2

Catch-up and Constraints in the Twentieth and Twenty-first Centuries

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2.1 Introduction

The old-style development economists—including Gerschenkron, Prebisch, Lewis, Myrdal, Chenery, Hirschman, Adelman, Seers, and many more—would surely be disappointed by the record of global economic development in the past half century, at least when looking at the slowness of catch-up as distinct from the dramatic falls in global poverty even while population increased at the fastest rate in human history. Gerschenkron’s ‘late development effect’, or ‘the advantages of backwardness’, seems noticeable more by its absence than its presence, despite new technology being widely available to people around the world and despite no shortage of people with entrepreneurial talent.

But perhaps they would not be surprised. At the core of their understanding of the process of catch-up development were the following propositions:

1. Development is a disruptive process of non-marginal changes over time, opposed by many in the society, generating inevitable conflict, and placing a premium on fragile conflict-resolution institutions—a premium which calls for not exposing the economy to unmediated international competitive pressures.

2. The price system in a developing country cannot play the role accorded it in developed countries as the major allocator of resources, because markets are too undeveloped and because relying on markets would tend to sustain the existing production specialization based on static comparative advantage with decreasing returns to scale—a point which also implies the desirability of less than full-scale integration into the international economy.

3. Capital being extremely scarce (or was at the time the pioneers were writing and for decades after), the state has a large role in husbanding the mobilization and use of scarce capital, on a scale big enough to make centrally planned, non-marginal changes in the production structure towards increasing return activities which may well lie beyond the economy’s static comparative advantage; but it must use mostly decentralized market allocation rather than centrally planned allocation (Reinert, 1994).
(4) The social returns to large, lumpy, and risky investment projects typically far exceed the private returns to private investors—which again implies a directive role for the state.

2.2 The Eclipse of Development Economics and the Rise of Neoliberalism

As we know, these propositions fell radically out of favour in the international (Western-dominated) development community starting in the 1970s and intensifying in the 1980s and later. This was the time of ascendancy of the development recipe that came to be known as the Washington Consensus, but which is more accurately called the Washington–London–Paris–Brussels–Berlin Consensus. Anyone questioning the universal applicability of the Washington Consensus was treated as religious sects treat heretics.

Today, many development economists have scarcely heard of Prebisch or Myrdal, or cumulative causation, or Kaldor’s growth laws, and would agree, if pressed, that developing countries should mostly follow static comparative advantage and integrate deeply into global production networks with the state providing only macro stability and general supply-side support, including infrastructure, incentives for education (public or private), incentives for health care (public or private), and above all, law and order, protection of private property rights, including the rights of capital owners to move their capital freely around the world. They think of development policy as mostly about the supply side, leaving the demand side to be taken care of by exports—a presumption which conveniently occludes questions about whether income and wealth distribution should be made more equal.

Why this sharp shrinkage in the legitimate role of the state in the process of economic development? Perhaps for two linked reasons. First, in the West, led by the United States, the success of ‘social democratic capitalism’ during the post-war decades up to the late 1960s squeezed the rate of profit (success in terms of the ability of the labour movement to translate rising productivity into higher wages and of the ability of governments to keep recessions short). Business leaders and the already wealthy began to press for radical reforms intended to restore the rate of profit and reverse the erosion of their pre-eminence in the social structure, hankering back to the golden age of oligopolistic capitalism of the early twentieth century.

Fortunately for them a sect of professional economists had long been developing the paradigm which they proudly called neoliberalism, which aimed to secure the same kind of social order wanted by business leaders and the wealthy and banish the Keynesian ‘pro-government-intervention’ ideas prevailing during the post-war decades (Slobodian, 2018). This sect had the good fortune to include
the governor of the central bank of Sweden, a passionate opponent of social democracy. He had the idea of commemorating the 300th anniversary of the central bank by creating a prize to be called the Nobel Prize in Economics (a name which both the Nobel Foundation and the Nobel family initially rejected, so that its official but not used title is The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel. The governor knew he could select the awarding committee members to ensure that the prize went disproportionately to clearly neoliberal economists in order to show the world that neoliberal economics was the best, most scientific economics, in contrast to social democratic economics.

The project to remake the world in line with neoliberal principles has been dramatically successful. A New York Times reporter summarized the prevailing belief at the World Economic Forum (of business leaders and politicians) meeting in Davos, Switzerland in 2002:

[A] nation that opens its economy and keeps government’s role to a minimum invariably experiences more rapid economic growth and rising incomes.  
(Uchitelle, 2002)

The prominent Financial Times economics editor Martin Wolf described his neoliberal vision of the desirable world order as follows:

It cannot make sense to fragment the world economy more than it already is but rather to make the world economy work as if it were the United States, or at least the European Union [meaning that governments of nation states should have no more control over economic transactions across their borders than US states have across theirs, or at least no more than European Union states have across theirs]. . . . The potential for greater economic integration is barely tapped. We need more global markets, not fewer. (2004: 4, emphasis added)

In the same spirit, here is Alan Greenspan, former chair of the US Federal Reserve, shortly before Lehman Bros collapsed in 2008:

[We] are fortunate that, thanks to globalization, policy decisions in the US have been largely replaced by global market forces. National security aside, it hardly makes any difference who will be the next president. The world is governed by market forces. (quoted in Tooze, 2008, emphasis added)

Notice the implied low value attached to national sovereignty and liberal democratic politics which runs through neoliberal ideology. This goes with passionate opposition to measures that curb income and wealth concentration at the top, where the captains of industry live. One of the pioneers of neoliberal economics, Ludwig von Mises, wrote in 1922: ‘Our whole civilization rests on the fact that men have always succeeded in beating off the attack of the re-distributors’ (Slobodian, 2018: 277).
Much later, Robert Lucas (2004), who was awarded the ersatz Nobel Prize, said:

Of the tendencies that are harmful to sound economics, the most seductive, and in my opinion the most poisonous, is to focus on questions of distribution . . . The potential for improving the lives of poor people by finding different ways of distributing current production is nothing compared to the apparently limitless potential of increasing production.

