Tailoring Industrial Policy to LDCs

Chapter 4

A. Introduction

Least developed countries (LDCs) are currently looking for a combination of effective macroeconomic policy measures and international financial support to limit the damage they face from the economic crisis. However, they must also look to ways of reducing their vulnerability to future shocks. In this respect, industrial policy, as broadly defined in this Report, will have to play a critical role. In particular, building a more diversified economic structure remains the surest way of reducing vulnerability to shocks and ensuring more rapid recovery once a shock has hit. Moreover, the simultaneous effort to raise investment levels, build new backward and forward linkages across the economy, and upgrade technological capacity — which is at the heart of the industrial policy challenge — is intimately connected to promoting a more strategic integration into the world economy that can ensure more reliable sources of foreign exchange and avoid the economic dangers of the lopsided reliance on private capital flows that has been exposed by the current crisis. However, shrinking policy space can jeopardize efforts at autonomous policymaking and impede an effective policy response.

Building a more diversified economic structure remains the surest way of reducing vulnerability to shocks and ensuring more rapid recovery once a shock has hit.

This chapter provides a general framework for a developmental industrial policy (DIP), an industrial policy that can be tailored to the needs and conditions of individual LDCs. The chapter consists of seven sections. The present section presents an overview of the key opportunities and constraints for LDC economies today, including the challenge of overcoming the impact of the global economic crisis, and describes the main structural trends in the LDCs. Section B outlines the functions of the State in DIP and argues that effective policy is fundamental to economic growth; it also reviews the various concepts of industrial policy and introduces DIP as a contribution to the policy discourse, by linking industrial policy to the creation of productive capacities. Section C reviews the role of foreign direct investment (FDI) as an alternative to industrial policy in LDCs. Section D sets out enabling conditions for knowledge-based structural change and discusses public sector support for commercial innovation. Section E reviews the comparative merits of diverse models of industrial policy in successful, small open economies, from an historical perspective, which includes East Asia, Ireland and most Nordic countries (Denmark, Finland and Sweden). Section F evaluates recent experience with industrial policy in LDCs, principally Senegal and Uganda, followed by the Conclusion.

High growth rates were unlikely to be sustained in LDCs given their excessive dependence on commodity and low-tech manufactures exports, and their vulnerability to volatile, external markets.

The Least Developed Countries Report 2008 argued that, despite their recent strong performance, high growth rates were unlikely to be sustained in LDCs given their excessive dependence on commodity and low-tech manufactures exports, and their vulnerability to volatile, external markets. Most LDCs did not benefit greatly from this pattern of growth and they still suffer from very low levels of per capita income and poorly developed productive capacities. Given the weakness or absence of the requisite framework of incentives, rules and regulations needed for markets to function efficiently, it is likely to take some time before the LDC economies are able not only to grow, but also develop in a sustainable way.

Most LDCs still suffer from very low levels of per capita income and poorly developed productive capacities.

By and large, the promised benefits of the liberalization, privatization and deregulation policies of the last three decades have not occurred as expected. The gains from a globalized economy have proved to be unequally shared across nations, and growth episodes have not been sustainable in the world's poorest countries. This can be seen in their uneven, volatile or even stagnant economic performance, as a rising share of primary commodities in their exports has actually increased their vulnerability to external shocks, notably so in African LDCs (UNCTAD, 2008). Despite record rates of gross domestic product (GDP) growth over the last five years (coinciding with the commodity boom), with the exception of a few areas (primary school enrolment and access to water), most LDCs remain far off track to meet the Millennium Development Goals (MDGs) and other development objectives, especially those relating to reducing hunger and poverty, and improving human welfare. Over two thirds of all people in LDCs remain in a state of destitution, living on less than $2 a day. The absolute number of poor is growing. Food insecurity and malnutrition are on the increase,[1] thus compromising long-term human capital formation. Migration (brain drain) is on the increase, further weakening human capital.

Despite record rates of GDP growth over the last five years, most LDCs remain far off track to meet the MDGs.

Given this record, it seems unlikely that the LDCs will achieve accelerated growth by relying solely on market forces. In most cases, the Governments will have to take a clear leading role in laying the bases for sustainable growth and structural transformation, and to do so will, in many cases, require alternative development strategies to those they are currently following. The current economic crisis resulting in a major downturn of the global economy creates both the necessity and the opportunity for a change of direction. While State intervention per se is no guarantee of success, improvements in LDCs' economic performance are unlikely to occur without an inclusive growth-oriented macroeconomic policy (chapter 2 of this Report). Such macro interventions should be dovetailed with meso- and micro-policies fostering structural change, knowledge diffusion and social inclusion. Only a coordinated effort at different policy levels can establish the foundations for political and social stability, and reduce the external vulnerability of LDCs, thereby preventing future crises. Historically, no late-developing economy has succeeded without industrial policy by relying on the market alone.

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The analytical framework adopted here follows UNCTAD's structuralist tradition, arguing that development requires economic transformation or the "ability of an economy to constantly generate new dynamic activities" (Ocampo, 2005). Mobilizing domestic resources to strengthen capital formation and diversify into new lines of activity is seriously constrained in LDCs. However, capital accumulation is not enough. Learning is also critical, and learning takes time and resources. In the current crisis, the LDCs urgently need short-term humanitarian aid, but this will not be sufficient to alleviate the precariousness of their development prospects in the long run.

There is now a good deal of agreement on the need for the State to play a larger role in shaping the economy and a rebalancing of forces between the State and the market.

1. The crisis as a necessity and an opportunity for change

There is now a good deal of agreement, across the international development community, on the need for the State to play a larger role in shaping the economy and a rebalancing of forces between the State and the market, not only because of the market failures behind the current crisis, but also because three decades of neoliberalism have delivered limited success. There is argument as to what precisely the role of Government should be, but there is broad agreement that investment, structural change and diversification of output and exports are among the central determinants of growth in any economy. In a situation of generalized poverty, the most effective mechanism of reducing it is not only sustained economic growth, but inclusive growth (UNCTAD, 2008). Recent research demonstrates that growth

accelerations, based on structural change or diversification of manufacturing industry, have exerted the most enduring impact on developing countries thus far (Taylor and Rada, 2007). Increasingly, evidence suggests that "mastery over an expanding range of products" is central to the development process (Rodrik, 2006; Wade, 2006; UNCTAD, 2006b).

In order to achieve such objectives, this chapter argues that it is a *necessary condition for States* to engage in *developmental industrial policy (DIP),* defined as *any strategic intervention by the State that catalyses structural change and stimulates economic restructuring towards more dynamic, higher value added activities*. To mount such policies implies addressing institutional weaknesses, such as bureaucratic inertia and clientelism, institutionalizing and deepening developmentalism, freeing the bureaucracy from the rigid economic orthodoxy based on the Washington Consensus paradigm, but, most of all, creating a broad base of popular support for the economic and social change that development entails.

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2. Changing destiny variables: from initial conditions to dynamic competitiveness

There are competing theories about the relative importance of different explanatory variables in economic growth, such as: (a) policy, natural resource endowments, and many others suggested by Wood and Mayer (2001); and (b) technological capabilities and absorptive capacity (Lall, 1992; UNIDO, 2005). A particular focus of debate is on the appropriate weight given to the policy variable over other growth fundamentals — such as savings, investment, institutions and human capital — and the so-called destiny variables, such as climate (Bloom and Sachs, 1998), geography (Bloom and Sachs, 1998; Wood and Jordan, 2000), linguistic and ethnic fragmentation, demography, external shocks and other critical variables. The economic literature, however, points to the absence of any simple, causal relationships between policy and economic performance and the precise weight of individual variables in overall growth performance remains unresolved. Some authors fault policy for most of the things that have gone wrong in Africa. While some claim that dependence on natural resources hinders growth and industrialization (Collier, 2002; 2007), others argue that institutions are the decisive factor in economic performance and challenge the geography hypothesis (Acemoglu, Johnson and Robinson, 2001). With some exceptions, however, most analysts tend to be rather pessimistic about future growth prospects in Africa (for example, Collier, 2007).

Nevertheless, countries such as Mauritius, Botswana and Uganda have shown that late development in Africa is possible and that the continent is not condemned by nature or by inherited institutions (Rodrik, 1999; 2007). Africa's poor industrial performance is most often blamed on the legacies of colonialism, inefficient government intervention, corruption or poor governance (World Bank, 1981; Sachs and Warner, 1995; Collier and Gunning, 1995), or on policies such as import substitution industrialization (ISI), statist command-and-control policy regimes, overvalued exchange rates, restrictive trade policies, lack of openness, poor investment climate and poor public service delivery and infrastructure (World Bank, 1981). Despite the unresolved debate about "good" policies versus "bad" policies, there is a broad consensus in the literature that either way, policy matters. Undeniably, policy can still mitigate or lessen the effects of natural shocks such as climate change, and accelerate growth and economic change. This is not to deny that there are limits to policy, as there are limits to the explanatory power of any other variable.

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3. Specialization and manufacturing in LDCs

The central role of industrialization, spearheaded by the manufacturing sector, in the development process has been widely observed since the early days of development economics, especially in the works of Lewis, Nurske, Gerschenkron, Rosenstein-Rodan, Kaldor and Hirschman. Such recognition is based on the fact that the manufacturing sector offers the greatest scope for positive externalities and increasing returns, creating the largest multipliers for overall economic progress. Recent evidence shows that "growth accelerations are associated with structural changes in the direction of *manufacturing*" (Rodrik, 2006: 6). The highest growth rates were registered by countries that have moved into medium- and high-technology exports. Between 1980 and 2000, the manufacturing value added (MVA) in sub-Saharan Africa grew by 1.7 per cent per annum, while in East Asia, the MVA grew by 9.1 per cent per annum (Shapiro, 2007: 157). For this reason, this Report focuses on industrialization via manufacturing, which does not deny the importance of services, which also registered high rates of growth in some LDCs, especially in island LDCs. However, given that the growth has been registered largely in the petty trade, low productivity services in most LDCs in the informal sector (for which no reliable data are available), and given the heterogeneity of services, it is beyond the scope of the chapter to include the service sector in its analysis.[2] Moreover, measuring productivity in services in the informal sector is rare.

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Long-term changes in the industrial structures of LDCs since 1970 suggest different trajectories of industrialization for Asia and Africa (table 17), including the role of the State in promoting industrialization. The growing importance of the industrial sector in the structural composition of output of the LDC group overall is indicated by the rise of its share in total production from an average of 20 per cent in 1970–1979 to 28 per cent in 2007 (considering data in real terms). Data indicate that the manufacturing component barely increased, from 10 per cent to 12 per cent, in almost 40 years for all LDCs. The aggregate figures reflect the expansion of mining and utilities over the past four decades, rather than any real growth of the manufacturing sector. Since manufacturing plays a central role in transferring knowledge and creating multipliers, its relative demise is an issue of major concern for LDCs, especially in African LDCs.

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In Africa, tepid industrial growth masks the stagnation in the GDP share of manufacturing component, largely associated with the increased share of the mining sector. Africa's manufacturing share in GDP was virtually unchanged (in real terms) between the 1970s ISI period and the later decades, following the adoption of free market policies. For African LDCs, data show the decisive importance of the mining sector, which has been the real — and perhaps only — engine of industrial expansion. The share of mining and utilities in GDP doubled to 13 per cent of GDP between the 1970s and 2006–2007. In contrast, Asian LDCs experienced a more rapid growth in manufacturing, mining and construction since 1970, all of which contributed to an overall industrial expansion. The importance of manufacturing in Asia (the sectoral GDP share grew by 5 per cent in real terms from 1970 to 2007) is increasing and more significant than in Africa (where it rose less than 1 per cent point over almost 40 years). The contribution of manufacturing to GDP is relatively small in the island LDCs, with a minor exception for construction.

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In Africa, the trends indicate slow rate of growth in most countries, and even a decline in sub-Saharan Africa,[3] whilst Asian LDC trends indicate an increase in contribution of manufacturing to GDP. From 1970 to 1979, the manufacturing share contribution to GDP was 11 per cent, growing to 16 per cent in 2007. The overall picture shows that industrialization failed in sub-Saharan Africa, setting the stage for renewed developmental industrial policy (table 17).

Industrialization failed in sub-Saharan Africa, setting the stage for renewed developmental industrial policy.

