

## CHAPTER 2

### CRITICAL ISSUES IN INDUSTRIAL POLICY

This chapter, which is organised in five main sections, discusses the literature on industrial policy in order to set the theoretical framework for the analysis of industrial policy in the context of the Mozambican economy. Its main argument is that the analysis of industrial policy should be guided by the understanding of the underlying economic and political relations upon which the process of industrialisation depends, because these relations govern the specific economic formation that policy targets. In this context, the chapter suggests the adoption of the linkages-agents analytical framework for the study of the dynamics of industrialisation and industrial policy formation and implementation. This framework consists of the identification of economic pressures (or linkages) and agents (and their interests and relations) that foresee and implement (or not) potential linkages, as well as the analysis of how linkages and agents combine dynamically to shape the process of industrialisation and policy decisions.

The chapter is organised into five main sections. The first introduces the main themes in the industrial policy analysis and debates. It argues that despite the large variety of issues discussed and analytical traditions, the literature on industrialisation and industrial policy can be organised around two major pegs: (i) the role and nature of the *agents* of industrialisation; and (ii) the *linkages* between economic activities in the process of industrialisation and economic development as a whole. It also criticises the fact that most of this literature is focused on either agents or linkages, rarely discusses the dynamic relationship between the two, and consequently is strongly influenced by the narrow “state versus market” debate.

The second section discusses definitions of industrial policy. It argues that the way industrial policy is defined reflects different perceptions of the process of industrialisation and role of policy in it, as well as the interests of different agencies involved. It also argues that industrial policy can only be adequately defined in a broader context of analysis of the socio-economic conditions of industrialisation in specific cases and time periods. Besides, it is argued, this is what the richness of information made available by detailed case studies shows.

The third section discusses opposing views of the process of industrial development and the role of policy. Orthodox arguments, based on neo-classical economics, separate markets and economics from states and politics, emphasise the positive role of the market and the pervasive role of the state, and restrict industrial policy to the sphere of transactions and to a choice between two artificially separated, and inadequately defined trade regimes – import substitution (ISI) and export orientation (EOI). These views are opposed by heterodox arguments from proponents of industrial policy, which are based upon different groups of structuralists, institutionalists and other analytical traditions that reject the perfect competitive model of economics. The heterodox views are generally focused on the production side of industrial policy, criticise the ISI versus EOI interpretation of the industrial process, but often accept the terms of the debate when it comes to the state versus market controversy, although the heterodox views emphasise the other side of the coin, the positive role of the state.

The fourth section summarises and criticises this debate, particularly the state versus markets controversy that transforms industrial policy into the reversal of the orthodox concept of markets. It argues that there is no abstract case for industrial policy, as there is no industrial policy in abstract. Industrial policy is more adequately developed not from beliefs concerning the relative efficiency of markets or states in delivering potential economic linkages, but from real socio-economic conditions, problems and alternative solutions, that involve agents and potential and real linkages and their dynamic relationship. The fifth section defines how the main conclusions developed in this chapter will be used to analyse and discuss the Mozambican case of industrialization and industrial policy.

## **2.1 Themes of the industrial policy debate – an overview of the literature**

The vast and increasing literature on industrial policy covers a wide range of thematic issues, such as technological acquisition and capabilities, innovation, industrial organisation and networks, privatisation, finance, globalisation and foreign direct investment, trade policy, exports, institutions, inter-sectoral linkages, studies of specific industries, environment and gender, to mention just a few.<sup>1</sup>

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<sup>1</sup> See, for example, Lall 1992a and 1992b, 1993a and 1993b, 1994 and 1996, and Wangwe 1992, 1994 and 1995 (for technological change and capabilities, exports and trade policy associated with industrialization); Amsden 2001 and 1992 Chang and Rowthorn (eds.) 1995 (for late industrialisation and the role of the state); Amsden and Euh 1990, Akyuz and Gore 1996 and Akyuz and Kotte 1991 (for finance and industry); Amsden 1989, Jones and Sakong 1980, Dore 1986, Johnson 1982, and Chang 1996 (for institutions and government-business relationships); Fine and Rustomjee 1996, Karshenas 1995, Hirschman 1958 and 1981 (for economic linkages and inter-sectoral linkages); Alcorta 1998, and various articles in Chandler et al (eds.) 1997, in Aoki and Dore (eds.) 1994 and in Ebers (ed.) 1997 (for

Many studies describe country and sector experiences of industrial policy in great detail, thus contributing to a much better understanding of how industrial policy works (or not) in particular cases.<sup>2</sup> Other studies focus on incentive mechanisms associated with industrial policy – whether through the market mechanism or policies put in place by the state to help, encourage or force firms to invest, cooperate and comply with policy priorities – and on the identification of main economic and political factors that influence investment decisions and the behaviour of investors.<sup>3</sup> Another group of studies analyses the relationship between industrial policy and the economy as a whole, in particular in the context of macroeconomic stabilisation and adjustment and market and price liberalisation.<sup>4</sup> Finally, a smaller number of studies discuss how development goals and policies emerge from the relationships between agents, institutions and economic conditions.<sup>5</sup>

Despite this variety of themes and angles of approach, it is possible to organise this literature around two pegs: the *agents* of development, in which the state versus market debate is the dominant form; and the mechanics of development, or *linkages* between sets of economic activities that that generate growth and development.

### **Agency literature**

The *agency* literature is strongly influenced by the state versus market debate, which reflects and receives its major influences from two opposing sides. On the one hand, orthodox economics argues that economic growth and industrialisation are determined by the degree of freedom that markets have to allocate resources according to comparative advantages, and

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industrial organization, scale and scope and networks); Kumar 1998, 1996a, 1996b, and 1995, and various articles in Michie and Smith (eds.) 1998 (for globalisation and foreign direct investment); Bayliss and Fine 1998, Bayliss and Cramer 2001, Castel-Branco and Cramer (forthcoming), Cramer (2001) and 1999, Fine 1997a (for privatisation and industrial policy).

<sup>2</sup> See, for example, Johnson 1982 and (ed.) 1984, Dore 1986, Chang 1996, Jones and Sakong 1980, Jenkins 1991a and 1991b, Amsden 1989, Lall and Wignaraja 1996, Edwards 1995 and Wade 1990.

<sup>3</sup> See, for example, Lall 1992a and 1993b, Cramer 1999, Jenkins 1991a and 1991b, Edwards 1995, and Chandler, Amatori and Hikino (eds.) 1997.

<sup>4</sup> See, for example, Corden 1980, Rodrick 1986 and 1995, Akyuz and Gore 1996, Nixson 1986, Helleiner 1992, Stewart 1992a and 1992b, Doriye and Wuyts 1993, Wuyts 1997, 1995 and 1989, Amsden 1993, Fine 1997b, Ocampo and Taylor 1998. For an orthodox analysis of how sound macroeconomics enhance the conditions for industrialisation, see World Bank 1994, 1993 and 1989.

<sup>5</sup> See, for example, Amsden 1985, Bairoch and Kozul-Wright 1998, Grabowski 1994, Fine 1997b, Fine and Poletti 1992, Fine and Rustomjee 1996, Fine and Stoneman 1996, Kim 1997, Khan 1995, Kholi 1994, Rodrik 2000 and 1995, Stein 1994b.

individuals enjoy to take investment and other business decisions that maximise their welfare according to market signals and competitive conditions. Market efficiency is inversely related with state intervention such that the role of the state should be restricted to minimising market failure. This could be done through public provision of social capital, social and economic stability, a competitive business environment and static coordination to correct for information failure.<sup>6</sup> This is the influence behind the Washington consensus, which emphasises stabilisation, liberalisation and privatisation, and behind the post Washington consensus, which also includes the need for specifically located state interventions to correct for information failure and uncertainty at different levels and in various sectors.<sup>7</sup>

On the other hand, proponents of industrial policy argue that dynamic and sustainable growth and development are not achievable through market forces alone because of the need to distort market signals, to coordinate decision-making and reduce uncertainty, encourage learning and innovation, and to implement strategies that yield higher social than private returns. These conclusions arise from the belief that economic growth is driven by a process of creating market imperfections in production (economies of scale and scope, product differentiation, innovation, firm and/or industry specific assets, knowledge and skills, externalities, linkages, vertical integration), which are conducive to social construction of new productive capacities and assets.<sup>8</sup> Besides, the understanding of development as a process that violates the fundamental assumptions of perfect competition renders the neo-classical argument inadequate. In this context, growth and liberalisation may not be associated, and if they happen to be, causation is more likely to run from growth to liberalisation. This is because production experience enables firms, industries and economies to acquire competitive advantages and the knowledge needed to penetrate new markets, and only when firms have done so will they need to be free to explore to the full their newly acquired market influence. However, free markets do not drive the process by which firms acquire competitive capacity because firms are not born efficient.<sup>9</sup> In this view, development requires the hand of the developmental state in dynamic interaction with markets and private firms, where the former provides performance related incentives for dynamic accumulation according to perceived priorities and opportunities, coordinates competing and complementary investment, nurtures sunrise industries, helps mature industries at crucial turning points and coordinates the

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<sup>6</sup> See Balassa 1990 and 1988, Krueger 1998, 1990a, 1990b and 1974, Lal 1984, Tirole 1997.

<sup>7</sup> See Fine 1997b and various articles in Fine, Lapavistas and Pincus (eds.) 2001 for a critical comparative analysis of the Washington and post Washington consensus.

<sup>8</sup> See Amsden 1997 and 1992, Bayliss and Cramer 2001, Chang 1999 and 1996b, Evans 1995.

process of structural adjustment of sunset industries to minimise social costs and maximise the opportunities for productive re-allocation of labour and capital.

In this context, two strains emerged from the agency literature. One is concerned with the theorization of the market mechanism and firms (theories of industry and strategy, imperfect competition, imperfect information, privatisation and (de-) regulation, etc). The other is focused on the theorization of the state and other so called non-market institutions (political economy of the state, institutionalist and capability interpretations of the state, networks, social capital, etc.). The “market literature” evolved into two directions: (i) the quantity theory of competition, which argues that no matter how imperfect the market is, more market is better than less market;<sup>10</sup> and (ii) the imperfect theory of competition, that envisages the market mechanism systematically achieving sub-optimal solutions due to imperfect information and uncertainty.<sup>11</sup> The “state literature” also developed into two branches: (i) the “institutional”, which studies the state as a process of organizational capacity building, how it links with systemic market failure and its role in promoting developmental policies;<sup>12</sup> and (ii) the “political economy of the state”. The latter evolved into three alternative directions: (a) the political economy of state failure, from which have emerged the notions of informational failure, state capture by organized capital and labour, rent-seeking and the notion of the predatory state;<sup>13</sup> (b) the developmental state, which looks at how state autonomy (from class and/or other socio-economic and political pressures) can be built to ensure economic efficiency of state intervention;<sup>14</sup> and (c) the dialectical state, which discusses the state from the point of view of the political and socio-economic pressures that act with and upon it, and its dynamic relationship with other agents within specific processes of accumulation.<sup>15</sup>

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<sup>9</sup> See, for example, Amsden 2001, 1997, 1993 and 1992, Amsden and Euh 1990, Chang 1999, 1998a and 1996, Cramer 2001 and 1999, Hirschman 1958 and 1981, Hirway 1998, Leahy and Neary 1999, Mukhopadhyay 1998, Nelson and Pack 1999, Ocampo and Taylor 1998, Shafaeddin 1994.

<sup>10</sup> The concept of “quantity theory of competition” was first critically introduced by Weeks 1994. Amongst others proponents of this theory see Krueger 1998, Lal 1984, World Bank 1997, 1996a, 1995a, 1994 and 1993a. In addition to Weeks, for a critique of the theory see Bayliss and Cramer 2001.

<sup>11</sup> See, for example, Sing 1992 and Stiglitz 1998 and 1996. See Fine 2001b for a critical discussion of the information economics background of the post-Washington Consensus.

<sup>12</sup> See, for example, Amsden 2001, 1992 and 1985, Chang 1996, Somel 1993.

