

Institutions and economic development: theory, policy and history

HA-JOON CHANG*

Faculty of Economics, University of Cambridge, Sidgwick Avenue, Cambridge CB3 9DD, UK

Abstract: The article tries to advance our understanding of institutional economics by critically examining the currently dominant discourse on institutions and economic development. First, I argue that the discourse suffers from a number of theoretical problems – its neglect of the causality running from development to institutions, its inability to see the impossibility of a free market, and its belief that the freest market and the strongest protection of private property rights are best for economic development. Second, I point out that the supposed evidence showing the superiority of ‘liberalized’ institutions relies too much on cross-section econometric studies, which suffer from defective concepts, flawed measurements and heterogeneous samples. Finally, I argue that the currently dominant discourse on institutions and development has a poor understanding of changes in institutions themselves, which often makes it take unduly optimistic or pessimistic positions about the feasibility of institutional reform.

1. Introduction

Once a marginal topic, the role of institutions has become one of the most popular research areas in development economics over the last 10–15 years. Influenced by the broader revival of interest in institutions in economics, represented by the rise of New Institutional Economics in the 1980s, institutions started gaining popularity by the early 1990s as an explanation of international differences in economic development, even in places such as the World Bank and the International Monetary Fund (IMF), which had been rather hostile to the notion (Stein, 2008: 38–42). However, it is from the late 1990s that institutions have moved to the centre stage in the debate on economic development.

Since the late 1990s, the view that poor-quality institutions are the root cause of economic problems in developing countries has become widespread. In accordance, the IMF and the World Bank started to impose many ‘governance-related conditionalities’, which required that the borrowing country adopts ‘better’ institutions that improve ‘governance’ (see Kapur and Webber, 2000). Around the same time, many rich country governments also started to attach governance conditionalities to their bilateral aids. There is no agreed definition

*Email: hjc1001@cam.ac.uk

of what these ‘better’ institutions, often called the Global Standard Institutions (GSIs), are. However, they are institutions that are typically found in Anglo-American countries, which are seen as maximizing market freedom and protecting private property rights most strongly.¹

The pressure for the adoption of GSIs by developing countries also came from various bilateral, regional, and multilateral trade and investment agreements, which started mushrooming from the mid-1990s. For example, the WTO (World Trade Organization) has forced developing countries to adopt American-style intellectual property rights (IPRs) laws through the trade-related intellectual property rights (TRIPS) agreement. For another example, the notorious chapter 11 of the NAFTA (North American Free Trade Agreement) has completely changed the institution through which the member-country governments regulate corporations. Unprecedentedly, it allows foreign investors to sue host-country governments directly in case they think that they have been expropriated by the government, not just directly through confiscation but also indirectly through profit-reducing regulations.

In addition to loan/aid conditionalities and international rules, developing countries have been increasingly subject to more informal pressures to adopt GSIs. Not only the World Bank and the IMF, but also the OECD (Organization for Economic Cooperation and Development), the G7, the World Economic Forum, and many other think-tanks and policy forums that are dominated by the rich countries have promoted the view that developing countries should adopt GSIs. The international financial press routinely paints countries with non-Anglo-American institutions, including many developed countries, as lacking in institutional quality.² These negative comments by the press have come to be taken more seriously by developing countries in the recent period because the

1 The most frequently mentioned are: (i) a common law legal system, which, by allowing all transactions unless explicitly prohibited, promotes free contracts; (ii) an industrial system based on private ownership, which requires significant privatization in many countries; (iii) a financial system based on a developed stock market with easy M&A (mergers and acquisitions), which will ensure that the best management team available runs each enterprise; (iv) a regime of financial regulation that encourages ‘prudence’ and ‘stability’, including a politically independent central bank and the strict observance of the BIS (Bank for International Settlements) capital adequacy ratio; (v) a shareholder-oriented corporate governance system, which will ensure that the corporations are run for their owners; (vi) a flexible labour market that allows quick re-allocation of labour in response to price changes; (vii) a political system that restricts arbitrary actions of political rulers and their agents (i.e., bureaucrats) through decentralization of power and the minimization of discretion for public sector agents (for theoretical and empirical criticisms of the GSI discourse, see Chang, 2005).

