THE NEW GLOBAL ECONOMIC ORDER

Edited by Lili Yan Ing and Dani Rodrik

The New Global Economic Order

As anti-globalization reshapes the world, the divide between East and West, developed and developing countries, and North and South, deepens, creating new challenges for economic policy and global governance. This book provides a nuanced and balanced analysis of economic transformation over the past century, exploring critical themes such as structural change, resource mobilization, and the future of global growth.

Featuring insights from leading economists, this volume offers expert commentary on economic transformation, development strategies, and the evolving global order. It further examines into pressing governance questions surrounding AI, green technology, and the financing of health crises, future pandemics, and energy transitions.

A vital resource for economists, policymakers, and researchers, this book provides strategic guidance on navigating global shifts and mobilizing resources to drive sustainable development in an emerging new global economic order.

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7 A New Growth Strategy for Developing Nations

Dani Rodrik and Joseph E. Stiglitz

7.1 Introduction

Not long ago, the development community was brimming with optimism about the developing world's economic prospects. Economic growth was up, extreme poverty was sharply down, and a clear consensus seemed to have emerged on a broad growth strategy based on integration into the world economy. There were plenty of debates on the particulars of the strategy, of course. The experience of China, which had engineered history's most spectacular poverty reduction, gave ammunition to advocates of both market-oriented and more state-directed approaches to development alike. Yet both sides agreed that, however achieved, export-oriented industrialisation was the right path.

This consensus has been recently shattered by several developments, however. In particular, technological changes have made manufacturing skills- and capital-intensive—and less and less labour-absorbing—undercutting the efficacy of industrialisation as a growth strategy. The ability to absorb labour was reduced at the same time as the comparative advantage of developing countries was attenuated. As Figure 7.1 shows, economic growth rates in the developing world were already dropping in the years preceding the COVID-19 pandemic.

The pandemic itself accelerated and exposed other, more subtle trends. With lower growth, the debt problems of developing countries became crushing, and low- and lower-middle-income countries lost precious access to financial markets. Geopolitical competition between the United States and China as well as the creeping backlash against hyper-globalisation transformed the global economic landscape and rendered the world economy less hospitable to growth through trade. As incomes in developed countries increased, there was a shift away from manufactured goods to services, so the share of global output in manufacturing was in decline. The impending climate-change crisis, and the requisite green transition, affected agricultural sectors in many developing countries adversely. It also reduced global demand for material goods, especially those with a high carbon footprint, and made the development of new technologies imperative—further disadvantaging developing countries.

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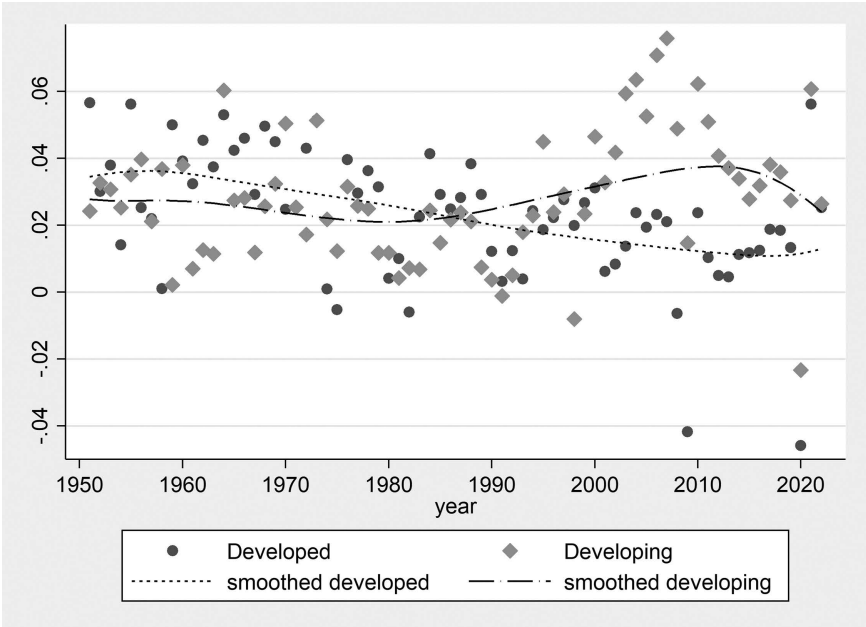

Figure 7.1 Growth Rates of Developed and Developing Countries Since 1950

Sources: University of Groningen (2017), Maddison Historical Statistics, https://www.rug.nl/ggdc/historicaldevelopment/maddison/?lang=en [accessed February 2024]; and World Bank, World Development Indicators, https://databank.worldbank.org/source/world-development-indicators [accessed February 2024].

This chapter argues that we are at a turning point in development strategy. Strategies that worked well in the past are unlikely to do so in the decades ahead. In particular, the manufacturing- and export-based growth strategies that drove East Asia's development miracles are no longer suited for today's low-income countries; at the very least, they are insufficient. New technologies, the climate challenge, and reconfiguration of globalisation require a new approach for development, emphasising two critical areas—the green transition and labour-absorbing services. Unfortunately, policymakers do not have ready-made formulas or successful models to emulate. Confronting this challenge head-on will require building greater capacity to understand new opportunities, constraints, and what works and does not as governments experiment with new policies on a number of fronts.

7.2 A Strategic Approach to Economic Development

The fundamental source of economic development in the long term is learning. Learning occurs at the level of the individual, reflected in the accumulation of human capital and learning-to-learn (Stiglitz, 1987). It also happens at higher, broader levels through organisational and societal learning, including improved governance, which entails not just understanding the principles of what makes

for good governance but overcoming the impediments to their implementation. Sustainable economic growth requires patience in building up these fundamentals, including steady investment in education and skills and the quality of institutions.

While the accumulation of these fundamental capabilities is indispensable for development, it is not sufficient; it is not a substitute for a strategy of economic development focussed on structural transformation.[1] In all successful cases of economic growth, in East Asia and elsewhere, these fundamentals improved alongside rapid economic growth. They are as much a result of growth as they were a precondition. Sustained rapid growth, in turn, requires structural transformation; countries that experienced rapid growth (e.g. based on natural resources) and did not have structural transformation saw that growth evaporate at the end of the commodity boom. Moreover, countries that have focussed solely on fundamentals and invested in education and governance without promoting successful structural change have reaped meagre rewards in terms of economic growth.[2] The supply of human capital and good institutions yield little growth without simultaneous changes on the demand side of the economy, which typically come from the promotion of new, modern economic activities and the structure of production, which comes from the industrial policies discussed later.