<sup>13</sup> See, for example, Krueger 1974, 1990a, 1990b and 1998. Chang 1996, Deyo (ed.) 1987, Khan 1995 and Kholi 1994 provide useful critical discussions of this literature.

<sup>14</sup> See, for example, Evans 1995, Hamilton 1983, Jenkins 1991a and 1992b.

<sup>15</sup> Fine and Stoneman 1996, Jenkins 1991a and 1991b, Jones and Sakong 1980, Kim 1997, Wade 1990.

## Linkages literature

The “linkages”, or economic, literature discusses the relationship between economic activities in the process of development. The definition of linkages varies from the narrow, technically established input/output relationships (backward and forward, downstream and upstream linkages), to broader concepts that define linkages existing whenever an ongoing activity gives rise to economic or other pressures that lead to the taking up of new activities<sup>16</sup> (e.g., from manufacturing production to development of technology, specialised financial and marketing institutions, technological capabilities, and education and training schemes; or from import substitution to learning, scale, competitiveness and exports; or from exports to market expansion, knowledge acquisition, development of transports and other infrastructures; inter-sectoral linkages beyond input/output,<sup>17</sup> etc.).

This literature is diverse but can be categorised into two main strains according to how they understand the importance and the process of linkages. One branch sees all economic happenings coming from balances between supply and demand through the linkage of the market, following Say’s law that supply creates its own demand. This branch of the literature, which comprises pure versions of the neo-liberal model, defines linkages narrowly in terms of input/output relationships, minimises the developmental role of linkages, particularly with respect to domestic linkages,<sup>18</sup> and instead focuses on individual project efficiency and optimisation of investment decisions according to comparative advantages.<sup>19</sup> It also includes neo-liberal versions of endogenous growth models that recognise the role of linkages in economic growth (for example, between exports and accumulation of knowledge, or between accumulation of technological inputs and the rate and pattern of economic growth), but see the market as the only efficient mechanism to reveal potential linkages and through which such linkages may materialise.<sup>20</sup> Lucas, for example, discusses the positive external effects of skilled labour upon the level of productivity of unskilled labour, of returns on various technological and social infrastructures upon the marginal productivity of capital, and of

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<sup>16</sup> Hirschman 1958 and 1981, Sender and Smith 1986, Stewart and Gani 1981.

<sup>17</sup> For example, the agriculture/manufacturing linkage can be narrowly defined in terms of supply of raw materials and equipment; or, more broadly, as encompassing transfer of financial surplus, shifts in labour allocation, provision of cheap food and technological development, and change in social structures and dynamics. For a debate, see for example Karshenas 1995 and Dasgupta 1980.

<sup>18</sup> Conscious effort to promote domestic linkages is seen as market distortion. Since linkages are narrowly defined in terms of input/output relationships, promotion of domestic linkages is seen as import substitution.

<sup>19</sup> Athukorala and Santosa 1996, Krueger 1998 and 1990b, Little and Mirrless 1974.

<sup>20</sup> Bayoumi, Coe and Helpman 1996, Eaton and Kortum 1995, and Lucas 1990 and 1988.

structural adjustment of the economy upon training needs. However, he assumes that these linkages result from the optimisation of the market mechanism and exchange. According to this literature, the policy concern with linkages, if any, should focus on enabling markets to operate well enough to perform the linkage between economic activities, but linkages are not a central concern of economic policy.

Another branch of the linkage literature argues that development is essentially a process by which one economic activity leads to others and to pressures for socio-economic and technological change. Thus, linkages become a central part of the growth process, and development policies and experiences are assessed partly by the way they promote and guarantee dynamic, developmental linkages. Common themes in this literature include, amongst others, Hirschman's model of unbalanced growth and development creating economic pressures that generate linkages;<sup>21</sup> the infant industry argument;<sup>22</sup> the technological capacity debate;<sup>23</sup> the literature on the role of the manufacturing industry in creating dynamic and cumulative linkages;<sup>24</sup> the inter-sectoral linkages literature;<sup>25</sup> and the finance-investment-growth *nexus*.<sup>26</sup> This literature sees the state as the central agency involved in the realisation of linkages potential, in part because linkages play the central role in the determination of rates and patterns of economic change and growth, and also because linkages typically yield higher social than private returns and require the coordination of enough complementary investment. Therefore, linkages require strategy, and a crucial component in the design of strategy is to identify and coordinate the sequence of events such that a chain of successive, positive linkages is actually generated.

For example, it is generally accepted that macroeconomic and industrial performance are linked through export earnings and employment, demand, investment, savings, interest and exchange rates, balance in the main factor markets. However, it can be argued that macroeconomic and industrial policies are organically separated, positive links occur naturally as a result of "sound" macroeconomic policies and free trade, and to materialise these externalities little more is required apart from stability, flexible business environment and removal of market distortions.<sup>27</sup> Alternatively, coherence between macroeconomic and

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<sup>21</sup> Hirschman 1958 and 1981.

<sup>22</sup> Amsden 2001, Chang 1996, Nelson and Pack 1999, Ocampo and Taylor 1998, Wangwe 1995.

<sup>23</sup> Lall (ed.) 1999, 1993a and 1992a, Lall and Wignaraja 1996, Teubal 1996.

<sup>24</sup> Kaldor 1967, 1961 and 1957, or Weiss 1985 (for a comprehensive review of this classical literature).

<sup>25</sup> Karshenas 1995, Nixon 1986, Nelson and Pack 1999.

<sup>26</sup> Akyüz and Gore 1996, Amsden 1993, Amsden and Euh 1990, Borenzstein, Gregório and Lee 1995.

<sup>27</sup> Corden 1980, World Bank 1981 and 1989.

industrial policies can be perceived to be crucial to policy, such that macroeconomic policy is shaped to respond to the needs of industrial strategy, and industrial strategy is formulated to take account of and improve macroeconomic conditions. Linkages are no longer market determined but a result of dynamic and developmental policy.<sup>28</sup>

## Conclusions

The agents and linkages analysis has helped to uncover a huge variety of experiences and detailed accounts of successful and unsuccessful development processes, and to sharpen the theories and analytical methodologies in use. Nonetheless, there are two major problems with this literature.

First, the debate usually takes agents or linkages as given, depending on whether it is focused on linkages or agents. Moreover, it rarely discusses the dynamic relationship between agents and linkages. Rather than simplifying and focusing the debate, the analysis of agents and linkages independent of each other obscures the debate. Furthermore, this analysis requires strong assumptions about the ability and willingness of agents to pursue given developmental linkages. It also makes linkages (or economic processes and pressures) independent of political conditions and socio-economic interests, and agents autonomous of economic processes and conditions.

Hirschman's attempt to relate agencies and linkages is constrained by the limits of his own model. He establishes that the implementation of potential development linkages that emerge from economic pressures requires agencies capable of foreseeing the opportunities and taking it. Shortage of entrepreneurial capabilities constrains growth and development. However, he envisages that the supply of linkages increases the supply of agencies through demand pressures upon the existing stock of entrepreneurial capabilities. Therefore, agencies become the linkages themselves, and the model cannot exactly explain where the ability and willingness of agents comes from.

Second, the analysis is usually geared around the narrow boundaries given by the "state versus market" debate. The terms of this debate are misleading because states operate through and with markets, and states and markets are subjected to the influence of, and also influence, the same agents and economic conditions.

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<sup>28</sup> Amsden 1993, Amsden and Euh 1990, Bird 1999, Hirschman 1958 and 1981.

## 2.2 Definitions of industrial policy

One of the crucial and yet unresolved problems in the study of industrialisation is the role played by economic and industrial policy and strategy in it. As briefly argued above, the role given to policy depends upon the interpretation of how development processes occur and linkages and agents interact, as well as the interests of groups that are influential in policy making. Before moving forward to a detailed analysis of how these issues are discussed in the literature it is worth pausing for a definition of what is meant by industrial policy, and for an analysis of what are the implications of, and what can be learned from, the debate about the meaning of industrial policy.

The concept of industrial policy varies widely in line with different theories and ideas about the processes of industrialisation, and the interests that are reflected through the state. This has obvious implications for theoretical analysis, interpretation of the evidence, generalisation of lessons from experience and for policy making.<sup>29</sup> The definitions of industrial policy tend to be single-issue oriented (thus, changing over time with new development fashions) or all-embracing (thus, being rendered insensitive to changing conditions, and therefore irrelevant).

The single-issue industrial policy is usually focused on trade (ISI, EOI or some combination of the two)<sup>30</sup> and/or, more recently, on technological change, innovation, development of technological capabilities and productivity growth.<sup>31</sup> These differences have implications for analysis and policy formulation because they study different aspects and areas of state policy and economic development, and tend to emphasise one aspect at the expense of another.

The trade-based industrial policy analysis tends to discuss barriers to trade, factor price distortions and costs of exchange, the absence or presence of which are indicative of more or

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<sup>29</sup> See Chang 1996, Fine 1997b, Fine and Rustomjee 1996 and Johnson (ed.) 1984, for a discussion of different definitions of industrial policy and their analytical and practical implications.

<sup>30</sup> Because of early debates around the infant industry argument, the general debate concerning trade theory and the comparative advantage/specialisation of nations, and more recent debates about economies of scale and scope. Orthodox economists have restricted the debate on industrial policy to transactions, namely the creation and/or reduction of market failure in exchange, as well as the choice between import substitution and export-oriented industrialisation. See Boon 1982, Krueger 1998, Lall 1993b, Little, Scitovsky and Scott 1970, Martin 1999, Ocampo and Taylor 1998, Rodrik 1995.

<sup>31</sup> Because of the dynamics of technological change in the presence of economies of scale and scope, externalities from technological innovation, technological complementarity and interdependence, and asset specificity. See Amsden 1997, Chang 1999 and 1996, Jomo, Felker and Rasiah (eds.) 1999, Johnson 1982, Lall 1994a and 1993b, Leahy and Neary 1999, Nelson and Pack 1999.

less market distortion and policy. This approach separates ISI and EOI trade regimes on the basis of the direction of factor price distortions or neutrality. The technology-based industrial policy analysis is focused on the organization of, and incentive for acquisition and mastering of new technologies and knowledge, increasing factor productivity, managing scope economies and product differentiation, and creating new productive assets. The achievement of these goals is usually considered to require selective, firm and/or industry specific strategies that encourage investment, technology transfer, learning and innovation.

On the other hand, there is the all-embracing industrial policy analysis, which acknowledges that all relevant economic policies influence the pattern of industrialisation, no matter how remotely and indirectly, such that specific and selective industrial policies are not required.<sup>32</sup> This type of definition of industrial policy suffers from two major shortcomings. First, it is too general to be useful in promoting industrial development of any specific form, or helping to understand it. Second, it does not address fundamental issues directly related with the construction of productive assets and capabilities, such that it is of little significance for the purpose of building industrial capabilities.

Chang (1996) suggests an alternative definition of industrial policy that is neither all-embracing nor single-issue:

*We propose to define industrial policy as a policy aimed at particular industries (and firms as their components), to achieve the outcomes that are perceived by the state to be efficient for the economy as a whole. This definition is close to what is usually called “selective industrial policy” (pp. 60).*

This definition has its own purposes, not least to prove the extent of state intervention in East Asian industrialisation through the identification of all specific and selective forms of intervention, formal and informal, directed at particular industries, and firms as their components. Chang’s definition of industrial policy, which is based upon the detailed analysis of the South Korean experience, is particularly useful in three ways: (i) it identifies ways in which the state and the market interact to solve problems that emerge from the process of industrialisation, and the rich detail associated with the many different tasks and forms of intervention that characterise the practice of industrial policy; (ii) in relation to this, it helps to

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<sup>32</sup> As Chang 1996 (pp. 59) puts it, “...industrial policy is used as a catch-all term for policies affecting industrial performance, that is, effectively, any economic policy. Such a practice *overloads* the concept of industrial policy, rendering the concept meaningless”. For proponents of this view, see Corden 1980 and World Bank 1994, 1993a and 1989.

codify experiences for the purpose of learning; and (iii) it demolishes the vague and meaningless concept of industrial policy “accepted” by the World Bank in its “Asian Miracle”,<sup>33</sup> in which it is argued that as far as industry is concerned, state intervention should be restricted to the general provision of infrastructures, human capital and an enhancing and neutral private business environment.