Table 17

Trends in industrial sector composition in LDCs, 1970–2007

(Percentage contribution to GDP)

			Period average					2005	2006	2007
			1970–1979	1980–1989	1990–1994	1995–1999	2000–2005			
All LDCs	GDP at current prices	Industry	22.10	20.52	21.08	22.26	26.02	31.97	33.39	32.49
		Manufacturing	11.49	11.35	10.17	10.19	10.24	10.03	9.94	10.08
		Mining and utilities	5.97	4.31	6.26	6.51	10.02	16.14	17.48	16.49
		Construction	4.64	4.86	4.65	5.56	5.76	5.80	5.98	5.93
	Real GDP at 1990 prices	Industry	19.69	20.39	20.38	22.34	24.99	27.08	27.63	28.08
		Manufacturing	10.11	10.92	10.08	10.58	11.42	12.13	12.26	12.40
		Mining and utilities	4.95	4.66	5.73	6.67	7.85	8.84	9.13	9.55
		Construction	4.63	4.80	4.57	5.09	5.72	6.11	6.24	6.13
LDCs: Africa and Haiti	GDP at current prices	Industry	24.68	21.79	21.97	21.78	26.12	34.36	35.88	34.80
		Manufacturing	11.27	10.86	8.99	8.13	7.98	7.85	7.70	7.82
		Mining and utilities	8.28	6.13	8.55	8.39	13.03	21.45	22.79	21.62
		Construction	5.13	4.80	4.43	5.27	5.12	5.06	5.39	5.37
	Real GDP at 1990 prices	Industry	21.57	22.13	21.05	22.32	25.31	28.05	28.53	28.94
		Manufacturing	9.84	10.55	9.29	9.09	9.83	10.67	10.58	10.59
		Mining and utilities	6.63	6.60	7.35	8.51	10.37	11.99	12.43	13.01
		Construction	5.11	4.98	4.41	4.72	5.11	5.39	5.52	5.35
LDCs: Asia	GDP at current prices	Industry	16.28	18.40	19.68	23.12	26.13	28.34	29.10	28.54
		Manufacturing	12.04	12.30	12.20	13.00	13.38	13.80	14.32	14.47
		Mining and utilities	0.79	1.15	2.47	4.14	6.12	7.48	7.68	7.08
		Construction	3.45	4.94	5.01	5.98	6.63	7.06	7.11	6.99
	Real GDP at 1990 prices	Industry	14.75	17.04	19.24	22.56	24.60	25.59	26.29	26.75
		Manufacturing	10.92	11.77	11.70	13.37	14.24	14.74	15.28	15.72
		Mining and utilities	0.49	0.85	2.66	3.43	3.60	3.51	3.50	3.52
		Construction	3.34	4.42	4.88	5.76	6.76	7.33	7.50	7.51
LDCs: Islands	GDP at current prices	Industry	18.88	14.11	14.05	14.00	15.05	15.51	14.82	15.20
		Manufacturing	7.29	6.70	7.24	7.05	6.74	6.50	6.02	6.09
		Mining and utilities	5.82	1.61	1.89	2.25	2.75	3.05	2.91	2.90
		Construction	5.77	5.80	4.92	4.71	5.55	5.96	5.89	6.21
	Real GDP at 1990 prices	Industry	18.39	13.42	12.97	13.51	16.14	16.06	15.08	15.66
		Manufacturing	6.34	6.15	6.41	6.07	6.74	6.27	5.69	5.66
		Mining and utilities	5.77	1.57	1.83	2.47	2.99	3.23	3.07	3.09
		Construction	6.28	5.70	4.74	4.98	6.41	6.56	6.32	6.91

Source: UNCTAD secretariat calculations, based on data from the GlobStat database.

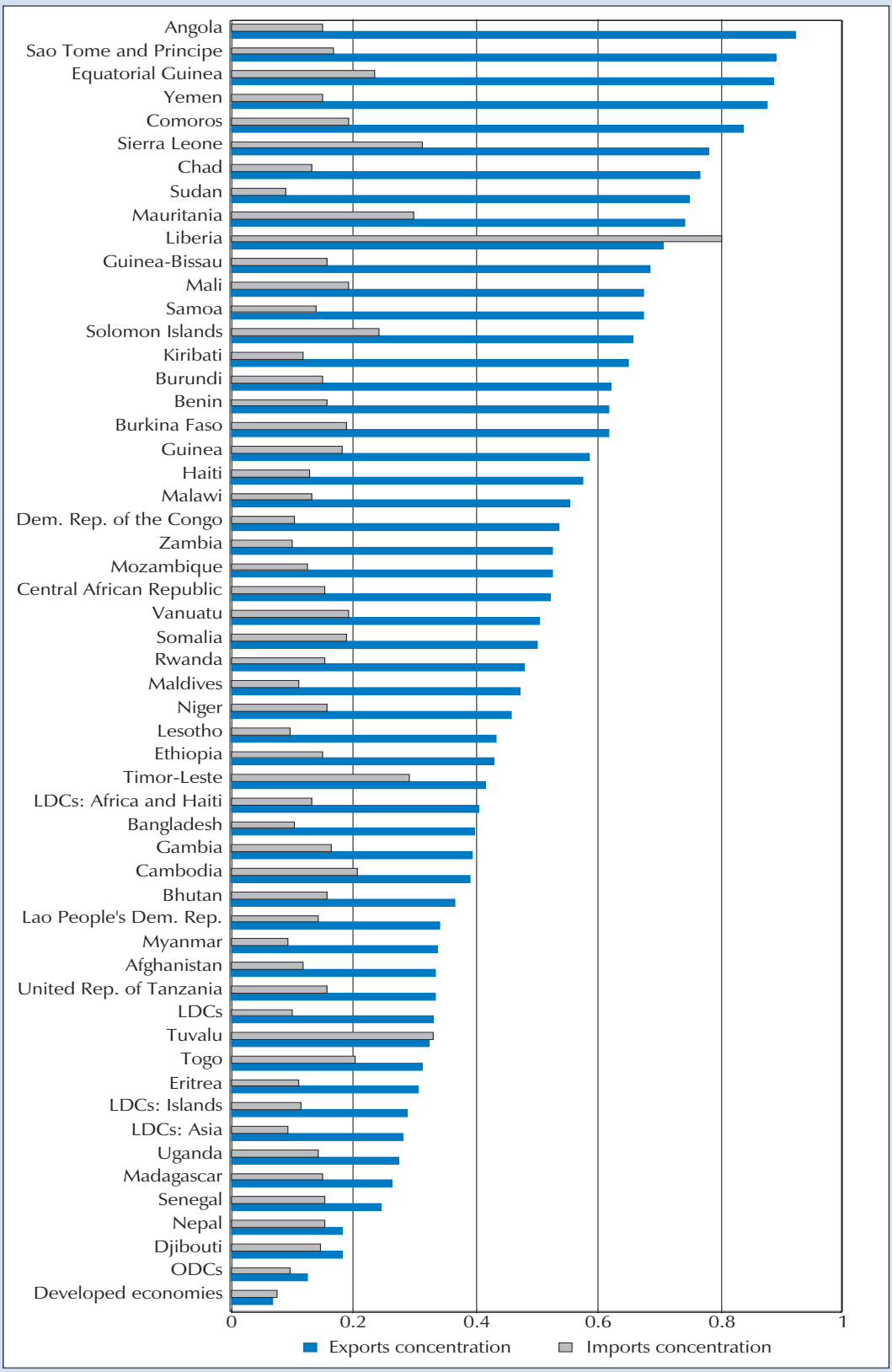
LDC exports tend to be highly concentrated in a narrow range of products, as demonstrated by the export concentration index of LDCs, other developing countries (ODCs) and developed economies (chart 20). LDCs specializing in commodities exports exhibit the highest concentration ratios, while import concentration tend to be much lower for the same group of countries. Oil exporters tend to exhibit the largest export concentration, followed by agricultural, mineral and services, then by manufactures and finally by mixed exporters. These data indicate limited export diversification in LDCs and thus their vulnerability to external shocks.

B. Change of perspective in favour of industrial policy

Since the peak of the dominance of the neoliberal paradigm in the late 1990s, views have started to change about government interventionism, moving away from the general perception that it is undesirable and "crippling" to the smooth functioning of free markets. Economic literature generally distinguishes between market-friendly *functional measures* and market-supporting *selective interventionism*. While most orthodoxy accepts the need for functional

Chart 20

Imports and exports concentration indices



Source: UNCTAD secretariat calculations, based on data from the GlobStat database.
Note: Herfindahl-Hirshmann index; averages 2000–2006.

interventionism to deal with market failures, it rarely accepts selective interventionism (targeting the most promising sectors or engines of growth), on the grounds that governments are corruptible, less competent and less capable of improving upon allocation by markets. Whether it is better for the government to support particular activities (selective) or a wide range of related activities (functional) will depend on the specific economic context. In order to promote industrial upgrading and diversification, the State instead can select or target high-end products or processes (rather than all of the firms' activities), aimed at activities that drive the upgrading process forward (Wade, 2006). This type of proposal appears to be a plausible compromise with potential benefits to LDCs, given the scarcity of resources available for investment in productive capacities. For example, inadequate government support for the textile industry in Cambodia and pharmaceuticals in Bangladesh has been noted as a constraint to the development of these key sectors (UNCTAD, 2006a; 2007).

In order to promote industrial upgrading and diversification, the State can target high-end products or processes aimed at activities that drive the upgrading process forward.

Few LDC governments can afford functional interventionism and have little choice but to opt in favour of selective interventionism, targeting the most promising sectors as engines of growth. Often in the past, such policies have been associated with rent-seeking activities (indefinitely subsidizing uncompetitive activities) (Castel-Branco, 2002). This is a serious risk that needs to be addressed at the institutional level. No industrial policy is infallible. Governments are not omniscient. They have imperfect information, they are not always rational, and they are subject to capture by special interests. The same criticisms, however, apply equally to the market. The key question is which is the greater, market or government failure, and the costs and benefits associated with each.[4] The theoretical underpinnings of the free market optimality are, however, far less relevant in the LDC context, owing to the structural characteristics of their economies. Rather, long-term development challenges facing LDCs require a more integrated approach which can simultaneously address threats and vulnerabilities, such as food insecurity, chronic balance-of-payments deficits and unsustainable debt burdens, as well as accelerating structural change, developing productive capacities and raising productivity (UNCTAD, 2006a; 2007; 2008). A traditional ISI-based industrial policy relied heavily on protection (tariffs and quotas), direct subsidies and regulatory instruments, while the new DIP relies primarily on incentives (e.g. fiscal) and indirect subsidies (e.g. to investment geared towards performance) with sunset clauses (Rodrik, 2002; Wade, 2006). An insight from Wade is worth noting: the "new industrial policy" tools (incentives) impose costs on the public budget, whereas the old industrial policy tools mostly impose costs on the consumers. Hence, the former are likely to be of shorter duration than the latter (Wade, 2006: 46).

The key question is which is the greater, market or government failure, and the costs and benefits associated with each.

The theoretical underpinnings of the free market optimality are far less relevant in the LDC context, owing to the structural characteristics of their economies.

Manufacturing performance in Africa during the ISI stage has been discredited, although this view is not supported by evidence. While ISI did not build up the domestic capital goods sector in Africa, its performance was nevertheless not surpassed in the next period of market-led development policy. According to UNIDO (2007: 2):

> "Between 1963–1970, the average annual growth of GDP in Africa was about 4.7 per cent compared to about 2 per cent in the 1950s. The manufacturing sector grew at a rate of 8.3 per cent. The contribution of industry to the GDP rose from about 14.5 per cent in 1960 to approximately 20 per cent in 1970, and to about 25.8 per cent in 1977. The share of value added of manufacturing in industry at constant factor cost (1970) was approximately 13 per cent. The percentage share of individual countries, Uganda included, was between 6 to 20 per cent. According to the Economic Commission for Africa (ECA), of the 39 countries for which data was available, in the 1960s and 1970s, the share of manufacturing to GDP

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was less than 5 per cent in 15 countries in the 1960s. However, by 1974, seven countries had a share of less than 5 per cent. Twenty-three countries had a manufacturing contribution of 5 to 15 per cent to GDP in the 1960s, but by 1974, there were about 28 countries in this category. In the case of Uganda, the recorded rates were 12 per cent and 15 per cent respectively. Some countries recorded 15 to 20 per cent manufacturing contribution to GDP. The main reason for the growth was increased production in response to growing real demand in the countries. The increased prosperity in the industrial sector was accompanied by increased population growth rate and low agricultural productivity."

LDCs need to strengthen their domestic productive capacities in order to produce more sophisticated products through a strategic collaboration between the State and the private sector.

Uganda was successful during the ISI phase (1970s–1980s), for example, in producing light consumer goods. Apart from being seriously hampered by domestic political tensions, in the long run, the initiative failed because it neglected to support the production of intermediate and capital goods, limited local purchasing power, small domestic market and relative brevity of the ISI experience.[5]

Unless growth is accompanied by continuous increase in productivity and a stable or rising employment–population ratio, growth is not likely to be sustainable.

The importance of government policies in explaining a country's economic performance relative to other variables remains debated in academic and policy circles. This Report takes the view that policy is a fundamental influence on growth and industrialization. Overcoming the challenges facing LDCs requires a fresh perspective on the role of the State in triggering and sustaining a cumulative process of catch-up growth by focusing on the development of their productive capacities. LDCs need to strengthen their domestic productive capacities in order to produce more sophisticated products through a strategic collaboration between the State and the private sector that will encourage their structural transformation from agrarian to post-agrarian economies. As elaborated in *The Least Developed Countries Report* 2008, *what* a country exports is as important as *how much* it exports. Unless growth is accompanied by continuous increase in productivity and a stable or rising employment–population ratio, growth is not likely to be sustainable. Structural change is therefore a quintessential condition for dynamic and sustainable growth, characterized by higher productivity and increasing returns to scale. More importantly, the current global crisis reveals how crucial structural change and economic diversification can be in reducing LDC vulnerability to external shocks.

Structural change is a condition for dynamic and sustainable growth.

Ample evidence and increasing recognition suggest that certain preconditions enable the market to promote sustained and inclusive growth. This Report shows that, at the sectoral level, industrial policy — buttressed by trade and sectoral policies (such as agricultural policy) — needs to be aimed at economic transformation through promoting dynamic competitiveness and diversification into sectors or activities with increasing returns or structural change. Successful historical experiences strongly suggest that there are preconditions (e.g. infrastructure, education and other public goods) or conditions attached: (a) existence of a developmental State; (b) social contract; and (c) an autonomous bureaucracy. Without these, industrial policy is less likely to be as successful, but not impossible.

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1. Perspectives on market and State shortcomings

The prevailing view is that, even if the market is the principal framework for managing economic activities, non-market, public institutions are required to deal with the failures that threaten economically and socially desirable objectives.

Critics of such intervention claim that "bad governance", lack of information, the assumed incompetence of policymakers to deal with economic problems, the

lags involved in policymaking and the threat of its capture by narrow income groups invariably lead to economic mismanagement, instability and suboptimal economic results, which are far greater than those involved in market failure. Much of this criticism is ideological and far too sweeping, but some of it is valid and needs to be taken on board as renewed efforts at industrial policy are undertaken in developing countries, particularly the least developed. The important question is how to design a set of policies that would stimulate the transformation of LDC economies from being dominated by activities with decreasing or constant returns to those with increasing returns. It has been pointed out that the arguments in favour of the State motivating and coordinating investment in a developing economy have not changed for over 50 years. Essentially, due to the presence of externalities, complementarities and scale economies, a big investment push is needed to catalyse the growth process (Shapiro, 2007). Moreover, as subsequently developed by UNCTAD economists, government action to encourage rents is also required to ensure that firms have sufficient access to finance to keep the investment process going at a pace faster than would be dictated by market forces alone (UNCTAD, 1994; 1996).

