les_Sciences_Sociales for Alain Caille's call for heterodoxy in the 1980s.

confirms their hypotheses; and (v) they are hard to summarize. Having written an entire book on an obscure town in South India, we cannot do better than to summarize Flyvbjerg's refutation of these misunderstandings. It forms the appendix to this chapter.

Case studies are sometimes thought to be inferior to studies based on large-scale statistics. But large-scale statistics are only as valuable as the quality of the data they are based on, and when it comes to economic and social development the data often generate problems—for instance in how economic activity is classified—and at times amount to being misleading. Good data need a close understanding of the context from which they are drawn, and over an extended period. This is exactly what our study of Arni over four decades has aimed to acquire.

Every 10 years from 1972–3 to the mid-1990s, in order to study the economy, the population of urban firms was mapped by observation and a random sample of businesses, doubly stratified by ward and by economic sector, has been interviewed for its commodity, labour and financial histories.[30] Due to the town's size and spatial arrangements, in the twenty-first century our method had to shift and, almost continuously, Arni has hosted the in-depth field research presented in this book.

1.4.1 Arni: An Urban Biography

> Arni is not a poor town. Arni's economy is in good shape. (President of Arni's Chamber of Commerce, June, 2012)

> Two per cent of the housing stock is dilapidated…11 % amounts to slums…. One third of the population lives in slums. (TNUIFSL 2009, pp. 20, 23, 25)

As with the descriptions of lousy infrastructure and fast moving consumerism above, we cannot make sense of these contradictory images without an account of production, distribution and consumption. While there can be no typical or representative town, Arni has long been the site of research on rural–urban relations, urban development and local capitalism.[31] Before setting out to look at any of the particular sectors of Arni's economic life in the chapters that follow, the reader needs a guide to the dynamism of Middle India.

1.4.1.1 A Dynamic Past

Arni began life as a bazaar around an ancient fort,[32] on the banks of a river now long run dry. In the four decades from 1971 to 2011 its official population doubled, from 38,664 to an estimated 75,000 see Map 4. Its official growth—at 1 % between

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[30] Harriss and Harriss (1984), Harriss (1991), Basile (2013).

[31] Nagaraj et al. (2006), Arivukkarisi forthcoming; Srinivasan (2010), Basile (2013).

[32] Of the Vijayanagara era—of the late Middle Ages to early 'modern' period.

1991 and 2001—was way below the urban rate for the state—at 4 %.[33] But for many decades the urban population has been augmented by 'floating' migrants. And the town has long burst through the municipal boundary, sprawled onto waste land wherever tanks do not block it, established middle class suburbs to the west, north and south-east, and engulfed neighbouring villages. By 2014 the true population in social and economic terms was likely to have been closer to 120,000.[34] Urban classifications and governance are highly politicized since they come with revenue obligations (Samanta 2014). The villages absorbed into the new Arni have resisted formal incorporation, fearing higher local taxes, so that the municipality proper is deprived of revenue. As a result, sectors which are formally regarded as public and infrastructural, from sanitation and water provision to health and education have been largely invaded by the private informal economy.

Arni shares many features with other small towns in Tamil Nadu. Apart from these, its distinctive character was and is shaped by being a minor administrative centre; an agricultural market for rice, groundnuts and livestock and having a small cluster of handloom silk production. In the 1970s it also did welding; sold, rented and repaired agricultural machinery; and was developing all sorts of general engineering and inputs for construction, together with agricultural inputs and informal finance, artisanal tailoring, gold, metal and vessel smithing, wooden furniture making, pottery, food and cloth provision, and legal and medical services—some of dubious quality.

The dynamism of the local urban economy is suggested by the growth of its gross output. From 1973 to 1983, while Arni's population rose by a quarter, rice production in its hinterland increased by half. But commodity trade at least quadrupled in nominal terms: pawnbroking quintupled, paddy-rice increased 12-fold and silk 15-fold,[35] reflecting the town's close links with local agriculture.[36] But local agricultural development was not the sole or even most important driver of this transformation in scale and complexity. An estimated 14 % of total urban demand came from state officials,[37] while the silk weaving and manufacturing cluster grew as a result of long distance flows of raw materials and products—for crafts originally developed in Arni to serve the cosmopolitan tastes of a local nineteenth century *jagirdar*.[38]

In the 1980s, the commodification of products formerly made for direct use had added mass-produced cold drinks, eggs, cosmetics, fancy goods and ready-made clothes, steel and plastic durable goods, and fossil fuel, notably kerosene and diesel. This trend threatened not only artisanal crafts but also the livestock economy that

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[33]See TNUIFSL (2009, p. 8).

[34]Officially the town is predicted to reach 100,000 by 2039 (TNUIFSl 2009, p. 9).

[35]See Harriss (1991).

[36]As theorized by John Mellor in his '*New Economics of Growth*' (1976) which, while not neglecting production links privileges consumption linkages from agriculture.

[37]These were and are at the high end compared with most of those gained from the informal economy.

[38]See Harriss (1987a, b).

Table 1.1 1983 Incomes as multiples of the per caput poverty line within the town

Household type	
Silk manufacturers and traders	95
Rice millers	3
Type of wage worker	
Rice mill (male)	0.49
Rice mill (female)	0.35
Silk mill (male)	0.45
Silk mill (female)	0.38
Local village	
Agricultural labour (male)	0.28
Agricultural labour (female)	0.18

Source Harriss (1991)

had provided transport, draught power (water and ploughing), milk, and meat, as well as raw materials for the nearby leather industry (Kennedy 2004).

By the 1980s, local business had made strides in gross value added, but while a few enterprises had expanded most remained small (Basile 2013). There had also been a dramatic increase in income inequality: top incomes were now some 130–500 times the levels of agricultural labour incomes. (Table 1.1) Over the decades this structure has consolidated itself (see Basile, Chap. 2). Most firms are prevented by their size and exchange relations from doing more than ‘tick over’ and episodes of failure are commonplace (Srinivasan, Chap. 3).

The 1990s ushered in the era of liberalization, but in the largely informal economy there were strong elements of continuity rather than discontinuous reform.[39] The structure of industry and trade polarized further. At the apex, firms started to integrate their operations in a vertical and diagonal manner, though very few added manufacturing to their base in trade. The main industries of 10 and 20 years before consolidated their position: rice mills doubled in number, as did food wholesaling firms and durable consumer goods shops. The number of urban silk manufacturing enterprises increased by 50 % and spilled over into the countryside (see Arivukkarasi Chap. 8). Deregulation led to a threefold increase in the number of fuel depots, while businesses dealing in ‘non-food’ agricultural products such as oilseeds and beverages increased their gross output 30-fold.

Arni’s economic growth involved strong new links with the national market, but it also involved a decentralization of both production and trade, so that economic activity spilled over into the countryside and shifted the urban economy towards a wholesale entrepot role which characterizes it today.

By 1995, the economy had diversified massively, responding not just to the integration of the economy into the metropolitan economy and its culture, but also to globalization. Brand new telecommunications technologies appeared: satellite and cable TV (and ways to poach it) and new telecommunications rental markets spread

[39]See Harriss-White, Stanley, Roman here for urban reforms (Chaps. 4, 5, and 7); and Arikkuvarisi and Polzin for rural ones (Chaps. 8 and 9).

throughout the urban area, along with courier services, Xerox machines and video libraries. The town could give up to 20,000 'doses' of cinema per day. The explosion of finance companies and chit funds (many not registered, and some run with black money) and the appearance of insurance and stocks and shares dealing services, plus specialized commercial agencies for corporate industry and the architectural, accountancy and real estate professions all attested to the emergence of sizable elite markets. Tuition centres, typing and computing institutes and students' hostels indicated new patterns of skill acquisition and freedom for young people (although educational facilities were still extremely underdeveloped). Auto sales and rentals tourist car and van services had emerged in response to local piety, curiosity and incomes (to service the big Sabarimalai pilgrimage to Kerala and the round-India-tour trade). The expansion of hotels, bakeries, and sweets stalls and booths indicated new patterns of food consumption A boom in waste and scrap collection, in plastic recycling and cardboard packaging was related to the boom in animal feed for urban livestock and to one in slaughter houses handling imported as well as local meat.[40] (The expansion of recycling was a response to the decline in the production of biodegradable waste, which used to be recycled by urban dogs, pigs and goats.) Specialized ancillary crafts, such as computer-aided design for silk, and specialized pawn-broking and financial services also mushroomed in the backstreets.

Capitalist modernity had not simplified the institutional fabric. Quite the reverse.[41] And firms with activities in production and trade, in agriculture and manufacturing, and in retail trade and wholesale trade, all coexisted).

A further striking characteristic of Arni's economy is clustered development,[42] in which sectoral development is expressed in urban spatial clustering. On a small scale, the whole of the municipal market place is organized by commodity. The silk sector with an estimated 50,000 looms,[43] occupies large tracts of the south of the town; paddy and rice occupy the periphery of the north and east; gold-smithing, pawn-broking and money-lending run along one principal street; 'recycling' is clustered around one particular pond.[44] For its part residential growth also shows clear socio-spatial patterning.

To a significant extent all this ordering reflects the way occupations have been based on caste, and urban rents have been based on occupations. Firms also cluster

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[40]All were run by well networked Muslim families.

[41]See Basile and Harriss-White (2003), and Harriss-White (2003) for a more extended analysis of the institutions regulating the informal economy.

[42]In the 1990s, the booming development literature on industrial districts and post-Fordist flexible specialization rediscovered agglomeration in commercial, industrial and service development. Rediscovering Marshall's principle of economies of agglomeration (1920), clusters are argued to characterize the newest phase of global capitalist development—in the most advanced instances bolted into global value chains (Ruthven 2008; Basile 2013) They are widely depicted as thriving in the absence of deliberate state planning, relying instead on two kinds of collective efficiency—passive (through information, contacts, shared equipment etc.) and active (through associational politics) (Schmitz 1992).

[43]TNUIFSL (2009, p. 19).

[44]Known locally as a tank.

to reduce the costs of information for both the firm and the customer; sub-contracting and process-specialization leads to 'collective efficiency'[45] and the costs of social regulation are reduced. In the public sector clustering permits infrastructural economies (Nadvi 1992); the dependence of many (petty) firms on a few powerful enterprises reduces the costs of information, contacts, credit and facilities such as transport, processing and storage. In fact few firms can afford *not* to be clustered.

Three aspects of clustering are explored in this book: first, the extent of spatial clustering; second, the nature of the inter-firm linkages within Arni's obvious clusters and, third, the respects to which such clustered development has happened without, despite, or because of state intervention and policy.[46] Not all clusters involve specialized production systems, such as Arni's silk production (see Roman and Arivukkarasi Chaps. 7 and 8); there are also what Stanley (Chap. 5 here) calls 'common clusters': a kind of cluster that, like rice milling and wholesaling (Harriss-White Chap. 4) and gold crafting, is found in many towns throughout India. As the commonest form of debt collateral apart from land, gold is closely linked to rural credit relations and to the rituals of marriage. Thus while Arni's goldsmiths do not regard the surrounding region as rich, developed or extensive, its gold merchants are directly or indirectly responsible for over a thousand livelihoods in the town, few of which are poor.[47]

A common cluster may contain many specialized processes and/or varying degrees of spatial concentration. In Arni, gold crafting, the retailing of mechanized gold, and gem trading, all take place under different competitive conditions and different degrees of interlocked contracts. Products, processes, forms of production and labour-control vary greatly in the common gold clusters throughout the state.[48] Stanley (here) finds that the cluster is not a coherent set of flexible specialized firms, rather it consists of a set of classes in contention—commercial capital, petty capital, petty production and labour. So the fact of agglomeration does not result in collective benefits and collective action in the gold cluster is always selective. Internal conflicts drive collective action which does not necessarily strengthen the advantages of the cluster.[49]

[45]Though without the implication (c.f. Schmitz) that there is a consensual development culture underpinning collective efficiency.

[46]For the town as a whole, spatial clustering could be quantified from the business listing via an adaptation of nearest neighbour analysis. This has yet to be achieved. The exploration of Arni's social and spatial clustered silk sector was also taken forward by Nagaraj and Jayaraj (2006), and its rice sector by Janakarajan (1996) and clustering in general by Basile (2013 and here).

[47]See also Harriss-White here for the common cluster of rice. Harriss-White revisited Arni's rice processing sector, which generates employment for over 5000 workers, comparing it with the Italian models of industrial districts. The sector satisfied the conditions of growing internal intricacy, positive multipliers and externalities, together with economies of agglomeration in its powerfully and efficiently federated trade associations. But in its small size, short supply chain, and above all its oppressive labour relations, it is best understood as a low-equilibrium cluster.

[48]See Mezzadri (2010).

[49]It follows that a given moment of collective action has many possible outcomes. The manifold regulative changes that came with liberalization—together with labour-displacing and skill-destroying technical change in the cities of Chennai and Coimbatore—have changed both the

Over and above clustered development, the twenty-first century has seen an unprecedented pace of adoptive innovation and diversification, the obvious drivers—there may be others—being (i) the metropolitanization and globalization of information, culture, tastes and aspirations with profound implications for the acquisition of the technologies of mass communication in this small town (from video libraries and ubiquitous TV and mobile phones to instant bank transactions, insurance and share dealing services); (ii) the rapid proliferation of fossil-energy-guzzling goods (from kerosene and calor gas stoves though scooters and motorbikes to commercial deep freezes, air-conditioners, tempo trucks, SUVs and all sizes of luxury buses); (iii) continued ruralization of workshop manufacturing, retail trade and services; (iv) transformations in the spatial scale of work mobility (from long distance in-migration from Odisha through daily commuting out to the factories on the Chennai-Bangalore corridor to absentee ownership and management as elite families migrate to seek 'higher quality lives' in Chennai), (iv) the revitalizing of the silk sector through re-branding to scoop a superior market segment and (v) the development of the 'knowledge economy' in the form of a substantial new private sector education hub (with 7 colleges, over 100 private English-medium schools and 25 English pre-schools)—together with the emergence of an extensive informal economy of private tuition.[50]

1.5 The Ambivalence of Urban Dynamics

While all this dynamism can be seen as positive, the development of the urban economy is in fact an ambivalent process, also involving tensions and contradictions. Here we have room to introduce just three: tensions involving (a) the state and infrastructure; (b) state-based and informal caste-based regulation; and (c) livelihoods.

1.5.1 Infrastructure

A wave of urban and rural infrastructure can be dated to the 1980s, responding through public works both to rural development and to a spate of devastating

(Footnote 49 continued)
social meaning of gold and the structure of demand. These have in turn changed production relations and the industrial structure of the cluster; they have intensified conflicts of interest within the production processes, ejected the newly admitted non-*Achari* caste entrants, changed the distribution of risk and transactions costs, and altered the distribution of income within the cluster.

[50]See Harriss-White and Rodrigo (2013); see also Coelho and Vijayabaskar (2014), who also draw attention to the provision of differentiated consumption goods (a process first noticed in and around Arni in the urban and periodic marketplace system in the 1970s) and the jumping of spatial scales.

droughts.[51] In Arni and its villages we have investigated water, sewerage and sanitation. The town has far less than half a sanitation system since it lacks sewers. Still, half the households do not even have septic tanks and 36 % defecate in the open (TNUIFSL 2009, pp. 36–39).

Once installed, the quality of public water and ‘sanitation’ infrastructure proved poor.[52] Maintenance costs were the first to be squeezed by the early reforms.[53] Access was socially stratified. The unreliability of public infrastructure exacerbated class, gender and caste differentiation in access and use. It also provoked a variety of informal institutional responses: small commercial firms, collective action (getting together to fix leaks) and NGOs compensated for gross deficiencies in maintenance. However, this institutional plurality—informal ‘public-private’ activity—failed to demonstrate the kind of ‘partnership’ or synergy argued in the literature that promotes the privatization of public services.[54] Nor has it proved to be stable or effective. In Arni and its region, the ‘community’ institutions advocated as favourable forms of governance during the reform period[55] are ad hoc: neither efficient nor equitable solutions to problems of access. So-called communitarian organizations proved in fact to be highly socially exclusive. They created conflict and accentuated gender, caste and class differences, which the state is unable to regulate. The proliferation of civic associations certainly works towards the enforcement of municipal accountability, but in ways which serve sectional interests.[56] Private action, private patronage and modest levels of group action guaranteed the safety of the local elite business class. But mass hygiene and public health still depends on the work of a few hundred social outcasts. The culture of public filth has accentuated the enduring need for dalit labour as *untouchable*, with all its regressive social consequences.

1.5.2 Regulation

1.5.2.1 State Regulation

The state regulates this economy with strategically selective efficiency. Physical and electronic communications infrastructure is vital to the informal economy (see Roman and Stanley here). In past decades owners of firms used to speak at length

[51]See Wanmali and Ramasamy (1994, pp. 191 and 208).

[52]Government of India (1992, Chap. 14, p. 380).

[53]This is also happening on a grand scale in the UK in the (privatized) utilities and in health (publicly provided but with an internal market) and education (in the public sector, increasingly differentiated by quality from that of the private sector).

[54]Werna (1993), Davis (1991).

[55]e.g. inter alia, Rao and Gulati (1994), Wanmali and Ramasamy (1994).

[56]See Basile and Harriss-White (2003).

about the corrupt nexus of interest between state officials and local capital and their partially implemented regulative interventions (Harriss-White 1996). Now they speak, not always approvingly, of state neglect which they feel results from the prevailing ideologies of neo-liberalism and free market efficiency. The lack of state regulation (which may be caused by the deliberate capture of the regulating authorities by interest groups, or simply by scarcities of staff[57] or of essential equipment (e.g. transport, computers)) encourages informal regulation. Now, collective political appeals and business association pressure (with or without bribery[58]) are supplemented by two other kinds of politics. First, there appears to be a severe lack of state capacity and under-provision of many services (notably of water, electricity and refuse collection). So, a hybrid institutional ecosystem is emerging, in which the informal economy parodies formal procedures (such as certification) while formal institutions are intimately meshed with informal ones. For example the Public Works Department, unable to hire directly due to a politically provoked recruitment freeze, outsources work to networks of qualified engineering and construction firms and sometimes, it is said, to unqualified masons. Second, most of these firms have a selective engagement with the legal framework: being licensed, with a bank account or two, as well as informal credit, but not paying taxes, not complying with labour laws or environmental standards and operating out of buildings whose quality is poorly regulated. In their process of implementation or abandonment, all state policies edge their way through this matrix of institutional arrangements and micro-politics.

1.5.2.2 Caste-Based Regulation

Arni's economy weaves in and out of regulatory jurisdictions, and is also socially regulated by corporatist business associations, most of which owe their origins to caste associations. The caste composition of the town's businesses may be found in Chap. 2, Table 2.4, and its caste associations in Chap. 6, Table 6.2. The agriculturally dominant Backward Castes (BCs) and Most Backward Castes (MBCs) also dominate the business economy, while Forward Castes (FCs) and Scheduled Castes (SCs) were confined to about a fifth of the businesses (Basile Chap. 2).[59]

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[57]Parts of the municipality are seriously understaffed for instance (TNUIFSL 2009, pp. 29–31).

[58]Bribery is theorized as the privatization of, or creation of, a market in public resources by officials (patrons) charging citizens (clients) (Wade 1985). In earlier field research, collective bribery was found to be initiated by business associations and powerful 'clients' to speed access to resources (licences, infrastructure), to waive obligations to the state (tax), to avoid disciplinary regulation (movement of goods, safety, labour rights etc.) to delay or subvert the implementation of market regulation (packaging, transparent price formation, site, in a reversal of the orthodox theory's role of patron and client (White and Harriss-White 1996). Clearly both balances of power between the state and capital are possible.

[59]Combined SCs and FCs are about 35–40 % of the town's population (Basile and Harriss-White 2014).

Arni's business economy remains substantially structured by the non-instrumental rationalities of caste. For sure, such institutions are being dissolved through the inexorable penetration of the principles of market exchange, and the replacing of custom by contract. As a result, as Basile concludes in Chap. 2, some of the stigma of low caste status may be disappearing. Although Arni is a backward caste town, or because of this, some sectors of the economy are slowly diversifying in terms of caste, while retaining their long-standing caste cores. Where the role of caste in constraining economic choice remains most oppressive is best seen in the labour markets and from a *Dalit* perspective. Srinivas, in a granular analysis within and between what Basile terms the Scheduled Castes, reveals in Chap. 3 both the relative lack of options and the stiff, caste-aligned competition for sectors and places.[60] By 2013, a few non-SC workers had entered Arni's state-controlled sanitary workforce, which cleans streets, drains and latrines. The newcomers are all socially disadvantaged in various ways,[61] but for *Dalit* sanitary workers it means their jobs are at risk of being lost to downwardly mobile people of higher castes. It is a technique of labour force control, actively preventing emancipation of the labour force, leaving them to dream of careers for their children in chauffeuring, the army and the police. Low-caste and *Dalit* market-place loaders are controlled differently. In 2013, they had had no wage re-negotiation for 5 years despite inflation, leaving them with a wage 'after liquor' equal to that of agricultural labour. Sources of demand for their work have shifted location: bulk lorries bypass the centre of town, and factories on the periphery have their own loading labour force. They have also been undercut and their territory has been informally encroached upon, by casual labour provided by Sri Lankan Tamil refugees, whose desperation doubles the available supply of loaders. As a result, work and pay rates and gang sizes are shrinking and the Loaders Union is divided and weak.

Dalits make up an estimated 15 % of the town's population. Some of them own businesses, but these are mostly confined to firms supplying fruit and vegetables, fish and meat, recycling and transport; *Dalits* still operate at a distinct disadvantage, in entry to business and in the operation of their firms, as well as in the labour market. And yet while *Marwari* and *Jain* moneylenders and pawnbrokers are confronting competition from new 'finance companies' (small collectives of public servants with financial surpluses) in the informal money markets, and face loss of business due to easier registration of rival companies and instantaneous transactions carried out through the banks, the biggest moneylenders in Arni are widely reported to be a trio of *Dalits*. They have graduated in their own lifetimes from head-loading to informal finance to possessing walled suburban mansions and swimming pools.

[60] See evidence in Harriss-White et al. (2014).

[61] *Naidus* and *Mudaliars* 'without any education', or 'people in cross caste marriages' (a stigmatized novelty), or the widow of a low level government employee 'given work on compassionate grounds'.

1.5.3 Livelihoods

1.5.3.1 The Workforce

Rags to riches are the exception not the rule: Arni is a town of small family businesses and self-employment. Between 1973 and 1983, as the town expanded, demand for workers shot up: employment for urban men by 1.75; but jobs for *rural* men and women by a factor of 3. For women this expansion was from a very low base and the jobs were heavy ones on rice mill drying yards and tedious ones in silk twisting (Harriss and Harriss 1984). While gross value added, of which the major component is profit, increased 15 %, real wages, though higher than in agriculture, stagnated and failed to keep pace with the prices of wage goods. The distributive share (the relation between wages and profit) swung away from workers towards owners.

This labour force structure has persisted. By the 1990s, real wages for urban labour, which was still 90 % male, though higher than in agriculture, were static in real terms, while profits were increasing. Wages have not kept pace with the prices of wage goods and at the loom and in the drying yard, just as on the farm, work is being mechanized. Labour is being displaced, casualized and feminized (female wages are still only two thirds of male wages) before being partially replaced by new technology requiring higher-skilled male labour.

1.5.3.2 The Family Firm

Prior to the 1990s, backward agrarian castes had constructed their domination through the social control of urban firms. With liberalization, *Dalits* and women expanded their role in the urban economy as owners rather than wage labour, though from very small starting points. Yet the family firm remains the building block of the economy (Dasgupta, 1992).[62] Its regulation through customary law remains a process in which the private and the public spheres are meshed. But in the second decade of the twenty-first century the family firm is threatened. Among Arni's youth a profound desire to leave the grind of agriculture, to escape patriarchal control in the family firm and the parochialism of the town, means that family labour is being replaced by wage workers, not always local in origin.

The new contractual relationships affect the distribution of work—wage workers are less trusted with management and with credit transactions. New kinds of capital from outside are starting to transform the modern bazaar into a set of branch

[62] Despite the lack of a coherent economic or political project for an economy structured for the most part through petty forms of production, trade, and services, one which expands through multiplication of numbers rather than accumulation (see Harriss-White 2012).

agencies, franchises and showrooms. Textiles, general retail, electronics, fertilizer, and cement are models of what is to come. That said, in 2014, the time of writing, the overwhelming majority of firms are still small family businesses or self-employed (see Srinivasan here). The average number of employees remains two, for the most part kin.

1.5.4 The Casualties of Arni's Dynamism

The transformation of Arni's small town economy also involves outright destruction—not simply of courtyard houses and palm-thatched go-downs but also of institutions. The surveys of 1973–1994 showed a relentless process of extinction of artisanal craft production. Many crafts have been wiped out—from music-making and crushing shells for whitewash to the maintenance of bullock carts, cattle-driven water lifting and groundnut processing (mills, or *ghannis*), pottery and the making of leaf plates, together with the whole of the livestock sector. They have been displaced by mechanized, mass-produced fossil-fuel-based alternatives. Handloom weaving has proved an exception through the artful relabeling of the product as Kancheepuram silk.

Child labour has been reported as being on the increase in some parts of India,[63] but in Arni the opposite is widely held to be true. In 2012, the Rotary Society president said there was 'no child labour'. Teachers spoke of 'a few truants in the bazaar', unknown to their parents, as well as of child migrants who have gone from Arni to 'Salem and Bihar' for brick kiln and construction work. But Arni's tailors now have a strict rule not to take child labour in the interests of children's education (a practice also noted for silk labour by Arivukkarasi here). Weavers' aspirations for the education of their children are also responsible for a wave of technological regression and the adoption of looms not requiring child labour (Roman and Aruvikkarasi here).

'Education is atrophying the supply of labour' said a silk merchant.

In the twenty-first century, India's liberalization has been associated with jobless growth, a general feature of the formal economy. Some analysts see this seeming paradox of growth as being resolved by the recorded expansion of livelihoods in the informal economy (Sinha et al. 2007). But in Arni growth in the informal economy is jobless too—for lack of supply.

This is the effect of contradictory processes: on the one hand small individual or family firms proliferate, on the other family labour exits the family firm; on the one hand mechanization displaces labour, on the other wage labour is being integrated into family firms and specialist labour is needed by larger firms. But the net balance is an acute labour shortage at all skill levels and in all sectors of the informal economy. This drives three kinds of change in the labour process: (i) mechanization

[63] See Guerin (2009) Harriss-White and Rodrigo (2013).

and labour displacement (e.g. rice mills, see Harriss-White here); (ii) feminization in a new increase in home-working, e.g. tailors and silk (see Roman, Arivukkarasi here); (iii) in-migration from North India (e.g. the hotel/catering industry and nearby rice mills).

Several conclusions about theories of institutional change may be drawn from this account of some of the dynamics of a small town economy. The essays in this book show how the development of the urban economy involves the reworking of social institutions—both inside and outside the economy. Forms of social regulation such as caste, religion and gender that are able to support the process of accumulation and the reproduction of commodity economy persist as regulators of the economy. Institutional change also involves the creation of new institutions (for example electronic bank transfers). It will involve incremental change—as when fixed prices replace haggling—as well as discontinuous shifts—such as the threat to family business. It will involve the atrophication and destruction of institutions which cannot be reworked to support the dynamics of growth—as has happened with child labour in Arni. Institutional change also involves persistence in cases, such as the position of dalits and of women, where the process of persistence reflects a balance between pressures for social and institutional change and pressures resisting it. "Institutions of social regulation must therefore always be assumed to be sites of internal challenge, conflict and policing unless proved to the contrary" (Basile and Harriss-White 2010).[64]

1.6 Urban–Rural Dynamics

In 2003 we called non-metropolitan India the 'India of the 88 %' because that was the proportion of population living outside the metropoles (Harriss-White 2003). That India of course includes agriculture, and urban Middle India proper, the central focus of this book, cannot be understood without examining the way it relates to the countryside. In the introduction to their collection of essays on '*Cleavage, Connection and Conflict in Rural, Urban and Contemporary Asia*' Thompson et al. argue convincingly that both the rural/urban 'binary' and the notion of a 'continuum' are misleading terms for what are now complexes of 'socio-spatial relations'—webs of connections—straddling the urban-rural divide (2013, p. 4). The final three chapters of our book uncover the urban-rural connections made through the economy—relations of production and distribution, money, labour and consumption that, in spanning both spheres, blur a binary distinction that still persists in local narratives and global universities.

[64]See also Olsen and Morgan (2010).

1.6.1 *Agrarian Dynamism, Rural–Urban Growth Linkages and Economic Distress*

Since 1971, average holding size in the region has declined from 1.43 to 0.91 ha,[65] the population has more than doubled and, whereas in the 1970s, a third of all households were landless labourers, now between 59 and 75 % of all households are landless (Arivukkarisi, Chap. 8). In the twenty-first century a new wave of enclosures has privatized and commercialized common property resources, leaving ever less for the poor. Rental markets in land have developed rapidly—with instances of sharecropping, hitherto unheard-of, at extortionate rates. So have rental markets for water, machinery and rural houses—following the exodus to Arni and beyond of village elites and the growing ubiquity not just of the absentee ownership of rural assets but of absentee governance of village panchayats (Harriss 2007, p. 162). Land use has changed towards labour- and water-sparing crops, tree crops, and condiments, flowers, and luxury fruits and vegetables. The steadily falling water table has intensified competition for water, not merely between households for domestic use and irrigation but also between these local uses and the insatiable demand of bottling companies supplying 'mineral water' to metropolitan consumers. Returns to agricultural production, demand for agricultural labour and relative wages in agriculture have all declined relative to those of the non-farm economy.

In the decade since the mid-1990s, in three local villages studied since 1973, landlessness in weaving households doubled and in non-weaving households it trebled. Economic inequalities continued to rise while poverty took a more specific form than it did four decades ago. Workers handicapped by occupational hazards and diseases pitch their households into poverty. Rural, casual female wage labourers get paupers' returns; in some villages scheduled caste paupers forego meals; dalits face social entry barriers in the non-farm economy; scheduled tribal paupers still pursue socially excluded lives in the midst of the teeming town.

Meanwhile demand for work in Arni has induced migration and increased commuting. Rural households are no longer agricultural, instead practising agriculture as a part-time occupation in conjunction sometimes with several other kinds of work. As Basile has concluded here for the urban economy, both the farm and non-farm sectors of the rural economy are diversifying.[66]

Despite signs of an agro-ecological crisis, persistently mediocre agricultural performance and an increasing failure to absorb labour on the land, remarkable changes have taken place in the structure of exchange relations in this region (Polzin, Chap. 9). Loans from nationalized banks and their private counterparts, a new wave of re-empowerment of the Co-operatives, new credit institutions (SHGs replacing chit funds, new itinerant lenders) and the capacity of borrowers to juggle a

[65]Far smaller than All Indian average of 1.41 ha (Government of Tamil Nadu nd.; see also Chinnappa (1977, p. 93) for the decades of the 60s and 70s.

[66]See Basile here Chap. 2 and 2013.

multiplicity of loan repayments have challenged the long-standing economic grip of the trader-moneylender. Once free of tied transactions, with a reduction in real transport costs and with price information instantly available from mobile phones, high-end agricultural producers now transport their marketable surplus to the local urban Regulated Market where consignments are sold under open auction.

In the villages, consumer durables have become a visible emblem of changes in mass tastes, in emulation of the tastes of local elites, and urged on by ubiquitous advertising (Cavalcante, here). The new goods are sold on instalment credit by peripatetic traders. Scheduled castes too are now integrated into these consumer credit markets, borrowing not just for consumer durables and clothes but also for dowry and for private English-medium education for their children. On the one hand huge gains in literacy are being achieved by the region's Scheduled castes. On the other hand, as Judith Heyer and Isabelle Guerin have also found elsewhere in Tamil Nadu,[67] there is a 'standard of living paradox' in which a potent combination of aspiration and shame drives private investments in education and in health and in marriage alliances, resulting in pauperizing debt.[68]

1.7 Onwards

The growing literature on the villages and small towns of Middle India focuses with good reason upon their governance, management and infrastructure planning since, despite the literature on growth poles and centres that coincided with the green revolution, they have been until lately so egregiously neglected. By contrast, the book you are reading examines the socio-economy—exactly what remains out of reach of planning. It celebrates the dynamism that growth rates far higher than the 3.5 % 'Hindu rate of growth' express on the ground. It examines the institutional churning—the resourceful creation, destruction, persistence and reworking of social institutions, their path dependence, crises and radical discontinuities—through which this dynamism works.

Their implications for urban planning form the subject of the epilogue at the end of our book.

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[67]See Heyer (2010), Guerin et al. (2013).

[68]In new 'positioned' research on micro finance among agricultural labouring and petty producing households in villages close to Arni in Vellore district, Guerin and colleagues find that the widely varied outcomes of these dedicated banking schemes depend on hierarchies of status between women within households. The capacity to repay depends on women's power over other women. Women themselves juggle credit—constantly borrowing and lending—most of which is used for health, education, housing, ceremonies and the repayment or rearrangement of old debt. Female asset ownership is a vital determinant of a woman's capacity to repay the SHG. Up to 30 % of household income may be derived from transfers between uterine kin—a relationship and set of practices never before recognized in this part of Tamil Nadu (Guerin et al. 2013; see also Garikipati 2013).

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Appendix: The Case for the Case Study

The kind of context-dependent knowledge which a case study produces is just as fundamental as context-independent rules and theories to the expertise needed for both studying and actively conducting human affairs. There is no substitute for the case study in providing an intimate understanding of human behaviour—in this case expressed in economic activity. Predictive social science has not succeeded in generating theory which anticipates the main events of history; close observation is the 'only route to knowledge-noisy, fallible, and biased though it be' Campbell (1975, pp. 179, 191).

(i) The history of science shows that large samples are by no means always needed for hypothesis testing, generalizability or falsification. The role of context is crucial and this in turn requires the kind of knowledge that is derived from case studies.
(ii) It follows that case studies are useful both for hypothesis generation and testing but that their uses transcend these two activities. As a field of knowledge develops, extreme, most or least likely or critical cases are essential for critical progress in the development of rule-based knowledge/theory. The problem arises when, as in the case of Arni, there are few other cases to benchmark it against. Even then—or rather especially then—the case becomes a lens through which a whole society can be glimpsed. Flyvbjerg (2006) makes a strong justification for the roles of experience and intuition in identifying the paradigmatic case.
(iii) A bias towards verification rather than testing hypotheses or propositions is found to be a general phenomenon throughout science. But case studies often produce surprises which lead to prevailing theories being revised or even rejected altogether. Studying Arni produced many such surprises. And if a bias in favour of verification dominated this means of learning, that would not have happened.
(iv) Flyvbjerg showed that a detailed analytical narrative of the kind that pervades this book engages both with the abstract and the concrete, revealing the detail more as a property of the reality studied than of the case method as such.

Flyvbjerg concludes, with Kuhn, that disciplines which ignore 'exemplars' are ineffective. But that 'case studies have to be 'good'.

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Chapter 2
Local-Global Integration, Diversification and Informality: Long-Term Change in Arni During the Late Twentieth Century

Elisabetta Basile

2.1 Introduction

This chapter explores change in Arni's business economy in the wake of the Green Revolution. Arni and its region is taken here as a useful example of India's provincial economy, i.e. the socio-economic system made of villages and small towns located in rural areas.[1] My aim is to show how, in the aftermath of the Green Revolution, Arni experienced major changes in both economy and society, enhancing a process of capitalist development characterized by informality, economic diversification and local/global integration.

2.1.1 Method

This chapter relies on quantitative and qualitative information from three censuses and sample surveys of the town carried out in 1972–1974, 1982–1984 and in 1993–1994 supplemented by field visits in the late 1990s and secondary literature. While the quantitative information—which has been classified and elaborated into a consistent statistical database for the three surveys—is used to examine long-term

This chapter largely relies on the analysis of long-term change in Arni presented in Chap. 6 of my book *Capitalist Development in India's Informal Economy* (2013).

[1]For an introduction to provincial India, see Basile (2013, Chaps. 1 and 3).

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trends, qualitative information is used to integrate the quantitative evidence, fleshing out the main features of Arni's economy and society in the 1990s.[2]

The chapter is organized as follows. The following Sect. 2.2, introduces the conceptual framework within which Arni's long-term change is contextualized. Then, the trends in Arni's long-term development are identified in relation to the sources of labour and of capital and the organization of production. Finally, I build on this long-term analysis in order to draw some conclusions about Arni's capitalist economy at the turn of the millennium.

2.2 Analyzing Capitalist Development in Arni

The analysis of actually existing capitalist development is a difficult task. The 'purely' capitalist economy in which all social relations are money relations and individuals are rational and optimizing beings is only found in mainstream economics textbooks. Moreover, despite predictions about institutional and economic convergence, real-world economies do not converge towards a unique model. Against any predictions, power structures and institutions inherited from the pre-capitalist past are not being dissolved by capitalism. Instead they intertwine with capitalist production relations, giving birth to multiple modes of inequality and to a variety of socio-economic organizations and patterns of change. As a consequence, capitalist societies and economies are highly diversified and conflicting—with a great variety of production structures, socio-economic relations and patterns of spatial distribution of resources.

Mainstream economic theory has not addressed this complexity. The varieties of capitalism undermine concepts grounded in its uniformity and theories of convergence and so also qualify the interpretative power of mainstream economic theory. To overcome this impasse, I propose an eclectic analytical framework which combines conceptual categories and propositions borrowed from both Critical (anti-essentialist) Marxism and Evolutionary Institutionalism (i.e. the Institutionalist theory which relies on Thorstein Veblen's critique of Neoclassical Economics).[3] This Marxist/Institutionalist framework provides the conceptual tools for the analysis of long-term change in Arni (in this chapter) and for exploring the impact of caste on Arni's production relations (in Chap. 6).

This eclectic framework has been developed from the argument that, while both Marxism and institutionalism largely contribute to the understanding of capitalist change, neither can individually account for the variety of capitalisms or for the increasing inequalities emerging between individuals and countries. Marx's theory

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[2]The background of this analysis of the town is research presented in the Arni Studies by Barbara Harriss-White in the 1970s, 1980s and 1990s, and in the recent literature on the region, in particular in Harriss-White (2003a) and Harriss-White and Janakarajan (2004).

[3]The Marxist/Institutionalist framework is presented in Basile (2013) where it is applied to the conceptualization of capitalist development in provincial India.

points to the main traits of capitalism. Yet these analytical tools cannot alone explain the existence of the varieties of socio-economic systems. Institutionalism proposes an agency which accounts for the influence of country-specific and history-specific institutions on individual behaviour, and therefore also for the emergence of a variety of socio-economic systems. However, it misses the key roles of the commoditization of labour and capital/labour conflict in driving capitalist development.

The eclectic framework proposes a theoretical representation of the main relations of the capitalist economy, focusing on its nature, its working and its change. It describes the capitalist economy as a socio-economic system relying on the commoditization of the labour force and led by capital/labour conflicts, in which growth and change are embedded in institutions. This institutional embeddedness works at two levels: institutions shape individual preferences and desires and past culture and institutions influence institutions and individuals. As history and culture matter, change is path dependent and does not progress towards a predetermined outcome.

This framework provides the tools to explore the variety of organizational and institutional forms, accounting for the several modes of inequality that cross-capitalist society: variety is the consequence of the institutional embeddedness of capitalist development, while capitalist production relations are at the origin of class inequality, which accompanies non-class modes of inequality—reinforcing them.

This combination of Critical Marxism and Evolutionary Institutionalism has several advantages for empirical research on contemporary capitalism. With its Marxist origin, the eclectic framework explains the class origin of inequality and conflicts; with its Evolutionary/Institutionalist hypotheses about human behaviour, it explains the variety of organizational forms and social relations, their historical specificity and path dependence.

2.3 Trends in Arni's Long-Term Development

Here, I use the three surveys of the business economy of Arni to identify the major trends in the town's development in the period 1973–1993. The evidence shows that the process of growth and structural transformation induced by the introduction of the HYVs in the local food grains economy moved along a double track of *diversification and informality*.

2.3.1 A Growing Economy

Since the 1970s, Arni's economy grew constantly and at a very high rate. This growth is not fully reflected in that of the urban population which, even so, according to official information, was 60,815 at the end of the 1990s and thus had doubled from the early 1970s (Census of India 2001). Yet, as Harriss-White (2003b, p. 22) argues, this is an underestimate due to the fact that the municipality gained from state

Table 2.1 Census of private firms in Arni (no. of units)

Business	1973	1983	1993
1. Rice and paddy	62	121	159
2. Agricultural products	96	139	254
3. Foods	439	564	1371
4. Farm inputs	13	28	32
5.1. Silk products	62	243	1486
5.2. Other materials	130	195	297
6. General merchants	20	37	76
7. Fuel and energy retailers	12	18	59
8. Transport repairs and services	82	136	194
9. Construction (included in *other materials*)	–	–	–
10. Other repairs and services	191	321	623
11. Money and financial services	87	121	152
Total	1,194	1,923	4,703

Source Field Censuses of Arni's business economy (1972–1974, 1982–1984, 1993–1994)

resource allocations in being classified as small—while local villages resisted incorporation, wishing to avoid higher local taxes. A more realistic estimate that takes into account the town's suburbs, those workers who commuted from other villages plus the migrant labour force would be over 100,000 people (ibid.).

The growth of Arni's economy emerges clearly from the censuses of the town's businesses conducted prior to the three surveys. The overall number of firms trebled over the two decades since this research started, but the occupation sectors of the urban economy experienced this expansion unevenly (see Tables 2.1 and 2.2, and Fig. 2.1).[4]

Wholesale trading activities increased most, while retail trading activities did so less markedly. A high rate of expansion in numbers was observed in the food trade (a category that includes several types of food retailers), as also for fuel and energy retailers and for repairs and services. Meanwhile, suppliers of agricultural inputs show a small increase in 1993 in comparison to 1983; whereas silk production and rice milling showed a steady increase over the period, maintaining their positions as the town's economic base.

Moving from the censuses to the samples,[5] it is evident that the widespread increase in the number of firms over the two decades is only partially matched by the dynamics of gross output. The weighting of rice and paddy and silk in terms of the percentage of the town's gross output rose and fell over the period

[4]The data on Arni's businesses in all tables and figures has been grouped as follows: *rice and paddy* include rice mills and rice wholesale trade; *silk products* include silk factories and handloom weavers; *general merchants* refer to retailers; *other materials* include ready-made clothing, weaving machinery and pottery and, when indicated, also constructions.

[5]The data I have analyzed come from 119 schedules of business histories for 1973, 127 schedules for 1983 and 209 schedules for 1993. For the basis of the functional mapping, the stratified random sampling plus research on the significantly large firms see Basile (2011).

Table 2.2 Census of private firms in Arni (simple annual rate of growth 1983–1973 and 1993–1983, %)

Business	1983	1993
1. Rice and paddy	95.2	31.4
2. Agricultural products	44.8	82.7
3. Foods	28.5	143.1
4. Farm inputs	115.4	14.3
5.1. Silk products	291.9	511.5
5.2. Other materials	50.0	52.3
6. General merchants	85.0	105.4
7. Fuel and energy retailers	50.0	227.8
8. Transport repairs and services	65.9	42.6
9. Construction[a]	–	–
10. Other repairs and services	68.1	94.1
11. Money and financial services	39.1	25.6
Total	61.1	144.6

Source see Table 2.1

[a] Construction is included in *other materials*

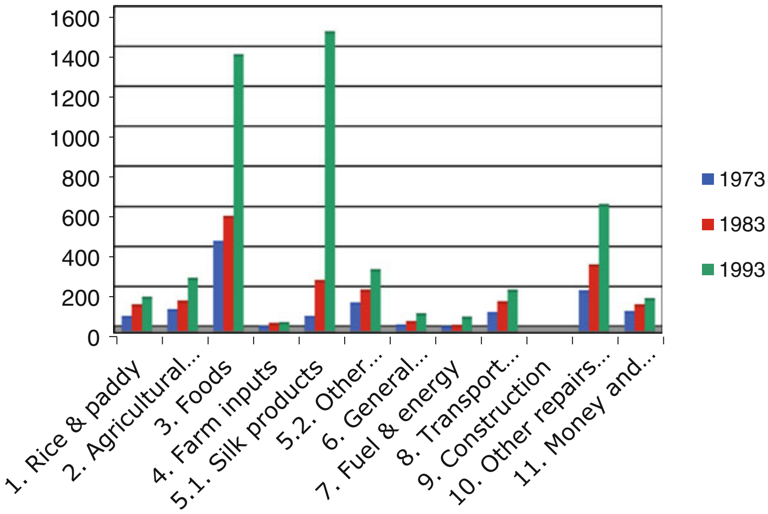

Fig. 2.1 Census of economic activities (no. of units). *Source* see Table 2.1

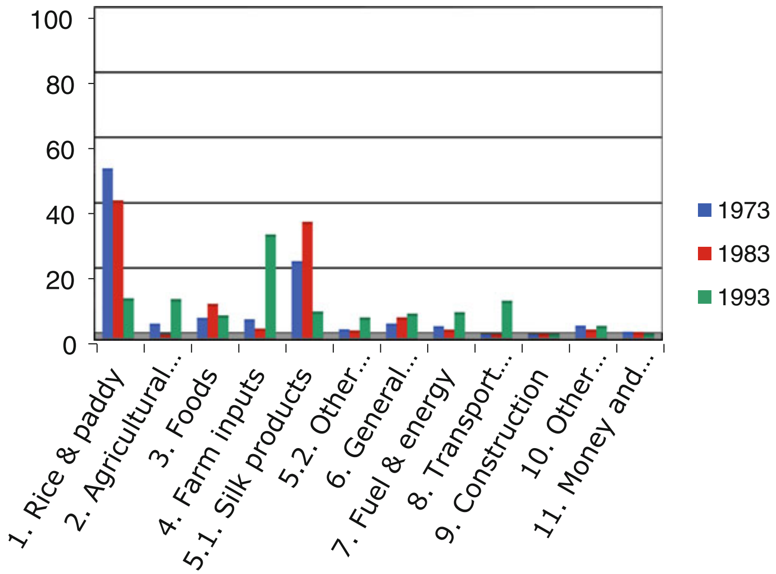

Fig. 2.2 Distribution of gross output (%) (on the vertical axis the % contribution to the economy of the town). *Source* see Table 2.3

(see Fig. 2.2).[6] The constant rise in gross output of agricultural products as a whole compensated for these shifts—alongside rising gross output in food, fuels and energy retail sales and transport repairs and services.

In sum, while still being key activities in the town, silk production and trade have lost the dominant role they had in Arni's business economy in the 1980s when it certainly seemed that Arni was about to transform into a 'silk town'.

2.3.2 A Diversified Economy

Arni's three surveys provide strong evidence of a process of economic diversification —in the making since the 1970s. As the urban censuses show (see Tables 2.1 and 2.2), the town's economy expanded strikingly in terms of the number of businesses. They also changed significantly in terms of their sectoral composition—two faces of the same process of growth (Harriss-White 2003a, p. 179). The outcome of this complex process is a business economy in which firms with activities in production and trade (retail and wholesale) and in agriculture and manufacturing, all co-exist.

[6]In the *Appendix* to this paper, information on the economic performance of the firms in the samples is available: Table 2.11 for information on average starting capital, total costs for raw materials, total output, regular monthly labour and start-up loans; and Table 2.12 for information on raw materials costs, estimated costs, labour costs and estimated profits/net income.

While the major increase in silk production and trade in 1983 had led the Arni researchers to predict an on-going process of specialization (Harriss B 1991; Harriss J 1991), the second decade actually confounded predictions by experiencing an inversion of this trend. Indeed over the whole period Arni showed a strong tendency towards economic diversification.

Table 2.3 shows that a significant, if variable, proportion of firms in almost all economic groups invested both within their sector—but in a different sub-sector—and outside their sector.[7] Economic diversification was more extensive in trade and services than in manufacturing. While the patterns are complex, and vary over the period, economic diversification has persisted as a basic trait and was more widespread in investment behaviour in 1993 than it was two decades before (Fig. 2.3) and there is evidence (see Appendices 2.11 and 2.12) that the trend has only been reinforced in the twenty-first century.

We conclude that diversification is a key feature of Arni's capitalism, certainly since the introduction of HYVs, even if the process varies by sector and over time. The town's specialization in silk production in the 1980s should be considered as a short-term deviation from the long-term trend.

2.3.3 An Informal Economy

Informality is a form of socio-economic organization that escapes state regulation—for which it substitutes forms of self-regulation based on business associations (see Basile Chap. 6) and on institutions grounded in culture. Rather than being dominated by the polar classes of capitalism, an informal economy is also often characterized by self-employment (India's most common form of production—see Srinivas Chap. 3) and unregistered family firms. For our evaluation of the degree of informality in Arni, we focus first on evidence about the social regulation of the economy and then turn to the organizational features of firms.

Caste is a major social institution that persists in structuring rural India's informal economy.[8] Are there regularities in the economic roles of caste? Table 2.4 presents the distribution of firms according to the caste of respondents for each of the three surveys, classified according to their official groups.[9] Arni's economy has never been dominated by 'business castes'. In 1993 most economic activity in Arni was firmly in the control of the agriculturally dominant Backward Castes (BCs) and Most Backward Castes (MBCs), while the combined presence of Forward Castes (FCs) and Scheduled Castes (SCs) was confined to about a fifth of the businesses.

[7]See Srinivasan, Chap. 3, for details of self-employment and Harriss-White Chap. 4, for details of diversified portfolio development by Arni's rice trading elite in the twenty-first century.

[8]See Srinivasan Chap. 3, and Arivukarasi Chap. 8, for the local urban and rural economies, respectively.

[9]See Srinivasan Chap. 3 for a fine grained analysis of individual castes in the business politics of the town.

Table 2.3 Diversification of economic activity (firms according to their investment behaviour, %)

Business	No. diversification (1)	Same sector (2)	Different sector (3)	(2)/(2 + 3)	(1) + (2) + (3)
1993					
1. Rice and paddy	16.7	66.7	16.7	80.0	100.0
2. Agricultural products	62.5	18.8	18.8	50.0	100.0
3. Foods	69.5	15.3	15.3	50.0	100.0
4. Farm inputs	57.9	26.3	15.8	62.5	100.0
5.1. Silk products	77.8	2.8	19.4	12.5	100.0
5.2. Other materials	88.2	0.0	11.8	0.0	100.0
6. General merchants	0.0	33.3	66.7	33.3	100.0
7. Fuel and energy retailers	43.8	25.0	31.3	44.4	100.0
8. Transport repairs and services	72.0	12.0	16.0	42.9	100.0
9. Construction[a]	–	–	–	–	–
10. Other repairs and services	40.0	30.0	30.0	50.0	100.0
11. Money and financial services	33.3	11.1	55.6	16.7	100.0
1983					
1. Rice and paddy	12.5	62.5	25.0	71.4	100.0
2. Agricultural products	0.0	50.0	50.0	50.0	100.0
3. Foods	55.0	10.0	35.0	22.2	100.0
4. Farm inputs	50.0	0.0	50.0	0.0	100.0
5.1. Silk products	52.2	4.3	43.5	9.1	100.0
5.2. Other materials	85.7	0.0	14.3	0.0	100.0
6. General merchants	29.6	33.3	37.0	47.4	100.0
7. Fuel and energy retailers	50.0	25.0	25.0	50.0	100.0
8. Transport repairs and services	40.0	0.0	60.0	0.0	100.0
9. Construction[a]	–	–	–	–	–
10. Other repairs and services	50.0	25.0	25.0	50.0	100.0
11. Money and financial services	0.0	100.0	0.0	100.0	100.0
1973					
1. Rice and paddy	68.2	4.5	27.3	14.3	100.0
2. Agricultural products	25.0	25.0	50.0	33.3	100.0
3. Foods	38.5	0.0	61.5	0.0	100.0
4. Farm inputs	33.3	0.0	66.7	0.0	100.0
5.1. Silk products	69.2	15.4	15.4	50.0	100.0

(continued)

Table 2.3 (continued)

Business	No. diversification (1)	Same sector (2)	Different sector (3)	(2)/(2 + 3)	(1) + (2) + (3)
5.2. Other materials	100.0	0.0	0.0	–	100.0
6. General merchants	73.3	13.3	13.3	50.0	100.0
7. Fuel and energy retailers	16.7	0.0	83.3	0.0	100.0
8. Transport repairs and services	100.0	0.0	0.0	–	100.0
9. Construction[a]	–	–	–	–	–
10. Other repairs and services	53.3	13.3	33.3	28.6	100.0
11. Money and financial services	50.0	16.7	33.3	33.3	100.0

Source Field Surveys of Arni's business economy (1972–74, 1982–84 and 1993–4)
[a]Construction is included in *other materials*

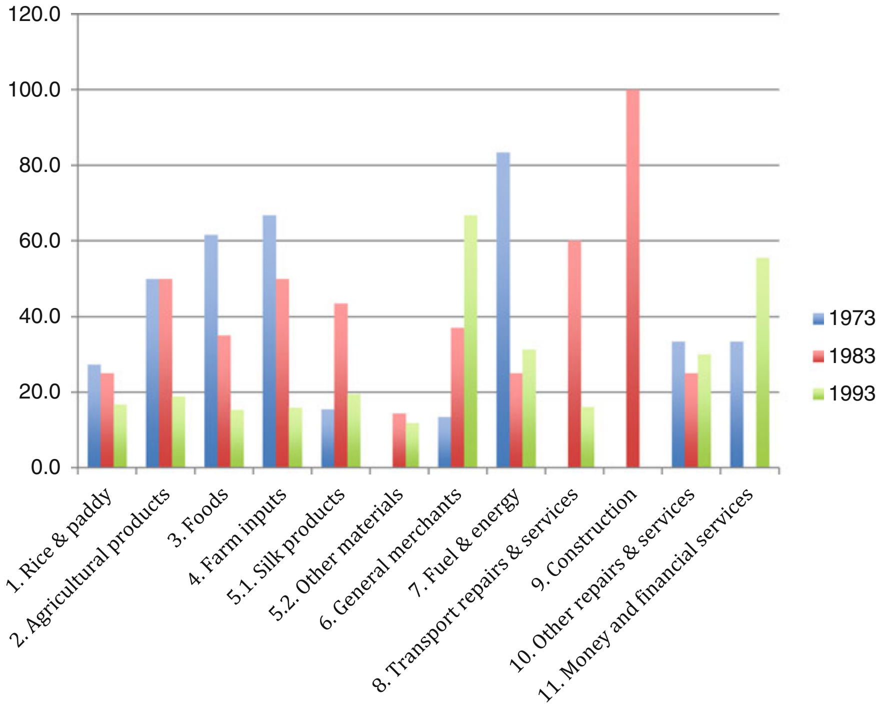

Fig. 2.3 Diversification of economic activity (% of firms that invest in other sectors). *Source* see Table 2.3

Table 2.4 Distribution of firms by caste group (no. of firms)

Business	FCs	BCs	MBCs	SCs
1993				
1. Rice and paddy	2	4		
2. Agricultural products	3	8	4	
3. Foods	3	28	17	10
4. Farm inputs	3	12	3	
5.1. Silk products	2	18	6	10
5.2. Other materials		6	9	1
6. General merchants		1	2	
7. Fuel and energy retailers		13	2	1
8. Transport repairs and services	4	11	8	2
9. Construction		1		
10. Other repairs and services	4	5	1	
11. Money and financial services	1	4	4	
Total	22	111	56	24
1983				
1. Rice and paddy		8		
2. Agricultural products		2		
3. Foods	1	16	2	
4. Farm inputs		3	1	
5.1. Silk products	6	15	1	1
5.2. Other materials	1	5	2	
6. General merchants	2	17	5	4
7. Fuel and energy retailers		3	1	1
8. Transport repairs and services	1	2	1	1
9. Construction			1	
10. Other repairs and services	3	6	3	
11. Money and financial services	4	3		
Total	18	80	17	7
1973				
1. Rice and paddy		16	5	
2. Agricultural products		1	3	
3. Foods	1	9	4	
4. Farm inputs		1	2	
5.1. Silk products	5	8		
5.2. Other materials		3	2	
6. General merchants	3	7	2	3
7. Fuel and energy retailers		5		

(continued)

Table 2.4 (continued)

Business	FCs	BCs	MBCs	SCs
8. Transport repairs and services		1	1	1
9. Construction		2		
10. Other repairs and services	5	7	3	
11. Money and financial services	2	4		
Total	16	64	22	4

Source see Table 2.3

Notes Forward Castes = FCs; Backward Castes = BCs; Most Backward Castes = MBCs; Scheduled Castes and Tribes = SCs. For details on the specific castes in Arni region, see Table 2.13 in the *Appendix* to this chapter

Despite the dramatic increase in the numbers of firms in the town, caste relations of control over economic activity remained stable. Yet, two interesting changes over the decades deserve recognition. The first refers to the increase in the presence of SCs. In control of just 3.8 % of businesses in the 1970s, their relative participation tripled in two decades. The second change refers to a slight decrease in the presence of FCs: controlling over 15 % of the businesses in the 1970s but 10 % in the 1990s.

However, the picture changes when we move to detail below that of the state's caste categories. Figures 2.4 and 2.5 show changes over the two decades in the economic activity of the dominant BCs and MBCs. In relation to these caste dynamics Arni's business economy was not at all stable. In particular, both of the two most important caste groups of the town (in numerical terms) diversified their activities.

Backward castes ceded control over paddy and rice and general merchants' businesses, and, to a lesser extent, silk. By contrast, their ownership of foods, agricultural products, other materials, transport and fuel and energy increased

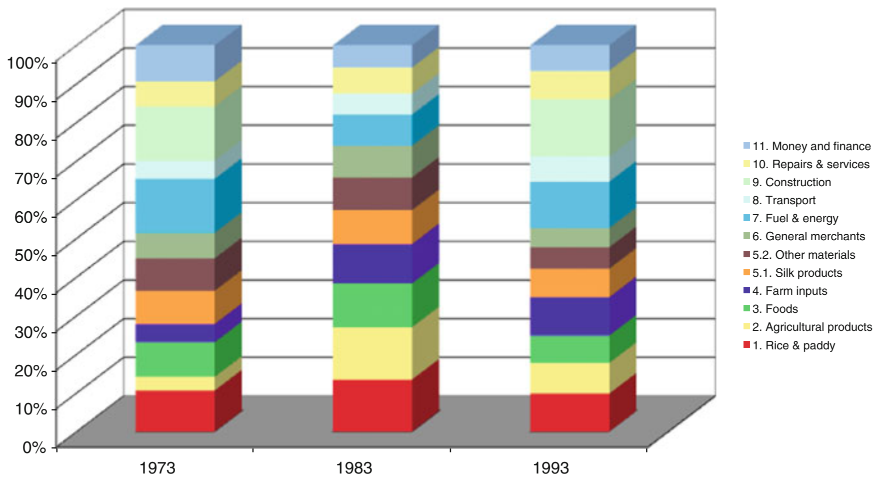

Fig. 2.4 Economic activities of Backward Castes (% of BC respondents according to sector of activity). *Source* see Table 2.3

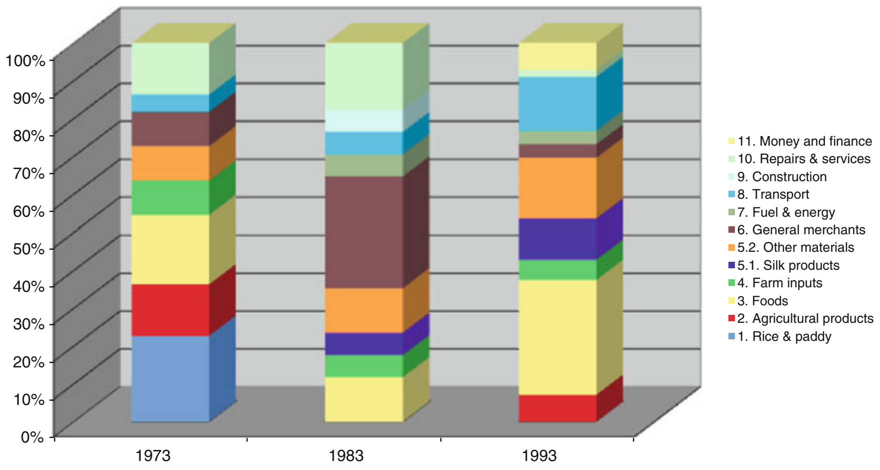

Fig. 2.5 Economic activities of Most Backward Castes (% of MBC respondents according to sector of activity). *Source* see Table 2.3

sharply. Most backward castes concentrated on foods, silk, other materials and transport, and reduced their presence in paddy and rice, repairs and services.

These trends are supported by the dynamics of the most important activities in the town, i.e. paddy, rice and silk products. In the case of paddy and rice (see Fig. 2.6), Forward Castes (FCs) emerged at the expense of BCs, while in the case of silk products (see Fig. 2.7) the lowest castes—MBCs and SCs had started to break into this part of Arni's economic base.

So we see that caste groups in Arni had become increasingly economically mobile and responsive to market opportunities.

2.3.4 Characteristics of Arni's Informal Firms

While the first attribute of informality is its regulation through social institutions, let us turn then to the second defining feature of the informal economy: the characteristics of firms. In Table 2.5, the samples throughout the late twentieth century research period show a distribution that is strongly biased towards individually and jointly/family-owned firms. Very few firms that are owned by cooperatives, incorporated companies and local branches of firms head-quartered outside the town were captured in the samples. These family firms confirm the joint/collective entrepreneurship emphasized by Upadhya (1997) and Rutten (1995, 2002) as being a major institutional pre-condition for economic diversification in contemporary provincial India.[10]

[10]Here, following Upadhyay and Rutten, I assume that economic diversification as a macro-phenomenon is the outcome of a process of individual diversification by entrepreneurs who aim to increase profit and reduce risk.

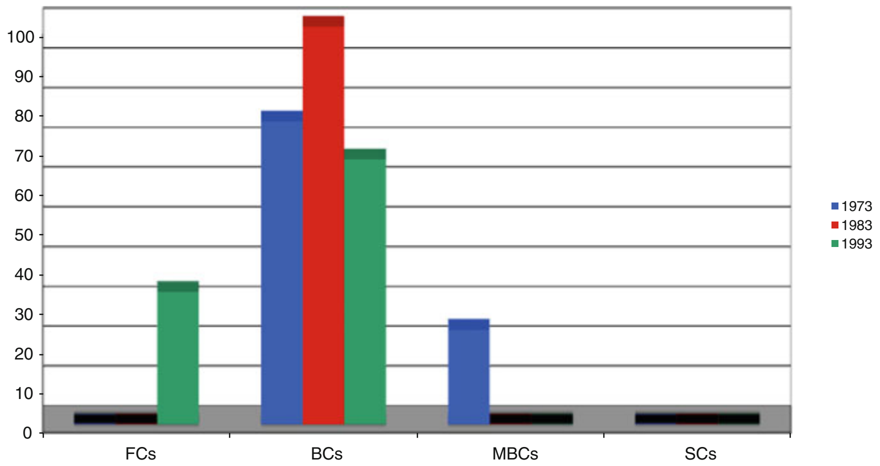

Fig. 2.6 Rice and paddy: respondents by caste (on the vertical axis the % of respondents). *Source* see Table 2.3

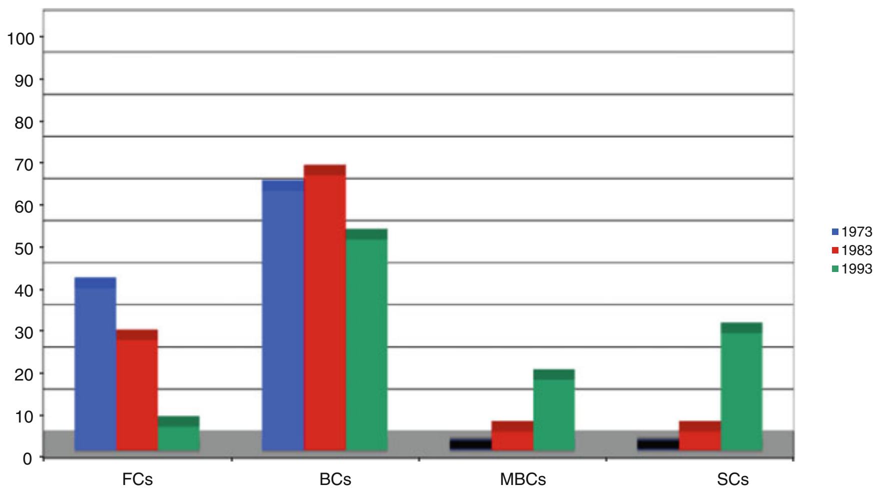

Fig. 2.7 Silk production: respondents by caste (on the vertical axis the % of respondents). *Source* see Table 2.3. Legends for Figs. 2.6 and 2.7: see Table 2.4

Another key trait of informality concerns employment and labour relations, as the informal economy is largely supposed to be based on self-employment, unpaid family work and casual, unrecorded and non-state-regulated wage labour (see Srinivasan Chap. 3). Our evidence from the Arni samples is presented in Table 2.6, in which the seasonally average units of labour are given by firm for different types

Table 2.5 Firms according to ownership (no. of firms)

Business	Individually owned	Jointly owned	Family partnership	Family private co.	Private non-family co.	Public company	Local branch	Co-op.	Other
1993									
1. Rice and paddy	3		2						
2. Agricultural products	9		7						
3. Foods	44	1	13						
4. Farm inputs	11	3	4						
5.1. Silk products	28	1	7						
5.2. Other materials	6	1	7				1		
6. General merchants	2								
7. Fuel and energy retailers	11	1	4						
8. Transport repairs and serv.	17	1	8						
9. Construction			1						
10. Other repairs and services	1		3				1		2
11. Money and fin. services services	5	2	2						
1983									
1. Rice and paddy	1	1	3						
2. Agricultural products	1		1						
3. Foods	12		5	2				1	
4. Farm inputs	3		1						
5.1. Silk products	12		1	2	1			3	
5.2. Other materials	4	1	2	1					

(continued)

Table 2.5 (continued)

Business	Individually owned	Jointly owned	Family partnership	Family private co.	Private non-family co.	Public company	Local branch	Co-op.	Other
6. General merchants	19	2	4	2				1	
7. Fuel and energy retailers	4		1						
8. Transport repairs and serv.	2	1		2					
9. Construction	1								
10. Other repairs and services	8		2	1	1				
11. Money and fin. services	1		1						
1973									
1. Rice and paddy	14		3	1	2				
2. Agricultural products	3			1					
3. Foods	6			4					
4. Farm inputs	2		1	2					
5.1. Silk products	6		1	5					
5.2. Other materials	5								
6. General merchants	9	1		4					
7. Fuel and energy retailers	2		2	1					
8. Transport repairs and serv.	3		1	1					
9. Construction			1	1					
10. Other repairs and services	11		1	3					
11. Money and fin. services	3			2					

Source see Table 2.3

Table 2.6 Average units of labour per respondent

Business	Family labour (1)	Regular non-family labour (2)	(1) + (2)	Casual labourers (F)	Casual labourers (M)
1993					
1. Rice and paddy	1.7	6.2	7.9	10.7	15.3
2. Agricultural products	2.4	3.0	5.4	14.0	11.0
3. Foods	1.7	2.2	3.9	1.0	1.5
4. Farm inputs	2.0	15.9	17.9	61.7	318.4
5.1. Silk products	1.9	3.9	5.8		
5.2. Other materials	2.3	1.5	3.8	3.0	
6. General merchants	1.0	6.0	7.0		
7. Fuel and energy retailers	1.7	2.0	3.7		2.0
8. Transport repairs and services	2.2	9.4	11.6		1.0
9. Construction	3.0	10.0	13.0		
10. Other repairs and services	1.4	2.0	3.4		
11. Money and financial services	1.3	3.8	5.1		
1983					
1. Rice and paddy	1.8	6.2	8.0	16.8	4.0
2. Agricultural products	1.0	3.0	4.0	1.0	
3. Foods	1.4	5.1	6.5		2.8
4. Farm inputs	1.0	4.0	5.0		1.7
5.1. Silk products	2.6	22.3	24.9		1.0
5.2. Other materials	2.3	3.0	5.3		20.0
6. General merchants	2.5	2.2	4.7		1.9
7. Fuel and energy retailers		3.5	3.5		1.0
8. Transport repairs and services	3.7	1.8	5.5		9.0
9. Construction	2.0	2.0	4.0		2.0
10. Other repairs and services	1.0	3.8	4.8		1.0
11. Money and financial services	1.0	5.7	6.7		1.0
1973					
1. Rice and paddy	1.1	2.8	3.9	5.6	3.2
2. Agricultural products	1.0	4.0	5.0	3.7	2.0
3. Foods	1.6	1.9	3.5		4.5
4. Farm inputs	1.0	3.5	4.5		
5.1. Silk products	2.3	34.0	36.3	12.0	5.0

(continued)

Table 2.6 (continued)

Business	Family labour (1)	Regular non-family labour (2)	(1) + (2)	Casual labourers (F)	Casual labourers (M)
5.2. Other materials	2.5	1.0	3.5		
6. General merchants	2.1	2.2	4.3		1.0
7. Fuel and energy retailers	2.3	1.0	3.3	1.0	4.5
8. Transport repairs and services		2.3	2.3		3.0
9. Construction	1.0	1.0	2.0		
10. Other repairs and services	2.2	5.7	7.9		
11. Money and financial services	1.0	1.3	2.3		1.0

Source see Table 2.3

of labour. The key distinction is between regular labour (family and non-family) and casual labour (male and female).