Still another essential element of the strategy focusses on macroeconomics. Small, open economies need to ensure that they have exchange rates that are competitive, maintaining an overall balance between aggregate supply and demand, without leaving the country dependent on short-term foreign capital (and hence subject to 'sudden stops'[3]) and at as high a level of employment as possible. This has been a key failure of many resources-rich countries, as well as a reason that many countries following Washington Consensus policies failed to thrive economically. Larger economies must ensure adequate aggregate demand to maintain high levels of capacity and employment.

The current focus of development economics on randomised controlled trials (RCTs) and other rigorous methods of causal inference has obscured the importance of structural change and the need for an explicit strategy to promote it. RCTs have yielded many important policy insights in public health, education, and delivery of social services, and no doubt have contributed significantly to poverty reduction. Yet ultimately, long-term and sustainable economic development requires more than a series of local interventions restricted to policy domains where such experimental methods are applicable. The most spectacular growth miracles have been the result of sectoral or economy-wide policy reforms that fostered new economic activities without the prior benefit of RCTs. As an example, China explicitly experimented by trying new policy arrangements in some provinces before launching them elsewhere. Learning from policy successes and failures is possible even when policymakers' causal inference standards fall short of RCTs or other econometric techniques of 'evidence-based policymaking'. It would have been impossible to conduct RCTs to inform the significant strategies that really mattered; policymakers gleaned what they could by making inferences based on theory, history, econometric studies, and the limited experiments that could be conducted.

Rapid, sustained economic development thus requires an explicit strategy targeting structural transformation.[4] The common element running through all of the rapid and sustained growth cases has been the strategy of industrialisation. During the early post-World War II era, this strategy was import-substituting industrialisation. Combining heavy state intervention with import barriers, import-substituting industrialisation focussed on building domestic manufacturing capacity—initially consumer goods, followed by intermediate and capital goods industries. While not every country did well under this strategy, many countries in Latin America, the Middle East, and Sub-Saharan Africa experienced rapid economic growth until the oil shock of the second half of the 1970s.

East and South-East Asian countries—led by Taiwan in the late 1950s and South Korea in the early 1960s—also heavily promoted industrialisation through a wide variety of measures, including access to credit and tax incentives, but pushed their nascent manufacturing enterprises early on to export. This export-oriented industrialisation model proved more sustainable and eventually became the one to emulate for countries adopting more market-oriented approaches under the influence of the Washington Consensus. True to its market focus and aversion to governmental intervention, however, the Washington Consensus remained focussed on 'fundamentals'—investments in education, governance, and macroeconomic stability—and downplayed structural transformation strategies that were central to the success of East Asia, including the role of explicit trade and industrial policies to foster learning and new industries. Largely as a result, the growth payoff for Washington Consensus policies proved disappointing.

China was the most significant success story of the East Asian model. Once the government prioritised economic growth after 1978, its strategy combined market incentives with highly unconventional institutional arrangements—the household responsibility system, dual-track pricing in agriculture, township and village enterprises, and special economic zones—to foster structural change, productive diversification, and new capabilities. Industrial policies promoting new manufacturing activities were a critical part of China's economic success. China was also a beneficiary of increased globalisation, but it became one largely through its own terms.

By the 1990s, globalisation had reached new heights. Under the new model of hyper-globalisation, removing or at least reducing transaction costs on international trade, finance, and investment—'deep integration'—became a primary objective of economic policy. Reduction in these costs, along with technological advances, rendered global value chains (GVCs) the predominant force shaping global production. Joining GVCs, in turn, became the main vehicle for promoting economic growth. Entering GVCs, the thinking went, would help promote new industries, increase productivity, and generate the structural change needed for growth.[5]

However, just as global economic integration, export-oriented industrialisation, and GVCs became the foundations of a new economic development strategy, their benefits were being undermined by a process of 'premature de-industrialisation' in developing countries. The primary culprit was skills- and capital-biased

technological changes in manufacturing, which increased labour productivity substantially in advanced economies where innovations originate. They also undercut the comparative advantage of low-income economies in labour-intensive manufacturing. The quality and technological standards set by leading firms in GVCs rendered labour-intensive production in export-oriented sectors even less viable (Rodrik, 2016, 2022a).[6]

The result was that globally competitive formal manufacturing sectors in developing countries ceased being labour-absorbing sectors. They turned into 'enclave' sectors where low amounts of these economies' excess low-skilled workforce could be employed.[7] In countries where manufacturing output was sustained, manufacturing employment still shrank as a share of total employment. In the few cases where manufacturing employment registered an increase, the rise was concentrated in small, informal, and low-productivity enterprises, while large, internationally competitive firms generated little demand for labour (Diao et al., 2021).

Manufacturing employment matters. Historically, structural transformation in the form of industrialisation has been the key dynamic that has driven rapid economic growth.[8] As workers moved from low- to higher-productivity sectors, they increased their earnings, aggregate productivity rose, and economic growth occurred. The key strategic question for the future is where the better, more productive jobs will come from.[9] While manufacturing will remain an important sector for most countries, it cannot be the protagonist of economic growth as it was in East Asia and other successful economies of the past, because the global share of employment in manufacturing will decline, both because of the shift in global gross domestic product (GDP) away from manufacturing and the decreased labour intensity of manufacturing employment due technological change.[10] Green industries and services must play an important role in filling the void, especially in the next few decades.[11]

7.3 The Green Transition

Climate change imposes a significant cost on low-income countries. Often, they are especially vulnerable because of their location in areas that are most affected. Their low resources and limited fiscal space make large-scale spending necessary for adaptation and response to the damage of climate change difficult, if not impossible. Their exposure to extreme weather events has also increased, resulting in losses to crops and livestock. The drag on growth is already evident in many cases and is reflected in higher borrowing spreads and reduced access to private finance in many countries.

In a world with complete, efficient markets and where governmental efforts are already optimised, the constraints imposed by climate change and requisite adjustments will reduce well-being and almost certainly growth. However, policy reforms—in part induced by the need to respond to climate change—can reduce the costs imposed by climate change and potentially produce better outcomes relative to the business-as-usual scenario. In particular, the climate challenge can become

a growth opportunity if developing countries are able to turn it into an investment strategy.[12] As several large-scale global models have shown, it is possible for well-designed climate actions to boost growth in developing countries (Lankes et al., 2024). However, a plausible and desirable path towards a green transition will require large up-front investments. It will also have to go beyond investment in climate-change mitigation to build cumulative and enduring capabilities in new productive domains (e.g. renewables and green industries).

There are multiple key investment priorities related to the green transition.[13] The first is the transformation of the energy system, which entails moving from fossil fuels to renewable sources of energy. Without decarbonisation in developing countries—and the phasing out of coal-fired power plants in particular—it is difficult to see how the world can reach a target of net-zero emissions by the middle of the 21st century. Rapid technological progress and the sharp decline in prices of renewable energy have made this goal more attainable. Yet it will require massive new investments in infrastructure and electrification and in new sources of energy such as solar, wind, and green hydrogen.