According to Chang, industrial policy involves two major components. The first is related with what he calls the coordination problem in a static dimension: ensuring economies of scale, avoiding overcapacity, guiding structural adjustment of mature and sunset industries and protecting the losers of adjustment. As he argues, the most frequent component of industrial policy in South Korea was the coordination of competing investment, in order to avoid excess competition and social waste of resources.<sup>34</sup> The second component is concerned with what he calls the dynamic dimension of industrial policy that emerges from the infant industry process. This process involves learning and acquisition of technology, coordination of interdependent investment and technical change, the evolution of industries and policies along the business cycle, and the overall socialisation of risk.

He not only identifies a large variety of forms of state intervention that nurture or guide the construction and structural adjustment of industries, but also calls attention to four fundamental aspects that constitute necessary conditions for successful industrial policy:

- *selectivity* – as industrial policy involves positive discrimination because its purpose is to promote some industries, firms and technologies, penetrate some markets, using some tools of policy instead of others, and support firms and industries differently along their natural business and product cycles;
- *flexibility* – as strategies should be changed when circumstances change and/or when the strategy is no longer necessary or is proved wrong, or when the nurtured firms and industries fail to comply with the conditional performance targets;
- combination of *social* and *firm/industry* specific goals – the strategies and policies are aimed at specific industries and firms in order to achieve social goals; and
- the system of *performance related incentives*, whereby firms and industries are promoted in order to achieve specific and concrete targets of efficiency previously

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<sup>33</sup> World Bank 1993.

<sup>34</sup> Chang 1999: pp. 6-7.

defined,<sup>35</sup> and are generously rewarded for complying with such targets and severely penalised if the targets are not achieved.

Therefore, industrial strategies and policies are chosen to achieve very specific economic growth and development goals, under circumstances dictated by the existing managerial, labour, technological and financial capacities, the ability to upgrade and create new capacities, and the trends and future opportunities in real and selected markets and industries. Therefore, industrial policies should not be set to help “sunset” industries and firms to survive at any cost, but to create and nurture “sunrise” firms and industries and help “sunset” firms and industries to adjust and change at the lowest possible social costs.

Chang also discusses the development of the necessary informational, technological, managerial and institutional capabilities around the core themes of industrial policy. Capabilities are endogenous to industrial policy, rather than constraints, not least because of the learning-by-doing effect involved in policy-making and implementation. This is a very important contribution to the debate because of three factors: (i) it puts industrial policy at the centre of a capacity building process, in which the creation of capacity is a function of strategic thinking, organization and action and has specific, rather than general, purposes; (ii) it emphasises the dynamic content of industrial policy; and (iii) it demolishes the argument of opponents of industrial policy, who argue that lack of capacity should prevent LDCs from adopting industrial policies. For Chang, the creation of capacities is a central aim of the strategy and policies and is more efficiently done under clear strategies and policies. Even more emphatically, he argues that the capabilities to identify and pursue strategic goals, and formulate and implement policies can only be developed through a learning-by-doing process guided by industrial policy.<sup>36</sup> In other words, organizations (governments or others) learn to make policy through policy-making, improve their institutional and informational capabilities through policy implementation and evaluation, and develop their social credibility by interacting with the private sector and providing strategies and information that improve economic performance. Thus, between policy-making and capabilities there is a symbiotic and reinforcing relationship.

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<sup>35</sup> Whether through the adoption of a specific technology, the penetration of, or expansion into specific industries and markets, the creation of additional or different managerial, technological or financial capabilities, the achievement of specific efficiency targets associated with exports, productivity, quality, costs, research and development, etc. For detailed case studies of the target related incentives in East Asia see, for example, Amsden 1989, Jones and Sakong 1980, Wade 1990.

<sup>36</sup> Chang 1999 and 1996.

Although Chang's contribution is very important, his focus continues is on the instrumental or functional component of industrial policy: what it can do to bring about higher levels of efficiency than the market would be able to achieve on its own. This is an important limitation in the argument because it abstract from the process of policy formation determined by specific economic, social and political conditions. Although Chang acknowledges the need to set developmental goals and performance targets to guide the content and implementation of industrial policy, he assumes that these goals are determined mainly by the ideological and intellectual foundation of the state. Therefore, Chang's model requires the autonomy of the state relative to socio-economic groups and interests, as well as the ability of the state to impose discipline upon the private sector.<sup>37</sup>

Industrial policy is, in Chang, an instrument to implement development goals perceived by the state. The process of industrial policy analysis collapses into the study of the efficiency path of industrial policy: given the goals, what is the best path for industrial policy and how can the state follow it. This analysis fails to address the "politics" or "dynamics" of the process of industrial policy: where the development goals come from; why the state would take one specific course of action, for example the nurturing of "sunrise" industries, instead of another, for example the protection of the survival of "sunset" industries; which and how interest groups influence and are influenced by the policies adopted, and how the interaction between the state and markets, and between the agents and linkages evolve and affect the relative efficiency of policy.

As pointed out by Fine and Rustomjee (1996), Chang's definition (of industrial policy)

*...continues to suffer from seeking a general categorisation of industrial policy whereas we judge this goal to be inappropriate. For if the way that industrial development takes place (and can be steered) is to be analytically targeted, then this must be the starting-point. From our general framework of linkages and agencies, and their dynamic interaction, it is essential to identify underlying economic and political relations upon which the form of industrialisation will depend. (pp.236)*

They argue that how industrial policy is defined, quite apart from how it is formulated, implemented and monitored, reflects competing economic and political interest that choose to highlight some aspects of policy at the expense of others. As a result, they see industrial policy and strategy as a process of negotiation through different political and economic

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<sup>37</sup> Chang 1996: pp. 121, 123 and 129.

pressures and interest groups, which may help to coordinate different aspects of economic and industrial growth and development in a coherent manner. They also acknowledge that all policies of any significance have an impact on industrial performance. Macroeconomic policies affect demand, interest rates and exchange rates, all of which have a direct impact on industrial performance through access to markets and finance, cost of capital and international competitiveness at the margin. Labour policies also have a direct effect on industrial performance through their impact on industrial relations, wage rates and the skill of the working force. However, rather than devaluing the role of selective, industry and firm specific policies, they incorporate such policies within a much broader and global understanding of general economic conditions of capital accumulation, which calls attention to three inter-related aspects. First, industrial policy is situated within the context of the economy as a whole and responds to a strategy and path of industrialisation that can only be adequately understood in the context of the dynamics of the economy as a whole, including the social and economic interests that influence policy-making. Second, there are several factors that determine which specific policies are adopted or chosen to be mentioned, and to determine why similar policies may yield significantly different results over time and across countries, industries and firms. Third, industrial policy takes place within the framework given by specific economic and political structures and dynamics of capital accumulation.<sup>38</sup>

Different industrial problems under different economic dynamics and structures may call for distinct strategies, policies, sequencing, instruments, institutional settings, etc. It follows that the definition of industrial policy, drawing upon the wide range of options available, should be specific to the problems addressed, which have to be identified and justified. Industrial policy needs to be set in a much broader context, which requires an assessment of the economy and the role of industry within it. This is the only basis upon which industrial policy can be adequately formulated.<sup>39</sup>

Fine and Rustomjee (1996: pp 236) conclude:

*“...industrial policy should not be generally defined, no matter whether on broad or narrow canvas of issues and/or policy instruments. Rather, it should be drawn from the conditions specifically governing the economic formation under consideration”.*

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<sup>38</sup> See Fine 1997b for a detailed debate that covers these points.

<sup>39</sup> Fine 1997b: pp. 16, Fine and Rustomjee 1996.

### 2.3 Opposing views of industrial development and industrial policy

The fundamental tensions in the debate about industrial policy result in the first instance from different views on how economies develop, the role of industry in economic growth and change, how industrialisation takes place, and the relative efficiency of markets and states (and of industrial policy as the expression of this debate) in implementing potential economic linkages. Most of the literature is about the nature of economic change, as determined by the role of agents of development and the economic linkages that form the fabric of a given development path. As will be shown, the different views have fundamental implications for the notion of industrial policy, its relevance and focus.

#### Does industrialisation matter?

The answer to the question “*does industrialisation matter?*” for development is crucial for the subsequent analysis of processes of industrialisation and of formation and implementation of industrial strategy and policies. This question arises from the debate about causation and linkages in economic growth and development, and is historically based on the fact that developed economies have succeeded in creating dynamic manufacturing sectors and systems of innovation and technological progress linked with the manufacturing sector.

The arguments against the special role played by manufacturing, and subsequent attacks on the relevance and desirability of industrial strategies and policies come from orthodox, free-market economists inspired by the neo-classical model of perfect competition, the Austrian “creative entrepreneurs” and the factor endowment-led international specialisation trade theories.<sup>40</sup> Thus, allocative and financial efficiency of individual projects is more relevant than the prioritisation of any single activity or sector per se. It follows that industrial policies and strategies are unnecessary, as Pareto optimal allocation of resources can be achieved through the market mechanism, and/or perverse, if they distort resource allocation away from market determined comparative advantages. Besides, free-market theorists argue that sustainable industrialisation flows directly from efficient allocation of resources in its own time. Accelerating or promoting industrialisation is by definition a signal of inefficient allocation. These theories are not concerned with the function, structure and dynamics of the economic system and its specific sectors, because they see the economy as a discrete sum of

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<sup>40</sup> See, for example, Balassa 1990 and 1988, Krueger 1998, 1990a, 1990b and 1974, Lucas 1990 and 1988. Refer to Chang 1996, Cole, Cameron and Edwards 1991, Edwards 1985, Fine 1997b, Greenaway 1991 and Wangwe 1992 for a critical presentation of theories and arguments.

individual markets for specific factors, goods and services, which will interact with each other in ways determined by relative prices. Therefore, industry matters as much as any other sector, as long as its development is in line with market signals.<sup>41</sup>

The opposing view, which claims that industrialisation is the driving force, or engine, in the process of economic growth and development, comes from a much more heterogeneous group of heterodox scholars who argue that the manufacturing industry is the only sector that yields dynamic increasing and cumulative returns in addition to general demand and pecuniary linkages also generated by others sectors.<sup>42</sup> Dynamic increasing returns are defined by the following six characteristics. First, increases in productivity of capital and labour are continuous and irreversible because of technical change, learning and organizational improvements at the firm and industry level. Second, the manufacturing sector determines the productivity of the economy as a whole through the development and provision of cheap capital and intermediate goods that embody new technologies and knowledge that translate scientific and technological progress into the ability to increase productivity, quality and income. Third, the network of suppliers that develops around the manufacturing sector creates a symbiotic and dynamic link between productivity gains in manufacturing and in the economy as a whole. Fourth, while productivity increases are inversely related to labour employment in agriculture and services, in the manufacturing sector productivity improvements, cumulative output and employment expansion are positively related, such that manufacturing can absorb surplus labour from the other sectors.<sup>43</sup> Fifth, the manufacturing sector is the guarantor that economic expansion does not generate continuous balance of payment difficulties. Sixth, this sector is the most dynamic source of income, demand, savings and foreign exchange that are crucial for its own development, and for the development of the economy as a whole. Thus, the development of a competitive manufacturing sector determines the ability of an economy to develop.

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<sup>41</sup> See, for example, Lal 1984, Little and Mirrless 1974, Lucas 1988 and Krueger 1998.

<sup>42</sup> Kaldor 1967, 1961 and 1957, Sraffa 1972 and Verdoorn 1980. Weiss 1985 presents a comprehensive summary of these classical debates about the role of manufacturing as engine of growth. See also Cole, Cameron and Edwards 1991, and Edwards 1985, for a critical analysis of these debates from the point of view of different schools of economic thought.