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Even prior to the current global financial and economic crisis, the impact of unregulated markets in developing countries had come under severe criticism, and industrial policy was again emerging as a leading issue in the debates over development. The magnitude and the impact of the global downturn has justifiably reinforced the critique of market fundamentalism.

Policies inspired by the neoliberal model of the market and the concomitant downgrading of the economic role of the State have not helped to stimulate sustainable growth, particularly in LDCs. Integration into the global economy has not, by itself, delivered on its promises and appears to have contributed to growth divergence between countries (UNCTAD, 2003; Ocampo, Jomo and Vos, 2007). The income gap between the developed and developing world has widened since the 1980s, and perhaps more telling, divergence across developing countries has been marked (Ocampo, Jomo and Vos, 2007: 3). This is particularly clear in the case of African LDCs, but it also holds for many countries in Latin America, where a process of "premature deindustrialization" has occurred (UNCTAD, 2003). Rising average labour productivity, based on technological change, was always present in the growing regions, while either absent or marginal in the stagnant regions. Moreover, whilst the Asian Tigers raised the technological content of their exports, there was technological downgrading in many LDCs, especially in Africa. Consequently, there appears to be a need for shifting towards a more balanced pattern of growth, steering away from market-led external integration as a strategic objective per se, but rather pursuing virtuous growth circles including both external and internal integration as its pillars (Wade, 2006). The manufacturing sector remains the most dynamic of all in explaining growth dynamics.

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The income gap between the developed and developing world has widened since the 1980s, and perhaps more telling, divergence across developing countries has been marked.

2. Changing parameters of industrial policy

It is time to bring industrial policy back to the fore in economic management. Defining industrial policy is complex. Concepts include (a) public actions to promote enterprise competitiveness; (b) economic interventionism in pursuit of productivity increases; (c) policies for enterprise development; (d) strategic interventions by Government aimed at transforming the given or inherited comparative advantage of their resource endowments; and (e) strategic intervention in support of domestic competitiveness and boosting domestic industry (Reinert, 2007). The crucial point is that industrial policy cannot be equated with a particular set of policy instruments, but may evolve over time. Governments should seek to promote structural change towards more dynamic and diversified activities and should have

sufficient policy space to intervene in any way necessary with a view to achieving that goal. A policy framework tailored to the specific needs and exigencies of each country is the essence of DIP, and consequently different types of industrial policies arise in practice. The sectors targeted by industrial policy may vary. Whilst in Senegal during the ISI phase, for example, intervention targeted the agricultural sector, in Uganda, attention focused on the light manufacturing sector.

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Beyond a few core elements, there is no single homogeneous model of State–market relations into which the appropriate industrial policy can be inserted. Each country must experiment and find the configuration of institutions and conventions that will work best in its national conditions and meet the expectations of its population. Particularly where large structural changes are involved and there is a significant level of risk and uncertainty about the sources of progress, careful experimentation with institutions and policies is needed to discover what will be effective in a particular national context where history, culture and initial economic conditions all have an important influence on the possibilities for growth and development. Given the premium on flexibility and "adaptive efficiency", and given also the absence of universal laws of economic growth, restricting the policy space available to developing countries is more than likely to be counterproductive.

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The market-led approach to development policy, adopted by most African countries in the 1980s and 1990s as part of structural adjustment programmes, has paid almost no attention to industrial development and structural transformation. Employment creation outside agriculture has come almost invariably from service sectors, while many LDCs have actually experienced deindustrialization and not surprisingly, technological learning has remained restricted to a few leading firms, if any (Rodrik, 2006).

The market-led approach to development policy, adopted by most African countries in the 1980s and 1990s as part of structural adjustment programmes, has paid almost no attention to industrial development and structural transformation.

In contrast with this experience, some LDCs — mostly Asian — opted for more gradual and selective reforms. The experience of late industrializers in Asia demonstrates a reliance on trade-related industrial policy tools such as incentives, local content, national treatment, export subsidies and tariffs (Singh, 1996). Selective protectionism primarily implied high tariffs, quotas, import licensing, rationing for exports, local content, subsidies and credit allocation. Many of these traditional policy tools are no longer considered acceptable or can only be used to a limited extent under the World Trade Organization (WTO) (table 18) and under regional and bilateral trade and investment agreements. Rather than abandoning them altogether, these countries pragmatically revisited their industrial policies and complemented them with more market-friendly and incentive-based mechanisms including, above all, a strong export orientation. This more selective approach to industrial development pays greater attention to underlying incentive structures and political economy issues but, at the same time, acknowledges that the various economic activities present different opportunities for learning and technological catch-up. Gradual reformers have thus put a more tangible emphasis on supporting structural change and industrialization processes. Correspondingly, Asian LDCs embarked on selective trade liberalization processes, pursuing integration into the world economy more as an instrumental opportunity than as a strategic objective in itself. Thus, export orientation that fosters learning-by-doing and technological upgrading has typically complemented a certain degree of domestic protection. Likewise, FDI and export processing zones have been conceived and managed as strategic tools to favour the emergence of dynamic comparative advantages, enhancing technological transfer and learning (Amsden, 1989; 2001).

Asian LDCs embarked on selective trade liberalization processes, pursuing integration into the world economy more as an instrumental opportunity than as a strategic objective in itself.

Mauritius and Botswana are among the African developing countries that have succeeded by embracing these policy actions. Among the key common features

Table 18

Key industrial policies tools and measures used by successful industrializers and policy space currently available under multilateral rules

Tools of industrial policy	Key policy measures	Multilateral agreements and disciplines potentially affecting use of measures
Import tariffs	• Tariffs used to: - protect domestic industry output from import competition (infant-industry protection) - facilitate import of capital goods and inputs for domestic industry • Tariff dispersion	• Use of tariffs and change thereof depend on schedules that each country has filed in WTO under GATT. Generally tariffs bindings of LDCs are well above applied rates • LDCs currrently being requested to expand the coverage of tariff bindings
Non-tariff barriers (NTBs)	• Import licensing • Import quotas • Import and export prohibitions • Exchange rate controls • Anti-dumping and safeguard measures	• Import licensing allowed subject to specfic rules (Agreement on Import Licensing Procedures) • Import quotas normally prohibited (GATT) • Import and export prohibitions normally forbidden (GATT) • No disciplines on exchange rate controls • Anti-dumping and safeguard measures allowed, but subject to disciplines that require institutional sophistication (Agreement on Implementation of Article VI (Anti-dumping) and Agreement on Safeguards)
Export promotion	• Export subsidies • Marketing of domestic industry and firms • Import duty drawback • Export finance/insurance/guarantee • Export quality management • Export processing zones • Export promotion organizations • Export targets for industries/firms	• Export subsidies authorized according to SDT measure • Most export promotion tools allowed • Export targets forbidden by TRIMs • Import substitution subsidies prohibited (TRIMs)
Export duties/prohibition		Export prohibitions normally forbidden
Aid to enterprises	• Industry targeting through administrative measures (e.g. restricting access to domestic market), part of strategic and export industries • Subsidies - production subsidies (e.g. to inputs) - credit subsidies - tax subsidies (holidays, exemptions, - export subsidies • Credit allocation to priority sectors/firms • Market reserve/licensing • Adjustment assistance • Manpower training	• Industry/firm targeting generally incompatible with WTO rules (e.g. SCM, national treatment and MFN provisions of GATT, GATS, TRIMs) • Horizontal measures (including subsidies) allowed, if not conditional on local content • Local content requirement forbidden by TRIMs • "Specific" subsidies can be challenged under SCM • Support to firms cannot be explicitly linked to export performance • No restriction on human resource development
Technological change and innovation	• Lax enforcement of intellectual property rights (if any) • Facilitating reverse engineering and imitation • Assistance to R&D (subsidies/direct public participation) • Technology-related requirements on domestic firms	• LDCs exempt from TRIPS disciplines until 2013 (SDT measure), but some have committed to abide earlier under bilateral FTAs • TRIPS requires domestic IPR institutions and protection • TRIPS restricts reverse engineering, imitation and mandatory licensing • TRIPS foresees transfer of technology to LDCs, but contents and implementation of requirement remains vague
Investment incentives and guidelines	• FDI policy - performance requirements (e.g. trade performance, transfer of technology, local content, joint-venture with domestic partner, employment of nationals, R&D activity) - selective right of establishment • Investment regulation (incl. sectoral restrictions and guidance) • Regional assistance	• TRIMs explicitly forbids some performance requirements (local content, export performance, trade balancing); others can be challenged alleging national treatmen; • Regulation of FDI in service sectors (right of establishment etc.) depends on GATS commitments, which vary from limited to very comprehensive among LDCs • Susidies to R&D and to regional development can be challenged under SCM

Source: UNCTAD secretariat compilation.

Notes: GATS - General Agreement on Trade in Services
GATT - General Agreement on Tariffs and Trade
IPR - intellectual property right
MFN - most favoured nation
R&D - research and development
SCM - Agreement on Subsidies and Countervailing Measures
SDT - special and differential treatment
TRIMs - Agreement on Trade-related Investment Measures
TRIPS - Agreement on Trade-related Aspects of Intellectual Property Rights

of these countries are: (a) the importance of a "Weberian bureaucratic class" that keeps vested interest relatively under control and operates at reasonable levels of efficiency; (b) a sustainable macroeconomic record; (c) a gradual and strategic approach to liberalization; (d) a close coordination among private and public actors; and (e) a deliberate effort to promote structural change, whilst ensuring that the resulting social transformations are politically feasible (Bhowon, Boodhoo and Chellapermal, 2004).

Unlike the African countries, the Asian countries produced a number of intermediate and capital goods from the very initial stages of their industrialization process and pursued vigorous export-oriented industrial policies.

Some Asian countries also adopted import substitution polices and export-oriented strategies with great success, such as Republic of Korea, Taiwan Province of China and Malaysia. "However, unlike the African countries, the Asian countries produced a number of intermediate and capital goods from the very initial stages of their industrialization process and pursued vigorous export-oriented industrial policies with strong state support and a wide range of incentives. Asian governments created the enabling environment for a realistic and sustainable industrial development" (UNIDO, 2007: 3).

The functions of the State include not only instigating the process of change, but also ensuring its viability through managing distributional conflicts.

An effective industrial policy regime requires the existence of the State, in its broadest sense, not just the Government as the executive branch, but the state, on the one hand, as a complex of institutions and practices which embody not just economic incentives, but a nation's basic values regarding justice, the rule of law etc. and, on the other, as the embodiment of a common vision, a sense of shared purpose and aspirations. Industrial policy, if successful, is an expression of the social contract, a partnership between different segments of society willing to share both the risks and benefits of change in an equitable manner. Accelerated growth tends to be turbulent and socially destabilizing. The multiple functions of the State include not only instigating the process of change, but also ensuring its viability through managing distributional conflicts.

Policy development should be an interactive process, rather than top-down. In developed market economies (DMEs), the private sector was able to ally with the State and become an agent of change, but in LDCs, the State must lead, since the private sector is too weak to carry out the transformative role.[6]

3. Developmental industrial policies and the profit–investment–export nexus

Export expansion is dependent on the creation of additional production capacity in industry and on productivity growth.

A sustainable growth process requires mutually reinforcing dynamic interaction between savings, investment and exports.

The development model underpinning this analysis is the "profit–investment–export nexus" model (UNCTAD *Trade and Development Report* series, 1996–2008; Akyüz and Gore, 1996). The "profit–investment–export nexus" paradigm analyses a process of industrialization that is categorized by continuously rising exports, domestic savings and investment, both in absolute terms and, for the most part, as a proportion of GDP. In this process, investment initially exceeds domestic savings by a large margin, with the difference being financed by net inflows of capital, but over time, the external gap narrows as exports and savings grow faster than investment (Akyüz, Chang and Kozul-Wright, 1999). Export expansion is consequently dependent on the creation of additional production capacity in industry and on productivity growth (which itself is dependent on investment), and a sustainable growth process requires mutually reinforcing dynamic interaction between savings, investment and exports. This model starts in the early stages of industrialization and accompanies the entire development process through the creation of new export opportunities in low-skill manufacturers. It calls for an infant-industry programme to be designed and implemented at each stage of the early industrialization process that is fuelled by investment in the productive resources.

The function of developmental industrial policy in LDCs transcends "targeting sectors" or "picking winners", to provide fundamental support and direction for satisfying the needs of broad sections of the society and setting the terms of public–private partnerships (investment coordination). The case of Mauritius, one of the most successful cases of industrialization in Africa, illustrates the effectiveness of complementing selective industrial policies with a broader stimulus for entrepreneurship and small and medium-sized enterprises (SMEs), thus setting the stage for inclusive growth and for greater employment creation (Rodrik, 1999).

The new developmental industrial policy should strive for creating a dynamic comparative advantage, upgrading human capital...

The standard conceptions of industrial policy are far too narrow when applied to LDCs attempting to embark on programmes of major economic transformation. In departing from the mainstream perspective, there are several dynamic objectives the new developmental industrial policy should strive for:

- Creating a dynamic domestic comparative advantage, in an increasingly complex and sophisticated range of products and services;
- Upgrading human capital and promoting learning by providing incentives at the firm / shop floor level to stimulate learning-by-doing;
- Upgrading productive capacities, in the sense of innovating to increase value added. The concept of upgrading — "making better products, making them more efficiently, or moving into more skilled activities" (Giuliani, Pietrobelli and Rabelloti, 2004) — is critical in this context;
- Building industrial policy capability, decreasing social marginalization and reducing poverty through incomes and "labour market" policies, fiscal policy, entrepreneurship and technological development policies, as described in *The Least Developed Countries Report 2007;*
- Creating conditions for full employment and inclusive growth, through compatible pro-growth macroeconomic policies (chapter 2 of this Report) and sectoral meso-policies that highlight intersectoral linkages;
- Creating conditions for the transformation from agrarian to post-agrarian societies;
- Improving the supply of all public inputs with a view to raising labour productivity;
- Facilitating diversification of natural resource activities; and
- Building capacities at meso/sectoral- and micro-levels, by actively promoting learning and knowledge diffusion among firms, as well as among workers.[7]

... upgrading productive capacities and creating conditions for the transformation from agrarian to post-agrarian societies.

