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The state, the market, and development

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Abstract: The state has played a major role in the most important developmental successes. This paper discusses the advances in our understanding of the role of the state in the developmental process over the past thirty years, and the contribution to those advances played by changes in economics, changes in the world, and key experiences (in particular the successes in East Asia and the failures in the countries pursuing Washington Consensus policies).

Keywords: state, Washington Consensus, industrial policies, development, inequality

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1 Introduction

The past thirty years have been an exciting time for development. There have been great successes—hundreds of millions of people moved out of poverty, led by more than a half billion reduction of those in poverty in China. The rates of growth attained by China, India, and several other countries have been unprecedented. We are witnessing the correction of an historical anomaly in which China and India, with close to 40 per cent of the world's population, had close to half of the world's GDP two hundred years ago; their share of GDP then fell to less than 10 per cent in the middle of the twentieth century, and now has again risen, to 23 per cent.

There have also been some notable failures, some widely expected, some a surprise. Communism failed to deliver on its promises, support for economies built on those principles waned, and countries that based their economies on those ideas either faced an economic collapse or changed. On the other hand, the transition from communism to a market economy in the former Soviet Union and Eastern Europe has, for the most part, not gone well.[1] In contrast, the transition in China and Viet Nam has gone better than anyone anticipated. Africa experienced widespread stagnation in the first quarter of a century of the post-colonial era. More recently, there has been a race between population and poverty reduction: the percentage in poverty has gone down, but the absolute numbers of impoverished have increased.

Globalization has been a mixed blessing. It has played an important role both in the successes of development (e.g. in East Asia) and in its failures. Globalization—or more accurately, the way it has been managed—is widely blamed for the increase in inequality in most countries around the world—to the point where, in many advanced countries, such as the United States, those in the middle have actually seen stagnation, or even a decline, in their income.

These dramatic economic events have, not surprisingly, been accompanied by a high level of intellectual ferment. New policies for reducing poverty and spurring growth have been introduced, including conditional cash transfers and micro-lending. In at least some areas these policies have proven enormously successful. Some policies, such as industrial policies—the selective government support of particular sectors or technologies—had fallen out of favour but then came back into fashion. This also occurred with some institutions, like development banks.

In the *Elusive Quest for Growth* (to use William Easterly's evocative title),[2] a large number of panaceas to development were pursued, each bringing disappointment. The World Bank, founded on the premise that a gap in resources accounted for the failure of development, itself went from a focus on projects—intended to reduce that resource gap—to policies to institutions: structural adjustment programmes were predicated on the belief that if only government instituted the 'right' policies, the Washington Consensus policies discussed at greater length below, development would follow. It did not happen. The focus then shifted to the belief that if only developing countries adopted the right institutions, good public institutions ('the good governance agenda') and good legal frameworks ('the rule of law'), development would follow. It was, however, not clear what were good institutions; and even if one could identify them, it was not clear how to create them. US institutions, like its regulatory system and its central bank, were held up as paragons—until the 2008 financial collapse showed otherwise. Even its 'rule of law'

[1] Later, we will note some of the exceptions.

[2] Easterly (2001).

came to be questioned: it seemed to serve the financial sector well, but not ordinary citizens, some of whom were thrown out of their homes, even when they did not owe any money.[3]

The failure of each of these strategies naturally led to the view that *development involved societal transformation,* including the transformation of the economy (Stiglitz 1998b, 1998c, 1998d), and it would take a *comprehensive development framework* to accomplish such a societal transformation.[4] An important contemporaneous development was the recognition that what separated developed from developing countries was not just a gap in resources but a gap in knowledge; development was about overcoming that gap. The World Bank began to see itself as a knowledge bank (World Bank 1999).

New methodologies, too, have come into fashion: randomized controlled trials (RCTs) provided insights into the choice of key design features in many programmes.[5] At the same time, other methodologies, e.g. those associated with comparative economic systems, fell out of fashion. The big developmental issues, of course, could not be addressed using RCTs: there simply was not a large sample of countries making the transition from communism to a market economy; one simply could not randomly select a subset upon which one would try the 'treatment' of gradualism, and another subset upon which one would try shock therapy, a quick transition. One had to make inferences about the relative merits looking at the natural experiments that history offered. While RCTs might answer the relative merits of some design features of micro-credit schemes, they did not anticipate what led to the largest collapse of a micro-credit system, in India.[6] And it was not clear that they could have.

Development economics has often been a source of insights into how economic systems work more generally; at the same time, development economics has benefited from what has gone on elsewhere in the profession. This has been especially true in the last thirty years as economics has broadened to incorporate insights from psychology, sociology, political science, and anthropology. But, of course, development studies have long argued that one cannot understand developing countries and development processes through a narrow economics lens; one needed to widen the analysis to a broader perspective on the nature of the individual and the relationship between the individual and society.[7]

One of the major developments in economics is, for instance, behavioural economics, bringing insights from psychology and sociology into economic analysis. Some of the clearest tests have come from experiments conducted in developing countries.[8]

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[3] See Stiglitz (2015c).

[4] The move to such a framework was a central part of Jim Wolfensohn's presidency of the World Bank. See Wolfensohn (1999) Stiglitz (2005). Those working in the Bank were encouraged to look at development through this more holistic perspective. See Stiglitz (2001a).

[5] See, e.g. Banerjee and Duflo (2011).

[6] They did, however, provide some insights into the role of social ties and obligations. See Feigenberg et al. (2010). For a critique of the failures of standard economic models to predict what happened, see Haldar and Stiglitz (2013a, 2013b).

[7] Indeed, one of the main critiques of the Washington Consensus policies was not only that they were too narrow in their objectives, too restrictive in the set of instruments, but too limited in their vision of the development process. Its worst practitioners seemed to believe that if countries only let markets work on their own, there would be development.

[8] Much of behavioural economics was based on an individualistic model of man, observing that the economist's rationality hypothesis was violated in many important ways. More recently, analyses have focused on how the

Development focuses on societal change, but such changes inevitably involve politics: rules of the game that inhibit or promote such change. Politics and economics are intertwined. Indeed, it has long been recognized that economic interests also affect politics. Markets do not exist in a vacuum (a point to which I shall return later). They are shaped by the political system. We have to think of the joint political and economic equilibrium. There can thus be *multiple equilibria*—a society could be mired in an economic system that supported a political system which sustained a dysfunctional economic system (Hoff and Stiglitz 2004).

Some economists had long held to the presumption not only that markets are efficient and stable, but that there was a teleology in economic and societal evolution: there were underlying forces for progress, improving the wellbeing of all citizens. As I comment below, and as is now well recognized, the conditions under which markets are efficient and stable are highly restrictive, and not satisfied in any economy, but especially not in developing countries. Economies can even get caught in a 'bad equilibrium', for instance, in a poverty trap.[9] And there is also *no* presumption that the evolution will occur in a way that improves the wellbeing of most citizens.[10]

If an economy is in a low-level equilibrium trap, the question is, how to move it out. It does little good to say the government *should* do this or that, because the government itself is part of the *system*. Change can be brought about by external factors—a change in technology or trading opportunities. Change can be brought about too by ideas, ideas that are brought into the 'system' by its exposure to the outside. China's observation of the successes of its neighbours was almost surely an important force in moving it towards trying the experiments that eventually led to its successful march to a market economy with Chinese characteristics. Some societies try to encourage interactions with others ('openness') leading to more exposure to new ideas; some try to create even within their own societies new ideas to challenge existing premises and institutional arrangements.

Thus, for me, the central questions posed by development are *systemic*: How can we change the organization of society (*including* the organization of the economy) in ways that increase its openness to new ideas and that facilitate the change leading to increases in the wellbeing of most citizens? And what can we, as developmental practitioners, do to promote the change in societal organization in that direction? These are questions of the kind that used to be asked by those engaged in the analysis of *comparative economic systems*. But that sub-discipline focused on comparing socialist, communist, and market economies, and with the fall of the Iron Curtain, interest in the sub-discipline waned. I am suggesting that key to understanding development is in fact an analysis of comparative economic systems, with particular focus on the development

individual himself, and the lens through which he/she sees the world, is shaped by the society of which he/she is a part. See Hoff and Stiglitz (2010, 2016) and World Bank (2015).

[9] That is, under quite general conditions, there exist multiple equilibria, some of which are Pareto inferior to others. See Newbery and Stiglitz (1984). It is interesting that many adhering to Social Darwinian ideas fail to note that the existence of these multiple equilibria is one of Darwin's many insights. See Hoff and Stiglitz (2001).

[10] Recent political debates in the United States have argued that, under the influence of money, there has been a series of reforms in the economic framework (e.g. financial sector liberalization, changes in corporate and labour laws, and in tax and education policies) that have resulted in lower growth and more inequality—so much so that the vast majority of individuals have seen incomes stagnate or decline.

context of what kind of economic system(s), institutions, and policies most promote the societal change that leads to sustained and inclusive development.[11]

In this paper, I analyse one aspect of comparative economic systems: the role of the state vs. the market. I will describe the marked changes in our understandings of the nature of the roles that have occurred over the past three decades.[12] Part of this new understanding is that the state vs. market dichotomy oversimplifies the choices countries make in institutional design. There is far more to the question of asking, what is the design of an economic system that is more conducive to development and the developmental transformation.

1.1 Rethinking the role of the state in the aftermath of the fall of the Berlin Wall and the 2008 crisis

Whereas the fall of the Berlin Wall marked the end of communism, the financial crisis of 2008–09 seemed to mark the end of the era of market fundamentalism—the belief that unfettered markets, on their own, were stable and efficient, and the best way to promote growth and development. That belief had shaped official policy and discourse in the decades prior to the crisis. In the context of development, these views were often summarized under the heading 'the Washington Consensus', based on John Williamson's brilliant summary (Williamson 1990) of the policies that he thought described those being pushed by the IMF and the World Bank (with the support of the US Treasury).[13] Later, that term came to embrace the policies of liberalization, deregulation, privatization, and a monetary policy focusing on price stability—including policies such as the elimination of capital controls that were themselves not part of Williamson's original description.

As chair of the Council of Economic Advisers, I had been actively engaged in policy debates about the role of the state, though mostly in the context of the US and other advanced countries. I argued, and the Clinton Administration broadly agreed, that there needed to be a more active role for government than had marked the Reagan and Bush Administrations that preceded us. We strongly opposed attempts to privatize social security; we strongly supported industrial policies. At the same time, there were many battles within the Administration. The Treasury advocated capital market liberalization—indeed trying to force developing countries to liberalize their capital markets; it advocated the deregulation of America's financial market. While I was chair of the Council, we managed to resist efforts at deregulation; but the Treasury did push Korea to liberalize its capital markets (with disastrous results.)[14]

In February 1997, when I left the position of chair of the Council of Economic Advisers to become Chief Economist of the World Bank, I naturally turned to the question of what led to

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[11] More recently, I have used such an approach to ask what is the best economic system for promoting innovation. See Stiglitz (2015a).

[12] I have long been preoccupied with these issues (Stiglitz 1989, 1991a, 1993a). This paper follows my earlier work focusing on the role of the state in development (Stiglitz 1991b, 1993b, 1997a, 1997b, 1997c, 2001b).

[13] The Washington Consensus was articulated by John Williamson in a famous paper *describing* the set of ideas that were then taken as the basis of good policy in Latin America. Subsequently, the term came to embrace a broader set of policy and ideological positions, related not just to Latin America but also to development more generally. See Williamson (2008), Stiglitz (2008a), and Serra and Stiglitz (2008), for a more extended discussion of the evolving interpretation of the 'Washington Consensus'.

[14] The evolving views of the Administration on the role of the state are articulated in the annual Economic Reports of the President of the United States (written by the Council of Economic Advisers). See in particular, Chapter 1 in the 1997 report.

development. What was the right balance between markets and the state in the process of development? What should the government do, and how should it do it?

The issues were not just abstract and theoretical. The answers to these questions shaped policies. I was struck how in some areas, the World Bank and the IMF were pushing policies on developing countries (such as on the design of social security) about which, within the Administration, there was almost a consensus that they were wrong.[15] There were other areas—like financial market liberalization—where the World Bank seemed to reflect the Treasury's view, without giving due weight to the arguments that, say, the Council of Economic Advisers had put forward against such deregulation. The World Bank was one-sided. And finally, there were some issues to which the World Bank gave short shrift, to which *many* within the Administration had attached great importance—such as inequality. The World Bank had long had a focus on poverty, but inequality was a broader subject: it concerned issues of how the fruits of society were divided and whether everyone had opportunity to live up to his or her potential. While everyone in the Administration paid some lip service to inequality, in fact, the Treasury typically resisted policies that would reduce it, and pushed policies (like preferential treatment for capital gains) that increased it. By contrast, the Council of Economic Advisers and the Department of Labor (headed by Robert Reich) put equality at the centre of much of their efforts. Again, it seemed as if the World Bank reflected too narrowly the Treasury's view. Clearly, the position of the World Bank reflected more the views of the financial community and the US Treasury, than the broader views even within the United States, let alone within the world as a whole.

Just a year after arriving at the World Bank, I used my delivering of the WIDER Annual Lecture (AL) to launch a broadside critique of the Washington Consensus—contending that economic policy ought to have broader objectives and employ more instruments (Stiglitz 1998a). I argued that there was more to growth than just an increase in GDP;[16] that successful development entails sustainable, equitable, and democratic development; that the development had to be sustainable environmentally, socially, politically, and of course economically; and that such sustainable development necessarily involved a societal transformation. I argued for a more balanced approach between the state and the market than was reflected in the Washington Consensus, which centred on minimizing the role of government, with government interventions centred on price mechanisms. I argued that the government had many more instruments at its disposal—and it should make use of these additional instruments.

My views at the time were greatly influenced by theoretical work over the preceding quarter of a century identifying 'market failures', instances in which markets fail to ensure efficiency. While Arrow and Debreu had shown that markets were efficient only under highly restricted conditions—for instance, perfect competition, no externalities (including environmental externalities), and no public goods—Bruce Greenwald and I (Greenwald and Stiglitz 1986) had shown that markets were in general inefficient whenever information was imperfect and risk markets incomplete—that is, always.[17] As we sometimes put it, the reason that Adam Smith's invisible hand was invisible was that it simply was not there. We had reversed the presumption

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[15] I tried to promote a debate on the subject within the World Bank, writing a paper with Peter Orszag (later to be Director of the Office of Management and Budget in the Obama Administration) on why privatization of social security was a bad policy. See Orszag and Stiglitz (2001).