There are differences between the number of firms declaring regular labour and casual labour.[11] In the case of regular labour, much of it was family labour. For silk products, foods and fuel and energy products, family labour even increased over time. In the case of casual labour, the schematic nature of the evidence provided does not support a thorough analysis, though by 1993, the use of casual labour in agriculture-related activities, such as paddy and rice, agricultural products and farm inputs had increased remarkably.[12]

In sum, the town's economy emerges as a diversified system, in which there is a notable social mobility in investment among sectors and activities.[13] A major component of this mobility is supplied by backward and most backward castes moving into sectors and lines that have been opened up in ways that are increasingly independent of caste-based occupations. Major traits of informality clearly emerge in the labour process: individual and family firms expanded in number, relying on family and casual labour. However, both the balance of forces between state regulation and non-state regulation and the role of caste ideology and institutions in the regulation of the town's economy are large questions which are addressed in Chap. 6.

[11]The less detailed data on the structure of employment is due to the incomplete answers of respondents on a sensitive issue where there also was considerable seasonal variation even in non-agricultural firms.

[12]Harriss-White and Janakarajan (2004, Chaps. 1–5).

[13]Srinivasan here calls them 'occupational groups'.

2.4 Arni's 'External Relations'

In the capitalist transformation of the local economy, the urban and rural factor contributions (capital, labour and commodities) need tracing over the long term because of the profound nature of the process. In the three survey rounds, detailed questions were therefore asked about the origin and destinations of raw materials, commodities and services and capital—as well as the spatial and social origins of the employer and the workforce.[14] The changing character of Arni's integration in input and output markets will be analyzed before tackling the origins of capital and labour.

Table 2.7 summarizes information from the samples on the origin of raw materials, while Table 2.8 gives the destination of products and services. Data on the origin of raw materials shows that Arni underwent a process of progressive local-global integration involving the substitution of local sources of inputs by non-local and long-distance ones. While in the 1970s, the town and the villages provided the bulk of supplies, in particular for agricultural products and rice and paddy in the 1980s, the share of inputs coming either from the villages or from the town itself sharply dropped in favour of long-distance sources, mainly from urban Tamil Nadu, Chennai in particular. This trend towards the creation of a southern regional market continued into the 1990s with the increased contribution of inputs from other sources in urban Tamil Nadu and outside the state, in particular for food, farm inputs, silk and general merchants' shops. Meanwhile Chennai came to supply or broker almost all the inputs for general merchants and a high percentage of raw materials for silk production.

The picture is markedly different for the destination of goods. Arni increasingly re-enforced its role as an entrepot/wholesaling market town. In the 1990s (with the sole exception of paddy-rice firms—which sold their products increasingly to other towns in Tamil Nadu and outside the state), the bulk of Arni's gross output was confined to the town and its surrounding villages, while other destinations received a negligible proportion of the commodities and services produced and traded.

Silk products epitomize Arni's economic integration. Figures 2.8 and 2.9 compare the old North Arcot District,[15] with Tamil Nadu (other than North Arcot) and the rest of the world, both as sources and destinations of silk products over the decades. We can see the increasingly long-distance procurement of raw materials and the expanding role in the 1990s of Arni and its surrounding area as a (wholesale) market for silk.

Support for this conclusion about the town's role as a wholesale market comes from information about types of firm (see Table 2.9). The three sample surveys suggest that Arni retained its role as a wholesale market town throughout the period. Yet, while in the first decade there was a significant increase in the number of workshops and small manufacturing plants, in particular for silk, in the 1990s the town reverted to trade, both wholesale and retail, and there was a striking reduction in the absolute number and relative proportion of urban workshops and small manufacturing units (ceding power to other sectors of the economy).

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[14] Harriss B (1991).

[15] Divided in 1990 into Vellore and Tiruvannamalai districts.

Table 2.7 Origin of raw materials (distribution of estimated average quantities in Rs. %)

Business	Arni	Villages	Ambedkar/ rural	Towns in North Arcot	Chennai	Other towns/TN	Rural TN	Out of state (urban)	Out of state (rural)
1993									
1. Rice and paddy	13.1	7.3	6.8		0.0	32.4	8.0	0.0	32.3
2. Agricultural products	4.2	46.3	0.5	3.8	3.5	40.1	1.6	0.0	0.0
3. Foods	28.7	11.1	4.3	16.5	26.0	3.4	3.4	0.2	6.4
4. Farm inputs	0.1	0.0	0.9	0.2	17.2	60.2	1.5	19.6	0.2
5.1. Silk products	4.3	0.4	7.8	17.2	55.0	7.5	0.0	7.7	0.0
5.2. Other materials	7.8	10.0	0.3	21.7	31.8	26.4	1.8	0.3	0.0
6. General merchants	0.1	0.0	0.0	0.0	99.9	0.0	0.0	0.0	0.0
7. Fuel and energy retailers	11.3	0.0	0.0	15.8	25.5	4.4	0.0	42.9	0.0
8. Transport repairs and services	51.7	5.2	7.3	1.2	25.1	9.5	0.0	0.0	0.0
9. Construction	–	–	–	–	–	–	–	–	–
10. Other repairs and services	22.4	63.3	0.0	0.0	6.3	7.9	0.0	0.0	0.0
11. Money and financial services	2.2	0.0	5.0	0.0	92.8	0.0	0.0	0.0	0.0
1983									
1. Rice and paddy	3.2	40.2	0.0	5.1	0.0	18.4	6.9	8.9	17.2
2. Agricultural products	25.7	73.3	1.0	0.0	0.0	0.0	0.0	0.0	0.0
3. Foods	3.5	3.8	0.0	55.0	22.9	0.0	1.1	13.7	0.0
4. Farm inputs	9.9	0.9	0.9	54.6	15.7	15.1	0.0	0.0	2.9
5.1. Silk products	4.8	3.1	0.0	2.2	22.6	7.3	0.0	60.0	0.0
5.2. Other materials	0.4	0.0	0.0	14.2	39.9	16.5	0.0	29.0	0.0

(continued)

Table 2.7 (continued)

Business	Arni	Villages	Ambedkar/ rural	Towns in North Arcot	Chennai	Other towns/TN	Rural TN	Out of state (urban)	Out of state (rural)
6. General merchants	5.9	0.4	0.0	19.2	56.3	6.6	0.0	11.5	0.0
7. Fuel and energy retailers	0.0	1.9	0.0	0.0	0.0	0.0	5.4	79.9	12.7
8. Transport repairs and services	5.6	0.0	0.0	6.5	87.9	0.0	0.0	0.0	0.0
9. Construction	–	–	–	–	–	–	–	–	–
10. Other repairs and services	46.0	20.9	0.0	25.0	8.1	0.0	0.0	0.0	0.0
11. Money and financial services	10.2	80.6	0.0	0.2	9.1	0.0	0.0	0.0	0.0
1973									
1. Rice and paddy	32.6	42.3	8.0	7.6	2.7	4.4	2.4	0.0	0.0
2. Agricultural products	64.8	35.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3. Foods	12.4	9.9	0.0	52.4	13.5	11.8	0.0	0.0	0.0
4. Farm inputs	3.9	4.0	0.0	0.7	91.3	0.0	0.0	0.0	0.0
5.1. Silk products	8.3	0.0	0.0	7.1	7.4	4.6	0.0	72.6	0.0
5.2. Other materials	0.1	0.0	0.0	0.0	62.8	6.4	0.0	30.8	0.0
6. General merchants	3.6	1.6	0.0	34.5	32.6	11.0	0.0	16.6	0.0
7. Fuel and energy retailers	0.1	1.3	4.7	0.0	45.8	11.9	0.0	36.2	0.0
8. Transport repairs and services	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9. Construction	29.5	0.0	0.0	70.5	0.0	0.0	0.0	0.0	0.0

(continued)

Table 2.7 (continued)

Business	Arni	Villages	Ambedkar/ rural	Towns in North Arcot	Chennai	Other towns/TN	Rural TN	Out of state (urban)	Out of state (rural)
10. Other repairs and services	28.4	0.0	0.0	63.9	7.7	0.0	0.0	0.0	0.0
11. Money and financial services	23.0	75.4	0.0	1.6	0.0	0.0	0.0	0.0	0.0

Source see Table 2.3
Notes In 1983 and 1993 *Construction* is included in *other materials*

Table 2.8 Destination of goods (distribution of estimated average quantities in Rs. %)

Business	Arni	Villages	Taluk	Ambedkar/ rural	Chennai	Other towns/ TN	Rural TN	Out of state (urban)
1993								
1. Rice and paddy	0.2	1.3	0.0	4.2	12.1	60.3	0.0	21.9
2. Agricultural products	33.9	37.7	0.2	3.5	9.3	4.7	6.0	4.7
3. Foods	54.1	44.2	0.5	0.8	0.3	0.0	0.3	0.0
4. Farm inputs	6.2	35.6	1.6	13.8	21.7	0.0	0.0	21.1
5.1. Silk products	44.2	55.8	0.0	0.0	0.0	0.0	0.0	0.0
5.2. Other materials	44.1	52.1	0.0	0.1	0.1	0.0	0.0	3.6
6. General merchants	94.8	5.2	0.0	0.0	0.0	0.0	0.0	0.0
7. Fuel and energy retailers	26.8	32.4	0.2	1.7	12.9	25.4	0.0	0.6
8. Transport repairs and services	50.3	39.8	0.0	1.1	5.9	0.8	0.0	2.2
9. Construction	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0
10. Other repairs and services	45.0	31.0	17.3	1.3	1.3	0.0	0.0	4.2
11. Money and financial services	6.7	21.3	0.0	5.1	24.0	18.9	0.0	24.0
1983								
1. Rice and paddy	13.0	0.0	0.0	2.7	15.2	47.7	0.0	21.5
2. Agricultural products	70.1	29.9	0.0	0.0	0.0	0.0	0.0	0.0
3. Foods	72.9	27.1	0.0	0.0	0.0	0.0	0.0	0.0
4. Farm inputs	8.2	91.8	0.0	0.0	0.0	0.0	0.0	0.0
5.1. Silk products	7.3	0.0	0.0	0.0	51.6	7.7	0.0	33.4
5.2. Other materials	25.7	74.3	0.0	0.0	0.0	0.0	0.0	0.0
6. General merchants	35.2	64.2	0.5	0.1	0.0	0.0	0.0	0.0
7. Fuel and energy retailers	41.6	44.1	14.2	0.0	0.0	0.0	0.0	0.0
8. Transport repairs and services	9.2	30.9	14.0	0.4	0.0	45.5	0.0	0.0

(continued)

Table 2.8 (continued)

Business	Arni	Villages	Taluk	Ambedkar/rural	Chennai	Other towns/TN	Rural TN	Out of state (urban)
9. Construction	50.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0
10. Other repairs and services	39.6	47.8	0.0	0.0	12.5	0.0	0.0	0.0
11. Money and financial services	17.3	45.2	18.8	0.0	18.8	0.0	0.0	0.0
1973								
1. Rice and paddy	24.3	10.9	2.4	15.2	21.1	26.0	0.0	0.0
2. Agricultural products	0.0	1.1	21.4	11.4	6.1	60.0	0.0	0.0
3. Foods	53.6	46.4	0.0	0.0	0.0	0.0	0.0	0.0
4. Farm inputs	0.6	89.0	5.2	5.2	0.0	0.0	0.0	0.0
5.1. Silk products	3.1	0.0	0.0	0.0	30.2	2.1	0.0	64.6
5.2. Other materials	18.8	65.6	15.6	0.0	0.0	0.0	0.0	0.0
6. General merchants	59.2	27.6	6.2	6.2	0.4	0.0	0.0	0.4
7. Fuel and energy retailers	62.6	11.2	13.2	12.9	0.0	0.0	0.0	0.0
8. Transport repairs and services	16.9	25.3	3.8	0.9	16.8	28.8	0.0	7.5
9. Construction	25.9	74.1	0.0	0.0	0.0	0.0	0.0	0.0
10. Other repairs and services	51.0	48.8	0.2	0.0	0.0	0.0	0.0	0.0
11 Money and financial services	23.0	75.5	1.5	0.0	0.0	0.0	0.0	0.0

Source see Table 2.3

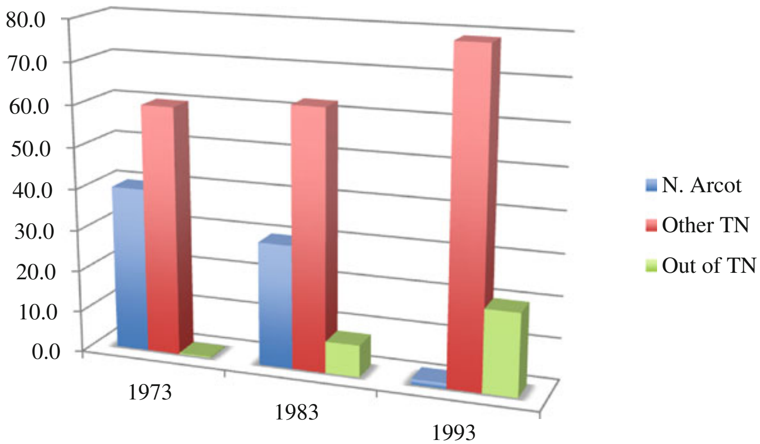

Fig. 2.8 Origin of raw material: silk (respondents—%). *Source* see Table 2.3

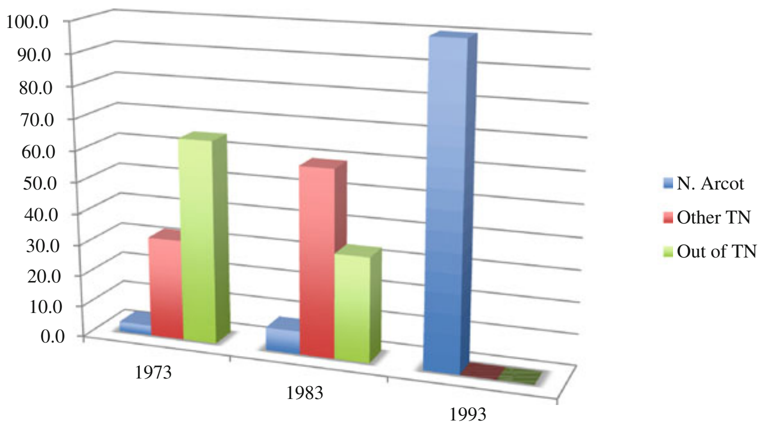

Fig. 2.9 Destination of goods: silk (respondents—%). *Source* see Table 2.3

The final aspect of the local-global integration of Arni's business economy involves the sources of the town's capital and labour. For capital, again, the sample surveys provide unique information summarized in Fig. 2.10, for the geographical origins of starting capital, and Fig. 2.11, for its different sectoral sources. In the 1990s the principal spatial origin of the capital invested in Arni was within the town itself, while only a small fraction came from the surrounding district; and the contribution of the rest of Tamil Nadu and other Indian states was negligible. This situation had resulted from two opposite trends: first the town's growing financial intricacy and second a set of financial linkages with the immediate district which had loosened over time.

The picture is completed by Fig. 2.11 showing the socio-economic sources of capital for the business economy. Despite a continual diversification into the 1990s,

Table 2.9 Types of firm (no. of firms)

Business	Wholesale	Retail	Workshop/small scale mfg	Mill/ factory	Agent	Service
1993						
1. Rice and paddy	2	1		4		
2. Agricultural products	6	6		5	1	1
3. Foods	7	52		3		1
4. Farm inputs	3	6		5		9
5.1. Silk products	3	33				1
5.2. Other materials		10	1	1		6
6. General merchants		3				
7. Fuel and energy retailers		4				14
8. Transport repairs and services	1	6	1	1		17
9. Construction	1					
10. Other repairs and services						9
11 Money and financial services		1				9
1983						
1. Rice and paddy	2			2	1	
2. Agricultural products				2		
3. Foods	5	15	3	1		1
4. Farm inputs	2	2	1			
5.1. Silk products			14	5		
5.2. Other materials	2	4			4	
6. General merchants	1	21	7		1	2
7. Fuel and energy retailers	1	3			1	
8. Transport repairs and services		1			1	3
9. Construction		1				
10. Other repairs and services		1	1			10
11. Money and financial services						2
1973						
1. Rice and paddy	8	3		13	4	6
2. Agricultural products	4					
3. Foods	4	9	1	1		3

(continued)

Table 2.9 (continued)

Business	Wholesale	Retail	Workshop/small scale mfg	Mill/ factory	Agent	Service
4. Farm inputs	1	5		1	1	
5.1. Silk products		3	7	5		5
5.2. Other materials		3				2
6. General merchants	3	10	6			1
7. Fuel and energy retailers	2	4			1	
8. Transport repairs and services		1			2	2
9. Construction	1	3		1	2	
10. Other repairs and services			3			15
11 Money and financial services		1				5

Source see Table 2.3

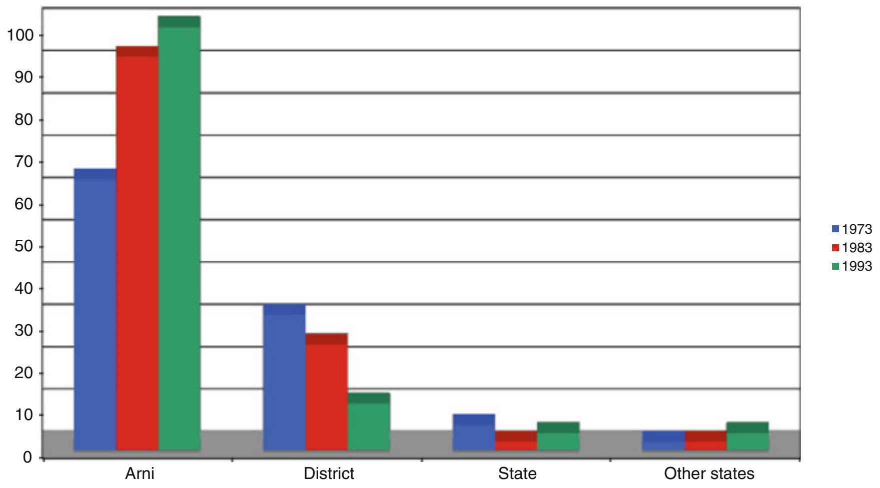

Fig. 2.10 Geographical origins of capital (respondents—%). *Source* see Table 2.3

the main sources of capital were from the investor's family and from own savings from previous businesses. A third of the firms had been inherited. The roles of loans and finance were also significant. As the twentieth century drew towards its close, the role of agricultural profits and rents was increasingly less important.

The origins of some of the town's labour force are described in Table 2.10 and Fig. 2.12 giving the home locations of regular workers. The overall trend was opposite to that of capital. The share of the workforce coming from the town declined in favour of workers commuting from local villages, while the contribution

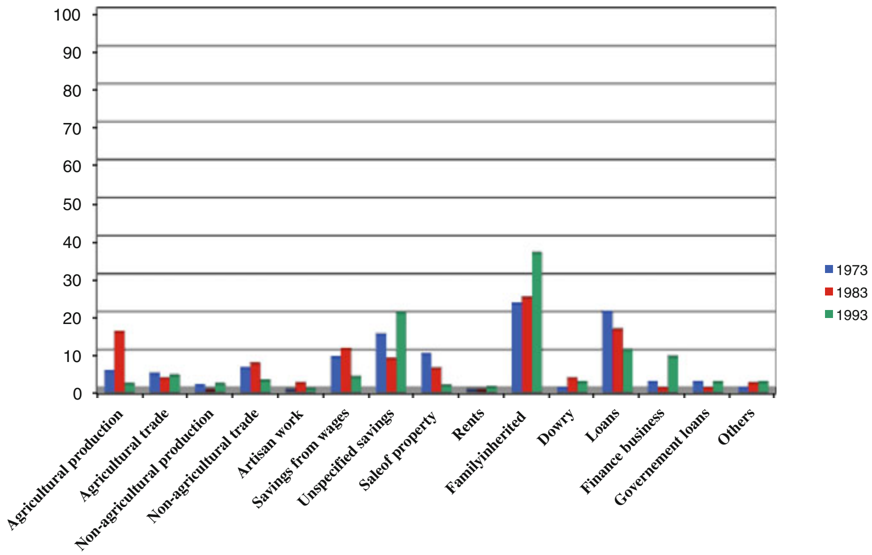

Fig. 2.11 Sources of capital (respondents—%). *Source* see Table 2.3

Table 2.10 Home locations of regular workers (no. of workers)

Business	Town			Villages			Migrant		
	1973	1983	1993	1973	1983	1993	1973	1983	1993
1. Rice and paddy	17	16	3		7	1			
2. Agricultural products	8	3	8		2	9			
3. Foods	4	23	20	3	8	14	1		
4. Farm inputs	2	4	4	2	4	7		1	
5.1. Silk products	7	32	4	2	11	8			2
5.2. Other materials	2	4	7			1	2		
6. General merchants	5	18	4		5				
7. Fuel and energy retailers	2	11	12			4			
8. Transport repairs and services	3	5	7		1	10			
9. Construction	3	20			5				
10. Other repairs and services	6	5		1	3		2		
11. Money and financial services	2		3			2			

Source see Table 2.3

of migrant labourer was negligible. Once more silk products exemplified the trend (see Fig. 2.13), while the major exceptions were in fuel and energy and transport, which drew on tightly knit local urban labour.

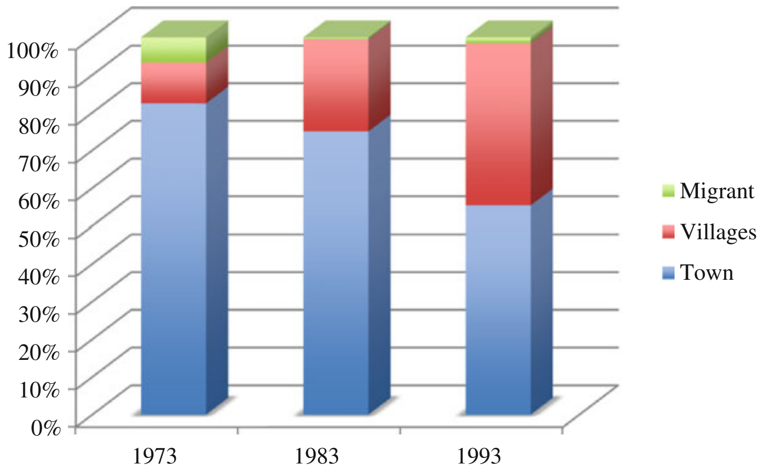

Fig. 2.12 Arni's business economy: home location of regular workers (respondents—%). *Source* see Table 2.3

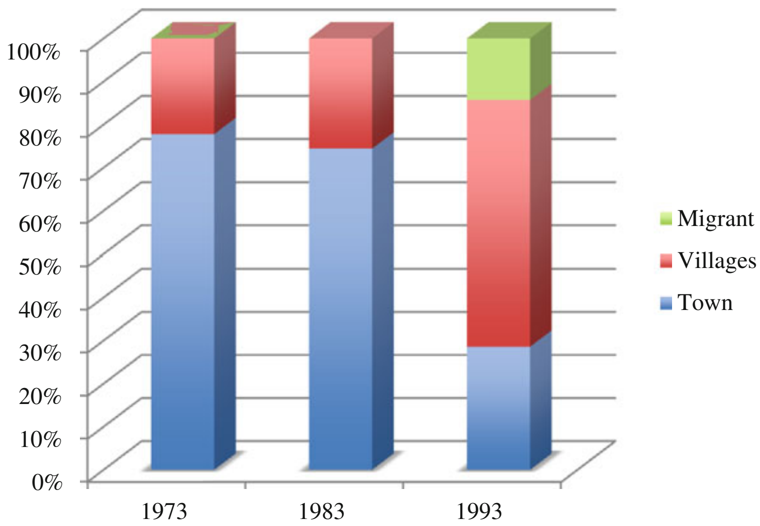

Fig. 2.13 Silk products: home location of regular workers (respondents—%). *Source* see Table 2.3

In sum, the evidence points to Arni's increasing economic integration into national markets. As in the pre-Green Revolution period, so a quarter century later, the town was a marketing town. Yet there had been major changes, the extent of its integration extending to the national market. The field evidence stresses the progressive shift of the source of the workforce from the town to the surplus labour produced by agricultural development in the surrounding villages.

2.5 On Arni's Capitalism in the Twentieth Century

Three main conclusions may be drawn from this Marxist-institutionalist analysis of the long-term class and non-class dynamics of Arni's pattern of capitalist growth after the Green Revolution in the early 1970s.

First, the three surveys suggest that Arni's business economy diversified and persisted as deeply informalized. Second, urban–rural linkages were strengthened. The rural hinterland became a major source of the workforce and of demand for its goods and services. By contrast, financial resources were increasingly mobilized within the town itself. Third, Arni was an open system that showed dynamism in both production and trade. During the final quarter of the twentieth century, the town grew to specialize in silk and then reverted to a diversified wholesale role as silk manufacturing decentralized to the rural hinterland.[16] Silk sari production was still a leading activity in terms of production and employment, but by no means the most important one. The expansion of retail trade was fed by the widespread expansion of incomes in the town and in villages.

By the end of the twentieth century, Arni's economy showed a high degree of diversification, including trade, manufacturing, and service activities. Economic growth led to an increase in the number and variety of businesses, to the substitution of 'traditional' artisan activity with new commodities, for example crafted gold by mechanized gold (see Stanley Chap. 5), hand clothes-washing by dry-cleaning, crushed shells by paint and by entirely new services and commodities such as ICTs, DVDs and finance. In the post-Green Revolution period, the town's economic structure developed continuously and dynamically. Economic diversification in Arni exercised a deep systematic impact on the town's social organization. The analysis of caste dynamics shows that diversification increasingly resulted from the investment behaviour of capitalists in response to market signals *independently* of former caste-cum-occupational segmentation. By the millennium, the role of caste in the economy and society was being transformed.

Informality had been consolidated as a pillar of Arni's capitalism. The latter relies on institutions rooted in history and culture—such as individual and joint family firms, gender relations and caste. In Arni, these institutions ensured that resources were increasingly moved among activities according to market signals with increasingly less social friction.

The economic and spatial integration between Arni and its rural hinterland represents another pillar of local capitalism. There is solid evidence from the North Arcot surveys that the villages themselves have also undergone diversification and differentiation. As Harriss-White et al. (2004, pp. 38–39) show, by the mid-1990s rural economic diversification was extensive, involving both agriculture and non-farm activities. The development of non-farm activities in the villages was one of the major trends of the 1980s, influencing the employment structure and assets distribution. Details of the diversification of agricultural employment for three

[16]See Arivukkarasi here.

villages in North Arcot have been provided by Jayaraj who estimates that in 1993–1994 around 40 % of male workers and 16 % of female workers reported non-farm activities as their primary occupation (2004, pp. 185–186, Tables 2.4 and 2.5). While part of the non-farm workforce was engaged in non-farm activities in the villages, another—increasing—part commuted to Arni as well as other local towns to supply wage labour for the growth of trade and manufacturing activities.

Since the Green Revolution, the town has been progressively integrated with the state, national and international markets, its supplies being mediated through the urban system—in particular Chennai, the capital city of Tamil Nadu.

In relation to the destination of traded goods, only a small percentage of Arni's traded and produced goods had the town as their final destination, it being a wholesale market town, as it had been before the Green Revolution. By the end of the century, however, it was transacting in national space and its products were being exported internationally. Retail outlets of basic consumption goods were diffusing from the town outwards into the villages.[17] The town was at one and the same time locally and globally integrated.

This long-term analysis enables us to review the dynamics of capitalist change, showing how processes as wide-ranging as rural diversification and local-global integration are interlinked in the course of economic growth. While in the 1970s, Arni's growth had been powered by its specialization in silk production—an activity that was independent of growth linkages from local agriculture—in the 1980s and 1990s, the main driver of growth was the process of economic diversification—the search for new and profitable investments—accounting for the rapid increase in the numbers and variety of enterprises. In turn, diversification required the combination of local and global integration: local integration was necessary to ensure the supply of capital and labour, while global integration was a condition for the supply and distribution of the commodities produced and traded.

The Green Revolution was the midwife of this process of growth, diversification and integration that characterized Arni's late twentieth century capitalism, both by liberating the resources—labour and capital—needed for the diversified economy to grow and by creating effective demand for Arni's new product markets.

Acknowledgments The primary data on which this essay is based were collected by Barbara Harriss-White and John Harriss and their assistants. I thank Barbara very much for having given me the access to the data without which the long-term analysis of Arni's change would have been impossible. The data were coded and entered by Kaveri Harriss Qureshi and Elinor Harriss. I thank Kaveri and Eli for a difficult job that they—two teenage girls at the time—performed very seriously and well. I thank Barbara for her long-term guidance and patience in reading many versions of this paper. I also benefited from the discussion with the participants in the Arni Conference in Oxford (2009). In particular, I thank Judith Heyer, who was the discussant of this paper, for her stimulating comments.

[17] Jayaraj (2004) and Harriss-White et al. (2004).

Appendix

See Tables 2.11, 2.12 and 2.13.

Table 2.11 General information

Business	Unit	Average starting capital (Rs.)	Average total costs for raw materials (Rs.)	Average total output (Rs.)	Regular monthly labour	Average start-up loans (Rs.)	Present value of all investments (Rs.)
1993							
1. Rice and paddy	6	543,300	7,707,339	9,554,032	6.2	1,400,000	–
2. Agricultural products	16	27,900	3,934,668	4,006,811	3.0	18,000	10,145,714
3. Foods	50	17,452	509,143	614,955	2.2	92,595	1,466,719
4. Farm inputs	20	183,716	5,957,530	8,694,699	15.9	21,417	449,520
5.1. Silk products	36	19,924	843,154	1,017,968	3.9	17,985	2,243,222
5.2. Other materials	17	41,260	2,054,493	1,619,568	1.5	10,000	5,011,500
6. General merchants	4	68,675	10,879,920	11,157,017	12.3	6,250	1,247,750
7. Fuel and energy retailers	16	18,704	1,115,455	2,223,114	12.0	6,250	1,247,750
8. Transport repairs and services	25	59,202	1,957,351	2,141,828	9.4	88,719	5,818,357
9. Construction	1	15,000	1,013,900	1,500,000	10.0	15,000	5,000,000
10. Other repairs and services	10	18,739	2,672,000	1,258,358	2.0	–	200,000
11. Money and financial services	9	30,088	64,950	237,412	3.8	50,000	15,047,500
1983							
1. Rice and paddy	5	18,000	4,260,735	5,633,328	5.8	–	715,000
2. Agricultural products	2	6,500	31,500	51,655	3.0	–	137,500
3. Foods	20	10,879	479,983	525,324	6.9	3,417	88,526
4. Farm inputs	4	25,875	520,331	553,075	2.7	20,000	84,750
5.1. Silk products	19	2,466	1,159,480	1,646,995	68.2	–	232,157
5.2. Other materials	8	10,612	196,089	221,973	3.0	10,000	173,814
6. General merchants	28	10,115	191,367	220,459	2.2	12,850	95,667

(continued)

Table 2.11 (continued)

Business	Unit	Average starting capital (Rs.)	Average total costs for raw materials (Rs.)	Average total output (Rs.)	Regular monthly labour	Average start-up loans (Rs.)	Present value of all investments (Rs.)
7. Fuel and energy retailers	5	23,400	417,940	463,770	3.3	4,000	144,375
8. Transport repairs and services	5	4,200	28,100	51,445	3.0	–	214,100
9. Construction	1	15,000	412,800	438,000	2.0	–	80,000
10. Other repairs and services	12	17,167	117,048	158,896	3.8	7,250	37,917
11. Money and financial services	2	42,500	134,638	172,600	1.0	100	152,833
1973							
1. Rice and paddy	21	19,253	520,417	488,872	–	35,167	71,286
2. Agricultural products	4	19,125	200,500	187,000	4.0	–	86,500
3. Foods	14	5,150	74,249	84,469	1.9	1,363	10,671
4. Farm inputs	5	13,350	317,585	342,133	3.5	5,025	23,350
5.1. Silk products	17	14,710	471,906	399,108	34.0	42,912	39,447
5.2. Other materials	5	26,052	77,925	76,976	1.0	19,566	28,412
6. General merchants	32	1,585	46,610	54,796	2.2	250	21,654
7. Fuel and energy retailers	5	5,389	77,451	106,200	1.0	250	96,433
8. Transport repairs and services	5	6,000	5,200	8,217	2.3	5,350	15,033
9. Construction	3	350	5,340	10,550	1.0	–	5,600
10. Other repairs and services	16	3,519	32,444	41,396	5.7	3,420	26,932
11. Money and financial services	5	10,833	26,000	34,740	1.3	12,500	40,833

Source Surveys of Arni's business economy (1993, 1983, 1973)

Table 2.12 Account and flows of goods and services (estimated average quantities, Rs. per firm)

Business	Total raw materials costs	Total estimated costs	Labour costs	Total estimated profits/net income	Total gross output
1993					
1. Rice and paddy	7,707,339	898,710	34,120	930,438	9,554,032
2. Agricultural products	3,934,668	42,231	42,799	277,361	4,006,811
3. Foods	509,143	20,352	16,450	77,049	614,955
4. Farm inputs	5,957,530	1,365,017	892,483	1,143,327	8,694,699
5.1. Silk products	843,154	20,185	39,225	148,674	1,017,968
5.2. Other materials	2,054,493	24,044	16,817	146,142	1,619,568
6. General merchants	10,879,920	51,097	45,400	195,733	11,157,017
7. Fuel and energy retailers	1,115,455	939,189	117,323	487,755	2,223,114
8. Transport repairs and services	1,957,351	300,144	129,443	225,155	2,141,828
9. Construction	1,013,900	3,600	82,500	400,000	1,500,000
10. Other repairs and services	2,672,000	141,835	86,100	399,940	1,258,358
11. Money and financial services	64,950	74,284	29,180	109,628	237,412
1983					
1. Rice and paddy	4,260,735	927,883	143,922	277,570	5,633,328
2. Agricultural products	31,500	6,090	7,302	6,725	51,655
3. Foods	479,983	4,007	19,617	25,395	525,324
4. Farm inputs	520,331	4,738	7,581	18,931	553,075
5.1. Silk products	1,159,480	76,656	157,411	283,330	1,646,995
5.2. Other materials	196,089	1,967	6,270	22,707	221,973
6. General merchants	191,367	5,777	5,081	19,473	220,459
7. Fuel and energy retailers	417,940	5,503	7,760	29,750	463,770
8. Transport repairs and services	28,100	11,239	7,917	13,650	51,445
9. Construction	412,800	3,360	450	22,200	438,000

(continued)

Table 2.12 (continued)

Business	Total raw materials costs	Total estimated costs	Labour costs	Total estimated profits/net income	Total gross output
10. Other repairs and services	117,048	11,367	14,785	17,560	158,896
11. Money and financial services	134,638	3,415	19,660	23,667	172,600
1973					
1. Rice and paddy	520,417	20,307	8,793	12,260	488,872
2. Agricultural products	200,500	5,861	7,401	22,835	187,000
3. Foods	74,249	1,371	2,461	8,695	84,469
4. Farm inputs	317,585	1,140	3,360	18,440	342,133
5.1. Silk products	471,906	34,318	48,669	52,530	399,108
5.2. Other materials	77,925	780	5,540	10,928	76,976
6. General merchants	46,610	827	1,645	6,258	54,796
7. Fuel and energy retailers	77,451	18,079	18,376	6,623	106,200
8. Transport repairs and services	5,200	1,115	2,985	2,527	8,217
9. Construction	5,340	480	585	4,125	10,550
10. Other repairs and services	32,444	873	7,839	15,846	41,396
11. Money and financial services	26,000	356	1,896	6,400	34,740

Source see Table 2.11

Table 2.13 Caste in Arni's caste hierarchy

BRAHMIN (IYER, IYENGAR, RAO)	FORWARD CASTES
NAIR	
MARATHI	
NAINAR/JAIN	
VISWAKARMA/ACHARI/AACHARY (sometimes called VISWA BRAHMIN)	
KARUNEEKAR	
MARWARI	
MARATHI	
CHETTIYAR/VEERASAIVA/KANNARA VEERA SAIVA/ CHANNIYA CHETTIAR	
SENAI UDAIYAR	
REDDIYAR	BACKWARD CASTES
GIRAMANI	
BERI CHETTIAR	
SAURASHTRA	
DEVAR	
MUSLIM	
UDAYAR (cobbler)/BACKWARD CASTE	
NAIDU	
AGAMUNDAIYA MUDALIAR (TVAM)	
VAANIYA CHETTIAR	
SENGUNTHA VELLALAR/MUDALIAR/DEVANGA CHETTIAR	
YADAVA/PILLAI	MOST BACKWARD CASTES
DEVADASI	
NAICKER/VANNIYA/GOUNDER	
UPPARAVAR CHETTIAR	
BOYAR (BOER)	
NADAR/NATAR (fishermen and medicines)	
PANDITHAR/NAVITHAR/AMMATAN/BARBER	
DHOBI/VANNAN	
OODDAR (ODDAR)	
PANDARAM/POOJATI	SCHEDULED CASTES AND TRIBES
KOSAVAR/KUZAVAR/VALLUVAR/KANAKKAR/ ODEYAR (potter)	
IRULAR/VETTAI KARAN	
CHRISTIAN (SC)	
SCs ADHIDRAVIDAS/HARIJANS/PARAYANS	
ARUNDATHIYAR/CHAKKLIYAN (cobblers)	

Notes The hierarchy of castes in Arni has been defined by the late P.J. Krishnamurthy. Another attempt to define and rank Arni's castes can be found in Srinivasan here

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Chapter 3
Arni's Workforce: Segmentation Processes, Labour Market Mobility, Self-employment and Caste

M.V. Srinivasan

3.1 Introduction: Labour Market Segmentation

After exploring the urban economy in Chap. 2, and the growth, diversification, informality and growing national integration of its firms, we turn to examine the workforce. Arni's economy gives livelihoods to thousands of people and in a vast range of ways—some as members of individual and family firms, some as secure salaried labour, much as casual labour, some hidden away as homeworkers,[1] others as far-flung subcontractors with labour forces in surrounding villages. While most studies of labour markets examine markets in which work takes the form of labour hiring, in India the commonest form of work in fact is not hired labour. It is self-employment—and Arni's economy is no exception.[2] The extent of freedom in livelihood choices experienced by such a workforce is regarded by many political economists as a key indicator of progress. In this chapter some of this diversity is introduced and related to theories explaining the barriers to opportunity and choice that lead to labour market 'segmentation'.

When a labour market is segmented, workers are not only unfree to move from one kind of employment to another, a process known as labour mobility,[3] but they also form non-competing groups with wide variations in their incomes.

[1]While members of a household labour force working for pay such as domestic maids, drivers are defined as 'hired workers', relatives or family members who work in an enterprise run by the head of a household, share food cooked within the house and who are not paid wages are 'home workers'.
[2]See Harriss-White (2012, 2014).
[3]Labour mobility is defined as 'the movement of labour between jobs, including all changes in the employment or job status of a worker that alter his function or his location in the productive and distributive framework.' See Hunter and Reid (1968), p. 12.

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Segmentation is a common labour market process resulting from a large number of political and socio-economic forces and institutions and subject to a range of theoretical interpretations (Leontaridi 1998). Segmentation reinforces social inequality and results in inefficiencies in the use and allocation of labour resources. It leads to labour market discrimination, unemployment and poverty. From 1990 to 2005, the era of liberalization in India as a whole, Economic Census data shows that it is self-employment, not wage work, that has both driven growth in jobs and become more relatively common as a form of production.[4]

In this chapter, we investigate segmentation in labour markets in Arni. We ask whether social segmentation limits mobility among self-employed workers. To do this we have to determine whether segmentation survives the processes of economic transformation described elsewhere in this book (see Chaps. 3–5 by Basile, Stanley and Harriss-White here). And if so, then what kind of segmentation. Only after that can we consider the social character and economic role of self-employment in Arni's labour processes.

The chapter therefore has four parts. In the first, we need to introduce and distinguish the various theories of labour market segmentation which frame the understanding of the structure and dynamics of the workforce; then we use a labour market perspective to distinguish self-employed workers. We also describe the sources of evidence and the methods used to make sense of it. In part two, we examine the origins of self-employed workers. The third part follows the directions of workers' mobility. Lastly, we discuss the social processes that result in the persistent social segmentation that we find among self-employed workers. The chapter concludes with a summary of the argument.

3.2 Labour Market Mobility and Segmentation: Theories and Evidence

3.2.1 A Short Introduction to Theories of Labour Market Segmentation

Orthodox labour market theories conceive labour (a) as a factor of production and (b) in terms of its allocation among the sectors of the economy (Tarling 1993). They measure the efficiency of labour through the market's ability to adjust both relative factor prices and the relative prices of different kinds of labour, as they work to clear markets. They predict that *ceteris paribus*, labour will move from lower paid to higher paid work. Workers' tendencies to change jobs—or their 'labour turnover'—reveal the allocation of labour between urban and rural sectors, agriculture and industry.[5]

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[4]See Harriss-White (2012).

[5]This is known as the 'Labour Turnover Model' (see Stiglitz 1974).

Other institutional economists argue that wages in the short run are determined not only by supply and demand but also by institutions of social identity, such that labour does not always behave according to the rationale of orthodox theorists. The labour market is not always responsive to changing wage differentials and wage differentials can be disturbed by factors other than labour turnover.[6] In particular Scoville (1991, 1996) has developed a dynamic model in which he argues that the impermeability, permanence and inevitability of the Indian institution of caste create almost insuperable transaction costs[7] that both prevent labour market competition and hamper institutional change.

While labour mobility has been theorized using the parsimonious concepts of the 'market' alone, development economists have also explored the movements of labour through geographical mobility and migration. In their seminal contributions, Lewis (1954) and Ranis and Fei (1961) theorized migration as a process of labour transfer between sectors, indispensable for economic development. The transfer of labour from a 'traditional' sector to the 'modern sector' then becomes the indicator of development (Banerjee 1986). But they failed to look at labour market dynamics and the conditions propelling or obstructing the movement of labourers from the traditional to the modern sectors. Todaro's (1969) model of migration and its variant (Harris and Todaro 1970 henceforth HT) remedied this neglect. They argued that employment and wage patterns in the modern sector drive inter-sectoral and rural–urban migration from traditional to modern sectors. Fields (1975) and Mazumdar (1975) further modified the original model by introducing the 'informal segment' in the modern sector.[8] Urban labour markets then were theorized as having two segments: a high-wage formal segment in which the wage is held above the competitive level and a low-wage informal one they thought was characterized by a high rate of turnover.

The informal sector was at first seen simply as a transitional sector for rural migrants entering the formal sector, which was supposed to be their prime objective. Rural–urban migration was assumed to continue as long as the expected urban real income[9] exceeded the real agricultural income. Since migrants were theorized to have the option of joining the informal sector, the income they earn in this sector was understood to finance their period of job search. To this day, the HT model has been the launching pad for empirical research on physical and economic migration (Banerjee 1986).

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[6]In fact, no less than Adam Smith stated that the laws and regulations concerning the apprenticeship system and the practices of what is called 'unincorporated trade' were a serious impediment to labour mobility either within the same establishment or from one establishment to another similar one. See Smith (1789, p. 122).

[7]Transactions costs are the costs of seeking, cementing and enforcing the contracts that link supply and demand.

[8]Also see Teiolhet-Waldorf and Waldorf (1983).

[9]Expected real income was defined as the product of the formal sector wage and the probability of finding a job in this sector. See Harris and Todaro (1970).

In addressing the omissions of orthodox economic analysis, theories of labour market segmentation constitute an alternative approach to the ideas summarized above. The first theory of labour market segmentation assumed a dual stratification of labour markets—'primary' and 'secondary' sectors—with different attributes.[10] This led Doeringer and Piore (1971) to refer to it as dual labour market (henceforth DLM) theory.

Although both HT and DLM theories recognize the existence of more than one labour market in the urban economies, there are several differences between them. Notably while HT theory focuses on differences in earnings, DLM theories argue that access, the patterns of wage determination, earnings and mobility - all differ between sectors. And while the HT models assume that workers moving from rural to urban areas, take up jobs and wait in the informal sector before entering the formal sector, essentially using the informal sector as a stepping stone, DLM theory argues that mobility from one sector to another may be limited.

One limitation of existing theories of labour segmentation is the way the details of the time spent in each episode of employment have been formalized.[11] There is almost no discussion of the degree of immobility that would be sufficient to justify the presence of 'duality' or 'segmentation processes' at work.[12] This problem led Banerjee (1986) to argue that the mere presence of limited mobility might not be sufficient to justify the segmentation of a labour market. Even so, while examining the movement of migrant workers in three sectors—formal, informal wage and non-wage[13] sectors in Delhi,[14] Banerjee concluded there was limited inter-sectoral mobility if not outright segmentation of migrant workers.[15] The problems identified by Banerjee (1986) and Mazumdar (1989) remain unresolved.

3.2.2 Self-employed Workers in Labour Market Theory

Self-employed workers form the largest part of the workforce in most developing countries. Worldwide, every fifth worker in urban labour markets is informally

[10]The notion of 'dualism' emanated from dual economy development models, from industrial relations literature (Rubery 1981) and from the social class classifications of Marx (Piore 1969, 1983); see also Doeringer and Piore (1971), Bluestone (1971), Vietorisz and Harrison (1973).

[11]See Mazumdar (1989).

[12]Cain (1976) cited in Banerjee (1986), p. 155. Cain also argues that most of the issues raised by the segmentation theories can be addressed by the mainstream approach to labour markets.

[13]In the present study, this group is part of the self-employed workers.

[14]See Banerjee (1986).

[15]According to Banerjee, "the amount of mobility depends, among other things, on the time span over which it is measured, and on the state of the labour market. Mobility should be higher the longer is the time span over which it is measured, and during a period of urban job expansion." See ibid, pp. 154–156.

self-employed (Turnham 1990). In India, however, they are 53 % of the total workforce (NCEUS 2009). The Indian National Sample Survey Organisation (NSSO 2006) defines a person as self-employed when he or she owns, hires or leases-in at least one means of production with which to operate an enterprise. Household members who assist self-employed workers but who are not remunerated for their work are also treated as self-employed. By contrast, a hired worker is defined as a person employed directly or through any agency on payment or regular wage/salary in cash or kind. Apprentices, paid or unpaid, paid household workers, servants and resident workers of the enterprise are treated as hired workers. Self-employed people receive profit as rewards for their labour, their physical capital and their entrepreneurial skills. Wage workers, by contrast, who mostly work for others, get returns only to their labour and their human capital. Self-employed workers—own account enterprise operators and unpaid family workers—are often treated by labour economists and lawyers as subaltern wage workers 'in disguise' and as sharing many attributes of hired workers including low incomes.[16]

To quote the NCEUS (2009, p. 134) on the situation in 2004–05:

> In the informal sector, wage workers constituted 36 per cent and the remaining 64 per cent were self-employed. The agriculture sector accounted for 64 per cent and non-agriculture accounted for 36 per cent of the total informal sector workers. The agricultural sector consists almost entirely of informal workers (98 per cent) who are mainly the self-employed (65 per cent) and casual workers (35 per cent). Even in the non-agriculture sector nearly 72 per cent of the workers are in the informal sector. These workers are mainly the self-employed (63 per cent), followed by casual workers (20 per cent) and regular workers (17 per cent).

Most theories and economic models focus on the supply and demand of wage labour and ignore the self-employed.[17] Empirical research on self-employment tends to deal with reasons for choosing this form of production, factors determining it, conditions when it is 'disguised wage labour', the paradox of its persistence when widely predicted to be a transitory form, and the constraints on the expansion of self-employed firms.[18] Only scanty evidence is available to understand the labour market behaviour of self-employed workers.

Deshpande (1985), in his pioneering study of the social structure of Bombay labour markets classified self-employed workers such as shoe-shiners, rag-pickers and petty vendors (earning their living rather by their manual work than by deploying capital) as a component of the casual labour force. His analysis revealed that institutional factors such as gender, marital status, secondary earning status and family occupation affected casual sector workers in statistically significant ways. Factors associated with human capital theory such as holding a university degree, completion of 11th standard of schooling, being skilled and semi-skilled, being trained for 6 months, belonging to different age groups all contributed significantly to variations

[16]Lerche (2010), Harriss-White (2012, 2014).

[17]Well pointed out by Chen et al. (2006).

[18]For example see Yamada (1996), Dawson et al. (2009), Demirgüc–Kunt et al. (2007) and Harriss-White (2009, 2012, 2014).

in their earnings. Compared to the earnings of casual sector workers, the earnings of hired workers engaged in small firms and factories were less affected by institutions of social identity and human capital.[19] He found that even casual workers did not change their jobs, continuing to be employed in the lowest rung of the resilient socio-economic ladder just as they were in their villages of origin. So Deshpande concluded influentially that the segmentation of urban labour markets *begins in villages*. He identified the *Badli* system[20] as the factor accounting for what inter-sectoral mobility could be observed. It helped a few casual sector workers to graduate to regular hired work status.[21] Banerjee (1986) also examined the self-employment of migrants to Delhi but conceived their work as 'non-wage employment'. Although self-employment was associated with the informal sector and with low incomes, there was no evidence of lower earnings in this 'non-wage employment'. On the contrary, the average monthly earnings of 'non-wage employees' were 47 % higher than those of hired workers in the formal sector. Though no statistical tests were conducted for non-wage workers, their earnings were concluded to be affected by location, the mode of organization of activity and the quantity of capital invested. Banerjee's mobility analysis showed that the presence of 'cohesive networks' which controlled location and zone of operation obstructed entry into non-wage employment—even if skill and capital were not required. Non-wage workers were not reported to wish to move to other sectors. His inflow and outflow tables corroborated this immobility showing that only about 6 % of non-wage workers had moved to other sectors.

By contrast, treating self-employed workers not as workers but as 'entrepreneurs', Douhan and Praag (2009) found that self-employed workers tend to have a higher return to their human capital than do employees. They argued that while wage workers are constrained by assigned tasks and (codified) work descriptions,[22] self-employed enterprise operators are better able to control and deploy their human capital assets.

In most recent research, hired workers and self-employed workers are treated as a single category. For example, when workers are classified into formal and informal, while the formal sector workers are all hired workers, workers in the informal

[19]Marital status and second jobs were exceptions to this and were found to influence workers' earnings significantly.

[20]*Badli* is a form of contract work practised in the organized sector textile industry in Bombay and other cities in which workers were temporary employed by textile mills in place of (or due to the absence of) permanent or probationary workers. Over the course of time, textile cities had a pool of these workers as a reserve workforce. They were given passes by the mill management. They arrived at the mill gate at the shift time and got work depending upon the number of permanent workers who did not turn up. Their monthly wages were much lower than that of their permanent counterparts.

[21]Not all mobility between formal and informal work is constrained. As explained earlier, labour market theory is intertwined with explanations for migration. Migration models predict that workers—both self-employed and hired—wait in the informal sector with the expectation of entry into the formal sector as hired workers. Slum dwellers in Delhi are reported to have moved from low income hired employment to high income regular jobs (Mitra 2006).

[22]Together with labour market rigidities this lowers the correlation between ability and remuneration for wage workers.

category include a 'numerically large and heterogeneous residual category'—that constitutes the self-employed (Bhalla 2008, p. 4). In turn, self-employed workers themselves are not a homogeneous group. Both official agencies and scholars use a range of criteria to disaggregate self-employed work. For example, the National Sample Survey Organisation (NSSO 2006) uses the number of hired workers employed in an enterprise as the basis to distinguish between (i) own account enterprise operators and (ii) employers.[23] The NCEUS (2009) has made things more complicated by combining the NSSO classification into (i) own account enterprise operators and employers and –(ii) unpaid family workers.

Instead of regarding small firms as a 'vestigial form of business enterprise' (Aronson 1991, p. 118), in India we must see them as a starting point. It is then not just institutions of social identity and human capital that structure work, it is also the fault line between wage work and self-employment. A hitherto neglected research question is the extent to which relationships among and between these various forms of production and social institutions affect the segmentation process.[24]

Self-employment is no transitory phenomenon: it is to be found in contemporary production conditions in the USA and has been continuously on the rise in the urban economy during India's engagement with liberalization and globalization. So the case of entry into, and exit from, self-employment and the labour market mobility of self-employed workers in Arni town contributes to our understanding of the question whether or not self-employed and hired labour form a common market.

3.2.3 Data Sources and Methodology

Our evidence is drawn from field research during 1999–2000 on 219 households in Arni. This fieldwork was carried out for 10 months in two stages. In the first, households and enterprises were listed using the 'hamletization' procedures followed by the National Sample Survey Organisation, New Delhi.[25] These listings comprised the

[23]A difference in the estimation of the self-employed in India and in other countries is that in India the unpaid family workers are included as a category of self-employed while in other countries they have a separate category. In some developed countries self employed workers are restricted to own account enterprise operators.

[24]See Baud (1992), Kalpagam (1994), Loop (1996).

[25]Hamletization is a sampling procedure followed by the National Sample Survey Organisation (NSSO) to choose a small number of households representing a variety of workers and enterprises by recognizing 'hamlets'. There are two methods by which 'hamlet formation' is done for purposes of sampling. In the first method, if the field worker finds a number of 'natural hamlets', constituted by groups of households which reflect identifiable social neighbourhoods, one hamlet is chosen among them randomly and then a listing is completed. The limitation of this method is that the hamlets chosen for listing may consist of a considerable proportion of households engaged in one specialized activity. This may lead to biased results. Also though natural hamlets were chosen randomly, it is possible that these hamlets omit some prevalent activities, which may lead to the underestimation of workers in particular economic sectors. This problem is a common one in

sample frame. In the second stage, based on the listing and research objectives, a sample of households and enterprises was surveyed. Appropriate weights were assigned to the sample households to generalize from the sample survey results to the whole town.[26,27]

A massive three-fifths of Arni's workforce are self-employed (see Table 3.1). From scatter diagrams and simple regressions (Srinivasan 2010), we found that a meaningful distinction can be made between hired workers and the majority of self-employed workers which form the focus of this essay.

3.3 The Making of the Self-employed Workforce in Arni: Origins and Composition

The expansion of Arni's silk and rice industries and the rapid diversification of economic activities (Basile, Chap. 2 here) have been accompanied by a growth in self-employment. When demand for Arni-style silk saris expanded, the silk weaving industry recruited to its workforce non-weaving households in the town and its hinterland (Jayaraj and Nagaraj 2006; Arasi, Chap. 8). When these activities expanded, so did businesses from the hinterland villages to and from which both raw materials and finished goods are supplied. Many enterprises in both the town and its hinterland started small and remain small. They started home-based (as in the case of weaving), expanded by multiplication rather than concentration, and persist using the labour of family members.

We saw earlier that Deshpande concluded that the segmentation of urban labour markets originates in villages. In contrast to Arni town, the suburban satellite villages of Irumbedu and Paiyur contain a large section of casual wage labourers, many of whom commute to town. Just a small portion of self-employed firms operate their enterprises using hired workers, whether or not they commute. In the main it is the NCEUS's two classes of self-employed work: own account enterprise

(Footnote 25 continued)
India where people reside in caste- or community-based localities. It is common to find scheduled castes, who are mostly working as agricultural labourers, residing in separate settlements. To overcome this problem, another method is adopted. Suppose a village or town has 1000 households in which the researcher has resources to list 200. The required 200 households will be listed by moving systematically from door to door of every fifth house in each neighbourhood. Even if the natural hamlets which constitute the village consist predominantly of households with one particular activity, the households listed from all the neighbourhoods would together represent the village or town reasonably well because the listing was carried out throughout the entire town or village. Listed households will then be combined to form an 'artificial hamlet' which will represent the whole village or town.

[26]See the doctoral thesis of Srinivasan (2010) for the details of research design and methodology.

[27]In some parts of the discussion, self-employed household heads are considered, while in others the analysis will refer to all who have reported themselves as self-employed workers in Arni. This has been done due to the non-availability of data from self-employed workers other than household heads.

Table 3.1 Distribution of the workforce in Arni and its satellite villages by employment status (in %)

Employment status	% share in the workforce		
	Arni	Irumbedu	Paiyur
1. Self-employed	65.46	53.32	51.78
(i) Unpaid family workers[a]	31.72	25.69	29.51
(ii) Own account enterprise operators[b]	24.71	23.14	16.60
(iii) Establishment owners	9.04	4.50	5.67
(a) Non-directory enterprise operators	7.67	4.50	4.84
(b) Directory enterprise operators	0.59	–	0.83
(c) Organized enterprise operators	0.78	–	–
2. Hired workers	34.54	46.68	48.22
(i) Casual wage labourers	21.04	41.23	40.85
(ii) Regular salaried employees in public sector	6.82	3.11	5.16
(iii) Regular salaried employees in private sector	6.68	2.34	2.21
Total (in %)	100	100.00	100.00
Estimated no. of workers	17,213	2736	2169

Source Author's survey
Notes [a] This includes unpaid family workers of all the four categories of enterprises viz., own account enterprises, non-directory enterprises, directory enterprises and organized enterprises
[b] This includes a few enterprise operators/establishment owners who did not disclose the details of workers they hired

operators and unpaid family workers, which are fundamental to the functioning of Arni's labour markets.[28] Local villages supply wage labour to the town. And it is only on the lowest rungs of the income hierarchy that self-employed workers compete with casual wage labourers and vice versa.

The intensive deployment of unpaid family workers is what Bharadwaj (1999) argued is one of the symptoms of the 'muted development' of labour markets. Possible consequences of the employment of family labour on a large scale are first that the household is the main institution for skill acquisition, which sets constraints on opportunities for acquiring skills; and second the large amount of drudgery for unpaid female family workers who have domestic reproductive work added to their role in production. Kalpagam (1994) argues that work arrangements in which task assignment is done by men—after considering the household work women have to perform—serves to reinforce patriarchal domination.[29] And the employment of

[28]NCEUS (2009). See also Srinivasan (2010), op cit, Chap. 4 in which it is argued that a variety of institutional forces bind enterprise operators and traders in the silk industry to fall back on their family workers rather hiring people for support activities.

[29]The Census of India defines main workers as those workers who had worked for the major part of the reference period (i.e. 6 months or more). See: http://censusindia.gov.in/Metadata/Metada.htm. Kalpagam (1994) defines patriarchy as "a social system where the prevailing ideology of gender relations is such that the man is recognized to be provider and protector of the family". See also Kalpagam (1994), pp. 81–82.

Table 3.2 Distribution of self-employed workers in Arni by gender and employment status

Employment status	Male	Female	Total
(1) Unpaid family workers	34.22	86.09	47.63
(2) Self-employed enterprise operators	65.78	13.91	52.37
(i) Own account enterprise operators	48.51	11.92	39.05
(ii) Non-directory enterprise operators	14.63	1.99	11.36
(iii) Directory enterprise operators	1.14	–	0.84
(iv) Organized enterprise operators	1.50	–	1.12
Total	100.00	100.00	100.00
Estimated no. of self-employed workers	9509 (74.15)	3315 (25.85)	12,824 (100)

Source Author's survey

Notes: *Self employed persons/enterprise operator:* A person who owns, hires, or leases in at least one means of production for operating an enterprise. The members of households who assist the self employed but are not paid any remuneration for their work, are also treated as self employed; *Unpaid family worker:* Self employed persons (family members) who are engaged in their enterprises, working full or part time and do not receive any regular salary or wages in return for the work performed. They do not run the household enterprise on their own but assist household heads living in the same household in running the enterprise; *Directory enterprise operators:* All those self-employed persons who hire 6–9 labourers to run their enterprises; *Non-Directory enterprise operators:* All those self-employed persons who hire 1–5 labourers to run their enterprises; Organized *enterprise operators:* All those self-employed persons who hire more than 9 labourers to run their enterprises. Besides these labourers, the directory, non-directory and organized enterprise operators also employ one or two unpaid family labourers in their enterprises; *Own account enterprise operators:* Self employed persons who operated their enterprises on their own or with one or a few partners and who, during the reference period, by and large, ran their enterprise without any hired worker employed on a 'fairly regular basis'. They could, however, have had unpaid helpers to assist them in the activity of the enterprise

unpaid family workers in an industry may depress wage rates prevailing there. And suppose hired workers demand a rise in wages, employers may tend to employ their family members rather than conceding the rise.

In Arni, about a quarter of the self-employed are women (Table 3.2). There is a clear distinction in their asset status. While nearly half the self-employed men in Arni operate own account enterprises, only 12 % of female self-employed do this—with very few running labour-hiring establishments.[30] All the same, female unpaid family workers comprise more than 85 % of all female self-employed workers.[31]

[30]The NSSO (2001) defines establishments as those enterprises, which employ at least one hired worker on a 'fairly regular basis'. The term 'fairly regular basis' means that the major part of the period of operation(s) of the enterprise during the last 365 days.

[31]It is also quite common in Arni for male members to work as regular salaried employees in public sector establishments but also to manage private enterprises, maintaining the registration and accounts in the female family members' names as *benami*—denoting a transaction or property right made out in a false name.

There has long been open discrimination against women setting up firms[32] and one wholesaler of groceries reported that certain national level corporate manufacturers discourage women, whatever their capabilities, from taking up 'dealerships'—which facilitate the procurement of manufactured goods on wholesale and their onward supply to retail enterprises located in the town or its hinterland. So this discrimination appears to have been informally formalized too.

3.3.1 The Origin of Self-employed Workers in Terms of the Employment Status of the Household Head

The vast majority of self-employed workers belong to households where the household head is self-employed (Table 3.3). Households headed by hired workers account for less than 10 % of Arni's self-employed. It is likely that wage labour households do not have the resources for the initial productive assets required to enter petty production and trade. Women in wage labour households very rarely enter self-employment—only 3 % of the self-employed (all in own account enterprises). In contrast, female self-employed workers from self-employed households account for 23 % of all the self-employed workers in Arni: but 95 % of the total consists of unpaid family workers.

Nearly three-quarters of self-employed workers are from own account enterprise households. The other quarter consists of 'non-directory' enterprise operator households (with firms employing under 5 wage workers) (as in Table 3.4). It is not only small enterprises which operate by employing unpaid family workers; enterprises of all size categories do this. More than two-fifths of the members of the various types of self-employed households are unpaid family workers.

Most self-employed people other than those who are household heads work in, or operate, enterprises similar to those run by their household heads.

Of the 10 % of the self-employed who come from hired worker households, most identify with two social extremes—the commonest being from casual wage labour households while the second, rare form of economic origin is from households headed by private sector regular salaried employees (Table 3.5). The latter's incomes are on average five times higher.[33]

The economic and social conditions for self-employment appear to be self-perpetuating.

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[32]Harriss (1990).

[33]A typical casual wage labourer in Arni earned Rs. 1176 per month, her public sector regular salaried employee earned Rs. 7745 per month. The earnings of the private sector regular salaried employee was only just above that of casual wage labourer at Rs. 1433 per month. See Srinivasan (2010).

Table 3.3 Distribution of self-employed workers in Arni by the employment status of household heads

Employment status	Household head is self-employed			Household head is hired worker			Household head is either hired worker or self-employed
	Male	Female	Total	Male	Female	Total	
1. Unpaid family workers	37.39	95.20	51.97	–	15.57	4.99	47.64
2. Establishment Owners	62.61	4.60	48.03	–	84.43	95.01	52.36
(i) Own Account Enterprise operators	43.76	2.55	33.36	100.00	84.43	95.01	39.05
(ii) Non-directory Enterprise operators	15.98	2.25	12.52	–	–	–	11.36
(iii) Directory Enterprise operators	1.24	–	0.93	–	–	–	0.84
(iv) Organized Enterprise operators	1.63	–	1.22	–	–	–	1.11
Total	100	100	100	100	100	100	100
Estimated no. of self-employed workers	8703 (67.88)	2936 (22.90)	11,639 (90.77)	804 (6.27)	379 (2.96)	1183 (9.23)	12,822 (100.00)

Source Author's survey
Note Figures in brackets are percentage of workers (male and female) to total workers in Arni

Table 3.4 Distribution of self-employed workers in which household head is self employed in Arni

Employment status	Household heads are				Total
	Own account enterprise operators	Non-directory enterprise operators	Directory enterprise operators	Organized enterprise operators	
1. Unpaid family workers	53.19	49.66	44.04	45.42	51.98
2. Establishment Owners	46.81	50.34	55.96	54.58	48.02
(i) Own account enterprise operators	46.81	0.68	–	–	33.36
(ii) Non-directory enterprise operators	–	49.66	–	–	12.51
(iii) Directory enterprise operators	–	–	55.96	–	0.93
(iv) Organized enterprise operators	–	–	–	54.58	1.22
Total	100.00	100.00	100.00	100.00	100.00
Estimated no. of self-employed workers	8251 (70.90)	2932 (25.19)	193 (1.66)	262 (2.25)	11,638 (100)

Source Author's survey
Note Figures in brackets denote row percentage to total self-employed workers

Table 3.5 Distribution of self-employed workers in which household head is a hired worker in Arni

Employment status	Household heads are			Total
	Casual wage labourers	Regular salaried employees in		
		Public sector	Private sector	
Unpaid family workers	3.09	–	8.55	4.98
Own account enterprise operators	96.91	100.00	91.45	95.02
Total	100.00	100.00	100.00	100.00
Estimated no. of self-employed workers	550 (46.45)	143 (12.08)	491 (41.47)	1184 (100)

Source Author's survey
Note Figures in brackets denote row percentage to total self-employed workers

3.3.2 *The Origins of Self-employed Workers in Terms of Ancestral/Caste Occupation*

All household heads were asked whether their present occupation had any links with their 'ancestral' caste-based occupation—a concept that they well understood. Their responses are given in Table 3.6.