There will also be requisite investments in each of the other systems that constitute a developing economy, and implementing some will be difficult because of the decentralised nature of the investments required. Transforming agriculture could lead to more productivity and higher standards of living for the large fractions of the population still dependent on that sector. Developing countries are also home to significant carbon sinks; by ensuring their restoration and protection, they can make a substantial contribution to mitigating climate change. This will require a wide range of public investments in agriculture, forests, soils, and oceans.[14] Redesigning cities, with modern transport systems and efficient housing, could also contribute to lowering emissions and greater productivity.[15]

Another area is reducing the vulnerability of developing countries to damage from climate change. There are significant needs in building defences against rising sea levels, desertification, and extreme heat. Governments will need to increase investments in food and water systems, resilience of infrastructure and urban areas, and disaster risk management.

The total investment needed for such a strategy amounts to an additional 2% of global GDP per year by 2025 and an additional 4% of global GDP per year by 2030 (excluding China) (Songwe et al., 2022). Many of these incremental expenditures reflect the up-front costs of replacing capital goods that would otherwise have to be replaced earlier. Some of these incremental costs arise from the fact that many green technologies are more capital-intensive than corresponding non-green technologies; that is, more labour is needed now, but with the benefit of less labour needed in the future. This is evident in the case of electric vehicles, where maintenance and driving costs are a fraction of those associated with internal combustion engines.

The feasibility of these actions depends on the availability of external financial support. Assuming half of the investment needs is met through domestic resource mobilisation, developing countries as a group would require an additional 2%–4% of GDP of external resource flows. Short of concerted global action by leading creditors and multilateral lenders, it is difficult to see how this could be achieved.

The COVID-19 pandemic and rising food and fuel costs have left the developing world with severe debt problems. While only a few countries have defaulted, scores of developing countries are currently illiquid. Net financial transfers to Africa have slowed down to a trickle, and low- and lower-middle-income countries have essentially lost access to bond markets.

Bridging the investment gap will require a new growth-oriented liquidity facility to allow the resumption of financial flows to these countries as well as speedier debt resolution (Rodrik and Diwan, 2023). These will have to be supplemented with domestic mechanisms to ensure adequate access to finance by households and firms, regardless of size, for green investments. Action on this front is in the interests of advanced economies as well since the climate transition is a global public good.[16]

If financing becomes available—and if the investment is deployed wisely—this ramping-up of investment for the climate transition could be an important element of the new growth strategy. Such an investment could yield additional growth of 0.5%–1.0% per year for developing countries, assuming an incremental capital output ratio of 4.[17]

From a global perspective, the timing of the green transition may be ideal, as there is a surplus of labour available to make the investments. Some are worried about a savings glut or secular stagnation, suggesting a surfeit of savings; yet the global real interest rate has been low despite recent increases in the nominal rate. A key problem is the risk premium imposed on developing countries—and even on relatively safe investments within those countries.

7.4 Better Jobs in Services

Investment in the green transition would turn a cost for developing countries into a growth opportunity. Yet it is not clear where the better, more productive jobs will come from. The climate transition could create new jobs in building solar and wind facilities, infrastructure, and climate-change mitigation activities. It will also destroy actual—and potential—jobs in fossil fuel-dependent activities and brown manufacturing. Even if, on net, it increases labour demand, developing countries still face the challenge of absorbing large amounts of additional labour from the agriculture and informal sectors into modern, productive sectors.

The problem of job creation in Africa is particularly acute. The working-age population in Sub-Saharan Africa will increase by 740 million by 2050, more than doubling its current level of 630 million people (World Bank, 2023). In the absence of job creation in more productive sectors, the bulk of this labour supply will be absorbed by precarious, unproductive informal activities in urban areas, as is the case at present. It is unlikely that decarbonisation-led structural transformation will produce the many jobs needed, which would have been created in the past by industrialisation.

The same could be said for agriculture. Agricultural modernisation, including the use of new technologies and diversification into cash crops, has significant potential in many developing countries. Yet it is difficult to envisage agriculture

as a labour-absorbing sector for the economy. Most of the new technologies in agriculture are labour-saving and capital-intensive. Historically, productivity gains in agriculture have been associated with reductions—rather than increases—in farm employment. It remains to be seen whether a different path could emerge in view of the new constraints posed by climate change and land scarcity.

Combined with the manufacturing trends discussed earlier, it is difficult to avoid the conclusion that services will remain the main labour-absorbing sector in developing countries. This poses a significant challenge. Some countries, such as India and the Philippines, have been successful in creating productive, globally competitive, tradable services industries. However, these are typically activities—such as information technology and business process offshoring—that are skills intensive. Such services sectors face the same disadvantage from a developmental standpoint as today's GVC-oriented manufacturing firms—they have limited potential to create much employment for the typically low-educated, low-skilled workforce of a developing economy.

Moreover, today, jobs are being created in a very different segment of the economy—a hodgepodge of largely self-proprietorships or micro/small firms, typically non-tradable and often informal. The central question posed is whether productivity and demand can be increased in these labour-absorbing services activities. A three-pronged strategy is thus proposed for governments: (i) encourage lower-skilled job creation by larger firms that operate in non-tradable services, (ii) provide public inputs and access to productivity-enhancing investments for smaller enterprises, and (iii) invest in technologies that complement rather than replace low-skilled workers in services sectors.

The bulk of small, informal enterprises in developing countries will never become very productive. It is not realistic to aim for productivity increases for all of these firms. However, dualism can be reduced over time, both by encouraging the expansion of existing formal firms and by increasing productivity amongst some of the more dynamic, smaller, informal firms. Therefore, a strategy targeting the domestic services sector must be selective. The government would engage in a variety of programmes that have the potential to increase employment and productivity. It would then let the more entrepreneurial and dynamic amongst services-sector firms—including micro and small enterprises—select into and take advantage of these programmes.

The three elements of the strategy can be illustrated with concrete cases. As an example of the first component, the state government of Haryana, India, established a partnership in 2018 with the private cab aggregators Ola and Uber (Mugulur, 2019). The partnership was motivated by the government's objective to increase employment for young people. Based on an explicit *quid pro quo*, the government helped the firms identify and hire drivers by changing some of the regulations that hampered the expansion of ride-sharing services, sharing targeted databases of unemployed youth in the state, and holding exclusive job fairs for the companies. The firms, in turn, made soft commitments to expand the number of youth that they employed. It was understood that the promises, on each side, were not contractual obligations, but good-faith intentions subject to changing circumstances,

meant to engender mutual trust over time. In less than 1 year, the partnership is said to have created more than 44,000 new jobs for youth.