2 Despite these pressures, the institutions in non-Anglo-American developed countries have proved quite durable, partly because those who were putting such pressures on these countries did not have enough financial leverage over them, while the forces defending the existing institutions were quite strong. So, the institutional differences between rich countries still remain very large, even though they may have been somewhat reduced, compared to the period between the end of the Second World War and the rise of neo-liberalism in the 1980s. On the institutional diversity of capitalism, see Albert (1991), Streeck (1992), Chang (1997), and Hall and Soskice (2001).

increasing opening of their capital markets has significantly increased the power of foreign investors, who are strongly influenced by the international financial press.

Of course, the above discussion of external forces is not to say that there were no internal pressures for the adoption of GSIs in developing countries. GSIs are institutions that inherently favour the rich over the poor, capital over labour, and finance capital over industrial capital. Therefore, many rich people, especially financial capitalists, in developing countries have been very much in favour of GSIs. Also, some of the free-market ideologues in developing countries were even more dogmatic than the ones from the rich countries in a manner that the Latin Americans describe as being ‘more Catholic than the Pope’.

Being encouraged by and stimulating the increasing demands for institutional reform in developing countries was the explosive growth in the academic research on the role of institutions in economic development. Sometimes such research was provided from within the organizations making such demands – the best examples being the ‘Governance Matters’ paper series (Mark I published in 1999 and Mark VIII published in 2009 by the research group led by Daniel Kaufmann; see Kaufmann *et al.*, 1999, 2002, 2003, 2005, 2006, 2007, 2008, 2009) and the annual *Doing Business* reports, both published by the World Bank. However, a lot of this was supplied by academic economists, sometimes in direct response to real-world demands but also influenced by the academic fashion and the high publishability of a relatively new research topic.

In this article, I try to critically evaluate the currently dominant discourse on the relationship between institutions and economic development, which argues that institutions that maximize market freedom and most strongly protect private property rights are the best for economic development. While firmly believing that markets and private property are essential institutions for economic prosperity, I first point out in the article that the understanding of the relationship between the institutions of private property and markets, on the one hand, and economic development, on the other hand, found in the dominant discourse is rather simplistic. I then go on to argue that the empirical evidence behind the dominant discourse may look rather impressive on a first look but that it does not survive a more careful scrutiny very well. This is followed by a discussion on how the currently dominant discourse on institutions and development suffers from a rather deficient theory of how institutions themselves change.

2. Theoretical problems with the dominant discourse on institutions and economic development

The currently dominant discourse on institutions and development suffers from two categories of theoretical problems. The first is that it almost

exclusively assumes that the causality runs from institutions to economic development, ignoring the important possibility that economic development changes institutions. Second, even when we focus on the ‘institutions to development’ part of the causality, the relationship is theorized in a rather simplistic, linear, and static way.

Do better institutions lead to more effective economic development?

The currently dominant view is that institutions are the ultimate determinants of economic performance (e.g., for the latest statements along this line, see Acemoglu *et al.*, 2005; North, 2005). However, the causality in the other direction – that is, from economic development to institutions – is usually neglected.³

Economic development changes institutions through a number of channels. First, increased wealth due to growth may create higher demands for higher-quality institutions (e.g., demands for political institutions with greater transparency and accountability). Second, greater wealth also makes better institutions more affordable. Institutions are costly to establish and run, and the higher their quality the more ‘expensive’ they become (see below). Third, economic development creates new agents of change, demanding new institutions. In the 18th century, the rising industrial capitalists supported the development of banking against the opposition to it by landlords, while in the late 19th and the early 20th centuries, the growing power of the working class led to the rise of the welfare state and protective labour laws, against the capitalists who thought those institutions would bring about the end of civilization as they knew it.

Indeed, there is quite a lot of historical evidence to suggest that the causality may be stronger in the latter direction (economic development improving institutions) than in the former (better institutions promoting economic development). Today’s rich countries acquired most of the institutions that today’s dominant view considers to be prerequisites of economic development *after*, not before, their economic development – democracy, modern bureaucracy, IPRs, limited liability, bankruptcy law, banking, the central bank, securities regulation, and so on (Chang, 2002a: chapter 3). More specifically, the Anglo-American countries, whose institutions today are considered to be GSIs, themselves did not have most of those institutions in their earlier stages of development and acquired most of them only after they became rich (Chang, 2005).

³ Acemoglu *et al.* (2001) is a partial exception – exception in the sense that it does recognize the two-way nature of the relationship at a theoretical level but only a partial exception in that it goes on to conclude, through the use of an instrumental variable, that empirically the causality basically runs from institutions to development.