Given that about half responded positively to this question, much of Arni's self-employment appears to be supply-driven. Yet in contrast to the smallest types of enterprise, a higher proportion of the owners of the larger sized 'directory' and 'organized' enterprises still work in their family's caste occupations. Despite evidence of the dissolving effects of caste on occupational sector in 1993–94 (Basile Chap. 3) we cannot but conclude that in this town at the start of the twenty-first century, caste-based occupation is still a profound and persistent stratifier of the local business economy. The evidence of dissolving effects is not only marginal, it should also be considered as emergent phenomena resulting from politico-social developments in the state during the last three decades.[34]

[34]Three important aspects which may have led to this situation are (i) the caste mobilization of *Vanniyars* through their Vanniyar Sangam which later become the Pattali Makkal Katchi and its successful struggle to gain reservations for jobs and access to higher education institutions under a new official rubric of Most Backward Castes (MBCs); (ii) the consolidation in Tamil Nadu of Scheduled Castes particularly *Adi Dravidars* through the Vidudhalai Chiruthaigal Party; and (iii) welfare schemes initiated in the 1980s by the then Chief Minister M.G. Ramachandran, when leader of the All India Anna Dravida Munnetra Kazhagam (AIADMK) which brought a large group of children into schooling.

Table 3.6 Distribution of response to the question to self-employed heads of households in Arni whether present employment is linked to ancestral occupation

Employment status	Yes	No	Partly	Total	Estimated no. of self-employed workers
Own account enterprise operators	47.29	49.85	2.85	100.00	3787
Non-directory enterprise operators	53.64	46.36	–	100.00	1456
Directory enterprise operators	80.00	20.00	–	100.00	95
Owners of organized enterprises	70.63	29.37	–	100.00	143
Total	50.16	47.87	1.97	100.00	5481

Source Author's survey

3.4 The Labour Market Mobility of Self-employed Workers

The empirical literature we reviewed at the outset showed how economic relations in segmented labour markets shaped by social institutions restrict workers from moving from one occupation to another, even given similar skills and capabilities. However, segmentation theories do not address the behaviour of self-employed workers conventionally supposed to be more economically mobile.[35] Here, labour market immobility is the first criterion by which we identify labour market segmentation—in which 'workers with equal capabilities receive unequal treatment.'[36] In this section, the results of occupational inflow–outflow tables[37] are used to trace the economic mobility of self-employed household heads over the course of their working lives.

The field survey showed that 70 % of self-employed household heads in Arni have changed employment status during their working lives. This change takes two common forms, both related to the process of skill acquisition at the outset. First, some moved from hired work to self-employment. For example, some change jobs after completing apprenticeships, while other *gumasthas*[38] hired by employers move to establish their own enterprises after having acquired commercial experience.[39] Those who work in silk handloom enterprises as weaving assistants become full-time weavers and set up looms. Less commonly, self-employed operators also

[35]Discussed in Corbridge et al. (2013).

[36]Another criterion is evidence of earnings gaps, other things being equal—see Srinivasan (2010) for details which are summarized later.

[37]Due to paucity of space, all the tables are not reported. See for details Srinivasan (2010), pp. 165, 167, 168 and 171.

[38]*Gumastha* is a common term used in Arni by employers to denote regular salaried assistants who carry out a variety of skilled tasks including accounting.

[39]In this subsection, the term 'jobs' has been used to denote all activities in both self-employment and hired work.

move from one occupation or enterprise to another, expecting to increase their returns.

But studies in other developing countries confirm that the survival of an enterprise after its first year is a major challenge for most entrepreneurs. The vagaries of specific industries or labour markets may also force workers to move from self-employment to hired work and vice versa (Mengistae 2006). And so it is that in Arni, small enterprise operators change jobs or firms more frequently than those running larger enterprises. It was also reported in Arni that while the vast majority of small enterprise owners had changed jobs at least once during their lifetimes, less than half the owners of enterprises employing over 5 workers have done so. We conclude that despite the social constraints of hereditary occupation and economic status, most of Arni's self-employed have voluntarily or necessarily had to create new small firms during their working lifetimes.

3.4.1 The Direction of Mobility

Inflow and outflow mobility tables are commonly used by ethnographers and economists alike to understand how workers move from one occupation to another.[40] More than two out of five small own account enterprise operators in Arni started their working lives either as casual wage labourers or as private sector regular salaried employees. In the case of those operating larger enterprises,[41] about one in four comes from such backgrounds. Working as an unpaid family labourer appeared to be an essential 'apprenticeship' for most self-employment activities in the town.

While the vast majority of own account enterprise owners had started out as casual or regular wage labour (86 and 70 %, respectively) a few moved from public salaried employment—tending to set up larger firms. While all kinds of household heads could and did establish own account enterprises in Arni, there are constraints to expansion.

3.4.2 Occupational Mobility—Between Industry Groups

Despite this flux in terms of *positioning* in the labour process, mobility within and between occupational sectors and industry groups was quite sticky for self-employed household heads. Sixty-one percent of sales workers, nearly 80 % of service workers,

[40]See Kumar et al. (2002a, b), Harriss et al. (1990), Mitra (2006). In these mobility tables, the details of worker status in their first jobs are cross-tabulated against their status in current jobs. For purposes of comparison, the absolute numbers arrived in the cross tabulation are converted into percentages.

[41]Directory and non-directory enterprise operators have over and under 6 employees respectively.

94 % of farmers and 85 % of production-related workers did not change sector. About 40 % of those engaged in administrative occupations began their working lives in the same occupation. Almost all the professionals and technical workers running enterprises in Arni initially worked as wage labour in the same field.

Compared to hired worker household heads, occupational mobility among self-employed household heads is extremely restricted. The notable exception is 'trade'—into which considerable numbers of self-employed household heads moved from other occupations. Trade has lower social and economic entry barriers than other sectors. We see trade as an outlet of upward mobility—a situation in which hired workers become owners or in which small enterprise operators become owners employing hired workers. For the most part, those working in three occupations—services, wholesale–retail and manufacturing—were most occupationally rigid. About 85 % of sales workers, 81 % of workers in the production sector and all service workers did not change their occupations.

To sum up, trade is the exception to the general trend of restricted occupational mobility.

3.4.3 Inter-industry Mobility

Classifying the economy in terms of industrial categories only confirms this trend of restricted occupational mobility for the self-employed. Self-employed household heads in silk weaving and trading sectors reported limited mobility. In other parts of the urban economy—rice mills, other manufacturing and services—the opportunity for mobility was greater. Since running small firms in the rice processing sector—involving wholesale commission agents and suppliers (*mandi*[42] operators), bran merchants, large rice mill operators, low-capacity huller millers (and their independent but attached small paddy rice *thotti* businesses[43]) requires relatively large sums of working capital, no small enterprise operator is able to survive for long periods in the industry without turning to trade.

Arni's array of industries is a crucible for opposing processes of rigidity and flexibility in economic status. But on balance rigidity prevails.

3.4.3.1 Caste, Industry and Mobility

Arni is a caste-conscious urban society dominated by a few 'backward castes' which are engaged in artisanal activities. More than 80 % of currently self-

[42]The *mandi* is a market site for a particular commodity, commonly food grains or groceries where producers sell their produce directly. Firms in *mandis* also act as commission agents between sellers (producers) and buyers.

[43]A *thotti karar* is a small rice manufacturer who hires-in rice mill machinery and the mill premises.

employed household heads belong to artisanal castes. Workers from weaving castes in Arni also start in self-employment: most in industries that are historically associated with their caste.[44] However, against this current of social continuity flows an opposite back-swash. Some backward caste self-employed household heads are able to enter other sectors and industries. For example, one-third of the agricultural labouring *Vanniyar caste* as well as people from artisanal castes started small firms in agricultural processing, in quarrying, or in other manufacturing sectors. Only in the case of rice mills do forward business castes account for a larger share than their share in the total population. Specific castes dominate two industries—rice milling and silk weaving—strongly suggesting the existence of caste-based barriers to entry and segmentation processes. No one from the other six major lower caste groups began their working lives in—or is currently engaged in—rice milling. No self-employed household head from these lower caste groups began their working lives in silk weaving either.

Trade is a unique sector in the social structure of Arni's economy, accounting for the largest proportion of firms. At the time of the survey, those running trading firms accounted for 36 % of all self-employed household heads. People from almost all caste groups—except for the service castes—have become traders. Trade is the only sector, it seems, in which no single caste is numerically dominant. All the same, while a considerable proportion of household heads belonging to the *Agamudayars*, *Vanniyars* and Muslims started up in trade, Scheduled Caste *Adi dravidars* had much more restricted trading opportunities. At the time of our survey, these four caste groups alone accounted for 81 % of all household heads in trade in Arni. Even so, the two segmentation processes—the maintenance of earnings differentials and the erection of mobility barriers—are enforced even in trade.

The monthly incomes of enterprise operators in Arni town have elsewhere been related to employment status, literacy levels, industry group and labour market experience[45] and a series of considerable earnings gaps across self-employed groups in Arni has been revealed. Segmentation forces operate in different ways for different worker categories[46] with low income traps for some and wide earnings gaps for others. Even though schooling plays an important role in determining income in general, its influence on the earnings of employers is at best moderate.

So processes of institutional defence and persistence coexist with institutional dynamism and flux in Arni. Some areas of Arni's economy are dominated by a single caste, while certain castes are entirely absent from others. Segmentation processes are most strongly institutionalized in two industries—weaving and trade even though these industries have raised their share of self-employment over the

[44]Sixty-five percent of those who entered silk weaving belong to weaving castes, a similar proportion in rice milling enterprises are *Agamudayars,* and 54 % of those who entered other services sectors hail from service castes.

[45]See Srinivasan (2010) which uses scatter diagrams, cross-tabulation and coefficients of variation.

[46]For instance, coefficients of variation are very low among illiterate and graduate workers and high among primary level literate workers.

years. We now turn to interrogate evidence for the reasons for low mobility in these sectors and the extent to which segmentation forces are responsible for rigidities in mobility.

3.5 Segmentation Processes Among Self-employed Workers—Field-Evidence from Arni

The experience of backward castes in trade activities can be used to explore how enterprises use the local social structure to enforce segmentation in Arni's labour market.

3.5.1 Caste and Self-employment in Trading

For the most part people enter trade as self-employed workers at the time of entry to work and the majority does not either leave trade or even leave their line of occupation in the commercial economy. Mobility barriers appear to block entry to and exit from trade.

3.5.1.1 Caste-Based Participation in Trade

From sample evidence we find 35 castes in Arni (31 being Hindu castes, two being caste groups among Muslims[47] and two Christian castes[48]). Yet no member of five among Arni's castes (*Vettai karar*, *Karuneegar*, *Reddiyar*, *Vellalar and Boyer*) is self-employed. All are employed as hired labour. Furthermore no member of 13 other castes (*Nattu kottai chettiyar*, *Ambattan, Beri chettiyar*, *Vaaniya chettiyar*, *Kannada cheniya chettiyar*, *Muslim (ashraf), Balija naidu, Arunthathiyar, Sengunthar, Vannar, Jangamar*, *Nattu naiker* and *Yadavars*) is currently engaged in trade. This means that over and above the gender barriers debarring half the population from ownership, members of more than half the castes in Arni—and about 23 % of the population—do not operate commercial firms.

The vast majority of the rest of the population, however, can and does own trading firms. However, this appearance of comparative caste cosmopolitanism is

[47]They are *Labbai* and *Ashraf*. In Tamil Nadu, the members of the first one are classified under Backward Classes and the second one under Other Castes.

[48]They are members of Scheduled Castes who were converted to Christianity and those from other castes (*Velalars*, *Naadars*, *Brahmins* etc.). It was reported during the field survey that these two groups maintain separate churches and there is no inter-marriage between these Christian groups. Both of them are classified under Backward Classes.

deceptive because trade is dominated by a few castes and because mobility for other caste groups is restricted.

Throughout Indian history, trade has been dominated by a few business castes—notably *Baniyas* and *Marwaris* who radiated out from the North to establish commercial firms in regions where business castes were missing.[49] In South India their equivalent are *Chettiars*—of which in Arni there are just four subcastes (*Beri chettiyar*, *Nattu kottai chettiyar*, *Vellan chettiyar* and *Vaaniya chettiyar*). Three are not in trade. The fourth (*Vaaniya Chettiyar*) accounts for only 2 % of Arni's population and its self-employed trading enterprises.

Yet four castes which are not by tradition trading castes (*Agamudayars,* 25.2 % of all traders; *Labbai Muslims,* 19.3 %; *Adi dravidars*, 12.6 %; *Vanniyars,* 23.8 %) together account for 80 % of all commercial firms in Arni (Table 3.7).

These four caste groups come from two distinctly different kinds of social background. The first two have been self-employed as long as can be remembered, the *Agamudayars* as relatively well off peasants and the Muslim *Labbais* as small-scale non-agricultural businessmen. Two characteristics of this set are worth noting—the long-standing nature of their assets-base and their present economic mobility (horizontally across industries and vertically into the professional class). They are in a position to exercise choice about what kind of work they do.

The second group, the *Adi dravidars* and the *Vanniyars,* are both low-ranked castes which have been agricultural labourers. In Arni, they have succeeded in their efforts to become upwardly mobile joining the ranks of the self-employed. Both, however, remain heavily concentrated in the own account category of the smallest firms. In Table 3.7 enterprise sizes are classified on the basis of employment.[50] While firms in the organized sector hire 10 or more workers, own account enterprises do not employ hired workers on a regular basis at all.

A further nine castes (*Asari, Bagavathar, Chettiyar, Devar, Maratiyar, Naidu, Naiker, Vellan chettiyar* and Christians converted from *Adi dravidars* and officially classified as "others") have widely varying social status, with only a few families from each caste living and working in Arni. Distinctively, these castes tend to dominate organized commerce, accounting for 57 % of Arni's formally registered, larger commercial firms. Most of them operate their enterprises from inherited premises and caste is less of a barrier to this commercial elite. Social barriers are also enacted through control over the physical movement of goods. Raw silk or wholesale vegetable merchants from Bangalore or even Pune, for example are linked with Arni through caste or religious networks of businesses and inherited property.

We conclude that despite superficial signs to the contrary, the most flexible economic sector, commerce, remains dominated by an exclusive subset of castes.

[49] A very small number of Marwari firms can be found in Arni's pawnbroking cluster.

[50] The details of the enterprise categories are given in the notes for Table 3.2.

Table 3.7 Distribution of the four castes accounting for the majority of traders in Arni

Caste	Enterprise status				Total
	Own account enterprise operators[a]	Non-directory enterprise operators[a]	Directory enterprise operators[a]	Organized enterprise operators[a]	
Agamudaya Mudaliar	52.5 (17.53)	47.5 (53.50)	–	–	100.0 (25.25)
Muslim (*Labbai*)	75.4 (19.23)	16.0 (13.82)	8.5 (100)	–	100.0 (19.3)
Adi Dravidars	100.0 (16.63)	–	–	–	100.0 (12.59)
Vanniyars	89.5 (28.06)	10.0 (10.59)	–	0.5 (42.86)	100.0 (23.72)
Other castes[b]	73.32 (18.54)	25.84 (22.08)	–	0.84 (57.14)	100.00 (19.16)
Estimated no. of traders	1882 (100)	557 (100)	41 (100)	7 (100)	2487 (100)

Source Author's survey
Notes [a] includes unpaid family workers of respective enterprises; Figures in brackets of all but the last row denote column percentages
[b] Other castes include, *Asari, Bagavathar, Chettiyar, Devar, Maratiyar, Naidu, Naiker*, converted Christians from Scheduled Castes and *Vellan chettiyar*

3.5.1.2 The Importance of Spatial Location and Premises

Site has been found to be a crucial shaper of marketplace returns to petty trade.[51] Traders in Arni carefully evaluate spatial location when setting up their firms. Their sales and income largely depend upon this decision, arguably more so than on price competition. In Arni, access to premises and to site is also used as an important economic and social screening instrument to enforce segmentation (Table 3.8).[52] Since more than 80 % of trading firms are operated from privately rented premises (a small minority renting sites owned by local government or temples), the caste relations of the rent-payer and the landlord play a crucial role in the segmentation processes operating in the commercial economy.

Agamudayars and those who belong to "other" castes tend to own the premises of their enterprises. They, along with upwardly mobile *Labbai* Muslims and *Adi dravidars* also dominate the tenancies of local government premises, while *Vanniyars* have so far been excluded. The upwardly mobile nature of these caste groups is further confirmed by their growing ownership of commercial property. By contrast *Vanniyars* are to be found in roadside and footpath shops. *Vanniyars*, while not (ex) untouchables have low caste status. Asset-poor and landless in this region, *Vanniyars* had not started to enter the urban business space in the early 1980s when Arni Municipal Corporation established shopping complexes. Castes capturing property by the roadside and in the new commercial spaces (notably *Labbai* muslims and *Agamudayars*) prevented other castes from establishing firms. *Adi*

[51]Sanghera and Harriss-White (1995).

[52]This is true not only in trading but also in other enterprises.

Table 3.8 Distribution of trading enterprises by the ownership of land and buildings of four major castes in Arni

Caste	Ownership of enterprise premises (both land and buildings)						All traders
	Owned (purchased by self)	Owned (inherited)	Rented from government properties	Rented from private individuals	Located on roadside/ municipality area	Land and buildings not required	
Agamudayar	100 (9.11)	34.82 (7.89)	32.91 (15.59)	38.48 (59.51)	6.28 (7.89)	–	25.20 (100)
Muslim (*Labbai*)	–	–	17.52 (11.23)	25.26 (52.88)	6.28 (10.68)	50.00 (25.21)	18.62 (100)
Adi dravidar	–	–	32.91 (33.33)	10.08 (33.33)	12.40 (33.33)	–	11.79 (100)
Vanniyar	–	–	–	15.18 (24.95)	56.20 (75.05)	–	23.72 (100)
Other castes	–	65.18 (18.02)	16.67 (9.63)	10.99 (20.74)	18.84 (28.89)	50.00 (22.72)	20.66 (100)
Total	100 (2.29)	100 (5.66)	100 (11.96)	100 (39.00)	100 (31.65)	100 (9.44)	100 (100)
Estimated no. of trading enterprises	45	111	234	763	620	185	1957
Mean monthly income (in Rs.)	35,683	6646	16,922	13,384	4026	2287	9926
Coefficient of Variation	–	56.16	136.07	115.95	55.28	15.92	143.26

Source Author's survey

dravidars and *Vanniyars* have therefore been in hot competition subsequently for urban space. Well known for their caste conflicts, the tension among the lowest castes created a climate of fear among other castes in business—including *Agamudayars* and Muslims.

Our exploration of labour market segmentation through sites and premises therefore starts with an account of how two groups ((i) *Adi dravidars* and *Vanniyars* and (ii) *Agamudayars* and *Labbai* Muslims) prevent entry.

3.5.1.3 Adi Dravidars and Vanniyars

A large number of *Adi dravidar* self-employed workers are fruit and vegetable retailers. Purchasers are protected from caste pollution by the skins of these foodstuffs. Fruit and vegetable sellers won permission to set up retail shops on footpaths and roadsides near Arni's vegetable market and in bus stand shopping complexes by bribing the officials of Arni Municipality through a caste-based political party—the Republican Party of India—which had initially mobilized them.[53] One shop owner in the Municipal Shopping Complex explained that when he tried to force a banana vendor who had set up shop on the floor in front of his shop to leave, the banana vendor threatened he would complain to the police that the shop owner had abused him in terms punishable under the Scheduled Castes and Scheduled Tribes Prevention of Atrocities Act 1989. *Adi dravida*r fruit vendors were also reported to use physical intimidation to threaten such shop owners. In effect *Adi dravidars* have succeeded in gaining access to self-employment in trade and are now able to use the measures provided by the state to protect themselves. After entry into trade, they use the same tactics to exclude members of other castes.[54]

Fruit retail traders who are *Adi dravidars* have established retail shops on roadsides or footpaths adjacent to the Municipal shopping complexes. Not only are these retail shops illegal, they actively obstruct shops run by higher caste traders legally renting their premises. The Municipality and the *Adi dravidars* have reached an informal status quo in which the latter pay the former Rs. 5–15 per day and continue to run their shops. Similar 'weapons of the not-so-weak' have been developed by *Vanniyar* fruit traders. Their mobilization has brought them into direct confrontation with the *Adi dravidars*, not merely regarding access to roadsides and footpaths but in open competition to gain control of the fruit trade. Attempts by *Adi dravida* traders to repel others from the banana retail trade led to caste clashes. A liquor shop owned by a member of the *Vanniyar* caste was set on

[53]See also Harriss-White (2005).

[54]It was reported that one *Adi dravida gumastha* who worked with a banana wholesaler (which is normally not allowed by the caste Hindus and only to a certain extent by *Labbai* Muslims in recent times) has become a commission agent in bananas. Muslims set up commission agencies to counter the competition from Hindu backward caste wholesalers. This also has encouraged *Adi dravidars* to expand and sustain their fruit retailing businesses.

fire in 1996 and a wholesale shop near Arni's new bus stand from where *Adi dravidars* procure supplies of bananas was also the target of arson. In the twenty-first century a tense truce prevails.

3.5.1.4 Agamudayars and Labbai Muslims

Agamudayars and *Labbai* Muslims have higher status than *Adi dravidars* and *Vanniyars*. They both spontaneously reported using their caste and community networks to procure and sell goods. However, while 17 % of *Agamudayar* traders own their premises, all of the Muslim *Labbais* rent-in. Since shops in the central business district can by custom be rented out to all but Scheduled Castes (*Adi dravidars* and *Arunthathiyars*), economically advanced caste groups (such as *agamudayars*) can establish and consolidate their physical sites.

The site and its property relations also differentiate the returns to trade. The lowest mean monthly income (in 2000, approximately Rs. 2,300 with little variation)[55] is reported by itinerant traders who do not require premises (e.g.—*a kolam* (*rangoli*—ritual powder) seller, or a biscuit supplier on commission sales or a mobile fruit seller). Roadside or footpath retail vendors of vegetables and fruits, meat shops and other varieties of food and non-food materials earn the second lowest mean income (approximately Rs. 4,000).[56] A third large group of traders includes those who operate from landlords' premises. Their mean monthly income was approximately Rs. 13,400 (with greater variation).[57] Those operating from their own sites (such as a provisions wholesaler, furniture shop or a medical shop) and those on government sites (such as sweet shops and vegetable wholesalers) earn the highest incomes.

3.5.1.5 Pagudi and Advances

Land and buildings located on main roads and streets fetch higher rents than elsewhere in the town. Property owners in these localities fix at the highest bearable level the advance deposit (*pagudi*[58]) required to establish rented-in shops. Substantial advance deposits and monthly rents prevent small traders from renting these shops.

Traders also rent-in shops in two business complexes—miniature 'pre-malls' owned by Arni Municipality—plus a vegetable market and sites owned by two Hindu temples. Such sites account for about 12 % of all trading enterprises in the

[55]The coefficient of variation is 16.

[56]The coefficient of variation is 55.3.

[57]The coefficient of variation is 116.

[58]*Pagudi* is a one-time advance given for renting the buildings in temple or municipal complexes. It is generally given to the intermediary who has originally rented the premises. The advance is the amount fixed by owner of the building.

town (Table 3.8). Although Arni Municipality and temple administrations do not demand large advances, a few large and medium-sized traders have evolved a *pagudi* system by coercing the officials of Arni Municipality and exploiting legal loopholes. The *pagudi* system effectively prevents small traders from leasing-in such properties. On the one hand, large advances and rents act as deterrents and leave small traders with no options but to confine their shops to the roadsides. On the other hand, those who hire Municipal premises prevent others from entering trade, avoid paying market rents, and reap higher returns.

3.5.1.6 The Purchase and Sale of Goods on Credit

Another distinguishing feature of Arni's traders (particularly small or own account enterprise operators) is the ubiquity of credit transactions. While local wholesalers procure vegetables from wholesalers outside Arni on credit, making fortnightly payments, retailers procure goods from wholesalers on credit on a daily basis and are expected to make payments in the evening of the same day. If they sell on credit to consumers, they then need greater working capital than if the repayment system were to be symmetrical.[59] In this way, through the purchase and sale of goods on credit, large and medium traders earn relatively higher incomes from relatively less working capital and at the same time prevent others from entering the industry. This contributes further to the economic segmentation of self-employed workers in Arni.

Small, commodity-specific groups of wholesalers also behave in a monopsonistic way as they fix commodity prices. They use their working capital in many ways: giving advances to suppliers of goods (in the case of vegetables: to farmers and small town commission agents), building networks, sometimes using caste and religious identities, to secure trustworthiness in suppliers and to tie supplies with credit. Certain wholesalers reported that they have maintained caste-based trade links in this way with large wholesale suppliers located in other states for more than one generation.

Retailers, on the other hand, generally have to be price takers. Although the retail trade requires working capital, many retailers procure goods on credit. They are introduced to wholesalers by other retailers already in trade, or by the wholesalers' relatives or friends. Caste networks also play a crucial structuring role for some goods such as fruit. Large traders, particularly wholesalers, can use credit to shift onto retailers the vulnerability associated with price fluctuations and with the perishability of goods. Their risk of incurring losses depends only on retailers' defaulting on their payments. Wholesalers use 'muscle-power' (employed as collection staff—*gumasthas*) to retrieve overdue payments from retailers. Tied credit transactions are a major institution preventing self-employed operators from earning enough to save, invest and expand.

[59]See Harriss-White (2013) for details of payment asymmetries in Arni going back to the 1970s.

3.5.2 *Membership of Backward Classes and the Differentiation of Self-employment*

In Arni, 'backward class' origin is associated with the capacity to accumulate. Earlier research showed clearly that the backward class[60] middle castes which invest profits from agriculture in the town are now the most economically differentiated in the urban economy. However, the reasons for this variety of economic trajectories are not entirely obvious. Here we explore the distribution of income and assets using the official classification of caste.

The average monthly earnings of a backward class self-employed household head are almost four times greater than their counterparts in other caste groups.[61] The high coefficient of variation for the backward class also reveals that this is a heterogeneous group. It is likely that a small subset of backward class self-employed household heads which are relatively highly successful in the urban economy pushes up average earnings.

For 'own account', backward class self-employed household heads, there is little difference in earnings[62] from their counterparts in other castes.[63] Meanwhile the differential for larger firms is remarkable. At the turn of the century, a typical backward caste employer of fewer than 5 wage workers earned Rs. 15,200 per month[64] whereas his counterpart from other caste groups earned just about Rs. 2,600 per month.[65] Similarly, a backward class employer of more than five wage labourers

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[60]The 'backward class' accounts for about 60 % of self-employed household heads in Arni. The term 'backward class' refers people belonging to groups of castes classified by the Government of Tamil Nadu as entitled to receive various kinds of welfare measures and reserved quotas for public sector jobs in Tamil Nadu. In Arni, the backward class group consists of 21 caste groups. About 143 castes are included in backward classes, 36 castes are included in scheduled castes, 41 caste groups are listed under most backward classes and 41 castes are listed under Denotified Communities. See GoTN (n.d.). It has been argued that even before Independence, the social reforms initiated by E.V. Ramasamy (alias *Periyar)* through the Self Respect Movement and the implementation of positive discrimination policies (such as reservation for government jobs to backward class caste groups) could have led to a change in the wealth distribution tilting towards backward classes (see Lakshmanan 1990). This group includes members of locally dominant castes who are rich as well as numerous, plus others in the population such as *agamudayars*, rich castes which are few in number such as *Naidus*, *Chettiyars* and *Vaaniyars* and middle income castes such as *Sengunthars*. *Vaaniyars*—also called *Vaaniya Chettiyars* are different from *Vanniyars*. While the former are similar to traditional baniya trading communities in North and Western India, the later are an agricultural labouring and peasant caste-community specifically located in a few areas of Tamil Nadu.

[61]The mean monthly income of a typical backward class self-employed household head was Rs. 10,520 with a coefficient of variation of 190.44. It was Rs. 2,786 (with a coefficient of variation of 75) for other caste groups.

[62]Rs. 2,864 per month and coefficient of variation is 86.

[63]Rs. 2,745 per month with a coefficient of variation of 76.

[64]Coefficient of variation is 94.

[65]Coefficient of variation is 59

earned Rs. 34,100 per month[66] whereas his other caste counterpart earned but Rs. 7,470.[67] A backward class employer of a formally registered 'organized' firm earned Rs. 61,400[68] per month whereas his other caste counterparts earned only Rs. 13,400. Clearly, caste greatly influences the earnings of self-employed workers.

Only a few caste groups earned consistently high incomes from self-employment, for example, *Chettiyars* (Rs. 39,000) and Muslims (Rs. 11,800). The earnings of *Agamudayar* caste members[69] were closer to the average earnings (Rs. 10,814). By contrast, members of artisanal castes and scheduled-caste-converted Christians earned low incomes from self-employment in trade (Rs. 3,300 and 2,875 respectively). The variation in the mean incomes within different backward class castes was greater than between them and other caste groups.

In terms of assets, backward class self-employed household heads are far wealthier than their other caste brethren. Their average enterprise assets[70] are four times higher than those of self-employed household heads belonging to other castes.[71] The possession of assets generates resources for education, for working capital to run firms and employ hired workers, plus the capacity to dominate the higher income industry groups. The pronounced earnings differentials are attributable to the economic characteristics of backward class entrepreneurs. However, this relatively greater economic and social clout is used actively to prevent entry by others (especially members of scheduled castes) into particular lines of trade. In the twenty-first century, backward classes exercise power by controlling the ownership of land and property and openly denying scheduled castes the opportunity to set up trading enterprises.

The most striking evidence of barriers to entry was recorded in the silk weaving industry, in terms of number of enterprises and employment the single most important industry in Arni (see Roman, Chap. 7).[72] Although backward class caste groups dominate most non-agricultural activities non-exclusively, in silk their domination is complete.[73] At the apex, Saurashtrian weavers preserve the intricate skills for high-priced silk sarees within their caste, preventing others from learning, and protecting a micro-oligopoly. In the rest of the silk weaving industry, despite caste barriers to entry, particularly against *Adi dravidars* and *Arunthathiyars*,

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[66]Coefficient of variation is 76.

[67]Coefficient of variation is 0.04.

[68]Coefficient of variation is 91.

[69]They constitute the largest section (35 %) among the 21 castes classified as backward class.

[70]It was Rs. 281,000 with a coefficient of variation of 406.

[71]It was Rs. 52,450 with a coefficient of variation 193.

[72]About 48 % of all self-employed workers are engaged in silk weaving industry. This industry contains 28 % of all the enterprises in Arni. See Basile, Chap. 2 and Roman, Chap. 7.

[73]In the hierarchy of incomes by industry group, rice millers are the richest group in Arni. Their high incomes are earned mainly on the strength of inherited wealth and the current value of assets is very high. Traders, it may be remembered, ranked second in terms of relative prosperity and their earnings are systematically higher than those in other sectors (Srinivasan 2010).

incomes remain below those in most activities other than agricultural labour. On the one hand, it is hard to exit silk in this locality and the sector is crowded, and on the other, non-dalits are still thought to hesitate to buy silk sarees woven by dalit weavers for their women to wear during auspicious and sacred occasions such as marriages and festivals. Silk is therefore socially preserved for non-dalit weavers. Economic factors cannot wholly explain the segmentation happening in Arni.

We have pieced together an account of the segmentation processes at work in silk. It sheds considerable light on how the castes which dominate this industry have managed to deny entry to members of other castes in the past, and continue to do so with respect to scheduled caste aspirants to this day. In the past, it was not only scheduled caste workers who were blocked from entering this industry. The silk weaving industry was confined to three castes—*Kannada cheniya chettiyars*, *Bhagavathars* and *Sengunthars*. Members of other backward class caste groups were not involved.[74] Monopolizing caste-based skill formation, they effectively prevented all other castes from entering the industry.

The slow dissolving of caste barriers goes some way to explaining why the incomes of backward class caste groups involved in the silk weaving industry vary so greatly. The monopoly of certain caste groups over the higher order skills and the transfer of lower order weaving skills spans generations. Hence, both the high earnings in one sector of the silk weaving industry and the relatively low earnings among others continue to be based on acquired skills, access to which is blocked in various degrees.

Even today, backward class self-employed workers control skill formation, as well as some production processes—in particular the putting-out system in the case of the silk sari weaving industry. In order to become a weaver, one has to work as a weaving assistant for at least 3–4 years. Since the looms are sited in their homes, weavers avoid recruiting assistants from *Adi dravidars* or *Arunthathiyars* (scheduled castes, all treated as untouchables by other castes). This denial of apprenticeship effectively prevents young people from these castes from becoming weavers. Even if a scheduled caste person acquired weaving skills, set up a loom, and attempted to buy raw materials, he could not sell the product to textile shops on his own, the latter preferring to buy in bulk from *pattu maligai*[75] owners. The rapid growth of the silk weaving industry has led to the training of people from castes classified as backward and most backward (though still not to members of local scheduled castes) castes traditionally engaged in farming or cotton handloom weaving. The putting-out system in silk saree production facilitates the hold of particular castes over the high earnings end of the silk weaving industry. And the income distribution resulting from the systematic denial of access to skill formation in this industry—even today—means that a small minority are able to protect their control over high-end weaving skills.

Firm-owners choose to procure their raw materials from their own castes locally or from similar castes in other states (Srinivasan 2010). But members of the *Adi*

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[74]Jayaraj and Nagaraj (2006), Harriss-White (2003, 2005).

[75]Silk merchant.

dravidar castes do not have caste-kinsmen working as owners of significant firms either in Tamil Nadu or in other states. Hence, as explained by an *Adi dravidar* politician, even if a wealthy person from his caste wished to set up enterprises in sectors such as rice milling, silk (*pattu maligai*) or the wholesale trading of groceries, the social networks operating among the local elite backward class entrepreneurs actively prevent them from entry.

We conclude that institutional structures bar self-employed workers from taking a variety of production decisions and that the caste system remains instrumental in maintaining the segmentation of Arni's labour markets.

3.6 Conclusion

In this essay, using evidence from Arni and helped by theories of segmented labour markets, the composition and origin of self-employed workers, the direction of labour market mobility and the processes of segmentation in self-employment have been explored. 'Segmented labour market' theory has proved useful to frame the analysis of self-employed traders and case material has been marshalled to show the economic, social and spatial practices that maintain backward class/middle caste exclusivity in the business economy.

The results have implications for the dynamics of work in other small towns. Arni's labour markets appear to be supply-driven and self-recruiting—comprised of two major non-competing groups—the self-employed majority and the hired working minority. In response to the questions at the outset drawn from the theoretical review, Arni's urban labour markets reflect segmentation in surrounding villages—and there is a clear social and economic fault line between wage labour and self-employment. The social origins of self-employed workers are different from those of hired workers. While most self-employed workers come from families of self-employed, most hired workers originate in the families of hired workers. The current occupation of more than half the self-employed household heads has close linkages with their father's occupation. Though there is flux in the life of a self-employed agent, particularly between the stage of skill acquisition and establishing a firm, there is little cross-sectoral mobility. In this particular town, although as a work category the self-employed are economically unequal and heterogeneous (and self-employed weavers earn particularly low returns), there is a clear difference in earnings between on the one hand the set of the self-employed and on the other hand the set of wage workers—the former's exceeding the latter's.

Mobility in Arni's labour markets is both driven and constrained by an effective combination of economic and social processes: notably caste relations, skill formation and tied-credit relationships. Workers' immobility is highly visible when their occupational history is examined across industry groups, most notably silk weaving, trade and 'other services'. Segmentation processes operate through a range of institutional mechanisms among which caste and gender are prominent. The size of the *pagudi* rental deposit, the processes of caste-based skill transfer and apprenticeship, the putting-out system, the gendered division of labour (and gender-based discrimination) and the terms and conditions of advance loans are mechanisms through which larger enterprises in specific industries deter entry and enforce segmentation. Often this is caste based. Among trading firms, we showed how access to premises and to site are used as key instruments of socio-economic segmentation. The caste relations of the property rental market also play a crucial role in the segmentation processes operating in Arni's commercial economy.

This field research also revealed how social institutions such as caste may operate in contradictory ways in different sectors of the economy—structuring the silk economy while showing signs of slow dissolving in the commercial/trading sector for instance. It has also shown how practices of exclusivity are imitated: once having gained entry to the fruit and vegetable sector, scheduled castes screen out entrants from other castes just as they have been deterred from entry by higher 'backward classes' from time immemorial. Tactics ranging from informal negotiation and the threat of appeal to protective law to brute intimidation are deployed to bar entry in a fierce caste-based competition for places and occupations.

But the last word should be that the commonest form of economic activity in this town is self-employment. The contractual relations of the self-employed range from dependence on others—often termed 'disguised wage work'—to relative autonomy in decision-making and independence in economic returns. Typically self-employment is constructed out of micro morsels of capital combined with labour. It expands by multiplication rather than by accumulation. For two generations at least, Arni has been a town populated by small and more or less transient firms of petty producers and traders—many supported by an invisible army of unpaid female family labour. Despite macroeconomic flux, there is yet no indication that this microeconomic structure will change.

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Chapter 4
'Local Capitalism' and the Development of the Rice Economy, 1973–2010

Barbara Harriss-White

4.1 Introduction—Questions and Theory Through Which to Address Them

This chapter asks how local agro-commercial and agro-industrial capitalism has developed the region in which the market town of Arni in northern Tamil Nadu is sited, in the final quarter of the twentieth century and the early part of the twenty-first.[1] It explores local capitalism through the production of paddy and the post-harvest system which converts it to rice, following it from the field to the local banana leaf, to the stalls of European cattle and even to US and Malaysian shopping malls. It has two theoretical preoccupations, one ambitious and one more modest: first the value of the concept of local capitalism to understanding development; second, the character of clustered development.

The first, more ambitious question generates others. Development needs a surplus which can be put to productive use. Local capitalism is its building block. The state is considered vital to this process[2] but in India two-thirds of GDP is out of the state's direct regulative control. Its informal economy is not transient, and informal work relations penetrate the corporate sector and the state itself.[3] How does the state regulate outside its reach? The answer can only be known by field enquiry.

[1]This essay is based on a working paper (2012) *The Food grains Economy in Northern Tamil Nadu, 1973–2010: A recent History of local Agro-capitalism*, http://www.southasia.ox.ac.uk/sites/sias/files/documents/Foodgrains_Economy_in_Northern_Tamil_Nadu.pdf in which the detailed empirical evidence and analysis is to be found.
[2]Elaborated in Khan (2004).
[3]See evidence in Harriss-White (2003).

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While some commentators conclude that India's capitalist class has consolidated itself seamlessly, others have drawn a distinction between the corporate sector and 'the rest'. 'Non-corporate capital' is distinguished for some by scale as well as organization—family businesses or 'petty' capitalism. Others draw attention to objectives linked to 'survival' or 'need' rather than profit.[4] Yet others find that development is phased unevenly over time and that regional differences, social fracture zones and political contentions within the capitalist class have been being accentuated.[5] Another group of field economists cannot avoid the fact that the actually existing and rapidly growing contemporary economy is embedded in institutions often dismissed as 'archaic residuals' or 'impurities'.[6] They form structures of authority outside the economy as well as within it which suffuse the practices of market exchange ('accumulate'!) with ethics and ideologies derived from the family, identity and status. By restraining social conflicts and contradictions these work to stabilize accumulation.[7] Further, institutions outside work in the sphere of social reproduction, notably those providing for basic human needs such as health,[8] education and justice are essential to the production of labour and thus to the circuits of capital (Wolf 2007). But while production ensures social reproduction, relations of reproduction in individual families also shape forms of production. What goes on, who does what, who controls what in the private sphere of the family forms the building block of the economy and the public sphere (Harriss-White 2003). While it may be useful to theorize in terms of the divisions between private and public, production and reproduction, in fact there is no hard and fast division between these spheres such that would enable us to ignore them in characterizing local capitalism.[9]

The collective capacities of a local capitalist class will be reflected in its scale, technologies, skills, organizational capacity, its social coherence, regulative practices and political power. Together these attributes and relationships will give local capitalism its character. For it to be possible to evaluate the competence of the local capitalist class to direct development, empirical research needs to examine: the dynamics of exploitation and accumulation in production, exchange and commodity circulation/distribution, the structures of competition and of collusion, technological change and its institutional consequences including resistance to it, the roles played by non-instrumental rationalities and the character of class formation. This is the frame for this essay.

Why take a single sector? Entirely for the sake of feasibility: the one we take—paddy-rice—is tractable to investigate. Our case study can be justified in other ways. Rice is also the provisioning base of the economy. Like energy it is a basic need—it

[4]Famously by Chatterjee (2008) and Sanyal (2007).

[5]Saez (2002), Bandhyopadhyay (2004), McCartney (2010a, b), (Basile and Harriss-White 2010).

[6]Hodgson (2001); see Basile Chap. 2.

[7]See Hodgson (2001), Harriss-White (2003), Meagher (2010).

[8]'Health' requires food, nutrition, water, sanitation and shelter.

[9]'(W)hat is needed is a theory of the role of the capitalist class in determining what kind of outcome occurs' (Leys 1994, pp. 15–16).

is a keyhole through which we watch the substitution of market demand for human need. It is a sector that is meaningful to local people, like silk,[10] but in a popular way, like gold,[11] it is a vehicle for social communication and status relations. The operation of markets linking production with consumption guarantees the food security that is crucial to the legitimacy of the state. So the paddy-rice sector is a useful prism through which to peer in order to analyse the character of local capitalism.

On the second question, that of spatially clustered development, while the process of transition to capitalism is famously uneven (Bernstein 1995), the era of transition is well and truly over. But the economy has not differentiated itself into the polar social classes of factory capitalism, petty production being numerically the commonest form in India.[12] Not only does petty production coexist with wage work inside a given commodity chain, it is also segmented by sector, and sometimes territorially. The ongoing dynamic transformations of the capitalist economy are uneven over time, society and space. India's non-metropolitan economic growth has always been spatially clustered. Growth is focused on 'central' places, providing services according to the population size thresholds of the settlement system. Though Tamil Nadu is the most evenly urbanized of all Indian states, India as a whole has been notably hollowed-out and regionally varied.[13] But growth is also concentrated in artisan clusters, crammed with petty commodity producers, and in caste-based, occupationally specialized sectors. Many of these have now been mass-commodified and integrated into the national and global capitalist economy. Spatially concentrated, process-specialized, interdependent and flexible, embedded in local (rural) society, built with local capital and manned by local labour in large numbers of firms, they often seem to satisfy the conditions of the latest dynamic phase of post-Fordist capitalism.[14] But compared with western models, they are a 'low equilibrium' variant—by which is meant that they operate with low-tech machinery, relatively low capital and with high intensities of labour exploitation.[15] However, a key trait of both large industrial districts and smaller clusters is that agglomeration has positive externalities[16]: the concentration of relatively small

[10] See chapters by Basile (2), Roman (7) and Arivukkarasi (8).

[11] See the chapter by Stanley (6).

[12] Petty production is a form of production known by many names. These include self-employment, own account enterprise, small-scale production, small family business, etc. To argue merely that it reflects poverty misses the range and flexibility of this form. Petty production has a range of internal logics (varying from fixed income objectives and self-exploitation to thinly disguised wage work) and a range of reproductive dynamics (varying from simple amoebic multiplication to exchange relations which prevent accumulation). Harriss-White (2010, 2012).

[13] Wanmali and Ramasamy (1994), Chapman and Pathak (1997), Harriss-White (2003).

[14] See Basile and Harriss-White (2010) on Beccatini's theories of industrial districts, and Schmitz et al.'s adaptations to the contexts of development.

[15] As explained by Cadene and Holmstom (1999).

[16] An externality is a cost or benefit that is not directly accounted for by a given activity. Pollution is a negative externality. Low transactions and information costs got from clustering—as in this example—is a positive externality.

firms creates competitive advantage, and local business organizations generate collective efficiency (Schmitz 1995). It is a live question whether it is underdeveloped collective efficiency that lies behind the low equilibrium. Stanley's study of a local gold cluster (in the following chapter) gives a clear affirmative answer.

Why take a town as a laboratory for local capitalism? While a town and its hinterland may be studied to shed light on local processes, the point about *local* capitalism is that a more general extrapolation depends on the possibility of comparison. This book permits comparison between the sectors forming the economic base of a town. (Elisabetta Basile takes a general overview in Chap. 3; she, along with M.V. Srinivasan, Camilla Roman and Arivukkarasi examines silk (in Chaps. 2, 3, 7 and 8, respectively—textiles and garments being the second most important sector of the economy in terms of employment after agriculture) while Jason Stanley analyses the most basic medium of saving—gold—in Chap. 5). While a town is by definition a concentrated cluster of many activities, only with the addition of its rural hinterland can the regional characteristics of specialized clustered development be made apparent. Only with the addition of a town can village level studies be made to reveal rural–urban and urban-rural trajectories of accumulation and the relations of labour, commodities and money involved in the processes of class formation. The study of a town then permits a tentative comparative extrapolation of quantitative information (for example for gross outputs/ turnover, commodity flows, income) and processes (growth, differentiation, diversification and informality (see Basile, Chap. 2)).

The town, Arni, is located in the centre of the paddy region of the Coromandel plain but it is eccentrically peripheral inside the district, Tiruvannamalai, that was carved from North Arcot in 1991. It is also eccentrically south of the globalized industrial corridor along the Chennai–Bangalore expressway (Map 2—Preface). To turn south off that expressway is now to enter an economy with radically poorer infrastructural quality and smaller concentrations of capital than along the corridor. Arni is a central place for its rural hinterland, wholesaling and retailing goods of all kinds; it is a transport and energy hub, an administrative and infrastructural node. Apart from general manufacturing, repairs and finance, it is the site of three distinctive sets of clustered development: textiles and silk weaving, gold ornaments and paddy and rice. The town's official population has grown from about 33,000 in 1971 to 66,000 in 2001, but, as noted by other contributors here, the town's administrative boundaries are not its real ones. Its organic population is likely to exceed 100,000 and its local rural catchment will include about half a million people. Table 4.1 shows the growth of the rice market.

Between 1973 and 1993 the gross output of the paddy-rice sector is estimated to have grown by a factor of 17 in real terms.[17] Without counting the bran merchants,

[17]Harriss-White (2012), Appendix 2, Tables 1 and 10 giving numbers of firms and average gross output and using deflators from Appendix 3.

Table 4.1 The paddy-rice sector in the twentieth century

Sector	1973	1983	1993
Rice mills	23	46	86
Rice wholesale	17	45	56
Rice retail	22	30	17
Total rice	62	121	159
Arni—total firms	1194	1923	4703
Paddy-rice firms' growth (%)		95	31
Arni growth in total firms (%)		61	144

Source Author's town censuses

rice retailing/provisions stores, loading and unloading porters and the teeming sector of carts, vans and lorries, by the twenty-first century the paddy-rice cluster had about 250 mills, at least 75 commission agents and wholesalers and a labour force in the region of 5,000. It is now a major wholesale centre for parboiled/steamed high-quality rice. Until the global food price spike in 2007–08, during which India banned exports of rice, Arni's rice was starting to be exported to Malaysia, the Middle East, France and the USA.

How to combine the study of a sector with that of a town? Originally, the system of rice markets and trade in agricultural inputs was studied in an entire district, but this took over a year to complete (Harriss 1981). One reason why local capitalism is so little researched may well be that the Indian state itself collects very little information that would enable its distinctive institutions and dynamics to be explored. The state holds (defective) lists of firms. It has records of weekly prices that are needed for the calculation of the cost of living and consumer price indices, which are politically sensitive. It has data on the quantities of agricultural products marketed (inherited from the era of movement restrictions for essential commodities). This information does not always square with estimates derived from surveys. It has credit plans and urban land-use plans. With pleading, data on municipal and commercial taxes may be made available. While helpful, none of this information helps us characterize local capitalism in the way outlined above. There is no alternative to primary field research.[18] As explained in Chaps. 1 and 2, much of the primary data we use comes from three random sample surveys of businesses stratified by wards, after having made for each round a map of the businesses in the town. The part of the long-term urban study that is reported here has also benefitted from 'dedicated' research on the rice markets (21 firms in 1993–94) as well as purposive studies, including revisits in 2007 and 2010. Quantitative and qualitative field material is listed in Appendix and its collection has been described in detail in the literature referred to there.

[18]We have not used archival resources.

4.2 Local Agro-Capitalism in the Twentieth Century—Production and Exchange

The technological and social transitions and transformations of Arni's local food grains economy have been described in detail elsewhere.[19] They will be summarized here to set the productive context in which the commodity markets we focus on are developing.

4.2.1 *The Green Revolution*

In the 1970s in the smallholding region around Arni—with relatively little landlordism—the initial phase of adoption of high-yielding varieties (HYVs) raised yields and productivity. Rice production increased by 50 % in 10 years. But agrarian differentiation and the transition to capitalism were constrained by barriers to the acquisition of land. The main barrier was the reproduction of petty commodity production through the twofold process of hiring out wage labour and traders' money advances. While wage labouring supplemented unviably small landholdings, even permitting petty producers to hire-in labour at times of peak demand, traders' credit relations secured the marketed surplus of paddy and made petty producers dependent on agro-commercial capital. At the same time both sets of economic relations prevented smallholders from losing their land (Harriss 1982a, b). Competition between trader-moneylenders for paddy supplies, and state-directed, subsidized credit from the nationalized banks, set upper limits to the (disguised) interest rates that could be imposed. These exchange relations in turn enabled traders to exercise an indirect control over rice production. Traders had no interest in legal possession or direct management of the scattered parcels of land they could so easily have seized from small producers.

4.2.2 *The Final Three Decades of the Twentieth Century*

Subsequently, returns to production exceeded those to labour but yields stagnated and agricultural growth rates faltered.[20] This region saw failures of collective action in water management and cooperative marketing, a surge in private investment and agricultural commodification, a rise and fall in state investment and the first bleats of chronic distress from nature. The tank system of irrigation, which required collective efforts to maintain it, collapsed accompanied by a state-assisted, epidemic

[19] Harriss-White and Janakarajan (2004), esp Chap. 1-1.

[20] See detailed evidence in Harriss-White et al. (2004).

of investment in private open wells. Energized from the remarkable rural electricity grid and exploiting the 100 % subsidy on agricultural electricity, these wells overextracted subterranean water and pitched the region into a crisis of water depletion.

Agrarian society differentiated itself between, on the one hand, a capitalist elite in which each household developed unique and diverse investment portfolios and on the other the vast mass of petty producers on increasingly miniaturized holdings. These were not the polar classes of capitalism because petty producers maintained their ownership of land. They reproduced their class first by shifting the balance of their work away from micro-holdings and towards the hiring out of their labour and second by taking loans from merchants in the non-farm economy as well as from those agricultural traders who used their credit to tie the marketed surplus. But to the extent that they took production decisions and were responsible for the outcomes, not all agricultural producers were reduced to the status of disguised wage labour.[21]

First agriculture, then the rural economy diversified, slowly driving up the low real price of agricultural labour. This diversification could be speculative, driven by the existence of an investible surplus, or compulsive, driven by the needs of poverty. There is more evidence for the latter than the former. In the commodity market, paddy started to cede its monopoly to sugar cane, vegetables, fodder and tree crops—anything using less water and/or less labour. The region saw a dramatic increase in wage work. Households diversified their employment portfolios, though at first the only people migrating at distance were women at the time of their marriages. The minority that was able to invest speculatively put capital into weaving, small manufacturing, construction, transport and trade. As producers became consumers and food became a cash crop, its marketed surplus increased from under a third to nearly a half. Supplies to market were dominated by first generation high-yielding varieties and by the larger producers and despite the season-proofing of irrigation from wells, the seasonal ebb and flow of supplies to market did not change radically.

Non-instrumental rationalities expressive of identity persisted in regulating the fast-moving rural economy. The production of the most basic commodity—food—is the product of low status labour.[22] Women entered the labour market—but on subordinate terms with wages not reflecting their productivity and not on a par with those of men. As well as being feminized, the agricultural wage labour force was increasingly a reserve for *dalits*. As with work, so also with landownership, land lost its caste status as local elites started to shift towards the non-farm economy and drift from their agricultural moorings. While fierce competition erupted among low castes for the ownership of land, contraflows of capital moved through caste networks from villages to town (mills, property, trade) and vice versa (looms).

[21]About petty production and disguised wage labour, there is a debate initiated by Banaji (1977) and Adnan (1985), revisited in *Development and Change* ('Arena') 2014.

[22]Sanitary and carcass work occupy lowest position in the status hierarchy of work.

In the 1990s, the liberalizing state lost interest in the rural economy and real resources for agricultural research, rural infrastructure and directed credit all atrophied.

4.3 Local Agro-Capitalism in the Twentieth Century

Since the fine detail of the research on markets is also in the public domain [23] and space here is at a premium, the discussion here takes the form of a brief analytical narrative.

4.3.1 The Green Revolution

At the start of the Green Revolution—indeed from long before, local food grains markets were subject to the iron laws of competition and accumulation. Even if the majority of enterprises were working on 'own account', and were the equivalent in markets of pretty production in agriculture, a minority of firms were managed with active family labour and hired-in regular and casual wage labour. Elsewhere we have referred to the latter type of firm as belonging to India's intermediate capitalist classes. With enterprise costs indistinguishable from family expenses and profit taken in the form of a residual claim, with an interest in unmediated profit and a capacity to create scarcity, they have different interests from corporate capital. With an interest in raising the prices of basic wage goods, they also differ from the labouring class which has an interest in keeping them low.[24]

Rice production has been at the base of a 'food chain' of profit, returns to pure trade exceeding those to processing and even to most moneylending which in turn exceeded those to agricultural production. Although this structure of returns enticed large numbers to enter trade, few were able to accumulate. Similar credit relations to those in production tied small traders to a handful of local oligopolists, mirroring in the organization of markets the structure of landed property. The largest firms were not vertically integrated 'above' milling, since the next stages—rice wholesaling and retailing—either require a scale of capital above that of the local apex or are sited at some considerable distance and controlled by an oligopoly presenting a barrier to

[23]For rice production and exchange in the 1970s, see Harriss (1982a, b); for markets in the 1970s Harriss (1981). For the 1980s: for production, see Hazell and Ramasamy (1991); for markets: Harriss (1991). For the 1990s, on production, see Harriss-White and Janakarajan (2004); for markets: ibid.; Janakarajan (1996), Harriss-White (2012).

[24]Harriss-White (2003); for a macroeconomic analysis, see McCartney (2010b).

capital from elsewhere. Instead large local firms tended to spread their investments in other directions: horizontally (establishing branches), diagonally (in related agro-commerce) or backwards (into new technology on their own agricultural holdings). The iron law of profit was subject to social regulation: the dominant (albeit Backward) agricultural caste used their domination of the market to set the terms and conditions of exchange; the patriarchal norms of joint families structured the division of commercial tasks and female wage labour was paid starvation wages.

The state had interests in this drawn out process that were simultaneously evident and obscure. Its partial interventions in inputs, credit and commodity markets expanded its own privileged labour force. The bureaucracy benefited further from a nexus of rents and fraud with the intermediate class of the agro-commercial elite: together they resisted the disciplinary aspects of interventions like the public distribution system of food. The state failed to provide employment or adequate food for the stream of hardly landed labourers generated by the combined forces of population growth and the process of differentiation in agriculture. So it had the trappings of a local intermediate regime with a deep—if never explicitly articulated—interest in arrangements which slowed the stream of migrants.

4.3.2 Rice Markets at the End of the Twentieth Century

In the mid 1990s, three groups of agri-business could be distinguished in terms of their size and scale (Table 4.2).

They also fell into three groups according to their operations and functions:

Group 1 consisted of paddy and/or rice wholesalers and commission agents (with some fertilizer dealing and other trade):—*'wholesalers'*;

Group 2 consisted of paddy hulling merchants who hired-in mills to process paddy and rice, but who also might wholesale paddy and/or rice and act as agents :—*'hullers'*;

Group 3 was distinguished by owners of rice mills, some of whom hired their mills out, and/or traded wholesale as well:—*'millers'*.

Table 4.2 Distributions of assets ('estimated present value', Rs. '000), turnover (Rs.'000) and labour force, Arni rice markets, 1994

Group	N	Av. assets	Av. gross output	Av. labour force
1. Mainly wholesale	7	437	3,500	4.6
2. Wh + hulling	8	1236	13,200	46
3. Rice mills	7	7850	16,200	30–5

Source Author's rice markets survey

These groups, though they overlap at the edges, were broadly stratified by technology as well as size and operations.[25] All the groups mixed buying and selling with productive activity. Group one transported goods or arranged transport; group two leased mills to process rice and group three produced rice from paddy (and, in storing both, prevented them from deterioration and extended the market over time, while millers speculated on prices).

4.3.3 The Circuits of Accumulation

There had been no dramatic shifts in the *origins of capital* which had always been dominated by savings and profits from commerce itself. Oldest firms remained largest and were rapidly concentrating capital. Paddy-rice was being capitalized at several removes from the relations of production on which it relied for supplies.

Technological changes in milling (new mechanized de-stoners and polishers; rubber roll shellers replacing batteries of hulling mills[26]), in pre-milling processing (parboiling[27]) and in transport (lorries and vans replacing carts) all increased the fixed cost components of marketing and did not reduce costs per unit of output unless equipment operated at unprecedently high capacity utilization. So the security of supplies of *raw material*—enabling firms to defy the rainy seasons—became paramount. Competition on price and quality grew ever fiercer. Rice mills used credit to tie agents into their thrall and they and their commission agents used loans to tie supplies. Interlocked contracts typically involving two markets but extending up to five (money, land, water, fertilizer and paddy) deprived many producers of their freedom to choose marketing outlets.[28] About a third of the town's supplies were secured this way. The bulk of raw material, however, came from transactions that were formally untied by advance contracts. Even so, rice mills could tie suppliers by delaying payments and 'encouraging' small producers to use the mills as safe deposits for their small savings. Reliability and reputation became increasingly important attributes of trade—at the expense of caste and kin.

Agents and wholesalers themselves were under competitive pressure to increase the velocity of their money's turnover. They could do this by diverting crop loans in

[25]In West Bengal, there were also three strata in the markets for rice (Harriss-White 2008, Chap. 4). In the mid 1990s, the exchange rate was Rs. 50 to the £ and 35 to the $. Current rice prices, a major element in inflation for the labour classes, were twice what they had been 10 years previously, and those of 1985 were 2.5 what they had been in 1973 (Harriss-White 2012).

[26]For details of these technologies see Harriss-White (2008).

[27]In parboiling, the paddy is soaked and then boiled and steamed before drying and milling. This hardens the kernel and allows it to absorb oils and vitamins from the surrounding bran (Harriss-White 2008).

[28]A case has been reported of a single contract between a producer, a commission agent and a bullock carter on five markets (transport, information, money, fertilizer and paddy)—Janakarajan (1996).

order to develop long-distance trade and by vertically integrating[29] their business by leasing-in mill capacity for their hulling business.

4.3.3.1 The Labour Process

Despite the vast expansion in physical flows, and despite technical change, the pressure of competition was expressed in the labour process. Fifteen percent of firms were self-employed and reported increases in the hours of work—self-exploitation—as did firms in which one or two family members worked. The number of regular wage workers remained constant over the period. Regular workers are not necessarily best paid (though mill mechanics are regular) but they involve relations of trust (from accountants to sweepers and the night watch). The most dramatic change (Table 4.3) was the massive increase in male and female wage labour, radically altering the structure of the industry, casualizing and feminizing its workforce. By the mid 1990s, casual female labour amounted to 45 % of the total labour force in the local post-harvest system for rice. While employers' associations fixed wages for the sector, labour contracts were uninterpretable as a 'market' at the firm level, owing to the huge variations in casual contracts and modes of pay.

At an average of Rs. 22/day in 1993–94, female wage workers, indispensible to the scaled up firms, were paid at rates two-thirds that of men. Even so and even though these rates hovered just above the minimum wage—and the official poverty line—they were twice to four times those in agriculture proper.

4.3.3.2 Rates of Return

Over the 20-year period, despite the crowding, estimated rates of return due to trade doubled from 16 % in 1973 to 35 % in 1983 and 39 % in 1993 (Table 4.4).

This increase was being driven by the very high returns to rented-in hulling operations, where fixed costs were relatively low compared with those of rice mill ownership. Returns to commerce continued to exceed most returns to moneylending[30] and all forms of local production.

Over the two decades while vertical multipliers and rents were constrained—with little demand for industrial starch or processed and packaged breakfast foods-local agro-capital also gained rents from specialization. As with silk, Arni had developed a culturally inferior, but physically higher quality commodity form that required a greater number of processing stages and costs. *Ven purungal Ponni*, a 'hardly parboiled' form of this high-quality, high-yielding variety could be sold at a premium

[29]Vertical integration involves the merging or incorporation of stages of a production chain within a single firm.

[30]Urgent loans to borrowers without collateral, however, would always fetch annualized rates in excess of 100 % (Colatei and Harriss-White 2004).

Table 4.3 Organization of labour and inequality in production

Year	Av. family labour (no)	Av. permanent salaried (no)	Av. casual male (no)	Av. casual female (no)	Av. total labour (no)	Income per working family member Rs. ‘000	Costs/wage labour Rs. ‘000	DS (1)
1973	1.1	5.8	3.2	5.6	14.6	11	0.9	71
1983	1.8	6.2	4	16.8	27	154	5.3	52
1993	1.7	6.2	15.3	10.7	31	547	5.4	15
1994 (2)						% Female	Av. assets/labourer (Rs. ‘000)	
Gp 1	1.9	0.3	0.7	1.7	4.6	35	86	
Gp 2	1.6	7	18	24	46	48	65	
Gp 3	2.2	6	8	16	32	50	308	

Sources Basile (2011), Chap. 9, Table 5; Appendix TA1 and TA2; Author’s paddy-rice sample survey, 1994

Notes (1) DS = distributive share = (total labour costs as % of [profit plus total labour cost]). (2) For details of the groups (Gp 1–3) refer to the text

Table 4.4 Indicative accounts, paddy-rice sector, 1994, Rs. '000

Costs	Group 1	Group 2	Group 3
Raw or intermediate material	425 (6)	5344 (8)	1116 (7)
Trading and Processing	112 (6)	587 (8)	1088 (7)
Rent	6.5 (5)	8 (2)	15 (2)
Labour	17 (4)	NI	240 (6)
Interest on loans	NI	36 (2)	NI
Value added (1)	2982 (6)	7152 (7)	5035 (7)
Gross Output (2)	3430 (6)	13,389 (7)	16,210 (7)
Net returns (3)	217	4265	4776
Rate of return (4)	19 (2)	68 (6)	23 (5)

Source 1994–5 Author's paddy-rice sample survey
Notes Number of cases is bracketed NI = no information. (1) Value added is the increase in value exclusive of initial costs. (2) Gross output is the estimated total value of turnover. (3) Net returns is the residual of gross output net of costs. (4) The rate of return is the profit on investment expressed as net returns as a percent of capital (estimated capital stock plus working capital). Only cases with adequate information are used for the calculations

price to the increasingly quality-conscious workforce in the industrial districts of Salem, Tirupur and Coimbatore, as well as Chennai. A growing element in the returns to rice in Arni was due to the rents obtained through specialization and branding.

By-products also became increasingly important in the structure of returns. Given that the general use of irrigation pumpsets, powered directly or indirectly by fossil fuel, had done away with much of the local demand for bran as cattle fodder, by the mid 1990s, bran was being removed from the region by an army of agents supplying a commercial oligopoly to satisfy the 24/7 appetite of the nearest factory in Andhra Pradesh. From there, bran oil was exported *inter alia* to Singapore.

4.3.4 Wealth and Income in the Paddy-Rice Sector

The portfolios of paddy-rice firms in which the foodgrain was not always the most significant component increased in size, concentration and internal diversification (Table 4.5).

The agro-commercial elite concentrated its ownership of rice mills, consolidated its control over urban property (stores, real estate for renting-out; proto shopping malls), rural land (especially 'plantation', i.e. tree crops with little labour and profits after long gestation periods), finance and informal banking, other commercial activity and agro-industries. They also invested in education.

In local rice markets, the distribution of income (Table 4.6) has always been internally differentiated but by the mid 1990s, the ratio of returns to employers (per business family member) to the income earned by wage labourers in their firms (per family member) is estimated to have varied between 13:1 for paddy wholesalers and their labour to 250–300:1 for rice millers and theirs.

Table 4.5 Accumulation, paddy-rice 1973–93, Rs. '000 (current)

	n	Av. stg capital	Av. loan for wkg capital @ start	EPV	P O R- % no diversification	T F O- % investing within sector	L I O % investing in diffnt sector
1973	22	19	35	71	68	4	27
1983	5	18	NI	715	13	63	25
1993	6	543	1400	4000 (1)	17	66	17

Source Basile (2011) Table A2
Notes (1) from 1994–5 Author's paddy-rice sample survey
EPV estimated present value

Table 4.6 Income Differentiation within the Paddy-rice Sector, 1994

	Av. hh size	Av. no fam wkrs	Net Returns Rs '000[a]	Net Ret/ FM	Net Ret/ Fam Wker (NRF)	NRF in multiples of estd income of RL	NRF in multiples of estd income of CM	NRF in multiples of estd income of CF
Group 1	8	1.9	217	27	114	13	11	23
Group 2	6.6	1.6	4265	646	2665	296	266	533
Group 3	7	2.2	4776	685	2171	241	217	434

Source 1994–5 Author's paddy-rice sample survey
Notes *FM* family member; *RL* regular labour; *CM* casual male labour; *CF* casual female labour; *NRF* net return per family member
Male regular earnings estimated at Rs. 8.5–15k; male casual at Rs. 8.5–10k; female casual at Rs. 3.9–10k
[a] In the same period, the per caput annual income for paddy producers averaged Rs. 4.1k; that for landless agricultural labour Rs. 1.5k and that for households whose primary income came from the rural non-farm economy Rs. 2.5k (Srinivasan 2004, p. 105)

Meanwhile the difference in inequality between the urban returns in rice markets per business family member, and rural incomes from agricultural labour per member of a labouring household varied between 11:1 for wholesalers and 260:1 for rice millers and male casual agricultural wage labour; and between 23:1 and 533:1 respectively for female casual agricultural labour. India's low gini coefficient for income inequality (0.37 in 2004 (Das 2006)) does not capture such relations. The income inequality deplored in OECD countries does not approach those of local Indian capitalism. When the largest local firms count as rather small 'small-scale industry' in the national scheme of things, this inequality is entirely due to the control and exploitation of wage labour.