An example of the second type of programme is provided by a Colombian initiative to reduce the time and financial costs of street fruit and vegetable vendors in Bogotá (McKenzie, 2019). Unlike large retail stores, these vendors have inefficient supply chains, requiring them to spend an inordinate amount of time looking for and buying the products that they eventually sell. These vendors in Bogotá get up at 4:30 a.m. and spend 2 hours in travel to purchase produce from a central wholesaler. A social enterprise, Agruppa, came up with the idea that it could group and consolidate orders from individual vendors, buy in bulk directly from the growers, and deliver the fruits and vegetables to the vendors. This would not only reduce the costs of the vendors but also lessen prices for customers, often poor themselves. Using seed money from the World Bank, the initiative was launched with just a few products initially and then expanded. A World Bank evaluation found that it held promise, although the experiment eventually folded due to Agruppa's inability to scale it up in a timely manner.

As both examples illustrate, local governments or entities will often be better placed than national governments to create jobs-centred partnerships with entrepreneurs or firms providing services. Given the multitude of services activities, variation in local circumstances, and heterogeneity in the size and shape of firms, local governments may also be better positioned to craft suitable arrangements. Significant experimentation with different types of initiatives is still needed, however, given the dearth of successful precedents to emulate. Moreover, social enterprises have often taken the lead in developing countries, as their approach is more conducive to experimentation.

There are some similarities between these programmes and what was needed to bring advances in technology to farmers in the United States in the 19th century, as both entailed many small enterprises scattered over the entire country. The Government of the United States created an agricultural extension service to engage in experimentation at the local level and to bring knowledge to local farmers. Similarly, governments in developing countries, both local and national, will have to become more entrepreneurial and more engaged with experimentation and focus on bringing innovation insights to small enterprises if the strategy is to make a significant difference beyond individual initiatives.

Finally, there is significant room to invest in and to deploy new technologies, especially for those employed in services. Automation and other innovations in manufacturing have been typically skills- and capital-biased, contributing to significant labour shedding in manufacturing globally. However, the direction of technological change is not exogenous and predestined; it responds to economic incentives, governmental policies, and prevailing social norms amongst the innovator community.[18] Explicit governmental efforts to stimulate the development of labour-friendly technologies can play an important role in services. There are already some prominent examples of how digital technologies and artificial intelligence (AI) can empower lower-skilled workers to expand the range of tasks that they can perform, taking over some of the responsibilities of more experienced

and skilled professionals and becoming more productive in the process. AI cannot just replace labour; it can augment labour's productivity and thus even increase the demand for labour and wages (Korinek and Stiglitz, 2019).

In medicine and long-term care, digital tools enable the least-skilled caregivers to provide more advanced services to their patients. Specially designed software can assist community health workers in some countries by helping conduct timely visits and providing access to health and learning resources online. In education, similar digital tools can enable less experienced teachers to engage in pedagogy that is more closely tailored to the needs of different groups of students. In call services, conversational assistance by generative AI has been shown to significantly increase the productivity of the least experienced customer support employees.[19] Since such technologies already exist, developing countries could facilitate their dissemination and use amongst domestic firms.

Today, it is widely recognised that governments have a critical role in fostering green technologies. Given the importance of promoting green jobs, it could be argued that governments have an equally critical role in promoting labour-friendly technologies.[20] Since the bulk of innovation takes place in advanced economies, such nations could play a significant role in facilitating economic development. Rebuilding the middle class and overcoming labour market polarisation is a priority for them as well, so investing in labour-friendly technologies is a task that serves their own immediate interests. Still, the technologies that are appropriate for advanced countries may—and almost surely will—differ from those that are best for developing countries. There is scope for an international effort to develop all technologies; just like green innovation, labour-friendly innovation is a global public good.

Beyond the advanced economies, many middle-income countries—such as Brazil, India, South Africa, and Türkiye—are also becoming centres of innovation. There is some evidence that technologies and organisational forms that are more suited to the developing country context disseminate more rapidly amongst developing nations (Lerner et al., 2024). Hence, these larger economies amongst the developing world face significant opportunities but also bear significant responsibility in this area.

Even in the best-case scenario, a services-based model is unlikely to deliver growth rates approaching those experienced in East Asia in the past. Increasing productivity in labour-absorbing services is likely to prove more difficult than in manufacturing, even if the strategies outlined previously prove successful and a significant gap in productivity remains in the services sector between developed and developing countries. Manufacturing technologies are more standardised and are easier to copy despite large differences in developing countries.[21]

Yet there is another general equilibrium reason as well. Under manufacturing-led growth strategies, a succession of export-oriented sectors—such as toys, garments, automobiles, and steel—could take off, one after the other, without regard to domestic demand. In contrast, the expansion of non-tradable services—those that are most likely to absorb employment—is ultimately limited by the size of the domestic market. Individual services sectors cannot keep growing if other services sectors are not also expanding and increasing their productivity;

the growth of retail depends on the growth of personal services, hospitality, and the rest of the economy, for example. Otherwise, the profitability of the more rapidly expanding services would soon collapse. This complementarity on the demand side necessitates balanced growth and lowers the ceiling on the potential growth rate of the economy.[22]

The kind of growth strategy described is more inclusive and equitable. It delivers direct income gains for poorer segments of society through better jobs and builds a middle class, rather than waiting for a trickle-down phenomenon from the export champions and largest firms. The quality of growth is higher, even if its quantity is lower.

7.5 New Industrial Policies for the Green Transition and Labour-Absorbing Services

Governments have a significant role to play in the strategy outlined, both for investments in the green transition and for good jobs programmes in services. Markets left to their own devices do not foster the kind of structural changes needed on either front. In general, structural transformation is impeded by credit and risk market failures, coordination failures, externalities, and learning spillovers. That is why the most rapidly growing economies of the past all relied heavily on industrial policies promoting productive diversification and the growth of new industries. Such barriers will be even greater in the transition to green industries and productive, labour-absorbing services. Hence, private markets and entrepreneurship must be augmented by a public vision and a supporting set of public incentives, inputs, and services.