Inside the World Bank the break with old-style development economics came with the appointment, by the right-wing Reagan administration, of the former president and CEO of Bank of America, Ted Clausen, as president in 1981; and the appointment, by the same government, of Anne Kreuger as chief economist, who in turn appointed Deepak Lal as her effective number two.

These two believed that the state is essentially predatory, because captured by coalitions of interest groups to extract rents from the private sector by suitable regulations, trade and fiscal policies, and, of course, by outright corruption. In this worldview, the process of economic development requires that the state should be active in providing the prerequisites of markets (private property rights, especially the rights of capital owners), but beyond that, should have a closely circumscribed role in the economy so as to minimize predation and let the private sector learn what it needs to learn in order to maximize profits for the owners. Kreuger and Lal set about eliminating economists in their part of the Bank who did not fully sign on, a process Lal described as ‘cleaning the stables’.¹ Across the Bank, many people with industry expertise were fired, or else, to stay in Bank employment and retain US residency and gold-plated pension rights, they rebranded themselves as experts in environment or primary education or good governance.

Of course, economists on the intellectual frontiers write papers qualifying the broadly free-market consensus, and enjoy frisking the papers of others. But beyond the frontiers—among working economists, government officials, business people—the narrative favouring a global regime of ‘free markets plus international law to protect the human rights of the owners of capital’ has been dominant over the past four decades (dominant even after the East Asian/Latin American/Russian crash of 1997–8 and the North Atlantic crash and ensuing long slump starting in 2007, both of which you might have thought would prompt a leftward rethinking of a kind that did occur in the Hard Times after 1929). This narrative owes its power to the way it legitimizes the interests of Western international business by dressing them in the values of individualism, liberty, and universalism at the core of conservative thinking in Western culture, affirming them as values for all peoples.

Ayn Rand (a Russian who lived her adult life in the United States) was one of the philosophers of neoliberalism; her writings shaped the thinking of the early

¹ Lal was president of the Mont Pelerin Society in 2008–10.
neoliberal economists like Ludwig von Mises and Friedrich Hayek (co-founders of the Mont Pelerin Society in 1949, which ever since has functioned as a hub of the global neoliberal movement). She made explicit the class war subtext of neoliberal thinking, justifying the dominance of capital and capitalists. In a famous 1961 essay, ‘America’s Persecuted Minority: Big Business’, she wrote:

All the evils, abuses, and iniquities, popularly ascribed to businessmen and to capitalism, were not caused by an unregulated economy or by a free market, but by governmental intervention into the economy. (Frank, 2012: 206)

Ludwig von Mises was another who made explicit his championing of the dominance of capital and capitalists over the rest of the people. He wrote to congratulate Rand on her novel, *Atlas Shrugged*:

You have the courage to tell the masses what no politician told them: you are inferior and all the improvements in your conditions which you simply take for granted you owe to the efforts of men who are better than you. (Frank, 2012: 147)

However, contrary to popular understanding, neoliberalism has not been a strictly laissez-faire ideology. It calls for strong state action to protect the rights of the owners of capital, not only within each nation but between nations—hence it calls for strong international law to protect the rights of internationally mobile capital. Leading lights in the movement—including the International Chamber of Commerce—have co-opted the language of human rights to their cause. They argue for a normative world order built on national and international institutions which protect the rights of individuals to trade and move capital wherever they wish: one rule for all in the world economy. So they have strongly supported organizations like the GATT and the WTO, or at least, idealized versions of these international organizations.

This mindset has deeply penetrated the mainstream of the economics profession. So it is no surprise that when some of these economists noticed—in the 1980s—the striking success of North-east Asian economies, they came up with explanations which largely overlooked the role of the state in identifying economic activities (including sectors) with increasing returns to scale and high potential for future growth, and giving those activities support not given to others (Wade, 2004).

The World Bank’s book, *The East Asian Miracle*, published in 1993, is a relatively sophisticated case in point. It examined the causes of success in eight ‘high-performing Asian economies’: Japan, the three first-generation newly industrialized economies of South Korea, Taiwan, and Singapore, and three second-generation South-east Asian economies of Thailand, Malaysia, and Indonesia, plus Hong Kong.

The book argues that in these countries, the state made important contributions to their fast growth by ensuring the fundamentals: low inflation and competitive exchange rates; human capital; effective and secure financial systems; low price distortions; easy access to foreign technology; and low bias against agriculture. In
other words, the states implemented effective ‘horizontal’ policies, applied across all sectors. But ‘strategic interventions [policies to promote specific industries or even specific firms] generally did not work’ (World Bank 1993: 354, emphasis added; Wade 1996).

The book’s take-away message:

[Openness to international trade, based on largely neutral incentives, was the critical factor in East Asia’s rapid growth. (World Bank, 1993: 292, emphasis added)]

This argument makes North-east Asia a powerful confirmation of the neoliberal answer to Adam Smith’s question: how does market capitalism generate human welfare? The answer is market liberalization—and in a global context, the answer, as Martin Wolf said, is global integration, or moving towards ‘the world as one economic country’, having no more restrictions on economic flows or ownership claims across borders than US states have across theirs. It is an argument not just for free trade but also for free capital movement and perhaps even free labour mobility; conversely, it downplays the value of both national sovereignty and liberal democracy. The people may choose, but capital must decide. In short, the World Bank concluded that East Asia’s rise was no mystery.