4.3.5 Rural–Urban Commodity Relations

While in the early years of the Green Revolution Arni was a local paddy marketing town with 75 % of raw materials coming from local villages, by the end of the century only 20 % was local, the rest being trawled statewide and further afield in

Table 4.7 Paddy-rice commodity flows, 1973-93, (%)

Origins	Within Arni	Local vills	Local dt	Chennai	Other Urban TN	Other Rural TN	Outside TN
1973	32	42	16	3	4	2	
1983	8	18	28	–	10	19	24
1993	13	7	7	–	32	8	32
Destinations							
1973	24	12	15	21	26		
1983	13	3		15	48		22
1993	5	4	6	12	60		22

Source Basile (2011), Chap. 9, T8; App T7
Note These flows are constructed from estimated average annual quantities per respondent

south India (Table 4.7). The hub developed functional complexity with the direction of long-distance supply flows changing seasonally.

As for the destination of milled rice, in 1973 about half of it remained in the town and its rural hinterland while the remainder was distributed to Madras/Chennai and other centres of urban demand in Tamil Nadu. By 1993 only about 15 % of its vastly expanded physical output remained in the also much bigger town and its vicinity.[31] Nearly two thirds was being shipped to urban centres in Tamil Nadu (to Chennai, Salem, Erode, Tirupur and Coimbatore) while 22 % was exported to other Indian states.

4.4 The Character of Local Capitalism

What is 'the role of the capitalist class in determining what kind of outcomes occur' (Leys 1994, p. 16)? Its role is to accumulate, which it does by competition. The competence with which it manages this dynamic process is shaped by its organizational capacity, its social coherence and regulative practices, all of which we turn to discuss.

4.4.1 The Character of the Accumulation Process

Over a generation, food-grains became a cash crop and the local means of subsistence were commodified as never before. Production and distribution were

[31]Flows expanded in value by a factor of 15 in current Rs. and 4 in constant Rs. Sample flows of raw/intermediate materials in current Rs. were Rs. 27 lakhs in 1973; Rs. 116 lakhs in 1983 and Rs. 400 lakhs in 1993.

increasingly dominated by the requirements of accumulation. Into the 1990s, the process was sustaining ever higher rates of return. A class of 'micro-conglomerate capital' emerged from the food-grains sector and started to deploy a range of modes of extraction and distribution of the social surplus: rent, interest, manufacturing and trade. It was no longer confined to commerce. But, as asked in the 1980s: were 'parasitic' forms of rentier and mercantile capital yielding to manufacturing capital which expands the productive base (Harriss and Harriss 1984)? Not very much locally. Even in the rice sector, and without factoring-in the diversified portfolios in which it is set, while manufacturing returns were higher than those to pure trade, the biggest manufacturing firms had also become the most extensive traders.

4.4.2 Competition

Relentless pressure bore down on costs. Competence was becoming an increasingly important aspect of a businessman's social identity. This did not mean that firms did not try to contain competition. Interlocked contracts bound exchange between producers and traders/millers and guaranteed about a third of Arni's supplies. But for the other two-thirds a remarkable shift in the power relations of the first transaction between producers and traders, particularly in respect of credit and debt, changed the social and spatial relations of marketing. For the first time a majority of suppliers had become free to transact under closed tender in conditions regulated by a committee of local farmers and traders under the 'laws of the land': the Regulated Agricultural Markets Act.

However, in the absence of anything but incremental and/or symbolic technical innovation in processing, with post-harvest labour markets reported to be tight, with pre-harvest labour markets casualizing and feminizing and with urban pay up to four times as high as rural pay, capitalist competition in the post-harvest system took the beckoning route and cut labour costs through exactly the same means as in agricultural production: displacement, casualization and feminization.

Unlike Roesch et al. (2009) we found no evidence of the bonding of casual labour, though employers frequently declared that the permanent, salaried labour force was indebted to them. The distributive share—the relation between labour costs on the one hand and profit (or net returns to capital) on the other—shifted decisively against labour. Oppressive labour relations have been termed 'primitive accumulation' (Khan 2001, 2004). Whether this term (which originally referred to the processes by which labour was dispossessed of land and initial capital was accumulated) loses its meaning if expanded to apply to such relations is open to debate (Adnan 2014). Certainly, the primitive exploitation of labour was an integral part of this dynamic local capitalism. Exacerbated by labour displacement and oppressive market relations of petty production, it is plain that in the competitive dynamic of capitalism poverty is created alongside wealth (Harriss-White 2006).

4.4.3 Dynamism

The sector exhibited much dynamism. Not only had the marketed surplus and number of firms grown—and the growth of gross output vastly exceeded that in the number of firms—so also the physical volume of grain had grown. Whereas it is clear from the parallel research on production that the marketed surplus was produced under conditions polarized between agricultural capitalism and petty commodity production, our survey of the post-harvest system captured rather few petty commodity producers and traders in paddy and rice. Instead, the sector/cluster was increasingly internally differentiated into manufacturing-rentier and commercial capital on the one hand, and wage labour on the other. While Srinivasan (Chap. 3) records the relative stickiness and inability to accumulate of the small capitals bound in petty production, the diversification and differentiation which characterized the investment portfolios of accumulating capitalists in the town started to jump sectors—in an extreme example from rice milling to the desalination of water.[32]

These dynamic economic changes expressed themselves in spatial terms. Urban concentrations of capital were matched by spatial centralization. Meanwhile, ruthlessly controlled and exploited labour, at the heart of this dynamic, was less centralized than capital. Workers constantly moved between town and countryside mobilizing caste and village networks in the inexorable search for work.

The sector had transformed its physical and functional logistics, blurring the distinction between wholesaling and retailing. From a parochial spatial reach in the 1970s, it had by the 1990s developed commercial tentacles throughout Tamil Nadu and in other states.

Is Arni's rice sector an example of an industrial district? There are reasons to doubt this. Sociophysical limits to the processing of rice mean that rice is a 'value chain' which is short on links and processes even if it is long on physical reach and social significance. Instead the sector developed its collective local brand. In terms of technological diversity, the internal intricacy in its organization, its high growth and extensive urban–rural reach, 'Arni rice' was therefore moving towards being a dynamic, agro-industrial cluster. But, as is the case in other Indian clusters that exhibit product market dynamism, when we turn to its exploitative labour relations it is a low equilibrium cluster.[33]

[32]Bores at 200 feet hit brackish water.

[33]See the discussions in Hashim et al. (2007), Sarher and Banerjee (2007), Mezzadri (2014).

4.4.4 'Market Society' and Instrumental Rationality: The Roles of Non-market, Non-class Identities in the Regulation of Local Capital

Capitalist development destroys forms of authority resisting accumulation. But the process of subordinating non-market authority to market order has not taken the form of Weber's 'instrumental rationality' or Marx's 'logic of accumulation'. Instead, capitalism reworks those expressions of authority that can serve its interests. In the last quarter century of the twentieth century, acquired identity (reliability and competence) had challenged ascribed characteristics (caste and kin). Nevertheless, while the economy was driven by accumulation, relations of accumulation in turn were structured through its basic building block—the family business—and this in turn was structured through patriarchy. The largest firms were those of the biggest joint families. Gender relations in both family and firm were crucial to accumulative success. Inside the family women were used not only reputationally in a paradigm of piety, service and subordination but also materially to reproduce the family labour force. Inside and outside the family, gender is one of the harshest and most persistent of the 'non-market' institutions which structure labour relations and subordinate women in production and trade. Employers regard female coolie rates as an income supplement, a 'perq', not a wage.

Caste has changed its role in a dual process. While the caste-stratification of occupational opportunities had weakened (from the top down), the role played by caste had been transformed. As ideology and institutional idiom it lies behind the corporatist trade associations regulating Arni's informal economy, as Elisabetta Basile's Chap. 6 shows.[34] The rationalities of social identity are not only to be conceived as constraints on instrumental rationality. They show no signs of disappearing, and are the means through which instrumental rationality is construed.

4.4.5 Competence

This transformation required massive changes in the work and politics of the local capitalist class. Its achievement suggests competence.[35] It has happened on the basis of relatively low levels of formal education. Cost account books were soaked

[34] Also see Basile and Harriss-White (2000).

[35] We have little evidence of risk, losses, instability and the collapse of firms though we know this all happens particularly to small firms.

in ritual and contracts involved much memory work.[36] But accumulative success rested on severe labour exploitation, and the productivity-enhancing technology so widely diffused elsewhere in India was late to be adopted in Arni. There was little productive reinvestment of resources across the sectoral boundaries of the local economy, other than in rentier activities.

These aspects of local agro-capitalism suggest several kinds of limits to the competence of this fraction of the local capitalist class. One was educational: this class had not yet invested in formal education and this had implications for the technical knowledge needed for entrepreneurship—let alone a well 'humanly developed' workforce. The private investments in educational infrastructure lately initiated by the local political big shot suggested that this particular 'fetter' would be broken in the twenty-first century. Another limit was technological. There had been no investment in the processing of the lucrative by-product—bran—the supply of which required extensive logistical competences. A third was ethical/social. Capitalists in the paddy-rice sector were a part of the class whose restricted units of ethical and economic accountability stimulated a pervasive non-compliance with disciplinary interventions, notably tax (Harriss-White and White 1996). This non-compliance was reinforced by the evident fact that most municipal resources went not into developmental investment but to current salaries (about half of which had to be allocated to 'scavengers' (SC sanitary workers)).[37] The local culture of evasion of tax and resistance to the state's discipline then starved the state and municipality of resources needed for the very infrastructure that would enable the local capitalist class to engage with national and international markets. The final qualifier to the productive industrial competence of the local capitalist class was the enduringly high returns to commercial and rentier modes of extracting and circulating the social surplus. These were well disguised in the biggest manufacturing firms by their increasing vertical and horizontal integration.

Political competence was expressed through collective politics. Here, lacking a local MP until recently, Arni's elite could not easily use party politics.[38] The town's hard and soft infrastructure was so underdeveloped that private capital was being politically mobilized both privately and collectively to substitute for the state, particularly in health and education. Surplus was redistributed from local elites to local officials in the form of bribes to abet fraud, the most persistent element of which was tax evasion. Where the local unit of accountability is grounded in kinship, where there is a culture of non-compliance, the weakness of public obligations to the state reinforces the need for the non-state structure of accumulation.

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[36]Contracts were the verbal substance that had to be mystified in the accounts.

[37]This is not a universally valid perception. The local Agriculture Department for instance spends 15 % of its budget on salaries, the remainder going to subsidies on fertilizer for demonstration plots, HYV seed, bio-fertilizer and weedicides (D.A.O., Pers Comm. 1995).

[38]The professional standards of the town's local judiciary were widely thought to be declining.

4.5 Local Agro-Capitalism in the Twenty-first Century

We can now bring this story into the twenty-first century.[39]

4.5.1 Rice and Its Production Relations

While land relations continue to be dominated and consolidated by backward castes, one dramatic development involves encroachment onto common lands. Still the source of firewood, these are being enclosing for house sites (at both ends of the social spectrum). Their resources are also being privatized and commodified (topsoil for bricks, sand for the construction industry and 'mineral water' for drinking). The dry season water table has sunk to 160 feet in many places as bores have been drilled into the base of open wells. The cropping pattern has further diversified, adding flowers and luxury fruit crops so that rice production continues to stagnate along with its yields.[40]

Rural land values are being reshaped by proximity to transport arteries and non-agricultural uses rather than in relation to irrigation status and potential yields.[41] The emergence of widespread rental markets—landlords, waterlords, machine-lords and house-lords—reveals a concentrated class-fraction of rural rentier capitalists in development. And a pauperized class of labouring petty producers dependent on them.[42] In a region with a long history of owner-occupancy, a new class of absentee landowners have started to sharecrop on extortionate terms the land they have no intention of selling.[43]

Production relations and labour markets are still grounded in the social structure of the region. Land relations are the bone of low caste contention. *Dalits* continue to be prevented from borrowing money, from owning or renting land. They continue

[39]A revisit to two villages and the town in April 2007 and March 2010, and an update by M.V. Srinivasan in 2009 have enabled us to do this. See http://www.southasia.ox.ac.uk/resources-greenhouse-gases-technology-and-jobs-indias-informal-economy-case-rice for more systematic new research on the gaseous waste produced by the production–distribution system for rice in and around Arni.

[40]Locally estimated at 2–2.5 tonnes of paddy per acre in 2010.

[41]Whereas the price difference between wetland and dryland is 2:1, that between road side and off road is 3 or 4:1.

[42]These relations of debt dependence reflect two different kinds of caste relations. On the one hand they reflect increasing internal differentiation of a given caste (such as *Agamudaiya Mudaliars* or *Vanniars*). On the other they reflect the front line of caste tension between backward caste landowners and *dalit* aspirants to land.

[43]The *Dalit* sharecropper bears all the costs of production. At harvest the entire crop is given to the owner who mills it and returns 50 % of the rice, keeping all the husk and bran.

to work the land and to be discriminated against in many other ways.[44] Agricultural labour unions work on representing them as citizens against the state in the widespread cases of infringement of their social security and welfare rights, poor infrastructure and living environments. The agricultural trade unions have failed to tackle problems of labour at work. *Dalit* men are rejecting oppressive practices and refuse in particular to undertake the non-contractual obligations they used to perform, by means of which the tank irrigation infrastructure was maintained. Local Panchayats have moved into the institutional void to regulate the maintenance of the irrigation infrastructure (under the National Rural Employment Guarantee Scheme—'What for? These tanks are useless.' said a labour organizer). Panchayats sometimes also manage the privatization and commodification of water for the bottled water market. Labour-displacing mechanization has been introduced at harvest. *Dalit* men are migrating in droves to the construction industries of Chennai and Bangalore,[45] leaving *Dalit* women vital to both paddy production and rice milling—a fact which is not reflected in their wages.

While wages have tightened by 7–8 % between 2007 and 10, the price of open market rice has more than doubled. The calorie purchasing power of the wages of those who produce the calories has dropped dramatically, making them ever more dependent upon the state's subsidized rations.

4.5.2 Exchange Relations

Rice millers report that the top 25 % of producers by volume no longer need to borrow money for production, others who can offer land as collateral are replacing their debts to traders by another round of loans from cooperatives, and by credit from nationalized and private banks. After more than a decade of atrophy, the Congress-dominated UDF/UPA at the centre reversed the retreat of formal banking from rural regions and agriculture.[46] Loans however are political tools, and constantly and

[44]In the 1990s we gathered evidence that drinking water hand pumps are caste-segregated; that SCs construct their own temples due to being barred from entry into village ones. SC children are barred from entering main village schools, the sites of Noon Meal disbursements are awkward to access by them and staffed by members of the locally dominant MBCs rather than by SCs. Despite the closed shop of sanitary work (where SCs, stripped in 2002 of their hereditary rights to this kind of state employment, nevertheless vigorously guard this work since they can earn Rs. 5,000/m gross (though Rs. 1,500/m was reported as the actual 'net' take-home pay)), there are acute entry barriers to the non-farm economy such that SCs work in the fruit and vegetable trades (because these goods have skins that will be transformed before consumption) and the smallest 'bunk' shops. Banks are reported not to extend credit to SCs, though SCs were reported—in earlier rounds as able to borrow from banks. Urban restaurants persist in using banana leaves as plates to avoid other patrons having to use (i.e. be contaminated by) utensils used by SCs.

[45]A very few have used savings from teaching or the army to set up in business: tea shops, fruit and vegetables or pumpsets. It is 'urban *dalits*' who have 'pulled' away.

[46]Fouillet (2009). Banks have also accepted jewel loans for at least 15 years.

widely expected to be amortized. ‘They are gifts’ said a miller, laconically. For petty producers, money can be obtained from reviving old sources—commission agencies and trader-moneylenders—together with new sources—teachers and officials, pharmacists, remittances from the construction industry and the army, virement from consumer durables sold on instalments through hire-purchase agreements,[47] returns from milk production—plus a proliferation of pawnbrokers ready and waiting for those with gold and jewels as security.[48] But the explosion of Self-Help Groups (see Polzin, Chap. 9) has yet to supply microfinance directly to agriculture.

With only 20 % of supplies estimated by millers to remain tied through interlinked contracts with paddy *mundies*, the state has at last been able to regulate conditions for the first transaction between producer and ‘the market’ and sales have shifted to the Regulated Market yard. This severe threat to commission agents is a retaliation against their decades of delayed payments, underweighing, casteist price discrimination, kind-loans in liquor, etc. In 2007, the Regulated Market yard was also incentivized by state procurement support prices for the Public Distribution System which, for the first time since its inception in 1965, exceeded open market prices. Just prior to the global price spike, ‘the market’ had slumped to unprecedented lows.[49] Breaking with past practice, the state Civil Supplies department then procured paddy for the Public Distribution System directly from farmers in Regulated Market sites. But by 2010 this experiment had been abandoned: decentralized procurement has notoriously high transactions costs.

Paddy for the PDS is milled locally, with rice millers acting as agents for the State Civil Supplies Corporation and the Food Corporation of India. Provided the out-turn ratio and milling fee have been agreed, now that the storage laws have been relaxed, the local agro-capitalist elite has no objection to working for the state. The difference between the state-regulated outturn ratio and the real one supplies them with an informal physical supply which they can trade on the open market; and the fee itself reduces commercial risks. If any economic losses were to be incurred, they could be compensated for by collective price hoists on (non PDS) open market sales.

4.5.3 Agro-Capital: Structure and Technology

Since 1995 the local rice cluster has undergone another massive increase in concentration. Arni now has 5–6 mills each capable of a physical throughput of 11,000 tonnes of paddy per year. The average is 4,500 tonnes. Barriers to entry have risen in real terms, and entry is impossible without loans from private banks. The wealth difference between the agro-capitalist elite and those who produce the paddy for it

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[47]See Polzin, Chap. 9.

[48]See Stanley, Chap. 5, on local pawnbroking.

[49]Low prices are due to the impact of world market prices to which the domestic economy is now open; plus the effect of bumper harvests in 2006–07, prior to the global price spike.

has also increased. Entry to the rental market for mills is easier than ownership (for which a background in engineering is now more relevant than in agriculture) and the proportion of firms leasing mills is rising. There remains space for petty production in rented-in mills and in the firms supplying these businesses. The agro-commercial elite is investing in land for real estate; further concentrating rice mill ownership, developing the rental market, and drawing distant kin in to the family labour force. It is developing business in stocks and shares, fleets of trucks and container (10-wheeler) lorries, supermarkets, cell phones and consumer durables, even presciently a salt water conversion plant.[50]

Arni's rice mills have lagged technologically behind those of North India.[51] But by 2007 only an estimated 2 % remained as batteries of hullers. The rest had adopted rubber roll sheller technology and were on track for 'full automation' and another step change in scale (Gathorne-Hardy 2013). Husk-fired parboiling and driers are also now almost universal—husk had been commodified as a fuel. At times since 2007, however, husk has been replaced by *sugar cane* (since the cooperative sugar mill had not agreed to receive local supplies). Husk-fired driers weather-proof and speed up the system of preparation of paddy for milling. But they displace female labour. With a mechanical drier, paddy needs one sunning on the drying yard instead of three, and half the female labour force is replaced by a quarter the number of men. The average size of the mill labour force has dropped from a high of 60 in the 1980s to 20 workers in the twenty-first century and shows no sign of anything other than greater capital-bias, yet technical change and labour displacement have not lowered the cost of production. The branding of Arni's rice for consumers newly stratified through advertising may be understood in part as a compensation for distinctly unrevolutionary cost structures.

The process-automation frontier also beckons. In 1995, it will be recalled, computers were merely a coveted status symbol. Now the internet transforms the circulation of information and the pace of transactions. Computers are routinely used for accounts (which expose their firms to public scrutiny as never before) and are starting to be used for process control. They are also put to work in online share dealing (which elite wives and daughters can do in the secluded privacy of their homes).

4.5.4 The Labour Process

Mill labour remains a relatively privileged sector of the informal market, male wages being 50 % higher than agricultural wages while female wages are double. The adverse gender differential persists into the twenty-first century, women's

[50]The biggest private financier is a *dalit* who accumulated through vegetable trading and labour contracting—and who runs a *kutta* panchayat (an informal dispute resolving institution, generally using private protection power to enforce decisions) (M.V. Srinivasan 2009, Pers. Comm.).

[51]See Kaur et al. (2007) on Punjab.

wages being 30–40 % lower than men's. Tightening labour markets have 'opened the shop' which used to be defended by *Dalit* and Most Backward Caste workers. Some rice mills are able to import labour on cruel contracts from regions of labour oversupply in Orissa and Bihar. Where this has happened elsewhere in Tamil Nadu, new forms of bondage have been reported.[52] There is no sign of unionization and no reason to think that conditions for labour will improve with further technical changes in production.

4.5.5 Commodification

The process of commodification rolls ineluctably onwards. Alongside husk, which is now a commodity—powdered to make holy pastes for some consumers, and a base for silicon chips for others—bran is traded as an intermediate good for the solvent extraction industry and also directly as cattle feed for local *Dalit* milk production. Other by-products are now commodified: broken rice is being fed to cattle as well as to humans and de-oiled bran cake is exported as cattle feed to the EU. While mills now buy direct from suppliers at a radius of about 60 km, new competition in central and southern Tamil Nadu [53] has switched the bulk of Arni's branded high-quality wholesale rice towards Chennai. Before the global grain price spike in 2007–8, Arni's rice was starting to be exported from Chennai to Sri Lanka, Malaysia, France and the USA.[54]

4.6 Clustered Development

The Arni supply chain for rice which is clustered so conspicuously in, and around, the town's new bypass is not an 'industrial district' in the sense recognized in Italy, if only because of its small size in relation to the town's diversified economy. Stanley, Chap. 5, has proposed a distinction between 'specialized' clusters which serve national or international markets and 'common' clusters which are found in most urban settlements. Arni's paddy and rice sector certainly is a common cluster, just like gold. A town may have both kinds of cluster—indeed, with silk, Arni is a good example of both types.

But the concept of the common cluster is not a descriptive distinction devoid of analytical content, since being common does not imply being homogeneous.

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[52]See Breman et al. (2009)—though the kind of bondage they report is close by, it has not yet been seen in Arni.

[53]From growing rice processing clusters at Kangeyam, Kallakurichi, and Ayodhyapattinam near Salem.

[54]Western consumers can no longer displace and exoticize the production relations of the region but are directly involved in exploiting them.

Stanley shows that in the case of gold, the distribution of capital and the technological and social structuring of Arni's cluster differ significantly from those of other gold clusters such as in Chennai and Coimbatore. Alessandra Mezzadri's All-India comparative research on eight textiles and garment making clusters also shows the great heterogeneity in products, in technical processes and in forms of labour control between these relatively common clusters (Mezzadri 2010). A given exogenous shock such as a change in policy or technological change will have a differential impact both *on* the common cluster and *within* it. Stanley's case study (Chap. 5) shows this clearly both for the policy shock of deregulation and for mechanization; while Arivukkarasi's study of rural–urban relations in silk weaving (Chap. 8) shows this for the liberalization of Chinese silk yarn import and for the destruction of cooperatives.

Arni's rice cluster differs from other common ones in the region by dint of its *commodity specialization* (*Ven purungul Ponni*). The common rice cluster of Vellore is *process* specialized on wholesaling; that of Tiruvannamalai is less *spatially* concentrated; that of Polur is similar but *smaller* in assets size. All of the common rice clusters in the region of northern Tamil Nadu are far less *concentrated in assets* than the rice mills of central West Bengal where the ethnically structured system of markets differs markedly from the more caste homogeneous social relations of northern Tamil Nadu and gives rise to greater poverty and inequality.

Whether the Arni rice cluster conforms to the definition of an industrial cluster depends on the character of its collective action. Joint action in Arni is powerfully federated. The Rice Millers Association was formed defensively in order to control labour in response to efforts to unionize male casual labour. It fixes wages (subject to considerable obfuscation in implementation), arranges apprenticeships, guards and legitimates entry, organizes the ancillary labour forces, fixes proper contracts, mediates in disputes, and organizes collective bribes when they are needed. The association resists, make representations to and negotiates with the state. It also mobilizes to perform acts of redistributivist philanthropy. It illustrates the kind of range of external collective exchanges, collective transactions costs reductions and internal regulative authority celebrated in the literature.[55] We can conclude that Arni's rice sector is a small, common, dynamic yet low equilibrium industrial cluster.

4.7 Conclusions

In contrast to much development economics which is driven by technique rather than theory, and in contrast to post-modern development studies which proceeds from the position that there is no objective substantive reality, the research reported here has moved between theory and evidence, the latter ordered by the former.

[55]See Schmitz (1995), on collective efficiency.

4.7.1 Local Capitalism—Theory

In investigating local capitalism through the elements and relations of accumulation it is impossible to avoid concluding that the era of transition to capitalism is long over and that the logic of capital dominates the rural economy. Despite this, the capitalist economy is far from differentiated into polar classes and the capitalist class is found to be far from seamlessly unified. The distinctions between corporate capital and all the rest which Chatterjee (2008) and Sanyal (2007) find so fruitful do not have much relevance here. In this chapter we have seen that capital embodies contradictions not only in relations of production but also in accumulation trajectories; it behaves retrogressively as well as progressively; fractions are in contention with each other as well as with labour and competition does not necessarily reduce costs. Arni's agro-capitalism does not conform to the teleological assumptions of classical political economy. Elements of primitive accumulation persist alongside more advanced forms of capital including those generating petty production. Relations of capitalist production, distribution and reproduction are continually being transformed. Productive capital may even now be 'reverting' to rentier capital.

In spatial and social terms capital should always be analysed as a local phenomenon because the economy plays itself out in specific social and environmental contexts. As we have seen here, capital is path-dependent and embedded as well as revolutionizing. In economic terms capital is global because it is increasingly integrated into the global economy through commodity/supply/value chains. In Arni, even though commercial capital subsumes productive activity under its wing and is far from purely mercantile, the dominant element in profit is derived from trade rather than from productive activity. That wholesale and retail trading firms drive growth not just in Arni but at the All-India scale confirms that India's is a 'trading' economy as much as if not more than it is a service one.[56] And what is more, in remaining persistently construed through forms of non-market, non-state authority such as gender and caste that are neither instrumentally rational nor confined to the economy, Arni's capital has a distinctively local character.

4.7.2 Local Capitalism and Urban Dynamics in the Twenty-first Century

This case study of paddy-rice—one of the main foundations of the local structure of prices—is strongly suggestive of economic dynamics that must be found elsewhere in order for Arni's development to take the form we have traced here. Through the last four decades, Arni's local capitalism has constantly transformed its scale, spatial reach and functional complexity. The local agro-capitalist class is able to

[56]See the discussion about sectoral dynamics in Harriss-White et al. (2014), pp. 52–55.

centralize, concentrate and build growing portfolios of 'micro-conglomerate' capital and to adopt wave after wave of capital-biased technological innovation. Capital has migrated from the town centre to valorize tracts of land on the urban peripheries. At same time the town is the site of processes of internal differentiation that produce ever-increasing inequalities in technological endowments, in assets within the sector, between capital and labour and between urban and rural activity.

New urban–rural dynamics are emerging: a new fraction of local rural agro-capital—the village machine-lords, waterlords and landlords—is climbing the rungs of the supply chain and starting to rent-in the previous generation's fixed investments of mills, stores and yards. Credit from private banks has become accessible to them. The new capitals that are not yet concentrated will reinforce the concentrated and ever diversified portfolios of the elite. In a burst of technological dynamism, the sector took the giant leap it was so reluctant to take earlier, adopted new milling machines, mechanical parboiling and drying technology and commodified its by-products, bran and husk.

The capacity to accumulate is in marked contrast with the seething petty production/self-employment studied by Srinivasan (Chap. 3) which dominates the urban economy numerically yet which is unable to expand except through multiplication. Further, despite the persistent subordination of women reflected in the ownership of assets and earnings from wage work, there is a strong contrast between the growing social eclecticism of the local agro-capitalist class and the caste stratification and constraints on choice meted out to the urban wage labour force(s), let alone those making do in the rural hinterland. So, deep contradictions remain. Competition requires oppressive labour practices; urban contractors are even hired to import gangs of indigent rural migrant workers at very great distance from northern states of India to compete with local labour, to keep labour un-unionized and keep wages low.

Last but not least, the competences of the local capitalist class are catching up with those of larger urban centres. In a remarkable U-turn, the local capitalist elite has reassessed its low valuation of competences derived from formal education. Higher education—the 'knowledge economy'—is fast becoming a highly profitable private capitalist service industry in India. In Arni, the new sector has been led by the A.C. Shanmugam political-cum-business family which has invested in a school and no fewer than six colleges on the edge of town—as well as major medical and engineering colleges near Chennai. This capitalization is on a scale that swamps the portfolios developed from rice[57] but the local rice capitalist elite is also investing, sometimes collectively, in building and running local schools and colleges and in educating its own sons and daughters.[58] The latter are expected to move to the

[57]As do those of the bus owners and the Laskhmi Saraswati textile mill which is north of the river defining the town's boundary at some remove from the town (and never part of the long-term research) but which has now been engulfed by suburbs.

[58]Arni's Muslim sweets dynasty whose rurally sited Teacher Training Institute had fallen on hard times due to malpractices, has reopened it, doubled its landholding and opened two private schools.

action in India's ballooning knowledge service sector (IT and engineering).[59] A Girls' Engineering College has even appeared in Arni. Arni's northern suburbs have become a private education hub—a service cluster.[60]

Through education and skills in engineering science, local agro-capital has now consolidated itself to a point when the elite—while showing no sign of wishing to relinquish local control—is seeking pastures new. In the local capitalist class, an exit dynamic is at work. While the processes of concentration and centralization intensify, the portfolios of local conglomerate capital have become more complex owing to a 'rentier turn' and the migration of their educated scions to the skilled labour force of the new service economy and, from there, entry into India's middle class. Sons of the local rice capitalist elite have already moved successfully into software and one is a highly qualified IT scientist working abroad.[61]

The local agro-commercial elite has limits to its civic consciousness however, having done nothing about the filth of the public urban environment or the serious water crisis, both of which it has played a part in causing. In 2010 piped water was available 1 day in four in Arni.

4.7.3 The State

What kind of project does the contemporary state have for this dynamic capitalism created mostly out of its reach in the informal economy, and resting on exploitative and oppressive labour practices?

In the era of globalization, Arni's rice industry is more state-regulated and state-licensed than before but only selectively state-disciplined. Its commodity contracts, the financial transactions which accompany commodity exchange and the entire labour process all come under regulation that is not enforced by the state. But the local state now maintains some of the rural water infrastructure on which the industry's raw material supply depends. It has at long last managed to regulate some of the first transactions between producer and the post-harvest system of markets and it has dipped its toes into direct procurement for the PDS. The Tamil Nadu Warehousing Corporation godown is used for rice storage—but not by producers (its original intention (Harriss 1984)). Instead firms exploiting the mill rental market, without premises of their own, use these godowns. Warehouse receipts are collateral enough for bank loans which supplement the working capital

[59]M.V. Srinivasan reports that a private school has been set up by some 14 paddy-rice business families, and staffed by teachers, some of whom moonlight from government schools.

[60]Harriss-White and Rodrigo (2013), offer a field based study of innovation in this hub.

[61]In Tiruppur too there is a rentier turn and not confined to the accumulation of employers. 'Local' workers are no longer workers. Instead (some) have become rentiers of various kinds—labour contractors, building single room row houses for migrant workers and living off rents, entering as rentiers services that feed into knitwear production' (M. Vijaybaskar, Pers. Comm. March 2010).

of these firms. 'Formal' commercial credit has come within the reach of modest paddy-rice trading businesses.

While agro-capitalist productive accumulation is slowly but surely being pulled within the ambit of the state, the National Rural Employment Guarantee Act of 2005 has required the state also to intervene in rural labour markets. The right to 100 days of work self-selects agricultural labourers (in this region as elsewhere in India, mainly women). Where cultivation is assailed by drought, where land is being taken out of agriculture, where mechanization is displacing unskilled labour and where workers cannot migrate, there is no doubt that this scheme (mainly 'mud-work') is supplying a vital surrogate for unemployment benefit. And it may even affect urban production: in 2010 and 2012 urban rice millers complained that NREGS reduced the supply of workers to their drying yards.

While the bulk of the productive economy remains informal and unstate-regulated, the *reproduction* of the labour force living on poverty incomes is increasingly due to state intervention. The state supplies basic wage goods at considerable cost in subsidies. It subsidizes a Noon Meals Scheme for children and pensioners below the poverty line (BPL). It provides a BPL welfare state (maternity allowance, survivor benefit, sickness/disability benefit, pension etc). Without a land reform worth mentioning, it has seized culturable waste and common land for house sites for SCs.[62] While wood and charcoal are renewable energy and LPG is a fossil fuel, it is now extending LPG as a 'less polluting' alternative to biomass-fuelled stoves.[63] The state has distributed a colour TV to each house. For the first time *Dalit* huts have locked doors. For the state of Tamil Nadu to be able to make such transfers at all depends to a significant extent on its commercial taxes and its control of alcohol retail sales which of late has been strategically diffused into the villages (Harriss 2007, p. 161).

Political scientists have always described Tamil Nadu's politics as populist, but Tamil people have described it as 'our socialism' (Harriss 2001). If it's 'our socialism', then it is one indebted to state revenue derived in no small measure from the increasingly mass consumption of alcohol.[64] These alcohol-fuelled social transfers do nothing if not aid the increasing concentration of economic assets that we have observed in the paddy-rice sector of Arni. They can be understood as the pay-off necessary to ensure the political stability to enable this process of accumulation to persist.

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[62]It also supplies free—or heavily subsidized—agricultural electricity.

[63]As with so much of our machine society, it embodies a contradiction. At the micro-level it improves the kitchen atmosphere and reduces health risks. At the global level it increases CO_2.

[64]See Kim (2008). Whereas in the 1990s alcohol was retailed under strict regulation in a handful of shops in the town, by 2010 there were retail outlets in villages.

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Appendix: Mixed Field Methods and Sources

Quantitative Information

1. *Production and exchange*—three rounds of village censuses and surveys (detail is given in Harriss-White and Harriss 2007)

2. *The market system*: *for the 1970s*

2.1. a stratified random sample survey of 200 agricultural firms in North Arcot district—of which 53 % were dealing in rice (the remainder were in fertilizer and pumpsets) and a quarter were from Arni and its region. (Harriss 1981, p. 32)

2.2. for the town: a 6 % survey, randomly selected after stratification from functionally mapped censuses, 88 firms in 1973–74

3. *Markets: for the 1980s*

an urban 6 % stratified random sample of 114 firms in 1983–84 (Harriss 1991, p. 183) which picked up rice wholesaling, milling and retailing

4. *Markets: for the 1990s*

three sources of quantitative data for the town for the 1990s

4.1. a 6 % stratified random sample of 275 firms in Arni town in 1994–95, now collated and systematized by Basile (2010, 2013, and Chap. 2).

4.2. a special 15 % random sample survey of the paddy—rice sector in 1994 drawn from the Arni taluk supply office list—22 firms—raw data used here for the first time. These data include: Cost accounts. Assets histories. Investment portfolios. Labour force details: numbers, costs and tasks. Commodity flows. Unsystematic information volunteered on credit. This sample of 22 firms is larger than a statistically 'small' sample but when disaggregated, the cell sizes are small. The special survey is 3 times the size of the paddy-rice sector in the main 1994–5 sample and can be calibrated against the 'main' sample data, against the results from earlier rounds of research on paddy-rice, and against the subset of 9 rice firms of the 52 studied by BHW in 1994, and from field research in other regions.

It cannot be supposed that firm owners overestimated their returns. If anything businessmen lean towards concealment and considerable effort is required to reassure them about anonymity and confidentiality—and continually to cross check the estimates they give (Harriss 1992).

4.3. A complete population survey of 67 business and caste associations in 1997 (carried out for Elisabetta Basile (Basile and Harriss-White 2000; Basile and Harriss-White 2010; 2013))

All this information is derived from carefully designed open-ended interviews but is *estimated* by the respondent and cross-checked for consistency by the interviewers (Harriss-White 2008, App. 2).

Qualitative Information

1. Own field research on 52 large firms and sensitive sectors in 1994 and 1995 including 9 firms operating in the paddy-rice system;
2. Field notes from that period and conversations with key respondents and with wage workers.
3. Interviews with officials, policy 'stakeholders' and lawyers.
4. Official data; Municipality; Government of Tamil Nadu departments; agriculture; credit, banking and finance; administration (revenue and expenditure); utilities and service providers (police, justice, fire brigade, education and health, sanitary workers and refuse collectors).
5. A short revisit to Arni and two villages in April 2007 and conversations with 5 urban businessmen and 2 groups of urban labour and with 4 agricultural producers and 2 'focus groups' of petty producers and agricultural labourers.
6. A revisit in March 2009 by M.V. Srinivasan.
7. A revisit in March 2010 with interviews of a rice mill owner, two local organizers of agricultural labour from the Agricultural Workers' Welfare Board, several goldsmiths, a pawnbroker and a power-loom silk merchant.

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Chapter 5
A Future Not So Golden: Liberalization, Mechanization and Conflict in Arni's Gold Ornaments Cluster

Jason Stanley

5.1 Introduction

In recent decades, scholars have paid considerable attention to the character and benefits of 'clusters'—geographical agglomerations of firms engaged in similar or complementary activities (Nadvi and Schmitz 1998, p. 64). Economists have long pointed to the positive externalities associated with clustering for small-scale firms, but more recent attention has been driven by an interest in clusters as potential catalysts of industrialization for poor countries, where small-scale and informal industries comprise a significant portion of the economy and where growth of the modern industrial sector has failed to address problems of underemployment and poverty.

While this attention has advanced our understanding of the benefits associated with clustering and the factors that facilitate their success or failure, the literature has focused overwhelmingly on clusters of a particular sort—those that dominate the sector in question at a national or global level. Such a singular focus avoids the fact that clusters are more common than the literature admits. In order to build a more comprehensive understanding of the dynamics of clustering, we need to pay more attention to these 'common clusters'. Furthermore, while recent research has pointed to the importance of collective action and government intervention in facilitating a cluster's success, it has pushed forward these claims in a superficial way. Clearly, some interventions help catalyze cluster development, yet other kinds of interventions undermine cluster development because they serve particular interests that are at odds with cluster-wide development. In other words, it is not the presence or absence of collective action and government intervention that matters, but instead the alignment of interests and actions such that interventions contribute to, rather than detract from, cluster development.

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In this essay, empirical research on Arni's gold ornaments cluster is used to make contributions to cluster theory. First, the dynamics and benefits associated with clustering are shown to depend, in part, on the character of the industry in question. The geographical dispersion of the gold ornaments industry in India, coupled with the ways in which technological change is facilitating concentration in larger urban centres, means that the dynamics of the Arni cluster differ significantly from those predicted in the literature on clusters. Second, the social modelling of clusters not as coherent, unified entities, but instead as agglomerations of groups (e.g. employers, merchants, craftsmen) with distinct and only sometimes overlapping interests—is justified. Collective action and government intervention did occur in this cluster, yet neither was intended to bring about *cluster-wide* success. Instead, they were initiated to serve other, more particular interests. What was missing was not collective action or government intervention, but rather an alignment of interests within the cluster such that cluster-wide gains were privileged above those of certain classes or actors.

5.2 Theories of Clustered Economic Activity

Marshall's (1920) century-old discussion of the benefits to firms of clustering remains relevant in the twenty-first century. Investigating the textile and metal-working industries of England, Germany and France in the late nineteenth century, he surmised that the agglomeration of firms engaged in similar or complementary activities created positive externalities that made it easier for clustered firms to compete with larger, more dominant firms. While the context of clustering has changed over the century since Marshall wrote, contemporary scholars of industrialization argue that the positive externalities associated with clustering remain similar today. These include:

(1) an increased division of labour and specialization among firms (Schmitz 1995, pp. 533–534);
(2) flexibility and speed—the close proximity of firms makes just-in-time production possible (Schmitz 1995, pp. 533–534);
(3) labour market pooling—the concentration of labour with sector-specific skills. Pooling results from the upskilling of workers within the cluster and the in-migration of appropriately skilled labour (Krugman 1991, pp. 36–37);
(4) technological spillovers—clustering facilitates the easy flow of know-how and ideas across firms, leading to the spread of technology and increased innovation (Krugman 1991, pp. 36–37);
(5) improved market access—clusters attract more potential customers than isolated firms can, improving market access for all firms in the cluster (McCormick 1998, p. 27); and
(6) the emergence of agents who sell to distant markets (Schmitz 1995, pp. 533–534).

A number of studies have showcased clusters that have achieved some or all of these positive externalities. Schmitz's (1992) study of the machine tool, car and electrical/electronics industries in Baden-Wuttenberg, Germany, for example, highlights the presence of deep inter-firm divisions of labour and a set of self-help associations that provide industry-specific training, information about product standards, and advice for member firms. Knorringa's (1996, 1999) study of the footwear industry in Agra, India discusses the cluster's large concentration of skilled shoemakers and specialized suppliers of inputs and services. Schmitz's (1995) study of the Sinos Valley footwear cluster in Brazil highlights the local supply industry that has grown up around the cluster of shoe manufacturers, including the nearby production of most inputs and many of the machines used in the manufacturing process, as well as the availability of 70 different export agents, many freelance designers, technical and financial consultants, specialized transport services, and the publication of six technical journals specializing in the footwear trade. Holmstrom's (1998) study of the engineering and electronic industries in Bangalore, India, discusses the spillover of technologies from one firm to another, the increased capacity of small firms to afford expensive technologies, the high degree of inter-firm technical specialization, and the concentration of a pool of highly skilled, highly educated workers.

While some research shows that clusters often benefit from external economies, other evidence reveals that the achievement of all of these externalities is not guaranteed for any cluster, and that, when clusters do achieve positive externalities, they achieve them in a range of ways. For one example, McCormick (1999) notes that the Eastlands garment cluster and Kamukunji metalworking cluster, both in Kenya, have benefited from improved market access, but that an over-concentration of unskilled labourers has led to cut-throat inter-firm competition as labourers find it more worthwhile to create their own small enterprises rather than take up poorly paid work within an already-existing firm.

If clustering alone cannot explain the variation in outcomes observed, what can? Schmitz (1990, 1995) argues for a 'collective efficiency' framework that recognizes both 'passive' (i.e. positive externalities of agglomeration) and 'active' (i.e. collective action or government intervention) elements of successful clusters. This represents a turn towards a framework that pays greater attention to the trajectory of clusters over time, and to how a cluster's trajectory might be purposively altered by actors/interests inside or outside the cluster.

The particular cases of positive intervention discussed in the literature have generally occurred in the face of crisis (e.g. Rabellotti 1998; Schmitz 2001). Kennedy's (1999) study of multiple tannery clusters along the Palar Valley in northern Tamil Nadu, is a case in point. The author explains the success and dynamism of certain clusters, and the failure of others, in terms of the level of collective action achieved in the face of a government crackdown on pollution abuses by tanneries in the region. Those clusters that organized quickly to collectively invest in, build, and manage central pollution treatment plants were quickly back on their feet, while those that refused to mobilize collectively, or did so slowly, have struggled to survive, if not failed to reopen at all. Nadvi's (1999) study of the surgical instruments cluster in Sialkot, Pakistan, points to the role that government can play in facilitating cluster success. When a shift in global quality standards for surgical instruments brought about a restriction on imports of Sialkot-made instruments into European markets, the Pakistani government stepped in to provide financial support for the hiring of foreign quality consultants, the financing of an internationally recognized metal-testing laboratory and technical training facility, and the provision of a US$2.5 million revolving credit line for soft-term loans to local producers.

Schmitz's 'collective efficiency' framework has been helpful in pushing researchers to consider the role of different actors in cultivating (rather than simply waiting for) development, yet it raises as many questions as it answers. In particular, it may be wondered why collective action and government intervention arise in some contexts but not others. Nadvi's (1999) study of the Sialkot cluster, for example, uses the collective efficiency framework to discuss the significance of collective action in overcoming a cluster-wide quality crisis, but gives no explanation for why collective action was not initiated to overcome other cluster-wide problems, such as poor infrastructure and sanitation, low safety and health standards, the persistent use of child labour and so on. It may also be questioned that why some forms of collective action and government action help catalyze cluster development, while others undermine it. Answers to these questions require a richer discussion of the political, economic and institutional context within which clusters operate. Schmitz (2001) makes a similar point in his study of the Sinos Valley footwear cluster in Brazil, where the differential impact of social and economic change for different actors in the cluster meant that collective action and government intervention did not happen. Many actors saw it in their interest to reinvigorate the cluster through intentional diversification to other areas of the production value chain, yet several of the cluster's largest and most powerful firms refused to support this initiative because they stood to gain from supporting the status quo. Had Schmitz conceived of the Sinos Valley cluster as a single, coherent entity, he would have been left wondering why actors failed collectively to pursue an end that they should have prioritized. That instead he conceived of the cluster as a meeting of groups with different interests and potentially different orientations meant that he understood the lack of cluster-wide collective action as a reflection of conflict between warring groups rather than the irrational failure of a single-minded institution. What this discussion clarifies is the need to approach clusters as sites of conflict—after all, the engine of capitalist growth is fuelled by inter-firm competition—rather than as coherent, unified entities. Questions around the success or failure of cluster-wide development therefore turn to a consideration of the extent to which different groups within a cluster have (or at least perceive themselves to have) conflicting or overlapping interests.

A second area neglected by the 'collective efficiency' framework is the way in which industry structure affects the presence and character of clusters. This question has been neglected in part because the literature has focused overwhelmingly on clusters that dominate at the national or global level. In India, these include Bangalore where 20 % of the country's electronic output is produced (Holmstrom 1998), the Palar Valley in Tamil Nadu where 45 % of India's leather is produced (Kennedy 1999), Agra's footwear industry where 300,000 pairs of shoes are produced each day (Knorringa 1999) and Tiruppur where 35 % of the country's cotton knitwear is produced (Cawthorne 1993). A singular focus on these dominant clusters has meant that scholars have neglected the ways in which industry structure can condition the kinds of clusters that arise beyond those that are most obvious and most economically dominant, as well as the dynamics within those non-dominant clusters. In particular, researchers have paid little attention to smaller and more common clusters that pervade certain industries, such as the knitwear and footwear industries, where geographically concentrated production is much more common than research focused on a single major cluster would suggest.

With these weaknesses in mind, I turn now to an examination of one gold ornaments cluster in southern India.

5.3 Methodology

From July through October 2002, several hours a day (sometimes up to eight) were spent observing activity and interacting with the main actors—goldsmiths, merchants and pawnbrokers—in the gold ornaments cluster in Arni, Tamil Nadu. In total, 54 shop interviews—37 with goldsmiths and 17 with jewellery merchants and pawnbroking shops—were held. Interviews lasted between 45 min and 6 h, with an average of about 1.5 h. A further 13 interviews were conducted outside the cluster—eight with goldsmiths and pawnbrokers in three villages near Arni, two with officials of the State Bank of India (one in Arni and one in Chennai), one with a coolie labourer who abandoned smithing due to lack of work, one with a large merchant in Chennai and one with the programme director of a goldsmith training course in a university in Chennai. All interviews were semi-structured, wide-ranging, and conversational. With no access to a full listing of cluster participants, it was not possible to identify a random sample. Instead, new contacts were elicited from each respondent, making sure to start new 'threads' at several points in order to limit sample bias. These observations and interviews are set in a historical context using archival data and secondary literature on the dynamics of the gold and gold ornaments industries, as well as the national and local economies.

5.4 Arni's Gold Ornaments Cluster

Arni is a small market town in northern Tamil Nadu, India. While in 2001 the census count for the town was 60,888, the town looks and feels a good deal larger than this for reasons described in Chaps. 1–4. The region in and around Arni holds about 300,000 people.[1] But census statistics mask the town's daily level of

[1]Arni Taluk, which includes the town of Arni and 52 nearby villages, had a population of 246,373 in 1991.

crowding. Arni serves as a market town and central place for the residents of the more than 100 villages surrounding it. The town also sees its share of daily commuters and travellers from outside the region. While not located on a major state highway, Arni is a hub for routes south from Vellore, north from a famous Hindu temple and a renowned ashram in Tiruvannamalai, and southwest from a famous Hindu temple complex and a thriving silk sari industry in Kancheepuram.

In the centre of Arni's busy market district sits a gold ornaments cluster consisting of some 150 goldsmiths shops, 65 jewellery merchant shops and 200 pawnbroking shops. Altogether, the cluster directly involves the work of approximately 300 goldsmiths, 200 merchants and 200 pawnbrokers. Indirectly, many more people are involved—ranging from a handful of bankers in Chennai, to a plethora of children employed in Arni's coffee and tea stalls (supplying raw materials for the hospitality essential to transactions), to blacksmiths, carpenters, and potters, who fashion tools used in ornament production—but for each of these groups, supplying Arni's gold ornaments cluster is but one of many of their activities.

The vast majority of shops involved in the gold ornaments trade in Arni are located on or near the original commercial heart of the town, Big Bazaar Street, running parallel to, and east of, Gandhi Market Road, the current central business area (Map 4). Throughout the day, Big Bazaar Street is a bustling environment. Children trot to a nearby primary school, travellers visit a small Hindu temple, agile young workers weave through the crowd with crates of steaming coffee and tea, and a myriad of shoppers and dwellers go about their daily business. Sounding their horns are busybodies on bikes, scooters, motorcycles, cars and the lumbering dinosaurs of school buses. The bulk of the street's traffic is comprised of travellers in search of ornaments, and producers and merchants running from shop to shop to complete orders. Several hundred one-room shops line both sides of Big Bazaar Street and populate its tributaries.

No other market in Arni shares this degree of physical clustering, yet this hardly puts the cluster on the same level as its more globally dominant counterparts discussed in the literature. According to merchants and smiths, every town in India has its own gold ornaments cluster, varying in size according to the region's population. In recent years, increasing mechanization has facilitated greater geographical concentration (more on this below), yet it remains the case that the gold ornaments industry in India is organized in a highly dispersed, localized, yet nonetheless clustered manner. We can think of gold clusters as 'common clusters'.

The principal input for the gold ornaments cluster—raw gold—is imported from abroad by 12 commercial bank chains. In Chennai (and other large cities throughout the country), these banks sell raw gold to bullion dealers[2] and large ornament merchants.[3] Smaller merchants and goldsmiths cannot purchase raw gold directly

[2]Bullion dealers speculate on gold by buying, hoarding and selling once the price rises.

[3]The primary destination of gold imports and recycled gold in India is the gold ornaments industry. Estimates of the proportion of India's total gold demand that goes to the ornaments industry range from 78 (Vajpeyi 2002) to 85 % (Jagannathan 2001). Of the 13,000 tonnes of gold in the country, an estimated 10,000 tonnes are held privately in the form of jewellery (Deshpande 1999).

from these banks as the minimum purchase requirement is approximately Rs. 50 lakh, well beyond the immediate need and means of almost any ornament producer or merchant in India. In Chennai, the bullion dealers and large merchants who do purchase gold directly from these banks turn around and sell portions of this gold to other large merchants and to large-scale mechanized producers in Chennai, as well as to large merchants and mechanized producers in other large cities in Tamil Nadu, such as Coimbatore and Tiruchchirappalli.

Gold makes its way into the Arni cluster through three different routes. First, merchants purchase raw gold from larger merchants in Chennai and other large cities in the region. This raw gold is used for crafting new ornaments within the cluster. Second, merchants purchase already-manufactured (i.e. 'ready-made') ornaments that have been mass produced in factories in one of the state's larger cities—often Chennai or Coimbatore. Third, and less commonly, goldsmiths purchase raw gold from outside merchants for use in crafting new ornaments within the cluster.

Within the cluster, there are three main groups of actors—goldsmiths, merchants and pawnbrokers. The roles associated with these three groups are distinct, though at times individuals take on more than one of them. For example, almost all merchants are also pawnbrokers, and some of the better-off goldsmiths also acted as small merchants. In general, however, virtually all goldsmiths and most pawnbrokers specialize.

The cluster's goldsmiths are its workhorses, providing the physical labour and skill necessary for crafting ornaments produced within the cluster. In general, they are also the cluster's most vulnerable and poorest participants. Merchants, on the other hand, act as middlemen, buying and later dishing out raw gold for ornament production, taking orders from the public and hiring goldsmiths to fill those orders, and buying 'ready-made' ornaments from producers in other cities for sale to customers in Arni. Pawnbrokers provide high-interest loans to needy clients, often taking gold ornaments as collateral. As is explained below, they are not involved in ornament production, but their willingness to accept ornaments as collateral for loans plays an important role in sustaining demand among otherwise poor consumers.

In Arni, gold ornaments are purchased through several different channels. First, customers approach merchants to have ornaments crafted from scratch. The merchant hires one or several goldsmiths to craft the ornament in question. Merchants might employ the same goldsmith(s) each time, but the goldsmiths nonetheless remain organizationally distinct from hiring merchants. That is to say, goldsmiths are not permanent employees of merchants, but are instead hired at a piece rate. The merchant provides sufficient raw gold to the goldsmith(s) to craft the ornament. The customer in question must pay an advance to the merchant, the size of which depends in part on the relationship that the merchant has with the customer.

Second, customers purchase ready-made ornaments from merchants. As noted above, ready-made ornaments are ornaments that have been manufactured in mechanized factories in Chennai, Coimbatore or some other large urban centre. Travelling salesmen tote these ornaments from town to town, selling ready-mades to any merchant willing to pay the price. Merchants turn around and sell these ready-mades at a premium to local customers. Ready-mades are usually on display in the merchant's shop and can be gazed at, selected and tried on by the customer before purchase. These ornaments are usually paid for in full by cash. All merchants sell ready-made ornaments, yet none does so to the exclusion of taking orders for freshly made ornaments. In general, the ratio of ready-made sales to order sales ranges between 70:30 and 30:70.

Third, customers approach goldsmiths to have ornaments crafted in a bespoke fashion. This occurs less often than purchases of gold crafted via merchants, if only because merchants control most of the raw gold in Arni. For those goldsmiths with enough raw gold to craft new ornaments, this process looks similar to the one described above, minus the middleman and, depending on the habit of the goldsmith and the relationship between the goldsmith and the customer, minus the advance payment.

Most goldsmiths receive orders from both merchants and the public, though in varying proportions. Where orders come from depends in part upon a smith's specialization, and in part upon friendship and customer networks. If a goldsmith specializes in stonesetting, he will only receive orders from other goldsmiths who have been given an order for a complete ornament from either a merchant or a customer. If a goldsmith specializes in *tali*-making,[4] on the other hand, he will likely receive orders from both merchants and members of the public. Direct orders from the public guarantee better returns to a goldsmith. Merchants tend to contract out to smiths who offer low rates. Given the over-supply of smiths in most specializations, no single smith can raise his rate much higher than the going one without losing orders from merchants.

The cluster's consumer base is drawn from the town itself as well as the surrounding villages. Goldsmiths and merchants indicated that, with few exceptions, customers from outside Arni travelled no more than 40 kms in order to reach the cluster. Goldsmiths and merchants do not take their wares on the road to sell in other towns or villages. There are several important implications of the cluster's dependence on the immediate region's population. First, Arni and its surrounding region are poor compared to other parts of India,[5] so demand for gold ornaments is limited. Second, Arni is an agricultural marketplace, and the wider region depends importantly on the success or failure of crops, making the gold ornaments sector

[4]The *tali* is a wedding necklace, placed round the neck of a bride by her groom in most Hindu marriage ceremonies, and worn throughout life by a married woman. The size and design of the *tali*, as well as the number of pendants attached, differ depending on the caste and wealth of the marrying families (Brouwer 1995, p. 131).

[5]In 1980–1981, North Arcot District's Net Domestic Product (NDP) per capita was Rs. 750 (Ramasamy et al. 1991, p. 11), while the national average was nearly 2.5 times higher, at Rs. 1,816 in 1980 (World Bank 1983). The real output of the region is quite a bit higher than this, as black market activities appear to equal or exceed output in the formal sector (Basile and Harriss-White 2000, pp. 12–13), yet the black market is a reality throughout India so this does not change the fundamental point that Arni is poor by Indian standards.

dependent on both local weather patterns and the fluctuations in world prices for agricultural commodities that drive local incomes in the twenty-first century.[6]

There is a good deal of specialization among goldsmiths in the cluster. Smiths commonly specialize in one segment of the ornament-making process and/or one type of ornament. Among smiths who specialize in one segment of the process, specializations include: melting and purification of raw gold (e.g. converting gold from 22-carat back to 24-carat), machine rolling and shape-cutting,[7] gemstone setting, polishing,[8] machine cutting,[9] and small repair work. Among smiths who specialize in one type of ornament, specializations include: (1) chains and necklaces; (2) rings and bangles; (3) earrings and nose pendants; and (4) the wedding *tali*.

Differences between these specializations are not only physical, but also financial. This is for two reasons. First, not all ornaments and process are as much in demand as others. For example, the *tali* is in high demand throughout all but inauspicious months of the year, regardless of the price of gold, because of its important role in marriage ceremonies. The demand for chains, on the other hand, depends to a greater extent on variations in the price of gold because chains do not have the same ritual significance. Second, the supply of smiths for particular ornament types and processes does not always correspond to demand. For example, while the *tali* is in high demand, only a few goldsmiths specialize in its crafting. This undersupply is partly a product of unequal access to training for certain specializations. All goldsmiths participate in some form of apprenticeship under an experienced smith. These opportunities tend to be shared out among family members and friends, making it near impossible for a poorly connected person to break into a highly valued specialization. The undersupply of smiths in certain specializations is also partly a product of the risk involved in the specialization. For example, one *tali* can be composed of up to 90 small components, the incorrect merger of which would mean that the smith must start again from scratch. The few smiths who craft *tali* therefore benefit from an abundance of orders. In contrast, goldsmiths who specialize in stonesetting—a less risky specialization—are in competition with a plethora of other stonesetting smiths over a limited number of orders.

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[6]Only 5 % of the urban population works in agriculture (Basile and Harriss-White 2000, p. 11), yet some 40 % of North Arcot District's NDP was accounted for by agriculture (Ramasamy et al. 1991, p. 11). A good deal of this production takes place on small farms. Many of the landless in these villages also depend on agricultural labour for income (see Arivukkarasi and Cavalcante, Chaps. 8 and 10). Together this means that the incomes of a sizeable majority of the region's population depend on the agricultural sector.

[7]'Machine rolling and shape-cutting' refers to the flattening of gold biscuits into gold sheets through a series of rollers, the shaping of gold biscuits into long wires, and the cutting of gold sheets into shapes, similar to the function of a cookie cutter.

[8]Polishing usually involves gold- or silver-covering work. When an ornament is polished, it is brushed clear and lightly coated in gold or silver to give it a new shine.

[9]'Machine cutting' refers to the cutting of ornaments into pre-set designs using a cutting machine. This type of machine is capable of finer and more detailed designs than goldsmiths can accomplish by hand.

There are several important implications of the hoarding of apprenticeship opportunities within networks of family and friends. The first is that there is a good deal of inequality within the goldsmith community. This inequality is reproduced across generations as those in lucrative specialties ensure access to those same lucrative opportunities for their own offspring and certain friends. The second implication is that goldsmithing, as a whole, remains heavily dominated by the same caste that has dominated smithing for generations in Arni. Estimates of the proportion of the Arni goldsmith population that are *Achari*, the traditional smithing caste, range from 75 to 90 %.

On the margins of the smithing community, small cracks in this caste edifice are apparent. In the last quarter of the twentieth century, non-crafting specializations, such as polishing and purifying, have come to be dominated by caste and religious groups not traditionally associated with gold ornament production—the cluster's polishers are mostly Muslim and its purifiers are mostly *Marathi*. This change appears to be more the result of goldsmiths and goldsmith families abandoning non-lucrative occupations than of non-traditional caste and religious groups finding ways to break down the *Achari* monopoly on the smithing trade. While, significant change does appear to be on the horizon as mechanization displaces local production and handcrafting skills (more on this below), these changes have not yet dismantled the *Achari* community's control over the smithing trade.

Access to the merchant and pawnbroking occupations depends more on wealth than on family guarded apprenticeships. Merchants and pawnbrokers need little training but a relatively sizeable amount of capital in order to start and run a business—respondents estimated Rs. 5–10 lakh for a small merchant shop and Rs. 1–2 lakh for a small pawnbroking business. Historically, merchants depended for business on the inter-generational cultivation of relationships with customers and goldsmiths, but the importance of these relationships is diminishing significantly in the twenty-first century as the sale of ready-mades has come to occupy an increasing proportion of the ornaments trade in Arni.

Merchants do not specialize in the sale of particular ornament types or designs. All merchant shops sell a wide range of ornaments and display catalogues picturing many other types of ornaments that can be ordered. This is not to say that ornament offerings do not vary from shop to shop on any given day, but that individual shops do not build reputations for offering particular goods. The market for ready-made ornaments is such that anyone can purchase any ornament sold by travelling agents. This enables merchants to easily adjust their range of ornament offerings.

Arni's pawnbrokers are much less involved in the direct functioning of the cluster, though they provide an important service that helps maintain the attractiveness of gold ornaments as an investment—providing cash loans on the basis of collateral in the form of gold (jewelled, and sometimes silver) ornaments. Gold ornaments remain a popular purchase in rural India partly because they are a relatively liquid form of savings—they are easily sold (or in this case, converted into loans) on short notice. Without pawnbrokers ready to give cash loans to any customer with gold jewellery, gold ornaments would be a much less liquid form of savings, and therefore a less appealing purchase for some rural customers.

Relations between the cluster's groups are seldom amicable. Most goldsmiths see the merchant class as greedy, rich, exploitative and corrupt. To a degree, this is related to the fact that members of the *Achari* caste—the caste most common among Arni goldsmiths—perceive the mercantile activity, and the monetary rewards that come with it, to be totally out of their financial reach. While merchants might not share a common caste with goldsmiths (many merchants in Arni are *Marwaris,* originally from Rajasthan), it is rather the entry barriers to commercial jewellery that reinforce the collective *Achari* identity of smiths and their shared dislike of their merchant employers. Goldsmiths go to merchants for work not because they offer good working relations and high pay, but rather because merchants own the supplies and control the marketplace and therefore most of the channels of employment for smiths in the cluster. Merchants, on the other hand, see smiths as a varied lot, only a small portion of which is skilled and motivated. Merchants depend on smiths for their crafting skills, but to a lesser extent than smiths depend on them for work. Merchants do not perceive their pay for goldsmiths as exploitative, but rather as a product of an increasingly competitive market where they too are feeling the squeeze. Cooperation between the two groups is non-existent.

Relations between goldsmiths and pawnbrokers, and between pawnbrokers and merchants, are much less important in the cluster's functioning. Aside from the occasional selling of old ornaments by pawnbrokers to goldsmiths or merchants, there are seldom work-related interactions between the groups.

Unsurprisingly, no cluster-wide collective action occurs. What little collective action does tend to occur at the level of the occupational group? Almost all goldsmiths in Arni are members of the Arni Goldsmiths Association. While the group is only minimally active, it has recently made gains by helping unemployed smiths find orders and by providing small amounts of financial assistance to poor smiths burdened by funeral expenses. The 11 purifying shops in Arni are members of the North Arcot Gold and Silver Refinery Association based in Vellore. The Association is less active than the Goldsmiths Association, mainly offering protection against harassment from merchants who often blame purifiers when gold is missing. Almost all merchants are members of the Arni Gold and Silver Association, which again is only minimally active, offering some protection for merchants against harassment and corruption from police and local officials. About half of Arni's pawnbrokers are members of the Arni Pawnbrokers Association, which offers some help for pawnbrokers when negotiating with local officials for license renewals. In all of these cases, collective action is relatively weak and is oriented towards group-specific interests, not those of the cluster as a whole.

5.4.1 Forces of Change

Three recent waves of change have had significant impacts on the cluster: (1) the liberalization of policies governing imports and possession of gold in India; (2) the rise of large-scale mechanization in ornament production; and (3) changing ornament quality standards. Each of these will be discussed in turn.

5.4.1.1 Liberalization

In 1963, the government of India implemented the Gold Control Rules in an effort to stem the domestic consumption of gold, which many saw as an unproductive form of savings. The Rules put in place heavy duties on the import of gold, made it illegal to possess gold except in small quantities in the form of ornaments, and mandated that any ornament made in India must use gold of 14-carat purity or less. They furthermore required the registration and licensing of goldsmiths, required goldsmiths to keep detailed transaction records, and outlawed the hiring of goldsmithing labour by other goldsmiths.

The consequences of the Rules for the gold ornament industry in India were disastrous. Both the exorbitant rise in the price of gold due to the newly introduced supply restrictions and the 14-carat maximum on ornaments brought the industry to its knees, as demand plummeted. Over 200 goldsmiths across India committed suicide in the wake of the 1963 reforms due to hunger (Banerjee 1982, p. 10) and a further 10–15 % of goldsmiths left the sector. The crippling of the industry sparked a widespread mobilization among smiths, which led to a relaxation of some of the Rules. However, the thrust of the Rules remained intact until the early 1990s.

In 1991, as part of the government's wider liberalization strategy, the Rules were repealed. As duties on gold imports were substantially reduced, demand for ornaments increased. Oppressive rules governing production and sales were wiped clear. Goldsmiths no longer needed licenses to practice, were no longer forced to keep detailed records of business transactions, and were not prevented from possessing raw gold.

Yet while the 1963 Rules came down hard on goldsmiths, the 1991 repeal was hardly a blessing for this group. Demand for ornaments increased, which meant more work for smiths, but the loosening of license and entry requirements for smiths led to a surge in the population of smiths that easily outstripped this rise in demand. In 1990, the Arni cluster had approximately 75 smiths, while in 2002 it had approximately 300, representing a 400 % increase in a little over a decade. This has had two important effects. First, it has left goldsmiths in Arni—experienced and inexperienced alike—underemployed. Second, it has contributed to a deepening of the division of labour, as smiths seek to distinguish themselves in an increasingly crowded market. For smiths stuck in high-supply specializations, like necklace making and stonesetting, the dramatic rise in supply of goldsmiths has been tremendously harmful.

5.4.1.2 Mechanization

The mechanization of ornament production processes has been occurring for at least the last 60 years. Machines for plate- and wire-making, for cutting dyes, and for stoking charcoal fires were the first, and for a long time the only machines used in the industry. These machines, all commonly found and increasing in number in Arni today, have made it unprofitable for smiths to spend hours performing ‘crude’ tasks, such as hammering a gold biscuit into a small plate. Their increasing prevalence has led some smiths to specialize in machine operation, but it has not led to any fundamental changes in the structure of the cluster.

By far the greatest technological advances in the industry have occurred after 1990. In 1982, Banerjee wrote that in India:

> production of ornaments on a large scale is […] impossible, even if the owner of the workshop is an affluent goldsmith, and owns a large assortment of tools and implements. […E]ach of the stages of ornament-making requires careful handling by deft hands, and power-drive machines cannot take over any of these operations from the working goldsmiths. (Banerjee 1982, p. 8)

Since then, the industry has been significantly influenced by the appearance of small-scale design and polishing machines, as well as machines for mass production.

In Arni, machines for design cutting and polishing first appeared in the early 1990s and have become increasingly common since then. Design machines have made possible new designs for stoneless ornaments, which cannot be reproduced by handcrafting smiths. In recent years, an increasing proportion of demand has shifted away from handmade designs to more ‘modern’, machine-made designs, leading to a decline in orders for handcrafting smiths.