In theory, market failures that impede dynamic efficiency can sometimes be addressed through targeted tax/subsidy schemes that result in private agents internalising the full social consequences of their actions. Learning spillovers and climate-change externalities, for example, should be corrected through Pigouvian subsidies and taxes, respectively. The magnitude of these interventions should equal the difference between private and social costs/benefits (at the margin), subject to second-best considerations (e.g. the deadweight loss of raising taxes), which may call for smaller interventions.[23]

In practice, governments face uncertainty on multiple dimensions, undermining the practical applicability of the standard recipe.[24] Problems associated with imperfections of credit markets and the absence of insurance markets are not easily handled by the standard Pigouvian approach. The specific sources of market failures; their respective magnitudes; the behavioural responses of firms, investors, innovators, and consumers; range of possible technological trajectories; and efficacy of different types of policies can vary. In such contexts, learning and capacity building by the government must be built into policy design, rather than assumed. Moreover, the relationship between the government and firms has to be conceptualised as an inherently dynamic one. Although East Asian industrial policies are often portrayed as top-down policies implemented by autonomous, well-informed governments, the reality was quite different. Many of these governments started with little experience with and capacity to conduct extensive

industrial policies. The requisite governmental capacity was not a precondition for their policies but was built over time. Successful industrial policies entail learning by society at large.[25]

The practice of industrial policy has five key interconnected elements: embeddedness, coordination, monitoring, conditionality, and institutional development. The first of these refers to the establishment of a strategic dialogue and collaboration with firms to elucidate the information on obstacles and opportunities for productive investments, including market failures. As the sociologist Peter Evans discussed, in successful cases, states' relative autonomy from private firms—and hence their ability to prevent regulatory capture—was combined with embeddedness, which Evans (1995) defined as 'institutionalized channels for the continual negotiation and re-negotiation of goals and policies'. These channels of communication enable governmental agencies to understand private firms' constraints and potential as well as reshape their understanding in light of new information and changing circumstances. The channels can be ad hoc and informal or formal (e.g. joint councils, commissions, or roundtables).[26]

The second element is policy coordination. Unlike in the standard model, there is no presumption that Pigouvian taxes/subsidies will be adequate or that they can be specified *ex ante.* The requisite remedies may range from alterations in certain governmental regulations to the provision of specific training or technologies to financial incentives (e.g. the Haryana cab employment scheme). In many cases, finance and risk absorption has been crucial.[27] The nature of the needed remedies become clear over time and cannot be determined at the outset. Appropriate responses may require actions across different parts of the government. Therefore, governmental agencies charged with industrial policies need the ability to coordinate and to mobilise these actions. If they lack the authority or capacity to do so effectively, they should be able to elevate the task to a higher level of governmental authority (e.g. governor or president's offices).

Third, a government's learning has to be systematised and reflected in its subsequent actions and decisions. This requires an explicit effort to monitor and to evaluate the outcomes of industrial policy decisions. Many of these decisions will inevitably lead to sub-optimal outcomes and mistakes. What matters for the success of industrial policies is not just the ability to 'pick winners'[28]—or equally importantly, to identify projects with large externalities—but also the ability to let the losers go, a less difficult but still demanding requirement. Often, the phasing in or partial implementation of programmes can allow rigorous evaluation of policies through RCTs or econometric tools (e.g. the Bogotá fruit and vegetable vendor scheme). Yet even if formal evaluation methods cannot be deployed, it is possible to learn from outcomes and to adjust policies appropriately. For example, in China's industrial policies, the willingness to experiment with new policies in designated zones or provinces was key as was its ability to adjust incentive schemes when they produced excess capacity or blatant inefficiency.

Fourth, and relatedly, successful industrial policies have typically provided strong incentives for compliance. In East Asia, the financial support was not a gift; continued support required sustained success on the part of the firm,

often with objective indicators, like exports. Governments looked for enterprises with substantial net worth, so they would also suffer significant losses in the event of failure.[29]

Fifth, successful industrial policies require new institutions and institutional development as previously discussed. In many countries, development banks have played an important role. Institutional arrangements were created so that they were not captured but were sensitive to market failures and social needs.

These lessons derive largely from the experience with industrial policy in manufacturing but are also broadly applicable to new challenges in decarbonisation and the services sector. They entail building a new kind of cooperative relationship between the government and private firms, with mutual responsibilities and obligations.

7.6 Concluding Remarks

In some ways, the challenges facing developing countries have not changed. Broad capabilities such as skills, education, learning, and good governance remain fundamental determinants of long-term economic development. Although these are necessary, they are not sufficient. Sustained growth will require structural transformation, and structural transformation will, in general, not necessarily come about on its own—at least at the pace desired. Explicit governmental policies are needed to foster it. Where structural change and associated policies are concerned, the future of economic growth will look very different from its past. The climate challenge, new technologies and digitalisation, premature de-industrialisation, the changing global geopolitical landscape, and receding hyper-globalisation render the export-oriented industrialisation strategies of the past less viable and effective. This chapter argued for a strategy with two key prongs—investment in the green transition and productivity enhancement in labour-absorbing, mostly non-tradable services.

This does not mean that other sectors of the economy, and manufacturing and agriculture, in particular, are unimportant and should be neglected. In most low-income economies, agriculture will continue to employ considerable numbers of people. Improving their plight will require investments in agricultural productivity and making use of new technologies as well as diversification into non-traditional crops. However, as agriculture modernises, it will almost certainly continue to release labour to the rest of the economy, necessitating the creation of more productive jobs in urban areas.[30] In the past, manufacturing was the key sector that could absorb these new migrants as well as workers from unproductive informal activities. Productive manufacturing sectors can still make important contributions to the economy (e.g. generating exports, tax revenues, and demand spillovers for other domestic sectors). There are opportunities for strengthening links between manufacturing exporters, whether domestically or foreign-owned, and domestic suppliers and input providers to increase productive employment and to disseminate new technologies. Yet manufacturing's ability to absorb the bulk of jobseekers will be much more limited than in the past, hence the emphasis on labour-absorbing services.

Steering the requisite structural changes will require new modes of industrial policies, focussed on these new strategic priorities. Economists traditionally view industrial policy as top-down interventions by 'hard' states that keep business and other stakeholders at arms' length. This picture never accurately reflected how successful industrial policy was in East Asia. For green industries and services, it is even less useful. The significant uncertainties in technological evolution, heterogeneities amongst production units, and the highly dynamic settings in these new areas require a new model of iterative, strategic collaboration between firms and governmental agencies, both at the national and sub-national levels. The focus should be on experimentation and learning, with objectives, instruments, performance criteria, and institutions developed and shaped over time. Governmental capacity would be accumulated in the process, rather than presumed as given.

All governmental policies, either by commission or omission, shape the economy and affect economic growth. In that sense, every country has an industrial policy—some just do not recognise that. An awareness of how the rules of the game, public expenditures and taxes, and explicit industrial policies shape an economy is not only important to prevent capture but also to promote sustainable and inclusive growth.