Mainstream economists not only missed the directive role of the state in East Asia; they also missed the key role of domestic demand—which would have led them to emphasize the relative equality of domestic income and wealth distribution and the state’s role in bringing it about. Their blindness is the dark side of a major reason for the success of the neoclassical paradigm through the twentieth century. As Aba Lerner (1972) explained, ‘An economic transaction [in this paradigm] is a solved political problem…Economics has gained the title Queen of the Social Sciences by choosing solved political problems as its domain’ (emphasis added). He meant that the assumption of complete information and complete contracts embedded in the paradigm, meant that any dispute in a transaction (e.g. between employer and employee) can be adjudicated and enforced in courts, rather than by action by the parties themselves. There is no coercion, no opportunism, no overt power, no problem of income distribution. Hence the Queen of the Social Sciences can reign alone, ignoring insights from other disciplines such as political science, international relations, law, philosophy, sociology, psychology, history, or ecology (Bowles and Carlin, 2017).

2.3 Catch-Up?

I now discuss the ‘big picture’ of economic development performance over the past seven and more decades. There is important good news on the rise in life expectancy, fall in child mortality, and fall in frequency of extreme poverty (Deaton, 2013).
Here, however, I concentrate on the bad news about catch-up (Nayyar, 2013). A World Bank study (2013) found that of the 101 countries which in 1960 fell within its ‘middle-income’ range, only thirteen had become ‘high income’ by 2008, almost half a century later. Of these, four are peripheral Western Europe (Ireland, Portugal, Spain, and Greece). Four are miscellaneous (Equatorial Guinea, Israel, Mauritius, and Puerto Rico). Five are North-east Asia plus one (Japan, Taiwan, Hong Kong, South Korea, and Singapore). All have small populations, except Japan.

The point can be made even more starkly. How many non-Western countries have become developed in the past two centuries? If we stretch the categories of ‘countries’, ‘non-Western’, and ‘developed’ (developed to mean, a home-grown industrialization in capital- and technology-intensive sectors), we reach maybe seven: in rough chronological order, Japan and Russia in the late nineteenth century; Taiwan, South Korea, Hong Kong, Singapore, and Israel in the second half of the twentieth century. All but the first two have very small populations.

Of course, mainland China also looks on course to enter this group within a few decades, bringing what is now the biggest population in the world. In just three years, 2011–13, China used as much cement as the United States did in the whole of the twentieth century. China’s Made in China 2025 programme calls for global leadership, or at least excellence, by 2025, in sectors including artificial intelligence, 5G telecoms, the internet of things, self-driving cars, and battery technology.

But note two qualifications. First, China’s progress up the value-added ladder has relied heavily on foreign technologies and intellectual property, particularly American. The Trump government is trying, as of 2018, to wage a trade war on China with the aim of slowing its ability to compete with US companies in high-tech sectors. China is particularly vulnerable to cut-offs in US semiconductors, semiconductor equipment, and aerospace.

Second, China remains a poor country overall. While growing fast, its average income, around US$17,000 in PPP terms (2017), is still only around 28 per cent of the United States’, which is about the same as the world average income. It comes in at 76 in the country rankings, compared to the United States at 11.² (But note that the margin of error or uncertainty about PPP exchange rate numbers is plus or minus 25 per cent, according to Angus Deaton and Alan Heston (2010), implying that China’s per-capita income in international dollars is (2017) somewhere between 21 and 35 per cent of the US per capita income.) If we instead use lagged market exchange rates, China’s average income is only around 15 per cent of the United States’. Comparing countries’ incomes at market exchange rates gives a more accurate indication of one country’s ability to purchase goods and services in others, and is thus (when combined with total GDP) a better indicator

² These are the World Bank rankings. The CIA puts (2017) China at 83, United States at 13, with more or less the same average income figures. Wikipedia, ‘List of countries by GDP (PPP) per capita’, accessed 30 September 2018.
of relative overall power. Militarily, too, China is far behind the United States, though expanding fast from a low base. The bottom line is that ‘China as emerging super-power’ is an exaggeration, but it may well join the current set of ‘great powers’ within the next two decades.

China is one big qualification to the ‘lack of catch-up’ story. Another qualification is that the global growth pattern apparently changed in the early 2000s. Emerging and developing countries (EDEs, to use IMF terminology) began to grow fast enough to converge upward towards the income levels of advanced countries. Led by the newly designated BRICS (Brazil, Russia, India, China, and South Africa), they were heralded as the locomotives of the world economy, the first time in over two centuries that locations outside Western Europe, North America, and Japan had led global growth. Buoyed by optimism and neoliberal conviction, EDEs went all out to integrate further into the world economy, helped by policies, aid, and urgings from advanced countries.

They liberalized their capital accounts, and facilitated foreign financial organizations’ entry to their domestic market, and residents’ borrowing and investing abroad. They scrambled to attract into their territories the production of ‘tasks’ or ‘intermediate’ goods and services (as distinct from production of final goods and services), to fit within the new international division of labour where global value chains (GVCs) have substantially replaced both arms-length market transactions and transfers within vertically integrated multinational corporations (MNCs) in cross-border trade.

EDE states were relaxed about protecting their economies against global boom–bust cycles—for Western experts declared it the era of the Great Moderation, with boom–bust cycles a thing of the past. Firms stopped hedging against foreign exchange risk when they borrowed abroad, and governments stopped making them do so. Why spend money on hedging when there’s no risk?