[16] I subsequently elaborated on the reasons that GDP was not a good measure of 'success'. See Stiglitz et al. (2010).

[17] Arrow and Debreu had only provided sufficient conditions for the Pareto efficiency of the market. But a large subsequent literature established that those conditions were essentially the only conditions under which markets were efficient.

that markets were efficient, with some limited exceptions that could be dealt with by selective interventions, to a presumption that markets were not efficient, and that to attain efficiency one might need far more extensive interventions.

These market failures were, if anything, far more important and pervasive in developing countries. The presumption of the Washington Consensus was that if only government got out of the way, markets would spontaneously arise and 'solve' the economy's problems. But countries in which there was minimal government intervention often did not seem to do well. Many remained mired in poverty, with little prospect of development.

Shortly after delivering my WIDER AL, I delivered the Prebisch Lecture at UNCTAD, in which I emphasized development as an economic and societal transformation. My message was straightforward: developing countries were different from developed countries. Development was more than a matter of the accumulation of capital. And government needed to play a central role in the transformation from a developing to a developed country.

In this paper, I want to describe the evolution over the last two decades of our understanding of the balance between the market and state in promoting development. I have become convinced that the role of the state is even more important than I believed at the turn of the century. Governments have played a central role in the many successes in development—in fact, in almost all, if not all, cases of successful development.

Yet, in both developing and developed countries, there are many instances of government failure. We have, I believe, learned quite a bit about how to increase the likelihood that government interventions will be successful.

These new understandings are a result both of the events of the last two decades, as well as advances in economic research. China—not that long ago a poor country with an average *per capita* income well under a dollar a day—has become the largest economy in the world in purchasing power parity (PPP). The Eurozone—perhaps the 'strongest' attempt at regional integration ever—has been beset by problems, with incomes *per capita* stagnating. The global financial crisis showed both that market economies often do not function well *and* that widespread beliefs of how they do function, reflected in the prevailing economic models, were simply wrong. Global warming and climate change have made it clear that externalities—at a global scale—could not be ignored.

Meanwhile, major advances in game theory, behavioural economics, the economics of learning and R&D, network analyses, and financial economics have further undermined the standard models that prevailed at the time the Washington Consensus was formulated—variants of which continued to dominate until the Great Recession (and in some circles still do so today). Increasingly, the competitive equilibrium model, which underlay the policy positions of the Washington Consensus, was seen as being at best incomplete, at worst, simply wrong.[18]

Section 2 attempts to briefly summarize some of the new understandings. Section 3 provides a recitation of some of the major events that have played such an important role in this 'rethinking'. Section 4 provides a short catalogue of some of the underlying theoretical developments. I end with a few concluding remarks in Section 5.

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[18] That is, the assumptions on which it was based departed so far from reality that any conclusion reached by the model provided limited insight into what was going on and no basis for policy. For instance, the competitive equilibrium model simply could not explain ongoing changes in inequality. See, e.g. Stiglitz et al. (2015).

2 Overview of new perspectives on the role of the state

An important part of this new view involves a still further broadening of objectives and instruments. Standard theory saw preferences, beliefs, and technology as fixed; we now see these as changeable—and many of the interventions that can help change these have relatively few costs.

2.1 Malleable beliefs

The 2015 World Development Report (World Bank 2015) was centred on the notion that beliefs and preferences were malleable, that changes in these beliefs could be an important instrument for societal change—central to the developmental transformation I described earlier—and that there were instruments available, often at very low costs, for affecting these changes. The World Development Report presented evidence on how even TV soap operas changed views about gender roles and education.

2.2 Learning: endogenous technology

The 1998–99 World Development Report, *Knowledge for Development* (World Bank 1999), emphasized that what separated developing from developed countries was not just a disparity in resources, but also a gap in knowledge. The successful countries, like many of those in East Asia, had done much to close that gap. The government played a central role, both in the acquisition and promotion of technology and in supporting education—creating a large number of individuals able to absorb the new knowledge and to bring it to bear in their economy.

At least since the work of Solow and Schumpeter, we have understood the pivotal role of learning—advances in technology—in increasing standards of living. For eons before the industrial revolution, standards of living had barely budged.[19] In this long era, Malthus seems to have been right: the main benefit of humans' greater brain was an increase in the size of the sustainable population, not in their standard of living.

Then, suddenly, around 1800, they began to soar. Nothing like it had happened before. In our book *Creating a Learning Society* (Stiglitz and Greenwald 2014), my colleague Bruce Greenwald and I tried to paint a picture of the world before and after:

> From Roman times, when the first data on *per capita* output are available, until 1800, average human standards of living increased only imperceptibly if at all. Consumption for the great majority of human beings consisted predominantly of food, and food was largely limited to staples—rice, wheat, and other grains. Housing entailed barn-like living conditions with no privacy, and climate control consisted only of necessary heat in winter. Clothing was utilitarian and rarely involved more than single outfits with the seasonal addition of over-clothes. Medical care was almost non-existent. Travel was rare, largely local, difficult, and uncomfortable. Recreation was self-generated and primitive. Only a small aristocratic minority enjoyed what we would consider today an appropriate human standard of living—varieties of fresh food, including meat; private, well-warmed accommodations; multiple sets of clothing for varied occasions; rudimentary personal and medical care; and opportunities for travel and sophisticated entertainment.

[19] Maddison (2005).

> Beginning in 1800 and accelerating markedly after the mid-to-late nineteenth century, that privileged standard of living began to diffuse throughout Europe, North America, and Australia. The impact of this change is apparent even in critical contemporary commentaries. The communist manifesto is in many ways a paean to the potential of the newly apparent economic progress—the benefits of which had not yet been widely shared.
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> In the twentieth century, elite standards of living became pervasive in Europe, North America, Australia, and many parts of Asia; a trend which continues in much of Asia today. (Stiglitz and Greenwald 2014: 13–14)

The significance of these transformations can be seen in another way: until the beginning of the nineteenth century, most individuals spent most of their time meeting the basic necessities of life—food, shelter, clothing. Today, for most of those in the advanced industrial countries—and for an increasing number in the emerging markets— satisfying these basic necessities of life takes but a few hours of work a week. Individuals can choose how to spend the 'extra' time available: to work, to earn enough to consume more (whether higher quality 'necessities' or luxuries) or to enjoy more leisure. The implications for economic policy and the role of the state have not been taken fully on board. Knowledge is different from ordinary goods; it is a public good (or at least a quasi-public good), which on its own will be undersupplied. We learn from others, and the learning process is pervaded with externalities. Thus, if learning is at the core of development and increases in standards of living, then there *must* be an important role for government.

2.3 Learning, the wealth of nations, and development

If one wants to identify the source of the wealth of nations—and what developing countries can do to increase their standards of living—one should begin by asking, 'what happened around 1800 that led to this dramatic change?'.

What led to these dramatic changes was the Enlightenment, the change in mindsets that was occurring in Scotland and a few other places in Europe in the latter part of the eighteenth century.[20] It was precisely this change in mindset that I had argued in my Prebisch Lecture was at the centre of the developmental transformation.

There were, at least for our purposes, two central doctrines of the Enlightenment: the first was the belief that change was possible, and the second was the belief that through rational and scientific enquiry we can learn, and what we learn can be used to improve wellbeing.

In the years before the Enlightenment, productivity consisted of mastering the skills of one's craft—and that is where specialization, which Smith emphasized so much, came in. Specialization allowed one to be better at whatever the task was to which one was assigned. Innovation was not yet part of Smith's mindset. It was not that today's pin-makers would make discoveries that they would then pass on to the next generation of pin-makers, in a never-ending quest to increase productivity in pin-making.

[20] Of course, the thread of history is never-ending: we need to ask, in turn, what led to the Enlightenment. But, fortunately, going forward, in our quest for understanding what leads to the wealth of nations, we don't really need to answer that question. Other countries can see the success of the countries that have adopted the Enlightenment mindset. What is important is not so much how those in the eighteenth century came to adopt this mindset, but how those in the twenty-first century can extend and preserve it. The Enlightenment has constantly been under attack, even from its onset.

At the centre, then, of development and the increase in the wealth of nations is mastery of the art of learning—of organizing firms and society more generally in ways that promote learning. What gives rise to the wealth of nations is not an abundance of gold, or an increase in finance, but an enhancement in society's learning capacities and the embodiment of that learning in capital goods and in institutions.

Learning occurs, of course, in schools; but it occurs on the job and throughout life. It occurs as part of explicit efforts at research; but it also occurs as a by-product of any activity we engage in. We learn as we produce, as we invest; and in the process of learning, we learn how to learn. Consciously thinking about production processes leads to improvement in production; consciously thinking about learning processes leads to improvements in the learning processes.

For developing countries, there is an immediate implication: if they do not produce industrial goods, they will not learn how to produce those goods. Had South Korea not engaged in some forms of protection in the aftermath of the Korean War, its production patterns would have been determined by its comparative advantage at that time—agriculture. It would have remained a rice-growing country, and little of the learning that occurred in the process of industrialization would have occurred. But South Korea realized that remaining a rice-growing economy was not the road to development. Its trade and industrial policies—strong governmental interventions—created the successful modern South Korea.

In my recent book with Greenwald (Stiglitz and Greenwald 2014), we described the learning processes and policies that would promote learning. And because of the special properties of learning and knowledge, the insights that had been gleaned over two hundred years about the production of goods and services, like steel and pins, was of limited relevance. As I noted, there was a *presumption* of market inefficiency, in contrast to the long-standing presumption in favour of the efficiency of markets in the production of goods. Promoting learning, in this broad sense, is thus one of the central roles of any government, and especially one that is concerned with promoting development.

It is not perhaps a surprise that Adam Smith had little to say about these matters. Adam Smith lived and wrote at the cusp of the dramatic changes I described earlier. He himself played an important role in the Scottish Enlightenment.[21] It would have been virtually impossible for him to fully grasp the revolution that was about to occur—to realize what it would mean for the generations that were to follow. Yet, ironically, the market fundamentalist ideas that so influenced the Washington Consensus policies were shaped by Adam Smith more than by anyone else.

2.4 An overly simplistic dichotomy

While much earlier discussion focused on the role of the state vs. the market—what activities should be undertaken by the state and which by the market—by the time I delivered the WIDER AL, I had realized that that formulation was wrong. Markets and the state could be complementary, both engaged in the same sector, but with different roles.

But the dichotomy between the state and the market is overly simplistic in a second way. There are a host of institutional arrangements, and successful economies demonstrate institutional creativity. Thus, among the most successful American institutions are its not-for-profit universities. They are neither state institutions nor private, profit-making institutions. Some of

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[21] See for example Phillipson (2010).

China's success at a critical stage in its development was due to its township and village enterprises (TVEs), which were largely public (but local) institutions that competed vigorously against each other.

The excessive focus on the market/state dichotomy has been counterproductive, by undermining the search for alternative institutional arrangements. Ironically, some of the biggest successes in development have occurred precisely in this domain. Micro-credit has provided access to credit to tens of millions of poor, bringing substantial increases in income, empowering women. And yet, it was a 'revolution' brought about neither by government nor by the private sector. And when the private sector tried to 'appropriate' this institutional innovation, it turned out to be problematic—as Muhammad Yunus himself had anticipated.[22]

2.5 Markets do not exist in a vacuum

One of the reasons that the market fundamentalist mantra—'leave it to the market'—is misguided is that markets do not exist in a vacuum. They are always shaped by rules and regulations that affect not only how they function but also who reaps the rewards. Different rules and regulations can, for instance, result in more or less competition, open or hidden government subsidies, and more or less transparency.[23] In the crisis of 2008, it became vividly clear how rules and regulations had enabled some in the financial industry to win rewards for themselves at the expense of others, and in ways that were detrimental to the functioning of society.

As advanced countries around the world, and especially the United States, ponder how a majority of their citizens' incomes have stagnated for a third of a century—in spite of the advances in technology and the alleged benefits of globalization—it has become increasingly clear that it was largely because of the way the rules were rewritten. There was growth, but virtually all of the growth went to the top; and because of the way the rules of the game were rewritten, beginning around 1980, even the increase in GDP slowed relative to what it had been in the decades after Second World War, when there was more regulation and higher tax rates—both of which (according to the neo-liberal theories) should have *slowed* growth.

That is why a major agenda today is *rewriting the rules* again—in ways that promote faster and more equitable growth. Details matter: details concerning disclosure requirements, the *structure* of taxes, corporate governance, unions, competition, bankruptcy, the functioning of the judiciary, and the rules governing central banks.[24] These details shape the economy, and determine whether there will be growth and development, and if there is, where it will be equitable and sustainable.

2.6 The importance of inequality

At the time I gave my WIDER AL, my concern about inequality was predicated on notions of social justice. I largely adhered to the prevailing view of the time, reflected in Arthur Okun's classic book *Equality and Efficiency: The Big Tradeoff* (Okun 1975), that one could only get more equality by a sacrifice in economic growth and performance. I say largely, because it was clear

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[22] See Haldar and Stiglitz (2013a, 2013b). I had set out the basic economics of micro-lending in Stiglitz (1990). See Yunus (2011).

[23] See Stiglitz et al. (2015) and the references cited there.

[24] See Stiglitz et al. (2015).

that not providing education to those not able to provide it for themselves would undermine economic performance (Stiglitz 1998e).