<sup>43</sup> The argument is that agricultural expansion is constrained by the supply of land such that technical change that increases yields and labour productivity runs against employment expansion. The expansion of services is determined by GDP, such that given the rate of growth of GDP productivity change in services also runs against employment creation. However, in the manufacturing sector productivity increase is directly translated into more investment because of cost reduction, more demand for services, agricultural and industrial goods, and cheaper capital, intermediate and consumer goods, all of which contribute to improving productivity, reduce costs and expand output, but not the employment, in the other sectors. See Dasgupta 1980 for a critique based upon that social interests determine how surplus resulting from higher productivity is appropriated and utilised.

The de-industrialisation and post-industrial society debates have questioned the role assigned to the manufacturing sector as the engine of growth, which seems to be in part supported by the evidence regarding the declining employment and GDP shares (measured in constant terms) of the manufacturing sector in developed economies. However, critics of this debate argue that the falling manufacturing share of employment and nominal GDP is explained by the leading role of manufacturing in productivity increase and, subsequently, the relative cost-inflation in the services sector due to its lagging productivity growth relative to manufacturing. The fact that manufacturing share of real national expenditure has remained fairly stable supports the argument that manufacturing plays the leading role in productivity growth. Furthermore, with a growing share of (non-tradable) services in the economy, compensating productivity growth in manufacturing is needed for a country to maintain its income level without falling into balance of payment problems. Finally, it is also argued that economies that have neglected manufacturing have lagged behind in productivity and income rates of growth. Increasing returns to investment have been associated with technological progress that is determined by scientific, technological and industrial capabilities and activities. Thus, de-industrialisation of employment is not necessarily an indicator of manufacturing decline, and seems to result predominantly from the leading role of manufacturing in productivity growth, technical change and income expansion.<sup>44</sup>

### **Linkages and strategy**

If industrialisation does matter, does it imply that industrial strategies and policies should be adopted and implemented to ensure that industrialisation takes place?

#### ***Orthodox views: market efficiency versus industrial policy***

##### *A. Market efficiency and derived path of growth*

The major theoretical arguments against industrial strategy and policy come from three different, but closely related, sources. Neo-liberal economics state that in a world where individual agents are small in the sense that a unilateral action of a single agent is unable to change the aggregate outcome, there is no interdependence between agents and therefore

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<sup>44</sup> See Chang 1996, various articles in Johnson (ed.) 1984, and Rowthorn and Ramaswamy 1997 for a detailed critical analysis of the de-industrialisation and post-industrial society debate.

there is no need to coordinate their activities.<sup>45</sup> The Austrian school of thought, despite its sharp criticism of the model of perfect competition,<sup>46</sup> argues that dynamic economies are best left to the talent and animal spirit of entrepreneurs, because no single individual has the required knowledge and cognitive ability to bring about, deliberately, results that are otherwise achieved by the uncoordinated combination of fragmented pieces of knowledge existing in different minds.<sup>47</sup> Orthodox trade theorists argue that countries maximise their production and consumption possibilities by specialising according to their comparative advantages, which in turn are revealed if prices are allowed, through free markets, to represent real economic costs of factors (or relative factor intensity). The mobility of capital and goods associated with free trade, it is argued, accelerates growth and economic transformation, and in the long run results in factor-price and growth path equalization.<sup>48</sup>

As long as all markets are free from exogenously created distortions, each of them, and by simple addition the economy as a whole, will be in equilibrium because relative prices will reflect the relative abundance and scarcity of factors and individual, rational agents will automatically react to adjust their choices and assets accordingly. No coordination, besides price mechanisms, is required for the economy to follow a steady state growth and development path determined by its factor endowments, because all agents know all the relative prices at all times and how to react to them, all resources are mobile, no significant learning outside readily available and transferable codified knowledge, or blueprints, is necessary, and there are no significant adjustment costs and demand rigidities.<sup>49</sup>

Under special conditions, market imperfections may arise, such that for equilibrium to be regained the *market-friendly* intervention of an exogenous and visible hand, the state, is required. State intervention is, thus, the exception rather than the rule, and such intervention

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<sup>45</sup> See, for example, Lal 1984, Krueger 1998 and Tirole 1997.

<sup>46</sup> As Hayek puts it, "...the statement that, if people know everything they are in equilibrium is true simply because that is how we define equilibrium" (1949a: pp.46). Hayek argues strongly against the very concept of perfect competition: "...a state of affairs which economic theory curiously calls "perfect competition", that is, a situation in which all the facts are supposed to be known, leaves no room whatever for the activity called competition" (1978: pp.182). He argues that "...the peculiar nature of assumptions from which the theory of competitive equilibrium starts stands out very clearly if we ask which of the activities that are commonly designated by the verb "to compete" would still be possible if those conditions were satisfied... Advertising, undercutting and improving (differentiating) the goods or services produced are all excluded by definition – perfect competition means indeed the absence of all competitive activities" (1949b: pp.96) (all quoted from Chang 1996: pp. 62-3).

<sup>47</sup> See Chang 1996: pp.72-3 and Fine and Rustomjee 1996: pp.234.

<sup>48</sup> See, for example, Balassa 1990 and 1988, Krueger 1998 and 1974 and Lal 1983. Edwards 1985 and Wangwe 1994 include a detailed, critical discussion of orthodox trade theories.

<sup>49</sup> See, for example, Tirole 1997, and refer to Chang 1996 and Ocampo and Taylor 1998 for a critique.

has to be guided by, and evaluated against, two related measures: what markets would have achieved in the absence of imperfections, and how far the intervention of the state is from hypothetical market outcomes. If the state pursues significantly different goals from markets, the resulting resource allocation would be inferior to market efficiency. This is because the market mechanism, if free, allows individuals to trade according to their endowments and preferences such that a Pareto efficient steady state is achieved where no more exchange is possible without making someone worse off. Thus, any goals and outcomes that differ from what the market mechanism offers, or would offer in the absence of imperfections, are by definition less efficient because they could always be improved. Economic efficiency is measured by market efficiency, which in turn is defined by the degree of regulation – if markets are inherently efficient and non-market mechanisms are inherently less efficiency or inefficient, then the degree of regulation is inversely related with economic efficiency.

Revisionist orthodox economists, associated with information economics and some versions of new growth, new industrial and new institutional theories, adopt these elements of an anti-industrial policy stance, particularly against targeting and selectivity. However, they acknowledge the need for government intervention to provide infrastructures, human capital and an enhancing, neutral business environment (the fundamentals), and to correct market failure that arises in the presence of economies of scale and scope, high fixed and sunk costs, information failure and high private coordination and information transaction costs.<sup>50</sup> More recently, social capital, as a determinant of trust and networking, and a formal and/or informal tool to reducing information failure and ensure efficient transactions, was brought to the fore as another possible justification for public policy.<sup>51</sup> In brief, revisionists accept the need for more state intervention because they identify more market imperfections, while retaining the same overall orthodox framework. The revisionists are, then, faced with a paradox since they distrust the state but when they envisage the need for intervention they assume that the existence of a liberal, benign-technocrat state.

### *B. Industrial policy and trade*

One of the logical results of these theories is the prediction that there is only one path to a steady state growth pattern, and that as a result successful industrialisation processes follow

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<sup>50</sup> See, for example, various articles in Krugman (ed.) 1995 and Krugman and Smith (eds.) 1994, Page 1994, Rodrik 2000, Teal 1999, Stiglitz 1998 and 1996, World Bank 1995a, 1994 and 1993a and Zebregs 1998. For a critique, see Chang 1996 and 1999, Fine 1997b, various articles in Fine, Lapavistas and Pincus (eds.) 2001 and Harriss, Hunter and Lewis (eds.) 1995.

<sup>51</sup> See various articles in Baron, Field and Schuller (eds.) 2000 and Fine 2001a and 2001c for a detailed discussion and critique of the concept of social capital and its uses.

the (neo-classical) predicted pattern of development from labour to capital-intensive industrial structures. In essence, developmental linkages, according to the orthodox view, are market-determined outcomes that result from a gradual and natural process of factor intensity change. These theories reduce the meaning of industrial strategy and policy to a second best way to mitigating market and information failure and reducing transaction costs such that producers and consumers continue to receive correct signals (relative prices) from the market to guide their sovereign decisions and choices. This is because orthodox economists discuss industrial strategy and policy exclusively at the level of exchange of factors and goods, given that the focus of their economic analysis is the structure of relative prices viewed as a reflection of relative scarcity and marginal productivity and as a guide to resource allocation. Because of this approach, they restrict the concept of industrial strategy and policy to the notion of trade regimes and consider import substitution (ISI) and export oriented (EOI) patterns of industrialisation as distinct, mutually exclusive trade and industrial regimes<sup>52</sup>.

ISI is defined as the strategy that enables the emergence of domestic industries that produce for the domestic markets goods that would otherwise be imported. These industries would not have emerged in the absence of policy-driven trade “distortions”, because they are not in line with endowed comparative advantages. EOI is defined as a path of industrialisation that takes advantage of the market signals and requires no non-market incentives to emerge and develop. Therefore, ISI is market distorting and EOI is market conforming, or neutral.

EOI is efficient by definition because it responds to signals from competitive markets (which are assumed competitive in the absence of state made distortions). By encouraging trade, EOI also accelerates the acquisition of knowledge and information from the existing world stock, and therefore accelerates the rate of growth of the economy by increasing the rate at which knowledge is accumulated.

This contrasts with ISI that is, by definition, inefficient for it requires the creation of market imperfections and distortions that inevitably lead to inefficient use of scarce resources. In particular, ISI slows down economic and industrial growth because it increases the trade deficit and foreign exchange scarcity by reducing exports and increasing imports due to its deviation from endowed comparative advantages and bias against exports. It also increases capital intensity and in so doing widens the savings gap, worsens unemployment and prevents market expansion because of bias against exports, agriculture and unskilled labour. As a

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<sup>52</sup> See Balassa 1990 and 1988, Krueger 1998, Lal 1984, and a series of World Bank reports, such as 1997, 1996a, 1995a, 1994, 1993a and 1989.

result, ISI generates non-competitive markets, size inefficiency at firm level and/or under-utilisation of installed capacity. Furthermore, this strategy reduces consumer and non-supported producer welfare because of forcing domestic prices of consumer, capital and intermediate goods to rise. Because of its anti-trade bias, ISI prevents the economy and its agents from having access to the world stock of knowledge and information, such that it slows down innovation and technical change. Finally, this strategy also increases bureaucratic power and encourages rent seeking because state intervention empowers bureaucrats to decide about resource allocation and creates rents.<sup>53</sup>

### *Heterodox views: industrial policy, linkages and capability building*

#### *A. Markets and states*

Opponents to orthodox arguments question, in the first place, the notion of hypothetical, competitive markets. The simplistic reduction of the notion of the market to a sum of transactions between atomistic individuals and firms, which collapses into the analysis of how free these individuals and firms are to trade their endowed assets, excludes from the debate all issues that are relevant for economic and industrial growth and transformations. These are, namely, the socio-economic processes of mobilisation and deployment of resources to create new capacities, of acquiring production experience that translates into competitive advantages and trade, of innovation, technical change, training and learning, of shifting labour and capital from less productive to more productive sectors, etc. This renders the orthodox argument inadequate for the analysis of socio-economic processes of economic change. Additionally, the notion of the market's superior allocative efficiency is simply a construction that depends upon unrealistic assumptions about the economic process, institutions and agents, and the exclusion, from the analysis, of the essential components of the economic process. Furthermore, the conclusions about market superiority are based on comparing hypothetical optimal outcomes from abstract markets with hypothetical and real non-market outcomes.<sup>54</sup>

Second, states and markets work together and are influenced by, and influence, the same socio-economic forces, problems and dynamic relationships. Additionally, policy is not restricted to the state – large and small firms and global corporations, economic groups and professional or industrial associations, networks and unions, all influence, are influenced by,

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<sup>53</sup> See, for example, Kruger 1998, 1990 and 1974, and Tollison 1982.