If the causality runs more strongly in the direction of development to institutions, rather than the other way around, the financial and human resources that developing countries are expending in order to acquire GSIs may be better used for other policies that more directly stimulate economic development – be they educational expenditure, infrastructural investments, or industrial subsidies – especially when they also indirectly promote institutional development, which can then further promote economic development.

Further complicating the picture regarding causality is what may be called the ‘late-comer’ effect (Chang, 2002a: chapter 4). In the same way in which they can import better technologies without having to pay the full cost of developing them, late-comer countries can import superior institutions without having to pay for their development. Therefore, today’s developing countries tend to have institutions that are more developed than what their standards of material development would strictly demand, making it difficult to identify the exact relationship between institutions and development.

Given all of this, by almost exclusively looking at one direction of causality, that is, from institutions to economic development, the currently dominant discourse on institutions and development gives us only a partial picture. We need to look at the causality in the other direction as well, if we are to have a full understanding of how institutions and economic development interact with each other and give the right policy advice.

Are liberalized institutions better for economic development?

Even restricting the direction of causality to the one running from institutions to economic development, the theories about the relationship between the two that the currently dominant discourse on institutions and development provides are rather simplistic.

These theories basically argue that ‘liberalized’ (or what most Europeans may call ‘liberal’) institutions that protect private property rights most strongly and provide maximum economic freedom (especially business freedom to seek profits) will best promote investment and thus economic growth (e.g., Acemogul *et al.*, 2001; La Porta *et al.*, 2008). So, for example, the (Anglo-American) common-law legal system is seen as more encouraging of enterprise, and thus economic growth, than the (Continental, especially French) civil-law system because it provides better protection of investors and creditors while minimizing state regulation. For another example, it is argued that a shareholder-oriented (once again, essentially Anglo-American) corporate governance system promotes investment and thus growth by giving assurance to investors that they will not be ripped off by other stakeholders in the company they invest in – the managers, the workers, and the suppliers, who will get the same fixed compensation regardless of the profit performance of the company and thus have no incentive to maximize profit. However, the relationship between institutions and economic development is far more complex than that.

Do institutions that provide greater economic freedom lead to faster growth?

Let us first examine the proposition that institutions that guarantee the highest degree of economic freedom will be the best for promoting economic growth and development.⁴

To begin with, even if we agree that the freest market is the best for economic development, there is actually no objective way to determine what is in fact the freest market (for a further theoretical exploration of this point, see Chang, 2002b; for empirical details of the following examples, see Chang, 2002a).

If you want the freest financial market, should we allow people to set up banks without minimum amount of capital and issue their own currency? The followers of the American free-banking school would say so, while others, including many free-market economists, would say that we should not. Should a country pursuing the maximum degree of freedom in the labour market allow child labour? That is what 19th century free-market economists thought, but today few defenders of free labour market in the rich countries would say that. Until the early 20th century, many people thought it unacceptable for the government to put any legal limits to working hours, at least of adult men – for example, in 1905, the US Supreme Court ruled a New York state law limiting the working hours of the bakers to 10 hours as unconstitutional because it ‘deprived the baker of the liberty of working as long as he wished’ (Garraty and Carnes, 2000: 607). Today, most people would accept such restriction as perfectly normal. In the 19th century, most free-market economists thought that patents, by restricting competition in the markets for ideas, goes against free-market principles. Today, many, although not all, of them defend patents.

These examples show that the very definition of a free market depends on whether an observer accepts the political and ethical values embodied in the institutions that gird the market. In other words, different people with different values will see different degrees of freedom in the same market. If it is impossible to objectively define the boundary of the free market, we cannot know which institutional arrangements will maximize economic freedom (whatever its impact on economic growth and development may be).

Second, even ignoring the impossibility of objectively defining the free market, various theories tell us that an institutional structure that gives maximum business freedom is unlikely to be the most efficient from the social point of view. This is said not just by heterodox economists but also by neoclassical economists in the market-failure tradition. For a classic example, accepted by many mainstream neoclassical economists, allowing business to acquire any

⁴ I will not go into the complex and difficult question regarding the relationship between economic growth and economic development. Suffice it to say here that economic growth, at least when it is generated through a transformation of the productive structure of the economy, is the key driver of economic development and therefore that economic development without economic growth is impossible, although economic growth without economic development is possible, if not desirable or sustainable. For a critique of today’s mainstream concept of development, see Chang (2010).

company it wants may lead to a degree of monopoly that may be good for the company concerned but imposes social costs of monopoly. For another example, the 2008 global financial crisis has shown that giving financial firms the freedom to accumulate individual risk without regard to systemic risk is definitely not good for the overall economy.

