CHAPTER 1

Introduction and Overview

ECONOMIC TRANSFORMATION AND LEARNING, INDUSTRIAL, AND TECHNOLOGY POLICIES IN AFRICA

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The revival of reasonably rapid growth in Sub-Saharan Africa of about 5 percent per year for over a decade is all the more welcome for having followed a "lost quarter century": per capita income for the region, which had started falling toward the end of the 1970s, did not recover to its previous peak level until after the turn of the century. This is an impressive turnaround from what was arguably the longest and deepest economic decline anywhere. In the 2000s, six of the world's fastest-growing economies were in Sub-Saharan Africa (which we refer to simply as Africa): over about a decade, annual growth averaged more than 7.5 percent in Angola, Chad, Ethiopia, Mozambique, Nigeria, and Rwanda.

There is much promise in the turnaround in Africa. Some talk of "Africa Rising," a perspective highlighted by the online debate held by *The Economist* in 2013 titled "Africa's Rise: How Real Is the Rise of Africa?" Particularly notable are Ethiopia and Rwanda, whose growth has not been based on a natural resource boom. In contrast, oil lubricated the rapid growth of Angola, Nigeria, Mozambique, and Chad.[1] Indeed much of the revival of growth in the region is attributable to a commodity boom.

As we will discuss, while it is difficult to parse the relative roles of different causes of improved growth and there is some controversy on the role of better policies (and which particular ones), there is a consensus that booming commodity prices and mineral discoveries—especially oil—have played a vital role. There is also widespread agreement that improved macroeconomic management—at least avoidance of serious inflation and volatility—and debt relief made significant contributions.

Nonetheless, African countries typically have made little or no progress in transforming their economies, notably with respecr to reversing deindustrialization that began in the late 1970s. The share of manufacturing in 2012 barely reached the level of the mid-1970s. Related to this lack of transformation is the woeful inadequacy of generating "decent" jobs, forcing large proportions of the rapidly expanding labor force into very low-productivity agriculrure and the informal sector, which arguably disguise ar least as much unemployment as the jobs they reveal.

In the words of an impressive and wide-ranging report of the African Center for Economic Transformation (ACET), one of Africa's leading think-tanks, "the recent economic growth, while welcome, will not by itself sustain development on the conrinent. To ensure that growth is sustainable and conrinues to improve the lives of the many, countries now *need to vigorously promote economic transformation*" (ACET 2014, 1, iralics added).

The main objecrive of the contributions in this volume is to shed light on how to go abour doing so. They emphasize the viral role of industrial policies. Ir is perhaps noteworthy that the two economies among rhe fastest-growing in Africa in this century did not rely on an oil boom: Ethiopia and Rwanda pursued to varying degrees deliberate policies of governmenr interventions of the type we label industrial policies. These two countries were consciously and explicitly influenced by the successful experiences with industrial policies of the most successful East Asian countries (see World Bank 1993; Stiglitz and Uy 1996).

We provide a quick overview of Africa's development experience in the next three short sections in order to provide a context for rhe two longer ones concerning the main themes of this volume. "Staric Efficiency vs. Dynamic Gains: Learning, Industrial, and Technology Policies" examines the need and possibilities of learning, industrial, and technology policies in the region, and the last section provides an overview of rhe other chapters in this volume and how they contribute to rhar aim.

AFRICA'S DEVELOPMENT EXPERIENCE

Africa's "lost quarter cenrury," along with rhe economic meltdown of the former Soviet Union and Eastern Europe in the transition to a market economy, possibly ranks as among rhe worst economic disasrers since rhe Industrial Revolution.[2] The lost quarter century was a period not jusr of deindusrrialization but also of declining per capira income. After

stagnating in the late 1970s, average per capita income fell steadily from 1980 to 1995 and did not recover to its 1974 level until 2004. The share of manufacturing in GDP shrank to such an extent that in 2012 it was lower than what it had been in 1965.

In a region as large and diverse as Africa, averages conceal much. Even before the recent acceleration of growth, there were several successes in the region on assorted dimensions of development in different periods, including GDP growth and managing the resource curse. Some natural resource–abundant economies such as Côte d'Ivoire, Mozambique, and, above all, Botswana (the fastest-growing economy in the world from 1960 to 2000) have experienced significant periods of fairly good growth. Even more impressive was the achievement of growth exceeding 5 percent per year for substantial periods in countries such as Ethiopia, Ghana (pre-oil), Tanzania, Rwanda, and Mauritius, which are not blessed/cursed by natural resource wealth.

As noted earlier, much of the growth in Africa since the turn of the century is attributable to booming commodity prices and hydrocarbon discoveries.[3] But there are many instances in various parts of the world of resource-rich countries mismanaging their wealth, demonstrating that an abundance of resources and booming prices are no guarantee of success.

We turn now to the following questions: Why did the region go through such a prolonged period of economic decline? What caused the decline in per capita incomes, the failure not only to make the economic transformation that was going on, say, in East Asia, but to move in the opposite direction, to deindustrialize? What are the lessons for future policy that emerge from this review of these past failures?

The period of Africa's severest economic decline, from 1980 to 1995, was an era of a multitude of reform programs reflecting external advice and conditionalities based on a brand of economics that came to be labeled the "Washington Consensus" (WC).[4] These policies reflected what became the dominant orthodoxy in economics: neo-liberalism. In our other writings (Noman and Stiglitz 2012 and forthcoming), we have explained the fallacies and failures of those policies and their contribution to the lost quarter century in Africa. But for the unabashed proponents of the Washington Consensus, the problem was not that the policies were mistaken but that they needed to be intensified and implemented better.

The failures of policies also gave rise to a search for other ingredients of successful development, going *beyond* the Washington Consensus—including notably a focus on "governance." Governance is, of course,

important. But as we have argued elsewhere, it was mistaken to attribute the failure of the Washington Consensus policies simply to governance: Africa's experience reveals the limitations of arbitrary and generalized explanations, especially when they confuse cause and effect, and ends and means (Noman and Stiglitz 2014).

Policies have to be designed to be able to be administered by governments with particular competencies. The failure to do so was certainly central to the failure of the WC policies. But policies should also have aimed to strengthen competencies; instead, many of the WC policies actually worked in the opposite direction.