The rise of mechanized production centres in places like Chennai and Coimbatore has had an even more far-reaching impact on the cluster than has local mechanization. With each year over the past decade, ready-made ornaments have increasingly flooded the industry. The ready-made phenomenon has led to four major changes in the Arni cluster. First, ready-mades have diminished risk and lowered transaction costs for merchants. Before the ready-made influx, Arni’s merchants relied completely on orders from the public. With every order, merchants risked not being paid by an unsatisfied customer once the ornament had already been crafted. In contrast, ready-mades are paid for in cash on the spot and, once purchased, cannot be returned. Ready-mades lower transaction costs for merchants by allowing them to avoid hassles with goldsmiths, including negotiations over pay and the time frame, as well as disputes with customers, including haggling over prices when the gold price rises or falls in the time separating a customer’s order and pickup.

Second, the ready-made phenomenon has lowered entry barriers to the merchant trade for ‘outsiders’. High-quality ready-mades can be purchased by anyone with enough money to pay travelling agents. Therefore, anyone with enough capital can open a high-quality jewellery shop. This contrasts sharply with the social regulation of the merchant trade before the widespread availability of ready-made ornaments. When jewellers relied primarily on taking orders from customers for new ornaments, jewellers and customers alike required a greater level of trust. Merchants needed to be sure that the customer would return to pay for the ornament once it had been completed. Customers needed to be sure that the jeweller would deliver a well-crafted ornament of the advertised quality. As a result, a merchant's reputation among customers was all-important. In the twenty-first century, ready-mades diminish the importance of reputation. Now that high-quality ornaments can be purchased from travelling agents by anyone with enough money, customers differentiate between merchant shops less on reputation and long-term relations, and more on the range of ornaments and prices on offer. Together, these lower entry barriers and the diminished risk and transaction costs for merchants have contributed to a surge in the number of merchant shops in Arni from approximately 10 in the late 1980s, to 20 in 1995, to 65 at the time of the 2002 fieldwork.

Third, the growing market for ready-made ornaments has displaced a good deal of local goldsmith labour. As merchants turn to ready-mades and as Arni's consumer base grows more and more fond of these products,[10] relative demand for locally made ornaments has declined. In 2010 this had not yet shown up in rising unemployment among smiths or in smiths vacating the trade,[11] but it has contributed to rising underemployment. Some specializations have been hit harder by this trend than others. In particular, it has led to a shift away from both stone-laden and heavy ornaments because design machines, the only tools capable of producing 'new' designs, can only produce lightweight, stoneless ornaments—handcrafters are forced to follow demand as it leans towards machine designs, even if they are quite capable of crafting ornaments that machines cannot produce.

Fourth, the rise of machine production in larger urban centres has opened pathways into smithing for individuals not connected to smithing families or friendship networks. Whereas smiths who train in Arni do so with a relative or family friend, those few who have gone to Chennai or Coimbatore to apprentice in machine techniques have trained under the guidance of a stranger. Whereas traditional apprenticeships in handcrafting carry no fee for apprentices, those in machine production do, the size of which depends on the duration of the training, which itself depends on the type of machine in question. The central point here is that non-smithing families can now opt to invest in machine training as a way to enter a trade that was previously monopolized by smiths and their families and friends. We saw above that trade liberalization in the early 1990s contributed to a dramatic rise in the number of smiths in Arni; the opening up of machine training to anyone with enough money to pay for the training has similarly increased the supply of smiths, at least in certain specializations. This new supply of non-*Achari* smiths has come

[10] Customers appear to appreciate ready-mades for several reasons. Ready-mades can be seen, touched, tried on and compared to other ornaments in the shop. This contrasts sharply with having to select a design from a catalogue of pictures or drawings. In the past, ornaments were ordered on one day and picked up several days later, sometimes with an unsatisfactory outcome. In contrast, ready-mades involve no wait. The immediacy of ready-made transactions has been particularly important in drawing last-minute demand—for example, for a fast-approaching wedding. Furthermore, ready-mades have gained popularity because of their 'new', 'modern' designs.

[11] Interviews with goldsmiths on brief revisits to Arni by Harriss-White in 2007 and 2010 confirmed that goldsmiths have not experienced rising unemployment.

mainly from Arni households that encounter caste barriers to lucrative occupations, but that have sufficient income or wealth to enable investment in machine training for one or more of their offspring. Opportunities to enter the smithing trade through this channel do not appear to have attracted a new population of non-traditional residents to the town.

Overall, mechanization has brought about massive changes for the cluster. It promises to cut deeper in future. Smiths have borne the brunt of this change as their labour is increasingly displaced by far-away machines. Merchants too have experienced rising competition as the barriers to entry have declined, yet unlike smiths most merchants interpret mechanization as a boon to their trade as they depend less on riskier investments. Competitive pressures are compelling merchants to rely more and more on ready-mades, leaving goldsmiths increasingly vulnerable and without enough work in the only trade they know well.

5.4.1.3 Changing Quality Standards

Changing quality standards for gold ornaments in India has come about as domestic customers have become increasingly aware of internationally accepted quality standards and the extent to which jewellers regularly cheat customers. The Bureau of Indian Standards (BIS), in cooperation with the World Gold Council (WGC), has been instrumental in raising awareness of the prevalence of cheating among merchants. With little effective monitoring by authorities of ornament production and sales, it remains easy, for example, for producers to falsely brand a 16-carat ornament as 22-carat. BIS-WGC surveys conducted in Delhi, Chennai, Bangalore, Hyderbad, and Jaipur revealed that, of sample jewellery purchased in each city, between 73 and 87 % was found to be of inferior quality than what the merchant claimed.[12] In April 2000, a cooperative effort between BIS and WGC was launched to introduce hallmarking[13] facilities in India. Eleven Assaying and Hallmarking Centres were made available in the country's biggest cities for voluntary hallmarking. While direct participation in the scheme remains low, the presence of hallmarking facilities has had ripple effects throughout the ornaments industry. One impact of the new quality requirements is the increasing stringency in type of alloy used to strengthen and solder ornaments. Due to the malleability of pure gold, alloys—traditionally copper and silver—are used for strengthening. The addition of alloys 'dilutes' gold from pure 24-carat to 22-carat (or less). All ornaments contain some level of alloy; however, multi-faced ornaments in need of stronger gold for soldering to keep the ornament whole throughout its lifetime are in special need of alloys. For example, a '22-carat' multi-faced ornament composed of several

[12]The Economic Times Online (2001), The Financial Express (2001), Jagannathan (2001), Narayanan (2001), Business Line (2001), Deccan Herald (2002).

[13]A hallmark is a brand stamped on an ornament indicating that the ornament's purity is above a specified level.

22-carat faces might be welded together using 14-carat gold. By BIS and international standards, such an ornament fails to meet 22-carat standards, yet most jewellers in the country continue the practice of labelling it as such.

In recent years, the use of cadmium in soldering has become increasingly common. In contrast with copper and silver, cadmium evaporates at the melting point of gold, offering strength to ornaments without ‘diluting’ the gold’s purity (Vajpeyi 2002). The significance of cadmium goes beyond a simple shift in the type of alloy used in production; it also indirectly affects the incomes of goldsmiths. In the past, goldsmiths were allowed to keep the small amount of wastage that resulted from the crafting of an ornament.[14] Today, however, the amount of wastage deemed acceptable by jewellers has fallen due to the increasing stringency of quality standards. Cadmium makes possible less ‘waste’ in the design and crafting phases. This hurts the livelihood of smiths who depend on ‘wastage’ to supplement their meagre earnings. One Bangalore merchant noted that modern manufacturing practices have allowed Indian ornament factories to achieve much lower wastage margins (6.8 %) than is possible in traditional Indian smithing shops (22 %), though Indian factories still have a way to go before achieving the much lower wastage margins found abroad—the world average is 2 % (The Hindu 2001).

In the twenty-first century, these waves began to crash on Arni’s cluster. Many goldsmiths reported an environment of increasingly harsh demands among merchants for ornaments to be produced with near-impossible amounts of waste. Such demands, they insisted, have impinged upon their incomes, already declining due to the growing supply of smiths and the rising influence of ready-mades. Arni’s merchants similarly argued that they were being squeezed by market forces, driving them to make stringent demands on goldsmiths in order to compete with merchants who sell hallmarked goods, as well as with one another as Arni’s merchant population swells.

5.5 Conclusions: Clustering and Collective Efficiency in Arni’s ‘Common Cluster’ for Gold

This chapter has focused not on a specialized or dominant cluster but rather on a kind found throughout Middle India, one with varied supply routes and demand channels and a diversity of commercial functions, technologies and craft activities. The Arni gold ornaments cluster is dynamized in some of the ways predicted by the

[14]Goldsmiths earn a small amount of money from ‘wastage’—gold dust resulting from converting gold from 24-carat to its desired purity and chipping away at an ornament to mould its design. For a single ornament, wastage does not amount to much. It is usually collected by a smith once every month or two by sweeping the shop floor. A smith must then spend several hours separating the gold from the dirt, melting the gold into a single biscuit, and purifying it. Some smiths do not bother with wastage collection because of this lengthy process.

literature, but not nearly to the same extent and not always in the same ways as many of the clusters examined by other scholars.

First, the concentration of goldsmith labour in Arni has led to significant specialization and a deepening division of labour. This in turn has contributed to the speed and flexibility with which production can occur in the cluster. Market access has improved for all firms in the cluster, though the fact that each town in India has its own cluster means that the Arni cluster has no hope of developing the extent of market access enjoyed by specialist clusters that grow to dominate national or global markets. But the Arni cluster has seen little labour market pooling of the kind described in the clusters literature. To be sure, there is an abundance of goldsmiths, merchants and pawnbrokers in the cluster, but few of these have come from outside the town. Instead, as liberalization and technological change have opened up new opportunities in the cluster, and as other sectors in the local economy have experienced decline, job seekers have gravitated towards occupations that plug into the gold ornaments cluster. This is quite different from the clusters literature's labour pooling process. The most obvious reason why this process differs in Arni is that when each town and city has its own gold ornaments cluster, its growth is limited by the size of the market it serves. It makes little sense for job seekers with ornament crafting skills to gravitate towards one of these 'common clusters' over any other, least of all a cluster in a small town experiencing tumultuous changes.[15]

Second, technological spillovers are common in the clusters literature but rare in Arni's gold cluster. This is not because producers and merchants do not learn from each other, but instead because the relevant technological advances are too costly for all but a very few cluster participants. Technology is spreading from firm to firm in the wider gold ornaments industry, but little of this spillover is occurring in Arni, which is much smaller and poorer than larger urban centres such as Chennai and Coimbatore. As mechanized production becomes more and more important in the Indian gold ornaments industry, an increasing amount of production is occurring in clusters of ornament factories in these larger cities, while smaller, poorer clusters like Arni are slowly turning from production centres into retail centres for distant ready-made producers. This is quite a different process from that described in the literature.

Third, what about the 'active' elements of successful clustering pointed to by Schmitz (1990, 1995)? As is evident from the discussion above, the collective action that did arise in the Arni cluster was not *cluster-wide* collective action, but instead mobilization along occupational lines. This is unsurprising given the unequal ways in which the different groups benefit from the normal functioning of the cluster—despite rising competition among merchants, they still extract most of the surplus from economic activity in the cluster, while goldsmiths are increasingly poor and vulnerable. The different ways in which each group has been impacted by recent changes sweeping through the cluster make the lack of cluster-wide collective action even less surprising—again, merchants have not been immune from

[15]See also the Chaps. 4, 7 and 8 by Harriss-White, Roman and Arivukkarasi.

these changes, but goldsmiths have increasingly found themselves on the losing end of these battles. Merchants have turned to ready-mades to decrease risk and costs in the face of rising competition, but goldsmiths have no defense against the influx of ready-mades. Similarly, the rise of hallmarking has pushed merchants to squeeze goldsmiths even further in order to compete with more efficient machine production outside the cluster. These crises have brought trouble for merchants and goldsmiths alike, but merchants have seen it in their interests to pursue strategies that serve their own ends but undermine those of goldsmiths and, ultimately, the future of the cluster—which we should not confuse with the success of merchants on their own.

Fourth, state intervention has played a role in the trajectory of the cluster, but not in the ways discussed in the literature. Trade liberalization policies were not conceived or intended as interventions in local clusters per se, but were instead oriented towards changing the dynamics of the gold and gold ornaments industries on the national level. Of course, this does not mean that the policies did not have serious consequences for the Arni cluster. They made it easier for goldsmiths and merchants to produce and sell ornaments, which had the impact of increasing overall production. At the same time, they increased the vulnerability and underemployment of goldsmiths. While merchants have also seen rising competition, they have found an immediate solution in developing a dependence on ready-made ornaments, which has only further increased the vulnerability of goldsmiths. For the national gold ornaments industry, these policies have likely contributed to a rise in overall production; in larger, wealthier urban centres, they have contributed to increased concentration and mechanization, which has led to increased production; yet for 'common clusters' like Arni, these policies have done little to ensure a sustainable future.

Fifth, the dynamics and benefits associated with clustering depend in important ways on the macroeconomic institutional character of the industry in question. In the gold ornaments industry, the facts that each town and city has its own cluster and that recent technological changes are leading to a division of tasks between clusters in larger, wealthier cities and those in smaller, poorer towns, means that the Arni cluster functions in ways not predicted by existing theories about clusters.

Last, the dynamics of Arni's gold cluster emphasize the need to examine clusters not as coherent, unified entities, but rather as agglomerations of caste-aligned social groups and classes both tightly bound in place and functionally dispersed through networks, with distinct and only sometimes overlapping interests. Collective action and government intervention did happen in the Arni gold ornaments cluster, yet neither was intended to bring about *cluster-wide* success. Instead, they reflected the particular interests of groups within the cluster. What was missing was not collective action or government intervention, but rather an alignment of interests within the cluster such that cluster-wide gains were privileged above those of certain classes or actors.

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Chapter 6
The Impact of Caste on Production Relations in Arni: A Gramscian Analysis

Elisabetta Basile

6.1 Introduction

As other chapters in this book show,[1] despite the formal abolition of caste discrimination in the Indian Constitution, caste continues to be a major organizing principle of India's economy, exercising a deep impact on society. At the same time, following the Mandal Report and the implementation of the expanded Reservation Policy for backward castes and classes, caste has undergone a deep process of change, becoming a 'secularized' institution which plays new and uneven roles in the economy, society and polity. This change raises a major question about the influence of caste on capital/labour relations in this high-growth capitalist society.

While Srinivasan researched the roles of caste in the self-employed labour force (Chap. 3), in this chapter the question of caste is explored through the collective politics of owners of firms. Caste is usefully and innovatively analyzed by means of conceptual categories borrowed from Gramsci's theory of hegemony, which focusses on the forms of organization of civil society. The latter, as Gramsci shows, is an outcome of the interaction of particularist interests. Engaging with the conventional Marxist view of caste as a 'false consciousness', caste is conceptualized here as both an *institution* and an *ideology*, which influences both mental processes and social relations and, at the same time, defines widely accepted patterns of organization in civil society.

This chapter largely relies on the analysis of the role of caste in Arni presented in Chap. 5 of my book *Capitalist Development in India's Informal Economy* (2013).

[1] Especially chapters by Srinivasan, Stanley, Roman, and Arivukkarasi (3, 5, 7 and 8, respectively).

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This chapter is organized as follows. After introducing Gramsci's conceptualization of hegemony in civil society in Sect. 6.2, Sect. 6.3 develops the twofold role of caste as an institution and as an ideology, relying on the evidence and argument provided by the literature on contemporary India. Section 6.4 summarizes the results of a survey of Arni's civil society exploring the economic impacts of social organization. Section 6.5 comments on the role of caste in Arni's civil society.

6.2 Gramsci's Theory of Hegemony in Civil Society

The political thought of Antonio Gramsci has played a key role in the development of historical materialism. Challenging Marx's view that structure has a primacy over super-structure, Gramsci argued that capitalist development could not be explained only by changes in production relations. In an innovative analysis of the relations between structure and super-structure, he showed that the ideas and concepts driving human agency result from social relations and also exert a key impact on economic organization.

This innovative view of the relations of structure and super-structure is contained in Gramsci's theory of hegemony in civil society. A brief review of his theory will provide the conceptual framework for my analysis of the impact of caste on production relations in contemporary India.

6.2.1 Civil Society

In *Quaderni del carcere* (Prison Notebooks) Gramsci uses evidence from world history to develop a theoretical view of civil society that differs markedly from Marx's. Gramsci focuses on the *association*[2] as the 'constituent element' of civil society (Gramsci 1975, p. 703) and identifies the key aim of associations as being the representation and administration of private interests. The latter are not only economic but also result from non-economic interests and ideas in all spheres of human life. For Gramsci, civil society is distinct from the state though—along with the state—it is located in the social superstructure[3]; whereas in Marx, the state is located in the structure of society (Bobbio 1979). The two 'layers' constituting the super-structure differ, however, in the ways in which class relations are regulated and class conflicts are handled. Gramsci explains this difference by means of the concept of *hegemony* (Texier 1979).

[2]Associations are 'the private texture of the state' (Gramsci 1975, p. 57).

[3]'We can for the moment fix two major super-structural layers: the one that can be called "civil society", that is the ensemble of organisms commonly called "private", and that of "political society" or "the State"' (Gramsci 1975, p. 1518).

6.2.2 Hegemony

Gramsci's *hegemony* involves an aspect of dominance specific to civil society and distinct from that of the state. While the power of the ruling classes in the capitalist economy is rooted in their control of the means of production, for Gramsci, ruling class dominance takes both economic and non-economic forms, since it also includes political, moral and intellectual leadership. Gramsci calls this complex form of dominance *hegemony* and refers to the ruling classes as *hegemonic classes* and to the dominated classes as *subaltern classes*.

The hegemonic classes rule by means of *ideology*: a system of belief, values and symbols that express particularist interests.[4] Ideology is a tool to ensure the 'spontaneous' consent of subaltern classes in favour of the power of the hegemonic classes, caused in turn 'by the prestige (and consequent confidence) which the dominant group enjoys because of its position and function in the world of production' (Gramsci 1975, p. 1519).

While ideology reduces the need for coercion, coercion is not always excluded; and elite hegemony may in addition require the use of corruption and fraud. The latter stand 'in between consensus and force' in conditions when the exercise of cultural and moral leadership is difficult and the use of force dangerous (Gramsci 1975, p. 1638).

For Gramsci, while the state is the realm of force, civil society is the realm of ideology.

6.2.3 Hegemony and Ideology

The construction of hegemony by means of ideology is a complex process. Consensus requires the assimilation of the moral beliefs and values of the hegemonic classes by subaltern classes. It is a 'pedagogical' process in which subaltern classes are led throughout by the hegemonic elites (Gramsci 1975, p. 1331).[5] Hegemonic classes take into account the needs of minority groups, renegotiating and combining them with their own interests. The merging of interests is carried out by building a network of alliances between subaltern and hegemonic classes in the

[4]Particularism involves 'the exclusive attachment to the interests of one person, class, section, especially at the expense of the community as a whole' (Collins Dictionary). Particularistic interests are private interests which might be imposed to the whole community. They are not 'general', but, by means of ideology, might be imposed as 'general'.

[5]In Italy, this aim was carried out by means of the *corporazioni*, i.e. cross-class organizations in which the Fascist ideology was spread to the subaltern classes. The *corporazioni* were the tools though which subaltern classes were organized to attend a variety of kinds of public meeting. They were the main propaganda tool of Fascism.

form of ‘voluntary’ associations[6] forming the institutional framework of civil society with consensus ensured by ideology.

Civil society associations are historical outcomes of these underlying social interests. The state and civil society both represent the interests of the dominant classes; and both require constant negotiation over conflicting interests.

6.2.4 The Historical Bloc

Arguing that ideologies often are more powerful than material forces, Gramsci introduces the concept of the ‘historical bloc’ involving both material forces and ideology. Material forces are the ‘content’ and ideology is the ‘form’—neither content nor form can be taken separately (1975, pp. 869, 1051). Structure and super-structure relate in a ‘necessary reciprocity’ (1975, p. 1052). Ideology is an ‘expression of the structure’ both changing with it and exerting an influence upon it (1975, p. 1413). With the concept of the historical bloc Gramsci unifies structure and super-structure (Althusser 1970, p. 51).

6.2.5 Corporatism

Gramsci’s concept of civil society as an ‘association of associations’ representing and administering particularistic interests appears to be an ‘institutional structure’ consistent with the concept of corporatism (Schmitter 1974).[7] In the civil society theorized by Gramsci, interest representation is organized by means of a limited number of associations which are interest groups regulating social relations at all levels—among groups, and between groups and the state. Gramsci’s main empirical reference for corporatism is Fascist Italy which provided a paradigmatic example of the relations between hegemony and ideology in civil society. In Italian

[6]i.e. associations in which each individual enters on a ‘voluntary’ basis.

[7]‘Corporatism can be defined as a system of interest representation in which the constituent units are organized into a limited number of singular, compulsory, non-competitive, hierarchically ordered and functionally differentiated categories, recognized or licensed (if not created) by the state and granted a deliberate representational monopoly within their respective categories in exchange for observing certain controls on their selection of leaders and articulation of demands and supports.’ (Schmitter 1974, pp. 93–94). Corporatism has been contrasted with pluralism. ‘Pluralism can be defined as a system of interest representation in which the constituent units are organized into an unspecified number of multiple, voluntary, competitive, non-hierarchically ordered and self-determined (as to the type or scope of interest) categories which are not specifically licensed, recognized, subsidized, created, otherwise controlled in leadership selection or interest articulation by the state and which do not exercise a monopoly of representational activity within their respective categories.’ (Schmitter 1974, p. 96).

corporatism, the institutional structure of organized interests was imposed by the state[8] and rested on three institutional 'pillars': the Fascist party, the trade unions and the guilds (*corporazioni*). Workers' participation in the guilds was compulsory. Through workers being forced into the regulation of the economy, their independent class struggle was de-legitimated.

The ideology of *Homo Corporativus*[9] supported the corporatist project, presenting corporatism as a 'third way' alternative to capitalism and to socialism, leading to the 'modernization' of the country in the fight against rent and other parasitic burdens.[10]

6.3 Caste as an Institution and an Ideology

What relevance has the writing about Fascist Italy of Gramsci to a small Indian town in the era of neo-liberalism? I will argue that its relevance is through the institution of caste and a corporatism that is societal rather than statist. Here, in a review of literature, a hypothesis about caste in contemporary India will be developed and then explored empirically in Sect. 6.4. Gramsci's concepts introduced in Sect. 6.2 provide the theoretical background.

6.3.1 The Emergence of Caste Politics

After the formal abolition of caste discrimination in the Indian Constitution, the dominant view was that the 'modernization' of the country would lead to the dissolution of caste, so supporting the democratic development of the country. Yet after the Mandal Commission (1979) and the subsequent Mandal Report (1980), caste has been widely argued to re-emerge as a 'new' institution (Deshpande 2003, p. 124)[11] with new economic and political roles. These changes are seen as the outcome of several intertwined processes.

[8]It was then a form of *state corporatism*, a situation which differs from *societal corporatism*, i.e. when the pressure for interest representation and organization in association emerges from society (Cawson 1985).

[9]The ideological basis for a Fascist corporatist society was an ad hoc economic theory based on the concept of *Homo Corporativus*, according to which there were no divergences or contrasts between individual and social interests (Cavalieri 1994).

[10]It is interesting to note that the corporatist ideology was not enough to hide the real aims of Italian corporatism to important analysts of the period, who saw it as a 'machine to preserve the existent' (Gramsci 1975, p. 125) and as a 'method of consolidating the basis of capitalism' when the conflict between capital and labour had reached a 'critical point' (Sraffa 1926, p. 16).

[11]The Mandal Commission was set up in 1979 in order to actuate the constitutional provisions for reservation in favour of the less advanced groups of Indian society. The Mandal Report was submitted in December 1980, suggesting a number of reservation measures for the backward and

One important element that has been suggested is rural–urban (and international) *migration* which breaks the territorial boundaries of sub-castes, generating larger caste groupings. This process is reinforced by two other elements: the mobility of caste within the ever-contested caste 'hierarchy' and class differentiation within caste (Sharma 1994, pp. 7–8). A major outcome is the increasing separation between caste and occupation (Béteille 2007, p. 951). *Identity* is the tool through which castes react to threats to their unity and boundaries. Identities are socially constructed. Caste histories are invented, celebrating qualities and skills specific to each caste (Narayan 2004a). This 'rhetoric' of caste is elaborated and locally disseminated through caste associations (Michelutti 2004), while castes are behaving as pressure groups, organizing interests by means of caste associations and political associations, and even caste-based parties (Harriss-White 2003, pp. 194–196; Bhanu Mehta 2004; Narayan 2004a, b; Michelutti 2004).

6.3.2 Caste and Class

Caste and class are different forms of social stratification. However, as caste classifications also rely on occupational status, caste inequalities have often been analyzed in terms of class while hierarchies of landownership and hierarchies of caste often overlap (Shah 2002).[12] Deshpande (2003, pp. 109–120) and Deshpande (2013) both show that caste divisions continue to be expressed through income and wealth, while Vaid (2007) shows that high castes dominate the professional, business and large farming classes.

There is abundant evidence that caste discrimination is a form of 'forced' social exclusion which restricts access to capital, land, education and other inputs and capabilities to low-caste individuals, thereby denying their rights and preventing their mobility on the class ladder (Thorat and Newman 2007, p. 4122). This leads to inefficiency in resource allocation and to the perpetuation of the class subordination of the lower castes, as shown by the segregation of lower castes to the low quality/low paid jobs in the labour market (Madheswaran and Attewell 2007; Srinivasan, Chap. 3). Finally, the joint action of class and caste accentuates the segmentation of informal and rural workers, consigning them to the bottom of Indian labour hierarchy (Harriss-White 2003; Heyer 2010; Lerche 2010; Basile 2013). Caste is a tool

(Footnote 11 continued)
most-backward castes and classes, including Scheduled Castes (SCs) and Tribes (STs)—the communities outside the Hindu caste system—and the Other Backward Castes (OBCs)—i.e. the lower Hindu castes. The implementation of the measures suggested by the Mandal Report started in August 1990 (Radhakrishnan 1996, p. 203).

[12]Socio-anthropological research has shown that the origin of caste is associated with the production of an economic surplus, caste being a tool 'to accommodate' the inequalities generated by the surplus itself.

in the hands of the dominant classes, creating a favourable environment for the marginalization and exploitation of the lower castes/classes.

While the conceptual difference between caste and class stratification cannot be denied, caste and caste intertwine in a nexus that provides a major key to the role of caste in contemporary India. Caste substitutes caste consciousness for class-consciousness—preventing the formation of class-consciousness. Caste values and interests contrast with class values and interests: if the latter mobilize exploited classes against exploiting classes, thereby enhancing class conflicts, the former prevent class conflicts because members of the exploited classes do not always perceive their exploitation in class terms.[13] On the other hand, caste creates non-class institutions—caste associations and caste-based associations—that represent and organize particularistic interests vested in caste identity, so breaking the unity of the exploited classes by dividing them according to their caste (Bhambhri 2005). This action helps constrain class-consciousness, slowing down class unity.

Caste also leads to the 'classization of caste' (Sheth 1999, p. 2508), which is shown in particular by the emergence of the new, Weberian 'middle class' that is the outcome of inter-caste mobility and in caste class differentiation (Béteille 2007). The new middle class is a composite stratum that includes members of several castes—mostly upper castes—which share lifestyles and the self-consciousness derived from a common class defined through income, interests and consumption patterns and becoming progressively more distant from caste-specific rituals (Sheth 1999, p. 2508–2509; Varma 1998).

The new middle class does not require the dissolution of individual caste identities. Caste still provides the cultural background of social and political life: but 'identity politics [i.e. caste politics] has come to prevail over class politics' (Béteille 2007, p. 951), and caste-based associations and parties represent the main means to organize and represent interests.

6.3.3 A Gramscian Hypothesis of Caste

From this it is clear that in contemporary, Indian caste is both an *ideology* and an *institution*. As a system of values and beliefs, caste is part of the mental processes that shape human agency, influencing social interaction. As an institution—transforming ideas into social norms—caste defines widely accepted patterns in organized civil society. Relying on these roles, it continues to be a major organizing principle of India's society—as ideology and institution—part of the super-structure. Caste influences production forces and relations, and is influenced by them. Caste is much more than 'false consciousness' undermining the unity of the working classes, as theorized by conventional Marxist analysts (Shah 2002), it is a

[13]So caste has elements of false consciousness but, as will be argued below, its roles are more than this.

major force in the organization of civil society. Through the lens of Gramsci's theory of hegemony, its dual nature corresponds to its two roles: (i) as ideology, caste ensures that the hegemony of the elites is accepted by subaltern classes—by means of caste idioms and symbols; (ii) as an institution in civil society, caste produces a network of associations in which subaltern and dominant classes participate 'voluntarily', and through which the necessary hegemonic consensus is negotiated. Transforming particularistic interests into social interests, these associations create a form of interest representation which shares the key features of social corporatism. Both the ideology and the civil society that the ideology produces are the outcome of social production relations. While ideology ensures that dominant classes also have 'moral and intellectual leadership' over subaltern classes, this dominance is rooted in the structure of the economy: jointly, caste and production relations constitute the corporatist historical bloc which is specific to this phase of India's capitalist development.[14]

6.4 Caste and Production Relations in Arni's Civil Society

In this section, I examine the Gramscian hypothesis about the role of caste as a tool to ensure the consent of subaltern classes for the hegemony of capital—using the case of Arni town. This exploration relies on a survey of Arni's civil society carried out in the late 1990s. The survey was based on a questionnaire submitted to all the associations in the town asking current office bearers about their history, purposes and activities.[15] The survey's aims were twofold: (i) to understand whether or not the institutions were playing a regulatory function; and (ii) to assess the degree of voluntariness of membership in order to see whether and how social interactions were producing a form of corporatist representation of the interests of capital.

Production relations were de-constructed to identify points at which the impact of organized civil society might be significant. Three phases of production were identified: the purchase of the means of production and labour power, the organization of production and the marketing of the output. The analysis focused on four categories of relationships in which conflicting interests emerge and social regulation is necessary: economy/state; economy/society; within capital; capital/labour.

Detailed information was collected on: (i) the nature of associations (aim, criteria for membership, history of political activity); (ii) the presence and role of the state in the sector concerned; (iii) market structure and relations among sectors; (vi) the social embeddedness of capital accumulation with specific reference to the role of family, religion and caste.

[14]This is not to argue that other dimensions of the socially regulated economy such as gender and ethnicity make no contribution to the historical bloc.

[15]Detailed information on the survey is found in Basile (2013, Chap. 8).

The surveys covered (i) 32 business and professional associations, representing approximately 2,000 people; (ii) 23 cultural and religious associations, of which 15 are caste associations. This category also includes a consumer association and 7 philanthropic associations, and represents more than 35,000 people; (iii) 11 unions, representing about 2,000 people. The total number of people indirectly covered by this set of associations is of the order of 40–45,000, but this is a rough- and over-estimate, due to double-counting in organizations of caste and of business.

6.4.1 Arni's Civil Society

The survey confirms the existence in Arni of a comprehensive associational order linked to the structure of the economy. Civil society includes many associations of individuals involved in the production of goods (in particular silk and rice) and services. It also confirms the presence of the state in Arni's economy, as suggested by five unions of public sector workers. A significant subset of caste associations and of a heterogeneous group of 'welfare' associations are oriented towards the entire town's corporate interests, rather than to individual or group interests.

In analyzing the nature and function of organized civil society, the forms of individual participation in civil society and the impact of the associational order on economic performance are explored. Associations have been classified in relation to the 'voluntariness' of participation and to their impact on growth and stability; then, the interviews were analyzed, focusing on the economic relations in which conflicting interests emerge and social regulation is necessary (see Tables 6.1 and 6.2).

Four degrees of voluntariness of membership have been identified and defined:

1. Voluntary membership: when at least one of the following conditions is satisfied: (i) the number of participants is 'small' in comparison to the potential members; (ii) non-membership excludes a person only from the association's activity; (iii) other similar associations exist.
2. Exclusive but voluntary membership: when all the following conditions are satisfied: (i) not all the potential members are actual members; (ii) other similar associations do not exist; (iii) non-membership 'excludes' a person only from one specific segment of the relevant market or from some benefit.
3. Quasi-voluntary membership by profession: membership is formally voluntary but the status of non-member excludes them from the profession. This is identified by: (i) the absence of other similar associations; and (ii) membership spread throughout all individuals in the profession.
4. Quasi-voluntary membership by birth: this category obviously includes caste associations, but also the professional associations organizing individuals from a specific caste.

The associations have also been classified on the basis of two complementary criteria: (i) their influence on economic growth and (ii) their influence on social

Table 6.1 Associations and informal groups in Arni by membership and by influence on phases of production and typologies of socio-economic relation (economic activities)

Production of goods	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(l)	(m)	(n)
Rice												
ARNI TALUK RICE MILL OWNERS' ASSN	1				1				1		1	
PADDY AND RICE MERCHANTS ASSN			1				1	1		1		
Silk												
THE ARNI SILK MERCHANTS ASSN	1											1
THE TIRUVANNAMALAI DISTRICT HANDLOOM SILK DESIGNERS ASSN	1							1				
SILK TWISTERS ASSN			1			1	1	1		1		
Gold												
THE TAMILNADU JEWEL WORKERS CENTRAL SANGAM			1		1	1		1	1		1	
TAMILNADU GOLD & SILVER MERCHANTS FEDERATION, CHENNAI			1				1	1		1		
Buildings												
THE TAMILNADU BUILDING WORKERS SANGAM, ARNI			1					1	1		1	
ARNI ELECTRICIANS' SANGAM		1			1	1	1		1	1	1	
ARNI BRICK MAKERS ASSN			1									
QUARRY WORKERS			1									
CEMENT DEALERS												
ELECTRICITY BOARD UNION—CITU	1							1	1			
Others												
FERTILIZERS AND PESTICIDES												

(continued)

Table 6.1 (continued)

Production of goods	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(l)	(m)	(n)
SODA FACTORY ASSN			1	1	1	1		1		1		
BAKERIES												
ARNI SMALL SCALE INDUSTRIES ASSN	1								1		1	
Public sector unions	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(l)	(m)	(n)
ARNI BRANCH OF THE NATIONAL FEDERATION OF POSTAL EMPLOYEES	1											
SANITARY WORKERS' SANGAM, ARNI			1					1		1		
NURSERY SCHOOLS												
ARNI ELEMENTARY SCHOOL TEACHERS FEDERATION	1								1			
Private traditional services	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(l)	(m)	(n)
Personal services												
THE TAMIL NADU ASSN OF SHAVING SALOONS		1			1		1	1	1			1
THE ARNI WASHERMANS' (DHOBI) UNION		1					1		1	1		
THE ASSN FOR THE PROGRESS OF TAILORS	1						1			1		
TEA STALL												
LOTTERY TICKETS												
Consumer goods												
THE GROCERY MERCHANTS ASSN OF ARNI		1			1			1	1			1
ARNI TOWN FRUITS MERCHANTS ASSN		1			1		1			1	1	
THE ARNI TOWN FLOWERS MERCHANT SANGAM			1				1		1		1	
ARNI GREENGROCERS ASSN (GANDHI MARKET), ARNI			1				1	1	1			
VINAYAKA TEXTILES												

(continued)

Table 6.1 (continued)

Private traditional services	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(l)	(m)	(n)
Transport												
THE VALAMPURI VINAYAKAR RICKSHAWS PULLERS' ASSN		1			1			1	1			
THE ARNI AUTO OWNERS AND DRIVERS WELFARE UNION		1				1	1	1			1	
THE ARNI LORRY OWNERS ASSN	1				1		1	1	1	1	1	
DR.AMBEDKAR TRANSPORT WORKERS' UNION, ARNI	1					1		1		1		
ARINGAR ARNI BULLOCK—CART DRIVERS' SANGAM 226—235			1				1				1	
THE TIRUVANNAMALAI DISTRICT BUS OWNERS; ASSN		1						1	1			
ARNI AREA CAR AND VAN DRIVERS' WELFARE ASSN			1			1	1	1	1		1	
TWO WHEELERS (MOPEDS ETC.,) SPARE PARTS—SALES ASSN												
PEDDAL BICYCLE DEALERS (MRA CYCLE MART), ARNI												
Finance												
ARNI PAWNBROKERS ASSN			1	1			1	1		1		
Others												
THE ARNI CHAMBER OF COMMERCE	1							1				
THE ADVOCATES BAR ASSN			1						1			
PORTERS ASSN			1						1			
TURNING WORKS (LATHE "PATTARIAS")			1					1	1			
PHARMACISTS AND DRUGGIST ASSN		1				1		1		1		

(continued)

Table 6.1 (continued)

New activities	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(l)	(m)	(n)
Communication												
ASSN OF TELEPHONE SUBSCRIBERS	1					1					1	
TELEPHONE BOOTHS												
PROFESSIONAL COURIERS												
Printing												
TYPEWRITING (COMMERCIAL EDUCATION) INSTITUTES												
XEROX												
PRINTING PRESS												
Cinema and television												
THE ARNI VIDEO CASSTTE LIBRARY ASSN	1					1						
THE CINEMA THEATRE OWNERS ASSN		1									1	
CABLE TV OPERATORS		1									1	
Electronics												
COMPUTER STUDIES												
(GEETHA) ELECTRONICS AND HOME APPLIANCES												
Finance												
FINANCE COMPANIES												
BANKS												

Notes (a) Voluntary association; (b) Voluntary exclusive association; (c) Quasi-voluntary professional association; (d) Quasi-voluntary membership by birth; (e) Factors; (f) Processes; (g) Products; (h) Capital-labour relations; (i) Capital-state relations; (l) Labour-state relations; (m) Inter-capital relations; (n) Non-economic relations

Source Author's survey

Table 6.2 Associations and informal groups in Arni by membership and by influence on phases of production and typologies of socio-economic relations (non-economic activities)

Caste associations	(a)	(d)	(c)	(f)	(g)	(h)	(i)	(l)	(m)	(n)
SAURASHTRA PODHU SABHA		1	1		1		1		1	1
THE SAURASHTRA WOMAN'S ASSOCIATION, ARNI		1								1
THE NAIDU ASSN OF ARNI		1						1		1
THE TAMIL NADU KARNEEGAR SANGAM, ARNI		1								1
THE ARNI TOWN VANNIARS ASSN		1								
THE ARNI TULUVA VELALAR SANGAM		1								1
THE TIRUVANNAMALAI DISTRICT VAANIAR SANGAM		1							1	1
THE TAMILNADU BRAHMINS SANGAM ("TAMBRAS") - ARNI BRANCH		1								1
THE TAMILNADU ARCHAKAS WELFARE SANGAM		1								1
TAMIL SAIVA CHETTIAR		1	1							
THE ARNI KANNADA VEERA SAIVA JAINEEKAR SANGAM		1				1				1
THE ARNI TOWN SENGUNTHAR SANGAM		1								1
YAADAVAS		1								1
AHAMUDAIYA MUDALIARS SANGAM		1					1	1		1
Religious and political associations	(a)	(d)	(c)	(f)	(g)	(h)	(i)	(l)	(m)	(n)
THE INDIAN REPUBLICAN PARTY	1									1
COMMUNIST PARTY OF INDIA—MARXIST	1				1				1	
MUSLIMS	1									
ROMAN CATHOLICS	1									
PROTESTANT CHRISTIANS	1									
JAINS		1								

(continued)

Table 6.2 (continued)

Welfare associations	(a)	(d)	(c)	(f)	(g)	(h)	(i)	(l)	(m)	(n)
THE INNER WHEEL CLUB OF ARNI	1									
THE LIONS CLUB OF ARNI	1									1
THE ROTARY CLUB OF ARNI	1						1			1
ALL PENSIONERS ASSN	1								1	
THE ARNI TOWN WELFARE COMMITTEE	1								1	
THE LIONESS CLUB	1								1	

Notes (a) Voluntary association; (c) Quasi-voluntary professional association; (d) Quasi-voluntary membership by birth; (f) Processes; (g) Products; (h) Capital-labour relations; (i) Capital-state relations; (l) Labour-state relations; (m) Inter-capital relations; (n) Non-economic relations

Source Author's survey

Table 6.3 Registered and unregistered associations in Arni by membership and by impact on social stability

	Impact on social stability						
	Number of schedules	k-l relations	k-state relations	l-state relations	k-k relations	Social relations	Total[a]
Voluntary membership	21	5	6	4	5	9	29
Excluding voluntary membership	12	7	7	2	4	2	22
Quasi-voluntary membership by profession	17	1	3	3	2	15	24
Quasi-voluntary membership by birth	16	1	2	2	2	15	22
Total	66	14	18	11	13	41	97

Notes k = capital; l = labour
[a]Associations may impact on several aspects of social stability
Source Author's survey

stability. Each association was asked to provide details about its involvement in the economic process and its impact on access to the means of production, on the organization of the production process and on the disposal/marketing of output. Then, each association was evaluated in terms of its impact on social stability using information about relations (and conflicts) between capital and labour, capital and state, labour and state, within capital, and economy and society.

The information coming from the previous two classifications is presented in a compact form in Table 6.3.

6.4.2 State and Economy

The survey shows the presence of the state at four main levels in Arni's economy. First, it manages economic and social activity: it directly provides and regulates public services, such as banks and post-office, hospitals and schools, and supplies goods and (economic) infrastructural services, such as food and electricity. This is not simply a result of state employment, it is also through the commodity flows required for state enterprises that the state constitutes a major component of effective demand. Many business associations emphasize the importance of orders from public sector institutions for items such as books, uniforms, building materials, housing, etc. Second, the state formally defines the regulative framework of aspects of 'informal' economic life. It concedes licences to trade and to use public land, and collects fiscal revenue and levies, albeit in a fashion challenged by avoidance and evasion. Third, private citizens and members of the organizations frequently enter into conflicting or collusive relations with the police. Fourth, the major concern of the associations is to find ways to direct their relations with public authorities along mutually satisfactory lines. Despite the fact that the declared aim of the associations is to promote the 'welfare' or the 'interest' of the members, their underlying objective is to limit the intrusiveness of the state in their sector and to lobby for the economic interests represented by the associations. In other words, their function is to make political exchanges with the state—i.e. to bargain over state actions and state influence on the economy—in order to define the terms of the relationships between state/economy/society. Corruption is a central ingredient of these political exchanges.

6.4.3 Economic Interests

The core activities of the town are regulated by a strict associational order. So, for example, the Paddy and Rice Mills' Association dominates the rice sector by regulating the relationships among members as far as problems with labour and marketing transactions are concerned. Employer/employee relations are also managed by individual rice firms and controlled directly by the owners/entrepreneurs. Similarly, the Silk Twisters' Association participates in the regulation of the silk sector informing members about cases of misbehaviour of workers in order to organize collective punishment.[16] By contrast, the major aim of the Tamil Nadu Gold and Silver Merchants' Federation is the internal control of the profession. This takes the form of quasi-voluntary membership: a necessary condition to enter the profession is to be a member, while members are obliged to accept the rules decided by the association.

The associational order also affects the phases of the production process. There are associations that dominate segments of the private credit system (i.e. the Association of Pawnbrokers). Some associations keep strong control over information about the channels for loans from private sources, while in other cases—as for instance with the Grocery Merchants Association—credit is internally organized to allow members to 'purchase commodities … without interest'.[17]

Associations also play a major role in the education, training and enrolment of workers, particularly when they organize individuals working in the same profession, such as the Barbers' Association and the Weavers' Association. It is quite common to find the family background of workers and their caste coming under scrutiny when being recruited for work. Caste associations—for instance The Tamil Nadu Karuneegar Sangam (for accountants)—also provide the members 'counselling for getting education', while others—for instance the Arni Washermen's

[16]It must be emphasized that the silk sector is regulated by three main associations: The Arni Silk Merchants Association, the Tiruvannamalai District Handloom Silk Designers Association and the Silk Twisters Associations.

[17]In this section, all the remarks in quotations are taken from interviews with the president and office holders of the relevant association.

Union (a caste-based association)—have as principal objective ‘to see that washermen are employed on a regular basis’.

Finally, the organizational structure defines the hours of the working day for each category of workers, and may also influence prices and wages. For instance, the Tamil Nadu Association of Shaving Saloons and the Arni Electricians’ Sangam fix the rate for the services provided by the members. Similarly, the Arni Silk Merchants Association controls the biennial revision of weavers’ wages and exerts a pressure ‘on government to provide insurance cover to weavers’. Likewise, the Tiruvannamalai District Handloom Silk Designers Association reports that—before the start of the association—design workers were getting unsatisfactory remuneration, a problem that the association has solved. By contrast, the Grocery Merchants Association, while not setting the prices, collects the wholesale price information on the basis of which retail prices are determined, while the Arni Area Car and Van Drivers Welfare Association ensures that the members are regularly paid their wages. Finally, the powerful Paddy and Rice Merchants Association, denouncing the widespread risk of corruption and fraud, emphasizes the necessity to define a common policy and practice for members in relation to the measures to be used in transactions.

As well as their representative role, their regulatory function clearly emerges from our interviews. This is the case of the Association for the Progress of Tailors that (i) issues identity cards and certificates to regulate the participation and the competence of members, (ii) divides ‘the work (from public sector orders) among the members’ in order ‘to benefit many families economically’, (iii) provides assistance in order to get credit and (iv) ensures members’ protection in case of conflicts with employers (‘many tailors who are not members of the Association are removed with impunity by employers’).[18] Similar cases include that of the Valampuri Vinayakar Rickshaw Pullers Association, whose main aim is to define an ‘informal code of conduct’ for members; and the Arni Auto Owners and Drivers Association which sets the prices for the services provided by members and, at the same time, protects members in case of accidents and disputes. Their regulatory role is also stressed by the Porters’ Association (a caste-based association) which protects members’ interests in the labour market. Similarly, the Soda Factory Association argues that ‘a new shop has to be started only with the consent of the Association which would create otherwise problems for the person starting it’. The Tamil Nadu Gold and Silver Jewellery Merchants Federation also regulates the activity of its members, warning them for instance about the risk of purchasing stolen jewels; while the Arni Pawnbrokers Association exists to ensure that members are ‘licence holders’. Another major example of the regulatory function is provided by the Chamber of Commerce, which explicitly aims to control competition in order to keep prices and profits at a reasonable level for Arni’s business economy as a whole.

The role of labour unions is mainly confined to the public sector. Four main associations ‘protect’ the interests of public workers. For example the National

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[18]Most tailors are self-employed however.

Federation of Postal Employees aims to 'fight against punishments imposed by the superior authorities' and 'for pay rises'. It also exerts pressure for 'the implementation of all the benefits and privileges given by the government'. The central and local state is also the counterpart of the other three public sector unions—the Sanitary Workers Sangam, Nursery School Sangam and School Teachers Federation —which share the common aim of protecting the workers and their sectors of activity from corruption and interference of officials higher in the state apparatus.

In addition to these, the Dr. Ambedkar Transport Workers' Union should also be mentioned as a particular type of trade union that recruits mainly (but not only) Scheduled Castes (SC) workers who are employed by the (government-owned) Transport Service. The declared purpose of this union is to support the rights of SC transport workers against any kind of negative discrimination, in particular whenever a worker is considered 'undesirable' and there is the risk of dismissal. Finally, the Electricity Board Union has among its aims, to ensure 'the security for workers and for society', to 'influence policy formation regarding wages' and to 'advice the government on policy'.

6.4.4 Society and Economy

Hindus, Jains, Christians and Muslims all live together in the town and participate in civil society associations. This applies in particular (but not only) to business and professional associations other than those that are caste-based which, by claiming to be 'open' to members from all castes—and to Muslims and Christians—assert a secular pluralistic identity. In some important associations Muslim individuals occupy the top positions. This happened in the case of leading economic associations, such as the Arni Chamber of Commerce, the Jewellery Association and the Clothing Merchants' Association.

Yet caste representation in formal caste associations is also strong: at the turn of the millennium there were at least 12 active in the town.[19] In the case of SCs (about 15 % of Arni's population) their representation is not entrusted to a single caste association for SCs constitute several castes, instead it is segmented into a number of small business and professional associations, unions and political parties. These forms of 'organizational' representation have two major aspects in common: they lobby to defend their members politically and economically, and they bargain with the state for the implementation of the Reservation Policy, i.e. for the positive discrimination in terms of employment opportunities and other benefits.

Small business associations aim explicitly to control the level of internal conflict, providing a code that guides the economic behaviour of members. As reported in

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[19]For *Agamudaiyar Mudaliars, Brahmins*, *Kannada Veera Saiva Jaineekars*, *Karuneekars*, *Naidus*, separate associations for *Saurashtrian* men and women, *Sengunthas*, *Tuluva velalars*, *Vanniars*, *Vaaniars* and *Visva Karmas*.

interviews, the Arni Town Fruit Merchants' Sangam, in which more than 90 % of the members are SCs, was formed in order to protect members from the police. The Rickshaw Pulling Association also aims to 'protect members from harassment by the police'; yet it also lobbies in order to ensure that the Municipality gives 'legal recognition to the rickshaw stand' and defines a behavioural code for association members who 'should not work when under the influence of drugs, nor indulge in gambling, nor speak to customers'. The Sanitary Workers' Sangam—a scheduled-caste-based trade union—declares its objective as the protection of members from government's 'scant regard to the views of workers' and the monitoring of the organization of work in order to avoid sexual discrimination.

This dual direction of action—external, in relation to the state and other castes, and internal, directed to the self-regulation of castes—characterizes the organizations that represent the interests of Most Backward Castes (MBCs): all together four registered commodity associations, four unregistered groups, four caste associations and a caste-based group, the *Pattali Makkal Katchi*, later transformed into a political party. As far as the professional associations are concerned (in particular Barbers' and Washermen's), their self-regulatory role consists of defining relevant prices and working conditions, while the main problem involves lobbying to obtain SC status (and positive discrimination).

The Tamil Nadu Association of Shaving Saloons—bringing together individuals from the Barber Caste—acts to 'fix the rates (for labour) for each type of facility provided'. This Association also 'takes up the cases [of members] and represents [them] to the government'. The Arni Washermen's Union has the declared aim of lobbying for MBC status for the *Dhobi* caste, and it bargains with the local government to ensure that washermen 'are appointed on a regular basis [as staff] in the hospital'. The Arni Town *Vanniar* caste Association has developed a broader project of lobbying to get from the government 'subsidies for agricultural inputs, higher prices for agricultural products and reduction in prices for essential commodities'.

The Backward Castes (BC) constitute a highly heterogeneous category, ranging from the core of Arni's business (silk, rice and gold) to unskilled workers who live in poverty. In this caste category, contradictory processes are at work, such as the often observed imitation of life styles and food consumption patterns of the Forward Castes (FCs), while claiming MBC status in order to obtain economic advantages from the state. Thus, while the *Naidu* Association of Arni unites individuals from the *Naidu* caste in order 'to strive towards the security of members', it also places pressure on the government to 'reclassify the community from present BC status to the MBC category (so that it can enjoy more specific Reservation quotas)'. A similar action is also reported by the Tamil Nadu *Karneegar* Sangam, the Tiruvannamalai District *Vanniar* Sangam, the *Yadava* Sangam and the Arni *Kannada Veera Saiva Jainkeekar* Sangam.

By contrast other examples exist—such as that of the Tamil Nadu Jewel Workers Central Sangam (Arni Branch), which organizes goldsmiths—in which activity is confined to the internal regulation of businesses and the protection of members in trouble with the police. Meanwhile, the Arni Town *Sengunthar*

Sangam provides welfare in order to 'improve the conditions of the community' supplying 'free tuition to children' and 'aid to poor families'.

The aim of protecting a given community in its relations with the local and central governments and to regulate internal relations is also observed in the case of FC civil society. Here, again, the claiming of BC status is a common practice in the political exchange with local and central authorities and is an ideologically unifying aspiration for the various communities.

FC associations also exhibit the internal self-regulating field of action, together with an external lobbying field, bargaining with the state to obtain advantages. Thus, the Tamil Nadu *Brahmin*'s Sangam (Arni Branch)—which organizes all *Brahmin* castes in the town—denounces the widespread feeling of 'depression and oppression' of its members due to the increasing difficulty in getting government employment, as a consequence of the Reservation Policy. This disadvantage in access contrasts with the high level of education of the community in which more than 60 % of the members reach the level of secondary school and about 30 % finish college. A similar situation is denounced by the Tamil Nadu *Archaka's* Welfare Sangam (organizing *Gurukkals*—a sub-*Brahmin* caste) that rues the fact that the community is not given 'due respect' by government.

To sum up: this field material has provided evidence that caste associations play two main roles. First, they regulate the internal relationships in two major ways: by defining widely accepted behavioural codes and by providing several forms of social support for the weakest members. Since caste associations are in some cases also occupation groups, this internal self-regulation easily becomes a major organizing factor in the economy—regulating capital/labour relationships and working conditions. Second, caste associations explicitly involve political exchanges with the state for the intermediation of the particularist interests of castes or caste groups—commonly lobbying to obtain a lower caste status—behaviour practised by all BC and FC associations. Other forms of political bargaining and negotiation range from requesting recognition of the public importance of specific activities (such as sanitary work) through seeking protection from police harassment to the request of *Brahmins* for an improved access to public employment and more 'respectful' treatment by the state.

'Welfare' associations complete Arni's associational order. These associations, whose spheres of action range from philanthropy to lobbying for the town's infrastructure, are significant because they contain and enhance the cross-caste idea of the town's 'unity'. Elite associations such as the Rotary Club, the Inner Wheel Club of Arni (a women's association), the Lions Club (together with its women's wing), all of which are in principle open to all social classes, actually screen for well-off citizens and legitimate the role of the elites, emphasizing the importance of philanthropy. These associations are involved in several forms of 'social service organization' in health, education and charity. They assist in the central and local government's social campaigns and organize free distributions of food, books, clothes and medicines. In their several activities they work in close collaboration with public institutions, such as hospitals and schools.

6.4.5 The Regulation of Production Relations in Arni's Civil Society

Arni's associational order reflects social production relations. Capital and labour are represented in a variety of forms. Yet, to identify these forms would be a challenging task because Arni, like India at large, has a complex socio-economic structure in which, as we have seen, caste is intertwined with class. In relation to labour, the social structure operates at two levels. First, labour is aggregated in several caste associations, mainly in the SC and MBC categories. Second, some 'professional' and 'business' associations (ones for petty trade and small-scale activities[20]) organize individuals who, while formally 'independent' workers, often have compromised economic autonomy and depend on informal credit markets and on merchants for the provision of inputs, and are often 'disguised wage labour'.[21] Such associations are best interpreted as representing 'labour' rather than 'capital'.

Non-class associations, such as caste and petty business associations, also have an ideological role as they concur in undermining the class-consciousness of the lower strata of Arni's society. The political-economic organization of wage labour and other types of 'dependent' labour on the basis of non-class criteria substitutes for the formal representation of workers in trade unions.

Another feature of Arni's social structure is found in the role of 'big' business associations in the internal management of industrial relations. 'Big' business associations are associations of capitalists who directly control intra-firm labour/capital relations defining behavioural codes in ways that are widely recognized by members, by virtue of the low degree of voluntariness of membership.[22] Moreover, 'big' business associations are involved in the bargaining with the state in fields including working conditions that are relevant for the sector as a whole. This role helps explaining the absence of labour unions in the private sector, because employers represent the interests of the employees in any context they believe to be relevant.

A major trait of Arni's associational order is thus the asymmetry between the representation of labour and capital. While employers are widely organized by means of interest groups that shape inter-firm relations, control intra-firm relations and bargain over the terms of state intervention, employees' organizations are weak and lack a collective dimension. Working class interests often blend with other social components, as in the cases of cultural and religious associations, or are aggregated on the basis of features other than social production relations, as in the case of caste associations. The only cases of collective workers' organizations in the contemporary meaning of the term are the trade unions of public sector workers.

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[20]For example the Fruit and Vegetable Traders Association, the Rickshaw Pullers Association and the Car and Van Drivers Association.

[21]See Harriss-White (2014) for a critical discussion.

[22]Major examples are the Paddy and Rice Merchants Association and the Arni Silk Merchants Association.

6.5 Arni's Societal Corporatism in Practice and Theory

This exploration of small town civil society has provided strong evidence of an urban associational order that is built on economic and non-economic associations governing the production process in all of its phases and representing the interests of capital and labour. It has also shown that the state is a central institution of 'governance' and that the open aim of Arni's associations is to bargain with the state in order to obtain advantages for their members. In this sense, the town's associations appear to be intermediaries—and not only representatives and regulators—of class interests.

Arni's associational order is biased toward the interests of capital. The representation of capital is strong—owing to the joint action of 'big' business associations and locally dominant caste associations. By contrast, labour is systematically under-represented, owing both to the lack of labour associations and to the absorption of the (disguised) labour force in non-economic and non-class associations. This bias against labour implies that decisions about the recruitment of workers and about working conditions are entirely in the hands of capital. The main responsibility for the low level of representation of workers in trade unions is due to the way caste associations and caste ideology neutralize class.

The evidence from Arni is largely consistent with Gramsci's theoretical proposition about the political role of the organized civil society in supporting the hegemony of capital. Arni's associations provide the cross-class institutional structure in which hegemony develops and is defended. Caste associations are important and distinctive institutions for their twofold role: as regulating institutions for economic behaviour inside each caste group and as intermediaries in the political relationship with the state.

Arni's organized civil society shows features typical of *societal corporatism*: (i) the associational order emerges from the pressure of social groups and is composed of associations of individuals sharing social and economic interests; (ii) these interest associations are involved at each phase of the production process; and (iii) the underlying function of the associational order is to regulate social relationships and to create the conditions for economic growth. Associations are at the same time *regulators, representatives* and *intermediaries* of particularistic interests. They perform their regulatory role in three major ways: by helping to determine members' interests; by negotiating agreements on their members' behalf; and by enforcing such agreements among their members.

Arni's corporatist regime is tripartite, involving state, capital and labour. Yet, the standard tripartite logic of political exchange is adapted to Arni's social structure and informal economy, in which capital and labour are jointly represented and regulated by class and non-class associations. Caste is a major pillar of Arni's corporatism, playing a twofold role as ideology and as institution.

Membership is the necessary condition of participation in political relationships, while—particularly in cases such as the 'big' business associations—non-participation implies exclusion from the sector's political activity. Accordingly, the degree of voluntariness of participation in interest associations in Arni decreases with the increase in the size of the economic interests at stake.

The by-product of Arni's societal corporatism is a social stability that is obtained by controlling conflict. The field material shows how cross-class ideas, moral codes and institutions still govern economic behaviour, the regulation of urban space and the terms and conditions of marketplace contracts. It also reveals a common tendency to deny the relevance, or even the existence, of conflict both between capital and labour and between firms. The absence of inter-firm conflict appears to be the direct result of trade and business associations, suggesting that the suppression of inter-firm conflict is a major social objective and that membership means accepting this. One possible implication is that the absence of inter-firm conflict should be seen as an indicator of the efficacy of the associations in performing this role.

The situation is much more complex in the case of capital/labour conflict. The survey shows that there is a major asymmetry in the representation of labour and capital. This asymmetry is associated with another important asymmetry: in the management of capital/labour relations. From the survey we understand that capital/labour relations are usually managed inside individual firms and are directly controlled by employers whose rules of behaviour with respect to the recruitment and working conditions of labour have been defined by associations of capitalists. Owners also control the 'misbehaviour' of workers and organize the collective punishment of individual labourer's infringements of the rules. The lack of challenge from labour suggests their consent in these arrangements.

Caste ideology is functional for the hegemonic corporatist project. By undermining class-consciousness and by fracturing the unity of the working class, caste paradoxically enhances social cohesion. Caste provides the ideological instruments which limit perceptions of the quasi-compulsory nature of the associational order, ensuring a 'voluntary' consensus in favour of dominant class hegemony, and promoting the 'voluntary' participation of subaltern classes in organized civil society.

In an economic era said to be neoliberal and to privilege individual competition, Arni's corporatism serves to promote economic growth in three major ways. First, the associational order regulates the relations between Arni's economy and the state. The state is not just a regulator but also an important source of demand. Associations ensure that the state's orders for goods are distributed among producers without conflict. Second, the regulation of the economy reduces risk and enhances investment. Third, social stability is in itself a factor of growth as it creates a favourable environment for decision-making and investment. This applies to all phases of the production process, from access to inputs and enrolment and training of workers, to access to output market, to the setting of output prices and to inter-firm relations. Though the politics of economic associational life has been little studied elsewhere, there is no reason to suppose that caste-corporatist politics is not hard-wired into Middle Indian urban economies.

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Chapter 7
Technological Change and Innovation in Middle India: The Case of Arni's Silk Cluster

Camilla Roman

7.1 Introduction

Innovation and learning are regarded as critical factors for the competitiveness and growth of firms and economies. According to the Eleventh Five Year Plan: 'there is a vast untapped potential in India for wealth creation by increasing the levels of innovation content in the entire economic development activities of the country. It is a tall call but an essential one, if the current levels of growth of GDP were to be maintained over the next two decades' (Government of India 2008, Vol I, p. 166).

In recent years, with the development and application of the concept of the knowledge economy (Salam 2014), there has been an increased interest from researchers and policy makers in innovation and learning but their attention has been focused, to a significant extent, on high-tech sectors and metro-cities (Clancy 2002). Even the case material for the creative fixing known as '*jugaad*' is juiced for its implications for the corporate sector (Radiou et al. 2012).[1] Innovation and learning, however, also happen in low-tech labour-intensive sectors (Biswas 2005; Clancy 2002; Harriss-White 2014a; Sarkar 2005), in the mud-floored economy of Middle India, and are crucial to the resilience and growth of its sectors, firms and labour forces, determining their ability to deal with changing market demands and emerging competitive pressures in an increasingly liberalized environment. Predominant and rarely interrogated assumptions about the unskilled nature of most work in the informal economy combined with simplistic official evaluations of non-formalized skill acquisition systems as 'second-class' training are some of the

[1]Gupta (1999) is a powerful exception having devoted decades to recording grass roots innovation in the agrarian economy.

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shortcomings of the literature that touches on this topic. They result in analyses that are inadequate because their incompleteness makes them wrong (Roman 2004).

The present chapter aims at contributing to this under-researched field by exploring innovation and technological change in Arni's silk cluster. It analyzes the relation between innovation, cluster environment and industry dynamics, and illustrates first, how technological changes and product innovations have allowed the silk cluster to survive and grow in face of remarkable competitive challenges, second, how innovation and knowledge processes are spatially and socially embedded and influenced by state policies and third, how access to innovation in the cluster, and to benefits derived from it, are unequally distributed. In so doing, it contributes to theoretical debates about the conceptual frameworks that are used to understand innovation and learning, proposing a systems approach incorporating a notion of innovation that encompasses its linkages to knowledge production processes.

7.2 Theoretical Considerations

Despite the growing interest in innovation, there are still serious shortcomings in the way innovation is understood and addressed. In particular, technologies and innovations are often viewed in isolation from the broader social and economic realities of which they are part. First, despite the important contribution of evolutionary theories (see Nelson and Winter 1982) in which recognition is given to the cumulative character—and path dependence—of innovation,[2] research on innovation or technological change typically fails to devote much attention to knowledge dissemination and knowledge reproduction (Hargadon 2002) or it associates continuity with inertia or resistance to innovation (Kodama 2003). Such approaches fail to grasp key dimensions of knowledge processes.[3] As will be revealed in the empirical discussion here, a closer analysis of innovation clearly shows not only that existing knowledge is the necessary basis and foundation for innovations, but that existing and even so-called 'traditional' knowledge repertoires can in fact be resources that feed into creative innovation processes.

Second, technological innovations are often conceived as objects, simple pieces of machinery detachable from the very socioeconomic relations and material circumstances within which they are developed and used. This results in the glossing over of a set of factors that determine the form of a technology, its adoption/rejection

[2]The cumulativeness of innovation is emphasized by, among others, Amin and Cohendet (2004) in their theoretical discussion of organizational learning, by Loasby, in his evolutionary analysis of knowledge processes, and by authors that focus on localized learning and innovation processes in clusters or regional concentrations of industries such as Lawson and Lorenz (1999), Maskell et al. (1998), Maskell and Malmberg (1999), van Dijk and Sandee (2002).

[3]For a critical discussion of influential economic perspectives on innovation, see Roman (2008), Chaps. 2 and 3.

and its implications and consequences.[4] In order to account for the many interlinked variables intervening in knowledge and technology dynamics, what is required is an approach that takes seriously the insights of institutional economics, and its arguments against treating economic transactions in a social and political vacuum. It is in particular the perspectives of 'old institutionalists' that are most useful. With their broad understanding of institutions as indispensible facilitators of economic activity,[5] such perspectives pave the way for a systemic approach to knowledge dynamics, capable of capturing the complex set of interrelated elements that form and influence these processes.[6]

Innovation and knowledge processes more generally are not only embedded in social institutions and relations, but they are also spatially embedded. Several of the positive externalities attributed to clusters and industrial districts relate to knowledge resources. First, the division of labour and specialization of firms (Schmitz 1995) involve the development of diverse and complementary competencies that bring about efficient production relations and enable further learning and innovation (van Dijk and Sandee 2002). Second, clustered firms can tap a repository of implicit and explicit repertoires of knowledge resources, and rely on the reproduction of a pool of labour with specialized skills and in-depth understanding of their work (Calza Bini and Bosco 2000; Cooke 2002). Competences are then transmitted and adapted from generation to generation, often through informal and socially regulated apprenticeship systems (Roman 2008). Third geographical proximity among firms allows opportunities both for regular face-to-face contacts between people in the same trade and for the sharing (and poaching) of knowledge (Cowan 2005; Maskell et al. 1998; Roman 2008).

While the findings from Arni clearly indicate that knowledge and innovation dynamics are to a very significant extent spatially embedded at the local level, it is also essential to recognize that the ties of clusters—and towns—to other localities, including metro cities, are often highly important to industries, not only as routes

[4]The importance of looking beyond mere hardware components of technological developments and consider the 'software' elements, such as associated skills and required services as well as social and political factors is underlined by Frances Stewart in her discussion of international technology transfer to developing countries (1979).

[5]Hamilton, for instance, identified an institution as: '[A] way of thought or action of some prevalence and permanence, which is embedded in the habits of a group or in the customs of a people. In ordinary speech it is another word for procedure, convention or arrangement; in the language of books it is the singular of which mores or folkways are the plural. Institutions fix the confines and impose forms upon the activities of human beings' (1932) in Edquist and Johnson (1997, p. 44).

[6]The importance of understanding innovation within a broad framework that encompasses the role played by institutions is in fact highlighted by 'innovation systems' perspectives. While presenting many merits in their approach to knowledge dynamics, these perspectives, for the most part, suffer from a restrictive focus on innovation, isolating it from other knowledge processes, as well as a limiting view of institutions, which leaves out power and resources imbalances affecting innovation processes (for a discussion of 'innovation systems' approaches, see Roman (2008).

for raw materials and finished products, but also as conduits of knowledge resources that can foster further innovation (Camagni 1991; Humphrey and Schmitz 2000; Lazerson and Lorenzoni 2005).

7.3 India's Handloom Fabrics and Arni's Silk Cluster

In public discourse, promotional campaigns and policy documents, the Indian handloom industry is typically represented and portrayed as a 'traditional' industry, and yet the sector is far from an unchanging relic from the past. With an increasingly complex market to cater to and pressing challenges of competition from mills and power-looms, the need and ability to adapt and transform itself through process and product innovation is readily apparent to the sector.