<sup>54</sup> See, for example, Amsden 1997 and 1993, Chang 1996, various articles in Chang and Rowthorn 1995, Fine 1997b, Gore 1996, Hirschman 1958 and 1981, Prasad 1996, Wade 1990.

formulate and participate in the implementation of policy and strategies. Often, the state is the mediator between firms and corporations to organise networks and cartels through which strategies and policies, from the state or elsewhere, are discussed, analysed, adopted, changed, abandoned, implemented. Whether it is through the state, with the state, encouraged by the state, or otherwise, the important question is that policy and strategy is a form of negotiating, setting priorities and directions, deciding about allocation of rents, etc. In any case, whether it involves more of the state or more of other agents and forms of organization, the evidence is that it is policy and strategy, not free abstract markets, which seems to be the norm.<sup>55</sup> Markets exist in or are embedded in policy negotiation, conflict and coordination. This raises the question of power to influence, establish, reinforce and implement strategies and policies.

### *B. Different paths to industrialisation*

Third, new (endogenous) growth theories explain economic development as a function of accumulation and deployment of capabilities created through investment in science, technology, learning, access to the world stock of knowledge and mastering the best managerial practices. This view, within the limits of the neo-classical framework, accepts the possibility of systematic market failure due to market imperfections associated with information failure, economies of scale and increasing returns to capital, technological externalities and a positive difference between social and private rates of return on various types of economic, social and scientific infrastructures and capabilities. These characteristics of the growth process explain the observable long-term variation and divergence of growth paths and specialisation of different economies, as opposed to the theoretical orthodox prediction of factor price and growth path equalisation. This creates the need for strategy to prevent sub-optimal investment.<sup>56</sup> For example, Nelson and Pack (1999) argue that development is essentially a process of increasing labour productivity by shifting labour from low to high productivity sectors, which depends upon entrepreneurial ability to foresee and realise potential opportunities, ability to absorb and master new skills and technologies, supply of skilled labour and strategies to minimise risks. Neary and Leahy (2000) argue that selective strategies are required to ensure that firms acquire first mover advantages and time preferences change towards long term investment, as well as to counteract wasteful strategic behaviour by firms vis-à-vis the state and other firms.

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<sup>55</sup> See, for example, Castel-Branco and Cramer (forthcoming), Cramer 1999, Fine 1997b, Fine and Rustomjee 1996, Khan 1995, Kholi 1994, Kim 1997, Leahy and Momtagna 2000.

<sup>56</sup> See Lucas 1990, Mayer 1996, Nelson and Pack 1999, Rodrik 1995, Zebregs 1998. See Fine 1998 for a critical assessment of endogenous growth models.

Not only do new growth theories raise the theoretical possibility of sub-optimal steady-state paths of economic growth, and of the existence of a variety of successful growth paths, but they also challenge orthodox propositions on three other grounds, namely: (i) the shape of the production function, which differs significantly across countries, industries and firms because of differentiated access to technology; (ii) economies of scale (thus, non-competitive markets) being reinforced by technological progress, product differentiation and economies of scope; and (iii) returns on capital (therefore, the direction of capital flows) resulting from the quality of human capital and externalities from various infra-structures and capabilities, rather than simply by factor intensity.<sup>57</sup>

It follows, that restricting industrial policy and strategy to a process of regulating or changing market signals in transactions is of little use for the purpose of understanding and influencing the process of creating productive and competitive capacities.<sup>58</sup>

### *C. ISI and EOI revisited: infant industry*

Fourth, ISI and EOI are not adequate descriptions of trade regimes, because most goods, firms and industries may simultaneously substitute imports and enter foreign markets, and domestic and foreign markets are not organically separated but are part of the global market. Additionally, the price neutrality that orthodox economists argue is required for a strategy to be export oriented can be achieved through dual distortions, for example through selective liberalisation that lowers the relative price of capital to consumer goods to facilitate investment, but also nurtures sunrise industries through protection.<sup>59</sup>

Even if ISI and EOI could adequately be defined as trade regimes, they would not necessarily be mutually exclusive. While there is no doubt that export growth is a crucial link between short term and long-term economic strategy and growth, fast and sustainable diversification and growth of exports require, above all, significant improvements in productive capacity. Exchange rate devaluation may shift production around and increase imports on the margin, but this does not increase production, expand markets and create new capacities. Additionally, exchange rate movements have only a one-off effect on the price level. Thus, export growth is

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<sup>57</sup> Lucas 1990 and Zebregs 1998.

<sup>58</sup> See Amsden 1997 and 1993, Chang 1999 and 1996, Gore 1996, Grabowski 1994, Prasad 1996 and Wade 1990.

<sup>59</sup> See Amsden 1993, Gore 1996, Grabowski 1994, Greenway 1991, Ocampo and Taylor 1998.

not only a matter of trade policies, but mostly of creating new and competitive productive assets and capabilities.<sup>60</sup>

The acquisition of competitive advantages results from production experience, learning and scale economies. This means that firms cannot become competitive before they start production and that there is a time lag between the two that represents the processes of acquiring production experience, learning, mastering new production processes and techniques and building scale economies. In addition, sustainable and accelerated growth of exports require more than competitive advantages: it requires knowledge and experience about foreign markets and industries, finance to support competitive efforts, reputation, networks, and eventually establishment of foreign representations. All these conditions result in a time lag between the acquisition of the competitive advantages and becoming a regular and successful exporter.<sup>61</sup> The magnitude of the time lag depends on the technological complexity and market conditions of the industries concerned, as well as the relative domestic industrial experience and technological capabilities and gap vis-à-vis the world. This means that time lags are larger for industries with more room for fast and sustained innovation and export growth because of knowledge and innovation intensity of production and managerial processes. Even when the technology concerned is not new to the world but is new to the specific economy or firm, time lags are present because existent knowledge, experience and organization are not readily transferable and acquirable nor fully codified in blueprints.<sup>62</sup>

Therefore, helping domestic firms to initiate production, master new technologies, acquire competitive advantages and become exporters is not simply ISI or EOI, but a more general process of creating new industrial capacities to compete in a global market. It might even be possible that a quick, too early move towards export expansion hinders long-term fast and sustainable export expansion, as the economy may become trapped into a narrow pattern of specialisation that provides little hope for innovation and growth.<sup>63</sup> Being outward oriented does not necessarily mean being an exporter and or importer. It means paying constant and deliberate attention to industrial, technological and trade happenings outside the country; remain in touch, absorb the latest technology, acquire experience, catch-up and become

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<sup>60</sup> See, for example, Amsden 1997 and 1993, Canitrot 1993, Fine 1997b, Prasad 1996.

<sup>61</sup> Amsden 1997 and 1993, Gore 1996 and Grabowski 1994.

<sup>62</sup> Amsden 1993, Amsden and Euh 1990, Lall 1993a and 1992a, Lall and Wignaraja 1996, Nelson and Pack 1999, Ocampo and Taylor 1998, Prasad 1996.

<sup>63</sup> Hirway 1998, Ocampo and Taylor 1998, Prasad 1996. See various articles in Wangwe (ed.) 1995 for concrete examples that illustrate this point with respect to various Sub-Saharan African economies.

competitive. This involves selective policy, including protection, subsidies, contests for information and rents, organization of networks, encouragement to vertical integration, etc.<sup>64</sup>

Nurturing the development of domestic productive capabilities and engaging aggressively in export markets are not only not in conflict, but are linked components of the same process that helps firms to acquire competitive advantages through production experience, learning and scale economies, creates the ability to expand into the global (domestic and foreign) market, and improves the access to finance, foreign exchange and knowledge that is necessary for continuous growth and change.<sup>65</sup>

The infant industry argument, as discussed above, raises the question of policy and strategy on the following grounds. On the one hand, time lags between investment, production, competitive advantages and exports represent a risk, increase uncertainty and may result in sub-optimal investment. The magnitude of risk and uncertainty is greater the more demanding the industry and technology and the weaker the existent experience and technological capabilities. Policy and strategy play a crucial role in reducing risk and coordinating complementary and competing investment to ensure that firms foresee and take advantage of potential opportunities and linkages.

On the other hand, the fundamental economic questions in the process of industrialisation – particularly in economies that do not have the first mover and/or the technology leader advantage – are associated with the coherence between macroeconomic and investment strategies, and with the ability to mobilise and deploy cheap finance for capital investment in order to create new productive capacities (industries, firms, entrepreneurial and labour skills, technological capabilities, etc). Crucially important are how finance, demand, trade, employment, exchange and interest rates are organised to promote industrial and economic growth and transformation; and how industrial strategy fits in with the macroeconomic conditions and the development of the economy as a whole.<sup>66</sup> Cheap capital is vital for firms and industries in economies that do not have the advantage of being technological leaders, but at the same time it is important that industrial programs enable the creation and mobilisation of more capital (for example, through incentives associated with re-investment of profits and export targets, and by making sure that firms are profitable and generate more resources than

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<sup>64</sup> Gore 1996.

<sup>65</sup> Amsden 1993, Gore 1996, Grabowski 1994.

<sup>66</sup> Fine 1997b.

they use).<sup>67</sup> Furthermore, consistent industrial and financial strategies may also be required to ensure long-term, cheap availability of finance to firms, particularly in the presence of financial volatility generated by short-term inflows of speculative foreign capital or preference of domestic capitalists for domestic speculation with financial assets, which can easily be the case under financial liberalisation.<sup>68</sup> Credible growth strategies may also mobilise cheap finance even from the market if targets are clear, project efficiency is enhanced by policy, and the strategies of firms and investment strategies are adequate to build competitive advantages.

Selective protection (or selective liberalisation) can accelerate capital accumulation in industry because it may increase domestic savings (e.g., through taxation and positive discrimination in favour of profit re-investment), reduce the cost of capital relative to consumer goods, generate economies of scale and reduce costs of production (which is an incentive for further investment) and create a business environment that favours investment in productive assets rather speculation with financial assets.<sup>69</sup> These questions can only be properly addressed through policies and strategies that are embedded in specific socio-economic and industrial conditions, and that establish coherent and consistent links between the different components of the economy.

Moreover, sunrise infant industries that operate in small markets run the risk of failure also because of overcapacity and subsequent price wars, in which investors are likely to waste resources to acquire market rents. This risk, particularly high under asset specificity, high sunk costs and constrained access to international markets, is likely either to result in sub-optimal investment, or to lead to considerable waste of resources, unless competing investment is coordinated. Potential development linkages between industries and economic activities may not occur because not enough complementary investment is made if private firms fail to foresee the opportunities and to cooperate – cooperation may result from concentration of market power through mergers, cartels, networks and vertical integration, or from deliberate state policy.<sup>70</sup>

Mature and sunset industries need to adjust at particular critical points with minimum possible social costs and social waste. This requires a process by which industries and firms cooperate

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<sup>67</sup> Amsen 1997 and 1993, Amsden and Euh 1990, Gore 1996, Grabowski 1994.

<sup>68</sup> Fine 1997b, Fine and Rustomjee 1996, FitzGerald 1997 and 1996.

<sup>69</sup> Amsden 1993 and 1997, Ocampo and Taylor 1998, O'Rourke 2000.

<sup>70</sup> See, for example, Chang 1999, 1998b and 1996, Amsden 1993 and 1997.

to adjudicate adjustment targets and compensate the losers so that resistance to change is minimal and change actually takes place. It is irrelevant to argue that resources will automatically be re-allocated from sunset to sunrise sectors. Before bankruptcy (at which stage all resources are lost and no adjustment is available) competing firms have no incentive to adjust, because the first mover loses and improves the chances that no adjusting firms profit from market rents.