Third, it is not even that giving maximum freedom to business firms is good, at least for the business sector as a whole. There are regulations that may restrict business freedom in the short run but may promote the long-term interest of all firms. For example, individual firms may benefit from using child labour (and thus child labour regulation will hurt them) in the short run, but that may harm all firms in the long run, by harming children's health and education and thereby reducing the quality of the future labour force. In this instance, it will be actually pro-business for the government to regulate child labour and many capitalists would support it – they do not mind accepting such a regulation as far as the government ensures that every company respects it. In other words, restricting individual business freedom may be good for the business sector itself, especially in the long run, regardless of its impact on the rest of the economy.

Fourth, it is highly debatable whether greater market freedom is better for economic development. To begin with, as the Lipsey–Lancaster Second Best Theorem shows, we cannot judge *a priori* whether a higher degree of market liberalization will bring result in (allocative) efficiency, unless all markets are completely liberalized (Lipsey and Lancaster, 1956). Moreover, even if a more liberalized economy is allocatively more efficient, it cannot be argued that such an economy will grow faster, as even some prominent neoclassical economists admit (e.g., Krueger, 1980). On top of that, there are many non-neoclassical economic theories that say that free markets may be less good at generating growth than markets that are, depending on the circumstances, protected, regulated, managed, or monopolized – such as the infant industry argument of Alexander Hamilton (1789) and Friedrich List (1841; List, 1885), Joseph Schumpeter's (1987) theory of innovation, and the more recent literature on the economics of technology (see Freeman, 1982; Nelson and Winter, 1982; Lundvall, 1992; Lall and Teubal, 1998; Kim and Nelson, 2000; Cimoli *et al.*, 2009).

Is a stronger protection of private property rights better for growth?

Similar things can be said about the proposition that a stronger protection of private property rights is better for growth. The currently dominant discourse on institutions and development assumes that this proposition is indisputable, but there are a number of reasons to question it.

First of all, the currently dominant discourse fails to give full attention to forms of property rights other than private, state, and open-access. The superiority of private ownership is asserted on the ground that state ownership is inefficient due to the restrictions on competition and the principal–agent problem, while

open access leads to the ‘tragedy of commons’. However, in reality, there is a wide variety of property rights not fitting into this scheme. One example is the communal property right over common-pool resources with ‘public goods’ characteristics. Research, notably by Ostrom (1990, 2007), shows that what may look like an open-access property rights system (e.g., village forest) often in fact involves intricate rules on who can do what and when. The recent debate on ‘shareware’ has also shown how this involves a communal property rights system, where there are rules on how people can use it (e.g., they cannot make commercial gains with versions of the software that they have improved). There are also hybrid forms of property rights. The agricultural cooperative, which combines private property in some inputs (e.g., land, livestock) with communal property in others (e.g., creamery, tractors), is a classic example. The so-called township and village enterprise (TVE) of China is another, more recent, example. The ultimate ownership control of TVEs remains with the local states (townships and villages), but they are often run as if they are privately owned – by the local political bosses and enterprise managers.

Second, there are many theories that show why state or communal ownerships may be superior to private ownership in achieving social efficiency and economic growth under a range of circumstances, and the evidence to back them. I have already discussed the case of communal ownership, but various theories of market failure – especially capital market failure, natural monopoly, and externalities – show that state ownership may be more efficient in certain circumstances (for a review of these theories, see Chang, 2008). Indeed, there are many examples of state-owned enterprises (SOEs) in countries such as Singapore, France, Finland, Norway and Taiwan that were not just efficient in the narrow allocative sense but also led their country’s economic growth process through technological dynamism and export successes (for further details, see Chang, 2008).