Of course, as we also wrote elsewhere, economics does not have much to offer as solutions to states that are failed or mired in armed conflict; but it is too simple to blame economic failure on political failure. The former also contributes to the latter (Noman and Stiglitz 2014). At any rate, we exclude from our purview here the rather different set of issues raised by the research on states embroiled in severe conflicts or that have failed.

Just as there is controversy surrounding the causes of the lost quarter century, there is controversy about the causes and sustainability of Africa's growth resurgence in the twenty-first century.

Perhaps predictably, advocates of the WC policies believe that Africa's recovery is due to those policies and is sustainable—if only the countries persist in their adherence to the WC policies. That interpretation ascribes relatively little weight to the boom in commodity prices and mineral discoveries and to the success of countries like Ethiopia, Botswana, and Rwanda that, while adopting *some* of the WC consensus policies, resisted others. It glosses over the deindustrialization that accompanied the WC policies and the fact that outside of the natural resource sector, foreign direct investment (FDI) has remained anemic. It ignores too the particular failures of some of the critical reforms in some of the countries in such areas as agriculture and finance.

The continuing controversies arise in part from the difficulties of establishing indisputable causal links between economic policies and outcomes. Reform programs may fail because of their inherent weaknesses (bad policies, or at least policies inappropriate to the circumstances of the economy), because they are not adequately implemented, or because of unanticipated exogenous shocks, and it is often difficult to parse out the relative role played by each of these. Still we can examine whether there are reforms in the reform programs that can enhance the likelihood of success.

Consider the issue of implementation: advocates of the WC policies often attribute disappointing results to failures in implementation. Earlier we noted that part of the explanation for the problems of implementation is that the "programs" were not designed to take into account the strengths and limitations of those who were supposed to implement them.

PACING AND SEQUENCING OF REFORMS

Aside from such implementation issues, there were often even more fundamental weaknesses in the reform programs, stemming from insufficient attention to the pacing and sequencing of reforms.

Sequencing is especially important because economic reforms to remove distortions confront the problem of the second best: eliminating some of many distortions may make matters worse. This is clearly demonstrated by Africa's experience with, for example, the financial sector, agricultural pricing, and trade policy reforms. The competitive marketplace that the reform advocates hoped would arise spontaneously did not emerge—partly because some of the reforms that would have enabled the emergence had not yet been put into place. While this argues for comprehensiveness in reforms, limitations in the capacity for implementing reforms point to the vital importance of prioritization and sequencing.

Thus one lesson of the failed programs in Africa is that reforms need to be mindful not just of the second-best dilemma but also of the absorptive capacity of the country—not only governmental capacity but also the ability of agents to digest and respond to a myriad of changes. Any particular reform program has transaction costs and opportunity costs. Information about reforms and their implications is neither costless nor instantaneously and universally available.

Moreover, no set of reforms is ever perfect. Any successful implementation process must entail learning about both what is working and what is not. Successful reform programs thus must create institutional frameworks for learning and adaptation.

In addition, to be sustainable, reforms have to have "political buy-in." They cannot be seen to be imposed by outsiders, especially when those outsiders lack legitimacy as a result of a conflict of economic interests or a colonial heritage. Conditionality was, as a result, often counterproductive.

This does not constitute a general argument for always going slowly: there may be threshold effects that require decisive, critical, minimum efforts. Thus, for example, when Ethiopia launched its reform program

in the early 1990s, it moved rapidly on selected fronts: establishing macroeconomic stability, dismantling collectivized agriculture, and establishing a system of famine prevention. But Ethiopia's reforms have been much more measured and gradual in other areas, such as financial liberalization. While some have suggested that in some areas Ethiopia could have moved faster (for example, in telecommunications[5]), its mixture of speediness and gradualism has served the country well overall, with its economy growing at a rate in the vicinity of 10 percent per year for nearly a decade before the global crisis of 2008. Even after the crisis, its economy maintained much of the growth momentum. One welcome consequence was that the proportion of the population living below the poverty line of $1.25 per day—in purchasing power parity terms—fell from 56 percent in 2000 to 31 percent in 2011.[6]

Further afield, perhaps the most notable case of combining fast and slow reforms is that of China; its success stands in marked contrast with the "shock therapy" of the former Soviet Union (see Stiglitz 1999). In China the initial focus was predominantly if not exclusively on agriculture, and subsequently on two-track price reforms and creating Township and Village Enterprises. Only later did it engage in large-scale privatizations. As another example: it first invited foreign firms only in joint ventures; much later, it allowed foreign financial firms to enter, and then only with extensive restrictions, and it still has not fully liberalized its capital accounts. In the case of the other mega country, India, a different sort of gradualism may have worked (see Ahluwalia 2002).

The issue is thus not one of how fast or how slow, but one of priorities and sequencing given the country's capacities for implementation, the transactions and opportunity costs of any set of policy measures, and the country's ability to assimilate information about the successes and failures of each policy measure and to adapt the policies in response. An approach that allows for experimentation and flexibility with successes scaled up and failures quickly abandoned is an important ingredient of success.

To take the example of financial sector reforms, liberalization of interest rates to make them market-determined typically faced the problem of financial markets that were at best thin and highly imperfect or at worst non-existent. The all-too-frequent result was exceptionally high real interest rates (a range of 12 to 15 percent was not uncommon) and the absence of long-term credit for investment. Even the United States and Europe learned in 2008 that financial sector "reforms" could be taken too far; strong regulations are necessary to maintain an efficient,

competitive, and stable financial system. This is even more so in developing countries.

Privatization, trade policy, and related reforms compounded the problems posed by the "reformed" financial sector. While there was much to be said for rationalizing and liberalizing the trade regimes and public sector enterprises, the structure, pacing, and sequencing of reforms in these areas led to the deindustrialization of Africa instead of the emergence of a more competitive and vibrant sector and one that attracted foreign investment in non-extractive activities. Domestic firms faced strong competition from abroad—competitors who had better access to finance at attractive rates. Not surprisingly, many did not survive. Trade policies were one sided: the advanced countries did not simultaneously liberalize their markets. Escalating tariffs were designed to keep poor African countries supplying raw materials and to prevent them from entering into higher value-added activities. A lack of investment in infrastructure meant that even were firms able to produce something that might be desired in developed countries, the "internal barriers" to trade remained significant. (Aid for trade did not enter seriously into the trade agenda until 2005.)