Foreign direct investment (FDI) is claimed to be an alternative source of savings and foreign exchange, managerial and marketing skills, experience and networks, as well as technological and productivity linkages to domestic firms. This is another area of crucial importance for policy, particularly in economies that depend heavily upon foreign capital for investment and do not have the bargaining power of large markets and technology intensive economies. One aspect of policy is the organization of domestic firms and the state to negotiate investment agreements that realise the potential for linkages and technology transfers. Another is the management of incentives systems such that the economy maximises benefits and minimises the social cost of attracting private investment, and makes use of FDI to help build a specifically defined industrial path (e.g., to reinforce inter-industry links, accelerate export growth rates and diversify and upgrade manufacturing's productive base). This requires a strategy for economic growth and industrialisation, as well as a good understanding of the corporate motive to undertake investment, and the use of cost benefit analysis to determine the worthiness of FDI projects. Furthermore, the negotiation of labour conditions is important from the point of view of welfare, income and technological linkages. Finally, the different types of FDI (actual equity and portfolio investment, mergers and acquisitions, financial speculation) may be treated very differently according to industrial priorities and macroeconomic conditions and policies.<sup>71</sup>

A logical and obvious conclusion from the infant industry argument is that even if one accepts the possibility that industrialisation follows a pattern of upgrading from labour to capital intensity – despite the fact that theory predicts and evidence shows the existence of different paths and paces of industrialisation, equally successful or unsuccessful – this does not validate a market-friendly vision of the development process. Neo-classical economics predicts (rightly or wrongly) a given path of development, but the process by which such a path is followed is not neo-classical in nature for the reasons discussed above<sup>72</sup>.

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<sup>71</sup> See, for example, Agosin and Mayer 2000, Aitken and Harrison 1999, Bird 1999, Borensztein, Gregório and Lee 1995, Chang 1996, Chuang and Lin 1999, Dunning and Narula (eds.) 1995, Kumar 1998 and 1995, Leahy and Montagna 2000, Rasiah 1998 and 1995, Weiss 1998.

<sup>72</sup> See, for example, Amsden 1989, Chang 1999 and 1996 and Hirway 1998.

#### *D. Labour*

Fifth, the structure and dynamics of the labour market are intrinsically and mutually associated with the structure and dynamics of the economy as whole, particularly with respect to the process of industrialisation. This is not only a matter of how fast the economy grows, how much aggregate investment is undertaken and how skilled the workers provided by the market are. It is also a matter of what forces are driving the economy and how they organise access to labour; which sectors are being promoted and which demands they impose on skills, technology and investment; how industrial relations are developed and how they affect productivity and continuous education and training; and how much, what type of, and under which institutional conditions new employment is created. None of these issues is even conceived, let alone addressed, under the notion of flexible labour markets, and industrial strategies and policies are necessary to coordinate the labour market with the central and more general goals of the economy.<sup>73</sup>

#### *E. Technological change*

Sixth, the requirements of technological change, identification and choice of technique, learning and acquisition of specific skills constitute another argument for industrial policy<sup>74</sup>. Technological development change the competitive environment and the chances of survival: labour productivity and input efficiency increase, costs fall, quality increases, variety may develop together with increase in the flexibility of the production process (economies of scope). Technological change tends to create rents that, added to economies of scale, give advantages to firms that innovate. If firms are not sure that they can appropriate rents, they will not innovate. Coordination of competing investment is required for rents to be

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<sup>73</sup> See Fine 1998a for a comprehensive, critical discussion of labour market theory. Flexible labour theories describe the labour market as a sum of individual transactions between an infinite number of workers and capitalists, the amount of which (how much supply and demand for labour) being determined by relative prices of labour vis-à-vis capital. Recent development in labour market theories have seriously questioned the notion of flexible labour markets in such fundamental grounds as: (i) no significant relationships has been found between the level of employment and the introduction of the minimum wage, and when such (weak) relationships is present it is not negative; (ii) flexibility pressures on one side of the market, for example the ability to reduce the wage rate or lay-off workers easily, may induce rigidities on other sides of the markets, such as constraints to labour turnover, training and absorption of new technologies; and (iii) flexible employment may actually increase the size of labour reserves in surplus labour economies.

<sup>74</sup> A sample of the hugely vast literature on technological change and learning include Alcorta 1994, Amsden 1986, 1989 and 1996, Chang 1996 and 1999, Fine 1992, Freeman and Heggdorn 1994, Hobday 1995, Lall 1992, 1992b, 1993a, 1993b and 1996, Lall and Wignaraja 1996, Leahy and Neary 1999, Teubal 1996.

appropriated by organisations that innovate. Rents tend to be transitory, unless they are guaranteed by the state. So that, long term, sustained innovation depends more upon deliberate strategy than simply upon pure market power. On the other hand, if the capital stock is interdependent in use but divided in ownership, coordination of interdependent investment is also required or innovation may not take place. When it comes to industry, technological innovation is also goal oriented, which requires industrial strategy to maximise the linkage potential of innovation. The fact that there might be many sources of innovation, and innovation is a chase after a moving target, points to the need for new forms of policy targeting, compensating for capital market failures that may put the follower firm in disadvantage, and encouraging related and coordinated investment in research by a variety of sources (firms, universities, etc).

Technological change requires investment in capability creation, collective and organisation-related learning, acquisition of specific skills, learning non-codified (tacit) knowledge that results from experimentation and adaptation. General education policies are not sufficient to address industrial need of skills, experience and institutional learning. The role for industrial policy targeting with respect to learning is associated with the need to allow time for learning to take place, the institutionalisation of performance-based incentives that ensure that firms actually learn, and the targeting of specific skills that benefit firms that invest in learning. It has been acknowledged that there are huge economies of scale and scope associated with the creation of technological capabilities, in areas like training, R&D, engineering, etc.

Seventh, in order to realise economic linkages from manufacturing to the economy as a whole, the potential for linkages has to be identified and agents need to be capable of taking advantage of them. General provision of infrastructures and education is insufficient, particularly when dynamic economic change is involved, asset specificity is important and linkages are specific to certain projects, skills and agents. Social and project returns on public investment are more likely to be higher under targeting than under a policy of general provision of infrastructures and education. Moreover, industrial policy restricted to general provision of infrastructures and education is likely to be wasteful and to create patterns of growth that are inflexible and inadequate. This, of course, in addition to the fact that education and infrastructures are not inputs but reflect and respond to social pressure and socio-economic conditions.<sup>75</sup>

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<sup>75</sup> See Fine and Rose 2001 for a critique of the concept of human capital and education as a provider.

*F. Institutions and networks*

Eight, the development of institutions and networks is another argument for industrial policy, given that technological change and the business cycle generate new challenges for the established institutions (property rights, money and financial institutions, firms and industrial organisation, state/business relationships, etc.).<sup>76</sup> Industrial policy can be a peg around which institutions and networks, that may help the formulation and implementation of industrial policy, are developed. The argument that the fundamental role of policy in institutional building is to provide regulation and competitive conditions is at best weak (regulation for what and of what?) and, probably, highly inappropriate as shown in earlier discussion of rents and innovation, infant industry, technology change and learning.

For example, Chang (1996) relates the development of industrial institutions and networks, and informational and technological capabilities to the deliberate effort to formulate and implement industrial policy. Recent debates about East Asia have linked the financial crisis to the way financial institutions were liberalised and re-directed from their selective growth-oriented goal to a static stabilisation goal.<sup>77</sup> Stein (1994) links resistance to privatisation with costs of unguided adjustment. Chang (1996 and 1999) and Dore (1986), show how institutional arrangements developed around industrial policy facilitate structural adjustment by helping the “losers” of the process to adjust (retraining schemes, financing of re-allocation of investment, compensation for sunk cost incurred, etc). Cramer (2001 and 1999) associates failures of privatisation with the absence of a coherent industrial policy that results in incompatible institutional change. Fine (1997b) links industrial policy and the ability of the state to deal with the power of the minerals-energy complex and large corporations in South Africa also with an improved statistical and information structure, as well as better trained and more motivated civil servants. It is the deliberate effort to formulate and implement specific industrial strategies and policies to pursue selective development goals within specific sets of social, political and economic conditions that shows the direction and priorities that capacity building should follow.

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<sup>76</sup> Stein 1994 and Chang 1996.

<sup>77</sup> Wade 1998 and Chang 1998a.

### **State ability, political economy and consumer welfare**

Another dimension of the debate on industrialisation and industrial policy is whether the state has the ability to deliver successful strategies. This part of the debate is focused on the state for three main reasons. First, it follows logically from the linkages debate, in which the state, as agents of linkages, was a given value. Second, policy and strategy are perceived as belonging to the domain of state activities, and whilst it has been possible to show that policies and strategies may be required for linkages to develop, it is now necessary to discuss whether states can actually deliver such policies and strategies. Third, proving the existence of systematic state failure, as opposed to market failure, is the last line of orthodox defence against state intervention.

Orthodox economists question the state's ability to govern the economy, particularly through selective policies, on three main grounds: informational and skill failure; inability to pursue efficient developmental goals due to rent seeking and to define efficient development goals due to predatory instincts; and the loss of consumer welfare associated with the departure of the economy from market equilibrium and price neutrality. Thus, the argument is no longer that markets are inherently efficient, but that no matter how inefficient markets are, the state is worse.<sup>78</sup>

#### ***State ability***

The first line of attack on the state focuses on the (in)ability of the state to identify, let alone decide, implement and monitor the impact of precise policy targets. State inability results, in the first instance, from civil servants and state organizations not having enough information for the task of detailed policy making, and from the severe information asymmetries that generate a principal-agent problem, such that the state is not capable of ensuring that firms cooperate and comply with policy targets. The second cause of the state inability to engage in detailed and successful policy making is the shortage of skills amongst civil servants relative to private firms.

These orthodox arguments can be challenged on several grounds. First and foremost, if state capacity is weak it does not mean that the private sector is stronger and readily mobilised.

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<sup>78</sup> See, for example, Krueger 1974 and 1990a, various articles in Krugman (ed.) 1988, Lal 1983 and Tollison 1982 (for a survey on rent-seeking). See Chang 1996 Weeks 1994 for a critique.

Therefore, the answer to a state with low capacity is to build state capacity. Second, it is true that the state needs detailed information upon which to justify its goals and policies and pursue their implementation, monitoring and revision. Information problems can and should be minimised, but the presence of imperfect information is an argument for action rather than inaction, not least because planning and coordination are justified as means also to cope with information failure and resulting uncertainty. In most of the literature, uncertainty and risk, which are increased in innovative and dynamic patterns of industrialization, are central to the argument for selective industrial policy. Thus, theoretically selective industrial policy is ever more necessary as an economy develops. The state cannot know everything, but the adoption of strategies and policies can help manage information on a selected set of issues.

Furthermore, data requirements and the collection and analysis of information necessary for successful state policies are not necessarily larger and harder than what is needed by private companies. Data requirements for sound public policy in manufacturing (which orthodox economists oppose) are not larger and harder to manage than data requirements for sound public policy in education, health and infrastructures, or for sound macroeconomic policy (which orthodox economists demand from the state).

Additionally, the state may have institutional advantages over the private sector with respect to information, because of its access to various sources of information,<sup>79</sup> its control over information systems, and ability to establish legal procedures and mechanisms to collect information that can be reinforced in different ways, including, for example, contracts. Moreover, as far as information is concerned, the state does not have to work against markets and the private sector, but with them.

On the other hand, orthodox and revisionist economists have emphasised the problem of systemic market failure due to information failure and subsequent uncertainty.<sup>80</sup> Therefore, information deficiencies are not exclusively associated with the state.

It is also true that developmental policies are not always easy to identify, nor is their whole impact in terms of benefits and costs always clear. Thus, the state, as private companies so often do, may choose wrong courses of actions. This is hardly an argument against state policy and strategy. On the contrary, the presence of policy and strategy based upon sound data collection helps to prevent or minimise disasters and surprises because a planned course

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<sup>79</sup> Census, surveys, firms, reports from a large number of institutions and organizations, access to other governments' information, multilateral agencies, informal contacts, etc.