Especially in times of liquidity crisis, mobilizing resources to finance public interventions and DIP represents one of the main challenges for LDCs. A promising strategy for resource mobilization is the option of transferring the surplus produced in other sectors of the economy to strengthen the "profit–investment–export nexus". This may take different forms, depending on the specificities of each economy: from the upward renegotiations of mineral royalties, to the establishment of mandatory pension contributions and the promotion of postal savings. A second option to finance public intervention is broadening the tax base, with special attention to widespread informal activities; nonetheless, tax revenues are not likely to be a major source of funding in the near future, given the longstanding fragility of taxation systems in most LDCs. Moreover, monetization of government deficits and public debt financing may be additional ingredients of "development-friendly macroeconomic policies", but more as supportive strategies in countries with moderate inflation and sustainable macroeconomic outlook, rather than as pillars of resource mobilization per se (chapter 2 of this Report). In the immediate future, the bulk of resources mobilized in LDCs is most likely to come from foreign

Mobilizing resources to finance public interventions and DIP represents one of the main challenges for LDCs.

savings, that is, mainly from official development assistance (ODA) and debt relief or lending. That is why it is essential that ODA commitments are at least matched by actual disbursements, and preferably scaled up (UNCTAD, 2008).

In the immediate future, the bulk of resources mobilized in LDCs is most likely to come from foreign savings, mainly ODA.

Despite the inherent difficulties involved in any of these choices, they should not lead to development pessimism. Given the strong complementarities among different forms of capital accumulation, public investment can exercise a "crowding-in effect", enhancing the appeal of overall capital accumulation and ultimately leading to large supply responses. Policymakers should exploit synergies between public and private investment. If appropriately designed, government efforts can create the momentum for a developmental partnership between private and public actors, reaping the benefits of a cumulative effect from the expansion of productive capacities.

4. Industrial policy agencies and institutions promoting growth

Given the heterogeneous nature of LDCs, institutional diversity is unavoidable.

Hirschmann argued that development is a search process which involves "calling forth and enlisting for development purposes, resources and abilities that are hidden, scattered or badly utilized" (Hirschman, 1992: 13). Rather than being a spontaneous process, it is a continuous process of discovery involving both cumulative improvements to existing activities and radical departures into new markets and along unfamiliar technological trajectories. In such a world, productive assets are as much acquired as they are given. The forces of competition are joined by increasing returns, uncertainty, cumulative causation and path dependence to shape the context for policymakers and private entrepreneurs alike. This perspective is influenced by Joseph Schumpeter's "plausible capitalism", where the challenge to established firms and industries through new products and technologies rests on the actions of entrepreneurs as agents of "creative destruction". However, if entrepreneurship is truly purposive activity in an uncertain world, institutions to support it must provide a more broadly enabling environment than suggested by Schumpeter himself. Whilst including an appropriate incentive system to encourage risk-taking and create new economic activities — "the creative role of markets" (Kaldor, 1972) — this environment must also provide the preconditions by and through which change can be understood and implemented, and purposeful activity thereby made possible. To this end, institutions must function to reduce uncertainty, regulate conflict and establish the linkages to ensure the flow of knowledge and capabilities between economic units.

Owing to externalities, missing institutions, economies of scale and market failures, markets alone cannot be relied upon to coordinate the processes of capital accumulation, structural change and technological upgrading in a way consistent with sustainable growth and development.

No ideal institutional configuration can be characterized as universally "successful", and given the heterogeneous nature of LDCs, institutional diversity is unavoidable. Once the distraction of the ideal model is abandoned, one is faced with a myriad of context-specific challenges. The underlying assumption argued by this Report is that — owing to externalities, missing institutions, economies of scale, and other types of market failure — markets alone cannot be relied upon to coordinate the processes of capital accumulation, structural change and technological upgrading in a way consistent with sustainable growth and development. The policy response to the current global crisis shows how government intervention is necessary even in DMEs; the need to address chronic coordination failures by the State is greater than ever, especially in LDCs. An issue of great concern is the lack of fiscal policymaking options through which LDCs can carry out industrial policies. This constraint suggests the need for a "big push" from external sources.

In the past, LDCs' experiences with industrial policy were mixed (UNCTAD, 2006b). Failures were exposed during the debt crisis and provided the opportunity

for a big shift in thinking about development strategy. Active industrial policies were a major casualty of this shift, but one should not deny or ignore the instances in which industrial policy was successfully used — not only in East Asia, but also Ireland and most Nordic countries (Denmark, Finland and Sweden).

5. Key features of a developmental industrial policy

(a) Institutions: dynamics between policies and institutions

Unmistakably, changing the policy environment alone is insufficient to solicit the type of behaviour that would encourage growth and poverty reduction, as policies do not operate in an institutionally disembodied environment. Institutions are socially constructed rules of the game that reduce uncertainty by establishing a stable structure of interactions and linkages. Institutions, however, differ widely from organizations, and it is the recurrent interactions between the former and the latter that ultimately shape the direction of institutional change (North, 1990).[8] Industrial policy is embodied in these institutions and incentives.

Policies do not operate in an institutionally disembodied environment.

Institutions are socially constructed rules of the game that reduce uncertainty by establishing a stable structure of interactions and linkages.

The present Report argues that the institutional framework brought about by the Washington Consensus in the last decades has confined industrial policies to a very marginal role, taking for granted that structural change would occur spontaneously once economic fundamentals are in place (Rodrik, 2006). Most market-based institutions — such as those of the financial sector and business organizations — as well as the State and the institutions of the civil society, tend to be weak and underdeveloped throughout the LDCs. There is now general agreement that the market mechanism alone cannot function efficiently without a complementary public sector. The private sector alone cannot bear the burden of development, so it is clear that the private sector and the State have to complement each other.

The institutional framework brought about by the Washington Consensus has confined industrial policies to a very marginal role.

To avoid repeating the mistakes of the past, this Report does not assume a prescriptive "one-size-fits-all" attitude towards industrial policy. Rather, it stresses the need for building industrial policy capability through greater policy space, namely, a broader range of industrial policy tools available for each government to deploy, in light of its specific developmental needs. In this respect, this Report builds on the findings of previous research (UNCTAD, 2006b; 2007; Chang, 2002), arguing that some WTO agreements — including the Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS) and the Agreement on Trade-related Investment Measures (TRIMs) — and regional and bilateral trade and investment agreements circumscribe the use of industrial policy tools used in traditional industrial policy, such as credit and export subsidies, government procurement, credit allocation, price management and local content clauses (table 18). These tools were justified on the basis of infant-industry protection.

The market mechanism alone cannot function efficiently without a complementary public sector.

(b) Institutions and incentives for coordinating change

A lively debate continues over the role of institutions in economic growth and development. The main argument of those who favour policy intervention is that it is the interaction of policies and institutions that make up the incentive structures which instigate, accelerate or delay economic change. The State, through industrial policy, can shape the structure of social and economic interactions through the provision of incentives. Incentives and institutions represent the main coordinating devices for economic and social activities. Incentives — interpreted as rules that govern the exchange of goods and services as well as the creation of new markets — coordinate activities of economic and productive agents. The question of

institutional readiness needs to be addressed firmly in the LDC context. Skepticism has been expressed as to the extent to which the prevailing institutional setup in many LDCs is capable of sustaining growth-accelerating processes (World Bank, UNIDO, Collier, etc.), while other critics have questioned whether national elites are ready and willing to support policies for change (Bora, Lloyd and Pangestu, 2000). But institutions are dynamic and can be modified and shaped by prices, incentives and regulations in order to coordinate investment.

Productive capacities, which form the basis of a production-oriented paradigm need to be created, nurtured and developed by the new developmental State.

Selected examples of LDC and ODC institutions that promote growth include: (a) ministries of development, industry and trade, e.g. the Ministry of Industry and Handicrafts of the Lao People's Democratic Republic, which works with business associations; (b) the Chamber of Commerce, Industries and Agriculture in the United Republic of Tanzania; (c) private development banks, such as Grameen Bank in Bangladesh; (d) public development banks, such as the Banco Nacional de Desenvolvimento Econômico e Social (BNDES) in Brazil; (e) specialized government agencies, such as the Bangladeshi Rural Development Board (BRDB); and (f) university-sponsored initiatives, such as the Federal University of Santa Catarina's Centre for Ceramics Technology in Brazil.

(c) Investment

Public investment is a key factor in raising the levels of productivity in agriculture in order to generate a net agricultural surplus as a key source of accumulation.

Productive capacities, which form the basis of a production-oriented paradigm, will not emerge spontaneously from markets alone, but need to be created, nurtured and developed by the new developmental State. *The Least Developed Countries Report 2006* identified the following elements as essential to productive capacities: capital accumulation (investment), technical change and structural change. Owing to a series of market failures and inefficiencies, investment is unlikely to occur at all or on a sufficient scale. These include: (a) imperfect or missing credit, information, equity and insurance markets; (b) coordination failures (lack of backward and forward linkages and complementary investments); and (c) weak positive externalities (Khan, 2008).

The role of the State is essential for creating the right set of incentives for investment, through regulating prices of both inputs and outputs via exchange rate policies, sectoral policies to promote technical change, and fiscal policies. Public investment, for example, is a key factor in raising the levels of productivity in agriculture in order to generate a net agricultural surplus as a key source of accumulation (chapter 3 of this Report).

Governments can play a fundamental role in accelerating growth and promoting structural change by engaging in "strategic coordination" with the private sector.

Historical evidence illustrates that Governments can play a fundamental role in accelerating growth and promoting structural change by engaging in "strategic coordination" with the private sector. In countries where coordination failures tend to prevail and resources are scarce, regular consultation with potential investors, exchange of information, and similar activities become valuable instruments to nurture and orient the accumulation process towards more dynamic sectors. Further, these kinds of "nudging industrial policies" (Wade, 2004) are typically highly cost-effective when vested interests are kept under control, and tend to feed back into a greater institutional efficiency and social dynamism, as in the case of Taiwan Province of China.

(d) Incentives

LDCs can employ a large menu of instruments for industrial development, including preferential treatment reflected in incentives or targeted supports, a plethora of fiscal and investment incentives, as well as trade policy tools (tariffs

and non-tariff barriers), subsidies, grants or loans. Most of these can be used to encourage capacity-building in the private sector and stimulate the process of economic transformation. Moreover, "new-style" industrial policy tools, such as fiscal and investment incentives, are less susceptible to rent-seeking and more self-limiting than tariffs or quotas (Wade, 2006). Additionally, Governments can facilitate this process by strengthening their domestic financial institutions, whether State-owned development banks such as the BNDES in Brazil, or privately-owned credit institutions such as Grameen Bank in Bangladesh.

"New-style" industrial policy tools, such as fiscal and investment incentives, are less susceptible to rent-seeking and more self-limiting than tariffs or quotas.

(e) Innovation

While innovation is considered by many as the foundation of growth, the innovation process in LDCs follows a different pattern (Abramovitz, 1986; Lall, 1992; Srinivas and Sutz, 2008; Srinivas, 2009). As elaborated previously in *The Least Developed Countries Report 2007*, innovation in LDCs (adopting whatever is new to a firm) is not a perfected or a common occurrence.

Learning and innovation may arise from a variety of sources, such as research and development (R&D — which is codified knowledge), tacit learning-by-doing, investments in new machinery and equipment, technology suppliers, mobility of labour, etc. For many low-income economies, however, the opportunities for industrial learning have been limited because of the lack of incentives to engage in a collective learning process with others. But firms do not innovate alone (Kozul-Wright, 1995); in developed market economies, they are heavily supported by a dense array of institutional support institutions that buttress institutional learning on a continuous basis. Such institutions are largely missing in most LDCs, especially is sub-Saharan Africa (Oyelaran-Oyeyinka, 2006).

For many low-income economies the opportunities for industrial learning have been limited because of the lack of incentives to engage in a collective learning process with others.

(f) Capabilities, capacities and policy space

The key to development lies in improving productive capacities and capabilities of both firms and farms, as well as the capability of the developmental State to carry out industrial policy. The State capability to carry out industrial policy will depend on its institutional and technical capacity (knowledge, skills and competent bureaucracy), as well as the constraints that impinge on that capacity. Policy space defines the parameters of the State capabilities to carry out national development strategies. This includes external constraints that are found in the international commitments made by LDCs through international trade and investment agreements, at the multilateral, regional and bilateral levels. Table 18 illustrates how multilateral commitments constrain the capability of LDCs to carry out effective industrial policies. The policies, institutional framework and State capabilities to design and implement policy will determine the effectiveness of industrial policy. But even if countries employ the same instruments and policies, the sequencing or combination of different instruments can produce very different outcomes. Industrial policy instruments will vary according to the conditions that prevail in a given economy at a particular time, and both the form and content of industrial policy should evolve in relation to the development of market institutions, as well as the capabilities of the State itself to manage economic change and transformation. For example, to build capabilities, public–private partnerships in knowledge creation were used successfully as tools in East Asia, establishing collaborative arrangements between firms, governments and banks that encouraged cooperation, risk-sharing and common purpose.

The key to development lies in improving productive capacities and capabilities of both firms and farms, as well as the developmental State, to carry out industrial policy.

Policy space defines the parameters of the State capabilities to carry out national development strategies. This includes external constraints that are found in the international commitments made by LDCs through international trade and investment agreements.