Policymakers and policy analysts generally assumed that private governance by Western big firms in GVCs was substituting for public governance in the host developing countries. The best role for the state in these conditions was a ‘light-touch regulatory state’ regulating (but not much restricting) market competition. The state should regulate but not shape the exogenous forces of globalization and technology. The developmental state—the type that flourished earlier in capitalist East Asia (flourished according to some commentators, though, as noted, few proper economists)—is obsolete in these highly globalized and financialized conditions.

Then came the Great Crash of 2007–9 in North Atlantic countries, led by the United States, followed by the Long Recession. After a lag of several years, EDE growth converged downwards towards the very low growth rates of advanced countries.

Recovery from the Great Crash has been unusually slow. In the 100 worst financial crashes in advanced countries over the past century, it took an average of seven years to regain pre-crisis average income. This one took nine to ten years on
average (to 2016–17) and will take considerably longer in some places, like the southern European Mediterranean (Akyüz, 2017).

By 2017, the United States had resolved the financial crisis but not the economic crisis, which continues to generate political upheavals (the lack of economic resolution, including the lack of restraint on surging income and wealth concentration at the top, helped to usher in the governance disaster known as Trump). The eurozone has not even resolved the financial crisis, let alone the economic crisis. We see the primitive spectacle of the European Central Bank, the EMU bailout fund, and the International Monetary Fund—with cooperation from the Bank of Greece—lashing out at the Greek elected government that has refused to do all that it is told. The object is to ensure that:

(a) the interests of creditors (mostly North-western European and American) are protected at all costs;

(b) neither the Greek nor any other government—especially a Left one—can expect a debt write-down; and

(c) the wishes of multilateral organizations (reflecting the wishes of the major governments, like Germany, and their corporate backers) prevail over the agenda of the weaker semi-sovereign states.

The Crash and Long Recession should have shaken confidence in the long dominant neoliberal ideas about markets and states, as in the West after the 1929 crash and Great Depression. Instead, rethinking has occurred only at the margins, and the neoliberal ideal of (a) self-adjusting markets supported by a small, regulatory state, (b) maximum integration of national economies into the international economy, and (c) maximum legal protection of the human rights of the owners of capital, remains ascendant in the West, in the international governance organizations which advanced countries control (like the OECD, World Bank, and IMF), and even in much of the economic policy community in many middle-income countries (Wade, 2017).

I now describe the gravitational forces operating to reproduce the core–periphery structure of the world economy, or more specifically, to maintain the ‘middle-income trap’ or ‘glass ceiling’. These forces help to sustain the long-term growth pattern of divergence or very slow convergence of middle-income countries, Eastern China being the obvious escapee (Fischer, 2015). Space limits mean that I concentrate not on long-run causes but only on those that have been particularly important in recent decades.

### 2.4 Global Value Chains (GVCs) Now Structure Production and Trade

It is clear that in today’s world economy only a few really large economies have even the possibility of ‘doing a Japan, Taiwan, or Korea’—building up a phalanx of
mostly nationally owned modern industries with deep supply chains within the domestic economy, able to produce whole products or almost whole products competitively enough to sell in Western markets or as first-tier suppliers to Western or Japanese MNCs. High entry barriers in the face of existing MNC dominance, and neoclassically inspired trade and investment rules, make such a project unviable for most.

The world economy has, since the late 1980s, become dominated by hierarchical GVCs, in which lead firms fragment production of final products into parts and components, and outsource the various sub-sections or stages to geographically dispersed producers and sub-producers. Around 80 per cent of global trade now flows through GVCs led by multinational corporations (UNCTAD, 2013).

From the perspective of neoliberal economics, the rise of GVCs is a blessing for EDEs, because it permits their producers low-cost entry into international production and trade, as compared to producing whole products. Millberg and Winkler remark, critically, ‘the goal of industrial upgrading within GVCs has become nearly synonymous with economic development itself’ (2013: 238).

But participation in manufacturing GVCs may well provide limited opportunities to develop production capabilities, because of the forces making for specialization in repetitive tasks such as assembling components made elsewhere, which prevent movement into higher value-added segments like design, R&D, and supply-chain management. Participation also forces subordinate governments to have:

- free or almost free trade;
- secure property rights (including ‘investor-against-state’ laws which enable a foreign investor to take a host government to an international arbitration panel if the government introduces measures which may hurt the foreign investor’s future profits, including actions to protect public health, such as restrictions on cigarette advertising); and
- tolerance for high concentrations of market power in the hands of lead companies located elsewhere (Mayer and Philips, 2017).

The key point is that the new phase of globalization characterized by GVCs (since the late 1980s) tips the balance of power in the world economy firmly in favour of MNCs, because if one host government does not agree to their conditions, or if labour costs in one country rise too high, the firm can readily shift production elsewhere. Thomas Palley (2018) describes the economic theory of this phase of globalization as ‘barge economics’, from the remark by Jack Welch, former CEO of General Electric, that business would like to put ‘every plant you own on a barge’, so that it could move its factories from place to place according to changes in cost conditions. Barge economics is what makes it so difficult for producers in low-wage countries and their governments to upgrade in GVCs, because in these circumstances power lies with the business owners—who can
invite, or not invite, particular subordinate producers to rise in their value chains, and if the producers press for better conditions, the owners can always ‘float the barge’ elsewhere.

It is often said, wrongly, that the rise of GVCs has occurred autonomously from the state, due mainly to technological change cutting the cost of moving information and materials. This ignores the active role of Western states in promoting the rise of GVCs—especially Western states sailing under the neoliberal banner of self-adjusting markets and requiring host governments’ policy compliance with this ideology as a condition of access to their high-income markets.