<sup>80</sup> Stiglitz won his Nobel prize in economics for his work about information failure.

of action could be more efficiently monitored and quickly revised than a random one. On the other hand, any relevant and significant policy exercise is bound to impose pressures to improve data collection, as well as policy implementation and monitoring mechanisms. Moreover, as part of policy formulation and implementation, the state can and should use social cost benefit analysis to identify all possible benefits and costs and compare alternatives to find the most effective, easiest and less costly, but that also provides equal certainty about outcomes. The exercise of industrial policy is also a learning process for the institutions and agents involved, from data collection and analysis to formulation, implementation, monitoring and revision of policy. Policy formulation also works as guidance for research (which questions to ask, which patterns to look for, etc). It is only logical and likely that over time the quality of institutions and policies improves as long as institutions involved in relevant policy making are committed to learning.<sup>81</sup>

Significant lack of skilled people hampers the state's ability to collect and analyse information and formulate, implement and monitor policies successfully. Skill requirements increase with the complexity of the economy and public policy. Thus, a state committed to economic and industrial policy should acknowledge and tackle the problem of shortage of skills very rapidly. However, the existence of the skill problem within state organizations is not an argument for deregulation and liberalisation. On the one hand, it is very likely that the entire economy suffers from skill shortages, not only the state. Thus, it may happen that the first and most immediate problem to address through policy is the raising of standards and skills across the economy through education, training and promotion of spillover effects from skilled workers to less skilled ones, and between investing and innovating firms and institutions. This would require a system of incentives and institutional settings that favour long-term commitment to skill and technological development. This system cannot be brought about within the notion of free markets because of the magnitude of the task, investment and coordination required, and because of market imperfections associated with and created by capacity building externalities (static and strategic uncertainty, free-riding, higher social than private returns, economies of scale and scope, etc). On the other hand, the fact that the state engages in relevant economic and industrial policy is an incentive to tackle the skill problem because of dynamic pressures, and helps to tackle the skill problem through deliberate and targeted effort and commitment to learning. It is only logical and likely that the shortage of skills in the state and the economy as a whole will be more efficiently eliminated if education and training are goal oriented.<sup>82</sup>

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<sup>81</sup> Chang 1999 and 1996 and Fine 1997b.

<sup>82</sup> See Fine 1997b for a similar discussion with respect to South Africa.

It is also interesting to notice that orthodox economists demand from the state the organization and provision of universal education, and yet they do not acknowledge the ability of the state to address its own skill shortages. They also consistently underestimate the skills and knowledge requirements for successful formulation and implementation of massive privatisation and liberalisation programs.

### *Influences upon the state and the predatory state*

#### *A. Rent seeking*

The second orthodox line of attack on the state is focused on the politics of state intervention, or political economy of the state. It is argued that state selective policies create rents and rent seeking, such that private agents have an incentive to waste resources unproductively to capture the rents. Rent seeking not only is a resource wasting exercise but it also creates anti-competitive behaviour and non-competitive markets, which inevitably lead to allocative inefficiency. Thus, even if the state solves the ability problem (information and skills), its policies are likely to lead to wasteful and inefficient allocation of resources. Furthermore, bureaucratic power and competitive rent seeking create an opportunity for the predatory instincts of the state to be revealed, which leads to policy targets and goals reflecting the interests of the civil servants rather than the social good.

The proposition that rents are created by state intervention is misleading and has its foundation on the assumption that in the absence of the state and/or unavoidable market imperfections, the market would operate so perfectly that no rents would be possible. This proposition is at odds with the evidence that modern capitalism is based upon, and driven by, large, powerful corporations that organise investment, production and trade at world level.<sup>83</sup> Additionally, rents exist even when private property rights are perfectly allocated, and the struggle for property rents is obvious in processes like large privatisation programs, mergers and acquisitions, cartel formation, oligopolistic competition, innovation, advertising and all other activities that are related, in any relevant way, with the notion of competition. Thus, rents are not so much a creation of market imperfections or the state, but are part of the socio-economic process of capital accumulation that happens through the market and state.<sup>84</sup>

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<sup>83</sup> Chandler 1990, Chandler, Amatori and Hikino (eds.) 1997, Fine and Murfin 1984, Kozul-Wright and Rowthorn (eds.) 1998.

<sup>84</sup> See, for example, Hirway 1998, Ocampo and Taylor 1998.

Interest groups operate through the state, such that they influence, and are influenced by state strategies and policy. The state has to acknowledge the existence and influence of such groups and develop its capacity and strategies to avoid being captured and to prevent related rent seeking from creating social waste. On the one hand, this may be done better through deliberate policy that allocates performance related rents according to strategy, thus eliminating the market for rents and minimising rent seeking. Strategy and policies may help to create and/or promote alternative interest groups (for example, those interested in industrialisation and exports as opposed to those that develop around speculation with financial assets), to avoid the state capture by old, entrenched and conservative vested interests, or to prevent the concentration of economic power and oligopoly competition.

On the other hand, markets do not mediate adequately between these different interest groups because of being dominated by the stronger ones. Market-friendly theories have little to contribute to solve this problem because of being based on the assumption that economic agents are atomistic and perfect markets self-preserving. If the economy works under perfectly competitive markets, as in the neo-classical models, interest groups do not exist. Furthermore, the push for liberalisation also reflects economic and political interests, particularly from the powerful groups that can reinforce their power through state withdrawal from the management of economic assets. Market friendly reforms also require a strong state that is able to resist pressures against and support pressures in favour of liberalisation, which can formulate, implement, monitor and revise its liberalisation strategies and policies and maintain social order at the same time that income and rents are redistributed.<sup>85</sup>

Finally, the idea that liberalisation eliminates market power and rents is unsound and counter intuitive. It has been demonstrated that once market power has been created and corporations have developed financial, technological, reputation and network advantages, blanket liberalisation may only contribute to provide larger corporations with the opportunity to consolidate and expand their power, preventing other social groups and organizations from having access to these rents.<sup>86</sup>

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<sup>85</sup> See Chang 1996, Fine 1997b, Hirway 1998, Kim 1997.

<sup>86</sup> See, for example, Amsden 1993 and Amsden and Euh 1990 for the analysis of liberalisation and the power of *Chaebols* in South Korea. A similar discussion can be found in Fine 1997a and 1997b, and Fine and Rustomjee 1996 in the context of capital and goods market liberalisation in South Africa, and various articles in Khan and Jomo (eds.) 2000 about South East Asia.

Therefore, if rents are created through market and non-market mechanisms alike, are an essential component of capital accumulation and are not eliminated through liberalisation, the question is how to reduce waste and unproductive use of resources in the distribution and use of the rents, rather than how to eliminate rents altogether. Eliminating the competition for rents, which is possible to achieve through policy and strategy, can do this.<sup>87</sup>

### *B. Predatory state*

The notion of a predatory state is confusing. It involves the idea that state institutions prey on the society's resources and wealth for the sake of the state and its officials, and that the state has the political capacity and interest to become predatory. The predatory nature of the state is usually measured by the degree of generalised corruption, the magnitude of the fiscal deficit that constitutes a hidden tax on the income of the consumers and other private economic agents, the administrative and military share of public expenditure, etc.

Quite apart from the fact that none of the above indicators is a necessary and sufficient condition for predatory activity, and that the predatory state is ill defined, there are four major problems of logic in this argument. First, orthodox economists accept, and actually demand, the role of the state in the provision of economic stability, infrastructures and human and social capital. How can this role be consistent with the notion that the state is inherently predatory? Or is it that states become predatory only when they engage in selective and detailed industrial policy making? Are orthodox economists convinced that a predatory state will cease preying on the society after trade liberalisation takes place? Why would a predatory state reorganize the economy and society, through liberalisation or any other means, in order to challenge its ability to prey on social resources?

Second, the notion that the state is predatory abstracts from the fact that interest groups operate through the state, and the state operates through the market. Thus, the state may be predatory (whatever this means) to some groups while providing significant services to others. Even if an unusual number of political appointees and civil servants gain more than they should normally do in this process of promoting some interest groups at the expense of others, this process can only be clearly understood within a broader context of social and economic dynamics of private capital accumulation that involve the state and the markets.<sup>88</sup>

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<sup>87</sup> Chang 1996.

<sup>88</sup> See, for example, Khan 2001, 2000a and 2000b, and various articles in Khan and Jomo (eds.) 2000.

Third, a state that is systematically predatory creates tensions and pressures that will force it to be reformed or/and destroyed by social conflict and opposition. Unless political officials and civil servants have a short-term time preference for private accumulation, a pure predatory activity is counter intuitive.

Fourth, the state is heterogeneous and complex in many different ways: in its social composition, its regional and sectoral development, its organizational, institutional and political settings, its activities, the interest and lobby groups that operate through it, etc. It would require very strongly simplifying assumptions to argue that the state is homogeneously predatory. The state is more likely to be a field of social construction, conflict and change than to have a “personality” insulated from the society in which it is embedded.

Although some could claim that recent experiences in some Sub-Saharan African and Asian countries prove the existence and impact of predatory states and show how difficult it is to reform the state, one is forced to acknowledge the existence of three problems that apply to almost every case that is presented. One, the description of a state as predatory is an abstraction from the socio-economic and political conditions of development of political and institutional setting of which the state forms part. It is this “ability” to take the state out of its context that allows ill-defined concepts such as “predatory” to become analytical categories. Two, in identified examples of so-called predatory states, the state and the market work together to create and/or support immensely powerful political and economic interests and accelerate capital accumulation at the expense of the working people and other social groups – thus, the state operates for and on behalf of specific interest groups rather than itself. In many, if not all of these cases, the state organises labour reserves, surplus extraction and allocation, property transfers and protection of private as opposed to social property in favour of fractions of domestic and international capital. What the state actually does, in these cases, is to help powerful private interest to prey on labour.<sup>89</sup> Three, those powerful interest groups, which are not necessarily created by, albeit supported through the state, may adopt “predatory” processes of capital accumulation and operate through the state to pursue their goals. It is not necessarily the state that is predatory, let alone predatory for its own sake; what matters is how states and markets interact within specific processes of capital accumulation.

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<sup>89</sup> See, for example, First 1983, O’Laughlin 1981 and Wuyts 1980a for the case of Mozambique and South Africa, Gomez and Jomo 1999 for Malaysia, various articles in Khan and Jomo (eds.) 2000 about South East Asia, and Evans 1995 and Jenkins 1991a and 1991b for a comparison of cases in Latin America, Asia and Sub-Saharan Africa.

### *Consumer welfare*

The last line of attack on the state from the orthodox point of view is that because state policies, no matter how efficient they are, represent a departure from Pareto optimal market allocation of resources, state led industrial accumulation reduces consumer welfare. This is because such policies create artificial scarcity and price inflation, and they tend to transfer rents to policy-supported producers at the expense of consumers and non-promoted producers. Inflation, trade barriers, and unbalanced goods and factor markets are hidden taxes on private incomes and, therefore, welfare reducing outcomes of state policy.<sup>90</sup>

Quite apart from critiques of the concept of Pareto optimality and of propositions concerning the inherent welfare reducing outcomes of state policy, the orthodox arguments about consumer welfare can also be successfully challenged on other grounds. First, consumer welfare is not only associated with the price individuals pay for their consumer goods and services, but also with the income they are entitled to and the institutional setting of industrial and other socio-economic relations they are part of. If liberalisation reduces net employment, eliminates minimum wages, reduces real wages and creates employment uncertainty, the welfare of the consumer, particularly of the working people and the poorer, will be reduced in both static and dynamic terms. In static terms, they will afford less than before, or nothing at all, irrespective of the level of prices. In dynamic terms, aggregate demand may fall and with it will fall the incentive for investment and innovation, for long-term commitment to education and training, and a poverty equilibrium trap of low investment, low productivity, stagnation and unemployment may be established.<sup>91</sup> As argued by Hirway (1998), experiences from LDCs show that labour is hurt first by liberalisation because of unequal bargaining power, and also because most processes of adjustment and stabilisation through privatisation and liberalisation aim at raising the rate of profits and reducing labour costs by lowering real wages. These processes of economic reform are usually not sustained by a growth accelerating industrial strategy, and as a result productivity grows slowly (if it grows at all), such that labour costs cannot fall independently of a fall in real wages. Adjustment thus becomes a process of shifting income towards the owners of capital and away from labour. Naturally, this will also require political and institutional changes that affect industrial relations and other conditions of the capital/labour relationship.<sup>92</sup>

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<sup>90</sup> See, for example, Krueger 1998, Lal 1984 and Tirole 1997.