Over the last two centuries, historically unprecedented growth rates in the developed world, fuelled by the harnessing of science to productive activities,

have underscored the importance of knowledge and innovation for growth, competitiveness and poverty reduction. This trend intensified in the late twentieth century, leading to the emergence of so-called knowledge based economies (KBEs). The Organisation for Economic Co-operation and Development (OECD) describes KBEs as those economies "which are based directly on the production, distribution and use of knowledge and information" (OECD, 1996: 7). In contrast, most developing countries are falling behind and only a few emerging economies are beginning to catch up. The asymmetric creation and access to knowledge is one of the main reasons for widening of the gap (UNCTAD, 2007).

Most developing countries are falling behind and only a few emerging economies are beginning to catch up. The asymmetric creation and access to knowledge is one of the main reasons for widening of the gap.

The role of knowledge in growth assumes far greater importance in determining "comparative advantage" than traditional, static factors of production (Reinert, 2007). Their rise has been accompanied by an increasing reliance on codified knowledge that can be formalized and hence transferred as the basis for the organization and conduct of economic activities (Abramowitz and David, 1996; Amsden, 2001). By implication, all developing countries, including LDCs, are being challenged by increased knowledge requirements for catch-up growth (Bell and Pavitt, 1993; UNCTAD, 2007).

While knowledge is generated globally, it is embedded locally. The local technological institutions carry out the generation, creation and diffusion of knowledge available from the local and global domains. Local knowledge institutions have been normatively defined as "a set of agents that act as the repository of creative assets, and devolving in a milieu of dynamic interaction with other agents" (Oyelaran-Oyeyinka, 2004: 21). This is why local productive business enterprises are a critical component of domestic learning processes. African firms, for example, tend to be largely small enterprises that generally do not interact with either formal or non-formal agents or sources of knowledge, be they other firms or universities, public research institutions and other knowledge networks. Small firms, however, tend to under-invest in training while the widespread institutional failure in developing countries to attenuate the skills market failure is well known (Lall, 2000; Teubal, 2008). Knowledge accumulation remains a key challenge for LDC enterprises (Juma, 2007).

The role of knowledge in growth assumes far greater importance in determining "comparative advantage" than traditional, static factors of production.

(g) Building firm-level capabilities

Developmental industrial policy emphasizes the promotion of technological learning to complement rather than replace the market. At the micro level, this will require building capable and competitive large firms able to generate externalities and spillovers with strong multiplier effects throughout the economy. From this perspective, industrial policy is inseparable from investment coordination. Developing such firm-level capabilities is essential to the catch-up growth model. Specific incentives to encourage learning at the shop floor should be implemented in the twenty-first century.

All developing countries, including LDCs, are being challenged by increased knowledge requirements for catch-up growth.

LDCs exhibit a number of structural constraints, including (a) poor logistics coordination; (b) heavy dependence on imports; (c) infrastructural weaknesses, including telecommunications; (d) poor transport facilities; (e) limited human resources, including education; and (f) high levels of indebtedness. Unless these constraints are addressed with industrial policy, LDCs will not be able to engage in learning and capital accumulation. Another potential source of learning is

FDI. However, for FDI to benefit the local enterprises, it needs to become an integral component of a developmental industrial policy, creating a systematic framework that goes beyond hands-off promotion to a hands-on approach that includes training and skills development, enabler technologies to support logistics coordination and efficiency-driven innovation (Rasiah, 2007).

C. FDI: not a substitute for industrial policy

The experience of LDCs suggests that the contribution of FDI to industrial and technological upgrading has been very limited.

Policies privileging exports and foreign investment have been a common feature in many LDCs over the last few decades. These were part of the liberalization reforms associated with structural adjustment programmes (SAPs). Indeed, many LDCs gave preferences to export processing zones and fiscal incentives were granted to foreign capital over domestic producers and investors. The experience of LDCs, however, suggests that the contribution of FDI to industrial and technological upgrading has been very limited. Indeed, FDI in LDCs has been largely focused on extractive industries or, as in Asian LDCs, on simple processing and labour-intensive activities with few local linkages and spillovers (UNCTAD, 2007) As such, it can be argued that these policies to attract FDI have been relatively successful in Africa and Asian LDCs. But the expected benefits related to FDI such as employment generation and technological transfer did not materialize for various reasons, including lack of industrial policy.[9]

FDI inflows to LDCs have been a negligible proportion of total world FDI.

FDI inflows to LDCs have been a negligible proportion of total world FDI and a similarly low share of the FDI going to developing countries. Among LDCs, African countries have always received the largest inflow of FDI, particularly in the present decade (chart 21).

Likewise, FDI was directed predominantly to commodity exporters, mainly oil, but to a lesser extent to mineral and agricultural exporters. FDI inflows to manufactures and service exporters, despite generous incentive schemes, remain marginal (circa 1 per cent) (chart 22), declining in 2008 and in 2009 following the global economic crisis.

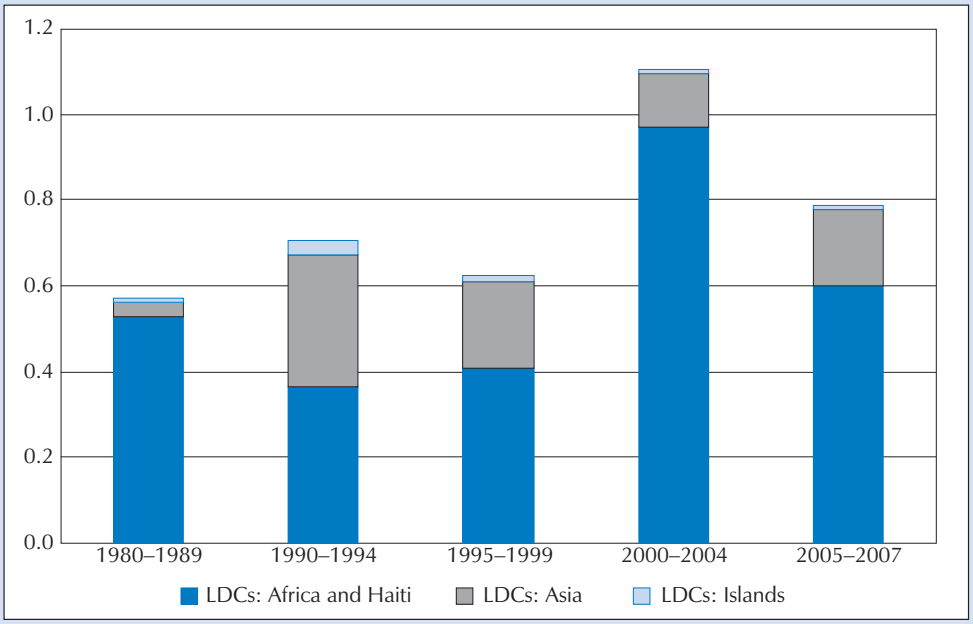
Evidence concerning FDI stocks confirms the previous analysis. African commodity-exporting LDCs host the bulk of FDI stocks, while those in Asian and island LDCs (mainly service and manufactures exporters) have slightly declined in the last 10 years.

FDI was directed predominantly to commodity exporters, mainly oil, but to a lesser extent to mineral and agricultural exporters.

Relative to GDP, FDI inflows are more significant for developing economies as a whole than for LDCs alone, although these inflows are more important for both of them than for the entire world economy. As a by-product of globalization and of the increasing importance of transnational corporations (TNCs), there has been a clear trend for rising FDI inflows for all the regions considered, although it is notably flatter for Asian LDCs than for all the other groups. In the last five to ten years, FDI inflows have gradually acquired a relatively significant role in African and island LDCs, where they represent more than 3 per cent of GDP. With the rise in commodity prices, FDI flows peaked around 2003–2004, but are expected to decline sharply with the onset of the global crisis (chart 23).

Chart 21

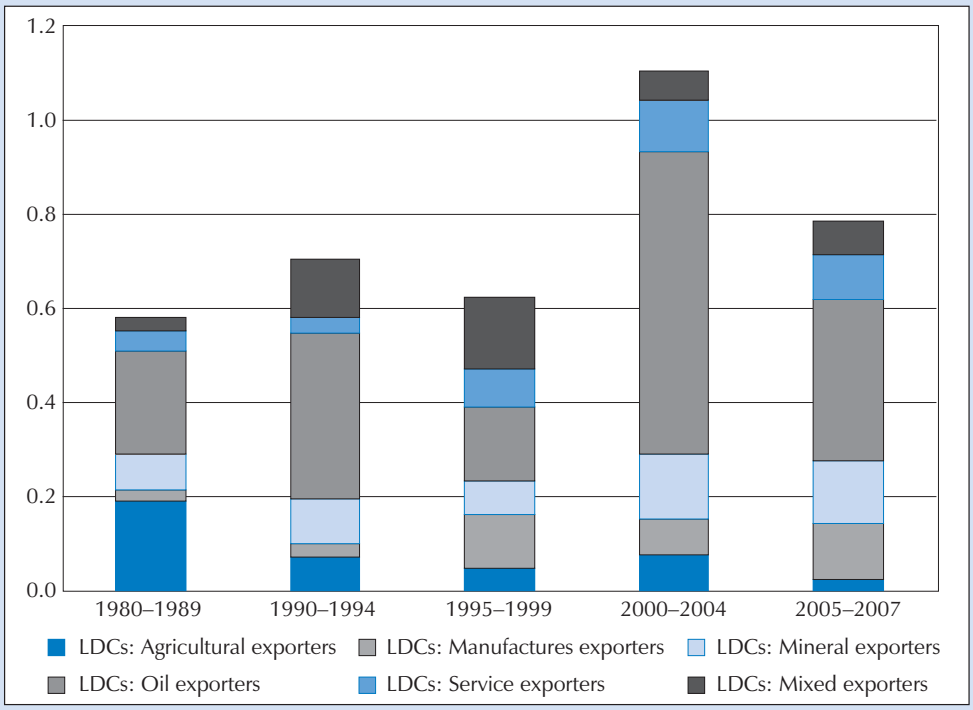
FDI inflow to LDCs, by region, 1980–2007
(Per cent of world total FDI inflows, period average)



Source: UNCTAD secretariat calculations, based on data from the GlobStat database.

Chart 22

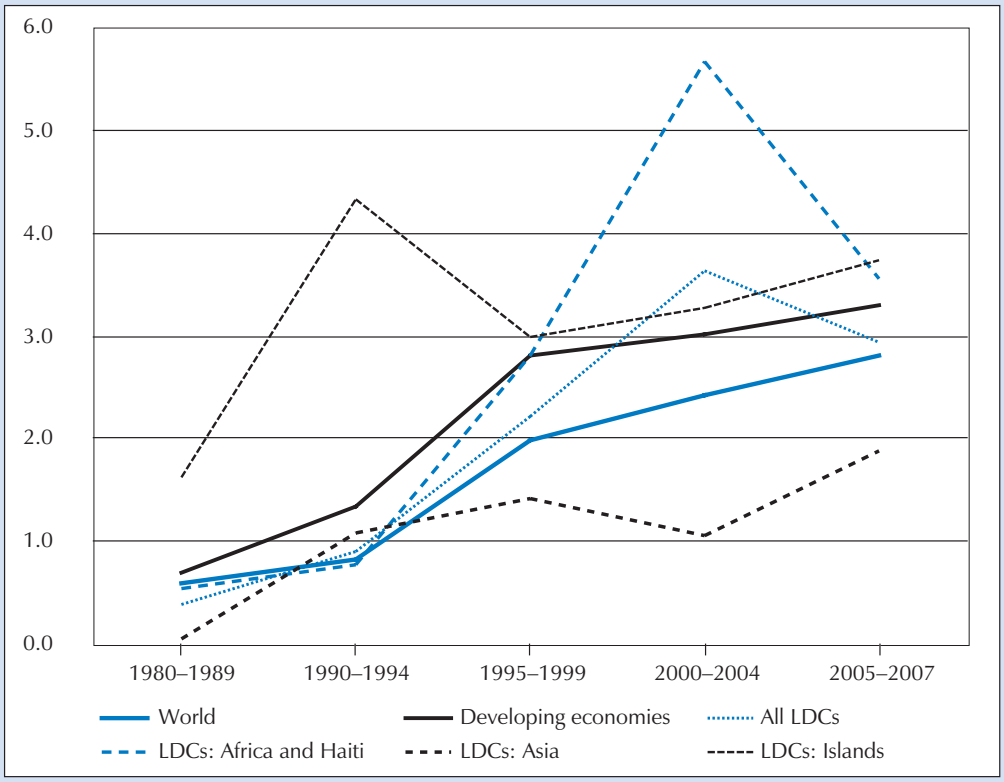
FDI inflow to LDCs by export specialization, 1980–2007
(Per cent of world total FDI inflows, period average)



Source: UNCTAD secretariat calculations, based on data from the GlobStat database.

Chart 23

FDI inflow as a percentage of GDP of the receiving countries
(period average)



Source: UNCTAD secretariat calculations, based on data from the GlobStat database.

D. Enabling conditions for knowledge-based structural change

1. Technology policy and learning

Technology policy in LDCs is much more than investment in R&D (see Srinivas, 2009). Developmental industrial policy needs to focus on: (a) facilitating and enabling access to new technologies; (b) human resource development; (c) general training; (d) the collection, analysis and diffusion of technical data; and (e) entrepreneurship. This approach advocates State intervention through a proactive technology policy towards the generation of productive and technological capabilities at the firm and farm level. A mixture of general and selective policy tools is available to Governments for promoting technological development. This approach distinguishes the different phases of development — namely, between infant and mature industries (UNCTAD, 2007). One of the priorities of industrial policy in LDCs is to create the conditions for learning, through the acquisition of technological and productive capacities.

One of the priorities of industrial policy in LDCs is to create the conditions for learning, through the acquisition of technological and productive capacities.

It is important to bear in mind the characteristics of knowledge before elaborating a policy framework for the LDCs. Technology is more than information: technological know-how is "sticky" — that is, it is embodied in specific people, organizations and local networks. Consequently, learning is not automatic. Learning accompanies the acquisition of production equipment, using it and adapting it to local conditions. It is important to differentiate between production capacity, which covers knowledge and the organizational routines needed to run, repair and improve existing equipment and products, and technological capabilities which involve the skills, knowledge and organizational routines needed to manage and generate technical change (Bell and Pavitt, 1993).