One of the ways, however, that our understanding of growth and development has changed is that we now see equality, growth, and stability as *complements*. There are multiple channels through which inequality harms growth and stability. As I emphasized in my book, *The Price of Inequality* (Stiglitz 2012a)*,* societies pay a high price for *excessive inequality,* especially when it is generated either by rent seeking or by the intergenerational transmission of privileges. The IMF has documented the effects of inequality on economic performance.[25]

2.7 Inequality and market failures

If, as the previous paragraphs argued, inequality affects societal economic performance, there is a new reason for government intervention. The standard market failures approach, dating back to the work of Arrow and Debreu, identified circumstances in which markets failed to produce (Pareto) efficient outcomes. But no one ever suggested that markets on their own would deliver *equitable* outcomes. There was thus a rationale for government interventions—to achieve a desirable, or at least a socially acceptable, distribution of income. The presumption was, as I noted, that such interventions would be costly, but the costs could be reduced by carefully designing redistributive policies.[26]

If there is feedback between distribution and economic performance, markets will not take that into account. This is an example of a *macroeconomic externality*, the study of which has become central to modern macroeconomics.[27] It provides a further rationale for government intervention—creating a more equitable economy can be viewed not only as an end in itself, but also as a means to an end, higher and more stable growth.

So too, policies like capital market liberalization, which expose countries to more instability, have large costs to society, not just in the suffering which major downturns generate: they increase inequality, and the inequality in turn reduces economic growth (Stiglitz 2012b).

2.8 Improving the public sector

Governments and public institutions can learn to perform their tasks better, just as private firms can. One of the failings of the Washington Consensus was that, by seeking to limit its role and the scope of the state's activity, it undermined the state, thus weakening its ability to learn how to perform its critical functions.

The public good is a public good, in the technical Samuelsonian sense (Samuelson 1954): that is, all of society benefits from ensuring that the government performs well. A central insight of modern economics is that there will be an under-provision of public goods, implying that there will be insufficient efforts to ensure that governments do what they should and do not do what they should not.

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[25] Dabla-Norris et al. (2015) and Ostry et al. (2014).

[26] Thus, there developed a large literature describing how this could be done, under various assumptions concerning the instruments that were available to the government. See, e.g. Atkinson and Stiglitz (1980, reissued 2015).

[27] These macroeconomic externalities are simply the macroeconomic manifestation of the more general market failure identified earlier by Greenwald and Stiglitz (1986), as the work of Korinek (2012) and Jeanne and Korinek (2013) makes clear.

Successful societies have found institutions that at least partially 'solve' this public good problem: think-tanks focusing on public policy, an active media scrutinizing what the government does and disseminating information, legal frameworks enshrining the public's right to know[28] and holding public officials accountable, and an engaged civil society pushing for the public interest. These institutions need to be nurtured, sometimes with public financial support. They provide an important set of checks against public abuses.

2.9 New understandings of 'checks and balances' and the rule of law

The notion that governments perform best when there are good systems of checks and balances and a strong rule of law has long been recognized. But our understandings have changed in recent years in several fundamental ways. Firstly, poorly designed systems of checks and balances can lead to gridlock, preventing societal change, and even adaptations necessary to changing circumstances. In any society, there are conflicts of interests; certain changes benefit some, while others may be worse off. Gridlock itself is a policy—one that benefits current elites. Thus, an important part of political institutional design is creating arrangements that do not give excessive weight to the status quo—the reality is that in most countries, the status quo gives undue power to elites.

Secondly, the belief that 'democracy'—defined as an elected government subject to a rule of law—will provide an effective check against abuses has been discredited, even in advanced countries with relatively well-educated electorates. Money inevitably influences politics, whatever the rules of the game; thus, societies with high levels of economic inequality will wind up with high levels of political inequality. And these in turn will translate into economic and political rules of the game that favour existing elites, preserving and strengthening their economic and political power. We repeatedly see so-called democracies where policies deviate significantly from outcomes predicted by the median voter model, where parliaments and presidents supported by a minority of voters remain in power for extended periods of time. Again, the design of institutional arrangements is critical: the rules governing campaign contributions, voting, etc. have major impacts on the relationship between economic and political power.[29]

What is needed is more than checks and balances within government, but within society—and that can only be achieved if the extent of economic inequality is limited, and if there is a break in the transmission of economic advantage across generations.

Thirdly, we have come to understand the ambiguity in the term 'rule of law'. The feudal system had a rule of law. Most abusive regimes (like Nazi Germany) have legal systems to which they are constantly making reference. What matters is what kind of 'rule of law'. What most mean by a rule of law is a legal system that protects ordinary citizens against the powerful. But the 2008 crisis raised questions about whether even America had a rule of law in this sense: few of the powerful bankers who had brought the global economy to the brink of ruin and whose firms had engaged in massively bad behaviour, including fraud and perjury—lying to the court that they had examined the records of the borrowers in default and that they did indeed owe the money claimed—were never held accountable.

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[28] See Florini (2007).

[29] Research in political science has shown that these effects can be complex and subtle, with, for instance, general equilibrium and signalling effects being as important in political equilibrium as they are in economic equilibrium. It is worth noting that on numerous occasions in recent years, electoral outcomes have been at odds with campaign spending. Campaign contributions matter, but they are not the only thing that matters.

2.10 Sustainable, democratic, equitable development and our metrics

A major thesis of my 1998 AL was that governments should pursue not just an increase in GDP, but also sustainable increases in living standards, equitably shared, through democratic processes. At the time, I did not give much attention to measurement of success.[30]

The last two decades have been marked by an increased focus on metrics. Donors rightly want to know that their money is being well spent. But unfortunately, most of the metrics that have been the focus of attention are weak intermediary variables, only loosely linked to the issues of ultimate concern. The successes of educational reforms are likely not to be felt for years, so that looking at completion rates says nothing about the quality of education.

There has been a considerable amount of research attempting to identify better links between intermediary variables and overall economic performance. But how do we assess overall economic performance?

I chaired the international Commission on the Measurement of Economic Performance and Social Progress, which identified the many ways in which GDP is deficient, and suggested improvements.[31] Standard measures of income and GDP were, for instance, often not closely linked with individuals' sense of wellbeing. The 2008 crisis highlighted that existing measures did not reflect economic sustainability—let alone social, political, or environmental sustainability. Growing inequality in most countries around the world meant that GDP *per capita* could go up even as most individuals were worse off.

Today, there is a global movement engaged in developing better metrics that better represent the interests of citizens and better reflect their values and sense of wellbeing. There is a broad consensus around several propositions: (a) what we measure affects what we do and the design of policy: metrics are important; our current metrics, for instance, do not fully capture the loss of wealth (human capital) associated with severe economic downturns, such as that which followed the global financial crisis, and therefore, there has been less effort at ensuring a quick and full recovery than there should have been (Stiglitz 2015d); (b) no single number can capture something as complex as our society; (c) accordingly, there will have to be a dashboard of indicators; (d) the dashboard which is appropriate for one country may be different from that of another; (e) but among the metrics that should be included are those that reflect distribution and environmental sustainability; (f) there need to be improvements in the way we measure the value of government and other services; and (g) median income adjusted for inflation almost certainly is a better measure of what is happening to the typical individual than GDP *per capita*, and therefore it should be among the numbers in the dashboard.

3 Major events and the lessons they provide

Over the past quarter of a century, the world has offered a plethora of experiences from which we can draw inferences about what contributes to wealth creation and successful development.

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[30] Though when I had been chairman of the Council of Economic Advisers, I engaged in a more modest push to ensure that our metrics better reflected resource depletion and environmental degradation.

[31] For a summary of the Commission's report, see Stiglitz et al. (2010).

The discussion in the following sections, the first setting out the successes of East Asia and what the role of the state was in that success, and the rest the failures elsewhere, highlights some of what has contributed to learning or mis-learning.

Sometimes we come to believe things that are not true. The scientific approach of the Enlightenment should have provided some guidance, some help in avoiding such a trap. But the economy is highly complex, and has been evolving fast. It is not easy to resolve disputes: there are no controlled experiments. But there should be no doubt—there have been massive misunderstandings about how the economy functions, highlighted both by the success of East Asia (which much of the standard wisdom said should not have occurred) and the 2008 crisis itself (which, again, the standard wisdom said should not have occurred). Most importantly, given beliefs about how man and society are fundamentally and deeply value ridden, it is not a surprise that debates about the economy became highly charged.

3.1 The East Asian miracle

In retelling the story of East Asia's success, and the other failures, I have a single focus: extracting lessons for the nature and sources of wealth creation, defined broadly to mean the increased ability to have sustained increases in standards of living, and in the role of the state in promoting development and wealth creation. Most of the countries of East Asia have few resources beyond the enormous potential of their people. When they began their journey of development, a little less than half a century ago, they were very poor. Gunnar Myrdal, the Swedish Nobel laureate, wrote *Asian Drama* in 1968 (Myrdal 1968), in which he predicted that the countries in the region would remain mired in the poverty in which they had lived for centuries. Most lived a subsistence life, and Myrdal held that their values and beliefs were to blame. 'The general conclusion we shall reach is that the differences in initial conditions between the South Asian countries and the developed Western countries are extremely significant and that they regularly work to the disadvantage of the underdeveloped countries in South Asia,' he wrote. 'Furthermore, the differences are in many instances of such a nature as to prohibit a pattern of growth analogous to that experienced by the developed Western countries.' (Myrdal 1968: 673–74).

What has happened in the last forty years is almost unbelievable, and I was fortunate enough to be able to observe much of it first hand, from my first visit to Asia in 1967, to my first engagement with Chinese economists as they forged a strategy for development in 1980, and my first visit to China in 1981, to my intense study of the 'East Asia Miracle' in the late 1980s and early 1990s,[32] to my deep engagement with China during my tenure as Chief Economist of the World Bank (1997–2000), to my on-going involvement, including annual meetings of the China Development Forum.[33]

The Chinese miracle

China, for instance, grew at an average rate of almost 10 per cent for more than thirty years after it began its march to a 'social market economy with Chinese characteristics' in the late 1970s. No one had thought such rates conceivable. The highest rate that had been achieved on a sustained

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[32] Leading to the 1993 World Bank Study, *The East Asian Miracle*. I continued my close engagement with China as Chairman of the Council of Economic Advisers under President Clinton, as Chief Economist of the World Bank, and in the subsequent years.

[33] Sponsored by the Development Research Council of the State Council, which has provided an opportunity for regular engagements with the premier and other senior economic officials.

basis before that was perhaps Brazil, with its 5.7 per cent growth rate over the three-quarters of a century before the Washington Consensus 'reforms' that, unfortunately, rather than leading to a restoration of growth, had just the opposite effect. Even in its decade of fastest growth, the US had only grown at around 4.5 per cent a year and Europe little better.[34]

In terms of the wellbeing of mankind, perhaps no event is comparable to this: the movement of more than a half billion Chinese out of poverty in the span of a third of a century.

China went from being a country with a GDP a fraction of that of the United States to being the *world's largest economy* in terms of PPP (purchasing power parity), a status attained in 2014 (a remarkably unheralded event). No measure is perfect. Still, the PPP provides perhaps the best way of comparing the size of different economies. Even at exchange rates, China is the second largest economy.

China already was, of course, number one in trade of goods (it surpassed the United States in 2013), and in manufacturing (surpassing the United States in 2011, and by 2013 [latest complete data], China's manufacturing was 122 per cent of the United States'). Chinese savings, no matter how measured, far exceed those of the United States, and have done so since 2009 (gross domestic savings for China were US$4.8 trillion in 2013—50 per cent of GDP—whereas the United States' were US$2.7 trillion—18 per cent of GDP).[35] The Chinese savings rate has exceeded America's for decades.

The fact that China's economy eventually exceeded the size of the US economy did not come as a surprise: in the last thirty-five years, China's GDP had an average annual growth rate more than 7 percentage points higher than that of the US—and as many as 12 percentage points in 2009.[36] It simply happened a little sooner than expected.

Of course, there is still a huge gap in GDP *per capita*. China has five times the population, so that even with the same GDP, GDP *per capita* is one-fifth that of the United States. So China has a long way to grow. China is still a developing country. Moreover, in some arenas, PPP may not be as relevant a yardstick as GDP at official exchange rates.

Many in China have been worried about falling into what has been called the middle-income trap. Some countries have been able to significantly increase their wealth and wellbeing for a long while—moving up from being *very* poor (as China was at the beginning of its transition to a market economy) to being *moderately well off*. But then, it appears that closing the gap with the more advanced countries is increasingly out of reach. They get 'trapped'—remaining as middle-income countries. While there is some controversy over whether there really is such a thing as the middle-income trap, moving up the ladder is *always* difficult, and the statistical evidence that there is a *discontinuity* in the likelihood of making it to the next rung as one reaches the middle is at best weak.

China can easily avoid any trap that might exist, but it will require more active government policies, not only to promote stable and sustainable growth and economic restructuring, but also to address the central problems the country faces. These include addressing environmental

[34] It is worth noting that the decade of greatest success was 1962–1973, well before tax rates were reduced and the era of deregulation and liberalization began. Data source: World Bank.

[35] World Bank data.

[36] World Bank data.

degradation, and underinvestment in health, education, and cities, including ensuring that the cities are liveable, with adequate parks and public transportation. And success in this will require strengthening of governance in both the public and private sectors. In a sense, it will require *not forgetting* the lessons about what led to its success in the first thirty years of its transition to a market economy as it goes on to the next thirty years, and instead adapting them to the new context China has created for itself.[37]

There is another trap, besides the middle-income trap, and this trap, I believe, is real. It might be called the high-income or American trap, where, as GDP grows, so too does inequality, so much so that large parts of society see their incomes stagnate. This, I suggest, is also avoidable, but only if the government actively pursues an inclusive growth strategy. Such a strategy is more likely to produce stronger and more sustainable growth, as our earlier discussion suggested.

Was East Asia's success a 'miracle'?

The successes of East Asia were called a miracle, but not because they defied the laws of economics. As I will explain, what they accomplished was not a miracle in that sense; it was a miracle because nothing like it had ever happened before, and so it was simply assumed that such growth rates were not possible. And it was especially a miracle because the countries of East Asia defied the precepts of 'good policy' that had been enunciated by the wise men of the West, reflected in the Washington Consensus. These called for a small state, focused simply on ensuring that there was macroeconomic stability—and by macro-stability, they meant price stability. They argued *against* government activism—from promoting industry to intervening in trade. Indeed, they argued for trade liberalization (stripping away all barriers to trade), deregulation (stripping away other constraints to private markets), and privatization (turning over all enterprises to the private sector). They paid no attention to inequality or to social cohesion, and because success depended on having a small government, public governance (for instance, the efficiency and transparency of public administration) was not of much concern. And because it was *presumed* that markets would be efficient, they paid no attention to corporate governance, the rules governing the private sector.