The US government had negotiated some twenty free-trade agreements (FTAs) by 2015; the EU is part of thirty FTAs; Japan of fourteen (Mayer and Phillips, 2017). But these are not ‘free-trade’ agreements. They contain rules of origin, such that a high proportion of the value added in products outsourced to lower-cost countries must come from the lead country—which makes for regional production chains. And they often contain tariff escalation clauses, such that if an EDE starts to produce higher value-added products within a chain, its exports face higher tariffs in the lead country—which keeps the high value-added activities in the lead country, protecting the basic core–periphery structure of the world economy.³

2.5 Rising Dependence on Capital-Goods Imports and on Highly Monopolized Patentable Knowledge

EDEs depend heavily, almost by definition, on imported capital goods, reflecting low domestic technological innovation capacity. This dependence has intensified since the 1980s with the ICT revolution. ICT and other leading technologies of the current era are more difficult to copy, to reverse engineer, than were the mechanical technologies of the post-Second-World-War decades. So the world technological frontier has moved further out of reach for most developing countries than it was in earlier decades. This is particularly so because modern capitalism is more knowledge intensive than earlier, and more of that knowledge is better protected by patents—especially since 1994 with the formation of the WTO and its Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), and many later so-called free-trade agreements.

Note the paradox (Pagano, 2014). Knowledge is a non-rivalrous good, in the sense that its use by one user does not reduce its availability to others, unlike a piece of physical capital. So the marginal cost of using knowledge in a developing

³ Engel and Tagliari (2017) have a chapter in the ‘Global Value Chain Development Report 2017’ which paints a rosy picture of the development pay-offs from integration into GVCs, saying little about downsides.
country which is produced elsewhere, should be close to zero—because the original knowledge is not reduced by its being used again, in contrast to all material inputs (machinery, labour, etc.) So increased knowledge intensity of production should boost production around the world, including by small firms. It should therefore promote catch-up by developing countries, making it easy for them to combine modern knowledge with low-cost labour and other inputs.

The paradox of modern capitalism is that strong intellectual property rights (IPR) regimes in developed countries have enabled wholesale privatization of knowledge and the creation of knowledge monopolies in the hands of big, mostly Western-based, global firms. Private property in knowledge has global effects, because it prevents others using that knowledge anywhere in the world where the property rights can be enforced—even though others using the knowledge do not curb the knowledge usable by the first user. In contrast, private property in tangibles—machinery, land—has local effects that do not prevent use by others elsewhere of a similar machine or similar land. So knowledge monopolies are driving intense concentration of corporate wealth and power—and holding back global income catch-up, making the Rise of the Rest an exaggeration (Pagano, 2014).

Indeed, to refer to developed economies as ‘free-market economies’ is even more misleading today than in the 1960s, when it was already substantially misleading (as shown by J. K. Galbraith (1967), *The New Industrial State*). Developed economies have become, strangely enough, ‘closed-knowledge’ economies, even though they are highly integrated into global trade, finance, and investment. Science has also moved from ‘open’ towards ‘closed’—closed behind patent and copyright protection. Closed-science and closed-knowledge economies make for a more unequal kind of capitalism very different from the usual understanding of modern capitalism as ‘free-market capitalism’.

The fundamental change in the character of modern capitalism since the 1990s tends to constrain catch-up by developing countries, not to mention the prospects for ‘decent work’ in developed countries. The change is captured by several measures:

1. **Intangible assets now dominate tangible assets in corporate balance sheets.** In 1982, about 62 per cent of the total assets of the S&P 500 firms based in the United States were tangibles (buildings, machines), leaving intangibles at 38 per cent (patents, copyright, trademarks). By 1999, intangibles had jumped to 84 per cent of total assets, leaving tangibles at 16 per cent (Pagano, 2017).

2. **The distribution of the global total of patents in each of several sectors is very unequal between countries.** Evidence on the distribution of global patents comes from a study of the between-country distribution of the total patents in five key growth sectors: electrical engineering, chemistry and pharmaceuticals, mechanical engineering, instruments, and process engineering.
In 1980 the Gini coefficient of distribution between countries of patents in each of these sectors varied between 0.82 and 0.85. By 2015, the five sectors all had roughly the same—and much higher—Gini coefficients of just under 0.95. So companies headquartered in a tiny number of the world’s 180-plus countries hold just about all the patents in these key sectors for economic development.⁴

(3) **Global profits in each of many sectors are highly concentrated in a tiny number of countries.** Global profits are also highly concentrated in a few countries (Starrs, 2014). *Forbes Global 2000*, an annual list of the world’s biggest 2,000 publicly traded companies (by assets, market value, profits, and sales) gives the share of different countries (the share of companies headquartered in different countries) in total global profits in each of twenty-five sectors, such as heavy machinery, electronics, aerospace, banking, health care equipment and services, and media. In 2013 US companies had the biggest share of global profits in eighteen sectors, 72 per cent of the total; and between 2007 and 2013 their profit share increased in ten sectors, including those classed as the technologically most sophisticated.⁵

(4) **China.** The only developing country with more than a toehold in the global distribution of profits is China, which in 2013 ranked in the top five countries by profit share in twelve of the twenty-five sectors (Starrs, 2014). But other data show how far behind China is. In personal computers, for example, China became the world’s biggest market in 2011, overtaking the United States. But Chinese companies’ share of profits in computer hardware and software amounted to only 2 per cent, compared to the United States’ 72 per cent. In autos, China became the world’s biggest auto market in 2009; but the profit share of Chinese companies in the auto, truck, and parts sector was only 5 per cent, while the combined share of the United States, Japan, and Germany was over 50 per cent.