Handloom fabrics cater to a range of domestic market segments, from the low end of the market comprised of low-income consumers, to the up-market middle and upper classes, and a small proportion of the output also contributes to India's exports (Soundarapandian 2002). While in the lower end of the market, handlooms have been losing share significantly to cheaper power-loom and mill fabrics (see Arivukkarasi, here), when it comes to the upper end of the market, handlooms enjoy specific niches. First, and particularly relevant for silk handlooms, a niche market exists for sarees (and to a lesser extent *dhotis*) that cater to consumers who systematically prefer—and purchase—handloom fabrics, particularly silk, for ritual celebrations and for formal wear. In the twenty-first century, silk still retains some of its ceremonial associations, especially in the South (Kawlra 2005). It is still the preferred material to be clothed-in when attending rituals and festival celebrations, but the grandeur of sarees with intricate designs is also a powerful symbol of social status, and as such has been very sought after by segments of India's emerging middle classes (see Nagaraj et al. 1996; Nagaraj 2006; Arivukkarasi, Chap. 8).

Handlooms do not solely cater to a market of cloth for ritual and ceremonial occasions. In India, an important market niche for handlooms is comprised by those middle-class consumers who display a remarkable loyalty to handloom products and consistently choose handloom fabrics over power-loom and mill textiles. Such loyalty may be linked to handlooms' identification with something that is 'authentically Indian' and to the perception of handloom products as expressions of India's cultural diversity (Banerjee and Miller 2003; Bushi and Pharsiyawar 2004). Alternatively, for consumers who are connoisseurs, their preference for handloom fabrics is grounded in their alleged superior quality and durability, and in the craftsmanship behind this type of textiles (Banerjee and Miller 2003; Soundarapandian 2002; Verma 2000).

Nevertheless, these segments of consumer demand are not the sole purchasers of handloom materials. The huge success of chains like Fabindia and Anokhi, which almost exclusively sell handloom products, is linked to their ability to cater to a large market and to respond to its volatile changes. Whereas at its early stages

Fabindia targeted a relatively small number of handloom *aficionados*, its expansion relies on its capacity to reach out to a much wider market, made up of consumers whose tastes shift with trends in fashion (see also Cavalcante, Chap. 10).

One of the key challenges for handlooms is that of responding to changes in consumer preferences in the middle and higher market segments. Nowadays, renowned *haute couture* fashion designers (such as Manish Arora and Ritu Kumar) play an important role in directing Indian consumers' tastes (Chatterjee 2005). The threat for handlooms comes from volatile consumers' predilections shaped by the latest fashion trends. If they are not in line with current fashions, fashion-conscious consumers shift away from handlooms to machine-made fabrics that may fit such requirements.

Interpreting market signals, delivering new and changing product lines and making use of technological developments that allow businesses to capture market opportunities, or avert decline are all of key importance in the Indian silk handloom industry[7] and Arni's silk cluster is no exception.

Arni is located in a silk weaving region.[8] As early as 1899, the northern tract[9] of Tamil Nadu, where Arni is situated (Map 1), accounted for fully a third of silk handlooms of Madras state and by 1973 it comprised more than half. The growth of silk weaving in the region has been explained by the development of middle-class demand in the wake of the green revolution. The practice of elite emulation has played a part alongside the State's more prosaic but above-average rural–urban linkages, particularly in transport.[10] In the 1980s, both nationally in India and abroad, demand for silk handloom products rose.[11] This fed back into increasing supply networks for raw material together with a rising number of cotton weavers who shifted to silk weaving for its better returns.

Arni is located in a rural area that has witnessed remarkable degrees of agricultural transformation, agro-industrial growth, low-end service proliferation and infrastructural development in terms of transport.[12] Silk handlooms are one of the major economic sectors of the town. Weaving units, traders' shops, twisting factories, design firms, raw material suppliers, and carpentry workshops for loom equipment are a major source of Arni's employment. Production is predominantly

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[7]Some handloom retailers have also undertaken advertising campaigns on TV, magazines, and billboards in cities' key locations as part of their effort to influence consumers' preferences and promote their boutiques and fabrics.

[8]This introductory paragraph is due to Arivukkarasi. See Chap. 8 for a complementary analysis that focuses on weaving in the rural hinterland.

[9]This Northern Tract consists of Chenglepet, North Arcot (presently Tiruvannamalai and Vellore districts), Salem and Coimbatore districts.

[10]See Basile, Cavalcante, Polzin, Chaps. 8, 10 and 9; Nagaraj (2006).

[11]Niranjana (2004).

[12]On the links between agricultural transformation in the Arni region and the growth of the silk industry, see Nagaraj et al. 1996 and Nagaraj (2006).

based on a putting-out system.[13] Typically, weavers receive the raw materials and the design instructions from their traders (or from intermediaries), weave the fabrics, mainly sarees, and receive a payment that many weavers (and analysts) regard as being equivalent to a piece-rate wage.[14] They mostly work in their homes on their looms. Traders (*maligai*) control inputs and outputs. They purchase the raw materials (silk and *zari*[15]) and sell the fabrics to wholesalers and retailers. A number of weavers work 'independently', i.e. purchase raw materials and sell the fabrics to local traders, or are members of cooperative societies. Beyond cooperative societies, many of which present various degrees of malfunctioning and overall provide employment only to a minority of weavers in the Arni region, there are no state initiatives that directly support the industry at the local level.

While generating employment linkages inside and locally outside the town,[16] as noted by Basile (Chap. 2), Arni is increasingly integrated into the national economy: the silk industry in Arni also has strong commodity linkages with other localities in terms of input supply and market outlets. Raw materials originate outside Arni, silk handloom yarn mostly comes from Karnataka,[17] and zari from Surat. Meanwhile, the main markets for Arni fabrics are for a large part comprised by metropolitan and urban centres in South India and other parts of the country. In the cluster, the labour process begins with the twisting of silk in local factories, the silk is then dyed by specialists, who either work on the premises of traders' shops or in their own establishments. Winding processes are carried out in weaving households, chiefly by women, children and elders, and the warping is performed in specialized units. A large number of looms feature jacquard appliances,[18] and the tasks linked with design-making are carried out by specialized firms according to guidelines given by traders.

While handloom weaving may seem a simple craft, in fact it is anything but—and its innovation dynamics cannot be understood without a rudimentary knowledge of its technologies. I begin with a discussion of technological adoption and the factors that shape it. The essay will then examine changes and continuities in products, highlighting the links with demand patterns and technological endowments and local and non-local knowledge processes. It concludes with reflections first on how innovation is conceptualized and theorized and then on insights into the supporting role that the state can paradoxically play in the informal economy.

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[13]On the organization of production of Arni silk industry, see also Basile (2010), Nagaraj (2006), Nagaraj et al. (1996).

[14]See Harriss-White (2014b) for a discussion of the politics of these terms.

[15]Thread coated in silver and gold used in the weaving of designs.

[16]See Arivukkarasi, Chap. 8.

[17]Arivukkarasi (Chap. 8) shows how imports are rapidly changing since Chinese yarn is undercutting that from Karnataka and feeding the rapidly growing power-loom sector.

[18]Jacquard appliances control the movement of warp threads thanks to interconnected punched cards. They allow the weaving of very intricate designs.

7.4 Methods

Fieldwork in Arni was carried out in 2003 and later in 2006 as part of my M. Phil. and D. Phil. research projects.[19] During my fieldwork I used several methods, including a survey, participant observation and semi-structured interviews.[20] I worked systematically through the silk cluster. Random sampling for the survey was a challenge, given the lack of exhaustive lists of traders and weavers in Arni town that could serve as sampling frames. Under such circumstances, I opted for a sampling process based on a map made of Arni's silk industry in order to reduce bias in the selection of respondents (Bernard 2002).[21]

7.5 Technological Developments in the Silk Cluster

Technological developments are an aspect of knowledge processes: they are not simply machines or tools, but they form a whole with the knowledge resources that their adoption calls for, and they are embedded in the wider material and social context, which determines the costs and benefits of technologies. In order to understand the different factors that shape patterns of technology adoption (or rejection), we need to take a systemic perspective that permits us to envisage the multiple variables that enter technological processes (Geels 2004). I therefore examine technologies as part of a '*technology-knowledge system*'.

The case of Arni silk cluster clearly illustrates how technological change and innovation is not the prerogative of high-tech industries and metro-cities. The silk cluster has witnessed a number of technological changes over the quarter century to 2010, changes that have allowed the industry to weather the sweeping impacts of competition from machine-made and artificial fabrics, and to access markets for products with higher value added. Technological changes have involved loom appliances, dyeing machinery and computers. Here I focus on jacquard appliances

[19] Respectively, 'Skills and silks, learning to work in the informal sector' (Roman 2004), and 'Learning and innovation in clusters, case studies from the Indian silk industry' (Roman 2008).

[20] In Arni, 65 weavers and 49 traders were covered in the survey. Semi-structured interviews were then conducted with selected respondents covered in the survey to collect life histories and to obtain more detailed information on certain issues. In addition, semi-structured interviews were carried out with other informants' groups such as designers, raw materials suppliers, office holders of trade unions, business associations, government agencies. Outside Arni, the Director of the Weavers' Resource Centre in Kancheepuram and large saree retailers in Chennai and Delhi were among the key respondents.

[21] Following Bernard's outline of a map sampling method (2002), I randomly divided the map of Arni—obtained from the office of the town administration (but see Map 4 for another detailed local map)—into heterogeneous spatial clusters by placing 100 dots around the edges of the map and randomly choosing pairs of dots and connecting them with a line. From these, clusters were randomly selected in which weavers and traders were enumerated. Respondents were then selected randomly from the lists resulting from the enumeration.

and computer-based design-making since traders and weavers accord them key importance in the most recent evolution of silk weaving.

Jacquard appliances are loom attachments that enable the weaving of extremely intricate designs. Nowadays, almost anything can be made into a saree design: ‘These days we can do whatever we want on a saree: we could even make my face or your face on it!’ exclaimed Vayun, a trader, when talking about design and technological developments.

Jacquards have been widely adopted in the silk industry—in my sample, 71 % of weavers were using jacquard appliances. The adoption of jacquard technology has gone hand-in-hand—and has been made possible by—changes in the skills of weavers. The weaver’s apprenticeship is a lengthy and, in many ways, strenuous process, reproducing over time a pool of skilled labour that is regarded as a critical advantage of clusters. The existing apprenticeship system allowed the relatively easy diffusion of jacquard technology, as the operation of jacquard looms has become part of the standard curriculum.[22]

In addition to skill, jacquard weaving demands a higher physical effort than does weaving on simple looms. Nevertheless this has not discouraged the adoption of jacquards. In view of the higher wages that sarees with intricate designs fetch in comparison to the simpler ones,[23] weavers have had, for the most part, a positive attitude towards using the technology.[24] However, while weavers have been willing to bear the physical costs of jacquard technology, they are typically not in a position to afford its economic costs.

The attachments require a significant level of investment: an initial expenditure of an average of Rs. 3,000–3,500 for the machine itself (the cost varying according to the number of ‘pins’ in the jacquard), and design charges, which mostly range between Rs. 2,000 and Rs. 6,000.[25] Given the relatively high financial costs, most weavers find it impossible to acquire and use jacquard attachments. It is therefore mainly traders who finance jacquard appliances and cover design charges.

The wide adoption of jacquards and the proactive role of traders in the diffusion of this technology need to be understood in the light of the benefits from the adoption of jacquards accruing to traders, particularly in relation to market demand and the types of products that Arni manufactures. In this case, a critical stimulus for technological change came from mercantile firms’ responses to changes in the market trends (Geels 2004). In the late 1970s, these entailed a decline in demand for simple sarees, out-competed by machine-made fabrics, and a growing middle

[22]A detailed account of skill acquisition among weavers is given in Roman (2004, 2008), see also Nagaraj et al. (1996).

[23]The complexity of designs greatly affected weavers’ wages, see Sect. 7.3 below for further discussion on this.

[24]Whereas the shift to grander sarees and the diffusion of jacquard technology brought about an increase of wages, it has not meant the end of exploitative labour relations, which involve the use of unpaid family labour in weavers’ household for preparatory weaving tasks.

[25]These include card punching fees. The charges are between 1 and 3 times the monthly average wage of weavers.

market segment linked to increasing middle-class demand.[26] From the late 1970s, Arni witnessed a shift from simple varieties of sarees to grander varieties with intricate designs,[27] as Arni traders managed to capture the market segment of the burgeoning middle classes (Basile 2010; Nagaraj 2006).[28]

The introduction and diffusion of jacquard machines was closely related to this shift. Traders had a clear interest in promoting the use of the jacquard loom so as to be able to produce sarees with more complex designs which fetched higher prices and which catered to a growing segment of consumer demand. They were (and are) therefore willing to provide the substantial investment required to foster the adoption of jacquard appliances among their weavers and to cover the high costs of design-making.

But the benefits of jacquard technologies and the initiative taken by traders to promote their adoption also have to be understood in relation to one of the well-known externalities of many clusters: the development of specialized firms with specific and complementary competences and technological capacities. Roy, in a study of technological changes in Indian weaving during the early twentieth century argues that the diffusion of jacquard technology depended on the utilization of punch-cards for designs, a task undertaken by specialized enterprises with specific skills (2002, p. 514).

In Arni, design-making is also a task carried out by specialized establishments. Designers are responsible for drawing the designs, often on computers,[29] and for perforating jacquard cards (or having them perforated in other units). The presence of design specialists and the use of jacquards are linked by a mutual relationship. The existence of specialized designers capable of making highly complex designs means that the jacquards' potentials can be exploited and thus favours the adoption of this technology, while the wide adoption of jacquard

[26]See Nagaraj 2006; Nagaraj et al. 1996 and Arivukkarasi, Chap. 8.

[27]The grander type of sarees that started to be produced in Arni from the late 1970s were mainly *korvai* sarees, which have contrasting colours in the borders. The production of korvai sarees requires the use of a throw shuttle as opposed to a fly shuttle, and involves a higher labour intensity: the weaver needs the assistance of an extra worker, since three shuttles are utilized, two for the borders of the sarees (one of them operated by the assistant, usually a child, a woman or an elderly member of the household), and one for the body of the saree. In very recent years, the cluster has witnessed a decrease in production of *korvai* type of sarees in favour of *dharmavaran* ones (see Arivukkarasi, Chap. 8; and Roman 2008). The latter involves sophisticated designs but not the solid contrasting borders typical of *korvai* sarees. No weaver's assistant is required for the making of *dharmavaran* sarees. This product shift has been induced by a complex set of factors, linked to both changes in consumers' demand, as well as a decline in the availability of child labour. Due to space constraints, I am unable to discuss the issue in detail here, but have explored it further in earlier work (Roman 2008).

[28]Arni's silk cluster did manage to master the production of types of fabrics that were originally the domain of Kancheepuram's well-established and renowned industry. Yet, the name of Kancheepuram still dominates consumers' imagination, and Arni's sarees are often 'rebranded' as 'Kancheepuram sarees' when they are sold in retail shops.

[29]Approximately 75 % of designs are made on computers. The use of computers for design-making began in the late 1990s.

appliances induces an increased demand for specialists capable of making sophisticated designs.

In Arni, some design units were already present in the cluster before the shift to grander varieties of sarees in the late 1970s, but, importantly, in those early stages of the product shift, traders could also resort to designers in Kancheepuram, where the manufacturing of grand sarees had a longer history. In the following years, the demand for complex designs increased as did the number of specialized designers, which by 2006 amounted to more than 30. In the process, designers underwent specific training and developed higher levels of skill in making intricate designs. The young generation of designers has attained specialized and ‘formal’ diplomas from institutes in cities and textile centres, including Erode, a town in the western part of Tamil Nadu.[30]

One important set of skills that designers have acquired since the late 1990s relates to computer-aided design (CAD). CAD is a key technological development and it further enhances the advantages of jacquards. The range of designs that can be made on computers with graphic software packages, such as Corel, is much broader than the range that can be made by hand-drawing, thus facilitating a response to the hunger for novelty and the growing social range of saree purchasers. Thanks to computer-based technology, designs can be stored and recorded, different designs can be combined and recombined, changes can be easily implemented, images from various sources (including scans of textiles) can be effectively made into saree motifs, and the lengthy process of precise counting in drawings on graph paper is eliminated. Such an enhancement of design capacities, thanks to computer technologies, has clearly further improved the exploitation of the potential of jacquard loom technology. The two innovations exist in a relationship of synergy.

Here we have an illustration of the importance of examining technological changes through a dynamic systemic perspective that can account for the process by which, as the adoption of a technology widens, it triggers further development of related technologies and knowledge resources, and this in turn results in the further increase in the spread of the technology (Geels 2004). This is an instance of what have been termed ‘indirect network effects’: as the numbers of technology users increases, so does the availability of complementary technological inputs and skills, which in turn enhances the benefits of using the technology (Hall and Khan 2003).[31]

Some far-reaching technological changes have taken place in Arni. Their adoption is linked to material, economic and social variables, such as technical features, the structure of demand, and complementary knowledge resources derived from the development of specialized firms in the cluster. Yet, in order to achieve a full understanding of the processes of technological change, we need to look

[30] In the backstreets of Arni, informal institutes and training centres are also proliferating, offering their own unaccredited certification services—see Harriss-White (2014a).

[31] ‘Direct network effects’ refer to a situation in which users’ utility is directly related to the number of users: the electronic mail is a clear instance of a technology that is subject to direct network effects (Hall and Khan 2003).

beyond the cluster, at another aspect of its extra-local ties. It has already been noted that Arni's silk industry has long-distance links to other locales for the supply of raw materials and the marketing of fabrics, and extra-local ties also play a crucial role in knowledge diffusion and innovation. Ties with agents that are located outside clusters themselves have been noted to provide key channels for process and product development (see e.g. Giuliani 2002; Humphrey and Schmitz 2000; Nadvi 1997). In the case of Arni, new technologies are not conceived in the cluster itself. Rather, they are developed by large loom equipment suppliers and software companies that are located at some distance in Bangalore, Kancheepuram and Chennai.

We then need to explain how Arni traders can have a relatively ready access to technologies that originate elsewhere. Spatial factors are crucial. Arni benefits from locational externalities (Nagaraj 2006): its being sited in a silk weaving region and its physical proximity to cities like Chennai, Bangalore and Kancheepuram enables valuable external knowledge and technologies to reach the cluster. But space and distance are also, to some extent, socially constructed. 'Hard' infrastructure such as railway and road connections play an essential part in determining the 'temporal proximity' to other locales (Johansson and Karlsson 1994) and thus the accessibility to external knowledge that can trigger technological changes (Das 2005; Johansson and Karlsson 1994). While Arni is, in many respects, poorly served in terms of public services and utilities, such as water, electricity, sanitation and waste management, the town does have relatively good transport connections with metropolitan cities and other weaving centres—thanks to a road network that is well developed compared with other Indian states. This means that it can be easily reached by extra-local actors such as textile machinery suppliers and software houses developing design software.[32] For Arni traders, suppliers' demonstrations and visits are very important sources of knowledge about new technological developments. They have often opened the way for the adoption of new technologies in the cluster.

In Arni, there are no formally accredited technology institutes, Research & Development centres or other government initiatives for promoting technological upgrading in the silk industry, and yet the role of the state in supporting technological changes has been critical. The provision of transport infrastructure has been a key condition for Arni silk businesses to gain access to new technologies.[33]

[32]Considering the advantage in terms of transport infrastructure that Arni enjoys in comparison to silk centres in other regions, such as Chanderi, in Madhya Pradesh, where the researcher has also conducted fieldwork, it is instructive to compare data on the average road infrastructure in Tamil Nadu and Madhya Pradesh. For Tamil Nadu, road length is 127.7 km per 100 km^2, while for Madhya Pradesh is 52.2 km per 100 km^2; for Tamil Nadu the length of surfaced roads is 96.8 km per 100 km^2, and for Madhya Pradesh is 25.4 km per 100 km^2 (calculated from statistics of the Indian Ministry of Shipping, Road Transport and Highways 2002). For a comparative analysis on the degrees of innovation undertaken in the two clusters and its relation to transport infrastructure, see Roman (2008).

[33]The argument is not to disregard the importance of technical institutes and R&D centres to innovation and upgrading, it is rather about highlighting the fact that other kinds of broader public policies, such as investment in transport infrastructure, are also of key importance, while being often overlooked in the literature.

In seeking to understand the role of state interventions for innovation dynamics and for the development of the silk industry in Arni more generally, it is important to recognize the politics of state policies and state provisions (as argued in the essays by Basile (Chap. 4) and by Harriss-White (Chap. 1)). While space constraints do not allow an in-depth discussion, it is necessary to understand how the nature and scope of state policies affecting the silk cluster are shaped by political forces and dynamics, some of which have a local dimension. First, as suggested by Harriss-White (Chap. 1) in relation to the relatively poor public services and utilities in the town, the absence of direct state support to the local silk industry (with the exception of a weak cooperative sector) may be linked to the lack, until recently, of a Member of Parliament representing (or claiming to represent) the interests of Arni's constituents and able to secure resources for them. Second, the relatively developed transport infrastructure in the Arni region in particular and in Tamil Nadu in general is related to local as well as general factors. One of the achievements claimed by the Arni Silk Merchants Association (the business association of silk traders) is the strengthening of long-distance bus services linking Arni to other places (Basile and Harriss-White 2000), these being key for connecting Arni to its buyers and input suppliers. The good transport connections that benefit the silk cluster seem to be partly the results of successful lobbying by a business organization that represents very powerful local interests. This may be seen as an instance of one of what Basile (Chap. 6) recognizes as key political activities for business associations, namely 'entering into political relations with the state to negotiate particularist interests'.[34]

From this discussion of technological changes in Arni, we see that technological developments are part of complex systems of interlinked elements instead of being reduced to the result of single factors, such as the availability of finance, which is what most economists focus on. Venture capital may be necessary to technological innovation but it is not sufficient. Other necessary preconditions to the adoption of innovations include a pool of skilled labour that can adapt their competencies to changes in technology (e.g. the jacquard equipment), the availability of complementary technology and knowledge resources associated with specialized firms (e.g. design units), the abilities of silk businesses to interpret and respond to changing market demands with changes in products (e.g. the shift from simple varieties of sarees to varieties with intricate designs), together with interventions of the state, in Arni's case the provision of 'hard' infrastructure.

[34]Such dynamics are part of the stratified and uneven patterns of utility and infrastructure provision discussed by Harriss-White (Chap. 1). Business elites may be able to negotiate and advance their interests vis-à-vis the state—and if they fail, they have the means to initiate and access alternative systems. Women, the lower castes and the lower classes are typically in no position to do either (Basile and Harriss-White 2000).

7.6 Inter-weaving Tradition and Innovation in Arni Silk Products

Among Chennai buyers, Arni has now a reputation for ‘fancy’ sarees. ‘Fancy’ is a term that comes up frequently in the conversations with traders; it means ‘fashionable’ and it involves the introduction of new elements, such as new designs, beadwork or embroidery.

However, it must be emphasized that fashionable sarees and new designs have by no means erased conventional motifs and styles. Arni traders resort to the term ‘tradition’ to refer to certain designs, motifs that are ‘old’ and that are part of a known and widely used repertoire, typically present in wedding sarees, but also featured by other fabrics. Mango, temple, and peacock motifs are all examples given as ‘traditional’ designs.

There is no contradiction in the coexistence of old and new, of traditional and fancy. In fact, if we examine closely the processes that lead to innovation, and the specific activities and interactions that bring about new products, we come to recognize that ‘traditional’ and ‘fancy’, continuity and change do not necessarily stand in opposition to one another. Weavers’ technical skills are called upon in the making of every Arni fabric. Weaving skills do have an element of stability, in that modes of learning ensure the reproduction of a given type of coordination of movement and of certain aptitudes from one generation of weavers to the next. Yet, as mentioned above, they have also changed over time, as weavers have adjusted their bodily habits to the use of jacquard technologies, which have allowed the shift to higher value sarees with intricate designs.

Let us take the case of ‘traditional’ designs. These can be reinterpreted, and turned into a new form in a ‘fancy’ saree. A clear example was to be found in a saree decorated with mango motifs all over the main stretch of cloth (‘body’), with the novelty being that each mango was of a different style and size. The entanglement of ‘old’ and ‘new’ in this saree is a powerful illustration of the interplay between knowledge reproduction and transformation. The origins of mango motifs can be traced back to the time of the Mughals (Bhatnagar 2005), and these motifs have been passed down across generations of weavers and traders; but in this fabric, they have been turned into one of the ‘trendiest’ sarees on the market.

Existing knowledge, including knowledge that has been reproduced over long periods of time and presents significant elements of stability (such as the repertoire of traditional motifs), is a typical element of what Marshall termed the ‘industrial atmosphere’ (Marshall 1920, p. 96) that clustered firms can benefit from, and it is a vital resource to draw upon when traders and designers engage in innovation. ‘Old is gold’ remarked Venkatachelam, the owner of Laxmi Silks, when he was commenting knowingly on the value of old and new designs.

When questioned about the importance of traditional and new designs for today’s business the responses of traders are mixed. There is a widespread recognition of the importance of new designs, but traditional motifs are also valued. In my sample, 44 % of traders attributed equal importance to traditional and new designs for business success; 44 % believed that new designs are more important; 12 % of them stressed the greater importance of traditional motifs.

The strong emphasis on new designs is linked to the need constantly to adapt and respond to market signals in order keep hold of customers sensitive to fashion trends. But many traders attribute equal importance to traditional and new designs, stressing the value of traditional motifs as a resource for innovating and being in line with fashion changes while incorporating elements of a familiar and popular repertoire.

The attention of many Arni traders to market trends is also not a very recent phenomenon, but can already be detected in the shift that occurred in 1970s and 1980s, when Arni saw the market opportunities in the middle segment of consumer demand (Nagaraj 2006). Nowadays, with the increasing influence of volatile fashion trends on consumer preferences, effective, flexible responses to market conditions are of vital importance to competitive success. 'Change is permanent, we need to change constantly', was the poignant comment of Arul, an Arni trader, when discussing new designs and fancy varieties of sarees.

'Fancy' sarees include sarees with embroidery and/or beadwork.[35] In most cases, beadwork and embroidery work is not performed within Arni's silk firms but is sub-contracted out to specialized workers or establishments, usually located outside Arni, in Vellore and Chennai. Embroidery and beadwork products are a clear reflection of the efforts of Arni traders to match market trends. Recently, the influence of renowned local fashion designers has directed consumer preferences towards embroidered materials.

But fancy sarees also include sarees with new designs. We have seen that new designs can be derived from a traditional repertoire, but they may also break dramatically from previous patterns: they may take the form of scenes from the epics, such as the Ramayana, of famous foreign paintings such as the Mona Lisa, or of depictions of monuments like the Eiffel Tower. The overall design effects can also vary: motifs can have shaded effects on the borders, designs, achieved with very fine weaving and the use of a 1,400 hooks jacquard[36]; they may have subtle nuances and fine lines which give the illusion of looking at a painted surface… the list could continue.

Demand-pull factors play a crucial part in product innovations (Karlsson and Olsson 1998): they were behind the shift to 'grander' fabrics in the 1970s and 1980s, when Arni traders responded to the decline in demand for simple varieties and successfully shifted their focus to the growing middle market. More recently, they lie behind Arni traders' attempts to cater to the rapidly changing preferences of fashion-conscious customers through the production of fancy sarees.

The fact that an important aspect of product innovation concerns design innovation—both in terms of motifs and of design effects—recapitulates the issue of technological development and the role of technology-push factors for product innovation. Indeed, an exclusive focus on either technology or market forces would

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[35]In the late 1990s, some Arni firms had also taken up the production of sarees with painted patterns. Nowadays, they have been abandoned because of a change in market trends.

[36]Standard jacquards have 180–240 hooks.

be misleading and inadequate to understand innovation dynamics (Dosi 1982; Howells 1997). It is in fact the interplay of technological resources and market forces that deeply affects processes of product innovation and their outcomes (Dosi 1982; Mowery and Rosenberg 1979). In Arni, efforts to respond to market conditions through producing fabrics with complex designs by increasing the range of motifs have evolved mutually with the use of jacquard machines. Responses to market demand have led to the diffusion of jacquards, and the wider adoption of jacquard in turn opened up the technical possibilities to make even more intricate designs and broader ranges of motifs.

But the degree of responsiveness of firms to market trends and their capacity to innovate will also depend on an entrepreneurs' ability to access and interpret market signals. Arni's traders engage in the production of 'fancy' sarees, but what is 'fancy' and what is 'fashionable' changes rapidly and traders need very well-developed abilities to interpret market trends and respond sensitively.

It has been noted that for clusters producing for non-local markets, external knowledge is of key importance for product and process innovation and upgrading (Humphrey and Schmitz 2000). The case of Arni's silk cluster, with its integration into a national market, illustrates this well. TV series, movies, magazines, and for a few traders, Internet sites, can offer ideas about current fashion trends, but contacts with buyers and direct insights into consumer tastes are considered even more essential. Kumaran, a large trader, noted: 'Customers are our teachers', and, along similar lines, Karthik remarked: 'You need to understand consumers' tastes and their changes. Buyers teach us'.

Spending time in large cities is regarded as a key source of inspiration: 'When I am in Chennai or in Bangalore, I register everything, how people are dressed, which colours they wear and so on…' said the owner of Ganesh Silks.

Observation of fashion styles in metropolitan cities is not the only means of gathering market knowledge. For those traders who sell outside Arni, contacts with buyers and visits to buyers' shops are of prime importance. The geographical location of Arni and its good transport connections to metropolitan centres means that traders have relatively easy access to market intelligence and to different sources of ideas for new products.

Ties with buyers are channels for the acquisition knowledge of market trends in terms of colour, designs and type of products. The extension and importance of extra-local networks for textile traders in South India has been emphasized by Mines in his study of Senguntha Mudaliar artisan-merchants in Tamil Nadu.[37] For Arni traders, social ties with buyers (also referred to as 'parties') built over years of repeated, often intergenerational, interactions provide access to key market insights both through 'business' meetings[38] as well as in informal social gatherings with buyers who have become 'family friends'.

[37]Mines (1994).

[38]In some cases, buyers may place specific orders about colour shades or design patterns, but they mostly purchase the fabrics as they are proposed by traders or, at times they may ask for some modifications in the pieces to be purchased.

The shift towards products with more complex designs and a wider use of jacquards tends to involve higher wages[39] for weavers since design sophistication is a key factor in determining payment rates. However, while it is difficult to extrapolate the precise relation between saree selling prices and corresponding wages (since wages are subject to individual bargaining between weavers and traders), there are indications that the share going to labour relative to the prices of sarees[40] decreases as designs increase in sophistication. An illustration[41]: for a saree with a selling price of Rs. 1,200, the wage was reportedly about Rs. 300 (25 %); for a saree with a selling price of Rs. 3,500, the wage was reported as about Rs. 700 (20 %); for a saree with a selling price of Rs. 6,000, the reported wage was about Rs. 1050 (17.5 %).[42] The investment in jacquard technology for products with sophisticated designs involves fixed and non-fixed costs to traders as well as charges by design firms (see above), so differences in the shares of labour costs do not directly translate into increases in profits for traders, and yet the benefits of value addition from product innovation are far from being fully reaped by weavers.

However, it is not only the returns to value-added innovation between weavers and traders that are unequally distributed, access to resources to innovate and benefits deriving from it are also highly differentiated among traders themselves.

7.6.1 Arni Traders, Capital and Innovation

When we examine product innovation among traders, we come to recognize that the most innovative ones typically own large firms. It is suggestive that 75 % of large traders in my sample manufactured embroidered/beadwork sarees, while only 34 % of medium traders, and 12 % of small traders did so. In addition, 84 % of large traders produced ‘fancy’ sarees, whereas the figure was 50 % for medium traders and 28 % for small traders.[43]

The greater tendency to innovate among large firms has been generally explained in terms of their financial resources, their higher ability to take risks (since they can better cope with potential failures) and their better contacts with

[39]According to my calculations, in my sample the average wage per day for weavers engaged in simple design work was Rs. 49, while the average wage for weavers making complex designs was Rs. 175. Weavers are typically paid per saree and make between 2 and 5 sarees per month.

[40]By selling price, I refer to the wholesale price at which traders sell to buyers, not the final price to consumer.

[41]The illustration is based on calculations made cross-checking information on wage rates for different sarees gained from the weavers’s and traders’ interviews.

[42]Weavers typically make between 2 and 5 sarees per month, depending on the sophistication of the design.

[43]Following broadly a local take on this, here, small traders are considered those with less than 25 looms, medium traders those who control between 25 and 60 looms, large traders those with more than 60 looms.

buyers and suppliers (Karlsson and Olsson 1998)—even though, the weight of such factors varies, for instance, in relation to the capital intensity of innovation (Acs and Audretch 1987).

Let us begin with the capital requirements of innovation in the Arni cluster. Innovating in Arni is a comparatively expensive business. Beadwork and embroidery are costly: the fees for embroidering a saree or decorating it with beadwork average between Rs. 1,000 and Rs. 3,000 Rs per piece. But it is not only embroidery and beadwork that are costly, design innovation also calls for significant amounts of investment: first, the initial investment for providing jacquard looms to weavers; second, given that Arni products are largely sarees with intricate jacquard designs, the considerable investment for making new designs.

It is easy to see that it is only possible for traders who have a strong capital base and easy access to credit to bear this type of expense frequently, while it is much more difficult for smaller traders whose financial resources are more limited. In this sense, the kinds of products manufactured (i.e. types of sarees with intricate designs), the technologies used (for the most part jacquard machines), and the presence of specialized workers for design (as opposed to weavers carrying out the design-setting work themselves) have implications for the investment requirements of product innovation, and for the possibility to innovate of firms of different sizes. Govindan, a small trader, observed: 'Nowadays you can make everything with computers and jacquards, lots of different new designs, I could make anything you tell me, the tree outside or this poster over here, but I would need money for that, designs are very expensive, I cannot afford them. I know that new designs go well in the market, but I don't have the capital, and, instead of making new designs, I rotate (designs)'.

The fact that product innovation requires a significant level of investment results in relatively high risks, which most small firms are unable to take. Gunaselan, a trader controlling 15 looms said: 'It's too risky to make embroidery, it requires money, and we cannot risk the fabrics being rejected by buyers'.

But higher financial resources and the ability to take risks are not the sole explanations for the higher degree of innovativeness of large firms. We have seen that market insights gained through ties with buyers are a key element to innovation, and it is large traders who have clear advantage in their access to such knowledge.

Large traders employ staff in their firms, and yet they are still directly engaged in many tasks and believe it is preferable to retain a significant degree of personal involvement in the business. Maintaining contacts with buyers and travelling to cities are a responsibility that large traders do not delegate. They meet buyers personally, to discuss orders and to negotiate prices. They do so to maintain good interpersonal relationships but also because they place a high value on the comments and insights they can gain from them. The (relatively) good rail and road connections to Chennai and other urban centres make it less of a burden for buyers and traders to meet regularly, either to discuss business or to attend social gatherings.

The communication between large traders and some of their buyers is further facilitated by long-lasting interpersonal relationships. Traders often refer to certain buyers as 'family friends'. It is not uncommon for large traders to meet with 'parties' on social occasions: reciprocal invitations to weddings and other social functions are frequent. It is easy to recognize that these kinds of interactions provide additional venues to discuss business issues and also foster a smoother communication between traders and buyers. Large traders are more likely to enjoy close relationships with 'parties': their status and lifestyles are more similar to those of buyers[44] and their ties have a longer history, since large firms are usually older than small and medium ones. The interpersonal bonds sustained by regular social interactions and repeated business transactions are therefore vital channels through which large traders acquire market knowledge.

The knowledge flows between large traders and buyers are facilitated not only by the comparatively short social distance, but also by the short cognitive distance between them. As large traders often interact with parties on different occasions and frequently visit large cities in search for ideas, they are fluent in the language buyers speak, they can draw upon a shared repertoire of understandings, more so than medium and small traders can do. Buyers report that it is usually easier to discuss different matters with large traders, whereas smaller ones usually require many more details and explanations.

Resources to innovate, be they financial capital or social capital, are unequally distributed among Arni's traders. The current technological structure, type of products and differential access to financial, social and cultural resources produce a situation in which it is larger traders who are mainly engaged in innovation and better able to respond to market changes. Whereas the market for silk sarees preserves niches for traditional fabrics, and thus a demand for traditional types of fabrics produced by many smaller businessmen, it clearly appears to be large traders who are in a privileged position to cater to the large fashion-conscious market segment. Large traders are better placed to access and interpret market signals and grasp opportunities that may emerge, or respond to crises that may doom whereas smaller businessmen are at a clear disadvantage. If trends of increased volatility of market demand and heightened importance of innovation continue, this gap will persist and widen, the cluster will be increasingly internally differentiated and silk capital increasingly concentrated.

[44]Along similar lines, Panini explains how, in Faridabad, entrepreneurs with higher status background are better prepared for the socializing activities that feed extra-local networks and can cultivate contacts with large buyers and politicians thanks to their familiarity with 'the etiquette of … cocktail culture' (1978, p. 110). In her study of the shoe and garment clusters of Aba, Nigeria, Meagher notes that interpersonal relations with buyers and a similar social background to theirs were among the advantages enjoyed by higher class producers (2010).

7.7 Conclusions

In this chapter, I have analyzed changes and continuities in Arni's products and technologies in a systemic perspective developed through an expanded institutionalist theory of innovation. This accommodates both social and economic path dependence and the substrate of competence on which innovative activity is found to rest. The approach has shed light on the inextricable ties between technologies and knowledge resources and their relations to the wider institutional context—to the cluster environment and its backward and forward linkages to players outside the cluster.

It also recognizes the significance for innovation of the embeddedness of knowledge processes in economic and social institutions, and allows one to go beyond orthodox reductive analyses of innovation and technological changes as self-contained phenomena.

This systemic approach to innovation yields practical insights about urban dynamics. In 'Middle India', urban development typically combines market-driven growth with under-developed infrastructure (Harriss-White, Chap. 1). The silk cluster is a fine example of innovative market-driven growth. High growth rates involve both innovation and institutional churning. Institutional change constantly involves behaviour that is innovative to the locality. Sometimes such behaviour can only happen if there is synergy between innovations. One such example in the case of Arni involves the relationships between market trends (growing—customized—demand for sarees with intricate designs), the adoption of technology new to the region (jacquard attachments and computers), adaptive innovations in the labour process (new mind-body competences added to apprenticeships, plus the distinctly uninnovative involvement of unpaid family labour) together with mercantile control over loom ownership—and a shift in the balance of wages and profits towards profit.

Yet this set of dynamic interrelationships is only one aspect of a much wider web of connections and interdependencies that characterizes this cluster. The case of Arni also illustrates that interactions both within the cluster and between it and non-local factors and institutions are essential for cluster innovation and upgrading (Humphrey and Schmitz 2000). Changes in technologies and products in Arni's silk industry reflect the typical advantages of spatial clustering, in this case such as a well-established base of industry-specific repertoires of knowledge, weaving skills and traditional saree motifs, the divisions of labour within and between firms and the associated development of specialized ancillary expertise, such as design-making. At the same time, external flows of knowledge—technological inputs and market intelligence—are also essential to innovation, as exemplified by the importance of interactions with equipment suppliers and buyers located outside the cluster.

Innovation, however, is not just about the adoption or adaptation of 'new' elements and new resources. Innovation is a knowledge process based on existing knowledge reservoirs. The reproduction of this knowledge also plays a part in processes of innovation, given their path-dependency and cumulativeness. By situating knowledge processes (Lave 1993) and thus by examining the specific actions and interactions within which learning and innovation take place, one can recognize how, in many ways, existing knowledge is the very basis for innovation, and 'tradition' can be a critical ingredient to the latest product developed.

Identifying and responding to market trends and fashion changes is a difficult task, and yet Arni businesses have managed to gain a reputation for this ability among buyers. The silk cluster has so far managed to withstand competitive pressures and even to gain access to higher value-added segments of the market. However, both access to knowledge resources for innovation and upgrading and the returns from innovation and value addition are unequally distributed. Among traders, social and financial capital determines the ability and scope of innovation, favouring large traders. For labour, while technological and product development have led to higher wages for those that can produce them, their share relative to the selling price of products has actually decreased.

Finally, although Arni conspicuously lacks the plethora of government initiatives targeted at other Indian handloom clusters and other clusters nearby,[45] it would be highly misleading to conclude that the state has had no role to play in the ability of Arni firms to respond to market changes and grasp market opportunities. The state has provided vital hard infrastructure connecting Arni to key knowledge resources located outside the cluster. The state transport infrastructure affects the temporal distance between the cluster and other localities and thus the ease with which critical external knowledge inputs can reach Arni.

Our findings point to the far-reaching implications for an industry of the provision of 'hard' infrastructure, and in particularly transport infrastructure. Nowadays in many policy and research circles this 'old style' form of state support is not very fashionable. Especially, when discussing ways to favour innovation, information highways are prioritized over tarmac roads. Yet, for the time being, for many developing knowledge economies the latter are at least equally important.

Disclaimer:

Camilla Roman produced this chapter in her personal capacity. The views and opinions expressed are her own and do not represent the views and opinions of the International Labour Organization.

[45]Coelho and Vijayabaskar (2014) have shown in the case of the leather goods cluster in nearby Ambur that the state has played a productive role through leather research and development agencies, heeding Hashim et al. (2010) caution that they be as politically independent as possible.

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Chapter 8
The Making and Unmaking of Handloom Silk Weaving in the Arni Region

N.A. Arivukkarasi

8.1 Introduction

Silk is a fabric of high social status in most societies of the world. In India it enjoys its own niche in the handloom sector despite a series of crises involving inadequate yarn supplies, price volatility in yarn and other inputs and lack of protection for reserved designs (Chidambaram 1986; Sinha 1988; Srinivasulu 1994; RGCPRS 2005). Nevertheless because of its social niche it was widely thought that, unlike cotton, the manufacture of silk fabrics faced little threat from the mill and powerloom sectors. In the post-reform period, however, the production of silk fabrics has been exposed to a new wave of change including the advent and proliferation of powerlooms (Chidambaram 1986; Rangappa 1996; Roy 1999). These cultural and technological changes have deep implications for the silk weaving sector, in particular with respect to subcontracting employment which spreads from Arni town to engulf the surrounding villages.

The purpose of this chapter is to map these recent changes in Arni's hinterland. It is based on a comparison of two household censuses and surveys in the three villages of Nesal, Vinayagapuram and Veerasambanur carried out in 1993 and

I was inspired for this title from the book 'The Making and Unmaking of the Industrial Working Class' by Jan Breman who in turn was paying homage to E.P. Thompson's 'The Making of the English Working Class'. However my aim is much more modestly to contribute to an understanding of the class of handloom silk weavers.

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2009, supplemented by other research based in the region and more general literature.

It is grounded theoretically in the study of the social and political institutions and organizations of class formation—including the role of the state in India's informal capitalism. This is an approach to institutions that borrows from Thorstein Veblen and Radhakamal Mukherjee in putting structural change analytically central alongside matters of power, learning and welfare that arise from conditions of great institutional diversity such as obtain in northern Tamil Nadu (Hodgson 2000). It focuses on the roles of institutions in mediating change at the macro- and micro levels. In not presuming institutional stability, this 'old' institutionalism is appropriate for the exploration of the dynamism manifest in Arni and its hinterland (Hodgson 1998).

First, the emergence of silk weaving in big way in the 1980s is summarized. Then I turn to reform- and post-reform period changes, i.e. those between 1993 and 2009. I analyse the underlying factors accounting for these changes together with the impact of reform period policies on the handloom sector in general and silk handlooms in particular; and contextualize the state of silk weaving both in India as a whole and in northern Tamil Nadu.

8.2 Silk Weaving in the Arni Region

Regional specialization and specificities are major characteristics of the Indian handloom sector. Silk in Tamil Nadu is no exception and regional variations can be found in three aspects of production: product type, weaving technologies and the type of loom used. The Arni region for instance has long produced single colour *Arni Dobby* sarees by using the *Dobby* appliance in a fly-shuttle loom. Meanwhile the nearby town of Kancheepuram has historically produced *Korvai* double-side bordered[1] silk sarees using the throw-shuttle loom with the *Mundhanai* (aka *Pallav*, the decorative end to the length of cloth) attached to the body of the saree separately. The quality of silk used has also differed from place to place and has been ranked in the following descending order—Kancheepuram, Kumbakonam, Arni and Salem (Chidambaram 1986).

[1]The *Korvai* double-side border saree involves a contrasted colour between the body and the border of the cloth. The body of the saree has borders on both sides which are attached separately (this is the *Korvai* process); this is usually carried out with the help of a weaving assistant alongside the main weaver. The need to work in a confined space is the reason for the preference of children as weaving assistants. Kumbakonam has produced *Korvai* double-side bordered rich-design silk sarees using jacquard appliances in throw-shuttle looms but in this case the *Mundhanai* is integrated—not attached to the body separately. Salem produced *Korvai* single-side bordered sarees using the fly-shuttle loom with an integrated *Mundhanai.*

Until the late 1970s the Arni region had largely been engaged in producing '*Arni*' *Dobby silk sarees*[2] using the fly-shuttle loom (Chidambaram 1986; Jayaraj and Nagaraj 2006). Then Arni merchants encouraged weavers to start producing double-side bordered Kancheepuram *Korvai sarees* by using throw-shuttle looms, despite the fact that the new product was quite different from Arni's regular line. Effectively, this was a new technology for a new product. But at the time, not only was the traditional Arni saree facing a severe threat from artificial mixed-fibre fabrics and from powerloom technologies, but a new kind of demand was also emerging from the fashion- and price-conscious middle class in search of a product as cheap as Arni's but as grand as Kancheepuram's.

That Arni managed to trounce other centres and respond to this market explains its importance as a silk manufacturing and trading centre in the late 1980s (Jayaraj and Nagaraj 2006; Roman 2008). This unique trajectory has made the Arni region distinct from other silk weaving centres of the state. Prior to that, its reputation lay in the fact that the town was at the heart of the northern green revolution belt of North Arcot—a district which alone possessed 10 % of All India's electric pump sets used for irrigation in 1974 (Roman 2008; Harriss-White and Harriss 2007). The region had already developed capabilities enabling it to respond to opportunities, to adapt technologies and experiment with them.

In the 1980s, the rapid growth of silk weaving diversified the Arni region from being specialized in agricultural products, to one with silk manufacturing and trading (Harriss 1993; Jayaraj and Nagaraj 2006). Then, after a decade and half of success in silk, the region was once more engulfed by a sea change in the organization of production (Roman 2008). These recent developments signal, however, a reversal in trends from those of the 1980s. Initiated in the post-reform decade, the institutional convulsion has continued apace in the new millennium. It may be analysed in two ways—first, in terms of the macro level institutional environment, competition from other technologies and changes in the legal regulative environment, discussion of which occupies the latter part of the essay; and second, in terms of the 'internal' institutional arrangements and dynamic of the handloom sector itself (Polzin 2007; see Polzin Chap. 9), to which we turn directly.

8.2.1 The Silk Weaving Wave

The fast-growing demand for silk fabrics in the 1980s stimulated change in the organization of silk weaving. A three-tier structure of demand and production existed in Tamil Nadu in which the low end was largely fed by synthetic and mixed-fibre silk sarees, the mid-market for the mass middle class was catered for by producing fashionable mid-price Kancheepuram style *Korvai* silk sarees, while the

[2]The *Arni Dobby saree*—is normally lightweight, the saree being made on a fly-shuttle loom using a dobby appliance. They are mostly single colour, plain designs and a single thread (*orizhi*) is used.

high end was supplied with grand, and intricate, elegant and costly, original Kancheepuram *Korvai* sarees. This resembled the West Bengal scenario in which silk weaving centres in different regions have produced fabrics for different class fractions:Bishnupur, Mirjapur and Chawk-Islampur producing high, medium and low-valued items, respectively (Banerjee 1995). In the case of Tamil Nadu, since Kancheepuram silk is well known for its quality, intricacy and richness and clearly caters for the elite market (Jayaraj and Nagaraj 2006), it proved possible for Arni to tap the fast-growing middle-class mid-market by undercutting Kancheepuram and yet producing a Kancheepuram style double-side bordered *Korvai* silk saree. Moreover, Kancheepuram's high-end weavers are also high status craftsmen with a premium for their skills. To shift to mid-market products would lower their status (Banerjee 1995; Jayaraj and Nagaraj 2006). So, an imitative *Korvai* silk saree has driven silk weaving in the Arni region (Jayaraj and Nagaraj 2006; Roman 2008). Silk weaving is mainly organized through the 'putting-out' system as master weavers and private silk shop owners organize all the processes involved. Cooperatives also flourished supplying the mid-market demand for *Korvai* silk sarees until the early 1990s. But they have become invisible in this overwhelmingly private cluster of firms and cooperative membership also has not grown or spread (Roman 2008).

Powered by demand in the 1980s, the manufacture of these sarees, woven on labour-intensive throw-shuttle looms, diffused from Arni town to the rural areas, paving the way for 'non-traditional'[3] weaving castes to enter silk weaving (Mahammad 2000). Initially 'weaving' castes[4] such as *Senguntha Mudaliars* had to learn to shift from the fly shuttle to the throw shuttle while the new entrants from non-traditional weaving castes, basically farmers such as *Vanniars* and *Agamudaya Mudaliars* started by learning the throw-shuttle technology directly.

In the Arni region, despite the expansion of production that enriched an elite, the green revolution did not change the conditions of insecurity and poverty of the mass of producers (Harriss-White and Janakarajan 2004; Harriss-White and Harriss 2007). Most weavers from non-weaving castes came from marginal and landless agricultural families (Jayaraj and Nagaraj 2006). The later entrants to silk—marginal land holders and landless labourers extruded from agriculture—saw in silk weaving an alternative source of livelihoods (Khasnabis and Nag 2001; Jayaraj and Nagaraj 2006)—and a possible means of rural–urban migration (Chidambaram 1986; Rangappa 1996; Mahammad 2000). In this way, differentiated skills were mapped onto institutions of social status, technologies, products, sites and markets (Jayaraj and Nagaraj 2006). These in turn carried implications for the labour process.

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[3]Non-traditional weaving communities are so-called because they entered weaving far later than traditional weavers.

[4]The traditional highly skilled weaving castes such as *Devanga, Sourastra* weavers in the Arni region engaged in making upmarket Kanchee *Korvai* seem to have thought that shifting to mid-market Arni *Korvai* sarees are degrading compared with their established skills; instead shifting to more intricate and grand Kanchee *Korvai* weaving seems to have been preferred as a form of upward occupational mobility.

Because the *korvai* saree required assistants to weave the product, those who entered silk weaving from non-weaving castes were mostly children and young adults. Within 3–4 years, apprentices could become full-fledged weavers. As a result child labour emerged as a new and sizable component of the silk-weaving labour force. However, due to gender constraints and disparities in weaving it was mostly male children who graduated as full-fledged weavers while females remained as weaving assistants and unpaid pre-weaving workers (Arteburn 1982; Jayaraj and Nagaraj 2006; Roman 2008).

To sum up, increased demand for *Korvai* silk sarees resulted in the entry of non-weaving castes, in the emergence of child labour and in the ruralization of silk weaving.

8.2.2 The 'Post-Reform' Period: Changes in Silk Weaving in the Villages

In the Arni region, three villages, Nesal, Vinayagapuram and Veerasambanur have been studied repeatedly since the 1970s (Farmer 1977; Harriss-White and Janakarajan 2004). Respectively, large, medium and small villages, Nesal is well connected to Arni town while Veerasambanur is poorly connected and Vinayagapuram is the remotest of the three. The following section discusses the post-reform period changes in silk weaving in these three villages and the broad factors underlying this change. It is made possible by an original rural re-survey carried out by the author over the period 2008–2011. No samples were taken. First, all households in the three villages surveyed in the mid 1990s were listed in order to map socio-economic change. Then the entirety of the 108 (12 %) of households in which there were one or more weavers was taken for intensive field research.

Table 8.1 shows clearly that, despite inter-village variations, there has been a substantial change in the structure of rural weaving. Between 1993 and 2009 in Vinayagapuram the number of weaving households dropped strikingly from 60 to 24—that is by 60 %. Veerasambanur witnessed a 50 % decline and only in Nesal did the number of weaving households increase—from 46 to 77—that is by 67 %. Nesal has dislodged Vinayagapuram and emerged as the most important weaving village of the three, accounting for slightly more than 70 % of all the weaving households in these three villages. These changes mark the semi-urban concentration of silk weaving, such as Nesal, and a reversion towards the rural–urban spatial structure of a full generation earlier.

Table 8.2 shows changes in the caste structure of the weaving households between 1993 and 2009 revealing the strong continuity of backward caste dominance in silk weaving, in particular among *Agamudaya Mudaliars* and *Vanniars*. However, the *Vanniars*, who accounted for half the weaving households in 1993, have ceded dominance to *Agamudaya Mudaliars*, the proportion of *Vanniar*

Table 8.1 Number of weaving households in the survey villages, 1993 and 2009

Item	Nesal		Vinayagapuram		Veerasambanur		Combined	
	1993	2009	1993	2009	1993	2009	1993	2009
Total no. of households	339	423	259	322	136	145	734	890
No. of weaving households (HHs)	46	77	60	24	14	7	120	108
Weaving households as a % of total HHS	13.6	18.2	23.2	7.5	10.3	4.8	16.3	12.1
No. of workers in weaving sector	NA	113	NA	19	NA	10	195	142
Workers in weaving sector as a % of total workers	NA	12.8	NA	2.6	NA	3.1	11	7.3

Source for 1993 Jayaraj (2004), Jayaraj and Nagaraj (2006); *Source for* 2009 Author's survey

Table 8.2 Caste composition of weaving households in the survey villages, 1993 and 2009

Village	Item	1993						2009					
		A. Mudaliar	Vanniar	Yadavar	SC	Others	Total	A. Mudaliar	Vanniar	Yadavar	SC	Others	Total
Nesal	No. of weaving house holds	21 (45.7)	Nil (0.0)	13 (28.3)	2 (4.3)	10 (21.7)	46 (100)	38 (49.4)	2 (2.6)	18 (23.4)	7 (9.1)	12 (15.6)	77 (100.0)
	[a]Index of access to weaving	1.98	0.00	1.62	0.10	1.32	1.00	2.03	5.49	1.32	0.21	1.18	1.00
Vinayaga puram	No. of weaving house holds	Nil (0.0)	56 (93.3)	Nil (0.0)	Nil (0.0)	4 (6.7)	60 (100.0)	Nil (0.0)	22 (91.7)	Nil (0.0)	1 (4.2)	1 (4.2)	24 (100.0)
	Index of access to weaving	Nil (0.0)	1.31	Nil (0.0)	0.00	0.75	1.00	Nil (0.0)	1.24	Nil (0.0)	0.20	0.84	1.00
Veera sambanur	No. of weaving house holds	9 (64.3)	4 (28.6)	Nil (0.0)	Nil (0.0)	1 (7.1)	14 (100.0)	6 (85.7)	1 (14.3)	Nil (0.0)	Nil (0.0)	Nil (0.0)	7 (100.0)
	Index of access to weaving	1.75	2.16	Nil (0.0)	0.00	1.62	1.00	2.35	1.29	Nil (0.0)	0.00	Nil (0.0)	1.00
Combined	No. of weaving house holds	30 (25.0)	60 (50.0)	13 (10.8)	2 (1.7)	15 (12.5)	120 (100.0)	44 (40.7)	25 (23.1)	18 (16.7)	8 (7.4)	13 (12.0)	108 (100.0)
	Index of access to weaving	1.43	1.80	1.35	0.05	1.08	1.00	2.32	0.80	1.98	0.20	1.49	1.00

[a]Index of access of a caste to weaving is defined as **a**i; **a**i = Piw /Pi where Piw is the Percentage of weaving households accounted for by caste i and Pi is the percentage of total households accounted for by the castes

Sources for 1993 Jayaraj (2004), Jayaraj and Nagaraj (2006); *Source for* 2009 Author's survey weaving households having declined sharply from half to less than a quarter. The decline in *Vanniar* weaving households is the result of the changes in the site of the village with the greatest concentration of weavers—*Agamudaya Mudaliars* households now constitute 40 % of the weavers in these three villages because they are concentrated in Nesal. *Yadavars*, the other major Backward Caste, also concentrated in Nesal, have also gained in the process. And there has been a marginal improvement in the access of dalits to weaving.

Table 8.2 shows this intertwining of location and caste. With respect to site-specificity, weaving seems to be declining in remote/backward villages, like Vinayagapuram and Veerasambanur, and is being concentrated in semi-urban/suburban villages like Nesal and urban centres like Arni. Weaving appears to be being concentrated among communities like *Agamudaya Mudaliars*, who though not a traditional weaving caste, live in close proximity to Arni town—unlike the more dispersed *Vanniars*. Hence the trends observed in 1993, the rapid increase and ruralization of weaving and the significant entry of non-weaving castes, seem all to have been reversed in a process involving rapid institutional and economic change (See Sects. 8.3 and 8.4).

Not only have the physical sites and the institutions of caste embedding altered but so too has the gender division of tasks. Table 8.3 shows that in all three villages the relative participation of male workers in the non-farm economy has increased in a big way. Between 1993 and 2009 the proportion of workers in weaving households also working in other non-farm sectors also expanded everywhere except in weaving itself. While the proportion of male workers has increased somewhat—with inter-village variations—that of women in weaving has generally declined. The percentage of total workers in weaving households moving back to work in agriculture has increased slightly in Nesal and Vinayagapuram (along with the direction of the structure of employment as a whole) while it has declined[5] in Veerasambanur. This trend appears that it has led to the feminization of agricultural work—since men have made a decisive exit to the non-farm economy.

To sum up, the non-farm sector has developed and centralized while weaving has declined sharply, but in ways specific to locations. Moreover, the rural farm and non-farm sectors appear to have become more gender differentiated. There is a clear gender structure to the two rural economic sectors—with weaving being masculinized[6] and agriculture feminized. In both the largest and most accessible and the

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[5]In Veerasambanur the average landholding is high and landlessness is very low in weaving households when compared to Vinayagapuram despite the fact that both are backward villages. This distinctive difference sets Veerasambanur apart not only from Vinayagapuram but also Nesal with respect to its work participation pattern. In both Nesal and Vinayagapuram female farm sector workers have expanded in number essentially due to demand for their agricultural labour while in Veerasambanur female workers opted for cultivation due to their landholding status and also preferred other non-farm works (MNREGA) instead of agricultural labour.

[6]Over and above gender constraints, change in the product mix is one of the main reasons for weaving being masculinized. In the Arni region *Korvai* weaving was practised earlier; it required children and female assistants. Now *Dharmavaram* weaving needs no assistance. Unpaid pre-weaving work which was usually done by women is also slowly being mechanized.

Table 8.3 Percentage distribution of workers in weaving households by farm and non-farm sectors in the survey villages, 1995 and 2009

Sex	Year of Survey	**Nesal**						**Vinayagapuram**						**Veerasambanur**					
		% of workers in Farm Sector			% of workers in Non-Farm Sector			% of workers in Farm Sector			% of workers in Non-Farm Sector			% ofworkersin Farm Sector			% of workers in Non-Farm Sector		
		% of cultivators	% workers (Agri laborers & Lives stock)	**% total farm sector workers**	% workers other than weaving	% weaving workers	**% total nn-ofarm sector workers**	% of cultivators % of other farm workers (Agri laborers &	% workers (Agri laborers & Lives stock)	**% total farm sector workers**	% workers other than weaving	% weaving workers	**% total nn-ofarm sector workers**	% of cultivators % of other farm workers (Agri laborers &	% workers (Agri laborers & Lives stock)	**% total farm sector workers**	% workers other than weaving	% weaving workers	**% total nn-ofarm sector workers**
Male	1995	4.1	16.3	20.4	14.7	65.3	79.6	17.2	15.6	32.8	1.6	65.6	67.2	30.8	7.7	38.5	15.4	46.2	61.5
	2009	6.1	7.9	14	17.6	68.4	86	20	6.7	26.7	16.7	56.7	73.3	17.6	nil	17.6	29.5	52.9	82.4
Female	1995	nil	40	40	3.3	56.7	60	12.8	44.7	57.4	4.3	38.3	42.6	20	60	80	nil	20	20
	2009	6.8	47.7	54.5	5.7	39.8	45.5	11.5	73.1	84.6	7.7	7.7	15.4	25	50	75	12.5	12.5	25
Persons	1995	2.5	25.3	27.8	10.1	62	72.2	15.3	27.9	43.2	2.7	54.1	56.8	27.8	22.2	50	11.1	38.9	50
	2009	6.4	25.2	31.7	12.4	55.9	68.3	16.1	37.5	53.6	12.5	33.9	46.4	20	16	36	24	40	64

Sources for 1995—MIDS Sample survey on silk weaving in the three villages in Arni region, 1995; *source for* 2009—Author's survey

smallest and most remote villages, the local non-farm economy has expanded, in Vinayagapuram, however, it has atrophied and the local economy is actually agriculturalizing.

While total labour force participation has been stable over the 15 year period, the detail of child and adult participation has changed dramatically. Table 8.4 shows clearly that in weaving households the work participation rate (WPR) has declined both among children aged 5–14 and young adults between 15 and 29 years old. Child labour has dropped by 90 %—persisting at all only in Nesal. Irrespective of gender and with the exception of Nesal, the general work participation rate of children under 14 has dropped to insignificant levels. Children can be presumed to be in school—thereby improving the future quality of labour. But in the young adult group (with some inter-village variation) the work participation ratio (WPR) has declined between 1993 and 2009 by only 10 and 14 % for men and women, respectively This is not an unambiguously positive trend and may reflect lack of work opportunities locally.

Table 8.5 explores this further, showing the literacy rates for both weaving and non-weaving households in the three villages. The literacy rate has increased remarkably since 1993. By 2009 the literacy rate for people under 29 was close to 100 %. Improvements over the period racked up rates of 23 % in Nesal, 26 % in Vinayagapuram and 28 % in Veerasambanur. The aggregate literacy rate in the three

Table 8.4 Age-specific work participation rates for weaving households in the survey village, 1993 and 2009

Village	Year	Male						Female					
		5–14	15–29	30–44	45–59	60+	All 5+ years	5 to 14	15–29	30–44	45–59	60+	All 5+ years
All three villages (combined)	1993	43.1	95.7	100.0	96.2	79.0	84.9	29.0	81.3	83.1	78.1	23.5	65.1
	2009	4.3	85.3	98.5	85.2	76.5	71.6	2.6	67.1	88.5	74.2	29.4	58.4
Nesal	2009	6.1	83.0	100.0	88.9	76.9	72.2	7.1	68.0	83.3	74.1	23.1	57.1
Vinayagapuram	2009	Nil	100.0	93.3	66.7	100.0	65.2	Nil	66.7	100.0	100.0	Nil	61.9
Veerasambanur	2009	Nil	80.0	100.0	100.0	66.7	81.0	Nil	60.0	100.0	50.0	66.7	61.5

Source for 1993 Jayaraj (2004); *Source for 2009* Author's survey

Table 8.5 Literacy rates by broad age groups in the survey villages, 1993 and 2009

Year	Age group (years)	Nesal			Vinayagapuram			Veerasambanur			Combined		
		Male	Female	Persons	Male	Female	Persons	Male	Female	Persons	Male	Female	Persons
2009-weaving and non-weaving households combined	6 to 29	98.5	95.1	96.9	96.8	95.4	96.2	99.3	98.5	98.9	98.0	95.8	97.0
	30–59	80.3	56.0	67.9	85.9	50.5	68.3	84.0	51.5	67.5	82.9	53.4	68.0
	60+	61.2	17.0	39.4	57.1	11.3	36.1	70.2	32.4	53.6	61.5	17.8	41.0
	All (6+) years	86.9	68.7	78.0	87.1	65.6	76.9	89.2	72.1	80.9	87.3	68.2	78.1
1993	All (6+) years	65.2	45.0	54.9	66.1	35.9	51.2	68.3	37.4	52.6	NA	NA	NA

Source for 1993 Srinivasan (2004); *Source for 2009* Author's survey villages is now 78.1 % while the rate for rural Tamil Nadu in 2001 was 63.2 % (Census 2001). The increase in literacy rates is particularly sharp among girls and women.

The 1993 survey confirms the strides made in literacy as the village level rate for the 6–14 years category was already quite high, at around 88 % (Jayaraj and Nagaraj 2006). However, in the 1990s literacy by itself was not being translated into effective schooling, in particular among the weaving households, as their child work participation rates were also very high. That has also changed for the better.

Whereas in 1993 there was a considerable overlap between weaving and agriculture, by 2009 weaving had become increasingly dislocated from the structure of landholdings. Experience elsewhere shows that the joint production of agriculture and domestic industrial goods has a negative effect upon productivity (Banerjee 1995). The 1993 survey revealed that households engaged in both agriculture and weaving shared common peak seasons for work, resulting in deterioration in the quantity and quality of silk weaving (Jayaraj and Nagaraj 2006). In Table 8.6, we see that in weaving households by 2009 the divorce between silk on the one hand and land and agriculture was largely complete. Taking the three villages as a whole, close to three-quarters of all weaving households were landless and those with land had marginal-sized properties. The landholding gap between weaving and non-weaving households is lowest in Nesal, which is anyway the most diversified of the three villages. But this is in turn because economic differentiation is most advanced. Nesal has the highest degree of landlessness among both weaving and non-weaving households. The disconnect between weaving and agriculture is clearer among male workers than among female workers. This reveals that the reversal of the process of diversification of rural households is gender specific.

On the aggregate, landlessness intensified between 1995 and 2009—that is, during the period of India's reforms. In a process of rampant proletarianization (Roychowdhury 2004) it more than doubled to 73 % in weaving households and trebled to 59 % in non-weaving households. The process of exit from weaving and the shock-absorbing role of agriculture as employer of last resort are illustrated in Tables 8.7 and 8.8. Here we see that close to three-quarters of the weavers who have been displaced are *Vanniars*, the majority of whom come from Vinayagapuram; 20 % are *Agamudaya Mudaliars* and from Veerasambanur while just 5 % are from Nesal. Close to three-quarters of those who quit weaving did so between 2000 and 2008. It is striking though that around 60 % of those displaced have returned to agriculture rather than moved elsewhere in the non-farm economy, Nesal being the only village where agriculture has not absorbed weavers. The field survey shows that 84.3 % of the households that quitted weaving in the three villages own land, of which 57 % own one acre and above.

Table 8.9 shows that more than three-quarters of the households, including those who weave both types of saree, have switched from *Korvai* to *Dharmavaram*[7]

[7]Unlike the *Korvai, t*he *Dharmavaram* saree is in semi-contrasted colours—the borders are not separately attached because the weft threads run through the borders as well as the body of the cloth. So weaving assistants are not required. *Dharmavaram* is different from the *Arni dobby saree* as it is entwined with two, three or four threads together in a single rich multicoloured design.