INSTITUTIONS AND GOVERNANCE

The question of why the neo-liberal reforms did not work as expected led to a renewed interest in institutions. As Thandika Mkandawire (2012) states, the failure of the "good policies" of "getting prices right" prompted those multilateral institutions and aid donors advocating such policies to turn their attention to an institutional agenda.

There is a large literature on the *development state* emphasizing the role of the state in successful development, not just in the East Asian "miracle" economies, but also in many of the now-developed countries elsewhere.[7] This literature notes the important role the state played in creating institutional mechanisms for interventions that accelerated development.

What constitutes good institutions, how they are created, and how institutional deficiencies are addressed are vital for developmental success, but there are no easy answers. The 2008 crisis exposed fundamental institutional weaknesses in the United States (including in some of its most venerable institutions; for example, the Federal Reserve). But here too the neo-liberal WC reforms served Africa poorly. Some of the policies weakened or eliminated state institutions that instead needed refining and strengthening.

Belatedly, as the failure of the WC policies became evident, blame was shifted to deficiencies in public governance. These concerns led to the emergence of a particular agenda of institutional reforms in Africa under the label of "good governance" (GG). This agenda was based on a particular view of the relative roles of the state and markets. It assigned what Meles Zenawi (2012) refers to as a "night-watchman" role for the state, confining it to what is required to make markets work better. (Even then, the agenda was excessively narrow, paying, for instance, too little attention to the importance of financial regulation.) In Mushtaq Khan's words, this so-called good governance agenda is more accurately referred to as an agenda of "market-enhancing governance" that emphasizes what Thandika Mkandawire calls "restraining" as opposed to "transformative" institutions in Africa (see Zenawi 2012, Khan 2012, and Mkandawire 2012). The focus of GG is on public governance pertaining to bureaucratic hurdles, corruption, feeble enforcement of contracts and other laws, and generally poor implementation of policy initiatives.

No doubt, corruption and lack of competence of state institutions can lead to poor economic outcomes. But the GG agenda has been used to promote a particular view of which institutions are important for development and how they should be designed: a view that is embedded in neo-liberalism and its precepts on the relative roles of the state and markets, and a view that gives short shrift to other institutional arrangements, such as the role of cooperatives and other not-for-profit institutions.[8]

This view is profoundly ahistorical. It sees flawed public institutions as hindrances to markets performing in the way neo-liberalism presumes them to. It neglects attention to institutions that improve on or substitute for markets (for example, by addressing market failures).

An influential argument for the importance of the standard GG agenda is based on astatistical relationships between growth and governance as measured by the standard indicators. But as Mushtaq Khan has shown within developing countries and emerging markets, there is no such meaningful statistical relationship. More precisely, developing countries can be divided into high-growth "converging" economies and low-growth "diverging" economies, and within each group there is no relationship between growth and the measures of governance employed.

The GG agenda encapsulates intrinsically desirable ends that may well be good for and in turn be an outcome of development. For the most part, they embody worthy ends that are to be valued and pursued in their

own rights. But the GG reform agenda that has emerged is neither necessary nor sufficient for economic success. We noted earlier the importance of setting priorities and sequencing reforms. The critical questions, typically not addressed by the advocates of the GG agenda, are as follows: Which of the GG reforms be given priority? and How should the prioritization and sequencing of these reforms be meshed with other economic reforms? Arguably, no country has ever implemented the GG agenda first and then developed—neither the now-advanced economies in the past nor the rapidly transforming ones of East Asia today. This may be partly because poverty and stagnation provide a context that is inimical to a full-fledged GG agenda.

What is needed is not a simplistic one-size-fits-all GG agenda, but a pragmatic one that is tailored to the particular stage of development, the key issues confronting economic management at that stage, and the particular circumstances of the country. The so-called developmental states of East Asia, as well as those in which development occurred before World War II, intervened successfully in ways that required governance capacities other than simply those adumbrated under the GG agenda.

The growth-enhancing governance reforms that we advocate here prioritize those capabilities that facilitate *learning*, in particular via industrial policies in the sense and of the type we outline further on. Africa's experience highlights the importance of *not* neglecting such policies.

Markets on their own typically do not manage structural transformations well.[9] This is true even in developed countries, but even more so in developing countries. What is needed are industrial and trade policies that promote learning, the subject to which we now turn.

STATIC EFFICIENCY VS. DYNAMIC GAINS: LEARNING, INDUSTRIAL, AND TECHNOLOGY POLICIES

Industrial policy in the broad sense in which the term has come to be used refers to any action that aims to alter the allocation of resources (or the choice of technology) from what the market, left to itself, would bring about. In this broad sense, industrial policy is not confined to industry; it also refers to policies aimed at other sectors, notably modern services like finance or information technology and agriculture. Indeed the green revolution in South Asia can be said to be a prime example of successful industrial policy.[10] Languishing African agriculture has had little or no such policy support.

In one sense, industrial policies are unavoidable: all countries have industrial policies whether they know it or not. Public expenditure (for example, the location of highways and the design of the education system) and regulatory and legal regimes (for example, bankruptcy law) affect the utilization of resources. Our concern here, however, is narrower: we are concerned with the deliberate actions intended to promote particular kinds of activities, especially those that have come to be referred to as learning, industrial, and technology (LIT) policies (we will use that term interchangeably with the more familiar "industrial policy").

Such policies are directed at improving the dynamic capacities of the economy. Allocating a given amount of resources at a point in time in a way that is consistent with *static* efficiency, as desirable as it may seem, may actually impede development and growth. These phenomena and the associated societal transformation depend on *learning* in all of its forms—including closing the knowledge gap that separates developing and developed countries.

But there may be a conflict between policies that enhance static efficiency and those that contribute to learning (see Greenwald and Stiglitz 2006 and 2014a, b, and c). Striking the right balance is at the core of success in achieving growth and development. The neo-liberal WC policies paid no attention to learning, seemingly unaware of the potential conflict, and thus failed to strike the right balance.

Patent laws illustrate the trade-off: they restrict the availability of knowledge, a public good, and confer monopoly power, thus entailing static inefficiency, but the rationale for these "distortions" is that the resulting loss in static efficiency will be more than offset by the dynamic gains from investment in new technologies that they encourage.[11] Patents also, of course, give rise to rents—a potent demonstration that rents can be channeled in ways that promote economic progress.[12] Building governance capabilities to ensure that rent seeking is so directed ought to be a vital aim of reforms that serve to move the economy to a sustained higher development and growth path.