In electronics, China has been the biggest exporter since 2004, but its profit share of the exports is 3 per cent, compared to Taiwan’s 25 per cent and the United States’ 33 per cent. Or take China’s role in innovation, proxied by triadic patents (registered with the European Patent Office, Japan Patent Office, and US Patent and Trademark Office). In 2010, US and Japanese companies held about 60 per cent of the world’s triadic patents; Chinese companies, 1.8 per cent.

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⁴ Google, Amazon, Apple, Facebook, and Microsoft combined applied for 52,000 patents between 2009 and early 2017. They are diversifying far beyond their original sector. Amazon has applied for a patent on devices which identify people according to blood flow and heart rate. Apple has applied for a patent within autonomous vehicle technology, for ‘collision avoidance of arbitrary polygonal obstacles’ (CBInsights, 2017).

⁵ The knowledge rents earned by the ICT giants are measured and explained in Cooper (2016).
2.6 Finance is in the Driving Seat of the World Economy and Exposes EDEs to Volatile Growth

The financial sector has acquired such power in advanced countries that UNCTAD refers to the current era as ‘finance-driven globalization’ (to which we might add ‘barge-driven globalization’ and ‘knowledge-monopoly globalization’). In most respects the Western financial system is even more powerful than before 2008. While the big banks are, on average, holding more capital than before the crisis, they remain heavily indebted and interconnected, and because of a wave of mergers during the last crisis the banking industry as a whole is even more concentrated than before. They—and everyone else—know that in the event of another 2008-style panic they would probably be bailed out, as before. This confidence gives them even more power.

Robert Rubin, US Treasury Secretary in the Democrat-led government of Bill Clinton (and before that, twenty-six years in Goldman Sachs), celebrates this development. As Treasury Secretary he and his deputy Larry Summers engineered the repeal of the Glass–Steagall Act (1933), which had separated investment banking and retail banking, and strongly and successfully opposed measures to regulate the derivatives industry (which became an engine of the 2008 crash). David Rothkopf, author of *Power, Inc.* (2012), interviewed Rubin for the book, well after the crash, and asked whether he thought that having a sector of big banks ‘too big to fail’ was a problem that should be fixed. Rubin replied:

No, don’t you see? Too big to fail isn’t a problem with the system. It is the system.
You can’t be a competitive financial institution serving global corporations of scale without having a certain scale yourself. The bigger multinationals get, the bigger financial institutions will have to get.  (quoted in Sharpe, 2012)

In other words, ‘the system’ requires big banks to be propped up regardless of their performance. As Mike Sharpe says, reviewing Rothkopf’s book, ‘This is socialism for the rich, free enterprise for everyone else.’ After Rubin left government service he worked part time for Citigroup for ten years, and received US$126 million in remuneration (Wikipedia, 2018).

The dominance of finance causes the management of for-profit companies to give priority to short-term success targets such as profits, dividends, and share prices; so it is these indicators—not ones measuring customer experience or even long-run growth—that weigh heavily in senior executive compensation packages.

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6 The chair of the US Federal Deposit Insurance Corporation from 2006 to 2011, Sheila Blair (2018), said:

US politicians, with some help from regulators, are trying to weaken these rules [designed to constrain excessive borrowing by ‘systemic’ financial organizations], setting a dangerous global precedence. Both Republicans and Democrats supported legislation giving the three largest US custody banks an average of a 20 per cent reduction to their leverage ratios.
The effects of financial dominance in service industries are the subject of a 2017 front-page column in *The New York Times (International)*:

Relentless pressure on corporate America is creating an increasingly Dickensian experience for many consumers as companies focus on maximizing profit. [According to a veteran public relations executive], ‘There’s always been pressure from Wall Street. But I’ve been watching this for 30 years, and it’s never been as intense as it is today.’ Rich bonus packages for top executives are now largely tied to short-term income targets and fatter profit margins instead of customer service. (*New York Times (International)*, 2017)

The *New York Times* titles this column, ‘Discomfort of Air Travel Starts with Wall Street’. It relates how the prevailing corporate mindset hit a low point when airline staff violently dragged an unlucky and unwilling passenger—chosen at random—off an overbooked United Airlines flight in Chicago in April 2017. But Wall Street loves the result: United Airlines’ stock sold for US $25 per share in 2012; today it sells for US$80 per share. United’s profit margins are up from 3.7 per cent to 13.6 per cent over the same period. The average profit margin for the US airline industry rose from 5.2 per cent to 16.3 per cent over this period.

International financial markets are organized hierarchically. New York and London are the top financial centres, and the United States, issuer of the top currency, enjoys great privilege and power over countries with lower-ranked currencies (Kaltenbrunner and Painceira, 2018). US monetary conditions and monetary policy affect monetary conditions around the world, thanks to the US dollar being the most liquid international store of value and the most widely used unit of account.

Southern countries, on the other hand, face monetary subordination: they are unable to borrow internationally in their domestic currency, they are under strong pressure to maintain completely open capital accounts, and they depend on short-term portfolio inflows of finance to cover external deficits and a lot of domestic investment. The low position of their currencies in the international currency hierarchy means that they must offer higher interest rates or profitable exchange rate movements in order to attract foreign capital and prevent capital flight. A rising portion of ‘investment’ tends to be financial investments, crowding out ‘real’ investments to raise production capabilities.

The result: the high interest rates lower domestic capital accumulation and economic growth; and the volatility of capital flows and exchange rates makes their economic growth subject to high levels of external vulnerability, which recurrently tips into debt crises, further subordinating them in the international ‘real’ and ‘financial’ economy. No surprise if they remain in the ‘middle-income trap’.