There are strong feedback links between economic diversification, learning and capital accumulation. The task of much industrial policy is to strengthen those linkages.

Various types of activity contribute to the accumulation of technological capabilities. These include formal modes of learning, as well as experiential learning-by-doing. In both cases, learning is a costly and time-consuming activity that does not occur automatically, but needs to be deliberately managed. Moreover, because learning is directly related to the production experience itself, the more complex the production process, the greater the possibilities for learning. Consequently, there are likely to be strong feedback links between economic diversification, learning and capital accumulation. The task of much industrial policy is to strengthen those linkages (Lall, 1992).

Market signals, if left to themselves, may even discourage the accumulation of technological capabilities.

Market signals, if left to themselves, may even discourage the accumulation of technological capabilities (Cimoli, Dosi and Stiglitz, 2008). At the enterprise level, the State needs to invest in the accumulation of technological capabilities and to create the conditions to stimulate learning. At the national level, the State needs to find and ensure financing for technical change and innovation. Creating these conditions is a function of industrial policy.

The developmental industrial policy should build firm-level capabilities by generating a cumulative process of growth of commercial innovation in the business sector.

The developmental industrial policy should build firm-level capabilities by generating a cumulative process of growth of commercial innovation in the business sector until it becomes internalized. Programme implementation should aim at rapidly generating a critical mass of firms undertaking commercial innovation. Sufficient financial resources must be available initially, with a budget that increases over time (Teubal, 2008). The specific objectives for commercial innovation are:

- Diffusion of the activities/functions underlying the innovation throughout the business sector;
- Creation of relevant capabilities, particularly in firms;
- Promotion of entrepreneurship; and
- Identification of areas with sustainable competitive advantage.

2. Learning and technological upgrading in LDCs

Demand for investment in LDCs is too low. Hence a rise in aggregate demand must take place to generate the investment levels necessary for growth to take place.

In order to increase productive capacities, the role of demand cannot be overlooked. However, demand for investment in LDCs is too low (UNCTAD, 2006a). Since investment is demand-determined, and given the underutilization of labour and other resources, a rise in aggregate demand must take place to generate the investment levels necessary for growth to take place. This situation calls for a much deeper type of industrial policy in LDCs than is usually envisaged.

Mainstream economics interprets development as a process largely driven by the *accumulation* of physical and human capital. The present Report argues, however, that the process of development is driven by catching up through the general principle of *adaptive imitation* (Kozul-Wright and Rayment, 2007) through

learning from the more advanced countries how to produce competitive products and by emulating both their economic structures and their institutions. "Catch-up" growth refers to closing the gap between those countries which produce new knowledge (developed countries) and those that are learning to produce products and processes that are novel to their economic systems (Ocampo, Jomo and Khan, 2007; Cimoli, Dosi and Stiglitz, 2008). The potential advantage for latecomers, such as LDCs, is that new technologies and new technological knowledge are already available. Successful emulation of new production processes and products can lead to high rates of growth of output and productivity, which in time can strengthen domestic capabilities for generating further structural transformation (UNCTAD, 2007). This is not, however, an automatic process.

"Catch-up" growth refers to closing the gap between those countries which produce new knowledge and those that are learning to produce products and processes that are novel to their economic systems.

Catch-up growth involving emulation refers to the purposeful effort to adapt frontier technologies and production activities to a country's "comparative advantage" (Reinert, 2007). This process will need to involve explicit public policies to support learning in firms as well as in the wider national system of innovation. However, the mere physical accumulation of technology is evidently not sufficient. The logic that interprets learning as automatic and knowledge as a linear process would conclude that it is enough to provide capital to poor countries for development to automatically follow. But capital per se cannot be the key to growth in countries that lack the absorptive capacity to use it profitably. If investments in human capital are made without corresponding changes in the productive structure to create demand for the skills acquired, the result may be knowledge flight ("brain drain") through emigration (Ocampo, Jomo and Khan, 2007; UNCTAD, 2007).

If investments in human capital are made without corresponding changes in the productive structure to create demand for the skills acquired, the result may be knowledge flight.

This perspective shifts the role of industrial policy towards one that focuses on facilitating assimilation through *learning* (copying, imitating and eventually innovating), in addition to capital accumulation. This implies that the modern form of industrial policy is indispensable for articulating the links between science, technology and economic activities, through networking, collaboration and fine-tuning the learning components (learning by doing, adaptive R&D and labour training) into an integrated development strategy (Amsden, 2001). However, such interactions cannot be created by decree; they require institutions, resources and capabilities.

Industrial policy focuses on facilitating assimilation through learning and on capital accumulation.

From the perspective of this Report, changes in economies' productive structures are essential in order to generate growth in activities characterized by increasing returns, dynamic imperfect competition and rapid technological progress. Not all economic activities, however, are generators of accelerated growth: for example, commodities and agricultural activities tend to be characterized by decreasing returns to scale, low productivity and low rates of formal employment. Different economic activities transmit different learning patterns and knowledge spillovers. Activities that generate dynamic growth tend to be those with the ability to absorb the innovations and new knowledge that produce increasing returns to scale. Successful growth episodes not only entail rapid capital formation (investment), but also active policies for "transferring and mastering skills and, above all, creating a viable market" (Ocampo, Jomo and Khan, 2007: 199).

Activities that generate dynamic growth tend to be those with the ability to absorb the innovations and new knowledge that produce increasing returns to scale.

Learning does not occur automatically or without cost — policy and institutions matter. In the global context, science, technology and innovation are not luxuries for LDCs, but a precondition for their economic development (UNCTAD, 2007). Publicly available science, technology and innovation (STI) resources offer an opportunity to so-called "latecomer" firms in LDCs to accelerate their development process, provided: (a) they enhance their understanding of innovation as an interactive, multidirectional (searching), highly interactive process that integrates

or "articulates" science, technology and production; and (b) they design policies that can establish virtuous circles between technology and productivity growth. STI policies can enhance their absorptive capabilities provided they can begin to establish and enhance their national systems of innovation, which have been called the "engine of capitalist growth" (Nelson, 1993).

Despite continuous allegations of pervasive government failure by the dominant paradigm over the last three decades, a long history of successful industrial policy in advanced economies since the nineteenth century persists.

E. Comparative accelerated growth experiences in successful industrializers

Industrial policy success is not limited to East Asian newly industrialized countries (NICs), with their unprecedented and sustained growth experiences. It has been used in almost all countries to promote development (Shafeaeddin, 2006; Shapiro 2007; Kozul-Wright, 1995). Despite continuous allegations of pervasive government failure by the dominant paradigm over the last three decades, a long history of successful industrial policy in advanced economies since the nineteenth century persists. Examples include Japan, the first-tier East Asian NICs — Hong Kong (China), Singapore, Republic of Korea and Taiwan Province of China —, the Nordic countries (Denmark, Finland and Sweden) and Ireland. In all cases, the State played a key role in promoting economic growth. There are as many types of industrial policy as there are market models.

LDCs can benefit from the knowledge of what works or does not, albeit in different circumstances.

All late-developing countries share a surprising number of common features. While none of these individual experiences are directly reproducible, given differences in historical contexts, internal and external political characteristics and economic geography, LDCs can benefit from the knowledge of what works or does not, albeit in different circumstances.

The successful late industrializers all faced severe capital and skills limitations.

The successful late industrializers all faced severe capital and skills limitations, to which the city-States of Hong Kong (China) and Singapore added extremely limited supply of land. Their respective industrial policies entailed accelerated capital accumulation initially through external sources, and increasingly through endogenous sources. The historical setting and longevity of the accelerated growth phase varied widely: the Nordic countries (Denmark, Finland and Sweden) began their industrialization efforts a century ago, while the other economies started their economic transformation after World War II.

The Nordic countries and Ireland enacted industrial policies that explicitly incorporated social inclusion, involving labour, business and civil society.

Resource- and labour-rich, but capital-poor, with small and open economies, the Nordic economies achieved enormous structural and institutional change with minimal social upheaval. As one fifth of the Swedish population emigrated in the late nineteenth century, simultaneous capital inflows enabled wages to rise. Industrial policies encouraged innovation, diversification and deepening of skills, combined with spending to ensure social equality and inclusion from the start of their growth phase in the late nineteenth century. In the Nordic case, natural resource processing and high-tech manufacturing have been closely linked (from timber to IKEA).

The Nordic countries and Ireland enacted industrial policies that explicitly incorporated social inclusion, involving labour, business and civil society. The State led, but did not dominate, policy initiatives. In contrast, the NIC economies built their policies on the power of the bureaucratic–economic elites, discouraging or excluding other voices (Chang, 2006).

1. Social compact/partnerships

The Nordic countries promoted a relatively comprehensive welfare State and a social climate that supported change during the accelerated growth phase. Over the years, they have created a strong social support network, based on high and progressive taxation rates, extensive and high-quality public services, including transportation, and comprehensive social insurance. The sharing of benefits (as manifested in low Gini coefficients) was essential to the model.

The Nordic countries promoted a relatively comprehensive welfare State and a social climate that supported change during the accelerated growth phase.

A fully articulated social compact had already been created during the early agricultural phase in late nineteenth century Sweden, which carried over to the industrialization phase. The social democratic model demonstrates how the State and other social partners can develop productive capacities in a natural resource-based economy undergoing structural transformation. The social compact delivered benefits through shared understanding about wage restraints, public goods, goals and coordination of local economic development, labour-firm compacts to boost international competitiveness, explicit investments in technology, and using innovations to deliver on domestically necessary innovations, even while exporting.

Similarly, social consensus stood behind the Celtic miracle in Ireland. Ireland's severe 1980s crisis created the resolve to draft policies that incorporated the ideas from government, industry, unions and farmers on a consensual basis. The National Economic and Social Council consciously crafted policies that codified social partnerships in the 1987–1990 agreement on moderating wage growth, formulating consensual agreements on wide-raging economic and social policies, including tax reform, welfare, health expenditures and structural adjustment.

The social democratic model demonstrates how the State and other social partners can develop productive capacities in a natural resource-based economy undergoing structural transformation.

In a different manner, the collective drive is also visible in East Asia. Governments in the first-tier East Asian NICs directed a top-down industrialization policy with constructive government–business interactions, autonomous from interest groups. Collective consensus on policies was less prevalent, although some State–business collaboration did exist. When an industry lagged, the Government had more latitude to withdraw support and reallocate resources, imposing discipline without fear of conflict.

2. Strong developmental States and policy alignment

Within the first-tier East Asian NICs, industrial policy was embedded within a developmental State (Johnson, 1982). The State did not resort to direct ownership in a generalized way; instead, the autonomous bureaucratic elites strongly directed and constrained the private sector. These conditions facilitated coherent, decisive, yet flexible policy (Evans, 1995; Haggard, 1989). Bureaucratic elites encouraged export-intensive manufacturing, without disregarding the domestic economies.

The first-tier East Asian NICs directed a top-down industrialization policy with constructive government–business interactions, autonomous from interest groups.

Through selective allocations of capital, enabling legislation and the creation of institutions, both Irish and Nordic Governments promoted industrial policy and enterprise development, but allowed SMEs and clusters of firms to lead initiatives related to entrepreneurship and innovation. It is well known that the Irish Industrial Development Agency dominated industrial policymaking and implementation from the 1960s, replaced in 1994 by Forbairt (Enterprise Ireland) and Forfás.

By aligning domestic demand and social spending with the requirements of their productive structures, the Nordic Governments were able to transform their industrial structures. Export strategies were not set against social demands, but instead the latter provided a base for the former. They invested in flourishing

sectors or regions through transfer of resources from those that were in relative decline, but selective measures were taken to create employment in the latter. Sweden exacted high taxes on profits, which reduced the pressure for inflationary wage agreements. By means of industrial policies, they became leaders in technological innovation, in part through technology transfer (Bigsten, 2001). The Nordic countries succeeded in combining efficient bureaucratic tradition, coupled with a strong corporatist network (Vartiainen, 1995).

In the Nordic countries and Ireland, labour participated extensively in a consensus-based formulation of industrial policy.

In the Nordic countries and Ireland, labour participated extensively in a consensus-based formulation of industrial policy. Labour representatives and industrialists shared a common understanding of dependence on the world economy, accepting structural change and wage restraint to rationalize industry and make it more competitive. High wage-led growth and social participation also assured good labour relations in Ireland.

In East Asia, the social contract effectively managed labour relations in a manner that would be more politically and internationally complex today. The high-wage promise delivered to East Asian labour forces limited potential demands for a "place at the table" (Chang, 2006).

3. The role of external finance

All of the successful late industrializers relied heavily on external sources of capital, including private capital inflows, FDI, ODA or fiscal transfers to initiate industrialization.

All of the successful late industrializers relied heavily on external sources of capital, including private capital inflows, FDI, ODA or fiscal transfers to initiate industrialization. At the outset, they were heavily indebted, but were mostly able to generate sufficient surplus and economic growth to repay the debts. East Asian savings policies and behaviours were uniquely used to finance growth.

The East Asian NICs depended heavily on external financing in the early stages of industrialization. Later, capital accumulation derived from other sources, such as family-owned businesses and conglomerates or the diaspora. Policies that encouraged savings insured continuous finance sources. Credit rationing was also prevalent. Once productive capacities were established, the NICs attracted a significant amount of FDI. In 1966, the Asia Development Bank began to provide assistance for food production and rural development, and later expanded to supply technical assistance and aid for education, health, infrastructure and industry.

Similarly, in Ireland, external financial resources were used in the early phase of the industrialization drive. Ireland launched a major programme to attract FDI. Instead of ODA, Ireland was the beneficiary of significant fiscal transfers following its integration with the European Union in 1973. The focus of financing industrial development subsequently shifted from grants to equity, from providing start-up capital to offering business services, and to deepening linkages with TNCs, while actively developing indigenous firms, domestic capabilities, clusters and sectors (O'Donnell, 1998).