The proponents of the Washington Consensus focused on the risks and failures of attempts to promote learning with industrial policies. They suggested that such policies were inevitably costly and invariably doomed to failure. Indeed "industrial policy" acquired such bad connotations that it could be said to have become unmentionable in polite company. Countries embarking on such policies have struggled to find other names.

But recent years have provided a strong theoretical basis for such policies in the market failures inevitably associated with learning and structural transformation. Moreover, there have been notable historical successes of such policies—not only in East Asia, but even in the United States. Africa's experience shows the enormous price of neglecting the pursuit of these policies (see Lin and Stiglitz 2014).

LIT policies are multidimensional and take many different forms across and within countries. The most famous examples are those of the so-called East Asian developmental state economies, especially Korea, Taiwan, Singapore, and an earlier-era Japan. Japan is by no means the only developed country that pursued LIT policies: they were central to almost all countries that "caught up" with the technological frontier and became developed. (Ha-Joon Chang documents this insightfully and comprehensively.[13])

There are, of course, good theoretical reasons why LIT policies are desirable. They focus on learning, especially by infant industries and economies (which are so prototypical in Africa); they address externalities, knowledge spillovers, coordination failures, and deficiencies in risk and capital markets.

They are *not* or at any rate need not be about picking winners and losers, as the issue is often misleadingly phrased. Of course, properly designed LIT policies aim to minimize the risks of picking "losers," of state capture, and of industrial policies shifting away from their catalytic role in development and addressing deficiencies in markets.

One of the major risks of LIT policies that its critics have emphasized is that such policies are vulnerable to capture and corruption. But such risks are by no means the preserve of LIT policies, as illustrated by the fact that central banks in the advanced industrial country were "captured" by the financial sector they were supposed to regulate.

Indeed the agenda of liberalization and privatization in Africa, as elsewhere, that was argued for on the basis that it would limit the scope for capture and corruption, was actually "captured" and became the source of enormous corruption in many countries, both in the developed and the developing worlds.[14] Frameworks that were created gave rise to enormous rents (both in dealings with government—in buying public assets at below fair market values and selling the government goods and services at inflated prices—and in exploiting workers and consumers through, for instance, the greater scope they provided for anticompetitive practices and market manipulation).

Indeed liberalization and privatization have arguably been a major source of corruption; major contributors to the high level of inequality that marks many African countries and a major impediment to development and growth. Mineral rights have been sold to foreign firms in processes that have given rise to corruption and have been totally divorced from any benefits of learning, technology acquisition, or spillovers that might have emanated from the development of these resources.[15]

The fact that there have been some "failures" in industrial policies is no more a reason for eschewing such policies than the failures in macro, monetary, and financial policies that were so evident in the run-up to the 2008 crisis are an argument against having macro, monetary, and financial policies. In the aftermath of the 2008 crisis, we have sought to learn from those failures. So, too, should we seek to learn from the failures of industrial policies. Whilst LIT policies have risks, they also have rewards. Indeed there are few successful economies in which governments have not pursued such policies. Arguably, Africa has paid a high price for foregoing the rewards of LIT policies.

Limitations in state capacity (deficiencies in governance) may, of course, affect the form that industrial policies take. Several African countries—Ethiopia, Kenya, Mauritius, South Africa, and Rwanda—have shown to varying degrees that they can manage industrial policies and use them to enhance growth. The success stories highlighted in several of the contributions to this volume show the potential for industrial policies in Africa (for example, the contributions of Abebe and Schaefer, Hosono, Primi, and Shimada).

The availability of finance on appropriate terms is a key element of success with LIT policies and indeed more generally is necessary to promote growth. The financial crisis of 2008 and the ensuing recession have drawn attention to the issue of making finance serve the economy rather than the other way round. In Africa, the reforms of the financial sector combined with macroeconomic stability served to do away with the highly negative real interest rates that had become common in Africa.[16]

But financial liberalization largely failed in Africa not just because it led in some cases to instability, but more often than not because it saddled Africa with very high real interest rates and a dearth of long-term credit. At the same time, the banking sector has tended to have excess liquidity, preferring short-term government securities to lending.

Perhaps in no other area did the reform programs of Africa's lost quarter century ignore the lessons of success in development, especially of

East Asia, more extensively than in finance. The analysis of the extraordinary success of East Asian economies has shown the vital role played by interventions by the state in finance (see, for example, World Bank 1993). Stiglitz and Uy (1996) brought out the role of financial restraint (or mild financial repression) that held real interest rates low and enhanced access to and confidence in the financial system. The East Asian countries employed a variety of forms of intervention that enhanced the stability of the financial system and thereby savers' confidence in it, and that lowered transactions costs. These were highly effective in mobilizing savings—more so than would have been the case had there been unregulated financial markets with high real interest rates.

Ensuring access to long-term credit at moderate real rates, sometimes through development banks, promoted long-term investments that are so essential to sustainable growth. Development banks in East Asia and elsewhere have played an important role in encouraging the kind of economic transformation based on learning and the LIT policies that we discussed previously. Development banks have made important contributions in other regions at different stages: in South Asia, especially India and Pakistan in the 1950s and 1960s, as well as Latin America, including notably Brazil, Chile, and Colombia, not just then but also more recently.

Stephany-Griffith Jones with Ewa Karwowski's contribution to this volume emphasizes the importance of development banks. An African example is the highly positive role played by a development bank in recent years in one of the very few economies in Africa that still has such a bank: Ethiopia, where financing by the development bank was crucial to the impressive success with industrial policies that promoted the development of horticulture and manufactured leather exports, as the case studies by Girum Abebe and Florian Schaefer in this volume bring out.