Table 8.6 Extent of landlessness and average size of land owned by weaving and non-weaving households in the survey villages, 2009

Item	Nesal		Vinayagapuram		Veerasambanur		Combined			
	Weaving house holds	Non-weaving house holds	Weaving house holds	Non-weaving house holds	Weaving house holds	Non-weaving house holds	Weaving house holds		Non-weaving house holds	
							2009	1995	2009	1995
Percentage of landless households	77.9	72.3	70.8	40.3	28.6	59.4	73.1	28.4	57.8	19
Average area of land owned (in acres)/per land owning household	1.46	1.99	0.96	2.83	1.3	2.34	1.31	0.95	2.5	2

Source for 1995 MIDS Sample survey on silk weaving in the three villages in Arni region
Source for 2009 Author's survey

Table 8.7 Some characteristics of workers who left weaving in the survey villages, 2009[a]

Total no. of workers who have discontinued weaving	Caste composition			Period in which weaving was discontinued			Present occupation		
	Vanniar	Agamudaya Mudaliar	Others	Between 1994 and 1999	Between 2000 and 2004	Between 2005 and 2008	Cultivation	Agri. labour	Other works
54 (100.0)	39 (72.2)	11 (20.4)	4 (7.4)	13 (24.1)	26 (48.1)	15 (27.8)	21 (38.9)	11 (20.4)	22 (40.7)

[a]*The Note* Data refers only those who remain in the village having left weaving and exclude emigrants
Source Author's survey

Table 8.8 Some characteristics of workers who left weaving in the survey villages, 2009 (contd)

Present occupation/caste	Nesal			Vinayagapuram			Veerasambanur			Total[a]
	Vanniar	Agamudaya Mudaliar	Others	Vanniar	Agamudaya Mudaliar	Others	Vanniar	Agamudaya Mudaliar	Others	
Cultivation and agri. labour	1(3.1)	Nil	1(3.1)	21(66)	Nil	Nil	1(3.1)	8(25)	Nil	32(100) (59.2)
Other works	Nil	1(4.5)	2(9)	16(73)	Nil	1(4.5)	Nil	2(9)	Nil	22(100) (40.7)
Total	5(9.2)			38(70.4)			11(20.4)			54 (100)

[a]*In Note* The brackets denote the row percentages and the total—are for both column and row percentages
Source Author's survey

Table 8.9 Types of saree woven by the weaving households in the village, 2009

Village	Types of saree			
	Korvai	Dharmavaram	Korvai and Dharmavaram	Total weaving households
Vinayagapuram	5	19	Nil	24
Nesal	16	51	10	77
Veerasambanur	3	4	Nil	7
Total	24 (22)	74 (68.5)	10 (9.2)	108 (100)

Source Author's survey

manufacture. From the 1993 survey, *Korvai* weaving alone was reported to be practised in the villages (Roman 2008; Jayaraj and Nagaraj 2006). By 2009, the product type reverted to *Dharmavaram;* and the throw-shuttle technology used for *Korvai* weaving reverted to the fly shuttle.[8] We now turn from changes in the silk weaving sector in the three villages during the reform period to analyse the institutional arrangements and changes in the structure of silk weaving labour force.

8.3 Institutional Arrangements

8.3.1 Structural Change in the Silk Weaving Labour Process and Its Relation to the Local Agricultural Economy

The reason for the widespread adoption of silk weaving in the 1980s was consumer demand for the *Korvai* product—and thus its technology—which required weaving assistants and paved the way for the non-weaving castes to enter weaving (Jayaraj and Nagaraj 2006; Roman 2008). But the reason for shifting away from *Korvai* is not because of consumer preference. Demand for *Korvai* sarees persists. Instead—and in dramatic contrast to theories of institutional change which vest prices, and therefore market demand, with the role of change agent, and also in dramatic contrast to actually existing conditions in the 1980s—producers themselves have changed the technology they use. This has been due in turn to lack of weaving assistants resulting from the decisions of producers to withdraw their children from work as weaving assistants. Weavers have developed a consensus about the value of children's education, as they see no hope for weaving in the future (Roman 2008). Compared to the late 1980s when child labourers were a sizable component of the *Korvai* weaving labour force, this is a significant change in the social structure of the sector.

[8]The *Dharmavaram* style can be woven with both the fly shuttle and the throw shuttle. Because it does not need joining, a fly shuttle can be used. However, most weavers use a throw shuttle as they have long practice with it for weaving *Korvai* styles. In order to weave *Korvai* sarees a minimum of three shuttles are needed whereas for a simple *Dharmavaram* saree one shuttle is enough.

The education of children and their withdrawal from the labour market are major factors driving changes in product type and technology. They also provoke further criticism of the inadequacies of theories of institutional change which have focused on the material incentives rather than on the ideas and preferences of workers (Polzin 2007, Polzin see Chap. 9). Camilla Roman observes from Arni that the shift to *Dharmavaram* weaving is largely intended to "accommodate changing priorities concerning education and alternative employment opportunities" (Roman 2008, p. 235). These changing preferences cross social class. Not only weavers but also traders regard education as helpful. Weavers see education as valuable for children in their future adult employment (Lanjouw 2004), while traders view education as a tool with which to improve their business. In addition, innovations in computer-aided design (CAD) have generated markets for novel kinds of *Dharmavaram* sarees and require a better educated labour force.

Over and above the role of child labour, the exit from *Korvai* weaving also liberates the unpaid female work-force for income-generating activity—besides their pre-weaving work—with which to supplement the family budget. But as a result, the weaving labour force is ageing[9] (RGCPRS 2005)—with the great majority of workers now above the age of 25.

The shift to *Dharmavaram* weaving seems to have started in Arni town, in 2006 it was observed that 84 % of the weavers who now engage in *Dharmavaram* weaving were previously engaged in double-side *Korvai* weaving there. *Dharmavaram* weaving also appears to provide fewer opportunities for young learners, reinforcing parents' decisions to withdraw children. Besides this, Arni weavers are now highly aware of the fact that using child labour risks costing them heavy fines, a change in the politics of state enforcement of the law forbidding child labour, which is now also better understood and complied with in villages (Roman 2008).

The labour-saving '*Thallu* machine' technology which replaces weaving assistants in the *Korvai* technology has not become popular. This is due to disadvantages such as its larger scope for mistakes, its greater physical and mental demands and its lack of relevance to rich designs (Jayaraj and Nagaraj 2006; Roman 2008). There is also no great difference in wage rates and returns from the two different product types, *Korvai and Dharmavarm*, as wages are mostly based on the sophistication of the design.

The shift in product in turn seems to have triggered changes in traders' social preferences for weavers. In 1980s, when the growth in silk weaving was in full spate, the traders engaged rural workers from non-traditional weaving castes and provided them with knowledge and training (Jayaraj and Nagaraj 2006). Following changes in the product and technology,[10] this has stopped. In order to supply the market, encourage technological upgrading, change the product, update current fashion, search for weavers who make few mistakes, produce in time, adapt to

[9]Young people prefer work that has less drudgery and higher returns than weaving.

[10]Here I refer to technology that includes *Jacquard* boxes (which enable the weaver to weave rich designs without any manual help by setting the design cards in these boxes).

change and develop the ability to make rich complex designs, traders depend on the skills, initiative and flexibility of their craftsmen (Niranjana 2001; Syamasundari 2006; Roman 2008). Workers from weaving castes are at an advantage compared with other castes since kinship ties, caste and other social networks help them in their technological responses and in adapting their reservoir of special skills and knowledge to new work processes (Mahammad 2000; Khasnabis and Nag 2001; Roman 2008). *Agamudaya Mudaliars* are an exception to this trend.[11] This may be due to their social status—at least on a par with traditional weavers (Srinivasan 2010; See Srinivasan Chap. 3), since the economic relationship between weaver and master weaver is generally experienced as socially more harmonious if they share a common family background, caste, level of education and culture (Rangappa 1996). But rural–urban and inter-village variations in silk weaving are mapped onto the regional social structure in which the suburban village has a concentration of *Agamudaya Mudaliars*.

In Arni, ancillary processes—twisting, dyeing, the making of computer designs and the making of design cards for jacquard appliances[12]—have all developed as specialized mechanized firms, while pre-weaving work is still done by unpaid family labour. The computer design-making process was introduced to Arni in the late 1990s and the use of jacquard appliances through which the rich computer designs could be applied to weaving also multiplied then—though jacquard looms are less common in villages. To weave intricate, complex designs requires more skill, physical effort, time and patience. But the extra time and costs to the weaver required by the process of production are no obstacle to the traders who purchase the product (Roman 2008). Traders prefer the intricate designs that give handloom weaving the edge over powerlooms, though the moment traders come to control both technologies, they retaliate by reducing the returns to handloom weaving.

As a form of production, handloom weaving is similar to the subsistence agricultural household that engages in the self-exploitation of labour in order to remain at the subsistence level (Niranjana 2001). There is now widespread evidence that, despite using unpaid family labour, the weaver earns hardly enough to cover subsistence (RGCPRS 2005). The weaver is also not infrequently trapped in the net of traders' interest-free advances where interest is recouped by disguise in the prices of the final transaction (Banerjee 1995; Khasnabis and Nag 2001; Jayaraj and Nagaraj 2006). These households are trapped in a simple reproduction squeeze and more closely resemble disguised wage labour than petty commodity production. In 2009, debt, plus the workload and the low levels of return led weavers in the Arni region to express great dissatisfaction with conditions in the silk industry (Srinivasan 2010).

[11] *Agamudaya mudaliars* have strong kinship network and resources to investment and to become master weavers while the case of *Vanniars* is not the same with respect to kinship network and resources and they remained mostly as coolie weavers. Those who earlier practised as master weavers from the *Vanniar* caste also could not sustain themselves and left weaving in the three villages.

[12] The Jacquard appliance is used to weave rich, complex designs without any manual assistance in weaving by pre-setting the design cards. And the weavers who use jaquards get relatively good wages.

Further, shifting to *Dharmavaram* weaving may liberate a woman for other wage work, but it has not provided opportunities for women to become main weavers.[13] Gender norms determine the division of labour and access to knowledge in weaving (Mahammad 2000; Jayaraj and Nagaraj 2006; Roman 2008; Srinivasan 2010). Women cannot avoid dependence on men for certain pre-weaving work such as obtaining yarn, the raw material, or the transaction on the finished goods involving a master weaver or trader (Dev et al. 2008). In Veerasambanur, the sole female weaver in the 2009 survey quit weaving because she failed to get help from male weavers. For women, there is little alternative to agricultural labour.

The reversion to agriculture, despite general agrarian distress, is likely to be due to the characteristics of the dry tract ecotype of this part of Tamil Nadu together with the proliferation of partitioned households (Farmer 1977; Jayaraj and Nagaraj 2006).[14] Djurfeldt and Athreya have observed that "one would expect the structural transformation of the rural economy to imply that people leave the land, which they do, but not universally and at the same tempo" (Djurfeldt and Athreya 2008, p. 54). The "ecotype comes out as a highly significant factor, with a much higher probability for household to be a cultivator in the dry area" (ibid. p. 57). Both hold true in the rural region surrounding Arni. It is part of the dry tract of northern Tamil Nadu where most present-day cultivators earlier worked collectively on their parents undivided landholdings. Now they have inherited a private share of land for independent cultivation—albeit mostly on a miniaturized scale.[15]

8.3.2 The Wider Institutional Environment

8.3.2.1 The State and the Implications of Reform Period Policies for the Handloom Sector and Silk Weaving

While the handloom sector witnessed significant changes during the reform period, the Indian state's liberalization policies favoured growth and production rather than employment (Editorial 2002; Dev et al. 2008; Patnaik 2006). On the one hand trade liberalization "initiated a process of integration of the world textile market by the worldwide phasing out of quantitative restrictions on imports" (RGCPRS 2005, p. 2). On the other hand, the government has quietly reduced budget allocations and

[13]A few women from Nesal village have been given an opportunity by master weavers from nearby villages to work as main weavers managed directly by master weavers in separate work-sheds or at home with the master weavers taking care of the pre-weaving work.

[14]Despite lacking hard statistics about partitioned households, during the field research most of the weavers said that they now carry out agriculture on individually apportioned land while earlier it was used in common by the joint family. They also reported that if they do not actively cultivate, even if it is small plot, it would be seen as reflecting the social and economic incapability of the family and would bring shame to it.

[15]Most of them have yet to obtain legal title, but the land is de facto in their private possession.

vital support systems (Tripathi 2007; and see Roman, Chap. 7). These include protection against imports, the provision of cheap credit, subsidized inputs and state procurement (Commentary 2002; Nalini 2008; Patnaik 2006). Mahendra Dev observes that 1990–1995 and the year 2000 are the two moments in the policy reform period in which weavers poured out of the handloom sector—due to the effects of trade liberalization and public disinvestment (Dev et al. 2008). Here we discuss the impacts of two aspect of state policy on the rural economy: first, the liberalization of silk imports from China and its impact on technology and employment and second, the collapse of silk cooperatives.

8.3.2.2 The Proliferation of Powerlooms in Silk Weaving

It is during these reform periods that India became a major importer of raw silk, especially from China (Rangappa 1996; Usami 2008). Usami observes that the

> Indian silk industry had benefited from the revision of the Rules of Origin of the US in 1996 which significantly affected Chinese silk exports to the US and EU during the late 1990s. Indian silk exports to the US increased from \$120 million to \$320 million in 2003. As a result demand for raw silk increased, but domestic production and supply of raw silk could not respond. The gap was filled with import of raw silk from China and India became the largest raw silk importer. (Usami 2008, p. 41)

By 2005, China's silk industry was some four times larger than that of India and her exports to India had expanded from US\$ 61 m in 1996–1997 to \$385 m in 2005–2006 (Goswami 2011). Imported raw silk is suitable for powerlooms due to the uniform nature of its filaments and its potential for high speed weaving. Domestic raw silk has neither of these attributes (Kumaresan 2002). In 1993–1994, powerlooms used 80 % of the silk that was imported (Rangappa 1996) so the very fact of the availability of imported silk may have incentivized the proliferation of silk powerlooms.

Before the reforms started in good earnest, the number of silk handlooms in India had declined from 4.5 lakh in 1984 to 2.27 lakh in 1994 while the number of powerlooms increased from 36,000 to 58,780—and a powerloom consumes double the quantity of silk yarn of a handloom[16] (Chidambaram 1986; Rangappa 1996). In Tamil Nadu there were no powerlooms in silk weaving until 1984 (Chidambaram 1986). However, they rose to number 536 in 1994 (Powerloom Census 2004)[17] and proceeded to make inroads into the silk handloom weaving sector from then onwards[18] (Chidambaram 1986; Banerjee 1995; Roy 1999).

[16]The powerloom consumes double the quantity of silk than that of handloom. This means that the handloom needs three to four days to complete a simple saree while the powerloom produces two silk sarees per day (although it may need more time according to the design). This production speed allows a powerloom to consume more raw material compared with a handloom.

[17]This is an official figure, most powerlooms are operated as underground businesses.

[18]Even before pre-reforms silk powerlooms had entered the sector but they were not a threat to handloom silk weaving as they produced limited products other than sarees. Imported silk from

It had been expected that silk fabrics would face no threat from powerlooms because handlooms cater for a high status niche of consumers (Chidambaram 1986; Chandrasekhar 2001). This expectation defied an extensive literature affirming the negative impacts of powerlooms on handlooms elsewhere—by such means as copying/forging reserved handloom designs, and misusing silk yarn hanks reserved for handlooms—over and above extensive labour displacement (Charsley 1992; Roy 1999; Editorial 2002). The immediate reaction to a threat from powerlooms showed handlooms forcefully opting for further complex, rich and intricate designs in order to create markets that powerlooms could not enter (Tripathi 2007). But a second route of response was for traditional weaving castes to opt to switch to powerlooms (Roy 1999; Mahammad 2000; Nalini 2008). In the post 1990s period, several important handloom centres have been transformed in their entirety to powerlooms (Niranjana 2001).

By 2002 in Arni, Roman, studying the process of socialization to work, could see that the handloom silk sarees are facing an encroachment onto their market by powerlooms, a threat that was most severe for handlooms producing for the lower status market segments (Roman 2008). While, during the 1993 survey there was hardly a powerloom in the region, by 2009 numbers had risen to approximately 500.[19] And powerloom fabric designs started to be able to cater to changes in fashion. It is *Senguntha Mudaliars*, one of Arni's traditional weaving castes, who have spearheaded powerloom silk weaving. Their impact has been most severely felt by late entrant castes and rural locations. Handloom traders have duly reverted to 'traditional designs' for ritual functions (Roman 2008) and innovative designs of rich and inimitable complexity.

8.3.2.3 The Decline of Silk Cooperatives

Silk cooperatives have developed not as institutions of collective action so much as institutions of the state. But like other such cooperatives, silk cooperatives have suffered from problems such as poorly managed stocks (RGCPRS 2005), lack of regular work, elements of discrimination and discontent (Chidambaram 1986; Banerjee 1995; Mahammad 2000; Tripathi 2007), being conduits of political patronage (Roman 2008) all of which puts strain on the cooperative form of organization. Whereas the pre-capitalist putting-out system mediated through traders and master weavers has persisted into the reform period of globalized capital, Niranjana comments: "the decline of cooperatives does not translate into

(Footnote 18 continued)
China intensified the growth of powerlooms and encouraged them to enter into silk saree production, which was believed not possible earlier.

[19]There is no official data on the number of powerlooms. Traders can supply an approximate assessment (according to field investigations during 2009). Traders reported that in 2009 powerlooms mostly weave *Dobby* Arni type sarees and simple design *Dharmavaram* sarees.

decline of markets, and the scale of trade in handloom cloth remains significant" (Niranjana 2004, p. 563) (Bharathan 1988; Jayaraj and Nagaraj 2006).

During the reform period the number of Indian handloom cooperatives was allowed by the state to decline sharply (RGCPRS 2005; Dev et al. 2008). In Tamil Nadu the number of silk weaving cooperatives dropped less radically from 101 in 1984 (Chidambaram 1986) to 77 in 2005 (RGCPRS 2005). But in Arni they plummeted from 19 in 1993 (Jayaraj and Nagaraj 2006) to 2 in 2009. Meanwhile the number of silk *Maligais* (private silk shops) increased from 159 in 1993 to approximately 400 in 2006 (Jayaraj and Nagaraj 2006; Roman 2008). This is a significant change in structure and is due to deliberate state policy as much as to entrepreneurship by private business. Dev observes that "a well performing cooperative is the best safeguard for the handloom sector, as it protects the weaver and also provides a counterbalance to the master weaver" (Dev et al. 2008, p. 51) . But the decline in the number of cooperatives in the Arni silk cluster is due to lack of state support in the face of the re-emergence of master weavers (Rangappa 1996; Syamasundari 2006) In other words the state's active retreat from development activities has stimulated local institutions and organizations to the severe detriment of the possibility of building any countervailing power for non-traditional weavers inside or outside the cooperative fold.

8.4 Summary and Conclusions

The approach of a historical–institutional analytical narrative has been found useful to account for waves of dramatic change between 1993 and 2009. These mark a complete reversal of the trends of the 1980s, the period in which Arni emerged as an important silk weaving and trading growth pole. While it is now established that macroeconomic development involves episodes of growth and of stagnation (Sen et al. 2014), this also happens at the micro level and in the relations between town and countryside. In the case examined here, responses to long-distance demand generated widespread urban–rural linkages for labour and technology that were later retracted to weaving-caste labour—centralized and controlled once more inside the town and in newly suburbanized villages. This dynamic wave-like process of microeconomic swash and backswash involved destructive as well as creative forces. Collective action through the weaving cooperative was undermined causing the co-op to cease to function. Powerlooms displaced the livelihoods of entire handloom weaving households. Technological retrogression put paid not only to child labour (a positive development) but also to much female labour (not so positive since women have had to revert to occupations with low skill requirements, primitive technology and poor earnings). Here, in this conclusion, the ambivalent urban–rural dynamics of the silk sector are brought together.

It was during the 1980s that the production of mid-market *korvai* silk sarees was consolidated, silk weaving was ruralized, non-traditional caste entered silk weaving and children became a significant component of the work force. However between

1993 and 2009, the product changed to the *Dharmavaram* saree, silk weaving was re-urbanized. Most non-traditional weaving castes that entered late moved out of silk and child labour in silk weaving disappeared.

In the Arni hinterland, the three villages, Nesal, Vinayagapuram and Veerasambanur, saw a decline in weaving. However, these changes are location- and caste-specific. Weaving is declining in remote or backward villages, like Vinayagapuram and Veerasambanur while it is being concentrated in semi-urban villages like Nesal and in the town itself. Changes in the caste composition of the work force are mapped onto village sites: the *Agamudaya Mudaliars* in Nesal gain from the urban re-concentration while *Vanniars* in Vinayagapuram are retreating from weaving as the village economy re-agriculturalizes. However, relative caste status also plays a role—*Agamudia Mudaliars* may gain over *Vanniars* because their social status is more on a par with that of the weaving castes. The putting-out system favours their caste and kinship networks.

A further aspect of inter-village variation in urban–rural economic relations is that the big village—Nesal—and the small village—Veerasambanur—both have differentiated non-farm sectors while the medium village—Vinayagapuram—still relies on agriculture. These basic divisions of the rural economy are even more highly gendered, with men moving to the non-farm sector while women are increasingly confined to agriculture,[20] mainly as labourers. The shift to *Dharmavaram* weaving has not given opportunities for women to enter the work force as main weavers. On the contrary, their participation in weaving has sharply declined in all three villages. On the one hand women have been pushed to the occupation of last resort—agriculture—leading to its feminization. On the other hand on top of unpaid pre-weaving and household work, women are forced to become footloose labourers shuttling between agriculture and other non-farm activity such as MNREGA in order to increase family income from multiple sources.

The link between land ownership and weaving has slackened. And a high incidence of landlessness is observed in weaving households—intensifying with extraordinary rapidity between 1995 and 2009 in both weaving and non-weaving households. The fallback option of a diversified mini-portfolio including agriculture is not viable for weavers, due to problems with joint production at times of peak labour demand. Around 60 % of weaving workers, who left weaving in the twenty-first century—concentrated in Vinayagapuram and mainly *Vanniars*—have returned to agriculture. The reasons behind the labour absorption in rain-fed agriculture at a time when it is also leaking labour needs further research.

[20]Now the Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA) offers women a chance of non-farm employment in the village itself.

Child labour in silk weaving has been abandoned and the literacy rate in the three villages is higher than the average rate of rural Tamil Nadu. The 6–14 years age group has attained close to complete literacy. Wage-working parents have changed their attitudes to education, now being in favour of it and against child apprenticeships.

The shift to *Dharmavaram* saree weaving is the result of a complex set of interrelated factors. In the putting-out system wage weavers have mostly been the executors of orders from traders or master weavers. Most of the wage weavers in the villages are dependent on advance 'interest-free loans' from their employers (Banerjee 1995; Jayaraj and Nagaraj 2006; Khasnabis and Nag 2001). They have no direct control over—or interaction with—the input or output markets and decide neither the type of product nor its design. For labour economists, this is a classic relation of disguised wage labour (see Harriss-White, Chap. 4 and 2014). However, between 1993 and 2009, three-quarters of the village weavers shifted to *Dharmavaram* weaving not because of traders' relations of control but instead because of labour process changes they had decided to make autonomously—far from the stereotype of disguised wage labour. A shortage of weaving assistants was induced by producers as a direct consequence of their investments in education. Just as this action defies established theories of the drivers of institutional change, it also appears contradictory to the logic of the putting-out system, but traders seem to have accepted it. Their own reasons for warming to the reversion to *Dharmavaram* weaving involve the new niche in the market created with the simultaneous diffusion of computer-aided design-making in the 1990s (see Roman, Chap. 7). Rich computer-aided designs for *Dharmavaram* sarees give them a competitive edge over the *Korvai* (where the labour displacing *Thallu* machines could not be used to make rich designs). Traders then seem to prefer weavers with the skill, knowledge and contacts to produce rich designs. They even actively prevented rural weavers from following the change in product (Roman 2008). In turn this favoured the traditional weaving castes located in or close to town. Traders therefore responded to a combination of incentives—the pull of market demand—as well as reaction—the push of weavers' changed production preferences.

The shift in product type to *Dharmavaram* involves a labour process that has severely affected the stage of learning and apprenticeship, in particular in non-traditional weaving households. Non-weaving-caste weavers, who had anyway been restricted to simple designs and who also found diversified livelihoods constraining productivity across the board, have moved out of weaving. Three-quarters have reverted to eking a living from their miniaturized rain-fed agricultural holdings. Others—mostly men—have taken wage work in the huge informal economy—binding field borders, loading, brick kiln work, painting and roofing, bore well labour, electrical work, parboiling and drying rice, cleaning and driving lorries, cooking and waiting in meals hotels, serving in shops, etc In this process of reversion, older men and women who had previously worked as unpaid family labour on *Korvai* sarees were also 'liberated' to work—mostly as unpaid family labour in agriculture.

8.4.1 The Implications of Policy

The changes in silk weaving during and since the reform period, though happening in the informal economy, have been shaped by the Indian state's liberalization policies. The phasing out of quantitative restrictions on imports, the emphasis on state support to production (rather than to employment) and public disinvestment have had profound effects (Dev et al. 2008). In particular, the large-scale import of Chinese silk, suitable for powerlooms, accelerated the proliferation of powerlooms for silk weaving and displaced handloom production. Whereas in Arni in 1993 there were no powerlooms, by 2009 they exceeded 500. Handlooms have competed defensively by further developing complex, rich and intricate designs for sarees worn for ritual events like marriages. The same weaving castes dominate both of the competing subsectors. As with Stanley's conclusion (see Stanley Chap. 5) about Arni's gold and ready-made jewellery cluster faced with mechanization, so with silk: if Arni is to survive as a silk weaving growth pole it will be on the basis of adopting powerlooms and using raw material from China.

During the reform period, the cooperative sector, which developed more as a state institution than one of the collective actions, witnessed a decline in India in general, in Tamil Nadu too and in silk weaving cooperatives in Arni in particular—thereby devastating the bargaining hopes of weavers, especially of non-traditional caste weavers.

But liberalization policies have not affected the functioning and organization of the so-called 'pre-capitalist' putting-out system in silk weaving. While state support has weakened, this institution has been reworked and integrated successfully into the supply chains of global capital (Banerjee 1995). Meanwhile non-weaving castes have, with few exceptions, retreated to the employer of last resort—agriculture.

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Chapter 9
Institutional Change in Informal Credit: Through the Urban–Rural Lens

Christine Polzin

9.1 Introduction[1]

The Indian credit landscape is like a kaleidoscope—the tube may symbolize the regulatory economic framework and the colourful beads and pebbles symbolize the various credit institutions.[2] As the tube is rotated, the patterns and colours of the picture will change in ways that are hard to predict, depending on the strength of rotation and the initial positions of the coloured objects.

The regulatory framework for credit—its 'tube'—has rotated several times in recent decades, and both formal and informal credit institutions have undergone wide-ranging changes. Innovations have occurred, some old institutions have changed, and others have disappeared. The literature on rural credit has largely looked at these changes from a macro perspective, linking them to changes in national policies (see for example Ramachandran and Swaminathan 2005).

Yet attempting to account for the striking kaleidoscopic changes in the Indian credit market alongside their dramatic spatial variations is well-nigh impossible from an All-India [macro] perspective—both for lack of evidence and for the wide range of processes and institutions known to be involved (Fouillet 2009).[3] The influence of local power relations entrenched in social institutions (such as gender or caste) on the availability of different forms of credit is subject to considerable

[1]This is the revised version of a paper presented originally at the international workshop: 'Market town, market society, informal economy', Wolfson College, Oxford, June 8th–9th 2009. I thank all the participants of the workshop for sharing their critical comments and ideas.

[2]In this paper, the term "credit institution" is used in both its organizational sense (referring to any individual or organization which provides loans) and in the more behavioural sense in terms of "patterned behaviour" with regard to credit.

[3]For overviews of this varied literature see Fouillet et al. (2013), Jones (2008) and Pradhan (2013).

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variation, even among different villages within the same region (Fouillet et al. 2013). Yet little research has explored these changes over time in the context of long-term village level studies (VLS). VLS are indispensible to an understanding of the great variety of institutions and trajectories of institutional change. While they cannot be used for making inferences about development in villages elsewhere, let alone at the national level, they are an essential method to investigate the complexity of institutional change which aggregate statistics cannot reveal, and to place in context or criticize specific theories.

A rich source of observations and analyses of different aspects of agricultural and rural development can be found in the study of 11 villages in Tamil Nadu surveyed by three successive rounds of research (see Farmer 1977; Hazell and Ramasamy 1991; Harriss-White and Janakarajan 2004). As part of this long-term VLS, Harriss-White and Colatei (2004) look deeply into the kaleidoscope and reveal a colourful picture of the credit market institutions in three villages in Tamil Nadu, near the town of Arni—Nesal, Veerasambanur and Vinayagapuram–in 1993/94. A variety of credit institutions (including a wide range of uniquely combined credit arrangements in each village) are described, mostly in informal money markets.[4] They include chit funds, moneylenders from inside and outside the village, various forms of loan contracts, some tied to labour pledges or ration cards. The regional credit market was dominated by personalized contracts between paddy traders and producers, interlocking money and product markets. They reveal stories of access to credit that was highly structured according to caste, religion, education and gender; stories of a 'structurally flexible' money market in which private intermediaries (traders, pawnbrokers, and jewellers) substitute for each other in catering for the various sources of demand (Harriss 1980).

This essay looks at the changes to the informal credit institutions in the village of Vinayagapuram between the survey of 1993/94 and fieldwork in July/August 2006, when the empirical evidence for this essay was collected. The methods used were semi-structured and open-ended 'stakeholder' interviews with bank managers, villagers and officials as well as participatory mapping.[5]

Notable changes by 2006 included the complete disappearance of chit funds among scheduled caste women, the burgeoning of self-help groups, and some significant changes in the roles and structures of many credit institutions that were at odds with earlier expectations. At the same time, the development of other

[4]Largely as a result of financial liberalization which started in 1991, the picture of the formal market had changed markedly between the first round of research in the early 1970s and the third round in 1994. The researchers found that many of the villages depended little on formal credit, and that the role of the formal sector was not only low but had in fact been declining since the previous study (from 44.75 to 33 % of all liabilities) (Srinivasan 2004, pp. 106–107). For a concise overview of the reforms involved and their effects on formal sector lending in rural areas, see Chandrasekhar and Ray (2005).

[5]Originally, the fieldwork was done for the author's Oxford University M.Phil. thesis. For a detailed description of the research methods see Polzin (2007).

institutions revealed some striking continuities in old patterns of money-lending and power structures in these rural financial markets.

No empirical work can take place in a theoretical vacuum. In examining changes in the financial landscape of Vinayagapuram, instead of opting for a single theoretical approach, as is conventional, we use this opportunity to subject the empirical findings to competing schools of thought and also to evaluate the explanatory power of the analytical frameworks of two leading institutional economists—John R. Commons, pioneer of Old Institutional Economics (OIE) and Douglass C. North, seminal theorist of New Institutional Economics (NIE). In so doing, we discover that the approaches of both Commons and North do not adequately account for an empirical analysis of the ways in which specific institutions change. Institutional theories like theirs that are based on a market-driven model of change can provide but a limited understanding of institutional or organizational change in a country like India where economic and social development is in turn strongly shaped by means of institutions such as caste, class and gender. The changes observed in the village of Vinayagapuram do not fit the logic or predictions of either theory of institutional change.

The next section briefly outlines and compares the two frameworks of institutional change developed by Commons and North. Section 9.3 presents some of the findings about changes in Vinayagapuram's credit market from three rounds of village level studies, and evaluates the extent to which the two frameworks provided by OIE and NIE predict explanations. Section 9.4 offers a brief, critical appraisal of the OIE and NIE frameworks.. The concluding section summarizes the findings and the evaluation of the usefulness of OIE and NIE for an understanding of the changes observed and suggests some elements of a more holistic approach to the analysis of institutional change.

9.2 Theoretical Frameworks of Institutional Change

Any comparison of the many different theories of institutional change is complicated by the fact that both within and between different schools of thought, scholars use different definitions of institutions. Perhaps the lowest common denominator is that they consider institutions to be 'necessary to the very existence of an orderly, functioning, social and economic system' (Rutherford 1994, p. 81). Many theories of institutional change make an explicit or implicit distinction between general social rules and particular organizational forms, a dichotomy which is difficult to sustain in practice because an organization itself can be seen as a bundle of institutions which manifest themselves internally. At the same time, an organization does not act in isolation but is influenced by interactions with other social institutions and theorists also often need to invoke a wider political economic context, or exogenous/external factors.

When analysing rural credit, it is necessary further to distinguish *institutional arrangements* such as banks, different kinds of moneylenders, or chit funds; and the *institutional environment* which is characterized by the behavioural rules and expectations of lenders and borrowers, as for example in preferences for lending to certain types of clients or for borrowing from non-family members, but also predispositions about the credit-worthiness of clients or trust in certain lenders and not in others.[6]

The variety of factors which may potentially explain changes in rural credit markets makes it useful to examine how such factors have been systematized in different schools of economic thought. Old Institutional Economics (OIE), New Institutional Economics (NIE), Classical Marxist Economics, Evolutionary Economics and the Social Structure of Accumulation school all offer possible frameworks. In order to be tractable, this essay focuses upon two well-diffused approaches from the major traditions of institutionalist thought—OIE and NIE.

A major difference between the old and new institutional schools of economics lies in the importance they accord to relations and interactions between individuals and institutions. NIE primarily treats institutions as constraints on the behaviour of agents whose preferences are predetermined and unchanging. OIE allows for the possibility that institutions may facilitate economic behaviour as well as shape and be shaped by individuals themselves. This distinction will become evident in the following comparison of the frameworks of two leading economists who have tackled institutional change—John R. Commons from OIE and Douglass C. North from NIE.

9.2.1 Old Institutional Economics (OIE)

Following in the footsteps of Thorstein Veblen, Commons introduced into OIE the first influential ideas about institutional change. According to their definitions, institutions are based on commonly held habits of thought and behaviour, 'conditioned on and dependent upon individuals and their habits, but […] not reducible to them' (Hodgson 2003, p. 164). For Commons, 'an institution is collective action in control, liberation, and expansion of individual action' (Commons 1970, p. 21). By controlling the actions of some, an institution may enable the actions of others.

Commons' work stresses the interaction between social institutions, economic institutions and the judiciary. Social institutions—the 'daily habits, practices and customs of the people' are the basis of fundamental social relations of rights, responsibilities and liberties (Commons 1925, p. 371). Economic institutions (e.g. labour unions, corporations) are influenced by both social and legal institutions. Commons regards the creation of order and certainty as the *purpose* of an institutionalized system of rules. A large focus of his work is therefore on legal

[6]See Prakash and Harriss-White (2014) for evidence for discrimination against dalits in formal bank lending practices irrespective of collateral.

institutions and the role of *conflicts*, law and jurisdiction in generating institutional change (Commons 1934, 1957).

In Commons' theory, the process of change is fundamentally determined and shaped by purposeful human action in economic activity. Based on his investigation into court decisions Commons conceptualizes change as the result of *artificial* (i.e. purposeful) *selection*, which follows 'ethical ideas of fitness'—of right and duty, goodness and badness, justice and injustice (Commons 1970, p. 91). The credit system, for example, has developed 'out of the customs of business men in buying and selling, borrowing and lending, and out of the customs of courts in deciding disputes, according to the changing common rules'. In the process, the courts gradually selected 'desirable customs' and the undesirable ones 'were progressively eliminated as bad practices' (Commons 1957, p. 377).

Institutional change (for example in the legal environment) happens in reaction to both external and internal challenges. Institutions may have to respond to *external* challenges arising from processes of economic growth and new economic conditions, principal among which are changes in the market structure. External challenges, for example in the form of technological innovation, may play a role in institutional change. Commons' prime concern, however, was with *internal* drivers of change arising from problems and conflicts of interest between different groups within an organization. The ways in which groups of individuals or organizations respond to these external and internal challenges may influence common law, government legislation or regulation and hence the larger institutional environment.

Commons' approach suggests the need to analyse changes to credit institutions in terms of changes in economic conditions (external challenges) and in terms of problems and conflicts of interest within credit organizations (internal challenges). The use of his framework for an empirical investigation into the changes in credit institutions requires understanding the interaction between social institutions, economic institutions, norms and laws.

9.2.2 New Institutional Economics (NIE)

NIE theories of institutional change develop from the assumption that information is rarely complete and hence that transactions (e.g. searching; negotiating; concluding, monitoring and enforcing contracts in the market) are not free of cost. Institutions are seen as a means of reducing the costs of transactions.

In the new institutionalist school, North (1981, 1990) offers one of the most comprehensive frameworks for institutional change, and one which appears suitable for empirical testing. He provides a definition of institutions that is still widely used in the NIE today: 'Institutions are the rules of the game in society or, more formally, they are the humanly devised constraints that shape human interaction' and 'define and *limit* the set of choices of individuals' (North 1990, pp. 3–4). 'They consist of formal rules (constitutions, statute law, common law, and regulations) and informal constraints (conventions, norms, and self-enforced codes of conduct) and their enforcement characteristics' (North 1995a, p. 15). North explicitly distinguishes between institutions (the "institutional environment") on the one hand and organizations ("institutional arrangements") on the other. The latter are "the players" of the game: groups of individuals, such as economic organizations, political organizations and social organizations bound together by some common objectives. North's definition follows a functionalist logic: 'Institutions have been devised by human beings to create order and reduce uncertainty in exchange. Together with the standard constraints of economics they define the choice set and therefore determine transaction and production costs and hence the profitability and feasibility of engaging in economic activity' (North 1990, p. 97).

For North, institutional change occurs in response to two main factors—changes in prices and in tastes. The 'most important source' of institutional change is fundamental and persistent *changes in relative prices*, which alter the incentives of individuals in their transactions (North 1990, p. 84). Price changes may affect the ratio of factor prices, the cost of information, and technology. They are either exogenous (e.g. due to some natural catastrophes) or endogenous to the framework (reflecting the profit-maximization strategies of individual entrepreneurs) and may lead one or both of the parties to a transaction to perceive that they could be better off under different contractual and institutional arrangements. The 'only other source' of institutional change is a change in tastes or preferences (ibid.). North also recognizes the importance of ideology and ideologically-motivated behaviour by treating them *as if* they were tastes.

While North permits a role for human agency in the processes of institutional creation and alteration, he also considers the possibility of a process of "natural evolution". Hence, institutions may be created and 'altered by human beings' or 'they may simply evolve over time' (North 1990, p. 4). Yet, change itself depends on the 'entrepreneurs of organizations' who may induce it 'as they perceive new or altered opportunities' (North 1995a, p. 16). North underlines that 'it is the perceptions of the entrepreneur—correct or incorrect— that are the sources of action' (North 1993, p. 37). They can either modify the rules or change the 'kinds and effectiveness of enforcement of rules or the effectiveness of sanctions and other means of informal constraint enforcement' (North 1995a, p. 16). However, organizations can also develop new social norms, conventions, and codes of conduct by developing 'new, informal means of exchange' and thereby altering informal constraints.

Institutional change is assumed to follow a certain path delineated by a particular set of formal and especially informal constraints 'that have deep-seated cultural antecedents' (North 1995a, p. 22). These constraints determine the ways in which individuals learn, organizations develop, and ideologies are formed. Pre-existing institutions may be one of the reasons why individuals act under bounded rationality, how they act and why their actions may lead to unintended consequences or inertia—effectively preventing the implementation of efficient institutional change or the emergence of efficient institutions (ibid. p. 17).

The process of institutional change is incremental rather than sudden, consisting of 'marginal adjustments to the complex of rules, norms and enforcement that constitute the institutional framework' (North 1990, p. 83). Large-scale change 'would harm existing organizations and therefore is stoutly opposed by them'. Revolutions or radical and abrupt changes of institutions may on occasion be caused by 'accumulated pressures'. Over time, however, 'they often turn out to be far less revolutionary than their initial rhetoric would suggest' (North 1995a, pp. 18–20).

Although North's framework is largely built using abstract terms and does not explain in detail the emergence of *new* institutions, some of its key hypotheses can be tested empirically. In the case of Vinayagapuram, for example, we can analyse whether there have been significant changes in relative prices or in tastes and whether these have caused changes in the institutional credit landscape and credit behaviour over time.

Table 9.1 provides a summary of the main differences between Commons and North.

Table 9.1 Key characteristics of Commons' and North's theories of institutional change

	Commons (OIE) (1862–1945)	North (NIE) (Born in 1920)
Definition of institutions	Collective action in control, liberation and expansion of individual action	Humanly devised constraints
		Rules versus players of the game
Main unit of analysis	Economic (mostly legal) institutions (e.g. labour unions, corporations)	Economies
Assumptions	Actors' self interest is subordinated to customary behaviour	Actors have variable and changing preferences
	Legislators will fix "reasonable conduct"	Transaction costs are dependent variables
	Scarcity creates conflicts of interest	Ideology = taste
Main determinants of change	Conflictual	Endogenous or exogenous factors → Relative prices → Tastes/preferences
	Internal: conflicts of interest	
	External: economic growth, new economic conditions	
Process of change	Human will drives change	Incremental
	Artificial selection	Some choice, but constrained by path dependence
	Interaction	
	Cumulative	
	Gradual	
Shortcomings in empirical testing	Only applied to formal institutions	Some abstraction
		Ignores social institutions (power, class, gender, etc.)
Advantages for empirical testing	Low level of abstraction	Explanatory theory
		Dynamic analysis

9.3 Empirical Changes in Credit Institutions and the Suitability of New and Old Institutionalist Frameworks to Explain Them

This section describes some of the major developments in informal credit markets in South India[7] through the lens of the village of Vinayagapuram. It tests the extent to which OIE and NIE can help us understand these changes.

9.3.1 Vinayagapuram: A Very Brief Introduction

Vinayagapuram is a fairly large but relatively remote village in the Tiruvannamalai District of Northern Tamil Nadu, located about 17 km south-east of Arni (see Map 3 p. XIX). Over the last four decades, Vinayagapuram has had a relatively stable economic base without major changes to the productive forces because the main income source has always been agriculture (mainly paddy and groundnuts). Other sources of income include weaving, dairy cattle breeding and remittances from labour migration.

The most noticeable developments since 1974 have been the more than doubling of its population (from 748 inhabitants in 1974 to 1,839 in 2006), a continued mechanization of, and falling profitability in, agriculture and increasing seasonal migration. With increasing labour-displacing mechanization, relatively declining and inadequate *coolie* wages and declining demand for manual labour in the agricultural sector, with thriving non-agricultural labour markets in urban areas and expanding opportunities for private education (at least for those who can afford them), there is a trend towards non-farm employment. Given a dramatic decline in handloom silk weaving and falling real wages (see Arivukkarasi, Chap. 8), many of the weavers who are still in business would rather do something else. Most of them, however, are indebted to *maligais* (large silk merchants or master weavers) and have not learned other professional skills.[8]

9.3.2 Major Developments in Vinayagapuram's Informal Credit Market 1994–2006

Credit institutions in Vinayagapuram have undergone significant changes since the early 1990s when the previous study was carried out (see Harriss-White and

[7] In contrast to the formal sector, where the terms and conditions of loans are regulated by the State, there is no state regulation of the informal sector. An informal loan is 'a personalized transaction, dependent on the specific relations of power between the borrower and the lender' (Ramachandran and Swaminathan 2005, p. 166).

[8] For a more detailed analysis of these skills and the labour relations in Arni see Roman (Chap. 7 2008 and here).

Colatei 2004). These changes may be divided into three main forms: innovation, disappearance and change. Table 9.2 summarizes the main findings with regard to the development since 1994 of formal and informal credit institutions in the village. This section attempts to shed some light on their causes and links to national level reforms. Some of these changes (one from each category) will be analysed in more detail to test the frameworks suggested by Commons and North.

Table 9.2 Summary table of changes in Vinayagapuram's credit institutions since 1994

Changes in institutional arrangements	Changes in the institutional environment (rules, regulations, behaviour)
Institutional innovation	
Self-help groups	Women have access to formal sector (group) loans through self-help groups
Shop keepers from Arni selling consumer durables on credit	Ability to get consumption loans from sellers and repay in instalments
Milk traders offering advances ("milk loans")	Client bonding strategies of micro finance organizations (e.g. free eye treatment for long-term clients)
Institutional disappearance	
Formerly dominating money-lending family	Monopolistic, usurious lending behaviour inside the village
Mercantile credit from *mandi* owners	Collateral in form of labour pledges and pledged ration cards
Chit fund among SC women	
Certain kinds of interlocked contracts	
Institutional change	
Increase in formal sector loans	Easier access to individual, collateral-secured formal sector production and consumption loans, less stringent collateral requirements of formal banks
Proliferation of loans from external informal lenders, especially via *thandals*	Better knowledge about formal banking
Higher mobility of professional moneylenders	Less exclusivity in formal loans
Fewer chit funds	Development of more complex debt cycles
Proliferation of moneylenders (pawnbrokers) in Arni and Kolapalur	Less exclusion due to a lack of collateral
Decline in informal mercantile credit, fewer inter-linked credit arrangements	Better access to informal loans for women
Decline in informal lending inside the village (in number of loans and volume)	Fewer chit funds with dual purpose
	Lower interest rates in the informal market (both inside and outside the village)
	Less coercion and forced loan usage in the credit market

9.3.2.1 Institutional Innovations

Self-Help Groups (SHGs)

In 2006, the most noticeable new credit institutions in Vinayagapuram were women's self-help groups. SHGs have been promoted in India since 1999 and in Vinayagapuram as early as 2000. At the national level, the first SHGs emerged when the government launched a new programme, the *Swaranjayanti Gram Swarozgar Yojana* (SGSY), to foster rural development through micro-enterprises. It encompasses various elements, the most influential ones being the organization of poor women into Self-Help Groups and their linkage to the formal sector through the National Bank for Agriculture and Rural Development's SHG Bank Linkage programme.[9] By August 2006, there were about 2.3 million SHGs in India (246,907 in Tamil Nadu alone) (Indiastat 2007a). In Vinayagapuram, there were 12 groups (comprising 15–20 members each), run by three different NGOs.[10] An SHG functions in ways similar to that of a chit fund, the main differences being the initial support from an NGO and the link to a bank where the group may safely deposit its savings every month and from which it obtains loans (some of which may have a component of subsidy). Each group is managed by a group leader. Since 2000, SHGs have enabled a large number of women (at least 190 in the village) to gain access to formal sector loans.

Even though SHG loans may have brought a marginal improvement to some of the members' incomes, they have also fostered increasingly complex debt cycles and loan recycling (loans being repaid with fresh loans from other sources) because loans could rarely be used for viable income-generating purposes. Necessary health care, house repairs and the costs of education would otherwise pitch a household into ranker relations of debt. Lacking ownership of productive assets, women are often dependent on the activities of male relatives to generate repayments (Garikipati 2008). Loan recycling has been reported in other parts of India and Bangladesh.[11] The manager of the local Primary Agricultural Co-operative Bank reported that the first groups in the Block had already been dissolved due to internal quarrels about repayment and malpractices by group leaders, problems that were often connected to loan recycling. Private banks are monitoring the groups that are formed at state expense for further rounds of lending to those that are successful.

Commons' theories of institutional interaction and the notion of "artificial selection" provide strong grounds to explain the rapid spread of SHGs. Their creation took place through interactions between social institutions, economic institutions and the state. The government formalized and legalized the common practice of chit funds in an attempt to select, promote and establish a legal

[9]For a detailed overview of the history and objectives of the SHG Bank Linkage programme, see for example Karmakar (1999), Basu and Srivastava (2005).

[10]The Panchayat in Vinayagapuram played in monitoring the SHGs. The recommendation of the Panchayat president could help the groups to gain the trust of banks and get loans.

[11]See for example Sinha and Martin (1998), Rahman (1999), Chavan and Ramakumar (2002), Breman et al. (2009), Guérin et al. (2013a, b).

institutional framework around 'desirable customs' (self-help through group lending and saving), and to progressively eliminate the 'undesirable practices' (Commons 1957, p. 377) of usurious informal money-lending. Prevailing social institutions in Vinayagapuram facilitated the widespread adoption and proliferation of SHGs since they are similar in structure, purpose and conduct to the chit funds with which many households had already been familiar.

The 'external challenge' of financial liberalization in India, which started in 1991, played a key role in initiating changes in the legal environment that led to the promotion and proliferation of SHGs. The SHG Bank Linkage Programme may be seen as a response to the prevailing perceptions at the time of liberalization of what was feared to be a reform that would end the previous three decades of "development banking". So the promotion of SHGs was an attempt by the State to compensate for reforms which led to the atrophication of the rural banking network and which would have otherwise deprived many rural people of credit (Fouillet 2009). A possible hypothesis in line with Commons' theory is that legislators and policy makers assumed responsibility for preventing or resolving new conflicts arising from the economic challenge of the banking reform by creating new working rules based on common practices (chit funds). Thereby, they sought what Commons regards as the purpose of an institutionalized system of rules to establish order and certainty in the formal credit market.

Turning to the sources of change proposed by North, we can test the extent to which changes in relative prices or tastes have influenced the opportunities perceived by the women 'entrepreneurs'. Some new institutionalists argue that SHG lending is an efficient solution for banks to overcome the 'main hurdle' of high transaction costs involved in lending to 'the very poor' (Seibel and Dave 2002, p. vi), and that the main purpose of the SHG Bank Linkage Programme was 'to improve upon the weakened delivery system, poor recovery, high operating costs, non-viability and high dependence on subsidies of banks and cooperatives' (Rafique 2006, p. 102). SHG lending thus benefits from 'economies of scale and scope, resulting in substantially lower transaction costs' (Seibel and Dave 2002, p. 4) and overcomes the costs associated with moral hazard[12] and asymmetric information. Yet, in reality, the idea for the programme did not originate from the corporate strategies of formal banks trying to find efficient solutions to the problem of transaction costs in lending to the poor. Instead, it was an externally induced, government-planned, project which had initially stirred large fears and resistance among bank managers when it was initiated as a pilot project in 1992 and on a nation-wide scale in 1996.[13]

A description of change as 'a ubiquitous, ongoing, incremental process' which is driven by the daily 'choices of individuals and entrepreneurs' (North 1995b, p. 23) not only limits our understanding of radical changes but also of changes which are

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[12]Moral hazard is the risk that borrowers 'may take less care or take more risks if the funds at stake are not their own' (Johnson 2001, p. 3).

[13]Personal communication (obtained during a workshop with bankers and NGOs, entitled "NABARD—Interface between NGOs and Banks on SHGs", on 10 August 2006 in Tiruvannamalai).

driven by actors outside the focus of this framework (such as the State, NGOs, civil society and the household). While Commons' OIE framework provides some insight into the mechanisms of change in rural credit institutions, North's NIE cannot account for the promotion of SHGs by the government.

Urban Shopkeepers
Another new lending institution observed in Vinayagapuram in 2006 was shop keepers from Arni. The shopkeepers deliver consumer durables to customers in the village, based on prior ordering. Some of these merchants were reported to visit the village regularly to offer products such as furniture, household items and electronic goods. They usually charge higher prices than in their urban shops (around 15–20 % more) asking for half of the price to be paid immediately in cash. The other half is paid in interest-free monthly or weekly instalments.

Using Commons' framework it can be argued that the emergence of this new type of traders' credit institution may have been encouraged by purposeful actions of traders and consumers. For the traders it is a way to circumvent moneylenders whose loans are often taken for the purpose of buying consumer goods. The ability of rural consumers to accept this new institution may have been facilitated by the fact that for a long time trading by small scale producers of handicraft items from other villages is said to have been a common practice in Vinayagapuram. What distinguishes this new behaviour by urban traders from the old practices is the sheer amount of expenditure that consumers are ready to spend "on their doorstep" and the extra risk and effort that traders are willing to take in order to sell their products directly in the villages. Moreover, 'external challenges' in the institutional environment may have helped to trigger this innovation. First, the rise in incomes (at least from non-agricultural activities, except for weaving) could enable higher expenditure, and second, electricity had become more widely available for private use inside the houses and huts and consumer durables could now be energized.

As North theorizes, changes in tastes or preferences among consumers may also have played a decisive role. In line with the trend found in studies of consumption patterns in India (see Cavalcante, Chap. 10), more people in the village developed a taste for (especially electronic) durable consumer goods. Most noticeable was the increase in the number of television sets and fans across all parts of the village in recent years—except for the SC households which continue to live in conditions of extreme poverty. Discussing transformations of gender and caste in Tamil Nadu, Kapadia observes that television advertisements not only propagate a new consumerism but also the idea of 'a sovereign right to consume […] the same products as higher classes/castes' (2002, pp. 153–154). There has also been a marked improvement in housing and clothing among many SCs compared to the mid-1990s. Modern consumer durables are also becoming an increasingly important part of dowry. These are important changes in tastes and customs which should not be underestimated in their influence on the demand for consumption goods and credit. They indicate an imitation of the consumption patterns of the landed and business class by members of the working class, financed on credit. This new taste of consumption may also be part of a growing trend towards what Srinivas calls

"Sanskritisation" (Srinivas 1969, p. 6; cited in Epstein 1973, p. 191)—the adoption of upper-caste customs, including ritual modalities, by lower castes as a means of upward social mobility.[14] Changes in credit institutions are thus influenced by changes in economic conditions (including rural–urban migration and access to government jobs) and their interaction with important shifts in social customs and political consciousness.

9.3.2.2 The Disappearance of Credit Institutions

Three institutional arrangements disappeared over the long decade 1994/95–2005/06: the chit fund among SC women, the formerly dominant money-lending cascade, and mercantile loans from *mandis*.

Chit Funds Among SC Women
A chit fund among SC female agricultural labourers which had been noticed during the previous round of research in 1994 dissolved shortly after that study and was not revived. Learning about the disappearance of a women's chit fund and the proliferation of SHGs, it was tempting to hypothesize in NIE terms that the latter must be the "more efficient" institution and that it has therefore "incrementally replaced" the former. However, the disappearance of the chit fund among *dalit* women is a case in which an external event—a severe drought in the mid-1990s—affected the livelihoods of the women so severely that they were unable to continue contributing to the fund, which consequently collapsed. The "replacement hypothesis" is further invalidated by the fact that the first SHGs only emerged about 6 years after the chit fund had been dissolved. The two events were separated in time. Thus, the demise of the *dalit* women's chit fund cannot be explained in terms of changes in relative prices or preferences. It needs to be examined within the context of its members' capabilities, gender and caste and the ways in which these social institutions structure the organization of the chit fund and determine its dynamics.

Dominant Money-lending Family
The second important institutional demise concerns the formerly dominant money-lending dynasty inside the village (see Harriss-White and Colatei 2004, p. 257 for a detailed description of their lending activities) which had largely stopped lending by 2006. The old patriarch was described as a stereotypical greedy and heartless moneylender who had taken advantage of less powerful and desperate borrowers. He and his sons managed to augment their capital and landholding substantially over the years by seizing direct possession of the land which was used as collateral from borrowers who failed to repay on time. In the late 1990s, a client filed a complaint to

[14]Dowries, for example, have traditionally been the marriage transaction of *Brahmins* and much more socially widespread in North India than in the South. Over the last decades, however, an increasing shift has taken place away from bride-price to dowries among lower castes as 'upwardly mobile imitative behaviour' (Rao 1993, p. 283).

the police against him for fraudulent behaviour and unlawful business practices. After the client won the case, the family slowly withdrew from money-lending.

Overall, neither Commons' nor North's framework can account for the loss of power and influence of the formerly dominant money-lending family within the course of a few years. Commons' framework of change pays inadequate attention to 'the limitations of the state to enforce institutional working rules, [and] the costs to conflicting parties of appealing to the state to litigate their disputes' (van de Ven 1993, p. 148). In India, the significant costs of dispute resolution may be determined by social institutions, notably caste (Viswanathan 2005; Human Rights Watch 2007). The 'costs' of appealing to the police also include non-monetary (social) costs, such as reputation, employment security, and other implicit dimensions of the "contractual (class) relationship" between lenders and borrowers.

Mercantile Credit from Paddy-Rice Mandis

The third institutional disappearance concerns the paddy-rice *mandis* as mercantile lenders to Vinayagapuram's farmers, an arrangement which was one of the key sources of credit for small-scale producers in the North Arcot region during the 1970s, 1980s and 1990s. In the early 1970s, John Harriss had observed a proliferation of agricultural traders' credit and an interlinkage between product and credit markets. The reproduction of small-scale production was largely dependent upon mercantile credit (Harriss 1982, pp. 188–198). In 1994, mercantile credit institutions in the farm and non-farm economy still had an important role in the informal sector, where agricultural product traders and silk merchants supplied 'half the volume of informal credit' (Harriss-White and Colatei 2004, p. 263). But by 2006, the importance of mercantile credit had dwindled, and interlinked arrangements had diminished.

The reasons for the disappearance of these mercantile credit institutions are varied. Better managed co-operative societies and higher state support prices for paddy had made considerable inroads into replacing *mandis* in the procurement of paddy. In 2006, for the first time since its inception in 1965, the support price was higher than the open market price post-harvest.[15] As a result, the farmers largely sold their paddy to the state trading corporations via the local regulated marketplace in Arni and were less dependent on personalized and interlinked credit arrangements with *mandis* who were also infamous for their malpractices in weighing.[16] Reforms to state policies have enabled medium and even small farmers to obtain agricultural loans from the nationalized banks. This has provided them with an alternative to the

[15]The support price for common paddy increased from Rs. 310 per quintal in 1993–94 to Rs. 580 in 2006 (against an open market price post-harvest of Rs. 500) (Indiastat 2007b; Vydhianathan 2006). For more details on the price support system accompanying the Green Revolution, see Harriss (1977). However, it was reported that since 2001, government officials at the co-operative near Vinayagapuram have also been auctioning paddy to the merchants. Thus, the farmer gets the highest price that the merchant is offering on his produce. If a farmer is not happy with the rate, he can ask the co-operative society to hold the paddy and sell it until they get a better rate. Note that this is not practised all over Tamil Nadu.

[16]By 2010, after the price spike of 2008 from which prices never fully subsided, this procurement arrangement had been abandoned.

agricultural loans from the *mandis*. One informant suggested that this shift was also facilitated by the fact that many farmers are in a more independent and secure economic condition than they were 10 years ago. Many villagers have found additional income sources which enabled them to keep some savings for the next crop period and to become less dependent on the advances from *mandis*.

In this case, both Commons' and North's frameworks make interesting contributions to the explanation. An interpretation along Commons' lines stresses the internal challenge of conflict leading to institutional change. The resolution of conflicts between different interest groups in rural co-operatives (management, employees and producers) had long stalled their efficient management as marketing outlets for producers. After a series of complaints by different producers, however, the management and weighing practices improved, so that more producers were able to repay their outstanding loans from *mandis* and switch to the co-operatives.

Following North's approach, we can identify a change in relative prices. The officially regulated market price for paddy has increased steadily and significantly since the previous study and was higher than the open market price in 2006, making it more attractive for farmers to sell their paddy to the co-operatives than to the private *mandis*. This shift in prices resulted from a change in national procurement price policy. However, it did not alter the incentives of lenders, inducing them to stop lending. Instead, it changed the incentives of borrowers who could stop borrowing from *mandis*.

9.3.2.3 Changes in Existing Informal Credit Institutions

Apart from the emergence of new institutions and the disappearance of old ones, existing formal and informal institutions and their terms and conditions persisted but in reworked forms. While the overall use of credit appears to have increased from both informal and formal sources, this growth has been largely confined to a few key "players" in the informal market—*thandals*[17] and pawnbrokers. The same trend has been noticed at the national level where the number of money-lenders has increased since the early 1990s (NSSO 2005). At the same time, there was a decline in lending from chit funds and providers of interlinked credit (*mandis* and silk *muligais*) in terms of both overall volume and number of loans.

[17]*Thandals* were usually employed as agents for single moneylenders or "finance corporations" to serve a certain locality where they lend to persons whom they know or to who are introduced by someone they know. They generally lend small loans of Rs. 100–200 initially, and later in multiples of Rs. 100 or even Rs. 1,000 up to a maximum of Rs. 5,000–10,000, depending on the financial corporation or moneylender they work for and on the economic situation of their clients. *Thandals* usually charge an up-front interest of 10 % of the loan amount and the borrower receives the balance. Repayment is spread over 100 days of equated daily or weekly instalments.

The proliferation of Informal Lending from Moneylenders

As for the case of mercantile credit, old and new institutional economics can serve as *complementary* explanatory frameworks for the phenomenon of increased informal sector lending from moneylenders. Three external challenges were obvious to identify. First, instead of eliminating demand for loans, SHGs created demand for them. Second, a few of the biggest "finance corporations" in Arni found innovative strategies to bind their clients and attract new ones—for example by offering free eye check-ups and treatment camps along with loans. Third, the increasing availability and affordability of motor bikes in recent years has facilitated independent individual transport and made the use of *thandals* an increasingly attractive option for "finance corporations" in Arni as well as for individual agents to set up their own mobile money-lending activities. In 2006, at least four different *thandals* served Vinayagapuram on a weekly basis; another came every day to service the two shopkeepers. One worked for a big "finance corporation", called Amarjothi Finance, which has branches in other small towns all over Tamil Nadu. The company has used a part of its profits to found a charitable foundation and regularly provides free "eye camps" for all long term clients[18] in different towns of the District. Patients in need are taken to a hospital and provided with treatment and spectacles free of charge. A fourth, but less obvious external challenge has been the gradual process of opening up the business of money-lending to people from different castes, including SCs, thus increasing the range of options.

Looking for changes in transaction costs, new institutional economists would find the increase in informal moneylender credit to be rooted in the fact that falling real transport costs had decreased the relative costs of monitoring and enforcement for moneylenders. This price change made mobile agents a more attractive means for them to reach out to the villages.

The Terms and Conditions of Informal Loans

Apart from various changes in institutional arrangements, some peculiar changes also happened to the terms and conditions of informal loans from the remaining moneylenders in the village (which form the "institutional environment"). Norms regarding collateral had disappeared since the mid-1990s. Labour pledges were no longer used as collateral, which is a remarkable change because they were still used as security 'even among the elite' in 1994 (Harriss-White and Colatei 2004, p. 276). Moreover, the practice of pledging ration cards had stopped around 2004.

It is difficult to apply Commons' theory to the changes in terms and conditions of informal loans as he does not consider such norms as institutions. Commons does not address changes in institutional behaviour, rules or conventions. Even though Commons' framework does not apply to changes in the institutional environment, it is possible that some external changes were driving forces, notably the emergence of loans from *thandals* and SHGs. These offered attractive alternatives to personalized, usurious credit arrangements, often with equal or lower interest

[18]'Long term' clients are those who had a good repayment record for at least 1 year.

rates. Since *thandals* are agents external to the village, labour pledges (usually given for agricultural work on the fields of the lender) and ration cards (for the village ration shop) are not a valuable form of collateral for them. For SHGs, group pressure performs the function of collateral. In addition, the principles of mutual help and solidarity would strongly contradict such forms of collateral.

In North's framework collateral would be an example of an informal rule, devised by lenders to constrain the freedom of borrowers to default on their loan. While neither the preferences nor "relative prices" to use ration cards or labour pledges as collateral have changed thereby altering the incentives of lenders, the institutional environment in which such pledges could be demanded changed dramatically. Overall, North's framework does not allow for a detailed investigation into the causes of dramatic change such as the extinction of certain collateral rules.

9.4 Conclusions: Understanding Institutional Change: Commons' and North's Frameworks Assessed

A number of changes cannot be adequately explained using the frameworks of either Commons or North or both. Since a series of definitional and analytical problems emerged from this field research, this section lays out the ways in which the two contrasting approaches each constrain our understanding of specific institutional changes and suggests how they could be overcome.

The first problem common to both OIE and NIE is their inability to deal adequately with unexpected shocks in the economic environment which cause *radical* change. In this case study of a dynamic set of institutions, uncertainty and radical change are quite common and unavoidable. Since Commons excludes random environmental forces as a cause of institutional change, the drought which occurred in 1995 would not actually be seen as a significant factor in his theory of change. North, on the other hand, who does consider "revolutionary change" fails to explain how such change happens. A more appropriate theoretical framework would need to analyse and explain individuals' experiences of genuine surprises, i.e. *radical uncertainty*.

Second, neither Commons nor North investigates the differential capabilities of individuals and groups in structuring institutions and in pursuing or resisting institutional change. As the case of chit funds has shown, these capabilities are likely to depend on social institutions such as gender, caste or class (expressed in terms of assets, savings and income) and associated customs, practices and beliefs. The chit fund among SC women, which was described as popular and helpful at the time, could not cope with the economic shock incurred by a drought. Chit funds among men, on the other hand, have been running throughout the 1990s and continue to function reliably. Such evidence confirms Garikipati's conclusion from rural Andhra Pradesh that the relatively lower control of (not only SC) women over household assets and financial resources, in turn structured through relations of patriarchy, determines the structure and strength of their credit institutions. External and internal challenges, including changes in relative prices or tastes, may thus influence “female institutions” in ways which are different from the ones affecting “male institutions”. The capabilities of individuals who form or structure a particular institution are pivotal in this process because they may determine its ability to resist internal and external challenges.

A third and related factor which is largely missing from both theoretical approaches is the influence of power and changes in power relations. To what extent do institutions express the power and influence of certain groups and, in particular, specific classes? Neither Commons’ nor North’s framework can illuminate such questions or help us to analyse, for example, the process of change in which the dominant position of the money-lending family within the village was challenged, how the dependency of many small borrowers in the village was gradually (or suddenly) reduced or how change in this dynasty’s status and power may have encouraged lenders to seek alternative sources of loans within the village and to approach *thandals* and traders from Arni. A possible interpretation of this relative strengthening of the position of small borrowers in Vinayagapuram, which would confirm findings of other village studies in India, is that it illustrates a growing ‘process of social emancipation’ (Breman 1997, p. 61) in form of increasing ‘resistance to economic exploitation and social oppression practiced by the landed peasantry’ (ibid.), in this case reflected in local credit institutions. More research would be needed to analyse this process empirically and theoretically—within a framework that takes power relations into account as well as the structural factors determining them.

So while both old and new institutional economists offer empirically applicable frameworks within which to analyse these changes, many aspects of change remain to be developed. In the case of Commons and North, this is partly due to conceptual problems such as the narrow definitions of institutions (e.g. as constraints or enablers of change), their preconceptions of the process of change itself (e.g. artificial selection or path dependence), and the absence of serious consideration of power relations, as well as social and behavioural institutions in more than abstract terms or other than mentioned in passing. A holistic approach is therefore needed to help identify and analyse the linkages between the multiple dimensions and factors of institutional change. Such a framework should start with a definition of institutions that encompasses both the “institutional environment” and “institutional arrangements”. A multidisciplinary and historical framework is needed to systematize institutions as the fundamental building blocks of embedded forms of capitalism in which market exchange is a general phenomenon, prime among which—anywhere—would be the institutions of money.