Notes

1 A key issue, addressed later in greater detail, is structural transformation towards what? The early success of East Asia was due to structural transformation from agriculture to manufacturing. The thrust of this chapter is that that form of structural transformation will not work, however. Learning and structural transformation imply that past comparative advantages do not matter as much as the new comparative advantages that are created in this dynamic process. South Korea in 1960 obviously did not have a comparative advantage in chips. An essential part of the structural transformation, though, is 'learning to learn', converting a static economy into a dynamic one (Stiglitz, 1987).

2 For example, Kerala State in India has consistently emphasised investments in education and health, but the improvement of human development indicators has not been matched with strong economic growth, undermining the long-run sustainability of its development model. This is also one reason why many countries in Latin America and Africa that adopted Washington Consensus policies have had disappointing growth outcomes, despite significant improvements in education, governance, and macroeconomic stability indicators. The empirical literature on conditional convergence suggested that there are returns to improvements in these fundamentals, but the estimated rates of conditional convergence are generally too slow and cannot account for the kind of rapid growth seen in successful cases in East Asia and elsewhere. See Rodrik (2014).

3 Countries that are overly dependent on an inflow of foreign capital (and therefore face increasing indebtedness) are subject to sudden changes in market sentiment, engendering a crisis with significant consequences. Competitive exchange rates simultaneously reduce dependence on foreign capital inflows and are an instrument of industrial policy. See, for example, Guzman, Ocampo, Stiglitz (2018) and Rodrik (2008).

4 There is extensive theoretical literature on why the government must do this and why markets themselves cannot be relied upon, which focusses on market failures. Beginning with the work of Greenwald and Stiglitz (1986) and Stiglitz and Weiss (1981),

an understanding developed of the range and nature of these market failures, and what governments can do to overcome them or at least mitigate their consequences (Stiglitz, 1989). In the context of development and decisions about the structure of production, literature was generated on industrial policies for developing countries (Greenwald and Stiglitz, 2013) as discussions centred on the importance of innovation; these were dubbed learning, industrial, and technology policies (Noman and Stiglitz, 2011).

5 Trade barriers did not fall uniformly; there was a large gap between rhetoric and reality. New trade barriers also appeared, such as those associated with intellectual property.

6 In Africa, de-industrialisation had set in earlier. Its causes, consequences, and potential remedies are discussed in Noman and Stiglitz (2011).

7 Two countries seem to be exceptions to this trend—Bangladesh and Viet Nam. Bangladesh is more of an apparent exception than a real one. While the country has been highly successful with ready-made garments for export, Bangladesh's manufacturing sector remains heavily concentrated, and diversifying out of ready-made garments has proved difficult. Despite its export orientation, the share of informal employment in textiles and garments is above 90%. A shortage of skills and need for technological upgrading are common themes in discussions of Bangladesh's manufacturing sector, both of which obviate the country's fundamental comparative advantage in low-skilled labour (Rodrik, 2022b). Viet Nam has been much more successful, with a particularly sharp rise in manufacturing employment after the mid-2010s. Yet it has the singular advantage of geographical proximity to China and other East Asian exporters. It has been the leading beneficiary of the first rising wage costs in China, then the Trump tariffs on China, and eventually the US emphasis on 'friend-shoring'. In Viet Nam, too, integration into the world economy through inward direct investment has increased the demand for skills. Skills shortages—and consequent problems of 'job hopping' and 'employer poaching'—are reported to be amongst the most important constraints that export-oriented foreign investors, such as Samsung, face (Sheldon and Kwon, 2023).

8 Some natural resources-rich countries can manage periods of very rapid economic growth, but if the proceeds of the natural resources are not reinvested in structural transformation—which typically occurs—the growth is limited. When the resources run out or prices come down, growth stops and often reverses.

9 The concern is not with the overall quantity of jobs or with full employment but with the structure of jobs. Reasonable macroeconomic policies—along with 'flexible' labour markets—will ensure full employment, but the resulting structure can be sub-optimal from a developmental standpoint and not growth-promoting. The focus, therefore, is on the creation of more jobs in the more productive sectors of the economy as a vehicle of structural transformation and growth, analogous to the role that industrialisation has played historically.

10 This is not to say that a few smaller countries may be able to establish a niche in manufacturing and succeed through such a strategy. Thus, the contention that a few countries have been able to sustain growth so far through a manufacturing export-oriented strategy is not inconsistent with the overall thrust of this chapter.

11 Stiglitz (2021) deconstructed why the export-oriented industrialisation growth strategy was so successful and what a 21st-century replacement—a multi-pronged strategy—may look like.

12 The reasons for this are set forth more fully in Stern and Stiglitz (2023).

13 This discussion follows Songwe et al. (2022) and Stern and Stiglitz (2023).

14 This can be an especially important part of development strategies if arrangements can be established that would compensate developing countries for the global environmental services that they provide.

15 The traffic jams that mark large capitals of developing countries around the world are bad for the climate and living standards.

16 See also chapters by Ocampo (Chapter 10) and Songwe (Chapter 12) in this collection.

17 This is a transitory increase in output associated with the green investment drive. It is a simple supply-side calculation, assuming that all of the additional investment is incremental to the capital stock. In practice, some of it may go to replace dirty productive capacity, in which case the incremental supply-side effect would be lower. There may be, however, additional demand-side effects, arising from reductions in under-employment and movement of labour from low-productivity to higher-productivity modern activities. This demand-side bonus can boost the growth rate further.
18 See Acemoglu and Restrepo (2020a) and Acemoglu (2021). For a broader discussion of the direction of innovation and its implications for development, see Korinek, Schindler, Stiglitz (2021).
19 For these and other examples, see Acemoglu and Restrepo (2020b); Acemoglu (2021); Rodrik (2022b); Kremer et al. (2021); Ton (2017); and Brynjolfsson, Li, Raymond (2023).
20 Within the standard market failures paradigm, there are a host of failures related to the pace and direction of innovation (e.g. Stiglitz and Greenwald, 2014).
21 This fact is reflected in the finding that formal manufacturing sectors have long exhibited unconditional convergence in labour productivity. That is, these sectors tend to catch up to the global productivity frontier regardless of local conditions, such as the quality of institutions or human capital. This has not been a regular feature of the rest of the economy (i.e. traditional agriculture and most services) (Rodrik, 2013).
22 Moreover, Baumol's disease contends that the pace of innovation—the movement of the frontier itself—will be lower in services.
23 The implementation of such interventions faces important impediments in the presence of uncertainties and asymmetries of information. There is much literature on the design of optimal schemes in such circumstances. When there are multiple market failures, as is the case in practice, there cannot just be a reliance on Pigouvian subsidies. See the next footnote and Stiglitz (2019).
24 Economist Martin Weitzman showed that quantity targets may dominate Pigouvian price instruments in the presence of uncertainty about demand and supply elasticities. The price instrument may minimise the efficiency costs of the policy but risks undershooting and producing too small a behavioural response. Quantity targets may be superior when the social costs of missing the socially optimal target—reducing emissions, for example—are higher than the deadweight costs that may otherwise be created (Weitzman, 1974). More generally, non-linear interventions are preferable to either of the two extremes. In some contexts, governments actually implement such schemes.
25 See Greenwald and Stiglitz (2013). A recent overview of the evidence on industrial policy is provided in Juhász, Lane, Rodrik (2024).
26 Executive roundtables (*Mesas Ejecutivas*) in Peru were discussed in Ghezzi (2017). As summarised in Juhász, Lane, Rodrik (2024): 'The objective of the roundtables was to institutionalize public-private dialog aimed at addressing coordination failures among firms and between the firms and the government, and thereby encourage productivity-increasing investments. The roundtables started as open-ended conversations to share information on and uncover constraints. Instead of lengthy industry reports, the focus was on developing an initial list of blockages or obstacles to productivity and means of removing them, to be revised as needed as more knowledge was acquired in the process. The responsibilities for action were divided into separate categories of "my problems" and "your problems." The former category refers to government responsibilities (e.g., removing red tape for exports or establishing a national phytosanitary agency); the latter refers to firms' actions (e.g., making specific investments in quality upgrading)'.
27 In the context of the East Asian miracle, see Stiglitz (1996) and Stiglitz and Uy (1996). In advanced countries, venture capital firms often play a role in coordinating the provision of critical inputs for the firms in which they invest.