While there have been failures (though nothing to match the scope and breadth of the failures associated with America's banking system), there have been notable successes and considerable learning by the most successful of such banks on how to increase the odds of success.[17] We now have a much better understanding of these lessons than we did in the era of a naïve faith in state interventions that neglected the risks of government failure. Clearly the answer is not to replace that faith with naïve belief in unfettered markets that neglects the pervasive market failures by ignoring the limitations of markets, for example in providing long-term credit or credit to SMEs. (Even the United States, with its well-developed financial markets, has found it desirable to have active state provision of

credit: the Small Business Administration plays a major role in the provision of small business loans, the Export-Import Bank is a major provider of lending support, especially for exporters like Boeing, and, in recent years, more than 90 percent of all mortgages have been underwritten by the federal government.)[18]

The presumption of the neo-liberal economists was that development banks, being public institutions, *couldn't* work. (There was a certain irony in this: many of the strongest critics of the development banks were economists in the World Bank and other multilateral *development banks* and from the IMF—all public institutions.) They ignored the successes and focused on the failures. Not surprisingly, the response of the WC reform program was not to reform development banks to improve their efficiency and efficacy but to dismantle them.

As with all areas of reform and good economic management, the issue is one of learning the lessons of successes and failures. Development banking raises governance issues that underline the salience of the "growth-enhancing governance" that we have emphasized. Of course, as in any area, there are downsides. But there is also enormous upside potential. This stance against development banks—like the more general WC stance against industrial policies—made Africa pay the price of foregoing the rewards of development banks. The countries could have designed their development banks—including structuring their governance and scaling them appropriately—to get the risk-reward ratio right. The costs of not having a development bank have been particularly high for those countries that have demonstrated a capacity to implement effective industrial policies. Countries that can do so might be expected to have the capacity to run an effective development bank.

THE CONTRIBUTIONS OF THIS VOLUME

As Africa seeks economic transformation for sustained growth, its policymakers need to reverse the tendencies of WC reforms, which, on the one hand pay too little attention to the benefits of learning, to critical issues of pacing, sequencing, and to the development of state capacity, including the capacity to implement reforms; and on the other hand place too much faith in markets as efficient, stable, and developmentally transformative.

Given the failure of the structural adjustment policies, it was natural that the reform agenda be broadened. Proper governance—both in

the public and private sectors—is important for good economic performance, but we have argued that what we referred to as the good governance agenda—the governance agenda that was pushed by the international institutions—is in some respects too narrow. It focuses on restraining the role of government and limiting its role to "enabling" the private sector, rather than developing state capacities that have marked the development state and have played such an important role in many of the most successful countries. But it is also too ambitious: just like the economic policy agenda ignored issues of sequencing and pacing, so too for the governance agenda. We have argued, for instance, that industrial policies, including development banks, have played a critical role in many countries, including Africa, and could in the future play an even more important role. Several of the contributions to this volume buttress that case.

We have illustrated these ideas looking at several concrete issues, in particular industrial policy and the reform of financial markets. But each area of policy can be viewed from the perspective of a *development transformation.* Consider, for instance, exchange rate policy. In natural resource–rich economies, without appropriate interventions, the exchange rate will be too high, inhibiting both export- and import-competing industries, a major contributor to the "resource curse." In Africa, this common problem is compounded in some heavily aid-dependent economies by aid inflows. But there are notable examples of both countries that are resource rich (Malaysia and Chile) and those that are not (like China) that have managed their exchange rates in ways that have promoted growth and a developmental transformation.

Today is a particularly opportune time for a change in Africa's development strategy in these directions. There are major changes occurring in the global economic landscape. China provides a very large and rapidly growing market for African exports, and not just for its natural resources. Moreover, wages in China are rising. As Danny Leipziger and Shahid Yusuf's chapter points out, there will be "space" in world markets for labor-intensive, simple manufacturers that Africa could easily occupy and, eventually, for less labor-intensive and more complex manufacturers as well. To the extent such a window opens, it might not be for long: other low-income economies could fill the void rapidly. This consideration enhances the urgency of the sort of trade, industrial, and financial policy reforms that we suggest should be high on the agenda of policy reforms in the region.

Several of the chapters in this volume make the general case for industrial policies.[19] Differences in emphasis and nuances enrich our understanding of these policies, the sources of their successes, and their limitations. Hence we prefer to allow the different authors to present their views, even at the cost of some repetition, rather than impose a uniform view confined to this chapter.

In chapter 2, Ha-Joon Chang elaborates on the case for industrial policies in Africa and emphasizes its feasibility. In doing so he addresses what is often cited as a special constraint on success with industrial policies in Africa: its alleged institutional, political economy and "structural" peculiarities. He notes the important role that industrial policies played not only in the "miracle economies" of East Asia but also in the development of the now-developed countries, including notably in the United Kingdom and the United States, as well as many developing countries across all regions.

Chang then proceeds to demolish "Afro-pessimism," which holds that some peculiarly African structural factors of climate, geography, culture, and history act against success with industrial policies in the region. Chang notes the heterogeneity of Africa and compares African countries with other countries at similar stages of development, including today's rich countries, and finds these constraints to be much exaggerated.[20] For example, he notes that the fact that many, if not most, of today's rich countries faced similar constraints. They are not insurmountable. On climate, Chang points out that having a cold one also has its disadvantages and quotes Aristotle, who expounds the view that northern European countries were handicapped by their cold climates, reflected in their people being "full in spirit but lacking in intelligence and skills." Chang also provides some splendid examples of how people in more developed countries held similar prejudices against the less developed countries, including the English toward the Germans in the mid-nineteenth century and Australians, Americans, and the British variously toward Japan and Korea in the early twentieth century.

In sum, Chang emphasizes that many of these so-called structural arguments *confuse the symptoms of underdevelopment with their causes*. So do many other arguments relating to institutions, political economy, the resource curse, bureaucratic capabilities, and so forth. He notes the importance of learning by doing in managing industrial and other development policies, akin to such learning in production, and that these capacities can be built up reasonably quickly.

Much of Ha-Joon Chang's chapter is devoted to the nexus of political economy, rent seeking, and state capabilities. He notes that the tendency to assume that the alleged constraints on African development—including those reflected in "Afro-pessimism"—make industrial policies particularly likely to fail has little basis. As he points out, "Industrial policies are not necessarily more demanding in institutional or political economy terms than many other types of policies."

Chang's setting of the stage is followed in the next four chapters by a series of case studies. These are followed by contributions on the financial sector, growth and development strategies, and finally on assessment of overall policy regimes, in particular a critical examination of the World Bank's Country Policy and Institutional Assessment (CPIA).