To spell out the mechanism in more detail: EDEs’ domestic asset and credit markets are now heavily populated with foreign investors and financial organizations
(raising the economy’s external liabilities), thanks to their governments (complying with Western wishes) putting few regulations and restrictions on:

(a) foreign capital inflows and outflows;
(b) foreign financial establishments in their territory; and
(c) residents’ access to foreign financial markets as borrowers and investors.

Also, their own non-financial corporations have borrowed heavily in international financial markets, with most repayments in US dollars, further raising the economy’s external liabilities. The Institute of International Finance calculates that corporate debt in foreign currencies is now at the highest level ever. Turkey is especially exposed. Its companies borrowed US dollars to fund factories, shopping malls, and the Istanbul skyscrapers; and now, as the lira plunges, a growing number of companies are declaring that they cannot repay their (foreign) loans. This has the potential to spread far and wide. American investors own nearly 25 per cent of outstanding Turkish bonds and more than half of publicly traded Turkish stocks (Thomas, 2018).

These trends expose EDEs to boom–bust cycles in the major advanced countries, the United States above all (Akyüz, 2017)—boom–bust cycles driven by rising income and wealth concentration at the top in the United States, the United Kingdom, and several other major advanced countries, and now also China. In the advanced countries, most of the population has been on stagnant incomes even as average productivity rises, and the wage share of national income has fallen dramatically. Most of the gain in income from economic growth accrues to people at the top, who get much of their income from returns to capital while they sleep.

These economies therefore face a demand gap, a shortfall of demand relative to supply potential. To boost demand even as income concentration at the top is high, many governments, notably the Anglo ones, have adopted a debt-led growth model. They support arrangements which facilitate the ability of people with modest incomes to borrow in order to spend—and close the demand gap with borrowed finance. This can generate a credit and asset boom (property, stocks), which can produce moderate or even fast growth—for a while. But meantime people’s ability to repay debt out of income (as distinct from the putative value of their asset, when house prices are rising) tends to fall, the economy becomes more financially fragile because dependent on continued rises in asset values, and the fragility can easily tip into financial instability and crisis. The Roman playwright Plautus captured the point when he had one of his characters declare (around 300 BCE), ‘I am a rich man—until I have to repay my creditors.’

In the United States this debt-led mechanism produced a series of booms and busts: savings-and-loan cycle in the 1980s, dot.com cycle in 1990s, sub-prime cycle in the 2000s, and the ‘quantitative easing’ (QE) cycle since 2008. All but the last (so far) ended in financial crisis with far-reaching economic and political damage.
The United States now relies heavily on monetary policy to regulate economic activity, because fiscal policy is either regressive (tax cuts for the rich) or politically paralyzed. The US central bank, the Federal Reserve, makes its decisions to serve the US economy, with little regard for effects on the rest of the world. (In 1971 US Treasury Secretary John Connelly informed his astonished counterparts at a G-10 meeting in Rome, ‘The dollar is our currency but it’s your problem.’) When US central bank interest rates are very low, as all through the 2000s to date, finance and financial establishments tend to head—withouth restrictions—to EDEs (like Turkey), where interest rates and other returns are higher: to their markets for equities, bonds, property, and credit. When US rates go up and/or US growth goes up, the trend reverses (as in 2017–18). The inflows and outflows can have destabilizing effects on the exchange rate, investment, productivity growth, and long-term GDP growth of EDEs.

US monetary policy swings can be expected to be large into the future, with big spillover effects in the rest of the world, as long as monetary policy continues to be the United States’ main stabilization tool and the US dollar remains the main international currency. And as of 2017–18, shadow financial markets in the United States are frothing, repeating the run-up to the 2007–8 crash as regulators flout the Dodd–Frank Act (passed after the crash to make a repeat crisis less likely) and the US Congress has partially repealed the Act.

Note in passing that other large advanced countries, notably Germany and Austria, have adopted an export-led growth model, which depends on selling into debt-led countries. The two models are complementary and both are fragile, which underlines Germany and Austria’s irresponsibility in urging deficit countries of the European Union, notably Greece, to ‘be like us’ and become net exporters (Goda and Sanchez, 2017).

To understand better the mechanism producing EDE vulnerability we need to disaggregate EDEs’ integration into the world financial system by distinguishing different types of assets (Akyüz, 2017). First, foreign exchange reserves. As they experienced—or saw others experience—financial crashes, EDEs increased their foreign exchange reserves many times over, mostly in low-yielding reserve assets issued by advanced countries, especially the US Treasury. As of 2014, about two-thirds of total EDE exchange reserves were held either by China or by the fuel exporters. The other third was mostly borrowed, and matched by an increase in EDE external liabilities. So their attempt to self-insure gives them a lot less protection than the exchange reserve figures suggest.

Second, foreign direct investment accounts for a large share of the external liabilities of EDEs. Contrary to common belief (which says that FDI + GVCs is the magic formula for EDE economic development), the large stock of FDI in EDEs substantially raises their vulnerability. A large part of total FDI in EDEs since 2000 is in service sectors, with low exports; and even in manufacturing, the import content of FDI manufactured exports is high. Typically, the export earnings of
FDI operations in EDEs do not cover both their imports and their income transfers (in the form of profits, royalties, licence fees, and interest paid on loans from the parent company). This means that, typically, FDI makes a negative contribution to the balance of payments.

At the same time, host governments face more difficulties than before in putting performance conditions on FDI operations or in other ways extracting positive spillovers (e.g. technological), because (a) the companies tend to be footloose (‘barge economics’), (b) they have strong intellectual property protection, which limits learning by residents, and (c) governments are constrained in extracting positive spillovers by free trade agreements or bilateral investment treaties.