Third, as emphasized by Hodgson (2009), the very notion of ‘property’ – not mere possession but institutionalized possession – is based on the existence of a third-party that can legitimate, adjudicate and enforce the relevant rights of the property owners. This means that the relationship between private property owners and the state cannot be seen as an antagonistic one, as it is typically assumed in the dominant discourse. For example, the Singaporean state is well known as a strong state that protects private property rights very well. However, the very strength of the Singaporean state that enables it to offer such protection is founded upon a very high degree of state ownership. First, the Singaporean state’s strength owes a great deal to its strong fiscal position thanks to highly efficient SOEs, which collectively produce over 20% of the country’s GDP. Second, an important basis for the Singaporean state’s high political legitimacy is its ability to supply high-quality affordable housing, which in turn is possible because it owns all the land in the country and operates a giant public housing corporation that supplies 85% of the country’s housing. In other words, a high degree of

state ownership may in some cases be exactly what enables the country to offer strong protection of private property rights.

Finally, and perhaps most importantly for our purpose here, even if we focus only on private ownership, we cannot say that a stronger protection of private property rights will lead to higher investment and thus higher growth. It will depend on the kinds of property rights that are being protected. For example, strong protection of landlord property rights has proven harmful for economic development in many – although not all – countries. For another example, an excessive protection of the holders of company shares and other liquid assets can actually reduce real investment and thus growth, by putting short-term pressures on the managers, who have to cater to the impatience of highly mobile asset owners. For yet another example, as we have seen in the recent financial crisis, if wrong kinds of assets are created, more strongly protecting investor rights may actually harm economic growth.

Is the relationship between institutions and economic development always the same?

In addition to being simplistic about the way in which institutions can affect economic development, today's dominant discourse on institutions and development fails to recognize that the relationship is not linear, differs across societies, and changes over time even in the same society.

First, even if an institution in some dose promotes growth, it may actually hamper economic growth in a larger dose. So, while some protection of property rights is absolutely necessary for there to be investment and growth at all, an overly strong protection of property rights may reduce growth. This point has been highlighted by the recent debate on IPRs. The debate has revealed that, while some protection of IPRs may be necessary to motivate firms to invest in knowledge generation, at least in certain industries (e.g., chemicals, pharmaceutical, software), too much protection of IPRs may be bad for the society (Chang, 2001; Stiglitz, 2007: chapter 4). A stronger protection of IPRs increases the costs from (artificial) monopoly, which may more than offset the benefits from greater innovation that it may (but then may not, as innovation is an inherently uncertain process) bring. Moreover, if excessive, protection of IPRs may hinder innovation itself by making technological diffusion overly costly, by preventing cross-fertilization of ideas and by increasing the chance of technological deadlock caused by disputes between holders of inter-related patents (Chang, 2007a: chapter 6).

Second, even the same institution in the same dose may be good for one country but bad for another. So, using the IPR example again, a level of protection of IPRs that may bring net benefit to a rich country may be harmful for a developing country. Whatever the exact level of IPRs protection is, a developing country is likely to have few economic agents capable of responding to the incentives provided by the protection through technological innovation.

At the same time, it has to pay, in proportional terms, higher costs of IPR protection (e.g., licensing royalties) than the rich countries have to, given that it owns few patents and other intellectual property (Chang, 2001). So what is an optimal degree of IPR protection for a developed country may be too strong for a developing country, and vice versa.

Third, even in the same dose and in the same country, the same institution may promote growth at one point in time but not in another. For example, it is widely agreed that concentrated land ownership promoted agricultural development in Japan until around the First World War, when landlords were personally involved in cultivation and thus invested in irrigation and technological improvement, but that it then turned into an obstacle to development after the First World War, as most landlords became absentees who were not interested in investing in raising agricultural productivity (FAO, 1966). This meant that the over-riding of landlord property rights in the post-Second World War land reform helped subsequent economic development of Japan, while the same exercise in the late 19th century would have had negative economic consequences. One does not have to be a Marxist to see that institutions (or the relations of production in Marxist terms) that once promoted the development of a society's productive capabilities (or the forces of production in Marxist terms) can turn into an obstacle to it over time.

Concluding remarks

I have shown that mainstream institutional theories have a highly problematic understanding of the relationship between institutions and economic development. First, they more or less ignore the impacts of economic development on institutions and focus exclusively on how institutions affect development. Second, they believe that institutions that provide a higher degree of business freedom and stronger protection of private property rights lead to higher growth, when there are many theories, including some neoclassical theories, which argue otherwise. Third, mainstream institutional theories wrongly see the relationship between institutions and economic development as linear and uniform across time and space. These are serious shortcomings for theories that purport to offer explanations of growth and structural change across the world over long periods of time.