Chapter 3 by Akio Hosono examines the lessons for Africa from what it deems to be five "outstanding cases" of success with industrial policies. These cases are highly varied both in terms of the type of sectors as well as country contexts. Hosono looks at (1) automobiles in Thailand; (2) the "Cerrado" in Brazil (which was transformed from a huge tract of barren land to high-productivity agriculture); (3) the garment industry in Bangladesh; (4) salmon in Chile; and (5) Singapore's upgrading of its industrial sector from a labor-intensive sector to a knowledge-intensive one.

Hosono seeks to extract insights from these rich case studies on how the various considerations that go into the making of industrial policy interact in practice in successful cases. He focuses in particular on the acquisition of capabilities, the creation of a learning society, using and altering factor endowments to move from static to dynamic comparative advantage, compensation for the positive externalities generated by the costs of discovery by pioneer firms, and the management of the pressures generated by globalization and the ideology and interests of "free-marketers."

Hosono's five case studies illustrate how the general principles of good industrial policy vary in their translations into different contexts. But they also illustrate the mutual causality between industrial development and economic transformation on the one hand, and the "constant development of capabilities and knowledge through learning" on the other. In the case of Singapore in particular, Hosono emphasizes the crucial role of "learning to learn." These cases also serve to bring out that reasonably good institutional "islands" created for specific purposes, as distinct from an overhaul of the entire institutional structure, can be highly effective. In this, it nicely complements Ha-Joon Chang's contention that

inadequacies of bureaucratic and associated capabilities do not present an insurmountable barrier to success of industrial policies in low-income countries or Africa. Hosono's chapter also highlights the important role that the development of physical infrastructure plays as an instrument of industrial policy.

The next two chapters focus on Ethiopia, probably the most notable case of successful industrial policy in Africa. Ethiopia has particularly relevant and important lessons for the region. In this overview of the contents of the volume, we assess the Ethiopian cases in particular detail. Its late prime minister Meles Zanawi (2012) articulated an explicit and sophisticated case for Africa to learn from East Asian successes, particularly in the area of industrial policies (and those policies have been endorsed and continued by the government formed by his successor).

Go Shimada's case study of Ethiopia aims, inter alia, to illustrate the importance of disaggregating learning. He notes the prominence given to acquisition of technology (technological knowledge) and skills in the relevant literature on Africa and the neglect of other types of knowledge, especially knowledge related to policy formulation and implementation and to managerial skills. He examines the case of a program in Ethiopia to support productivity and quality enhancement by providing basic management skills and improving management practices at the factory floor level. This approach labeled *kaizen* requires very modest capital investment and focuses instead on a regular process of improving management and organizational capabilities within a firm in a participatory manner, that is, involving both managers and workers (kaizen was introduced in Japan in 1955).

A pilot project covering twenty-eight firms in five sectors—agro-processing, chemicals, metals, leather, and textiles—had quite a remarkable impact in as short a time as six months. With no additional investment, the average benefit for a firm was around 500,000 Ethiopian Birr (USD 30,000) over the period. This was equivalent to almost USD 75 per employee, roughly equal to the prevailing gross monthly wage. The other aspect of this project pertained to improving bureaucratic capability, especially in policy coordination and implementation, the results of which are not so easily assessed (especially given the short time period of six months covered in the evaluation). Go Shimada argues for a comprehensive approach to learning, which disaggregates different elements of learning and devises suitable instruments for each of them. He holds that

"managerial" and "policy" learning are important and deserve far more attention than they have tended to receive.

Girum Abebe and Florian Schaefer narrow the focus to two sectors in Ethiopia, at the same time widening it by examining a greater range of industrial policy instruments. We summarize their chapter in some detail as it raises, like Hosono's contribution, a wide range of issues concerning industrial policy, and it does so in an exclusively African context. These sectors were an important part of Ethiopia's success over the past decade. Ethiopia's GDP grew at 10.6 percent per year between 2004 and 2011 compared to the average of 5.2 percent for Sub-Saharan Africa.[21] (As we noted, much of that region's growth reflected a commodity boom, especially new discoveries of oil amid soaring prices of oil. By contrast, Ethiopia is a resource-poor country.)

Their focus is on floriculture and leather processing. These are sectors that have developed rapidly, with significant overall impact on the economy. Exports of floriculture rose from a paltry USD 0.15 million in 1997 to USD 210 million in 2011. Promotion and export of leather goods was a more gradual process. After initially rising slowly from USD $67 million in 2004/05 to USD $104 million in 2010/11, leather goods are now taking off dramatically, with a major Chinese shoe producer, Hujian, having established a huge plant in Ethiopia. This came about after a meeting with the late prime minister Meles Zenawi on his visit to China in 2011. Presumably the capabilities built up in the sector also influenced the decision to invest in Ethiopia. The company has already begun to produce some 2,000 pairs of shoes per day for designer labels and to employ some 1,600 workers. Hujian plans to expand its production rapidly, with the aim of generating USD $4 billion worth of exports per year within a decade.

The growth in these two sectors alone represents a significant transformation of the Ethiopian economy, whose total exports in 2012 amounted to about USD $3 billion. This is akin to the role of garments in Bangladesh, but the "transformation" is less likely to be confined to one sector, as Ethiopia seems to be pursuing more broad-based and deliberate industrial policies, as also suggested in Go Shimada's contribution in this volume.

One of the key issues of LIT policies concerns how learning comes about. Similar to the case of Bangladesh garment exports that Hosono discusses, Hujian is sending local employees for training to its parent company, with some 130 Ethiopian university graduates already sent to China by 2012/2013 and another batch of about 300 to follow.

According to Abebe and Schaefer, it was easy to pick these sectors for support as they have "production organizations and technological intensities that suit the labor-abundant-capital-scarce nature of the Ethiopian economy." Both sectors benefitted from a wide gamut of activist industrial policies, and Abebe and Schaefer's study brings out both the commonalities in policy measures and also how policies were tailored to the specific requirements of each sector.

The common elements in the industrial policy support of both sectors of particular importance were (1) access to finance on reasonably attractive terms through the Development Bank of Ethiopia;[22] (2) close government-business consultations; and (3) flexibility in altering forms and degrees of support.

On the differences in approaches in the two sectors and the tailoring of policies to deal with sector-specific challenges, the following are noteworthy: The leather sector was characterized by the need to overcome coordination failures that required several problems along the value chain to be tackled simultaneously to achieve global competitiveness. The dominant challenges in the floriculture sector on the other hand, pertained to logistics, land acquisition, and initial capital (that needed to be financed at terms that were not too short term and costly for such investments).