28 Under the old trade theory, picking winners was simple—identifying projects or sectors in which a country had a comparative advantage given its resources endowment (e.g. its capital, human capital, or natural capital). In more dynamic contexts, this approach is less helpful; with factor flows, comparative advantage relates only to immobile factors, and a country with a skills shortage may be able to obtain the requisite skills from abroad. More importantly, changing technologies; institutions; and more broadly, individual, organisational, and institutional learning mean that comparative advantages can change over time. Thus, a critical question facing any country as it embarks on structural change is what comparative advantages to acquire (Greenwald and Stiglitz, 2013).

29 For a discussion of conditionality, see Mazzucato and Rodrik (2023).

30 Changes in consumption patterns may ameliorate this tendency somewhat. For example, flowers and vegetables use more labour than wheat.

References

Acemoglu, Daron. 2021. "AI's Future Doesn't Have to Be Dystopian." *Boston Review*, May 20. https://www.bostonreview.net/forum/ais-future-doesnt-have-to-be-dystopian/.

Acemoglu, Daron, and Pascual Restrepo. 2020. "The Wrong Kind of AI? Artificial Intelligence and the Future of Labour Demand." *Cambridge Journal of Regions, Economy and Society* 13 (1): 25–35. https://doi.org/10.1093/cjres/rsz022.

Brynjolfsson, Erik, Danielle Li, and Lindsey R. Raymond. 2023. "Generative AI at Work." *Working Paper. Working Paper Series*. Washington, DC: National Bureau of Economic Research. https://doi.org/10.3386/w31161.

Diao, Xinshen, Mia Ellis, Margaret S. McMillan, and Dani Rodrik. 2021. "Africa's Manufacturing Puzzle: Evidence from Tanzanian and Ethiopian Firms." *Working Paper. Working Paper Series*. Washington, DC: National Bureau of Economic Research. https://doi.org/10.3386/w28344.

Evans, Peter B. 1995. *Embedded Autonomy: States and Industrial Transformation*. *Princeton Paperbacks*. Princeton, NJ: Princeton University Press.

Ghezzi, Piero. 2017. "Mesas Ejecutivas in Peru: Lessons for Productive Development Policies." *Global Policy* 8 (3): 369–80. https://doi.org/10.1111/1758–5899.12457.

Greenwald, Bruce, and Joseph E. Stiglitz. 2013. "Industrial Policies, the Creation of a Learning Society, and Economic Development." In *The Industrial Policy Revolution I: The Role of Government Beyond Ideology*, edited by Joseph E. Stiglitz and Justin Yifu Lin, 43–71. Basingstoke; New York: Palgrave Macmillan UK. https://doi.org/10.1057/9781137335173_4.

Greenwald, Bruce C., and Joseph E. Stiglitz. 1986. "Externalities in Economies with Imperfect Information and Incomplete Markets." *The Quarterly Journal of Economics* 101 (2): 229. https://doi.org/10.2307/1891114.

Guzman, Martin, José Antonio Ocampo, and Joseph E. Stiglitz. 2018. "Real Exchange Rate Policies for Economic Development." *World Development* 110 (October): 51–62. https://doi.org/10.1016/j.worlddev.2018.05.017.

Juhász, Réka, Nathan Lane, and Dani Rodrik. 2024. "The New Economics of Industrial Policy." *Annual Review of Economics* 16: 213–42. https://doi.org/10.1146/annurev-economics-081023–024638.

Korinek, Anton, Martin Schindler, and Joseph E. Stiglitz. 2021. "Technological Progress and Artificial Intelligence." In *How to Achieve Inclusive Growth*, edited by Valerie Cerra, Barry Eichengreen, Asmaa El-Ganainy, and Martin Schindler, 163–211. Oxford: Oxford University Press. https://doi.org/10.1093/oso/9780192846938.003.0005.

Korinek, Anton, and Joseph E. Stiglitz. 2019. "Artificial Intelligence and Its Implications for Income Distribution and Unemployment." In *The Economics of Artificial Intelligence: An Agenda*, edited by Ajay Agrawal, Joshua Gans, and Avi Goldfarb, 349–90. University of Chicago Press. https://www.nber.org/books-and-chapters/economics-artificial-intelligence-agenda/artificial-intelligence-and-its-implications-income-distribution-and-unemployment.

Kremer, Michael, Sasha Gallant, Olga Rostapshova, and Milan Thomas. 2021. "Is Development Economics a Good Investment? Evidence on Scaling Rate and Social Returns from USAID's Innovation Fund." *Working Paper*. https://cpb-us-w2.wpmucdn.com/voices.uchicago.edu/dist/0/2830/files/2021/09/SROR−21.03.12_clean−3.pdf.

Lankes, Hans Peter, Rob Macquarie, Éléonore Soubeyran, and Nicholas Stern. 2024. "The Relationship between Climate Action and Poverty Reduction." *The World Bank Research Observer* 39 (1): 1–46. https://doi.org/10.1093/wbro/lkad011.

Lerner, Josh, Junxi Liu, Jacob Moscona, and David Y Yang. 2024. "Appropriate Entrepreneurship? The Rise of China and the Developing World." *Harvard Business School Working Papers*, no. 24-061, February.