3. What about the evidence?

Never mind the theory, the interlocutors of the dominant discourse may argue, there is enough empirical evidence to show that institutions that provide a higher degree of freedom of contract, more strictly limit the power of government, and better protect private property – or what we may call ‘liberalized’ institutions – are better at promoting growth. As far as we know that these institutions work, it may be argued, why should we worry even if we may not fully understand

why they work? Why do we not just get on with it and implement these good institutions in as many countries as possible?

Indeed, there is by now a huge amount of cross-section econometric studies showing that there is a correlation between the degree of ‘liberality’ of institutions and economic growth across countries (for some reviews of the relevant literature, see Aron, 2000; Chang, 2007b; La Porta *et al.*, 2008). However, as I shall show below, the evidence is a lot shakier than what the supporters of the dominant view want us to believe.

Cross-section versus time-series

To begin with, most of the evidence provided in the dominant discourse is from cross-section econometric studies. Very few studies look at the relationship between institutional changes and growth over time in the same country.

Does this matter? I think it does.

Given that the relationship between institutions and development is almost certain to differ across countries (see above), ‘time-series’ evidence may offer better insights than can cross-section studies, which lump every country from Swaziland to Switzerland, as we development economists like to say. This means that time-series evidence should also be looked at.

Now, given that the relationship is complex, even the ‘time-series’ evidence cannot simply be of econometric kind, which cannot capture complexities that characterize the domain of institutions, but should include historical narratives and comparative historical studies. And there is some pretty strong time-series evidence against the dominant theory of institutions and economic development, especially if do not confine ourselves to econometric evidence.

First, economic growth has fallen rather dramatically in developing countries of Sub-Saharan Africa and Latin America, which have, under enormous external pressures, rather faithfully reformed their institutions in the neo-liberal direction during the last three decades. They were growing much faster in the 1960s and the 1970s, when they lacked those ‘liberalized’ institutions.⁵ Especially when we consider that these institutional reforms were preceded and accompanied by supposedly ‘good’ policies of liberalization and opening-up (see above), it is difficult to avoid the conclusion that institutional reform along the neo-liberal line may not help growth.

Second, take the case of Korea. Being one of the countries hit by the 1997 Asian financial crisis, Korea was told by the IMF, the US Treasury and other creditors to introduce a sweeping institutional reform and adopt GSIs, especially in relation to finance and corporate governance. However, following these reforms, the country’s trend growth rate has fallen, rather than risen, quite dramatically –

⁵ Between 1960 and the 1980s, per capita income in Latin America grew at 3.1% per year and that in Sub-Saharan Africa at 1.6%. Between 1980 and 2009, the growth rates fell to 1.1% per year and 0.2% per year, respectively (my own calculation based on data from the World Bank and the United Nations).

per capita income growth fell from around 6% per year in the preceding four decades to less than 4% after the crisis.

Third, between the end of the Second World War and the rise of neo-liberalism in the late 1970s, the rich capitalist countries introduced or strengthened a host of regulatory institutions – tougher business regulations, heavy restrictions on financial activities, nationalization of industry and finance, laws protecting workers, higher taxes (amounting to expropriation of private property), the welfare state, and so on. However, during this period – known as the Golden Age of Capitalism – they grew three to four times faster than during the period of classical liberalism (1820–1950) and twice faster than during the subsequent neo-liberal period (1980–2009).⁶

In other words, a lot of ‘time-series’ evidence seems to contradict the results of cross-section econometrics. However, this apparent contradiction becomes easier to understand if we acknowledge that the cross-section results themselves are very problematic.

Measuring the quality of institutions

By its very nature, the quality of an institution is very difficult, if not totally impossible, to quantify, in contrast to many ‘policy’ variables, such as the tariff rate or the rate of inflation. Therefore, institutional qualities are often measured by some indexes based on qualitative judgments.

These indexes are often constructed by organizations that have biases towards free-market policies and Anglo-American institutions (e.g., the World Bank, commercial information providers, the Heritage Foundation, the World Economic Forum). Given their inclinations, they do not try to identify and measure institutions that may help growth but do not fit into the liberalization narrative – for example, the welfare state.⁷ And insofar as these regulatory institutions that promote growth are important at least in some countries, leaving them out of the institutional universe leads to a biased picture of how institutions may or may not promote growth and development.