In the leather sector, the government aggressively promoted acquisition of technological capabilities, including establishing a leather training institute that organized several training programs often involving foreign experts, and also subsidized their employment by domestic firms. The government also provided land and semi-constructed factories as well as basic infrastructural facilities in industrial zones. Tax and regulatory policies were also employed to encourage upgrading. These included a ban on exports of raw hides and skins, followed in subsequent years by export taxes on minimally processed, low value-added, leather products. Such preannounced actions helped push "more innovative and efficient producers up the value chain," as Abebe and Schaefer put it.

In the case of cut flowers, industrial policies were tailored to provide land at reasonable prices and in proximity of the airport and reliable, low-cost airfreight services including air-conditioned transport to the airport and coordination with Ethiopian Airlines so that its flight timetables got the flowers to overseas markets, especially Amsterdam, at the right time.

The last of the set of case studies is the chapter by Annalisa Primi that seeks to answer the question of what lessons Africa can learn from the experiences in Latin America. She argues that whilst the "success" of East

Asia with industrial policies is often contrasted with the "failure" of Latin America, the latter has accumulated considerable experience in the design and implementation of industrial policies that have relevance for Africa. While recognizing the context specificity of appropriate policies, Primi holds that the Latin American experience, particularly in the past decade or so that has witnessed a revival of industrial policy in the region, can be utilized to derive useful lessons for Africa.

Her starting point is the changing global landscapes that African as well as Latin American countries face in pursuing economic transformation today. Primi points to a "new geography" of growth, production, trade, and innovation as a result of the rise of emerging economies, especially of China. By 2010, China had a larger share in the world's manufacturing value added than any other country: 18.9 percent compared to 18.2 percent for the United States. While Africa has been deindustrializing, the share of non-OECD countries, even excluding China, in world manufacturing has been rising: from around 14 percent in 1990 to about 20 percent in 2010. China, India, and Brazil have been growing in importance as Africa's trade partners—and sources of FDI—with the share of China alone in Africa's exports growing from roughly 5 percent in 2000 to around 19 percent by 2010. Primi contends that these changes present new opportunities for transfers of technology and learning.

Industrial policies are becoming more widespread, not only in Latin America but also in OECD countries with newer varieties of form, nuance, and emphasis, differing in important ways from the "classical" East Asian policies of the type pursued in Korea and Taiwan, for example. Understanding these policies could offer more learning opportunities for Africa.

In Latin America, as in Africa, the WC policies led to a dismantling of industrial policies. In recent years, the region has faced the challenge of rebuilding the capabilities for designing and implementing industrial policy—what she refers to as the "planning function" of the state—after their evisceration during the heyday of the Washington Consensus. As such, Latin America and Africa can learn from each other. Among the lessons for Africa from the recent revival of industrial policies in Latin America that Primi outlines are those that relate to:

(1) The strategic management of FDI to enhance technology transfers, and backward and forward linkages;
(2) Building capabilities for learning in the management of public procurement;

(3) Setting up government programs to promote the creation of start-ups;
(4) Development banks for channeling finance to production, development, and innovation (also see Griffith-Jones with Karwowski's contribution in this volume);
(5) New forms of partnerships with the private sector to match funds and encourage innovation and production;
(6) Channeling natural resource rents toward economic transformation (in particular through the creation of public funds for innovation and transformation);
(7) Investing in strengthening relevant state capabilities, recognizing that the sequence of first getting the institutions and then the policies "right" does not make much sense because they co-evolve.

The next chapter, by Stephany Griffith-Jones and Ewa Karwowski, focuses on the financial sector in Africa. Like Primi, they emphasize the important role that development banks can play—the more so because of very limited outside financing for investment by firms in Africa, with firms relying heavily on internally generated funds. This obviously constrains investment and thereby economic transformation. They point to the need for more research on development banks to learn from the failures and successes of the past.

Griffith-Jones and Karwowski begin by examining the implications of the financial crisis of 2008 and its aftermath for financial sector policies in Africa. Their contribution includes an excellent, pithy review of the recent literature on the relationship between finance and growth. One upshot of the literature that they emphasize is the inverted U-shaped relationship between finance and growth. Up to a point financial depth is good for growth, but beyond that expansion of the financial sector seems to impede growth. They suggest one possible hypothesis for explaining this: that decreasing returns to financial depth reach a point at which the increased volatility that accompanies the expansion of the financial sector more than offsets the gains from it.

While investment or long-term financing is very limited in Africa, there has been rapid growth of essentially short-term credit in several African countries in the later part of the 2000s. This has occurred in the context of limited regulatory and supervisory capacity, especially in some of them. Griffith-Jones and Karwowski note that there is general agreement in the light of the 2008 crisis and its aftermath that regulations need

to be both countercyclical and comprehensive to minimize systemic risks. They argue for caution and prudence in financial liberalization in Africa, especially of cross-border capital flows. Their contribution also notes the special attention needed in the region to shape a financial sector that does a good job of serving the real economy for sustainable and inclusive growth, including notably lending to SMEs. This is, of course, of particular importance for industrial policies aimed at economic transformation. That the financial sectors in the region tend to be small in relation to the economy may facilitate shaping it appropriately. They also argue for substantially greater involvement of African and other low-income countries in discussions on financial regulations in international fora, such as the IMF, the Bank for International Settlements (BIS), and the Financial Stability Board (FSB).

The next chapter by Danny Leipziger and Shahid Yusuf delves into a very wide range of policy issues and controversies in making what it terms "policy observations" for growth strategies for Africa. In doing so it places a great deal of emphasis on a changing global context, rather similar to what Annalisa Primi's chapter does, but touching on many more issues, including the changing nature of technological trends, climate change, democratization, and the prospects for export-led manufacturing growth (which in its view are not particularly bright).

To some degree this contribution can be said to add a rather different viewpoint (or at least emphasis) to that which underlies the preceding ones. Leipziger and Yusuf's support for industrial policies is more tepid and qualified both in itself and, at least to some degree, implicitly because of the relative importance they attribute to other policies for accelerated growth and transformation. While they are in broad agreement with Griffith-Jones and Karwowski on the dangers of excessive financial liberalization, they worry that regulations and restraints on finance can hamper growth.