Mazzucato, Mariana, and Dani Rodrik. 2023. "Industrial Policy with Conditionalities: A Taxonomy and Sample Cases." *UCL Institute for Innovation and Public Purpose, Working Paper Series*, October. https://www.ucl.ac.uk/bartlett/public-purpose/publications/2023/oct/industrial-policy-conditionalities-taxonomy-and-sample-cases.

McKenzie, David. 2019. "Shortening Supply Chains for Fruit and Vegetable Vendors in Bogota." *Finance and PSD Impact*, no. 54, August. https://doi.org/10.1596/32297.

Mugulur, Aneesh. 2019. "How Haryana is Working with Cab Aggregators to Solve the Unemployment Puzzle." *Samagra, Transforming Governance*, July 5. https://samagragovernance.in/.

Noman, Akbar, and Joseph E. Stiglitz. 2011. "Strategies for African Development." In *Good Growth and Governance in Africa: Rethinking Development Strategies*, edited by Akbar Noman, Kwesi Botchwey, Howard Stein, and Joseph E. Stiglitz. Oxford: Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199698561.001.0001.

Rodrik, Dani. 2008. "The Real Exchange Rate and Economic Growth." *Brookings Papers on Economic Activity*, no. 2. https://www.brookings.edu/articles/the-real-exchange-rate-and-economic-growth/.

Rodrik, Dani. 2013. "Unconditional Convergence in Manufacturing." *The Quarterly Journal of Economics* 128 (1): 165–204. https://doi.org/10.1093/qje/qjs047.

Rodrik, Dani. 2014. "The Past, Present, and Future of Economic Growth." In *Towards a Better Global Economy: Policy Implications for Citizens Worldwide in the 21st Century*, edited by Franklin Allen, Jere R. Behrman, Nancy Birdsall, Shahrokh Fardoust, Dani Rodrik, Andrew Steer, and Arvind Subramanian. Oxford: Oxford University Press. https://doi.org/10.1093/acprof:oso/9780198723455.003.0002.

Rodrik, Dani. 2016. "Premature Deindustrialization." *Journal of Economic Growth* 21 (1): 1–33. https://doi.org/10.1007/s10887-015-9122-3.

Rodrik, Dani. 2022a. "An Industrial Policy for Good Jobs." *Policy Proposal. The Hamilton Project*. https://www.hamiltonproject.org/wp-content/uploads/2023/03/20220928_THP_Proposal_Rodrik_GoodJobs.pdf.

Rodrik, Dani. 2022b. "Prospects for Global Economic Convergence Under New Technologies." In *An Inclusive Future? Technology, New Dynamics, and Policy Challenges*, edited by David Autor, Kaushik Basu, Zia Qureshi, and Dani Rodrik, 88. Washington, DC: Brookings Institution. https://www.brookings.edu/articles/an-inclusive-future-technology-new-dynamics-and-policy-challenges/.

Rodrik, Dani, and Ishac Diwan. 2023. "Bridging the Climate-Development Gap." *Project Syndicate*, September 26, 2023. https://www.project-syndicate.org/commentary/low-middle-income-countries-debt-development-climate-crisis-by-dani-rodrik-and-ishac-diwan-2023–09.

Sheldon, Peter, and Seung-Ho Kwon. 2023. "Samsung in Vietnam: FDI, Business–Government Relations, Industrial Parks, and Skills Shortages." *The Economic and Labour Relations Review* 34 (1): 66–85. https://doi.org/10.1017/elr.2022.3.

Songwe, Vera, Nicholas Stern, Amar Bhattacharya, and United Nations. Economic Commission for Africa. 2022. "Finance for Climate Action: Scaling up Investment for Climate and Development." *United Nations. Economic Commission for Africa*, November. https://repository.uneca.org/handle/10855/49154.

Stern, Nicholas, and Joseph E. Stiglitz. 2023. "Climate Change and Growth." *Industrial and Corporate Change* 32 (2): 277–303. https://doi.org/10.1093/icc/dtad008.

Stiglitz, Joseph E. 1987. "Learning to Learn, Localized Learning and Technological Progress." In *Economic Policy and Technological Performance*, edited by Partha Dasgupta and Paul Stoneman, 125–53. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9780511559938.007.

Stiglitz, Joseph E. 1989. *The Economic Role of the State*. Edited by Arnold Heertje. Oxford, UK; Cambridge, MA, USA: Basil Blackwell.

Stiglitz, Joseph E. 1996. "Some Lessons from the East Asian Miracle." *The World Bank Research Observer* 11 (2): 151–77.

Stiglitz, Joseph E. 2019. "Addressing Climate Change Through Price and Non-Price Interventions." *European Economic Review* 119 (October): 594–612. https://doi.org/10.1016/j.euroecorev.2019.05.007.

Stiglitz, Joseph E. 2021. "From Manufacturing-Led Export Growth to a Twenty-First Century Inclusive Growth Strategy: Explaining the Demise of a Successful Growth Model and What to Do about It." In *Inequality in the Developing World*, edited by Carlos Gradín, Murray Leibbrandt, and Finn Tarp, 284–318. Oxford: Oxford University Press. https://doi.org/10.1093/oso/9780198863960.003.0012.

Stiglitz, Joseph E., and Bruce C. N. Greenwald. 2014. *Creating a Learning Society: A New Approach to Growth, Development, and Social Progress*. *Kenneth J. Arrow Lecture Series*. New York: Columbia University Press.

Stiglitz, Joseph E, and Marilou Uy. 1996. "Financial Markets, Public Policy, and the East Asian Miracle." *The World Bank Research Observer* 11 (2).

Stiglitz, Joseph E., and Andrew Weiss. 1981. "Credit Rationing in Markets with Imperfect Information." *The American Economic Review* 71 (3): 393–410. https://www.jstor.org/stable/1802787.

Ton, Zeynep. 2017. "The Case for Good Jobs." *Harvard Business Review*, November 30, 2017. https://hbr.org/2017/11/the-case-for-good-jobs.

University of Groningen. 2017. "Maddison Historical Statistics." https://www.rug.nl/ggdc/historicaldevelopment/maddison/.

Weitzman, Martin L. 1974. "Prices vs. Quantities." *The Review of Economic Studies* 41 (4): 477–91. https://scholar.harvard.edu/files/weitzman/files/prices_vs_quantities.pdf.

World Bank, dir. 2023. "Delivering Growth to People through Better Jobs in Africa." *World Bank Live*. https://live.worldbank.org/en/event/2023/africa-pulse-regional-economic-update-growth-people-better-jobs.

World Bank, dir. n.d. "World Development Indicators." https://databank.worldbank.org/source/world-development-indicators.