The essential mistake made by the IMF and the World Bank and the Washington Consensus policies that they pushed was assuming that growth was about the accumulation of capital and the improvement in the *static* allocation of resources. In that world, there is a one-time gain from eliminating distortions; but beyond that, the maximum potential growth rate was really limited by the rate of accumulation of capital. East Asia excelled in this—beyond anything that had

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[37] If China is to maintain its success, it will have to learn to manage its financial market. China may have hoped that in creating a market economy with Chinese characteristics it might avoid the volatility which has marked other market economies. But there are deep-seated reasons for this volatility, and only strong regulations and built-in stabilizers can limit their frequency and depth, and only strong systems of social protection can limit their economic and social consequences. The United States, for instance, went for a third of a century without a financial crisis, but once it started deregulating the financial sector, they returned, with greater frequency and depth. Many in and out of China had been encouraging China to follow the American model and deregulate; others, to learn the lesson of the 2008 crisis and proceed very cautiously. The recent volatility in China seems consistent with the view that it unleashed the financial sector too fast, without a full understanding of how to bring it under control.

China's policy discourse has recently been focused on placing the market at the centre. I believe that if China is to sustain its growth, it will have to have a more subtle strategy—one which cedes to the market what should be the market's responsibility, but in which government may actually take a more active role in certain key areas going forward, including protecting the environment, promoting innovation, and curtailing inequality.

happened in the past. China's savings rate, for instance, even reached 50 per cent. This was important, but it was not the key: The essential insight of the countries in East Asia was the importance of learning (Greenwald and Stiglitz 2014a). More important than closing the gap in resources that separated them from the developed countries was closing the knowledge gap (World Bank 1999). Theory presented no limit to how fast that could be closed—and therefore on how fast these countries might grow.

The origins of the East Asian miracle

Japan had led the way for the East Asia Miracle: in the years after the Meiji restoration, after Commodore Matthew C. Perry forced Japan to open trade with the United States in 1853, it had worked hard to understand what had led to the growth of those in Europe with considerable success. But the transition to a modern economy was not easy, and the decades before Second World War were marked by high levels of labour strife, so inconsistent with the image that Japan presented to the rest of the world after Second World War, where many talked about 'Japan, Inc'.

Japan's success in turn set the pattern for the other countries in the region, which carefully studied what it had done. There was institutional learning: they learned from Japan's success.

The other countries around East Asia had also had impressive growth rates, not quite as high as that of China's in the last three decades, but still unprecedented. Take Korea. At mid-century, a majority of the country was illiterate. Its *per capita* income increased by almost fivefold over the last thirty-five years;[38] today, a higher proportion of Koreans than Americans attend college[39] and in standard proficiency tests of high school students, it outperforms the US.[40]

The rich variety within East Asia

The countries of East Asia varied greatly in their economic policies. Some, like Korea and Japan, did not open up their doors to foreign investment (alleged by the advocates as the key factor to success for developing countries and emerging markets). Others, like Malaysia, did. China insisted on foreign investors being part of joint ventures. Some, like Taiwan, focused on smaller enterprises; others, like Korea, on large conglomerates.

'Culture' is often given credit for their success. As I travelled around the region in the late 1980s and early 1990s studying their development, one of the things that struck me was the extent to which most agreed about the importance of culture: those with a Confucian tradition attributed their success to their Confucian traditions, with its emphasis on order and authority; those without a Confucian tradition attributed their success to the fact that they were not stifled by the Confucian emphasis on authority.

What they had in common, though, and what they all perhaps learned from each other, was an emphasis on learning, on how to close the knowledge gap, for instance through education and the transfer of technology.

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[38] World Bank data.

[39] OECD (2015).

[40] Data from the Programme for International Student Assessment of the OECD.

Shared prosperity

Most of the countries of East Asia also had strongly equalitarian policies that promoted social cohesion and led to inclusive growth, and opened up the doors to large fractions of the population, including women. In doing so, they harnessed the most valuable resource they had—their human resources.

As a point of comparison, even today, Japan's Gini coefficient is .32, compared to the US, which exceeds .41. Even China, which has a Gini coefficient comparable to that of the United States, had policies to ensure that the fruits of the growth were shared by those at the bottom and the middle.[41]

I sometimes tease my Chinese colleagues, pointing out that they had achieved their high level of inequality in just three decades, when it had taken the US much longer to achieve its outsized level of inequality. But there is a difference: as Kuznets pointed out,[42] in the early stages of development it is *natural* for there to be an increase in inequality, as those most adept in taking advantage of the new opportunities benefit. In China, the Eastern provinces pulled ahead of the rest. There is always a large urban rural divide, and so, initially, as more people moved to the urban sector, the standard measures of inequality increased.

But there is a fundamental difference between China's inequality and that in the US. Even if some were doing better than others, almost *everyone* was seeing their incomes increase. The Chinese middle class has expanded dramatically since the turn of the century. In 2000, just 4 per cent of the population earned between US$9,000 and US$34,000. By 2012, 68 per cent of the population had incomes in that range (Barton et al. 2013). In contrast, American incomes, except for those at the top, have stagnated for decades.

This kind of shared prosperity did not just happen. There were at least two critical ingredients. The first was the careful management of macroeconomic policies in conjunction with 'reforms'. These reforms, like trade liberalization, in some instances led to the destruction of jobs. But job destruction was always balanced by job creation. Ideologues in the West *assumed* that that would happen—that the natural state of a market economy was full employment, because that was what was assumed in their models. But that is simply false. In many, perhaps most countries around the world engaging in such reforms, job destruction has outpaced job creation, and that weakened the economy. Moving workers from low-productivity, old and inefficient sectors to more dynamic 'reformed' sectors would have increased growth and productivity. But moving them into unemployment lowers both. Further, the economy is also hurt in the long run: workers learn *on the job*. They acquire skills. But when workers are unemployed, not only do they not learn, but existing skills atrophy. Even the most basic 'skill'—the work habits associated with getting to work on time on a regular basis—can erode. Thus, a long episode of high unemployment hurts growth and productivity. There is *hysteresis:* history matters.

The second was the heavy investment in human capital, in education. Basic literacy became universal. Secondary education became the norm. China sent hundreds of thousands of students abroad. Millions more were enrolled in their own universities.

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[41] Based on World Bank data. It is worth observing that different datasets (e.g. the OECD) provide somewhat different numbers. Still, the general picture is similar.

[42] Kuznets (1955).

The real test for China will come in the future: Will it be able to bring down inequality, as it moves into the next stage of development? Will it conform to Kuznets law, which suggested that inequality would *eventually* be reduced? Or will it follow the American model, in which, after a short episode of reduced inequality, inequality started to soar?

In China there is already an awareness of the issue of inequality, and a commitment at the highest level to do something about it. The last few years have, in fact, seen a decline in the Gini coefficient. This is perhaps largely due to the government's long-standing efforts to reduce regional gaps, including its huge investments in infrastructure, ports and airports, highways and high-speed trains, which have brought those in the interior regions that had grown more slowly closer to the coast. The government is also committed to providing access to credit to those wishing to start new enterprises. It has also made large investments in rural health and education—after an initial period in which these were cut back.

I do have a concern: the same ideological stances that have led to the high levels of inequality in the US are spreading in China, with the support of some of the same kinds of vested interests. If that happens, China could well fall into what I referred to earlier as the high-income or American trap.

The role of the state in the East Asian miracle

In all of the countries of East Asia, the state played a central role (a role that has subsequently been referred to as *the development state)* and it was this central role that reflected most deeply the departure from the dictums of the Washington Consensus. At the same time, markets were also important. The state *governed* the market. It did more than just enforce contracts. However, it played not just a regulatory role, but also a catalytic role.

The East Asian countries came to an understanding of these roles in a pragmatic way. They did not arrive at their views through an analysis of economic models, but I was always struck in my conversations with the economic leaders of the time, those who had shaped the policies of the Miracle, by how closely their insights corresponded to those thrown up by the models that I had been working on. Those models emphasized the *limitations* of the market, the imperfections, for instance, of capital markets, the underinvestment that would occur in technology and education, and the importance of equality for maintaining social cohesion and trust. They recognized that private financial markets would provide insufficient funds for long-term investments, and thus they provided money for long-term investments. But they did so at reasonable commercial terms; they focused on correcting a market failure, not making massive transfers from the public to the private sector.

They came to their views in part by seeing the successes and failures elsewhere. Markets on their own did not bring rapid growth, but neither did the Soviet model. It had managed to generate high savings rates, but those savings often were not well-invested. In Japan, particularly, Marxists' ideas about exploitation had great influence. They searched, and found, a hybrid—more state than the West, more 'markets' than the Soviet Union.

China had approached matters from the other side: it had had the bitter experience of imperialism, but had also seen the failures of Maoism in the first quarter of a century after its Revolution. It also saw the successes of its neighbours, and grasped that there was no reason that it could not do just as well. Most of its neighbours had achieved growth with equity. Doing something similar in the vast country of China was, however, a Herculean task, an order of magnitude more difficult. China could not simply borrow a growth strategy, wholesale, from any of its neighbours.

It had two further problems: it was in fact much poorer than some of its neighbours, even at the time that they had embarked on their growth policies. It had few natural resources (in contrast to, say, Malaysia), and it had a vast population which had to be fed, clothed, and housed, and for whom jobs had to be found. And it had to make the transition to some form of a market economy.

In 1980, at the very beginning of China's move to a market economy, China met with a small group of American economists to discuss its strategy and to get our views. I remember vividly the meeting in December in Wingspread, Wisconsin.

China wanted to move towards a social market economy with Chinese characteristics. No one knew what that meant, or how it might best be done. What were the essential features of a market economy? Were those features compatible with China's commitment to maintain a higher level of social equality with less exploitation than what markets had produced in the United States and other Western economies?

One of the other economists at the meeting was Ken Arrow, who had earlier established the conditions under which markets were efficient. He realized that those conditions were very restrictive. As a result, he had less faith in the market economy than some of those in the Chicago tradition. There were, of course, many features of the market economy, most notably private property and competition. And for a market economy to work well, one had to have a good legal framework, a good set of regulations. Ideally, one would like to do everything at one time. But that was not possible.

Thus, the question was one of priorities: what should be emphasized. Arrow and I argued that competition was key.[43] For a system of private property to work well would require an institutional and legal infrastructure that would take time to construct. The experience of China suggests that we were right. And as I noted earlier, its pragmatic solutions defied the recommendation and precepts of the time.

For instance, rather than privatizing land, as the Washington Consensus would have recommended, it established the individual responsibility system, giving individuals effective *control* over their land, but without the right to buy and sell it. It thus avoided having to address the hardest political issues, but got 99 per cent of the benefits that would have resulted from privatization. It even avoided in the short run some of the worst adverse economic effects that might have ensued from privatization—a focus on speculation and a growth in inequality.[44]

The way in which it managed the transition from the controlled prices of the old regime to a system of more market-based prices (called the dual price regime) also ran against the received wisdom. They kept quotas (required levels of output) that farms and firms had to meet, and what the farms and firms received continued at the old prices; but they were allowed to produce and

[43] What we were arguing was, of course, consistent with a long tradition in economics. Earlier Lange and Taylor (1948) had argued that a socialist government (with government ownership of property) could achieve just as efficient an allocation of resources as a private market economy through the use of decentralized prices. The failure of the communist governments (even those, like Hungary, which tried to market socialism) suggested that these models did not capture the essence of what made for a successful economy. See also Stiglitz (1980, 1991c, 1994).

[44] Incentives to maintain the quality of the land are obviously attenuated without full ownership; but if individuals plan to farm the land for an extended period of time, this effect is minimal; and if they do not, and it is anticipated that land will not be used for agriculture in the future, the quality of land would not have been maintained in any case. In subsequent years, local authorities themselves became involved in land speculation, and government control of land turned out to be a major source of corruption.

trade beyond these quotas, and here, markets determined prices. Over time, the quotas would be reduced, and more activity occurred within the market.[45] It worked: the transition to the market system with no quotas went smoother than anyone had expected.

The next phase of its growth, dominated by township and village enterprises (TVEs), also defied the conventional wisdom. These were new enterprises, run by local governments. The conventional wisdom was that government—at any level, local, provincial, or national—should be scaled down. Everything should be turned over to the private sector. Here, the source of growth centred on *government,* though at the local rather than the national level.

The TVEs created strong competition, which spurred growth and job creation. This was particularly important: as productivity in agriculture increased, people would be moving out of agriculture. Political and economic stability necessitated creating jobs for them elsewhere. The TVEs did this.

Later, I will describe another set of experiments, in the countries of Eastern Europe and the former Soviet Union, where a different set of economists had argued for rapid transition with an emphasis on privatization. The failure of those experiments reinforced the conclusion that our analysis had been correct.

Political economy

In *political economy*, the East Asian countries went beyond the more narrow economic models that I had focused on, in developing institutional structures that seemed to mitigate the problems that sometimes had afflicted government interventions in the market. Elsewhere, corruption had often proven a problem. Of course, they did not *solve* the problem of corruption. No country ever has.

Sometimes, countries have been misled into believing they have eliminated corruption, when all they really had done is to change the form. In the United States, for instance, it is relatively rare for money to be passed on from private corporations to public officials in plain brown paper envelopes. But the US has developed a different, and in some ways more invidious form of corruption, sometimes called corruption *American style,* where there is a more complicated set of exchanges: large campaign contributions are given in exchange for the support of critical pieces of legislation, and often a good job and very well-paid speaking engagements after one's political career comes to an end. Not surprisingly, the magnitude of what is exchanged surpasses in dollar value corruption anywhere else in the planet—one piece of legislation, a simple sentence in a drug bill limiting the US government from bargaining with the drug companies, reaped an extra trillion dollars to the drug companies over a ten-year period.

In the middle of the East Asia crisis in 1997–98 many of Western political leaders and a few commentators from the West blamed the crisis on the 'crony capitalism' that they alleged was deep and rampant in these countries. In fact, they had been unhappy with the East Asian model and its successes for years, because it was a challenge to their ideology. The crisis allowed them to go on the offensive.