<sup>91</sup> See Fine 1997b and Ocampo and Taylor 1998.

<sup>92</sup> See Ocampo and Taylor 1998 for a similar point, and Fine 2000, 1997a and 1997b for a discussion of these points in the context of political, social and economic change in South Africa.

Second, quite apart from not helping the poorer, liberalisation may well benefit the consumers at the upper level of the market because their consumption patterns are more import intensive, and imports may become cheaper, at least in the short run, if trade is liberalised. Cheaper imports may or may not be sustained, and may or may not help the expansion of competitive production, depending on whether scarce foreign assets are productively invested, used to finance imports of essential wage goods or spent by the upper group of consumers in luxuries.<sup>93</sup> Because discriminating policies in favour of investment are not consistent with blanket liberalisation and deregulation, and foreign exchange is therefore freely available to those who can afford to pay, it is unlikely that cheaper imports will be readily translated into cheaper capital and intermediate goods for production.

Liberalisation may be accompanied, or followed, by exchange rate depreciation because of balance of payment deficits. This may not deter the upper market consumer, and may well reduce investment further. Irrespective of what happens to the exchange rate, the price effect of liberalisation on imports is once for all – liberalisation does not tackle inflation but changes the price level. Therefore, liberalisation is more likely to hurt the consumer than to improve welfare, particularly those consumers at the lower middle and bottom of the income scale. If economic reform intends to tackle poverty and consumer welfare, it is better that it does so directly through various measures of income distribution, employment promotion, improving industrial and other socio-economic relations, and implementing policies that guarantee the virtuous circle of high investment, high productivity and high growth rates. None of these is provided through unregulated market forces.

#### **2.4 Critical summary of the debate**

This chapter has argued that industrial policy is very much part of the social experience of, although not a sufficient condition for, successful and unsuccessful industrialisation alike. It has also argued that the definition, characteristics and relative efficiency of industrial policy in achieving its defined goals vary considerably depending on the political, social and economic conditions under which industrialisation takes place, and developmental goals and industrial policy and strategies are defined and implemented.

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<sup>93</sup> See Mukhopadhyay 1998.

Proponents of industrial policy have demonstrated that orthodox arguments for *laissez-faire* are inadequate for industrial development, but they have often failed to make a clear and strong case for industrial policy. However, if organizational, political and informational inefficiencies of non-market institutions and relations cannot justify the adoption of the free-market analytical framework, following the same logic and avoiding double standards it can also be said that the case for industrial policy requires more than the demolition of orthodox propositions and the theoretical construction of a rationale for industrial policy.

This debate, insulated from reality and narrow in scope and objectives, is often circumscribed to the analysis of best practices in policy-making (selectivity, flexibility, priority of social goals, firm and industry specificity, performance related incentives, etc.), and to the identification of situations in which policy should be used (static coordination, dynamic learning, etc.). If industrial and economic policies are understood as a set of rules and practices, then the temptation to establish blueprints (or universal policy prescriptions) is too great to resist. If, on the contrary, industrial and economic policies are drawn from the specific socio-economic conditions that in the first instance have determined their adoption and implementation, then the lessons are no longer sets of policy prescriptions and lists of hypothetical possibilities, but questions and analytical methodologies that help to put the debate about paths to industrialisation into specific socio-economic and political contexts.

Industrial policy is not an institution that exists, full stop, insulated from specific socio-economic conditions. Industrial policy results from the interaction between the state and the other different agents of the economic process, and the interaction between agents and linkages. Industrial policies operate through markets and influence, and are influenced by, the same agents and other socio-economic conditions that act upon markets. Therefore, it should not be necessary to make a case for abstract industrial policy, as it is only the fact that orthodox economics insulated economics from policy and politics that creates the (misleading) debate about states versus markets (or some combination of the two). Furthermore, the debate about industrial policy should not be wasted on theoretical constructions of abstract rationale for policy, because what matters is how the policy responds to specific socio-economic conditions and answers questions such as: which industrial policy? Which manufacturing industry? Which problems are to be addressed? Which goals are to be pursued? How is it part of the broader socio-economic process? How does it link the different aspects, sectors and activities? How does it coordinate or engage different agents and takes advantage of potential linkages? Who participates, gains and loses? Which mechanisms are in place to guarantee implementation and the achievement of defined targets? How is it going

to be assessed, monitored, revised? If these questions are not asked how could a relevant assessment of industrial policy decisions, and a case for industrial policy, be made?

If the case for industrial policy is to be made in abstract terms – in line with article titles like “...does the bell toll for industrial strategy?”<sup>94</sup>, or “...theory of government intervention in late industrialisation”<sup>95</sup> – then industrial policy becomes the reversal of the orthodox notion of market forces, and equally inadequate for the purpose of understanding and guiding economic and industrial growth and transformation.

In the real world the state operates through and with the market, and is influenced by, and influences, the same forces and dynamic processes of social conflict and capital accumulation that are present in the market. It does not mean that there are no conflicts and tensions within state policy, and between state policy, the wide range of heterogeneous interests of other market forces and the complexity of socio-economic challenges and problems to be solved. However, these conflicts result from the existence of different and conflicting interest groups and economic pressures, as well as alternative solutions, outcomes and paths of development. In most cases, such conflicts cannot be solved without systematic formal and informal negotiation between the state and other agents – policy and strategy are crucial negotiation tools – and what the state does, or does not do, also depends on the various influences (agents, socio-economic linkages and other economic conditions) that operate upon the state.

Whether the intervention of the state is perceived to be efficient and conducive to virtuous circles of continuous growth and development, or inefficient and conducive to vicious circles of predatory behaviour, rent seeking or welfare reducing, the state responds to economic and political conditions that are socially structured. Therefore, its relative (in)efficiency has little to do with any inherent and immutable characteristics of the state (or markets). It is, therefore, misleading to attribute success or failure to varying degrees of market (de)regulation, market-orientation of public policy, or public guidance of markets. Even if it is possible to accurately measure such degrees of market or state orientation, they would have to be explained by the socio-economic and political conditions that operate upon the state and markets.

Besides, in most of the literature discussed, industrial policy is presented as the practical implementation of state strategies to create and nurture, and to rationalise and reorganise, markets, linkages, private agents and capabilities. In this context, it would be absurd to think

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<sup>94</sup> See Lall 1994b.

<sup>95</sup> See Amsden 1992.

of states and markets as inversely related, static, self-contained and autonomous entities concerned with a never-ending process of marginally improving resource allocation. It would equally be absurd to believe that socio-economic conditions, including those that result from state and market negotiation, are not going to affect the state and the markets and their relationships. An example of this is the process of creation of the large corporations of the minerals-energy complex in South Africa<sup>96</sup> and the *Chaebols* in South Korea,<sup>97</sup> how these processes have been driven by specific socio-economic interest and conditions, and how they have helped to change the power balance between the state and different groups of capital, and between capital and labour.<sup>98</sup>

This critique applies not only to the notion of states, markets and the relationships between them. Linkages are also specific to socio-economic conditions and do not autonomously occur in practice only because the potential for linkages exists, or because abstract models show that one sector is more prone to create linkages than another. It is one thing to argue that industrialisation may provide the economy with the ability to continuously upgrade its productive and technological conditions; it is an entirely different thing to make it happen in practice. Therefore, the arguments about developmental linkages that result, or not, from industrialisation and are delivered by states and/or markets cannot be adequately presented in isolation from real socio-economic conditions and contexts. What is the point of arguing that FDI establishes growth-enhancing linkages with domestic firms if the latter are so weak that they can barely survive, or if incoming FDI to a particular economy is only interested in minerals processing? How can it be argued, in abstract terms, that infant industry is the springboard for the conquest of foreign markets if nothing is done, apart from protection from foreign competition, to improve technology and productivity, and to promote entry into foreign markets? Or if protection is introduced with the only goal of guaranteeing that certain interest groups, for example sunset industries, survive irrespectively of any concerns about industrial progress? What is the face value of trade regime reforms, or state managed export-related subsidies or other incentives, both thought to increase exports, when the economy does not have competitive productive capacity and the transport and marketing systems are seriously deficient?

An example of the agent-linkage problem can be derived from the process of privatisation. It has often been argued that the failure of massive privatisation programs in LDCs to accelerate

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<sup>96</sup> See Fine 1997a and 1997b, and Fine and Rustomjee 1996.

<sup>97</sup> See Amsden 1989, Jones and Sakong 1980 and Kim 1997.

<sup>98</sup> See articles in Khan and Jomo (eds.), which discuss these issues with respect to South East Asia.

and diversify industrialisation is due to the lack of a coherent framework that would be provided by growth oriented economic and industrial strategies and policies. As good and important as this argument is, however it fails to explain why this happens. For this argument seems to be focused on the analysis of how reality diverges from an optimal path, and to assume the efficiency of industrial policy as selective action to promote certain goals along an assumed path of industrialisation of the economy. Because the argument idealises the goals (industrialization) and the instruments (industrial policy), rather than drawing them from the actual process of privatisation, then it does not consider selective inaction, or selective action to achieve different goals, as industrial policy.<sup>99</sup> Therefore, the performance of privatisation is assessed comparative to idealised policies and goals; and it is assumed that the mere existence of a formal industrial policy would improve the results of privatisation.

This raises three interesting and important issues for research. First, while the outcome of privatisation may be seen as a relative failure if compared to the ideal path, it may not be so if understood from the alternative point of view of the forces and processes that have generated such process and outcome. Second, while, from the point of view of the ideal path, the relative failure of privatisation may be thought to result from absence of a coherent industrial policy, the same process, from the alternative point of view, may explain unguided privatisation as part of a different (from the ideal) industrial policy under specific socio-economic dynamics<sup>100</sup>. Third, if the two previous points are accepted, then it becomes clear that the starting point for the analysis of privatisation and industrial policy is the way it takes place under specific economic and political circumstances, rather than how it conforms with an ideal definition or design of industrial policy and its individual components at the outset of the analysis.

Therefore, the case for industrial policy cannot be made in abstract terms, neither from the point of view of potential linkages, nor from the viewpoint of hypothetical relative efficiency advantages of states or markets. The case for industrial policy – involving agents and linkages and how they inter-relate – can only be adequately supported from the perspective of the real problems to be addressed in each set of socio-economic circumstances, because industrial policy, states, markets and linkages do not exist outside such specific circumstances.

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<sup>99</sup> This problem is not distant from the more basic orthodox mistake of confusing industrial policy with aggregate price distortions through taxation and subsidies, the absence of which signals the presence of free markets. Nor is it essentially different from believing that market liberalisation is a guarantee of efficiency for the newly privatised firms. See Castel-Branco and Cramer (forthcoming), Cramer 2001 and Fine 1997a for the debate of these issues related to privatisation in Mozambique and South Africa.

<sup>100</sup> See Castel-Branco and Cramer (forthcoming), Cramer 2001, Fine 1997a and Fine and Polletti 1992.

## **2.5 Implications for the analysis of the Mozambican case**

How will this chapter help the study of industrial policy in Mozambique? First and foremost, the chapter provides the analytical tools based upon the linkages-agents framework. On the one hand, rather than comparing degrees of efficiency between the state and the market, the study of industrialisation in Mozambique researches the interaction between the state and the market. On the other hand, the study should start by identifying the underlying socio-economic characteristics, pressures and conditions of industrialisation and industrial policy in Mozambique. In this research, it is crucial to keep in mind that agents and linkages form part of a symbiotic and dynamic relationship that determines the shape they take and the path that industrialisation follows.

Second, the analysis of industrialisation is more adequate if it is integrated within the analysis of the ways the economy, as a whole, functions. Third, the research will be focused not only on official policies and their shortcomings. It will investigate what actually happens with respect to economic decisions that affect industrialisation, and which forces and pressures determine that such decisions are taken and which outcomes are achieved.