East Asian economies coupled infant-industry protection and ISI with strong export promotion incentives.

4. Trade tools, mechanisms and development institutions

East Asian economies, known for their strategic trade liberalization, freely used protectionist measures to ensure unimpeded growth of critical, export-oriented industry, while rationing foreign exchange to rectify the persistent balance of payments distortions (table 19). The Governments coupled infant-industry protection and ISI, with strong export promotion incentives (Chang, 2006; Yusuf and Peters, 1985; Wade, 2004). Tax incentives for exports, credit and

interest rate policy were used to promote infant industries. Export strategies were facilitated by management of foreign exchange rates that promoted exports of the manufacturing sector.

During the early phases of accelerated economic growth, all late developers deployed various forms of industrial policy to support and protect domestic firms. Institutions and practices established for commodity trading were readily applied to higher-value industrial products, under the strong leadership of public development institutions. In Ireland, robust enterprise support was provided by the Industrial Development Agency, later Forbairt (Enterprise Ireland) and Forfás. Forfás is Ireland's national policy advisory body for enterprise and science, an agency of the Department of Enterprise, Trade and Employment (table 20). These agencies promoted indigenous enterprise development, and linkage programmes with the diaspora to promote investment in the domestic economy. The Governments in East Asia offered its producers both production and export

During the early phases of accelerated economic growth, all late developers deployed various forms of industrial policy to support and protect domestic firms.

Table 19

Instruments of industrial and export promotion policies – Republic of Korea and Japan

Export promotion and import restrictions
• Import restrictions, both general and specific;
• Favouring particular sectors for export promotion, in some cases particular firms for that purpose;
• Seeking compliance for subsidies given to exporters by means of export targets for specific firms (Republic of Korea);
• Interest rate subsidies and the availability of credit and foreign exchange to favoured firms that meet export targets;
• General export promotion through JETRO (Japan) and KOTRA (Republic of Korea);
• Provision of infrastructure, including human capital, in support of exports;
• Taxation relief on imported inputs and on R&D expenditures; and
• Allowing favoured conglomerates to import capital goods and foreign technology and to raise cheaper finance on international markets.
Industrial policy measures
• Lax enforcement of competition policy, including the extensive use of cartels;
• Government creation and promotion of conglomerates (Republic of Korea);
• Tax concessions to corporations to increase investment;
• Promotion of a close, long-term relationship between finance and industry, which was critical to the implementation of the industrial policy;
• Labour repression to ensure labour peace in a period of structural change (Republic of Korea);
• Establishment of State industries to enhance industrial development (Republic of Korea); and
• Extensive administrative guidance.
Source: Singh (1996: 163–164).

Table 20

Industrial policy instruments – Ireland

Instruments	Notes
Strategic economic integration into the European Union, and in particular with the United Kingdom	Since 1973
Good provision of public goods and development of specific infrastructures in support of surging economic sectors	Paid by the Government, but after 1973 also with EU transfers
Nurturing specialized human capital needed by dynamic economic sectors	Paid by the Government, but after 1973 also with EU transfers
Active support for R&D, innovation and learning activities	Forbairt
Generous fiscal incentives to attract FDI (especially in the finance and information and communication technology (ICT) sectors)	Especially vis-à-vis European fiscal discipline
Active promotion of SMEs and productive clusters	Forbairt
Government support to firms' marketing strategies to conquer foreign market outlets	
Extensive administrative guidance and assistance to firms	Forbairt
Performance requirements	
Strong social cohesion and wage-led growth	Social compact notion
Efficient and upgrading bureaucracy	
Source: UNCTAD secretariat elaboration.	

subsidies, low interest rates, grants and inexpensive loans, as well as help with capabilities development.

Several Nordic countries balanced the growth of big business with the needs of smaller, decentralized production sites. State–corporation compacts were managed to ensure that domestic productive capacities were built. Industrial clusters were commonly used in Nordic countries, as well as Ireland, to benefit from external economies and specialized knowledge. Skill development and training were essential in the process. The State heavily subsidized education, training and infrastructure to ensure the success of domestic upgrading (table 21).

Table 21
Industrial Policy Instruments – Nordic countries (Denmark, Finland and Sweden), 1950s and 1960s

Aid to national enterprises (infant-industry policy)
• Proactive State policy to promote domestic enterprises especially in manufacturing sector (credit allocation to manufacturing investment);
• Credit directed towards targeted industrial sectors – low interest rates to promote manufacturing.
• *Investment*: Preferential treatment of manufacturing investment;
• *Financing*: Subsidies were generous, both for investment and payroll purposes; tax and credit incentives received special government attention;
• *Subsidies*: A variety of subsidies used to enhance productivity in all growth subsidies;
• *Administration of Prices*: Control of prices of some staples;
• *Government procurement*: Played an important role in industrial programme;
• *Infrastructure*: Heavily subsidized;
Agents of change
• *Government, central bank, key industrialists*: (small number of agents of change) who collaborated with representative workers' associations;
• *The State*: Led a conscious programme of industrialization;
• *Social compact*: Collaborative relations between capital and labour;
• *Training*: Government heavy investment in training;
• *Innovation*: Heavy investment in research and development, training and knowledge creation.

Source: UNCTAD secretariat elaboration.

5. Lessons learned

The experiences described above cannot be directly replicable, from which policy lessons can be drawn. Nonetheless, the following features are shared by all late developers:

Industrial clusters were commonly used in Nordic countries, as well as Ireland, to benefit from external economies and specialized knowledge. Skill development and training were essential in the process.

(a) Initial contexts are not determinative, nor are endowments destiny. It is possible to overcome context with well-considered policies, effective public sector institutions and evolving capabilities that promote inclusive growth;

(b) Developmental advocates, acting as an autonomous bureaucracy separate from self-interest, need to inspire and lead the growth process;

(c) Social inclusion is vital, especially when enacting policy changes that affect certain groups negatively. The countries cited above are relatively small and homogeneous. The challenge for LDCs within a heterogeneous, sometimes contentious, political–social environment will be that much greater;

(d) Social compacts are vital for building a dialogue based on trust. Shared understandings between the State and other social partners allow concessions when needed, and can promote investment, where investors can be assured of harmonious relations. Inclusive cooperation can help re-establish the credibility of State institutions through social dialogue;

(e) Focus on structural change and diversification is essential in building competition and sustained growth. For that, productivity growth must be inherent in growth performance;

(f) Institutional density, including standards and technical support, should be fostered through the establishment of institutions that support growth and that are variants of development agencies;

(g) Small domestic markets limit the expansion of technologically more sophisticated production. Since non-tradable goods have similar effects on macroeconomic conditions, the State should direct spending and ODA assistance towards building the economies of scale, stimulating domestically oriented production and expanding limited domestic demand;

Small domestic markets limit the expansion of technologically more sophisticated production.

(h) The "big push" drives can work to ignite the process of industrialization, but the Government needs to coordinate investment and crowd-in private sector investment with significant public sector activities.

(i) Countries reliant on commodity-based value chains, with the concomitant emphasis on international standards, may inadvertently neglect production for the non-traded domestic market. The relative lack of attention to promoting domestic demand for primary goods or other products has not supported this avenue of capital accumulation;

(j) Greater productivity growth and productive upgrading in agriculture have broad benefits, limiting rural-to-urban migration and building broader aggregate demand. Agricultural research and diffusion, improved infrastructure shared by farm and non-farm rural employment, irrigation schemes, and increasing the capacities of extension services can all be significant elements of an industrial policy;

The State should direct spending and ODA assistance towards building the economies of scale, stimulating domestically oriented production and expanding limited domestic demand.

(k) An activist Government should encourage and support firm / farm level innovation and commercialization, even attempting to leapfrog older technologies, while encouraging firm-based learning and knowledge-sharing;

(l) Apply agricultural production surplus to reinvestment in improved technologies and techniques, higher-value processing and technological upgrading. An opportunity may exist in green, environmentally-friendly solutions that developed countries seek;

(m) Use trade rules and tools to support upgrading and diversification (strategic integration); and

(n) Foster regional institutions and regional trade, rather than resorting to a "beggar-thy-neighbour" stance.

The "big push" drives can work to ignite the process of industrialization, but the Government needs to coordinate investment and crowd-in private sector investment.

F. Application of industrial policy to LDCs

The role of the State in overcoming long-term structural constraints to productivity growth in Asia has been a much-discussed issue for some time (Singh, 1996; Rasiah, 2006; 2009). As in other regions, Asian LDCs, these countries face a number of structural constraints, including: (a) insufficient infrastructure; (b) high transaction costs; (c) lack of access to credit for productive investment; (d) lack of education; (e) skills shortage; (f) inferior health services; and (g) inequality in wealth, knowledge and learning. All of these hinder the development of productive resources and the industrialization project. The role of the State in these circumstances is to provide those public goods, thereby enabling the market to perform allocative and creative functions. This has not been yet the case in Asian LDCs, however, where the State has not really been cognizant of the need to direct and coordinate investment.

The Republic of Korea, Taiwan Province of China, Singapore and China experienced rapid growth of capacities and capabilities associated with the textile- and garment-related industries, which have served as a lead sector in all East Asian countries. While expansion occurred, it has not been accompanied by similar development of "firm-level capabilities, such as minor improvements in machinery and equipment, inventory control systems and training methods and, at the highest level, R&D effort" in Bangladesh, Cambodia, the Lao People's Democratic Republic or Myanmar (Rasiah, 2007: 86). These Asian LDCs have less opportunity than their predecessors in industrial policy formulation to select those industries they want to promote, because they lack both the necessary infrastructure and the capital to build it.[10] Basic infrastructure provision — including roads, telecommunication networks, health and sanitation, power and water, and educational enrolment — have improved only slightly in these countries. Whilst possessing natural resources, Cambodia and the Lao People's Democratic Republic lack the labour skill, capital and world-class logistics coordination to attract a higher value sector, such as electronics manufacturing. The landlocked Nepal and Bhutan lack the transport infrastructure to ship goods to overseas markets. Security issues, poor infrastructure and the lack of cross-border synergies have limited investment and growth in Bangladesh (Rasiah, 2007).[11]

Asian LDCs have less opportunity than their predecessors in industrial policy formulation to select those industries they want to promote, because they lack both the necessary infrastructure and the required capital.

Since their independence, many sub-Saharan African countries have been strongly encouraged to experiment, first with State-led models associated with central planning in the 1950s and 1960s, followed by market-led export models in the 1980s and 1990s. Sub-Saharan Africa's evidence of manufacturing performance thus far suggests that neither of the two simplistic models exerted a significant impact on its growth trajectories. Indeed, their comparative performance indicates little, if any, improvement in industrialization and overall economic performance over the last 50 years (Soludo, Ogbu and Chang, 2004). This, however, reflects the pursuit of ineffective kinds of industrial policy, not that industrial policy is always doomed to fail, as the examples of Uganda and Senegal indicate in discussion below. Indeed, this Report would argue that a DIP type of industrial policy is likely to succeed, as it has in many other countries.

Many sub-Saharan African countries experimented first with State-led models in the 1950s and 1960s, followed by market-led export models in the 1980s and 1990s.

1. Industrial policy case study — Uganda

The 1980s and 1990s witnessed a series of reforms marked by increased openness to imports and foreign capital, particularly FDI and a greater role for the market. These reforms were followed by a significant increase in FDI. Its share in gross capital formation rose from 0.1 per cent in 1990 to 21 per cent in 1999 (UNIDO, 2007). Despite widespread intellectual support for this agenda, backed up by loan conditionalities and surveillance by multilateral lending institutions, the promise of the new reforms has not been realized.

The experience with industrial policy in Uganda has been mixed. UNIDO has identified the following key structural constraints to industrialization in Uganda: (a) limited capacities and capabilities for policy analysis and inappropriate policies; (b) inadequate industrial support institutions; (c) inadequate knowledge for processing agricultural and mineral products; (d) lack of entrepreneurial and entrepreneurial skills; (e) lack of engineering industrials that produce capital goods; (f) limited scope for linkages; and (g) inadequate technological competencies and capabilities.

Uganda's experience with ISI was unsurpassed as from 1963 to 1970, the manufacturing sector grew at 8.3 per cent per annum.

In terms of the performance of the manufacturing sector, Uganda's experience with ISI was unsurpassed. Indeed, from 1963 to 1970, the manufacturing sector grew at 8.3 per cent per annum. In the 1970s and 1980s, the country experienced a long period of political instability and civil unrest. In the 1980s and 1990s, it

followed neoliberal proscriptions that denied any role for industrial policy. As in other African countries, such structural adjustment policies led to very disappointing results. Consequently, the State withdrew, but the private sector did not step in to fill the void. The local private sector still could not compete. Structural constraints were largely ignored, such as infrastructural bottlenecks, electricity, energy, transport, communications, water, skills and the like. Some growth took place in the non-traditional sectors, such as cut flowers, fresh vegetables and vanilla, but not in the traditional exports.

In Uganda, policy was not as effective as it might have been had the policy been more attuned to the needs of domestic enterprises, rather than the objectives of the foreign firms.

Recent findings on the impact of foreign ownership and technological intensities on the manufacturing sector in Uganda indicate that the potential benefits of FDI (learning, technological intensity and productivity) did not materialize to the extent expected in the domestic manufacturing sector (Rasiah, 2009).[12] The policy environment was not as effective as it might have been had the policy been more attuned to the needs of domestic enterprises, rather than the objectives of the foreign firms — for example, in garments and textiles. Now more cognizant of the need to build linkages with TNCs, Uganda has enacted new industrial policy initiatives, as illustrated in box 17.

Box 17. The business linkages programme by Enterprise Uganda

Enterprise Uganda is a one-stop enterprise development centre with a mission to develop a new generation of dynamic Ugandan entrepreneurs by providing support to SMEs to improve their productivity, growth and competitiveness.