The irony was that the policies being pushed by the US Treasury and others reflected crony capitalism—the nexus between politics and finance that ran deep especially in America, but also

[45] The conventional wisdom had it that there would be arbitrage between the two prices, and this would undermine the whole system.

elsewhere; a cronyism motivated by the massive campaign contributions to which I referred earlier, but institutionalized through the system of revolving doors, where, for instance, the Secretary of Treasury, almost as a matter of routine, came from and went back to Wall Street. As it turned out, the crisis countries in East Asia quickly recovered, especially Korea and Malaysia, which had resisted much of the advice of the IMF, showing that the diagnosis that deep-seated crony capitalism had *caused* the crisis was wrong. If anything, it was the American version of crony capitalism that was the cause of the crisis. At the centre of the East Asian crisis was capital market liberalization (removing restrictions on the movement of capital in and out of the country) and financial market deregulation (removing restrictions on the operations of foreign financial firms within the country)—policies that had been pushed on the East Asian countries by the American Government under the influence of America's financial sector.[46] *Finally,* almost fifteen years after the global financial crisis, the IMF realized that full capital market liberalization might not be good for a country; it realized that its previous policy prescriptions had been wrong, and changed its 'institutional view' to supporting capital controls[47] ('capital account management' was the more polite term that was used). It realized too the importance of good financial sector regulations. (Even then, the US Treasury, still dominated by Wall Street, did not fully change its position—even with a Democratic president.)[48]

The countries in the region had, in fact, worried about the risks of crony capitalism. Part of their success was due to close cooperation between government and business. But there is a fine line between cooperation and cronyism. Part of the success was that they had set up institutional structures that acted in part as a system of checks and balances, and they reduced the incentives for bad behaviour. For instance, while the government provided credits, they were not subsidized. Credits were given to those firms that had succeeded *abroad*—there was an objective measure of success. And they created professional bureaucracies that limited the scope for political machinations.[49] Of course, corruption occurred—just as corruption, taking advantage of opportunities to advance one's own interest at the expenses of those whose interests one is supposed to be advancing, occurs in the private sector in *every* economy;[50] and the greater the money to be made by corruption, not surprisingly, in general, the greater the corruption.[51]

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[46] For a more extensive discussion of these issues, see Stiglitz (2002a).

[47] International Monetary Fund (2012).

[48] While it did support some reforms (under the Dodd–Frank Bill), there were many reforms that were widely supported by economists which it opposed; in international seminars, representatives of the US Treasury continued to argue for capital controls; and in trade negotiations they continued to attempt to constrain foreign governments from imposing regulations on the financial sector.

[49] See Stiglitz (1996) and World Bank (1993).

[50] Thus, corruption can be viewed as the violation of a 'fiduciary' relationship. In a sense, in any principal–agent relationship, when the agent does not act in the interests of the principal, there is a violation of fiduciary responsibilities. We tend not to use the term 'corruption' to describe these ordinary violations—indeed, enhancing the alignment of the behaviour of agents with the interests of principals is the subject of the vast principle-agent literature, one of the major strands in the economics of information. Rather, we reserve the term for large-scale violations. Some focus only on those that arise in the public sector, but while largely a matter of semantics, I think that is misguided, because it suggests an asymmetry in behaviour that is not there. (Indeed, most of the corruption in the public sector involves a briber and a bribe, and the briber is almost invariably from the private sector. Thus, the private sector is intimately involved in what corruption occurs, and an attack on corruption is best mounted from both sides. See Stiglitz (2006a). The abuses of fiduciary responsibility in the financial sector in the US, by almost any reckoning, are of a scale that the term corruption could deservedly be applied.

[51] The scale of what China was attempting in its move towards a market economy was, of course, unprecedented, providing unprecedented opportunities for corruption. Certain aspects of the way China moved to the market economy may have worsened the problems. The lack of democratic accountability removed one important check.

East Asia vs. the US: finance and savings

Indeed, as I compare the success of the East Asian countries in creating true wealth with the more recent experiences in the United States, one of the crucial differences relates to finance, which in most of the countries in East Asia remained tightly controlled by the government (rather than as in the United States, where finance sometimes almost seemingly controlled the government). It was heavily regulated—and in some cases (such as Thailand) regulated to focus on real productive investments, rather than real estate speculation. They avoided the short-termism prevalent in the US, and even created special financial institutions (such as the Long-Term Credit Bank of Japan) for longer-term investments. They focused on encouraging savings (both by making it easy for individuals to save and making savings more secure), while US private banks encouraged borrowing and indebtedness. The result was high savings rates—by contrast, in the US, in the years before the crisis, the household savings rate fell to zero.[52]

Some have seen this high savings rate as *the* source of East Asia's success—it was what led to the creation of the wealth of these nations. But I hope this extended discussion of East Asia's experience has made it clear that such an analysis is based on too narrow a vision. The high savings rates may have enabled East Asia to embed some of the new learning that was going on at a rapid pace into machinery. But much of the learning was institutional: how to organize a modern society; how to run complex cities; and how to structure complex organizations.

There is still a large gap between the productivity of most of the countries in East Asia and other advanced countries, though in some areas (like the production of automobiles) Japan may be ahead of the US, and in others (like the production of steel) so may South Korea. But on average, incomes *per capita* in China are still a fifth of that of the United States (in purchasing power parity; in exchange rate terms, less than a sixth.) There is still much to learn.

Summary

This section has focused on the success of East Asia, including China. Their development and growth was beyond anything that had been thought possible, and contrary to what others (Myrdal) had thought would occur. They began their growth with odds seemingly against them: most had no natural resources, and in most, education levels (human capital) were also limited. Their success was based on government assuming a major role in the economy, but they *used* markets. They did not see markets as an end in themselves, but as a means to achieve their broader societal goals. There are major debates about what it was that the government did that led to success, with different countries doing different things and policies changing over time.

They developed the concept of the *development state,* and made an impressive case that a developmental state could do a far better job—*using markets*—in promoting development than unfettered markets. The development state provided a marked contrast to the perspectives advanced by the Washington Consensus.

The way local governments were financed, through land sales, increased opportunities for corruption—with land being a critical scarce natural resource, China could have been more guarded against the risks of the corruption associated with the natural resource curse. And the inadequately regulated financial sector provided large opportunities for rent seeking, which sometimes verged into corruption.

[52] For a discussion of the role of the financial sector in the East Asia miracle, see Stiglitz and Uy (1996).

3.2 The Washington Consensus and the failures of development

The same period that saw the enormous success of the East Asian countries saw stagnation and instability in much of the rest of the developing world. These countries failed to develop and create wealth. The reasons for their failures are as instructive as the reasons for the successes of the countries in East Asia. I believe it is because many of them followed the precepts of the Washington Consensus. Some did it voluntarily. But many, especially in Africa, had little choice: they were dependent on the West for aid, and a condition for getting that aid was doing as they were told, and they were told to follow the Washington Consensus. In Africa, *structural adjustment* programmes resulted in a quarter century of stagnation, with *per capita* incomes in sub-Saharan Africa lower in 2007 than they had been in 1974.[53]

At the centre of the success of East Asia was learning, facilitated by education, the transfer of technology, and industrialization. At the centre of failures in Africa was the process of deindustrialization and a total absence of a concern about learning. By the beginning of the twenty-first century, Africa was less industrialized than it had been three decades earlier. Investment in education focused on primary schools—at best improving the ability of these countries to produce basic commodities, but not helping them move into the twentieth century, let alone the twenty-first. Nothing was done to really close the knowledge gap that separated them from the more advanced countries (Noman and Stiglitz 2012a, 2012b, 2015a, 2015b; Noman et al. 2012).

Disappointingly, even the countries that achieved macro-stability and had significant advances in 'good governance' did not see a flow of foreign direct investment, except in natural resources.

After the failures of the structural adjustment programmes, growth recovered in the twenty-first century. It was partly based on increased Chinese involvement—not only buying commodities and natural resources, but large amounts of assistance, especially in the construction of infrastructure. Many worry that with China's slowdown, and the concomitant decrease in commodity prices, Africa's growth too will slow.

But some of the biggest successes occurred in African countries with limited resources, in countries that had learned some of the lessons of East Asia's success. Their governments took on the role of the developmental state, and quite consciously so. They did what any good student of development should do: study the cases that were successful, and base their policies on attempting to *adapt* to their circumstances the policies that had worked so well there.

The cases of successful development

In sub-Saharan Africa, there are now perhaps four countries that have had a modicum of success, one with natural resources, and three without. Tiny Botswana, blessed with diamonds, has grown at an average of more than 8.8 per cent since independence in 1966, ranking towards the top of the league tables. Rwanda, Ethiopia, and Mauritius have grown at average rates of 7.7 per cent, 8.9 per cent, and 4.0 per cent, respectively, since 2000. Over one five-year period, 2004 to 2008, Ethiopia, one of the poorest countries in the world, had grown an average of 11.7 per cent per year (according to World Bank data).

[53] The nadir of per capita income in sub-Saharan Africa was 1994, when they were some 22 per cent below their 1974 peak (World Bank data.)

Even resource rich Botswana, however, had to do things differently from what had been done elsewhere. Most natural resource countries have not done well. (Humphreys et al. 2007; Shaffer and Ziyadov 2011). To succeed, it had to stop the unfair exploitation by others of its resources—it had to renegotiate a contract signed in the colonial regime that gave a disproportionate share of the benefits of the diamonds to De Beers. It succeeded, and it succeeded in developing a cohesive set of policies.[54] Early on, it placed heavy emphasis on education, and developed a vibrant tourist industry. Most recently, it has developed a strategy of 'beneficiation', of ensuring that a larger fraction of the processing of diamonds occurs in Botswana—a departure from the colonial model where the developing countries were thought of only as a source of raw materials, with the 'value added' processes occurring in developed countries.

There were many reasons that developing countries like Botswana had long been simply a source of resources, with most of the 'value added' occurring in the developed countries. Their workers, for instance, might not have the requisite skills. But this only pushed the question back: why hadn't they developed the skills?

One reason for the current global economic structure is that, in fact, the international trade regime *continues* to try to enforce the model in which developing countries are limited to producing natural resources. Advocates of a 'true' development round at the World Trade Organization insisted that the bias built into tariff structures towards keeping developing countries producing low value added products through tariff escalation be eliminated;[55] the advanced countries resisted—a part of the reason for the failure of those negotiations.[56]

The challenge of resource-poor Ethiopia, Mauritius, and Rwanda, was, however, even greater. The countries differ in many ways, but they had one thing in common: they all adopted the East Asian development state model. They did so deliberately.

They focused on industrialization and learning—reversing the mistakes that had been made under the IMF and World Bank tutelage in the structural adjustment programmes (though retaining some of the *good* lessons, such as sound fiscal systems). While the World Bank was telling countries to spend its educational resources just on primary education, and even then to charge the poorest people in the world for this limited education (in a programme called cost recovery), Mauritius took a different course, providing free *college* education to all of its citizens.

In the late 1990s, the World Bank began a re-examination of these policies, as reflected in the 1998–99 World Development Report. At one level, these policies were understandable: resources were scarce, and money recovered from charging tuition could be spent elsewhere on development projects; and besides, universal primary education seemed more equitable than giving more advanced education to a few. At the same time, cost recovery did discourage the poorest from sending their children, and especially their daughters to school; and a focus on primary education meant these countries would be condemned to producing basic commodities—they could not move up the development ladder, as Korea and the other East Asian countries had done.

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[54] As I explained in *Globalization and its Discontents,* it did this not by following the dictums of the IMF and the World Bank, but by taking up the guidance of the Ford Foundation. See Stiglitz (2002a). Botswana's high level of inequality—with a Gini index of 51.3 in 2010—is, however, cause for concern (according to latest World Bank data).

[55] See Charlton and Stiglitz (2005a, 2005b).

[56] Probably more important, however, was the refusal of the US, in spite of its rhetoric about free trade, to cut its cotton subsidies, even though those subsidies had already been declared WTO illegal by the WTO appellate court.

Some of these African countries also got significant aid from China—not to take resources out of their country, for they had none, but out of a longer-term perspective that saw the value of engagement even if there were no resources to be exploited. (Western governments seem to have picked up the short-sightedness of their business enterprises, perhaps because of the revolving doors, the constant movement of the leaders between the government and business.) Unfortunately, several of them picked up a less savoury aspect of some of the East Asian countries—a less than 100 per cent commitment to democratic values.

South Africa

South Africa had the good fortune of an endowment of good land and weather and rich resources (gold and platinum). But it was marked by some of the worst exploitation in the world, by white South Africans of black South Africans. Apartheid's exploitation took many forms, including constraining economic opportunities of the blacks (taking away their land and restricting their ownership of land in many parts of the country).

In some ways, the post-Apartheid era went better than many expected. There was relative political, economic, and social stability. The strong sanctions imposed upon the country in the Apartheid era forced them to become more self-reliant and diversified.

Still, the legacy of the Apartheid era hangs heavy—including the effects of the deprivation of the majority of their citizens of adequate education opportunities. And the 'orthodox' economic policies, designed to gain for the country the confidence of the international community, succeeded in doing that—but not in promoting growth or employment or reducing inequality. Indeed, Arndt et al. (2016) in their review of 16 African countries, classify South Africa in the category under the heading of 'uninspiring or negative economic growth and corresponding stagnation or increases in poverty'.

Other explanations of Africa's successes and failures

These examples of success in Africa not only show that success is possible—even without an abundance of natural resources—but they also demonstrate that some of the arguments put forward for the inevitability of failure in Africa are simply wrong. Some claimed that landlocked and mountainous countries faced huge geographical disadvantages,[57] or that existing in the tropics was a natural handicap; and with so many African countries facing these liabilities, it would not be surprising to see low growth. But as Meles Zenawi, the late president of Ethiopia put it, 'geography is not destiny'. Ethiopia, mountainous and landlocked, has had some of the highest rates of growth ever. (There was always something curious about the argument: after all, Switzerland is landlocked and mountainous, but has been one of the richest countries in the world.)