Key institutions are those which together form a unique structure that surrounds production and distribution and enables and stabilizes the central process of accumulation (Kotz et al. 1994; McDonough et al. 2006). This type of approach attempts to overcome the definitional limitations described above and accords centrality to the *social processes* in which a variety of continuously changing institutionalized structures shape and are shaped by their (socially and politically) regulated environment. In accommodating the possibility of mutual interactions among the matrix of institutions in which exchange takes place in the markets for raw materials and finished commodities, labour and finance, insights into the social structure of accumulation require a much more comprehensive approach to empirical research than had been possible here. Finally, admitting the contributions of other OIE theorists such as Thorstein Veblen and Radhakamal Mukherjee, a thorough investigation into institutional change would have to include inquiries into human experiences, values and aspirations. This was out of the scope of our field research and would require novel attempts to integrate research in social psychology with that in institutional economics.[19]

9.5 Conclusions: The Dynamics of Rural Credit

This chapter focussed on some of the most obvious institutional changes, innovations and disappearances in the informal credit market of Vinayagapuram village between 1994 and 2006. Credit institutions had changed in quite unexpected and radical ways. First, important credit institutions in 1994 had ceased to exist, some of them rural (rural chit funds and a money-lending dynasty) and some urban (*mandi* traders' credit). Second, an array of new institutions had proliferated some grounded in the village but supplied by urban banks (self-help groups) and others dynamized directly from the town (milk traders' credit and urban credit for the purchase of consumer durables). Third, few of those showing continuity had not undergone noticeable adaptations during the decade (urban bank loans had become more extensive, as had the circuits of town-based mobile professional moneylenders).

The data and information collected through interviews, participatory mapping and official statistics from banks and statistical offices during the fieldwork hinted at a rich array of possible causes of change. Some credit innovations were initiated by state-imposed collaborations between banks and new NGOs; others were dynamized by the expansion of infrastructure, notably electricity which generated demand for consumer durables. Reasons for the destruction of institutions included severe drought but were dominated by the effects of state intervention—in the liberalization of banks, in crop marketing—and in one case by the impact of litigation. Incremental change and continuity was due to increases in private incomes, in private transport (which increased the physical range of credit emanating from the town), and to social change (reducing the exclusivity of caste-based credit and using medical philanthropy (as in eye camps) to tie loans)! Changes in state interventions in crop marketing were also implicated. In other words, even in the era of liberalization and even in a predominantly informal rural economy, a diverse range of state activity, mostly coming from the town, catalysed the institutional dynamics of credit.

[19]An interesting building-block for such an inquiry is the study by Anandhi et al. (2002) who illustrate how socio-economic change in a Tamil village is linked to a growing sense of self confidence and assertiveness of Dalits; see also Heyer (2010).

So the institutional changes observed in Vinayagapuram's money markets cannot be studied in isolation from their social, political and economic environment. Many dimensions of these changes appear to be the result of complex historical interactions between social, economic and political factors, which are excluded from the mainstream of both OIE and NIE and call for the kind of holistic approach to the structure of economic institutions outlined in the previous section.

Finally, the importance of VLS cannot be overstressed. Despite their 'unpopularity' in the final two decades of the twentieth century (Harriss-White and Harriss 2007, p. 14), successive rounds of research in Arni and its surrounding villages have shown that village studies and revisits are highly valuable methods to illuminate the dynamics of markets and institutions. They can reveal the great diversity of institutions and the complexities of their trajectories of change. By helping to illuminate the socio-economic, political and behavioural factors that drive particular processes of development, village level studies are useful for testing existing frameworks of institutional change and for devising and refining alternatives.

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Chapter 10
Feeling Rich on an Empty Stomach: Agrarian Crisis and Rural Consumption Choices

Marco Cavalcante

10.1 Introduction

This essay explores the contribution that village level studies (VLS) can make to the consumption outcomes of the twenty-first century's long agrarian crisis. It questions whether income is the only factor that influences people's consumption habits and, through them, their well-being. The latter is a novel and even pressing question for two reasons: first, due to the primacy of income poverty in the Millennium Development Goals, progress towards which is slow in India, and second, due to the interest of international development agencies in conditional and unconditional cash transfers as fundamental elements of social policy (Gentilini 2007). It is not the case that these cash transfers were being propagated in the villages around Arni such that one could evaluate their impact. Rather it is the robustness of the assumptions behind such a policy offensive against poverty and hunger that was investigated through VLS. And through VLS a new aspect of long-term social and economic change may be brought to public policy attention.

Much social and economic theory and the development literature generated by it have assumed that income is the only factor influencing people's consumption choices and practices (Pareto 1965; Marx 1887; Weber 2002). What people consume is then limited by their purchasing power (i.e. they are income constrained), supply will create its own demand; consumers aim to maximize utility; and decisions are made rationally—which means buying at the lowest possible prices

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without being influenced by other factors—since, by the further assumption of rational choice, consumption decisions are taken on the basis of full and relevant information about all market variables (Marshall 1920; Walras 1993).

However, the credibility of this hypothesis has been challenged and there is a growing body of evidence against it (Prychitko 1998; Becker 1990). The main criticisms focus on two limitations: one empirical, questioning the evidence base,[1] and the other theoretical, doubting the credibility of its hypotheses, (Tversky and Kahenman 1986). For the latter, people do not have all information available,[2] and in any case make choices influenced by factors such as advertisement (Kotler et al. 2008; Bauman 1992), their socio-economic environment (Fernandez-Huerga 2008), fashion (Simmel 1971), addiction (Backer and Murphy 1988), imitation (Veblen 2007), habits (Samuelson 1938; Bourdieu 2005), emotions (Simon 1983), institutions (Hodgson 1988) or other factors that have little to do with 'rationality' in the sense that is usually put forward.

This chapter presents material that cannot be used to support the theory of rational choice. Evidence from villages around Arni reveals that, in fact, there are several factors that determine consumers' choices, of which income is only one. To build this argument, the routine mode of analysis in village studies has to be upturned: consumption behaviour is prioritized and then situated in the political economy of rural households living in a globalized world.

Hence, after reviewing the existing literature on consumption behaviour in Sect. 10.2, an anti-productivist theoretical framework is deployed to examine non-income-based expenditure. Secondary data and primary evidence collected using a quota sampling method in three rural villages in the vicinity of Arni in 2005 locate consumption practices in the context of long-term developments in rural production relations, which have led significant fractions of the rural population towards a reproduction crisis.

10.2 Ideas About Consumption: A Critical Introduction

Over a 100 years of debate concerning consumption behaviour has failed to produce a common position on the factors generating mass consumption under capitalism. Here we can but outline its historiography. Although India is in rapid transition to a consumer society, as of now, this academic conversation is acknowledged to be massively influenced by the European experience.

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[1]Thaler (1994), Thaler and Sunstein (2009). There has recently been much written contributing to the empirical evidence against the rational theory. See for example Frank (2008), Harford (2013), Levitt and Dubner (2009, 2011), Ariely (2008, 2010), and Gladwell (2002).

[2]Simon (1955, 1957), Simon et al. (1992), Arrow (1994).

Table 10.1 Three theses on the birth of consumer society

Thesis	Author	Historical cause	Century	Place
Productivist		Industrial revolution; standardized and cheap goods	XX	England
Anti-productivist				
• Consumerist	McKendrick	Commercialization system; Status display	XVIII	England
• Modernist	Campbell	Cultural consumption; Imaginative hedonism	XVIII/XIX	England
• Exchangist	De Vries	Households organization; Monetary exchange	XVII/XVIII	Holland

Adapted from: Sassatelli (2007, p. 15)

10.2.1 A Brief History of the Desire to Consume

It is difficult to determine the exact point in history when *mass* consumption started exceeding subsistence levels, and the reasons are also subject to several interpretations—see Table 10.1.[3] Two schools of thought in particular supply competing explanations for the origins of the consumer society.[4] On the one hand, the *productivist* school sees mass consumption as having started during the nineteenth century as a consequence of the industrial revolution—especially the technological advances in transport and production. These generated a step change in the quantities and breadth of commodities available for consumption—implying that demand was being driven by supply. Capitalist commodification out-competed craft production and lowered the prices of wage goods, increasing their accessibility for the mass of the population alongside an increase in their real incomes (Corrigan 1997).

On the other hand, the *anti-productivist* school sees mass consumption as having originated earlier—during the late seventeenth or early eighteenth century (Fairchilds 1993)—not as a result of capitalism per se but as a consequence of changes in *social* behaviour that led to a desire to consume—implying that supply was being driven by demand (Sassatelli 2007). In turn this approach has three subfields: *consumerism, modernism and exchangism.*

For *consumerists* the status aspiration of the bourgeoisie triggered mass consumption that emulated the consumption patterns of the nobility (McKendrick et al. 1982). By contrast, *modernists* argue the significance of the growth in the popularity of romanticist ethics, grounded in the pursuit of pleasure in which it is not the

[3]There is significant evidence that the upper classes in ancient societies (e.g. the Romans, Greeks, Etruscans, Egyptians) had consumption patterns that were beyond subsistence levels—by which we mean involving goods or services not directly related to the satisfaction of the basic needs, such as, pictures for display on walls, figurines and personal ornaments.

[4]This term was coined after the Second World War and is used frequently by authors such as Galbraith, Marcuse, Packard and Baudrillard (Sassatelli 2004).

good in itself but rather the desire to consume that generates a constant dissatisfaction (Campbell 1987). Finally, *exchangists* propound the argument that increased openness in trade and monetary exchange gave rise to mass consumption. During periods of decline in real incomes, households did not respond rationally by reducing consumption, rather they opted to increase their work effort to maintain income to exchange for goods and services (De Vries 1993; Reinert 2010).

So, according to *anti-productivist* theories, income has not been the main driver of mass consumption. Factors other than income determined people's decisions about what to buy. Let us briefly consider them.

10.2.1.1 Fashion

The word fashion comes from the Latin *facio*, meaning *to make*.[5] The concept of fashion in the modern sense was born towards the end of the Middle Ages, when people began searching for innovative habits relating to clothes, food, etc. (Bailleux and Remaury 1996). Braudel (1982) and Mukerji (1983) both revealed how the Italian aristocracy began consuming luxury goods as early as the fourteenth century in order to differentiate themselves from the rest of the population, thereby strengthening their power. According to McCracken (1988), aristocrats were incessantly looking for ways to set themselves apart. These included legislation that imposed dress codes on particular social classes and ever-changing trends in fashion (in order to keep ahead of the poor classes, who were trying to imitate them). In the nineteenth century, the aristocracy started to lose its monopoly over such behaviour and ceded ground to the expanding bourgeoisie and its status-enhancing imitations. Only in the twentieth century, however, did the true democratization of fashion occur, when the majority of the population in Western countries not only gained access to it, but were actually governed through it (Roche 1991).

For Simmel[6] (1971) fashion synthesizes people's need to achieve social equity and, at the same time, to differentiate themselves from each other. On the one hand, individuals are reassured by social belonging,[7] but on the other, they also like to experiment—to give freedom to their fantasy—in order to differentiate their social

[5]As late as 1901 the Oxford English Dictionary defined "fashion" as "the process of making" (Kawamura 2005). Brenninkmeyer (1963) defined fashion as it is currently understood—the common way of dressing in a given historical time—though fashion is also associated with eating habits, accommodation choices, ways of speaking, music, etc. In 1971, Simmel argued that "fashion is the imitation of a given example and satisfies the demand for social adaptation" (1971, p. 296).

[6]See also essays by Roman and Arivukkarasi, Chaps. 7 and 8.

[7]According to the Italian sociologist Di Nallo (1997), consumption is a way of communicating individual social belonging. Individuals consume as if it were a form of speaking in order to express their social characteristics.

group (or class) from others. Simmel concluded that this constant double-need of belonging and differentiating—exacerbated by the concept of *emulative envy*—drives fashion.[8]

10.2.1.2 Advertisement

As for fashion, there are several definitions of advertisement. Testa (2007) defines advertisement as the system of information and communication techniques aimed to promote consumption.[9] But according to Sassatelli (2007), advertisements—as well as the other aspects of merchandizing, such as the packaging and branding—aim not just to inform but also to expand individuals' needs.[10]

The tools/technologies used by advertisers to inform and convince people to consume products include wall posters, street banners, media spots (covering the written media, radio, TV and internet), visual performances, shop window displays (the *spectacularization* of goods), celebrity endorsement, songs and creative branding exercises (Codeluppi 2006).

There are few doubts about the effectiveness of advertisement in influencing people's choices not only concerning what to consume (for example the choice between two brands of the same product), but also concerning whether to consume at all (Kotler and Scott 1993). Baudrillard (1972) has argued authoritatively that the needs of the individual are not *innate*, but rather are generated through advertising campaigns and marketing strategies. The production system is the force that is generating the system of needs and the desire of desiring. Advertisements present a given commodity (or service) as a tool for achieving privileged status or a desirable social condition. Desire supplants need, is stoked by excitement based on anticipation, and is assuaged by the acts of purchase (Bauman 1992).

10.2.1.3 Social Pressure

The desire to belong makes people behave in ways that do not contradict the behaviour of others. Choices are shaped by fear of exclusion, and the desire to demonstrate a decent (or high) social status.[11] According to Veblen (2007), people

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[8]See also Spencer (1967) and Fallers (1971) who argue similarly.

[9]Evidence of advertisements go back as far as 4000 BC. In ancient Egypt, Rome, China, India and Arabia, advertisements on walls or rocks were used to promote events and commercial products (Testa 2007). Over the course of history, advertisement techniques have been constantly improved—particularly since the invention of printing in the fifteenth century.

[10]See also Spencer (1967) and Fallers (1971) who argue similarly.

[11]This phenomenon has been observed since time immemorial; ancient books such as the Bible or the Veda contain examples. See Merton (1957), Fabris (1971).

consume not only to satisfy biological needs, but to display wealth.[12] Reputation, social respect, honour and prestige, directly proportionate to economic power, are signalled by *conspicuous leisure* and *conspicuous consumption*.

For Veblen, *conspicuous leisure* typified feudal society. It includes: showing idleness; acquiring good manners; learning dead languages; and engaging in other activities that would demonstrate that a person can waste time in materially unproductive ways. By contrast, *conspicuous consumption* is the acquisition of costly, luxury (or useless) goods and services, such as clothes or jewels. Conspicuous consumption can also be displayed indirectly through the behaviour of a spouse or other family members. The demonstration of a high level of consumption satisfies the need to be accepted and respected—a social need thought to be shared by even the poorest people. On this point, Veblen (2007, p. 59) writes pertinently:

> No class of society, even the most abjectly poor, forgoes all customary conspicuous consumption. The last items of this category of consumption are not given up except under stress of the direst necessity. Very much of squalor and discomfort will be endured before the last trinket or the last pretense of pecuniary decency is put away. There is no class and no country that has yielded so abjectly before the pressure of physical want as to deny them all gratification of this higher or spiritual need.

For Veblen, with the transition from feudalism to capitalism, came the substitution of conspicuous consumption for conspicuous leisure. The practices of conspicuous leisure require face-to-face relations, while conspicuous consumption is a signalling device appropriate for an anonymous society.

Despite criticism (Davis 1992; Leonini 2000; Alberoni 1964), Veblen's work has inspired others further to develop such theory.[13] Bourdieu (1995) in particular agrees that the emulation effect does not drive consumption. Consumption choices are dominated by taste, which depends on *habitus*—a cultural model, acquired during adolescence from the family and the education system. For Bourdieu, it is status differentiation, in which each class strives to distinguish itself from others, rather than emulation that motivates consumption.

Attempts have also been made to redesign Veblen's theory so that it resonates better with the contemporary era (Brooks 1981; Duesenberry 1949; Leibenstein 1950). For example, Enzensberger (1999) argues that conspicuous consumption is no longer recognized through commodities such as cars or jewels, but rather inheres in goods that are less *directly* buyable, such as free time, silence, a clean environment, security, etc. Riesman (1969) concludes for the United States of America

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[12]The Norwegian economist Thorstein Veblen was the first and most authoritative scholar to study this phenomenon in depth during the 1930s.

[13]Lipovetsky (1989) argues that people no longer consume to gain a particular social status, or to differentiate themselves from another group. They consume for personal satisfaction to increase their pleasure or comfort.

there is a culturally defined standard package of commodities and services that individuals need to consume in order to feel part of their community/society.[14] Commodities are thus essential for social capabilities and functioning. Even a marginal deviation from this standard package indicates that an individual belongs to a social minority. Riesman also recognized the concept of *anticipatory socialization*, through which consumption patterns that do not conform to peoples' current social status are adopted. He further shows how high-income people play down their wealth through low consumption (in terms of both cost and quantity) for purposes of mass conformity, yet nonetheless differentiate themselves from lower status classes on the basis of taste, thereby limiting those who aim to achieve a given socio-economic status through consumption behaviour alone.

10.3 Basic Needs and Consumption Patterns in Rural Tamil Nadu[15]

The previous section outlined the contested history of mass consumption and illustrated several anti-productivist theoretical frameworks, focusing on status display, cultural consumption, emulation or psychological forces that respond to the weakness of the assumptions of the theory of rational choice. It introduced non-income elements influencing consumption—fashion, advertisement and social pressure. In this section we will apply these ideas in a case study of three villages in which people make consumption choices that keep them in relations of poverty and hunger. We test the two hypotheses that: (a) people do not behave rationally with respect to consumption choices and (b) other factors besides income—such as fashion, advertising and social pressure—influence consumption behaviour. We suggest that this behaviour is also driven by fear of social stigma.

10.3.1 Methodology

Field research was carried out between August and October 2005 in the villages of Veerasambanur, Vinayagapuram and Nesal in Tiruvannamalai district.[16] The research was of a qualitative deductive type. Forty-one structured interviews were

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[14]In the United States of America these include particular types of clothes, a television, a fridge, furniture for the house, etc. The Italian sociologist Alberoni (1964) has also identified a set of goods and services to be consumed in order to avoid feeling marginalized.

[15]This section has also been developed in Cavalcante (2009).

[16]The three villages belong to the set of 11 villages that have been studied repeatedly since the 1970s to understand the socio-economic impact of the Green Revolution and rural development in the area (Harriss-White and Janakarajan 2004). The secondary data are all taken from this source and from the official Indian Census.

conducted, as well as 200 non-structured interviews—mostly with groups—from a total population of 5000 people. Participatory Rural Appraisal provided the methodological guidelines for the unstructured group interviews (Chambers 1997). The 41 structured interviews—the duration of which varied between 2 and 3 h—were conducted as follows:

- 12 in Veerasambanur
- 10 in Vinayagapuram
- 19 in Nesal

For the structured survey, the selection methodology used was *quota sampling*; the categorization for which was based on caste—with a pilot questionnaire used to identify *good respondents/informants*. The decision to categorize the sample according to caste is due to the importance of this social institution in South India. Harriss-White, who has studied Tamil Nadu for over 40 years, writes:

> In small town south India (which we think does not differ much from most other regions in this respect)… the remnants of occupation-based castes are organised in several loose hierarchies based on work, diet, religion, language, land-based versus network forms of organisation and the politico-administrative categories of the state …The local economy is increasingly organised in corporatist forms based directly or indirectly on caste. (Harriss-White 2002, pp. 9–10).

The choice of a qualitative analytical methodology is based on the lack of alternative given the unreliability or sheer lack of official data—plus the facts that (1) women largely refused to participate in the interviews, hence cutting out almost 50 % of the potential sample; (2) given that the area was the object of several studies in the early part of the twenty-first century, there appeared to be survey fatigue in the population, while (3) some wished to participate strategically for a reward (and in this regard, they would adopt a strategy to try to please the interviewers as much as possible). This means our argument is based on our judgement of the most reliable information—rather than the statistically fullest data. We cannot analyse consumption, however, without placing it in the context of social relations of production in the rural economy and the rich set of long-term village studies through which their development has been traced. To these we turn.

10.3.2 The Socio-economic Characteristics of the Villages

In the three villages, caste is the institution that persists in regulating social status and behaviour (especially kinship and food). It still also regulates economic activity, income inequality, livelihood options and work conditions (Swaminathan and Rawal 2011). In the three villages, the two main socio-economic classes are embedded in caste. The first and smaller class is landed, mostly belonging to Most Backward Castes or Other Backward Castes, predominantly *Mudaliars*, *Vanniars* and *Yadavas*. The second and larger class is landless, mostly Untouchables, who are agricultural labourers working in the land of the higher backward castes.

Table 10.2 Gini index for the agricultural sector in the three villages 1993–1994

	Nesal	Vinayagapuram	Veerasambanur
Land ownership	0.81	0.62	0.66
Other agricultural-related goods	0.84	0.72	0.71

Source Harriss-White et al. (2004, p. 160)

Untouchables are both Hindu and Christian. They still live separately from the caste population; the sites of their lifeworlds are marginalized in peripheral parts of the village territories. The division between Untouchables and other castes remains deep. Untouchables are allowed to pass through the areas occupied by other castes, but generally they are not welcome to stay. Dominant backward castes do not go to the Untouchable area unless there is serious need. Caste-commensality and endogamy are strongly practiced in these villages. By contrast, the use of dowry is now widespread and practiced among all the communities without distinction of caste or religion.

Nesal is a relatively big village, with developed agricultural activities and non-farm activities that have been expanding since 1990. It is easy to reach from Arni, with a tarmac road and bus services, and is surrounded by well-irrigated land. Its proximity to Arni has inflated land prices but also allowed Nesal to develop strong economic linkages with the town. The main village now bristles with small retail shops and services (Harriss 2007, pp. 161–162)

Vinayagapuram is a medium size village, remote, based on agriculture, with a decent canal irrigation system. Land ownership is very fragmented and polarized, with only 10 households owning more than 10 acres. Among the Untouchables, of 200 households only 20 households own some land—under two acres, mostly dry.

Veerasambanur is a small village, remote, entirely dependent on agriculture but quite undeveloped and with a poor irrigation system. Untouchables here are Christian, so technically they do not belong to a Scheduled Caste and are not entitled to the privileges reserved for them. Only nine Untouchable households own dry land; the rest work as landless agricultural labourers.

Evidence from long-term village studies indicates high (and growing) inequality in land ownership, land control and landlessness in these three villages (Harriss-White 2004a). Table 10.2 shows that already by the mid-1990s, the Gini index for the value of land and of other agricultural-related machinery and tools was extremely high.[17]

According to Harriss-White (2004a), from the 1970s to the 1990s, there was deterioration in both the percentage of people with no land and the percentage of land controlled by the poorest 50 % of the population. Table 10.3 shows that during the same period in two of the three villages the percentage of land controlled by the richest 10 % of the population increased markedly.

[17]That for the whole of India in 2010 is only 0.37 (CIA Factfile).

Table 10.3 Proportion of land owned by the richest 10 % of the population

	Nesal	Vinayagapuram	Veerasambanur
1980s	51.7	49	30.7
1990s	64.5	42	40.4

Source Harriss-White et al. (2004, p. 165)

10.3.3 Changes in the Agricultural Sector

From the 1970s until the pre-liberalization period, the agricultural sector in the three villages underwent major changes, in particular, the type of cultivation (high yielding varieties, HYVs, and then diversification) and use of technology (labour-displacing substitutions using fossil energy for human and animal energy) (Harriss-White 2004a).

In the post-liberalization period VLS trace three different developments that together create an agrarian crisis for the twenty-first century. These are: (1) changes in cultivation practices; (2) changes in the varieties of products; (3) changes in employment. The three villages do not differ markedly in these respects.

10.3.3.1 Change in Cultivation Practices (Table 10.4)

Two types of change were reported in 2005: (a) an intensification of the commercialization of production with switches from rice to sugar cane (mostly in Nesal); and (b) a substitution of water-sparing and labour-saving crops, from rice to groundnuts or tree crops due to water table depletion (mostly in Veerasambanur and Vinagayapuram).

10.3.3.2 Changes in the Varieties of Products

From the 1990s, subsidies on HYV seeds, fertilizers and pesticides declined until the new century when they are reported to have ceased. Table 10.5 shows the significant changes in HYV rice varieties in Vinagayapuram from 1995 to 2005. Similar dynamics have been registered in the other two villages.

Farmers gave four reasons to justify the switch: (i) new HYVs are more robust with increased resistance to pests; (ii) new HYVs have a reduced growing season;

Table 10.4 Reported changes in cultivation in the three villages

Original cultivation		New cultivation	Reason to change
Rice	→	Sugar cane	Price incentives, labour sparing
Rice	→	Groundnuts/tree crops	To save water

Source Cavalcante (2009, p. 137)

Table 10.5 Reported changes in HYV rice varieties in Vinagayapuram

1995	2005
Kullam chamba	Chinnaponni
Samba	ADT-36
Kullankar	ADT-39
Ponny	Ponny
Kichilly	Zero-43
Co-43	Zero-15
	Gundu

Source Cavalcante (2009, p. 138)

(iii) they require less water; (iv) yields are higher. All respondents had been subjected to a mass of promotional publicity from private companies but equally all experienced that the higher costs of production of the latter's seeds were compensated for by higher yields.

10.3.3.3 Changes in Employment

Production relations continue to have been affected by the mechanization of farm activities (Harriss 1982; Harriss-White and Janakarajan 2004). Nesal, the village where the land is least -fragmented, has experienced a twenty-first century boom in the use of agricultural machinery. This phenomenon has been incentivized by the advertising and marketing strategies of retailers of such equipment, and by the declining rate of interest on both formal and informal sector loans (Table 10.6).[18]

In Vinagayapuram, in the decade from the previous survey in the mid-1990s, five new tractors and four power tillers had been bought, although none of these new machines belong to Untouchable farmers. In Veerasambanur, however, mechanization was very limited (only one tractor in 2005) probably due to the generally lower level of agricultural incomes and the fragmented structure of holdings. However, increasing proportions of landowners rented tractors for their harvests.

Labour not yet displaced by mechanization continued to be feminized. This phenomenon—observed already by Harriss-White (2004a) in the 1990s—cannot be elaborated in detail because of women's general reluctance to be interviewed by young men. However, the reasons reported by men for this feminization involved male migration to cities (Vinagayapuram), male entry into wage work in the local non-farm economy (Nesal) or the supply to agriculture of female labour at cheaper rates than men (Veerasambanur).

[18]On the credit system in the three villages, see Colatei and Harriss-White 2004 and Polzin, here. On machinery in Nesal see Harriss (2007).

Table 10.6 Principal plus interest for a loan of Rs. 1000

	Informal sector		Formal sector	
	1980–1995	2005	1980–1995	2005
After 1 month	1030	1020	–	–
After 1 year	–	–	1180	1090

Source Cavalcante (2006, p. 357)

10.3.4 Crisis in the Agricultural Sector

The villages experienced crisis on two fronts: (1) the depletion of underground water sources due not only to its overextraction for irrigation but also to the competition from the growing industrial and tertiary sectors of the area (in particular demand for bottled mineral water) and (2) the anti-agricultural turn to the terms of trade.

In the 1970s, following the initial gains of the Green Revolution, agricultural electricity started to be heavily subsidized and used as a vote-catching political tool. The downside has been a constant increase in the electrical energy needed to produce rice, together with wasteful profligacy in the use of both electricity and water. While water in the villages has long been a major problem, its scarcity is now turning critical.[19] The depletion of underground sources is indicated by the increased depth of the dry season water table and the number of fatigued wells that are now dry and abandoned. From averages of about 30 ft of depth in 1990–1995, water table levels are now reported to be some 90 ft deep. As John Harriss observes: "(o)nly one with a head for heights can stand close to the edge of one of these wells these days" (2007, p. 162). While new borewells enable the extraction of water from ever deeper sources in the bedrock, greater energy is consumed in drawing it to the surface.[20] The water crisis has disproportionately hit the poorer households that have been forced to convert their crops to rain-fed groundnuts and even to sell part or all of their land.[21]

The worsening terms of trade for the farmers mostly hit the Other Backward Caste landowning class that continues to control the marketed surplus. As a consequence of the cut in subsidies, the cost of inputs has grown disproportionately to

[19]For details of the subsidy's rise, fall—under World Bank pressure in the mid-1990s to 2005—and rise thereafter, see Audinet (2002), Badiani and Jessoe (2011), Grossman and Carlson (2011), von Braun et al. (2005), UNCTAD (2004)—and Fig. 10.2 in the Appendix of this study. The problems related with water certainly did not start in the post-liberalization period. The sustainability of water exploitation was first questioned by Madduma Bandara based on systematic well level measurements in 1973 (1978). And in 1993, Janakarajan (2004) underlined the dramatically deteriorating situation with regard to irrigation and water exploitation. According to Harriss (1982) the declining use of the surface water tank started in the early 1970s after the Green Revolution with the beginning of mechanization and the technological possibility of digging waterholes in the granite.

[20]Reported costs of energy per average well in turn averaged about Rs. 1500 ($34) per 6 months.

[21]Similar results were observed by Janakarajan (2004).

returns (see Fig. 10.2 in Appendix). For an agrarian household that is a combined unit of production and consumption, the decline in the input–output terms of trade has been exacerbated by inflation in the other expenditure that landed households had to make on domestic energy, transport, (private) education and (private) health.

10.3.5 The Impact of the Agricultural Crisis on Income

While the changes described above have happened in all three villages, there are some differences in their impact on landed and landless households. Incomes have declined more severely for the latter than the former. In the 1990s, landless people, mainly Untouchables, worked the land of the landlords for daily wages of Rs. 50 for men and Rs. 20 for women. During the harvest, daily wages could be paid in rice (10 kg for men and 6 kg for women). But from 2000 to 2005, wages had not increased, while the prices of goods and services were reported to have increased significantly. This phenomenon represents a real change and a deterioration compared to the trends observed from the 1970s to the 1990s when wages increased at rates faster than prices (Harriss-White 2004b, p. 380).[22]

Furthermore, the demand for labour has also declined due to land use changes (groundnuts and sugar cane requiring less labour) and mechanization (which displaces labour). For these reasons, all the landless workers interviewed complained of a steep drop in their income (Table 10.7).

> For instance, Kalim – a landless agricultural worker interviewed in Nesal – explained that only a few years previously he would work twice as many days as in 2005. While the daily wage did not change, the prices of essential goods and services had rocketed.

The effects of this reported income decline varied between the three villages. In Nesal, workers took part- or full-time recourse to non-farm activities, mostly in the nearby town of Arni, to which it was fast becoming a suburb. In Vinagayapuram, landless people reported a deep drop in their incomes in response to which they migrated to Chennai or Bangalore to work as builders in the construction sector.[23] However, this physically destructive option is limited to young men.[24] In Veerasambanur, the changes in agriculture seem to have intensified underemployment. Migration and non-farm activities are extremely limited there. Due to the

[22]John Harriss quotes Athreya et al. (1990) confirming the 1970s and 1980s trend for further south in Tamil Nadu and pointing out that the tightening of agricultural labour markets was the result as much of development in the non-farm economy as in agriculture—together with public employment programmes and subsidized credit (2007, p. 165).

[23]On migration, see Jayaraj (2004), Picherit (2012).

[24]See Vera Sanso (2010) for the physical effects on ageing of the construction industry in which workers are usually incapacitated by their late 30s or early 40s.

Table 10.7 Changes in agriculture and consequences for landless labourers, 2005

Change	Details	Consequence on landless	Coping strategies/effects
Type of cultivation	From rice to sugar cane	Less work	• Migration (Vinagayapuram)
	From rice to groundnuts	Less work	
Varieties of products	From old HYV rice to new HYV rice	Limited	• Non-farm activities (Nesal)
Employment pattern	Mechanization	Less work	• Not coping—underemployment and poverty (Veerasambanur)
	Feminization	Less work/salary[a]	

Source Cavalcante (2009, p. 140)
[a]This answer comes from a male perspective

Table 10.8 Percentage of families whose food expenses exceed earned income, mid-1990s

Nesal	Vinagayapuram	Verasambanur
9	17	16

Source Harriss-White et al. (2004, p. 36)

characteristics of distress migration, remittances for the three villages are too exiguous to be noticed in household incomes.[25]

Like landed households, landless workers also experienced a general increase in expenditure on domestic energy, transport, education and health. But landless people were also sensitive to an increase in Public Distribution System (PDS) prices (in particular prices for essential foodstuffs and kerosene) combined with a drop in the quality of supplies, over the course of the previous 10–15 years.[26]

While deeper studies of food security of the area are clearly needed, the income trends that were reported suggest that even though general food availability was not a problem, nonetheless among categories such as landless workers and Untouchables (particularly their dependent children and elderly people) access to food, one of the four elements of food security,[27] is in danger of being denied—and hunger is increasingly a concrete risk. Similar conclusions—summarized in Table 10.8—were already observed in the mid-1990s.

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[25]In a study of microfinance in villages nearby in Vellore district Guerin et al. (2010), two important findings are likely to be relevant in the Arni region but which have not yet been researched. First, financial outcomes depended as much on women's control over women as they did to male control over women and second, transfers among female kin from the uterine village could amount to up to a third of annual household income.

[26]Here we are indicating a period of time between 1993/1998 and 2008. On the performance and trends related to the PDS during that period, see Swaminathan (2001, 2008), Yesudian (2007), Harriss-White (2008).

[27]The four elements of food security are: access, availability, utilization and vulnerability.

10.4 The Impact of the Agricultural Crisis on Consumption

Despite a reported decline in income in the twenty-first century in all three villages —among all social classes—there has been an increase in expenditure on goods and services. Over the 15 years leading to 2005, in all three villages increases in expenditure were registered on health, education and ceremonies such as weddings.

> People in one group interview in Vingayapuram complained that their expenditure on health and education had increased dramatically. The reasons for such an increase varied but most attributed it to the fact that, given the declining quality of public services, they were forced to use the private sector.
> Rajesh – interviewed in Nesal – said that his whole life is spent working to pay the dowry for the future weddings of his two daughters. While Vijay – interviewed in Veerasambanur – said that nowadays people had to have a luxurious wedding ceremony otherwise the shame on the family would be enormous.

These expenditure increases may be attributed to the following factors.

10.4.1 Cuts in Public Expenditure—and/or Deteriorating Quality Standards—in the Welfare State

Public expenditure on education has declined during the era of liberalization—being about two-thirds of its stingy target of 6 % Gross Domestic Product (GDP); it is biased against elementary schooling and towards higher education. The quality of public educational provisioning is criticized by the Planning Commission itself.[28] Public expenditure on health suffers from the same biases. The Asian average public sector expenditure is 3 % of GDP while India's is unstable, falling and under 1 %. Employers have no responsibility for the health of their workforces.[29]

These deficiencies force people to spend more on goods and services that are no longer provided by the state or provided at unacceptably poor levels of quality. People interviewed in every village and from all social classes reported a significant decline in the quality of provision of publicly provided education and health. On the education front, all three villages have primary schools but over the course of the 10–15 years prior to 2005, school managers have had to make do with a drastic cut in their budgets. This has resulted in crowded classes—with a minimum of 40 students. Villagers complained about the low quality of public schooling and, those who can afford it, patronize private education and schools that teach in English, even incurring debt to do so.

[28] http://planningcommission.nic.in/reports/sereport/ser/stdy_pubexpdr.pdf and http://recoup.educ.cam.ac.uk/publications/WP18-ADfin.pdf.

[29] http://www.macroscan.org/anl/oct06/pdf/Health_Expenditure.pdf. See Fig. 10.3 in Appendix for further details.

There is not a single health centre in Veerasambanur and Vinagayapuram, while the catchment area of Nesal's health centre has increased dramatically over the course of the past few years, and now includes a patient caseload of over 30,000. Consequently, the single medical doctor assigned is reported to be either overworked when present or absent. Two nurses work at the centre, but people interviewed complained of their lack of trust in the nurses' competence. Consequently, in cases of real need, villagers prefer to go to Arni and to access private medicine.

Cuts in public expenditure have also increased private expenditures for other goods, in particular agricultural inputs (cuts in subsidies for which hit land owners), and food (cuts in the subsidies on which hit landless people).

10.4.2 Social Emulation and Imitation

Public expenditure cuts are insufficient to explain the increased expenditures on goods and services reported in the villages. Here, *an imitation effect* is at work. This takes the form of display effects, abetted by the now widely extended diffusion of media such as radio and television (TV) and the growing influence of advertising and fashion. The process seems to begin among classes and castes that have prospered from the liberalization of the non-farm economy and, as a consequence of improved incomes, have increased and diversified their expenditure, differentiating themselves socially from lower castes through consumption. Lower classes (castes) then start to imitate the consumption patterns of the rich, in a social competition that takes economic as well as religious forms. This process is amplified by its spread in rural areas which allows poor people to identify the consumption patterns of the new- or old-rich.

Despite claiming a steep drop in their income and despite the fact that none of them own a lavatory in their house, 75 % of landless people interviewed explained that at the top of their consumption preferences was not better sanitation but instead the purchase of electronic devices such as televisions or mobile phones. After the mid-1990s, in Veerasambanur, 40 households had bought a TV and by 2005 one person had purchased a mobile phone despite there being no local coverage. In Vinagayapuram, most of the Other Backward Castes have a TV, seven Untouchable households had bought sets—of which three are colour TVs—and 10 households had installed a telephone line. In Nesal, many Other Backward Caste households owned a TV and four households also had a videocassette recorder (VCR). Two had mobile phones.

Half of those interviewed said that they had spent more than they could afford in wedding ceremonies for their daughters. All of those interviewed consider this rational behaviour and would incur loans to pay for the daughter's wedding in the future, irrespective of their lack of capacity to repay.

Another example of increased expenditure is on childbirth. In Veerasambanur, the most remote village, there is actually an efficient system of mother- and childcare. A competent nurse makes weekly visits to pregnant women and gives

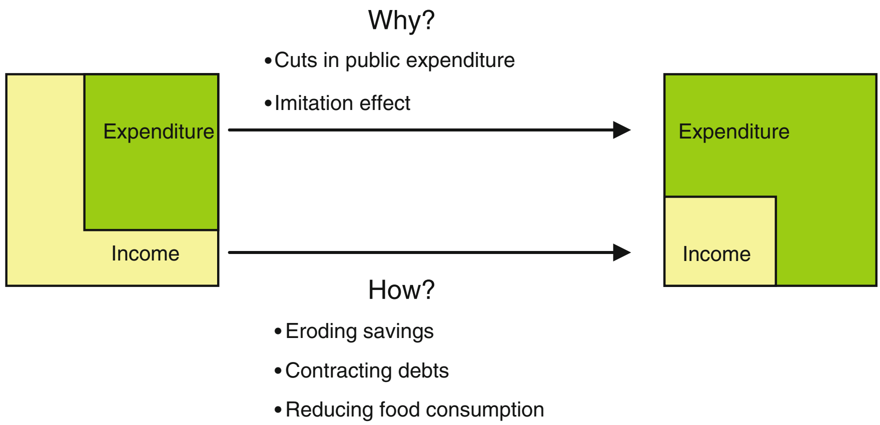

Fig. 10.1 Household expenditures in a context of income contraction. *Source* Author

them assistance by providing vitamins and other needed drugs free of charge. At the moment of delivery, the mother can be brought to the health centre where the doctor assists the event. No fees are charged. Despite this, men want to take their wives to private doctors. Those without savings will take a loan rather than allow their wife to deliver their first child at a public health centre.

> Ragupati – interviewed in Veerasambanur – said that it was now fine for his wife to deliver in the public health centre but, regardless of his economic possibilities, he would never have allowed her to deliver their first born there, in case the child was a boy (which it had turned out to be).

In answer to questions about the reasons for such expenditure, people replied that purchases of electronic devices, private education for children, the use of private health care facilities and the provision of large dowries for daughters are necessary to respond to social obligations that, if not respected, would bring shame on the family.

In answer to the question about how they are able to afford the increase in consumption expenditure, despite a drop in their income, people listed three sources (Fig. 10.1): (1) Eroding savings (mostly by landowners); (2) contracting debt (by all classes) and; (3) reducing food consumption (by landless householders).

Eroding savings is self-explanatory. *Contracting debt* is facilitated by the lowering of interest rates in the informal sector which is relatively easy to access in all three villages.[30] *Reducing food consumption* (both in terms of quantity and quality of the food basket) is a phenomenon that urgently calls for further analysis.

[30]See also Polzin, Chap. 9. Already in the 1990s, Harriss-White and Colatei (2004) confirmed this trend by underlining that only a small fraction of credit was coming through the formal system and that around 40 % of the total amount taken was used for non-productive expenditures.

A reduction in food consumption, as a means to increase other expenditures is facilitated by commensality because, since food consumption is not subject to public display, people do not suffer public judgment about it.[31]

10.5 Conclusions

We have showed how in *anti-productivist* theory and in European social history, income is but one of a number of factors that influence consumption choices; others, such as fashion, advertising and social pressure can and do have a major impact on people's choices. We introduced the theories of Veblen, which showed how people's choices can be shaped by the fear of exclusion as well as the desire of demonstrating increasing social status. These theories of mass consumption, developed for European societies, proved relevant to the contemporary rural hinterland of Arni town.

Our village field research confirmed that consumption choices do not prioritize what outsiders consider to be basic necessities, such as food or sanitation-durables. Even in an era of agrarian crisis caused by water table depletion, adverse input–output price relationships and inflation in basic wage goods, other factors besides income shape expenditure. Those discussed here include the desire to maintain a socially decent standard of living, the need for communication, imitation effects pressured from advertising, social aspiration and the need to avoid shame. Some of the social pressures that mediate consumption are extensively networked through TV, telecommunications and the internet. But others emanate directly from the local town: posters, advertisements and shop front displays of a growing diversity of consumer goods and durables.[32] These are aspects of urban–rural dynamics that have not been recorded before in the long-term village studies of this region.

Although low quality state provision and cuts in public subsidies pitch households into expanded private expenditure, private sector preferences persist even when state provision is as high quality as that of the private sector. Contrary to expectations, increases in consumption coexist with declines in income, even among very poor landless households.

Often people chose not to fulfil their basic needs (e.g. for food and sanitation) rather than suffer social shame for not owning TVs, and mobile phones, not paying for private health and education and not offering 'lavish' dowries.

[31]This phenomenon was spoken of most explicitly in the interviews with Untouchables. However, other people did not seem to like to speak about their food habits. The research has not involved collecting food recall or anthropometric data and so we cannot evaluate the real impact on nutrition.

[32]As Polzin showed in the previous Chap. 9, a rapid increase in private transport especially motorcycles has led to the expansion of urban retail credit—and rural debt—for the purchase of consumer durables.

This conclusion has practical implications for policy—for income transfer programmes—especially those that do not carry conditions because conditions cannot be monitored or enforced. If increased food consumption is one of the objectives of development, then sensitization campaigns will be necessary to counteract the power of the trident of fashion, advertising and social pressure to prioritize non-necessary commodities. Our VLS suggests that poor people would need a change in aspirations as well as incentives to prioritize food in their conceptions of their families' well-being. If this is not feasible, then conditional cash transfers are an alternative, but only providing the state—and market—can satisfy the conditions, which may also prove to be an ambitious project. So these results confirm that the public distribution of commodities that were deemed essential before the twenty-first century has an additional rationale rather than simply to counter antisocial private speculation—for which there continues to be evidence in India's southern food zone in the twenty-first century. They are necessary to counter the social pressures that deprioritize food.

Appendix

See Figs. 10.2 and 10.3.

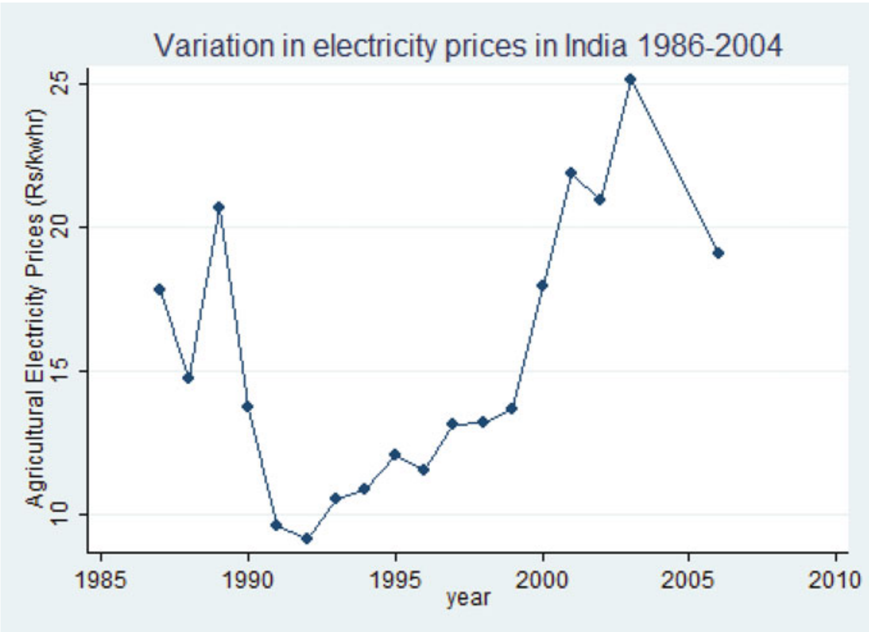

Fig. 10.2 Electricity prices in India 1988–2005. *Source* Badiani and Jessoe (2011, p. 25)

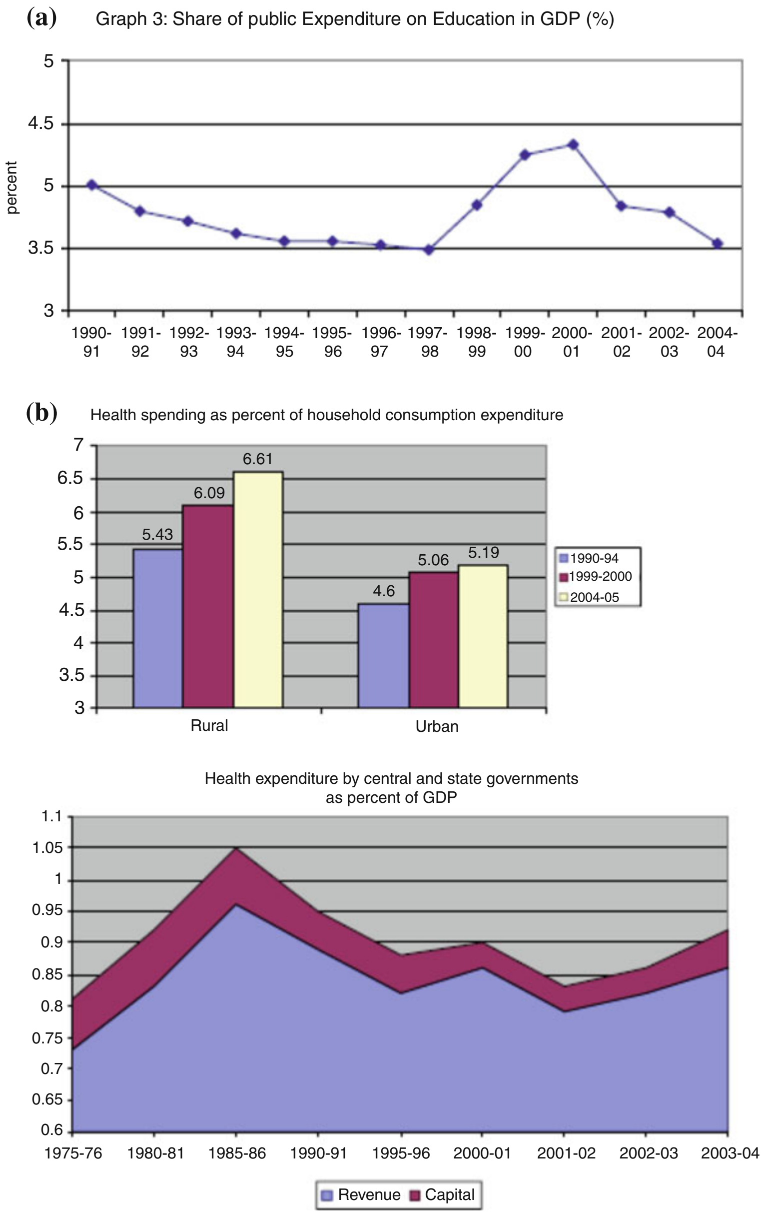

Fig. 10.3 Public expenditure on education and health. **a** Education. *Source* Planning commission. **b** Health. (i) Health spending as percent of household consumption expenditure, 1993–1994 to 2004–2005. *Source* NSSO surveys of consumption expenditure, 50th, 55th and 61st Rounds. (ii) Health expenditure of central and state governments as percent of GDP. *Source* http://www.macroscan.org/anl/oct06/pdf/Health_Expenditure.pdf

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Chapter 11
Epilogue—The Future for Small Towns: The Case of Arni—or Ambur or Ranipet or Tiruppur or …?

Barbara Harriss-White

> Our policies have been either for rural or urban areas. We lack an approach to *trishanku* (middle world) areas.
>
> (Jairam Ramesh, former Union Minister for Rural Development, *Hindustan Times*, June 7th 2012).[1]

11.1 Factoring Middle India into the Global Order

What does the future hold for Middle India, and towns like Arni? From our studies the one thing that is clear is that it will be settled by people in and around Arni themselves, following no plan but expressing their diverse and inexhaustible capacities for adaptation, innovation and exploitation within the evolving social institutions that regulate the real economy. But there is a different view, taking hold across the world, from Washington to Paris, London and Delhi: the consensus that not just smart cities, knowledge hubs and mega-industrial-corridors[2] but also small towns may act as effective economic motors in accordance with a model of development conceived by think tanks and central governments and resourced by public-private finance.[3]

To realize their potentials as engines of growth, cities and towns need integrated planning and political reform (Lucci 2014, p. xxi). On this view massive investment is needed in: water, sewerage, solid waste management, storm water drains, roads,

[1] http://www.hindustantimes.com/india-news/newdelhi/new-scheme-to-uplift-semi-urban-settlements/article1-867589.aspx, Denis and Gnanou (2011).
[2] See Maitra et al. (2014), Idiculla (2014), Bhattacharya and Sanyal (2011).
[3] See NCAER (1996) for an early statement in favour of PPPs; but see also Prasad (2014) who suggests—using evidence from AP—that current experience with public-private partnerships in urban development serves the private rather than the public interest.

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transport and street lighting, primary health and education—plus electricity and energy efficiency. The globalized 'competitive town' also needs slum renewal and telecommunications and hi-tech, multi-mode connectivity. But even this ambitious list is not sufficient.[4] Political/'governance' reforms are needed too: democratization, decentralization and the participation of local citizens, both to resolve a 'crisis of legitimacy' and to ensure that local plans are relevant.[5] Mayors and qualified staff must be in place for improved accountability, to exercise responsibility for 'assets maintenance' in an era of greatly expanded, modernized and more complex municipal assets, and to oversee major improvements in revenue collection, the exaction of user fees, and the leveraging of finance for public-private partnerships (World Bank 2003).

Kaushik Basu, former Chief Economic Adviser, Government of India; Chief Economist at the World Bank, has expressed this vision clearly and concisely for India:

> 'India needs a string of new small towns where property is much cheaper. India can begin to suck in labour into these towns and provide services for the global economy. For small towns to grow, the government has to provide basic infrastructure. A large number of jobs will be created in the informal sector.'… 'So, the government has to do a few basic things - provide infrastructure like roads and electricity and a legal system for effective labour and land markets. *The rest will happen organically*, from the enterprise of the people, drawing on the nation's ample land and labour, setting up small manufacturing units and back office work in small towns scattered around the nation'.[6]

While grounded intellectually in the 1970s growth pole/centre literature that accompanied the Green Revolution in agriculture, and promoted 'supply-led' central places for public goods and services[7]—this new 'urban turn' is justified by strong claims: that it will staunch migration from the countryside to the metropoles (Basu's 'sucking labour'), reduce regional inequality, and address congestion, pollution, environmental degradation, poverty, ill-health, ignorance and crime.[8] The creation of '*competitive towns*' will release thwarted capacities for innovation and mop-up unemployment. An emerging spatial pattern of metros, urban-industrial corridors, SEZs and a network of competitive towns will exploit India's advantages of low prices for land and labour, flexible employment practices and 'tax holidays' (Denis and Gnanou 2011).

Thus ironically enough, in a business oriented, neoliberal era, a new leviathan of supply-driven rational planning has been conceived to direct and manage the rushing waters of India's demand-driven informal economy.

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[4]See World Bank (2003), ESPON-EU (2012).

[5]See De Bercegol and Gowda (2014) for an analysis of the problems of decentralized services in small towns in UP.

[6]BBC, 31st Jan 2014, http://www.bbc.co.uk/news/world-asia-india-25742983. Emphasis added.

[7]Andrade (1972), Sen (1972), Mosely (1974), Harriss (1978), Lucci (2014), Denis and Gnanou (2011).

[8]World Bank (2003), ESPON-EU (2012).

11.2 Planning a Small 'Competitive Town' in Tamil Nadu

In the case of Arni, the Tamil Nadu State Urban Development Fund, established in 1996 as a World Bank assisted trust-cum-public–private partnership to link civic financial needs with capital markets, has outsourced the plan for the town (and that of other towns, with which it is sometimes confused in the Arni report)[9] to its fund manager, Tamil Nadu Urban Infrastructure Financial Services Limited.[10] In turn this has outsourced it to Voyants Solutions Private Ltd. Voyants Solutions gathers data and holds a small number of stakeholder meetings, resulting in 'City Corporate cum Business Plans'. At the foot of a hierarchy of five institutions (if we include the Government of Tamil Nadu and the local municipality as stakeholders), Voyants has no responsibility for the outcome of the plan. Problems of co-ordination and deficits in accountability result.

The Five-Year Plan for Arni (TNUIFSL 2009a) is publicly available.[11] Since it is cast in a problem-solving paradigm, we can look at how it identifies development problems and solutions, and what it makes of the economy—the subject of our book. And while not a specific focus of our collective research, the state's role in infrastructure has threaded its way throughout these chapters, enabling the various perspectives developed here to be used to comment on this vision for Arni's future.

11.2.1 Arni's Problems

The plan identifies Arni's deficits—indeed urban development is defined in terms of remedies for deficits: the town's lack of highways and rail connectivity, narrow encroached-on roads without parking spaces, a three-decade-old, inadequate and leaking water supply (p. 70), a hazardous state of sanitation and solid waste management, next to no storm-water drains (p. 40), a lack of 'parks' for recreation (pp. 10, 15) (what used to be grassy spaces for defecation are now bald); understaffing in education and health (pp. 30, 51) and a poor quality burial ground (p. 52). The only thing that is not in deficit is pollution of all kinds (p. 17).

Certain kinds of infrastructure that are essential preconditions for growth, notably electricity and major highway connections, are seen as problems and deficits but they are out of the municipality's control.

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[9]In the plan, Arni is confused with Vaniyambadi (p. 8), Ranipet (p. 113) and Thiruvathipuram (p. 4).

[10]http://tnuifsl.com/tnudf.asp.

[11]http://municipality.tn.gov.in/arni/Arani.pdf.

11.2.2 The Urban Economy

Other attributes of the town that are in deficit in the plan are its real economy and its physical fabric. For reasons explained in Chap. 1, the plan greatly underestimates the size of the town, putting its population in 2011 at only 63,671, and predicting it to reach 100,000 by 2039 (pp. 8, 12).[12] The immediate demand for (private) construction—which the plan puts at precisely 3,183 housing units—is therefore massively underestimated (p. 23). Between 8 and 10 slums are also identified, small lines of homes lacking any infrastructure at all, scattered through the town, and housing, according to the plan at one point 11 % of the population, and at another 15 %.[13] 'Slum renewal' does not mean rebuilding, it means the provision of currently unavailable infrastructure, since slum housing itself is private property. Elsewhere, and in contrast to the Chamber of Commerce, Chap. 1, 32 % of the town's population is characterized as poor: according to the plan these are largely long-resident migrants (pp. 23–24).[14]

The economy is described in terms of the land area occupied by various branches: thus a mere 1.6 % of the economy is said to consist of commerce—a very large underestimate of its economic and also its physical importance (Fig. 3.2, p. 12). The estimate of self-employed traders—at 1230 (p. 65)—more closely resembles the number found in our census of 1973 than numbers today.[15] The plan provides but a faintly recognizable description of the town's economic base, and no quantitative information on it: it is said to rest on silk, 'agriculture', 'beekeeping and poultry'—with rice milling added as an afterthought (p. 10), and the paddy rice trade buried even deeper in the report (p. 21). That 78 % of the workforce examined in our book is classed as 'other' (p. 10) makes the real nature of the economy even more mysterious.[16]

The planners see the town's unique selling point as silk. They note its cooperative marketing societies (but not how unimportant and moribund they are compared with private business), and picture it as little touched by globalization and uninnovative. They envisage a series of state initiatives to develop it in the longer term as part of a general skills upgrade in an industrial district for silk extending all the way to Tiruvannamalai in the south where it currently does not exist. Voyants does not notice the town's other clusters—rice, gold and education. Nor do they see a

[12]This is the kind of precision that has been termed 'magical realist'! See Denis and Gnanou (2011) for a full All-India analysis of this problem.

[13]Eight slums (p. 23), 9 slums (p. 53) and 10 slums (p. 9).

[14]No source is given for this statistic.

[15]Harriss (1991, p. 184). In 1973 using first hand visual mapping there were estimated to be 1196 private self-employed firms.

[16]Another local urban plan—for Ambur also exemplifies 'the planners' tepid approach to long-term planning for the town's base industry' (Coehlo and Vijayabaskar 2014, p 107).

need for the encouragement of collective efficiencies for firms and human development of their labour forces.[17]

Unlike the discipline of economics, Voyants' planners do see Arni's economy as a waste-producing system—18 tonnes of it a day, to be precise, two-thirds of which is not recycled but dumped (pp. 42–43).

11.3 Solutions

Arni's immediate Five Year plan requires an investment of Rs. 83.8 cr (£8.4 m; $14 m), 70 % of which is for retrofitting water supplies, sewers and storm drains and the upgrading of solid waste disposal, 20 % to be spent on roads and transport related infrastructure and the rest on a shopping complex to be built on a former bus stand (municipal land) and rented out 'for merchants' (pp. 51, 57, 65), a slaughter house (for beef in small print)[18] and a new flower and fruit market.

11.3.1 How? Governance Resources and the Economy of Non-compliance

In the view of Voyants' planners the municipality is both agent and client of the plan. In addition to the well-known lack of relevant skills and competences on the part of both elected local representatives and employees (De Bercegol and Gowda 2012, 2014), the Arni plan lists administrative pathologies such as outdated procedure, fragmented governance structures and functional overlaps (pp. 85–87). But like other small towns it also lacks administrative resources. Some of these are broadly technological: for example the municipality lacks the capacity to connect water to houses because it cannot map property or even name streets (pp. 86–87). But much institutional scarcity results from lack of funds.[19]

Here Voyants' evident skills in local municipal finance and accounting come into their own. Compared with other provincial towns in Tamil Nadu, the planners

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[17]See Hashim et al. (2010), especially their conclusion for a useful discussion of the problems of clustered small firms.

[18]As well as a public health matter, the slaughter of cattle is politically sensitive. Tamil Nadu is part of a subset of states permitting the slaughter of bulls and buffaloes but not of cattle. It does not ban the consumption of beef. http://www.outlookindia.com/article.aspx?280787.

[19]Mathur (2013), discusses and criticizes the modes of addressing India's municipal fiscal gaps. These include establishing basic governance activities such as data bases, accounts, audit, surveillance against corruption, implementing property tax, provisioning essential service and protection against fire. He concludes: 'The finances of municipalities in India are in a highly unsatisfactory state, adversely affecting, on the one hand, the productivity of cities and towns and, on the other, the quality of life.' (p. 26).

judge Arni's revenue-raising performance as poor. Local tax efficiency (on property and professions) is between 65 and 70 % (pp. 53–54, 59). Taxes on water reflect its citizens' responses to poor water connections and services. At 41 % they are 'very low' (p. 67). Poor revenue collection has been attributed to urban poverty (De Bercegol and Gowda 2014). But in Tamil Nadu it has been shown to result more from a culture of fiscal non-compliance (Jairaj and Harriss-White 2006). In 2003 we showed how Arni Municipality, in particular, had proved better at taxing 'people earning less than its own employees than it was at taxing the elite' (Harriss-White 2003, p. 86).

What taxes are collected tend to be paid in a highly seasonal fashion, towards the end of the tax year. A single tax official, often still collecting tax personally and on foot, has to deal with an average of 2,100 households (p. 66). With just 12,500 properties taxed, and no revision since 1998, it is hardly surprising that the growth of revenue collection is declining. Other regressive consequences include, as we have seen, the informal privatization of public services, from education to refuse disposal, and the penetration of the local state by private status as well as private interests, both of which still shape municipal performance (Harriss-White 2003, pp. 88–91). Meanwhile Arni's municipal budget is bailed out by ever-increasing transfers from Tamil Nadu state, and 'ad hoc compensation' (for services like 'roads, buildings, maternity and child welfare, public health, contributions for elementary and secondary schools' (p. 56)) which is growing at even higher rates.[20] So, if interest on debt and depreciation on assets are factored into the accounts, the municipality is in a state of chronic financial deficit and seriously dependent on bail-outs from Chennai and the politics of clientage associated with them.

Yet Arni's municipality, under-resourced through local revenue non-compliance as well as an artificially tight boundary; under-staffed and under-skilled; suffused with private interests; both a patron and a client of local capital but ultimately not a match for local business and unable to control investment in key infrastructure, such as power and major road and rail transport connections: this municipality is envisaged as directly undertaking no fewer than 27 projects (p. 111), and co-ordinating a further 10 to be implemented by other agencies.[21]

[20]The growth rate of revenue from property taxes declined from 5.6 % in 2000–3 to 2.9 % in 2006–7—the latest year for which information is supplied. That of professional (occupational) tax declined from 7 to 2.5 % over the same period. Meanwhile state transfers grew at between 10 and 18 % p.a. and ad hoc grants at much more—between 23 and 43 % p.a. (pp. 53–58, 61–62, 66).

[21]These projects involve tapping the local dried-up river downstream to pipe back water, retro-fitting sewerage throughout the municipality, community participation in solid waste management, patching drains, ad hoc reduction of the cost of street lighting, widening of roads, infrastructure for slums, and a new beef slaughter house. Longer term—and with state-level investment would come a national highway, rail extension, and a handloom export zone (TNUIFSL 2009a, Chap. 10). Road widening through the centre of town, complete with barriers against pedestrian crossing, reconfigures the central business district on either side of in the way vividly described for Ambur nearby (Coehlo and Vijayabaskar 2014).

Small wonder, then, that the plan fashionably encourages the displacement of vital projects like solid waste management (18 tonnes a day, half non-biodegradable, medical and other hazardous waste not separated) to ‘NGOs, voluntary organizations or even residents associations’ in order to ‘reduce costs’—or even perhaps to make ‘remunerative ventures’ (pp. 31, 42–43).

Small wonder too that the municipality is enjoined to borrow to the hilt and to privatize and commercialize all it can: from the parking of vehicles, charging for water, managing waste, street lighting and future public toilets, commercializing compost and manure, setting profitable rents from the future shopping complex, and extracting commercial user fees for the slaughterhouse and improved burial ground. But borrowing requires financial management and private outsourcing requires regulation, the costs of which the plan omits to mention. The plan thus mixes State-led planning and municipal enterprise with privatization and state downsizing in a way that is hard to envisage even if its evidence base were less unbelievable than it is.

The suggested solution to the evident need for municipal reform (p. 93) is improved revenue collection and innovation in e-governance: reform of accounting practices, data warehousing and computerization of records, GIS mapping etc. This in turn requires a different order and kind of IT-savvy, audit-aware staff. Plus ‘public awareness’ (p. 89).

11.4 Perspectives from the Arni Project

In this approach to small town development, it is infrastructure rather than the local economy that is implicitly theorized and explicitly planned to drive the growth of ‘competitive towns’. The granular story of Arni in this book shows that, although infrastructure is undeniably important and needed, the relationship is one of mutual feedback—if anything causation works the other way round with infrastructure provided in response to political demands from local business leaders (see Basile, Chap. 6).

Arni’s plan infers the existence of the real, informal economy through reference to slums, squatting and encroachment on public and private land (p. 89), and by indicative facts—for example when it mentions that the single officer who is in charge of sanitation and health has responsibility for ‘the prevention of Food Adulteration, conservatory work including sweeping of Streets, maintenance of Drainage, controlling of epidemic diseases, ensuring of license to D&O [dangerous and offensive] trades, Birth and Death Registration, …removing of dead animals and stray animals… and solid waste management’ (p. 28). (S/he is helped with these impossibly wide-ranging responsibilities by 60 sanitary workers.) But throughout most of the plan the informal economy might as well not exist and does not need regulating.[22] The fact that the plan will require the homes and sites of work of the poor to be displaced without any mention of compensation says it all.

Further evidence of how the official mind sees the real economy can be seen in its risk register (Chap. 11). *Almost everything* is a *risk* to the plan: land ownership information is often found inadequate; the housing stock and its water and sewer connections are not accurately recorded; much construction is 'unapproved'; the 'inherent defects of the system' (p. 80) seems to refer to leakages, not only of water and electricity but also of finance; the interface with the economy on which the favoured public–private partnerships depend, is characterized by risks of unavailable contractors, poor quality work, outmoded practices, and inadequate legal and technical capabilities. Plans risk being resisted (Chap. 11, pp. 79–87).

The regulation of the economy is out of municipal/state control and planning. The plan shows no understanding of the relationships that generate the informal activity that constitutes the real economy and dynamism of Arni, for example the way lack of equipment leads to poor public services, demand for which creates private moonlighting, the poor quality of which reinforces demand for private provision. Though based on the doctrine that small towns are to create employment and stem out-migration to cities, the plan for Arni has no concern about means to improve the quality of livelihoods. In the spirit of the statement by Basu quoted earlier, 'the rest will happen organically'. In an economy which this book shows is still structured partially through caste (and enduringly through gender), the plan shows no comprehension of the public resistance there will undoubtedly be to investments in facilities like the beef slaughter house, the flower and fruit markets, sanitation and the removal of solid waste, all of which involve favours to *Dalits* and Muslims.[23] There is a manifest rift between the plan and the town's real economy.[24]

The official narrative of Arni in the Arni plan marginalizes and often completely fails to recognize the resourcefulness and incessant efforts[25] of a lakh of local people that make the town's real economy what it is: capitalists, petty producers and traders and wage labour, family businesses and business families, in a complex, interdependent and above all informal dynamic nexus. Whether the conditions can

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[22]Exactly the same cavalier approach to the economy is taken in the very similar plan by the same agencies for the town of Ambur to the north-west, with a similar focus on creating a skilled workforce, and ensuring inclusive, sustainable and balanced regional growth" the difference being the proximity of Ambur to the Chennai-Bangalore 'industrial corridor of excellence' which Coehlo and Vijayabaskar (2014) show contains forces likely to underdevelop such towns (see also TNUIFSL 2009b).

[23]See Harriss-White (2014) for evidence.

[24]The rift between plan and reality is recorded, it seems, wherever it has been studied—see Kennedy and Zerah (2008). The rift explored and confirmed by Champaka Rajagopal, for the planning of the Pete quarter in Bangalore leads her to conclude that planning needs to reform its practices from 'top-down' to iterative consultation, with the planner as negotiator and co-ordinator. But planners would have to be responsible for implementation, way outside the scope of the kind of planning envisaged for Arni. In such 'flexible planning' the planner also risks being manipulated and captured (Rajagopal 2008).

[25]The phrase is from Appadurai (2010), referring to 'the local'.

even be imagined in which this economy could become formally regulated, as the plan assumes, is not a question the plan even considers; nor does it contemplate the kind of social transformation that would address fiscal non-compliance,[26] so essential to its financial assumptions. Instead it heaps unrealistic goals on the town's beleaguered governing body, the municipality.

Whatever the future holds for Arni, it is unlikely to be the one in this plan, which is a familiar case of addiction to air-conditioning. It reinforces our call for field research of the kind which, along with others elsewhere, we have tried to contribute in this book.

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Chapter 12
The Arni Studies Bibliography, 1976–2014

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