One of the services provided by Enterprise Uganda is to structure commercial deals involving world-class corporations and local SMEs through innovative and well-structured business linkages premised on supplier chains.[a] Along these lines, Enterprise Uganda is implementing a two-year business linkages pilot programme in partnership with the Uganda Investment Authority and the United Nations Development Programme (UNDP). The programme's objective is to facilitate the creation of new linkages and to deepen and expand existing ones between international companies' affiliates and domestic SMEs.

The participating companies in the programme are Uganda Breweries Limited, Unilever (U) Ltd., MTN (U) Ltd. and Celtel (U) Ltd., which are subsidiaries of TNCs, and Kinyara Sugar Works, a domestic company. The nature of the services provided includes: (a) capacity upgrades of intermediary organizations in agribusiness (Uganda Breweries will assist the upgrade of Kapchorwa Commercial Farmers Association (KAFOCA)) benefiting 2,000 barley farmers; (b) Kinyara Sugar Works strengthening Kinyara Sugarcane Growers Ltd., benefiting about 2,500 farmers; and (c) the development of retail sales networks (MTN and Celtel).

Experience so far demonstrates that, in spite of the limitations inherent in most SMEs, TNCs are ready to upgrade business relationships with SMEs to long-term relationships, provided SMEs are committed to correcting the shortcomings in their business systems, attitudes and skills. The two-year pilot project aims to facilitate over 20 business linkages in agribusiness, real estate development, retail merchandising, manufacturing and telecommunication.

Source: Ferriere (2006).

a Other services include providing diagnostic tools and solutions for businesses, business mentoring and on-site business counselling, and support for the creation of new business ventures and building competitiveness.

2. Industrial policy case study — Senegal

The industrial policy experience in Senegal is typical of other LDCs in sub-Saharan Africa. Two types of policies have been tried there: (a) a crude form of ISI, during the 1960s and 1970s; and (b) a World Bank-inspired "New Industrial Policy"[13] from the 1980s. The latter was part of the SAP liberalization package, carried out under the aegis of the World Bank, and consisted of full trade openness, export orientation and labour market reforms. Preferential treatment was given to export processing zones outside of Dakar, foreign capital flowed in and the State apparatus was largely dismantled.

The industrial policy experience in Senegal is typical of other LDCs in sub-Saharan Africa.

(a) 1960s: ISI focus on agriculture

The ISI policy largely consisted of traditional import substitution measures for agriculture. Following independence, in the 1960s, the Government of Senegal

intervened extensively in agriculture, but not long enough to have a lasting impact. The State emphasized the need for increasing and diversifying agricultural production, and it provided seeds, fertilizers and agricultural tools on favourable terms to local producers, including many smallholders. It also encouraged diversification of the food processing sector (Rochetau, 1982). But State support for agriculture aimed at increasing the value added of local resources ended in the late 1960s. The 1970s were a turning point for public investment when it favoured industrial manufacturing over agriculture. While the first phase was considered relatively successful in economic terms, it was too short-lived to leave a long-lasting impact.

Senegal was the first to set up industrial free trade zones outside the capital with a view to attracting FDI.

(b) 1970s: Switch to industry

Following social unrest and increasing unemployment in 1968–1969, the Government reoriented its focus toward the manufacturing sector in the hope of increasing employment. Policy then became increasingly externally oriented, setting up numerous FDI incentives to attract foreign enterprises in expectation of imported development. First, the State supported the natural resource processing industries, such as fishing and groundnuts production. Senegal was the first to set up industrial free trade zones outside the capital, Dakar, with a view to attracting FDI. This was largely successful, but liberalization was not the equivalent of development. The politically popular policy of "Senegalization" of the business class became the official State policy, but because it was based on "clientelism", rather than merit, its success was limited (Daffé and Diop, 2004).

The market-led policy reforms were primarily focused on the liberalization of trade and labour markets, on deregulation, privatization and improved governance.

(c) 1980s: Market-led policy reforms

The 1980s and the 1990s were years of economic crisis in Senegal. Government-led production of groundnuts expanded, and has remained the mainstay of Senegalese production. However, groundnut production declined, slowing GDP growth, and has rarely attained its earlier levels. Private foreign capital inflows, primarily French, surged into Senegal in the 1970s, and were accompanied by increased conspicuous consumption (Daffé and Diop, 2004). The country's public finances deteriorated and debt became a chronic feature of the national economy, as foreign borrowing became the preferred source of financing of the domestic and external deficits (Boye, 1992). The World Bank admits that the new policy reforms had a recessionary impact on the local economy, which soon became dominated by foreign interests. The policy reforms were primarily focused on the liberalization of trade and labour markets, on deregulation, privatization and improved governance.

The reforms had an adverse impact on domestic efforts at industrialization and technological upgrading.

Following the policy reforms, domestic investment in Senegal never caught up with foreign investment, which greatly exceeded domestic investment in strategic sectors, such as phosphates. The deterioration of the public finances has continued until the present, and the economy has continued to stagnate. The reforms had an adverse impact on domestic efforts at industrialization and technological upgrading. The expected increases in employment and competitiveness, and the diversification of manufacturing exports, did not materialize. Indeed, between 1992 and 1995, the number of firms active in industry in the country was only 500. A large number of these were foreign owned or dominated by foreign interests. But the mid-1980s, FDI started to fall in the wake of economic decline. The current-account deficit rose to 11 per cent of GDP, while the share of the Senegalese exports to foreign markets fell by one fifth of what it was in the 1960s (Daffé and Diop, 2004). The trade-opening measures had a disastrous impact on the domestic industrial sector: production declined 13.5 per cent (1985–1989),

job losses were significant, and about 50 local enterprises closed as a result of competition from cheap imports (World Bank, 1994).

Of the 22 biggest industrial enterprises in Senegal, 13 became entirely controlled by foreign interests and only five by private Senegalese interests. According to the World Bank, the new policy reforms failed because of "weak determination on the part of the Government" (World Bank, 1994). The reforms reduced the role of the State to "the guarantor of free trade" and of a "stable macroeconomic environment". Following the World Bank report, the national currency was devalued by 50 per cent in 1994, the standard austerity measures were applied and social discontent, emigration, and brain drain all increased.

There are many lessons to be learned from Senegal's experience with this kind of industrial policy. Without a social contract and an appropriate and adequate institutional infrastructure to implement the reforms, and without adequate productive and trade capacities, the reforms had little chance of succeeding. The Government's own administrative capacities were also woefully inadequate. According to Rodrik, Senegal was one of the first countries to experiment with the new industrial policy in the 1980s, but it proved unable to reverse the country's decline, and stagnation emerged in the 1970s. The new industrial policy of the last 20 years casts doubt on the relevance of trade openness for LDCs whose export capabilities are highly concentrated in two or three main products. The lessons learned also indicate that it is necessary to overcome the obstacles related to quality standards, lack of professional skills and information, imperfect or missing markets and so on.

To be effective, trade openness needs to go hand-in-hand with the building of domestic capacities and the acquisition of technological skills. This process is not only long and costly, but also requires risk-sharing mechanisms to manage the process of "creative destruction".

The experience of privatization in Senegal, as in many other sub-Saharan African countries, did not bring about the emergence of a domestic entrepreneurial class (Daffé and Diop, 2004). State policy was not autonomous, but coerced into being overly receptive to the recommendations of the World Bank and other donors. The NIP was not locally embedded, but imposed from the outside without any local adaptation. The Government was not in a position to act as an independent and autonomous entity, but was overly influenced by those who provided financial resources. This dependence only exacerbated the country's vulnerability and Senegal joined the LDC group in 2001.

G. Conclusions

John Maynard Keynes (1936) long ago noted that nothing influences economic policies more than the power of economic ideas. Africa has been subject to major swings in ideas about economic development more than any other continent, ranging from crude State-led models to market fundamentalism. It was implicitly assumed that policymakers had the independence and flexibility to choose whatever policy they considered appropriate. In fact, especially in LDCs, the donor agencies and the Bretton Wood institutions since the 1980s have played a major role in determining the policy choices of African countries. The provisions of trade liberalization agreements signed within the WTO have also restricted the potential use of relevant policy instruments, such as credit and export subsidies, performance requirements and local content clauses (Bora, Lloyd and Pangestu, 2000). Such

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To be effective, trade openness needs to go hand-in-hand with the building of domestic capacities and the acquisition of technological skills.

As donor agencies and IFIs since the 1980s have played a major role in determining the policy choices of African countries, LDCs have gradually lost much of their policy space.

In most LDCs, there is very little large-scale domestic industry; i.e. the manufacturing sector is largely composed of light manufacturing and other labour-intensive activities, organized in small enterprises, including in the informal sector, often employing 20 people or less.

shifts in development thinking have confined industrial policies to a marginal role, implicitly assuming that growth and structural change would follow spontaneously once economic fundamentals were in place and distortive interventions removed. Bilateral agreements and RTAs have further restricted policy space to carry out sorely needed industrial policies. Reforms are required on many fronts, including at the multilateral level, to reform the system to accommodate the specific needs and challenges facing LDC economies.

This chapter emphasizes instead the importance of appropriately-designed developmental industrial policies, in order to overcome the pervasive effect of market failures and ignite the process of industrialization and economic growth.

Manufacturing performance in most LDCs has been weak by comparative standards. Indeed, previous UNCTAD work has shown that, even during periods of strong investment and growth, the manufacturing sector in many LDCs, particularly in sub-Saharan Africa, failed to take off. The market-led reforms since the debt crisis of the early 1980s have, to a large extent, failed to correct this deep-seated structural weakness. As a result, lopsided, stagnating or declining manufacturing performance has been part of uneven and unsustainable growth in many LDCs over the last three to four decades. In most LDCs, there is very little large-scale domestic industry; i.e. the manufacturing sector is largely composed of light manufacturing and other labour-intensive activities, organized in small enterprises, including in the informal sector, often employing 20 people or less. On average, light manufacturing, low-technology products accounted for over 90 per cent of all LDC manufactured exports in the 2005–2006 period (including food, drinks, garments and textiles), while medium- and high-technology manufactured exports remained below 2 per cent of total manufactured exports.

LDCs require greater policy space than is currently the case, in order to increase the range of their policy options, to provide time and space for policy experimentation, and to adapt various development "models" to suit their own needs.

This chapter emphasizes instead the importance of appropriately-designed developmental industrial policies, in order to overcome the pervasive effect of market failures and ignite the process of industrialization and economic growth. To do so, the chapter advocates greater industrial policy capability, not just capacity, for a broader range of industrial policy tools that can be tailored to the specific needs of LDCs. Industrial policy capability includes policymaking space that is being compromised by the commitments emanating from international trade and investment agreements. Following a long-established UNCTAD view, it is strongly argued that LDCs require greater policy space than is currently the case, in order to increase the range of their policy options, to provide time and space for policy experimentation, and to adapt various development "models" to suit their own needs. Without such freedom to choose, alternative "models" of trade or industrial policies are no more likely to succeed than their predecessors.

Notes

1 According to the FAO, in 2009 out of 31 countries in food crisis requiring external assistance, 21 are LDCs (FAO, 2009).

2 The analysis of services in LDCs is further complicated by the fact that the tertiary sector typically presents an intrinsic dualism, with a large pool of low-productivity informal activities (think of petty trade) side by side with localized pockets of highly productive ones, as in finance or engineering and other knowledge services.

3 Our analysis excludes South Africa.

4 The optimality of the free market allocation rests ultimately on axiomatic assumptions about the rational behaviour of atomistic agents, about information being fully and freely available to all, and about technology being "off the shelf" and readily available to all users equally. Only subject to these highly restrictive hypotheses is the decentralized allocation necessarily optimal from a welfare point of view, and consequently State intervention cannot but be distortive.

5 See discussions in UNIDO (2007).

6 The case of the Deliberation Councils in South Africa, for instance, points to an interesting example of collaboration and building trust between the private and public sectors (Rodrik, 2007).

7 In the last decade, numerous contributions have emphasized how pervasive and perverse can be the effect of market failures in hampering the accumulation of knowledge and human capital, thereby constraining the prospects for economic growth. These findings imply that appropriate government intervention, including by means of subsidy schemes, thus becomes desirable to achieve optimal economic outcomes (Cimoli, Dosi and Stiglitz, 2008).

8 For instance, the Bretton Woods agreements created a system of organizations (the International Bank for Reconstruction and Development and the International Monetary Fund) intended to ensure economic stability and prevent future crises.

9 Similarly, the UNCTAD (2005: 82) concludes that "not only is attracting FDI not the same thing as development, but it seems clear from the findings in this report that whether it contributes to development depends on macroeconomic and structural conditions in the host economy".

10 Myrdal (1957) and Hirschman (1958) argued that governments should focus on selected sectors for promotion that create spread or linkage (crowding-in) effects, limiting the expansion of sectors that create backwash (crowding-out).

11 Following the lead sector argument, several factors might make garments or natural resource processing an excellent growth vehicle for the Asian LDCs in the contemporary global environment. First, garments face minimal competition from substitute goods, while also utilizing natural fibres, one of their primary commodities. Second, LDCs no longer enjoy the same preferential access for more technologically advanced manufactures, which has recently been conditioned on embracing neoliberal policies. Third, textiles and garments provided foreign exchange vital to the development of strategic industries in Japan, the Republic of Korea and Taiwan Province of China. FDI inflows have become more widely dispersed since the end of the Cold War, so new Asian LDCs must compete more aggressively than their predecessors for investment.

12 The ambiguous effect of discretionary incentives for FDI in Uganda can be illustrated by referring to the following two examples. In 2004, the government introduced a comprehensive package of incentives, including a 25-year holiday on income tax and a 17-year holiday on value added tax, to encourage an investor, BIDCO (from Kenya) to established a $120 million palm oil project. Other edible oil producers complained, alleging unfair treatment. The BIDCO project has been very slow in its implementation. Similarly, Tri-Star Apparel, an investor in garment manufacturing targeted at the United States market under the Africa Growth and Opportunity Act (AGOA), received $15 million in government guaranteed loans, but closed with huge losses after five years and failed to repay the loans.

13 Or no industrial policy.

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