Africa's poor performance is also blamed on its 'governance', on pervasive corruption. It is true that there are problems with public governance in many countries—but the same was true in other countries, including South Korea, the United States, and UK at earlier stages in their

[57] See for example Diamond (2005) and Sachs (2000).

development. An equally forceful argument can be made that poor governance is in part a consequence of low incomes. And governance is far from perfect even in the best of countries.[58]

The lessons of the failures of the Washington Consensus

The real lesson is that the kinds of policies that worked in East Asia can work in Africa; these require an active government—a developmental state. By contrast, the good governance agenda based on *restraining government* restricts what government can do, and thus limits the potential for the creation of wealth and development. Limitations in governance should shape how the government goes about developmental activities, not *whether* it should undertake such activities.

Moreover, the constraints imposed by the Washington Consensus/structural adjustment policies constrained institutional learning and development. There was, in addition, the belief that institutional and legal 'transplants' would take hold, would save the countries from grappling with the difficulties of figuring out for themselves what the best institutional arrangements were. In earlier work (Stiglitz 2002a), I and others complained that these transplants often did not take hold: the one-size-fits-all policies were not well-suited for the situations in which these countries found themselves.[59] An intellectual property regime that might be appropriate for the US[60] was simply wrong for a developing country trying to close the knowledge gap between itself and more advanced countries.[61] Here, though, I am emphasizing something quite different: the process of figuring out for oneself the right institutional arrangements is itself part of the development process; it is only through such processes that one learns, and in particular, learns how to adapt to changing circumstances.

Thus, even if the Washington Consensus policies had succeeded in promoting savings and static efficiency (which they typically did not), even if they had thus succeeded in promoting the conditions for wealth accumulation as it had traditionally been conceived, they would have failed to promote development.

Markets by themselves will not succeed in the structural transformation that is necessary for successful development. The government needs to play a central role, even if its role is *limited,* e.g. to being a catalyst or to providing finance or to regulating the economy to limit negative externalities.[62]

Thus, the Washington Consensus policies, by limiting the role of the state and limiting the ability of the state to increase its capacities inhibited development.

[58] The form of corruption may change as well, as we noted earlier. In advanced countries, it typically does not take the form of stuffed plain brown paper envelopes; it is more commonly in the form of campaign contributions (disclosed and undisclosed).

[59] See also Kennedy and Stiglitz (2013).

[60] Even that is a matter of controversy—I have argued elsewhere that the American intellectual property regime is best seen as resulting from the influence of its most powerful lobby groups, its pharmaceutical and entertainment industries, rather than designed to promote innovation and the advancement of science. See Stiglitz (2006a, 2008c).

[61] See Stiglitz (2008c, 2014b), Cimoli et al. (2014), and Dosi and Stiglitz (2014).

[62] Many of these ideas are developed further in Lin (2011, 2012a, 2012b); Stiglitz and Lin (2014); Stiglitz et al. (2014); Stiglitz (2011a); and Greenwald and Stiglitz (2014a, 2014b). Even in developed countries, markets do not do a good job in managing structural transformations, e.g. from an agrarian economy to manufacturing, or from a manufacturing economy to a service economy. See Delli Gatti et al. (2012a, 2012b).

3.3 The failures of Eastern Europe and the countries of the former Soviet Union in the aftermath of the fall of the Iron Curtain

The failure of the communist system did not come as a surprise, at least to most economists. Central planning—'Gosplan' in the Soviet Union—could not work: it simply required the collection, transmittal, and processing of more information than any entity could undertake. The absence of incentives inevitably had an enervating effect. Or more accurately, what incentives there were often had perverse effects. Firms had quotas on the production of nails, but had no incentives to produce nails that actually worked, that would not break when hammered. There were incentives to go around the system. Indeed, often one could meet one's quotas only by doing so. And this in turn led to a kind of disrespect for the system itself. This was amplified by the contradictions between the equalitarian ethic which it professed and the luxuries in which those in the ruling class lived. A system supposedly based on principles of fairness and equality had morphed into a system of privileges, often transmitted across generations.

In some respects, the system did perform better than expected. The Soviet Union and some of the other countries with communist regimes excelled in education, especially in science and engineering. They even managed a few major scientific projects—Sputnik, the first satellite, served as a wake-up call to the West that they needed to invest more in science.

But what happened after the collapse of the Iron Curtain did come as a surprise.[63] With the replacement of central planning by the markets and the decentralized price system, with the incentives provided by the market and private property, it was *assumed* that these countries would experience a burst of growth. Incomes would, of course, be lower than they would have been if the investments that had been made before the fall of the Iron Curtain had been better designed. But at least these countries were starting with a well-educated labour force.

Incomes, though, fell dramatically in the initial years of transition. The declines in GDP numbers in the former Soviet Union were joined by demographic statistics showing a remarkable fall in life expectancy. The defenders of the policies being foisted on these countries by the IMF and the World Bank—variants of the Washington Consensus policies in Africa and other developing countries—almost took pride in this. The belief among the 'shock therapists' was that a quick jolt to the economy would set the stage for more robust growth going forward. They argued that rapid privatization, a quick macroeconomic adjustment, and full trade and market liberalization would set the stage for the free market to do its wonders.

Others argued that a successful market economy could only be based on a good institutional infrastructure; the distrust of institutions, the lack of respect for the 'rule of law' that these countries were beginning from, would prove to be a major handicap.

The debate was as much about sequencing as it was about pacing. The shock therapists believed that magically, once there was private property, those in the Soviet Union would demand a rule of law to protect their property. Again, others, including me, were more sceptical. One should not expect a monopolist to demand good competition policies; neither Bill Gates nor John D. Rockefeller were the strongest proponents of such laws, laws that attempted to redress imbalances of political as well as economic power.

Elsewhere, we had seen the elites demand corporate governance and other legal structures that would advantage the elites at the expense of the rest of society. And until good corporate

[63] For a broader discussion of the issues, see Ellerman and Stiglitz (2000, 2001) and Stiglitz (2000a, 2000b).

governance occurred, those who controlled firms could, and would, steal from the rest. All of this would undermine trust in society and faith in the market economy. Making matters still worse, undermining the alleged incentive to create a rule of law within, say Russia, was the fact that the oligarchs had free rein to take their money out of the country—and they could use the rule of the West to protect their ill-gotten gains. So long as there was money to steal in Russia, it paid them to preserve the legal framework which allowed them to steal.

Matters turned out even worse than the critics of shock therapy feared: some American advisers were corrupted in the process, using inside information to make a killing and channel their gains into the Cayman Islands.[64]

The defenders of shock therapy passed off all of this as a minor hiccup. In the long run, growth and democracy would prevail. But as Keynes famously said, *in the long run we are all dead*. We have a long enough run now—more than a quarter of a century since the fall of the Iron Curtain to evaluate the various claims. And unfortunately, it appears that matters are only a little bit better than they were in the years immediately after the crisis.

There are a couple of success stories. Poland, which took a gradual approach to institutional reform, including privatization[65] had an average rate of growth between 1991 and 2013 of 3.7 per cent.[66] In general, the countries that joined the European Union, as a condition for joining had to adopt conforming institutional and legal frameworks, helping to propel their success.

There were many studies done in the early years of the transition (including a World Development Report at the World Bank) that argued for the virtues of a quick transition, rapid privatization, and liberalization (i.e. shock therapy). It is now a quarter of a century since the beginning of transition, and it appears clear that these policies have been counterproductive. Even if a few countries that undertook shock therapy initially seemed to do well, the tortoise has outpaced the hare: the countries that eschewed shock therapy have in the long run done better. This reinforced what seemed to be the case just a decade into the transition, where China, which took a more gradualist approach, markedly outperformed Russia, the signal failure of shock therapy.[67]

Of course, when oil prices have been high, Russia has done well—nearly 70 per cent of its exports are based on oil and gas. But Russia has gone from being an industrial economy to a natural resource-dependent economy. And it has not been able even to transform those resources into a form that ensures prosperity for its citizens.

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[64] McClintick (2006).

[65] There is some controversy over the interpretation of the Polish success story. The country did go through an episode of 'macroeconomic' shock therapy, and the advocates of shock therapy attribute Poland's success to that. But as I noted, privatization and other reforms were done much more gradually, and many argue that it was this gradualist strategy that accounts for its success. More recent cross country evidence (comparing its success with the failures elsewhere) is consistent with the latter interpretation.

[66] Source: World Bank data. Like many countries, its growth since the global financial crisis has been volatile, but on average, it has been very good.

[67] See Stiglitz (2001a, 2001b) and Ellerman and Stiglitz (2000, 2001) who also provide an explanation for why shock therapy did not work. Godoy and Stiglitz (2007) looked at the data a half-decade later, and the case for gradualism was, by then, even stronger. A look at more recent data, both before and after the global financial crisis, reinforces these conclusions. Several of the seemingly successful shock therapy transitions were based on unsustainable real estate booms.

Russia illustrates the disjunction between the creation of wealth of individuals and the wealth of the nation: today, there are a few very, very rich Russians (the oligarchs) and many rich Russians—enough that the restaurants at the luxury spots throughout Europe have menus printed in Russian, and the stores have salespeople who are fluent in Russian. But apart from this very limited trickle-down from the oil and other resources, there has been limited wealth creation. In some ways, the country is poorer than it was before the transition: the universities are weaker, and many of the talented people have migrated abroad. The economic failures in the transition run parallel to those that characterized the failures of development discussed in the preceding subsection: a focus on static resource allocations rather than creating a learning society. But there are several other themes that Russia's experience highlights, in particular the failure to create a cohesive middle class society with a rule of law designed to protect ordinary citizens. Rather, the country has become what many would describe as a lawless society, the 'wild east' (referencing the lawlessness in the early days of America's 'Wild West').[68] Legal forms, like bankruptcy laws, were used to seize property.

It was not inevitable that the transitions would be so disappointing. China and Viet Nam have been making a transition to a market economy, and both have experienced almost unparalleled growth. But these countries did not follow the dictates of the Washington Consensus. Both were greatly influenced by the economic policies pursued by other East Asian countries, the 'developmental state' that we described earlier. In many ways, these countries successes were even greater than their neighbours'.[69]

3.4. A brief historical perspective

The last thirty-five years have been momentous. The world as a whole grew at an unprecedented rate. It seemed as if, suddenly, the laggards, especially the countries in Asia, finally learned the lessons of growth from the leaders, from Europe and America. An historical anomaly was at last being corrected: about two hundred years ago, India and China accounted for around half of the world's population and close to half of its GDP. But then, as a result of unfair trade agreements, colonialism, oppression, exploitation, and the force of arms, combined with failures *within* Asia, the advanced countries pulled ahead, to the point where in the middle of the twentieth century, these two giants accounted for less than 10 per cent of global GDP.[70] Gaps in other indicators opened up too—in life expectancy, for example. But in the last third of a century, all of this has changed. Earlier, we noted that China had become the largest economy (in PPP terms) in the world. China and India together now have 23 per cent of the world's GDP.[71] The gap in life expectancy is narrowing too.

All of this is much as it should be. There are no real secrets in the story of increasing societal wellbeing, in increasing the wealth of nations. Knowledge should flow across borders. And one

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[68] This view contrasts markedly with the view of Shleifer and Treisman (2004), who have argued that Russia is just a 'normal economy'. For a theoretical discussion of why Russia and some other former Communist countries got trapped in this state, see Hoff and Stiglitz (2004, 2007).

[69] Some have argued that the success of these countries was because they were at an earlier stage of development; they were still largely agrarian economies. Such arguments are unpersuasive: development is difficult. So is transition. There is no reason that making a transition to a market economy at the same time as one is making a developmental transformation would make both tasks easier; on the contrary. Moreover, there is no evidence that the economies making the transition that were more agrarian were in general more successful.

[70] Data from The Maddison-Project, http://www.ggdc.net/maddison/maddison-project/home.htm.

[71] World Bank data (in PPP terms, 2011 benchmark).

of the great achievements of globalization has been to facilitate the flow of knowledge—this has been far more important than the flow of goods or even the movement of capital.

Globalization has, however, the potential of being a mixed blessing. The deficiencies in the governance of the global economy are well known. In many areas, these deficiencies have allowed the dominance of certain ideologies (the market fundamentalist ideologies which have had such a destructive effect on development), and sometimes that has led to international rules of the game that have been adverse to development and stability. (Beginning in 2001, there was a hope that at least the rules governing trade would be changed to be more supportive of development, with the initiation of the development round of trade negotiations within the WTO at Doha.[72] In December, 2015, however, the WTO abandoned even the pretence of rectifying the imbalances of previous trade agreements, in the face of the recalcitrance of the EU and the United States. While they spoke of the importance of open and free markets, they refused to abandon their agricultural subsidies.)

Even if these rules of the game have allowed some developing countries to 'converge' toward the more advanced countries, these rules of the game are also adverse to creating shared prosperity within each country.

But this in turn has played into the nexus of politics and economics: greater economic inequality led to greater political inequality, and greater attention being paid to the ideas, perspectives, and interests of those at the top. The result was further 'reforms' along the same lines.

The ideology of the Washington Consensus 'reforms' may have been good for getting more money to the top, but it was not so good for creating wealth and advancing development. Eviscerating the state—making it too weak to redistribute or even to impose progressive taxation also meant it was too weak to govern effectively—undermined its ability to provide for the collective good. It even undermined the ability of the public sector to take actions that were complementary to the private sector, such as the provision of basic research and infrastructure and a regulatory framework that stopped some from exploiting others.

The oil-rich countries paid a high price for creating a rent-seeking exploitative society: their performance was astoundingly poor in spite of their riches. These ideas also came to dominate in countries that could ill-afford them. Today, in some parts of the developing world, there is a sense of disillusionment: socialism did not work, but neither did the seeming alternative, neo-liberalism. Even when it produced credible growth numbers, large fractions of the society were left behind. Where were they to turn if they wanted sustainable and *equitable* growth? Hopefully, the ideas presented in the first section of the paper provide the basis of an alternative approach.