Third, bonds. Many EDEs have opened the door wide to foreign buyers of sovereign bonds issued in local currency. This means the bonds are repaid in local currency, so foreign buyers take the exchange rate risk, which should avoid the currency mismatches that triggered many financial crises in Asia and Latin America in the 1990s and early 2000s. But Yılmaz Akyüz reports that there is no comprehensive data on non-resident holdings of local currency bonds—which means that the sovereign debt of many EDEs is probably underestimated, more internationalized than reported, and more is held by—fickle, flighty—private entities than by official bodies (like the World Bank). But note that China and India wisely continue to restrict non-resident purchase of domestic bonds.

### 2.7 Conclusion

Six bottom-line points. First, EDEs as a category have acted in line with consensus advice in the Western-dominated international development community to integrate the national economy to a high degree into the international economy, including in finance and investment. In thus exposing their growth to shocks in the international economy, they make it prone to zoom up and down like a rollercoaster.

Stephen Broadberry and John Wallis (2016) argue that the ‘great escape upwards’ of Western countries during the nineteenth and twentieth centuries—the emergence of a Western core and non-Western lagging periphery tied to the core—reflects a long-term pattern of fairly stable and moderate growth in the core and more volatile growth in the periphery, meaning fairly fast expansion followed by prolonged shrinkage. They elaborate what they call ‘shrink theory’ as distinct from ‘growth theory’.

Recent research shows how persistent long-run dollar cycles affect economic development in EDEs. Dollar appreciation (as during 1981–5, 1995–2002, 2008–9, and 2012–15, when the data set ends) is associated with (a) fall in commodity prices, (b) fall in EDEs’ GDP growth, and (c) rise in the number of EDEs experiencing...
external crises (due to large foreign currency debt and sharp exchange rate depreciations) (Druck et al., 2015; Chow et al., 2015).

The second bottom-line point is that the institutional structure of the international economy into which EDEs integrate contains a basic impediment to their development: from the mid-1940s beginning of the Bretton Woods architecture till today, the mechanism for curbing countries’ external deficits and surpluses puts all the adjustment pressure on deficit countries to reduce their deficits, and no symmetrical pressure on surplus countries to reduce their surpluses (think Germany). Yet developing countries undertaking heavy investment in infrastructure and production capacity should be able to run sizeable deficits safely, and this would be more feasible if surplus countries ran smaller surpluses.

Third, the combination of global value chains, knowledge monopoly, and financialization makes for slow or no long-run convergence upwards of the majority of EDEs towards the average income and productivity of advanced countries: in fact, it makes for the continuation of the core–periphery structure of the world economy, with persisting large gaps in average income and productivity. Again, China is the great exception, thanks partly to it having being a poor pupil of the Washington Consensus.

Fourth, the core—the West—depends heavily on rental income accruing from ownership of financial assets, patents, brands, and copyrights on software, movies and the like. Western, especially American, firms occupy the commanding heights of GVCs; and within these commanding heights the top positions are occupied by a small number of financial firms, which control the ‘real economy’ firms through shareholdings and debts, and which drive each GVC towards the goal of shareholder (not stakeholder) value maximization, generating unpaid-for costs for the living planet and for the insecure workforce in EDEs (an example is Foxconn) (Vitali and Battiston, 2014). In this structure producers in low-income countries (such as Bangladesh and Cambodia in Asia) can certainly get a foothold in entry-level industries like textiles as costs rise in China; but rising into higher value-added activities, even within textiles, is much more difficult.

Fifth point: Neoclassical economics is a misleading guide to development policy. It thinks in terms of curves, not step changes. And it makes no distinction between activities (or sectors) according to their growth potential—it treats each unit of GDP as having equal potential for future growth. Yet the governments of virtually all the successful catch-up countries recognized that they had to nurture ‘superior’ or ‘star’ economic activities by means of trade protection, subsidies, and regulations, buffering them from—but not insulating them from—competitive pressures.

Erik Reinert (1994) calls this the ‘List-cum-Smith strategy’ (Friedrich List with Adam Smith). The British government followed it when it closed down the prosperous woollen cloth industry in its colony of Ireland starting in 1699, and
when it closed down the fledgling cotton textile industry in its colony of India starting in 1814. And it helps to understand why the English economist David Ricardo, in the early nineteenth century, was happy to provide—and generations of economists were happy to believe—a theory of comparative advantage which apparently demonstrated scientifically that England should specialize in textiles and Portugal should specialize in wine. This at a time when wine making was technologically stagnant and textiles was a prime site of mechanical and organizational innovation.

Friedrich List summarized the English strategy for economic dominance: ‘The principle, sell manufacturers, buy raw material, was during centuries the English substitute for an economic theory’ (1844: 12). But as just noted, the English Ricardo did provide the justifying theory purporting to show that England’s specialization in textiles and Portugal’s in wine was in their mutual interest, and the theory has been taught as the bedrock of neoclassical economics ever since.

Finally, for an EDE to escape the periphery and move into the core of the world economy is in some ways even more difficult now than in the past. The rise of the North-east Asian economies has shrunk the room to industrialize for late-late industrializers in Africa or re-industrializers in Latin America. At the same time, the room for trade management and industrial policy has been shrunk by (a) more liberal trade rules and (b) deregulated capital markets across borders. Digital innovation and robotization will accelerate productivity growth, while generating massive technological unemployment or employment in precarious jobs as distinct from ‘middle-class’ jobs. And all this in a more carbon-constrained world facing major disruption in fossil-fuelled capitalism. This puts a premium on national governments creating effective ‘direction-setting’ agencies, centrally placed in the state and with top-level political commitment, to navigate through the complexities.⁷

References


⁷ Wade (2004) contains several chapters outlining the organization and politics of Taiwan’s several steering agencies.