Moreover, many of these indexes are based on surveys among (especially foreign) businessmen and experts (e.g., academics or financial analysts), many of whom were trained in the USA. As a result, they have biases towards free-market policies and Anglo-American institutions. Given their biases, they are likely to judge a country’s institution to be more liberalized and give them higher-quality scores than what they really deserve, if the country in question is doing well

⁶ Per capita income growth rate was nearly 4% during the Golden Age, compared to just over 1–1.5% before it (1820–1950) (Glyn *et al.*, 1990: 42, Table 2.1). During the neo-liberal age between 1980 and 2009, it has been 1.7% (my own calculation based on World Bank and IMF data).

⁷ From the liberal point of view, a bigger welfare state reduces growth by taxing wealth creators and reducing the compulsion of the workers to work hard. However, a bigger welfare state may promote growth, if it uses unemployment benefits and retraining programmes to increase the willingness and the ability of the workers to change jobs, as it has been the case in Scandinavia.

economically – for many of them, a country that is doing well must have, by definition, liberalized institutions.

Even disregarding these political biases, the survey results are strongly influenced by the general state of business, rather than the inherent quality of the institutions whose qualities they purport to measure (Rodrik, 2009: 188). For example, many people who had thought the institutions in the East and the Southeast Asian countries were quite good and improving before the 1997 crisis suddenly started criticizing the institutional deficiencies of these countries after the crisis broke out (Chang, 2000).

So, for all these reasons, the data are biased from the source – a good (poor) performer is likely to score higher (lower) on the institutional score board than what it really should. When the quality measures themselves are thus structurally biased, we need to be careful in accepting the results of the econometric studies using those measures.

The measurement of institutional quality becomes even more difficult when the objects of measurement are conceptual composites, made up of different concrete institutions. Examples include ‘institutions’ (e.g., Glaeser *et al.*, 2004), ‘governance’ (e.g., Kaufmann *et al.*, 1999, 2002, 2003, 2005, 2006, 2007, 2008, 2009) or ‘the property rights system’ (e.g., Acemoglu *et al.*, 2001).

To begin with, it is questionable whether we can add up all kinds of different institutions into a composite concept and measure its quality. The challenge is even greater for concepts such as ‘institutions’ and ‘governance’, but even ‘property rights system’, which is a less encompassing concept, is composed of an impossibly wide range of component institutions – land law, urban planning law, zoning law, tax law, inheritance law, contract law, company law, bankruptcy law, intellectual property laws, and customs regarding common property, to name only the most important ones. Does it really make theoretical sense to add them up?

Moreover, in practice, these indexes usually mix up incompatible variables – they mix up variables that capture the differences in the *forms* of institutions (such as democracy, independent judiciary, absence of state ownership) and the *functions* that they perform (such as rule of law, respect for private property, government effectiveness, enforceability of contracts, maintenance of price stability, the restraint on corruption). However desirable it may be to have a comprehensive measure of institutional quality, it makes no sense to mix up the form variables and the function variables.⁸ As a result, the variables that measure overall institutional quality are even less reliable than those that measure the

⁸ In response to this confusion, some have argued that the function variables should therefore be preferred over the form variables (Aron, 2000). However, we cannot totally ignore the forms. If we did that, we will be like a dietitian who talks about eating a ‘healthy, balanced diet’ without telling people how much of what they should have.

quality of more concrete institutions, such as democracy or the independence of a central bank.

Problem of sample heterogeneity

The econometric studies that support the dominant discourse on the relationship between institutions and economic development assume, without much critical reflection, that the same relationship holds across countries. Insofar as the problem is recognized, dummy variables, especially ‘regional’ dummy variables (e.g., African dummy) are used to partly deal with it, but this is essentially an atheoretical approach. However, if the relationship differs across countries, it means, in statistical terms, that the ‘homogeneity condition’ is violated. This makes the parameters unstable and thereby the results sensitive to the sample.

I have already talked about the example of IPR institutions, whose relationship with economic growth differs across rich and poor countries. For another example, an independent central bank may be good for countries that specialize in finance, as it would ensure that the interests of finance are put before those of other sectors in the economy (e.g., maintenance of a strong currency, tough attitude towards inflation, and, in case it also has regulatory power, a more lenient approach to financial regulation). In contrast, an independent central bank may not be good for other countries, especially the developing ones that need aggressive investments and therefore a more relaxed approach to inflation, on the one hand, and a tougher financial regulation, given that their thin financial markets may be more easily manipulated, on the other hand.