While the discussion of this section has focused on three major events within the developing world, I should also note that there have been three major events within the developed world that have reshaped thinking about the role of state: (a) the 2008 crisis showed definitively that private markets, on their own, were neither efficient nor stable, and it was only through massive government action that the economies in the North Atlantic were saved; (b) the experiment, begun in the mid-70s and early 80s, with neo-liberal ideas in the United States and Europe led to lower growth and more instability—and especially in the United States, the fruits of the growth

[72] See Charlton and Stiglitz (2005a, 2005b). There was a moment when the advanced countries realized that simply bringing down trade barriers would not suffice; the developing countries needed aid to enable them to participate fully in the global economy. The initiative of *aid for trade* (Charlton and Stiglitz 2006a, 2006b, 2008) too seems to have been shunted aside.

were increasingly concentrated in the top—so much so that median incomes were stagnant for more than a quarter of a century (see Stiglitz et al. 2015); and (c) the Eurozone in what could be thought of as an experiment in intense globalization/integration at the regional level, plunged into recession, with many of the countries falling into depression. Policies, guided by the same kinds of ideas that had failed during the East Asian crisis, had similar results in Europe (Stiglitz 2016, forthcoming).

All of these experiences, not surprisingly, have contributed to a re-examination of the role of the state and markets, not only in developed countries, but also in the developing world and of globalization. The crises, for instance, were in no small measure a result of *inadequate regulation,* especially of the financial sector, and of central banks focusing just on inflation, rather than having a broader mandate, including growth, employment, and financial stability. The depressions in parts of Europe were the result of austerity policies. The failure of the countries of Europe to converge after the founding of the euro was, in part, the result of proscriptions against industrial policies. The failure of the Eurozone itself was an example of economic integration outpacing political integration.

4 Some major strands of new thinking

The previous section outlined some of the major events that have shaped our thinking about the role of the state. But our understandings have also been affected by broader changes in economic analysis over the past three decades. Many of these changes are particularly salient for developing countries, where information is imperfect and markets are incomplete and far from perfectly competitive. The essence of development is change, learning, and an alteration in mindsets—all of which, as we have noted, are outside the standard frame but have been at the centre of recent developments in economics. In the following paragraphs, I briefly describe some of those that are most salient to the analysis presented earlier.

4.1 Behavioural economics

Standard economics, as we noted earlier, began with the premise of fixed preferences and beliefs and with individuals that are rational (that is, act consistently) with rational expectations (fully absorbing all relevant information). It was obvious that these beliefs about human nature were, in a fundamental sense, wrong. The question, however, was whether they provide a sufficiently good approximation to underpin reasonable models of the economy, yielding meaningful predictions and providing the basis of policy advice for the advancement of development and the improvement of wellbeing.

The 2008 crisis showed that even for advanced countries—where it might be hoped that these assumptions might best be satisfied—the models provided a very bad basis for policy. There was ample evidence that individuals did not behave rationally and in ways consistent with rational expectations.

Behavioural economics, the importance of which had already been recognized by the award of the Nobel Prize to Danny Kahneman, finally seems to have come into its own. Most of the earlier work in behavioural economics, however, was based on psychology; individuals behaved 'predictably irrational'. That is, there were systematic biases in their behaviour—systematic differences from the way that the standard model predicted. For instance, *confirmatory bias* meant that individuals processed information that was consistent with their prior beliefs differently from that which was not. The result was that there could be 'equilibrium fictions', beliefs that were consistent with the way individuals saw the world, given those processing errors. Hoff and

Stiglitz (2010a, 2010b) used this construct to explain the persistence of dysfunctional beliefs, such as those associated with caste and race. These theories went beyond previous theories of statistical discrimination to explain how these beliefs altered behaviour, and to show how in such a world there could exist multiple equilibria.

This strand of behavioural economics has important implications, including for development economics. One of the important insights of behavioural economics is the importance of 'defaults' and nudging. It may be relatively easy to increase savings rates, simply by employers having the default retirement programme based on 15 per cent of income, rather than 5 per cent or 10 per cent. This is true even if individuals are left with a choice of the lower numbers.

But there was another important strand in behavioural economics that extended the boundaries of the standard economic model to include sociology. It argued that beliefs were in fact largely determined by those around us. The lens through which we see the world is not fixed, but shaped, in particular by the society to which we belong. This is, of course, consistent with the marked differences in belief systems of different societies (or subgroups within the same society).

Hoff and Stiglitz (2010a, 2010b, 2016) and the 2015 World Development Report (World Bank 2015) showed how important these ideas are for development. They provide insights into both societal rigidities and societal change. If one individual's beliefs are largely determined by those around him, it may be very difficult to change any individual's beliefs or behaviour. One has to engage in massive changes. Such changes have, of course, occurred from time to time, and understanding the circumstances in which such changes occur should be an important part of development research.

These changes in beliefs and behaviour are at the heart of development. As I argued earlier, perhaps the most important part of the developmental transformation is the change in mindset that recognizes that change is possible and welcomes change. The Enlightenment itself, which has been the basis of the enormous increases in standards of living over the past 200 years, was first and foremost a change in mindset. Changes in attitudes about gender, race, and caste are among the most important aspects of the progress that we associate with development.

The 2015 World Development Report emphasizes, as we have already noted, that this introduces a new set of instruments for changing behaviour. Exposure to soap operas, for instance, may change attitudes towards gender and education.

These advances suggest that the standard micro-foundations for savings behaviour (maximizing an intertemporal utility function) may not provide as good a description of savings and borrowing behaviour as alternative models, and that predictions and policies based on that model are likely to go badly awry. Promoting savings is an important ingredient for development, so this is important in the formulation of development strategies. Interestingly, the countries that were most successful in increasing interest rates (in East Asia) did so not by focusing on the 'standard model', and interest rate-incentives, but by focusing on enhancing the safety and convenience of savings—and in the case of Malaysia and Singapore, through 'provident funds' (effectively forced savings).

These approaches also provide a fundamentally different view of one of the most important innovations in development—micro-credit. Some earlier interpretations focused on the advantages of peer-monitoring (Stiglitz 1990). Similarly, some of the interpretations of the major failure of micro-lending in India focused on either the failure to sufficiently employ peer-monitoring technologies and/or the growth of multiple micro-lenders, resulting in some individuals becoming over-indebted. But an alternative perspective focuses on the change in 'culture', the move from a not-for-profit model to a for-profit model, which altered the behaviour and attitudes of both borrower and lender. In the not-for-profit model of Grameen and BRAC (Bangladesh Rural Advancement Committee) in Bangladesh, lending was simply one instrument in promoting a developmental transformation. The lending institutions were engaged in changing attitudes toward gender and authority. They were committed to enhancing the wellbeing of their borrowers. The borrowers recognized this, and this reciprocal respect led to very high repayment rates. It was not incentives that drove repayment (the worry about the consequences of non-repayment, which entails a cost-benefit analysis of the costs and benefits of reneging)—though undoubtedly incentives are important—but rather social obligation and cohesion. But when borrowers believed that the lenders were out to make money off of them—when they came to be perceived as exploitive subprime lenders, as happened in India—then that sense of obligation disappeared. *All* that remained was the economic calculus. And that opened up the door both to strategic default (e.g. when economic circumstances change so that many borrowers cannot repay, then those who can repay do not, assuming that the lender cannot distinguish them from those who really cannot repay) and to political demands for debt restructuring (Haldar and Stiglitz 2013a, 2013b).

With endogenous preferences, there are significant problems in making welfare assessments. But we can make unambiguous descriptive statements that are of central relevance for development, e.g. that the changed attitudes about gender roles that can be engendered through preference and belief changes can have larger and more sustained effects on decisions about reproduction, education, and labour force participation than simple price changes.

4.2 Endogenous technology: learning

The standard theory (Arrow–Debreu) assumed fixed technology, or, if it were changing, that the changes were exogenous and fully anticipated (though sometimes with uncertainty). In fact, again, the essence of development is 'catching up' to the technology in advanced countries. As we noted earlier, Solow's work emphasized the role of improvements in technology in increasing living standards, and Schumpeter, before him, had argued that technological change was *endogenous*. While there were many economists who had developed models as far back as the 1960s formalizing endogenous technological change (including the work of Arrow, Uzawa, Shell, Atkinson, Stiglitz, Fellner, etc.), curiously, it was not until Romer's work in the 1980s and 1990s that this work seemed to enter the mainstream. But even then, the full implications—most importantly for policy—were not noted: markets were not in general (Pareto) efficient when technology was endogenous, so that there was always a potential role for the state; and policies that focused on improving the static allocation of resources, or even an increase in assets, were often counterproductive when promoting learning and the advancement of knowledge and closing the knowledge gap between developing and developed countries, and the knowledge gap *within* the country.[73] There typically was, for instance, an optimal degree of protectionism.[74] Moreover, the direction of innovation in advanced countries—saving labour—was markedly different than that appropriate for developing countries.[75]

[73] There were pervasive market failures associated with competition, externalities, and the absence of perfect risk and capital markets. Moreover, knowledge is a public good, and one cannot expect private markets to be efficient in supplying public goods. See Arrow (1962a, 1962b) and Stiglitz (1987).

[74] See Greenwald and Stiglitz (2014a, 2014b), Stiglitz (2015a), and Stiglitz and Greenwald (2014).

[75] Markets were, moreover, inefficient not only in the level of innovation, but in the direction. See Stiglitz (2006b, 2014c). Standard theory presumed that developing countries would converge to the developed; this too came to be questioned (Stiglitz 2015a).

These advances in our understanding have broad implications for developmental policy, some of which we have already noted. Because development entails closing the knowledge gap that separates developing from developed economies, there are a broad range of *industrial policies* that governments can and should undertake to promote sectors and technologies with greater scope for learning and with greater spillovers for other sectors. While some of the standard wisdom (e.g. concerning protectionism) has been shown to be misguided, in other cases, it provides a further argument for the conventional prescriptions. In the next section, for instance, we explain how advances in macroeconomics have enhanced our understanding of government interventions that promote stability. Stiglitz and Greenwald (2014) explain stable macroeconomic environments are more conducive to learning, thus expanding on standard arguments for the desirability of stability and against policies (like financial sector and capital market liberalization) that are associated with greater macroeconomic instability.[76]

4.3 Macroeconomic externalities and financial market imperfections.

The standard macroeconomic model that preoccupied much of the economics profession in the decades before the crisis was based on extreme simplifications—the perfect market model. And economic advice to the developing countries was aimed at making them move towards this ideal. Accordingly, financial, capital market, and trade restrictions were viewed as an impediment to development and growth. But Greenwald and Stiglitz (1986), among others, had shown that markets that even slightly deviated from this ideal (such as those with imperfect and asymmetric information) were not efficient—there were pervasive pecuniary externalities. The Greenwald–Stiglitz theorem thus reversed the presumption that markets were efficient, which underlay the Washington Consensus policies. There were not just a few isolated market failures (like environmental externalities)—market failures were pervasive. The Greenwald–Stiglitz theorem thus reversed the presumption that markets were efficient, which underlay the Washington Consensus policies.

The extension of these ideas to macroeconomics was shown to lead to all manner of problems, and macroeconomic policy has to be designed to take them into account. For instance, unfettered markets would be characterized by excessive foreign-denominated borrowing and excessive risk-taking by banks. This in turn implied that regulations circumscribing these were in fact desirable.[77]

Moreover, in the standard model, especially in variants employing representative agents, there was no meaningful financial sector. All that mattered could be summarized in the money demand equation, which determined interest rates. The models had nothing to say about debt or the debt equity ratio—let alone what many view as a central problem, excessive leverage by firms or households and excessive indebtedness by government. Indeed, with the representative agent simply owing money to himself, debt should not matter at all. (This did not prevent the IMF and central banks that employed these models from lecturing about the dangers of excessive

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[76] There are further, direct arguments against financial market liberalization: it is important for countries to learn how to allocate capital efficiently, and financial market liberalization impedes that. Moreover, information imperfections result in foreign financial institutions lending less to small and medium-sized enterprises than domestic financial institutions, and thus impeding growth.

[77] See, e.g. Korinek (2012) and Jeanne and Korinek (2013). For a review of where the standard macro-model went wrong, see Stiglitz (2011b, 2013a). For a discussion of some of the implications for macro-policy see Griffith-Jones et al. (2010) and Blanchard et al. (2012).

indebtedness. This is an example of prevailing cognitive dissonance, other examples of which we shall note below.)

Though policy focused on what central banks should do, in the models, there were no banks—and if the models had provided a good description of the economy, there would have been no central banks. Because there was no meaningful financial market, key issues like transparency of derivatives, too-big-to-fail banks, and the shadow banking system could not be addressed. Nor were the models able to address issues of financial contagion and excessive interdependence—issues that played out dramatically in the 2008 crisis. Indeed, the standard models seemed to suggest that the more interlinked the markets, the more diversified the risk, and thus the better the economic performance. So confident were some policy makers with this 'insight' of 'modern' economics that they were not even worried when America's subprime mortgage market cratered. (As another example of cognitive dissonance, policy makers, including those at the IMF, talked about the advantages of diversification *before* a crisis and the dangers of contagion—which were increased by the interlinkages associated with diversification—after a crisis.)

Again, fortunately, advances in economic theory had addressed essentially all of these issues well before the crisis. There had been important developments in financial market economics, including advances emphasizing the importance of credit rationing and liquidity; developing theories of banking; and analysing financial market contagion, including risks of bankruptcy cascades.[78] Greenwald and Stiglitz (2003) had used some of these ideas to advance a *New Paradigm for Monetary Economics,* which included an analysis of the implications of credit rationing for monetary policy and showed the importance of regulatory policy for macroeconomic stabilization.[79] Furthering the call for *more instruments and broader goals,* they showed that monetary policy should not be limited to just the control of the interest rate. There were a whole range of instruments at its disposal, and it should use all of them (see also Stiglitz 2014a).

Since then, there have been further advances in all of these areas, too extensive even to provide a meaningful bibliography. Here, we simply note a few core ideas.

We observed earlier the strong belief that diversification would lead to more stability. The underlying mathematical reason for this was that the models made strong assumptions concerning concavity. While earlier work in mathematical economics had employed these assumptions (including Samuelson's *Foundations of Economic Analysis*, 1947) more recent work had uncovered a wide set of important circumstances where that assumption seemed inappropriate: imperfections of information (Radner and Stiglitz 1984; Arnott and Stiglitz 1988); R&D and learning; many forms of externalities (Starrett 1972); and bankruptcy. Under these circumstances, diversification could actually lead to more risk. There would, under such circumstances, be an optimal degree of diversification; and optimal policy might entail capital controls.[80]

Many of these advances in our theoretical understandings have been supported by empirical findings. Rashid (2013) for instance, showed that financial market liberalization had adverse effects on economic performance. Others have shown that capital market liberalization and/or

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[78] See Allen and Gale (2000), Greenwald and Stiglitz (2003), Battiston et al. (2012a, 2012b, 2013).