There are other areas of emphasis and nuance that are not entirely in consonance with the thrust of the rest of the volume. They are, for instance, more sympathetic with the good governance agenda to which we referred earlier in this introduction. Leipziger and Yusuf demonstrate that the debate over what will contribute to Africa's growth and development is alive and well and has varied hues.

Julia Cagé's chapter brings the volume to an appropriate closure. We noted earlier that the Washington Consensus provided a well-articulated

view of what was required for successful development. Even when the policies *seemed* to fail, the response was less to change the policy but more to broaden the agenda to include the institutional reforms that we labeled as the good governance agenda. She subjects the different measures of "policy performance" that are being used by international organizations to rank countries on the "goodness" of their policies to critical analysis.

Cagé begins by noting the high-profile criticism by China regarding its ranking on the "Doing Business" indicators that the World Bank churns out and that are so influential in measures of country policy performance. They are supposed to assess the quality of the country's environment for doing business. The implication is that countries with good scores on the "Doing Business" indicators will have a stronger private sector and will grow more robustly. While these indicators have rightly been criticized for seeming to suggest that having poor labor conditions and an unbalanced tax regime—favoring corporations—is good for business and for the economy, the problems are deeper: China, the outstanding case of growth and transformation that is having such a profound influence on the world economy—as Leipziger and Yusuf and Primi emphasize in this volume—ranks ninety-first out of 185 countries in 2013 (India does worse and Vietnam is close to China in "Doing Business" in recent years).

Julia Cagé focuses in particular on the World Bank's Country Policy and Institutional Assessment (CPIA) measures, probably the most influential of these composite measures. Her chapter begins with some anecdotal evidence on how the CPIA performs as a predictor of growth. She then employs a yearly panel data set of more than 140 developing countries covering the period from 1977 to 2008. Both her anecdotal and econometric evidence find that CPIA is not a good predictor of future economic growth. Julia Cagé argues for other, new measures of policy performance and for more weight to be given to the role and capacities of governments. She emphasizes the importance of measuring the quality of industrial policy, especially of export promotion strategies.

Her chapter provides strong empirical verification of many of the claims made earlier in this introduction and elsewhere in the book: the policies advocated by the Washington Consensus do not lead to strong economic growth, development, and economic transformation. This book highlights the importance of an alternative set of policies that has demonstrably broad success, at least in a number of cases.

NOTES

1. Chad's growth was concentrated in the first half of the 2000s and tapered off sharply in recent years with a drop in oil production and related foreign investment.

2. For a more detailed discussion of the issues in this and the next section, see Noman and Stiglitz (2012) and Noman and Stiglitz (forthcoming). The discussion here draws heavily on these essays.

3. There is some controversy on the relative roles of commodity booms and improved policies, but that the former have been very important is beyond dispute.

4. John Williamson coined the term *Washington Consensus*, describing the consensus of policies surrounding the reforms advocated by the Washington-based institutions in Latin America. But the term has come to refer to a broader set of policies, advocated not only in Latin America but also in other developing countries. See Williamson (1989, 2008) and Stiglitz (2008b, 2008c).

5. Though even here it was arguably wise to resist the policies of selling off licenses to foreign firms, instead focusing on procuring particular services from foreign providers. Moreover, in the presence of fast-changing technologies, there are distinct advantages from maintaining flexibility.

6. World Bank (2015).

7. On East Asia, see, for example, Amsden (1989, 2001), Wade (1990), and World Bank (1993). Ha-Joon Chang (2002) covers both East Asia as well as the developed countries of North America and Europe.

8. Bangladesh provides what is arguably the most striking example of the important role that such institutions can play as exemplified by BRAC and the Grameen Bank.

9. This is partly because of capital market imperfections: the new sectors typically have difficulties raising funds to finance new enterprises, and individuals have difficulties raising funds to finance the new human capital required in the new sectors (see Delli Gatti et al. 2012a and b). It is also because learning is central to transformation, and there are numerous market failures associated with learning. See Greenwald and Stiglitz (2014c).

10. In both India and Pakistan the green revolution was facilitated by policies of price support setting a floor on output prices, as well as input subsidies, including notably for electricity, that enhanced the profitability of tube-well irrigation.

11. What constitutes a good patent law is another matter. The details of design make some entail more static losses and/or less dynamic gains than others. See, for example, Dosi and Stiglitz (2014) and Stiglitz (2008c).

12. Arguably, the East Asian countries did this very successfully. See references cited in previous endnote.

13. Ha-Joon Chang (2003).

14. Stiglitz (2002a) described the process of privatization in many countries as one of "briberization." Much of the inequality in wealth and income that has become such a subject of concern in recent years, which Stiglitz (2012) has argued has had significant adverse effects on growth and economic performance, arose out of these poorly designed privatizations.

15. See Jourdan (2014) for an excellent discussion on how the development of natural resources can be the basis of broader-based growth through the design of appropriate industrial policies.

16. Note that the real interest rate in the United States and Europe in recent years has been negative. Hellmann, Murdock, and Stiglitz (1997 and 1998) distinguish between the potentially beneficial effects of mild financial restraint (often associated with slightly negative real interest rates) and financial repression (marked by highly negative real interest rates).

17. In Africa, the failures often stemmed from some combination of poor governance of such banks, with loans often given on the basis of political influence rather than the merit of the project, and an economic environment characterized by macroeconomic instability and other policy failings, especially of trade and exchange rate policies.

18. Emran and Stiglitz (2009) provide a theoretical explanation for why, without government intervention, there will be an undersupply of loans to small businesses.

19. For more elaborate discussions of the case for industrial policies in recent years, see Greenwald and Stiglitz (2014a, b, and c); Lin (2012); Aghion (2014); Cimoli, Dosi, and Stiglitz (2009); and Stiglitz, Lin, and Patel (2014). There are also of course the classic works of Alice Amsden (1989, 2001) and Robert Wade (1990).

20. For a more elaborate and detailed case along similar lines, see the contributions of Akbar Noman and Joseph Stiglitz, Thandika Mkandawire, Mushtaq Khan, and Meles Zenawi in Noman et al. (2012).

21. Also for comparison: Bangladesh's annual economic growth during the period was 6.2 percent.

22. Ethiopia is rare in Africa in still having a development bank after the wave of financial liberalization that closed down such banks not only in Africa but in many other developing countries.

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