[79] They also provide citations to some of the literature up to that date. They show how these ideas provide insights into the East Asia crisis.

[80] Again, the literature on these topics is extensive. Stiglitz (2010a, 2010b) provides a simple model showing that diversification may lead to more risk, and Battiston et al. (2012a, 2012b) analyse the optimal degree of diversification.

financial market integration does not bring the hoped for benefits and may even be bad for growth and stability.[81]

Multiple equilibria

By the same token, while the standard models, with their strong concavity assumptions, typically generated unique equilibria, we have already referred to many circumstances in which there can be multiple equilibria.[82] This is important for development, because developing countries can be trapped in a low-level equilibrium (Hoff and Stiglitz 2001); and because some groups within a country can be locked into a poverty trap.[83]

Such models provide a context for theories of a 'Big Push': with such a push, the economy may move from the low-level equilibrium to a better equilibrium.[84] The market will not do this on its own: the economy will remain trapped in a bad equilibrium. Concerted government action is required—a quite different role for the state than those upon which we have focused in this paper. In these cases, the role of the government is limited: once it succeeds in moving the economy into the 'good' equilibrium, no further action is required. By contrast, in the cases where there are *marginal* distortions, a continued presence of government is required.[85]

Similarly, in some situations where there is a poverty trap, the government may be able to push the group trapped in poverty into a better equilibrium. This may be especially true in 'discriminatory' equilibria (such as those associated with the Hoff–Stiglitz equilibrium fictions).[86] In these cases, affirmative action programmes or legal restrictions on the use of race and gender may move the economy into a new equilibrium, after which again continued government intervention may not be needed.

5 Concluding remarks

I ended my WIDER AL calling for a focus on sustainable, equitable, and democratic development:

The post-Washington consensus recognizes both that a broader set of instruments is necessary and that our goals are also much broader. We seek increases in living standards—including improved health and education—not just increases in measured GDP. We seek sustainable development, which includes preserving natural resources and maintaining a healthy environment. We seek equitable development, which ensures that all groups in society, not just those at the top, enjoy the fruits of development. And we seek democratic development, in which citizens participate in a variety of ways in making the decisions that affect their lives.

[81] Some IMF studies corroborated these findings. For a theoretical model explaining why capital market liberalization may increase volatility, and comments on the IMF studies, see Stiglitz (2008b).

[82] See Hoff and Stiglitz (2004, 2007).

[83] Including low-level discriminatory equilibria. See Stiglitz (1974) and Hoff and Stiglitz (2010b).

[84] See Murphy et al. (1989) and Stiglitz (1993c).

[85] This distinction was, to my knowledge, first noted in Stiglitz (1972).

[86] See also Stiglitz (1974).

Our understanding of the economic role of the state and how it can best be performed has increased a great deal in the three decades that WIDER has been engaged in studying these issues, or even the eighteen years since I delivered my lecture at WIDER.[87]

In spite of these advances, and in spite of the many topics I have talked about, there are many areas that need further research, and many relevant topics I have not touched upon. I would be remiss not to mention a few of these.

5.1 Devolution and globalization

One is the *level* of state activity—sub-local, local, national, and global. The nation-state is still the primary locus of state activity, but within most countries there have been active discussions of devolution. As globalization has proceeded, rules and regulations are being set by international bodies and agreements. With the development of concepts like local and global public goods,[88] there is the beginning of the development of a theory of devolution, and even a theory of state formation.[89]

A major concern is that the manner in which globalization has proceeded has increased the need for state action, e.g. to combat consequences for inequality and instability, but circumscribed the ability to do so.[90] The ability to deal with this and other cross border problems is constrained by the global political economy, an area that is more complex and less developed than the political economy of nation states.[91]

5.2 Improving the performance of the public sector

A second important topic focuses on how to improve the performance of the public sector. There have been many innovations, in the delivery of particular services, in the organization of the public sector, and in the measurement of performance. Some, as we noted in the introduction, have already proved their worth in certain contexts; whether they will be as effective in others remains an open question.

In spite of the prejudice that the public sector is less efficient than the private, there are a host of circumstances, some noted here, where this is not true. Many years ago, Herb Simon (Simon 1991) expressed scepticism about that conclusion, and even more about the arguments explaining the differences in performance that were usually put forward, pointing out that agency problems were seemingly equally rife in all large organizations, private and public.

Some countries have learned how to curb these 'agency' problems, the worst manifestation of which is widespread corruption. Corruption and other abuses of fiduciary responsibility, of course, occur both within the public and the private sector. Though as we noted earlier, we typically do not use the word 'corruption' to discuss abuses of fiduciary obligations within the

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[87] There have been several attempts to formulate a post-Washington consensus, such as the 'Barcelona consensus'. See Stiglitz (2008a) and the other papers in Serra and Stiglitz (2008).

[88] The concept of local public goods dates back to Tiebout (1956), with a more rigorous formulation given by Stiglitz (1977, 1983a, 1983b). See also Oates (1999) and Persson et al. (2000). The theory of global public goods dates to Stiglitz (1995). Since then, there has been a large literature on the subject.

[89] See Alesina and Spolare (1997); Stiglitz (2015b). There is an earlier theory focusing on the optimal size of cities. See, e.g. Arnott and Stiglitz (1979).

[90] This is a major theme of Stiglitz (2006a).

[91] See, for instance, Stiglitz (2002a, 2006c, 2008c, 2013b); Serra and Stiglitz (2008); Kaldor and Stiglitz (2013).

private sector, both the nature and consequences are similar across sectors. The 2008 financial crisis exposed a rash of corporate governance abuses within the private financial sector. More broadly, the excesses of corporate executive compensation in the US, accompanied by short-sighted behaviour, provide part of the explanation of America's disappointing economic performance over the past decade.[92] *Governance,* including *transparency,* is important in both the public and private (as well as not-for-profit) sectors.[93]

We need to take a pragmatic view—in some countries state institutions can even be more efficient and less 'corrupt' than private firms: South Korea's state-owned steel companies were more efficient than US private steel companies; the US healthcare sector, which is largely private, is arguably the most inefficient in the world; and the US public social security (retirement) programme has much lower transactions costs than private programmes.[94]

There has been a great deal of institutional learning on the part of the public sector, at least within some agencies in some countries. Some have learned from the successes and the failures of the private sector. We now know more about how government can successfully pursue its objectives; we know how to reduce the risk of 'government failure'.

5.3 A changing economy

While I have emphasized the changes in our *understandings* of the role of the state, I should also note that there have been changes in the *structure* of our economy and society that necessitate changes in the role and size of the state. For instance, the world, including emerging markets and developing countries, has become more urbanized. In a more urbanized environment, externalities are more important, including those associated with congestion, the environment, health, and the use of space.

As countries get wealthier, education and health—two sectors in which government rightfully has traditionally played a more important role—become more important.

As we have moved to a knowledge and innovation economy, basic research, which necessarily must be financed by government has become more important.

There are certain changes in technology—like network externalities—that may imply increasing concentration of market power, necessitating more active competition policies.

As the pace of technology changes, sectoral and product shifts and 'human capital obsolescence' become more important, necessitating an increase in active labour market policies.

As economies develop, so too does the financial market, and this growth, together with the growth of financial innovations, many of which are designed to circumvent traditional regulations and to take advantage of the unwary, imply a need for more, and more creative, financial sector regulations.

Trends in the advanced countries over the past third of a century have shown a marked increase in inequality.[95] This may (and I believe should) necessitate a greater role of government, in

[92] See Stiglitz et al. (2015).

[93] See Stiglitz (2002b, 2003).

[94] Orszag and Stiglitz (2001).

[95] See Piketty (2014), Milanovic (2016), and Stiglitz (2012a).

increasing equality and equality of opportunity—in promoting an increase in the equality of market incomes, reducing the intergenerational transmission of advantage and disadvantage, in increasing the equality of after-tax-and-transfer incomes, and in ensuring greater equality of access to certain goods viewed as 'basic', like health.[96]

5.4 Contrasting perspectives over three decades

The changes in perspectives concerning the role of the state over the past three decade have been enormous. Here, I summarize some of these major changes.

Then, there was a presumption that markets were efficient, with the exception of certain well-defined problems, like environmental pollution. Now, there is a presumption that markets are not efficient. Market failures are deep and pervasive.

Then, there was a presumption that governments were inefficient—much less efficient than the private sector. There was much discussion of 'government failure', but our understanding of the intertwining of politics and economics was more limited, and so too was our analysis of how to address government failures. Then, the response to government failure was to restrict the role of the government, inhibiting its capacity to learn and improve. Now, we better understand how to improve the performance of government; limitations of the capacity of the government should be met by attempting to increase those capacities—and those limitations may affect more how the government best fulfils its role rather than what roles it should undertake.

Then, the role of government, it was argued, should be limited to certain activities, like redistribution and the conduct of monetary policy. The rest should be left to the private sector. Now, we understand that the roles of the two are intertwined: the financial system only functions because of the backing of government—it is that backing that provides the 'trust' that is required—and to prevent abuses, and to ensure that it does what it should do, there is a need for regulation. So too in many other sectors of the economy.

Then, we paid little attention to how markets are structured by the legal system. Economists would simply refer generally to a rule of law, with strong property rights, rigorously enforced. Now, we realize that markets do not exist in a vacuum, and the government needs to set the rules that govern the behaviour of the private sector. Markets are structured by our legal frameworks, there are many alternative legal frameworks (rules governing bankruptcy, corporate governance, etc.) and the choices a society makes make a great deal of difference, for development and distribution. Inevitably, these are decisions made by the political system.

Then, the discussion was focused on the role of the state vs. the market; now, we realize that there are many other institutional arrangements, including not-for-profits and cooperatives. Some of the most successful 'developmental innovations', such as micro-credit, have entailed such institutional innovations.

Then, discussions of improving the government focused on 'good governance', including transparency and checks and balances within the political system. Now, we know those may be necessary but are not sufficient. When there are great economic inequalities, those may easily be translated into political inequalities, with elites using their power to design an economic system that serves themselves. Thus, equalitarian policies may be important not only for ensuring good economic performance, but also for the viability of meaningful democracy.

[96] See Tobin's discussion of specific equalitarianism (Tobin 1970).

Then, government single-mindedly pursued the goal of increasing GDP. Now, we realize that there is a much broader set of goals, and why GDP is an inadequate metric. We realize too that these goals are intertwined: one cannot have sustained growth if there is not shared prosperity. This is true not only for government as a whole, but for particular policies.

Then, it was argued, monetary policy should focus simply on inflation. We now know that that policy was disastrous. Then, it was thought that low inflation was necessary, and almost sufficient, for good economic performance. Now, we know that monetary policy needs to focus on not just inflation, but also growth, employment, stability, and even equality.

Indeed, then, it was thought that one could separate issues of distribution from efficiency—economists should focus on increasing the size of the economic pie, leaving to politics the division. Now, we realize that the issues of distribution and efficiency cannot be separated.

Then, there was a focus on a limited number of instruments. Monetary policy, it was argued, should focus on the money supply or the short-term interest rate. Now, we know much more about how government can fulfil its multiple roles with its broader goals. There is a much broader set of instruments. There are more tools in the tool-kits.

Then, the narrow goal of maximizing GDP was pursued through improving the efficiency of resource allocation (eliminating market distortions) and increasing human and physical capital. Now, we realize that what separates developed from developing countries is a disparity in knowledge and improving the capacity to learn—including institutional learning—is at the centre of success. Some of the policies that were promoting static resource efficiency were counterproductive in the long run, because they impeded learning.

Then, industrial policies were scorned. Now, industrial policies are recognized as an essential part of the economic transformation that is at the centre of development. Much learning occurs through learning by doing, and there are extensive spillovers of knowledge from one firm to another, from one sector to another. Trade and industrial policies can structure production and the choice of technology to encourage sectors and technologies with greater learning and learning spillovers.

Then, little attention was paid to institutions and institutional learning. The past thirty years have seen remarkable institutional learning and developments, such as conditional cash transfers. In every area, there have been new developments: in macro-policy, for instance, in the use of macro-prudential regulations. Behavioural economics has provided new instruments for changing, for instance, fertility behaviour and gender roles.

Then, many still believed in Tinbergen's analysis, with each goal being assigned an instrument. Now, we know that that analysis is very limited; in general, the government will want to use multiple tools to achieve each objective, and there will have to be extensive coordination among those tasked with advancing different objectives.

Then, little attention was paid to governance. Now, we realize that governance problems, in both the public and private sector, are critical.

Then, we thought that good public governance could be ensured simply by instituting transparency and the appropriate set of checks and balances *within the government*. Now, we realize that, while these are necessary, they are far from sufficient: the problems of governance are societal. Societies with excessive inequality are prone to have governance problems, as the rich abuse their power to enrich themselves at the expense of the rest, creating a 'rule of law' that serves themselves well, but does not adequately protect ordinary citizens.

We have seen that development is possible—beyond what was imaginable half a century ago. And in virtually all of the cases of success, government has played a central part. But so too have markets.

One might be tempted to say that we have entered the era of pragmatism: ideologies that have pushed one or the other extreme have failed. But I would suggest we know more than this. The theories that have been developed in the last thirty years and the analyses of the successes and failures of the dramatic historical experiences of recent decades provide considerable insights into development, into what policies are more likely to promote shared growth and development and which are likely to retard it. Of course, there is still much that we do not know, especially in some of the burgeoning sub-disciplines to which I have called attention in this paper. And we need to remember: development economists, especially at the international economic institutions, displayed more confidence in their models than they deserved. This should instil in us a sense of humility and deference. Development is far more complicated than those who pushed the Washington Consensus policies thought a quarter of a century ago.

UNU-WIDER has been at the centre of this new understanding, and I am pleased to be part of celebrating its thirty years.

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