Of course, violation of the homogeneity condition is a common problem with all cross-section studies, and not just the ones looking at the relationship between institutions and growth, but the problem may be more acute in the case of the latter studies. The relationship, as pointed out above, is much more complex and more poorly understood than other economic relationships, so the likelihood of heterogeneity in the sample is even greater in this case.

4. Back to theories – theories of institutional change

When institutional deficiency was identified as the key explanation – or at least one of the key explanations – for the puzzle of ‘good’ (liberalization) policies failing to work, the supporters of such policies could actually have taken two courses of action.

One course of action, which was *not* taken, would have been to recognize that their policies work well in economies that have liberalized institutions (which itself is a doubtful proposition, but let us give it the benefit of doubt for the moment) but not in economies without those institutions. Then they could have given up implementing their preferred universal policies and proceeded to prescribe to each country only policies that had been designed with its institutional characteristics in mind. This course of action, unfortunately, was not taken.

The course of action taken was to change the institutions, rather than the policies, in line with the so-called GSIs. So, for example, it was argued that deregulation has failed to work in many countries *not* because it was a wrong policy *but* because private property rights were weakly protected in those countries, thereby failing to assure potential investors that they will reap the full gains from their investments. In such a case, it was argued, the right thing to do would be to strengthen the protection of property rights, rather than back-track on deregulation. Likewise, from this perspective, privatization could be seen to have failed to deliver the expected results *not* because private ownership does not work in the particular cases in question *but* because the privatized corporations were not well governed due to poor legal institutions, especially the weak protection of shareholder rights. Once again, the right response would be to improve the corporate governance institutions and then push further with privatization, rather than reversing or stopping privatization.

Opportunity costs of institutions

Whatever the theoretical merits of the GSI approach to institutional reform may be, it needs one critical assumption about the real world, if it is to work. It is the assumption that institutions can be changed easily. However good the GSIs that the dominant discourse recommends may be, it would be a pie in the sky, if remoulding non-GSIs into GSIs, or importing GSIs into countries with missing institutions (e.g., some countries did not have patent laws before the TRIPS agreement) is very difficult. Moreover, even if it did not cost much by some absolute standard, changing institutions so that some given policies can become more effective may be a bad strategy, if adopting different policies is even less costly (of course, assuming that the benefits of two strategies are the same).

To illustrate this point, let me use one of my earlier examples. Suppose that you have identified the reason why privatization has not worked well in a country to be the poverty of its corporate governance institutions. As someone convinced of the superiority of private property, you may want the country to stick to privatization, but as a scarcity-conscious economist who always cares about opportunity costs (at least according to Lionel Robbins' definition of economics as 'a science which studies human behavior as a relationship between ends and scarce means which have alternative uses'), you would recommend that course of action only if the net present value of the costs of changing the corporate governance institutions (the costs of change itself – see below on that – plus the negative future effects, if any) are outweighed by the net present value of its benefits (the increased efficiency and growth due to better-governed privatized former SOEs).

But how many people actually do such cost–benefit analysis before recommending the reform of the corporate governance system – or for that matter before recommending any institutional change? Very few, telling from

the enthusiasm with which they have been pushing for institutional reform in developing countries.

The point that I am trying to make here is that there are costs involved in establishing and running new institutions. For example, a country may copy the patent law and other IPR laws of the USA and declare that it now has good IPR institutions, but these laws will not automatically implement themselves. They need agencies that can implement them – a patent office that can assess and process patent applications, patent lawyers who can deal with disputes, patent courts to settle the disputes, inspectors that can catch copyright violators, and so on. All of these require human and financial resources. When financial and human resources are redeployed from existing uses in order to run the new institutions, social welfare will suffer if those resources used to be devoted to more necessary things. For example, if a developing country government adopting ‘global standard’ IPR institutions has to cut down the number of schoolteachers, doctors and nurses in order to hire more inspectors to catch DVD pirates, many people would say that the opportunity cost of such institutions is too high.

So, even for an institution that we are certain will bring a lot of benefit, we have to consider the costs needed for its establishment and future running, before we recommend it. Unfortunately, many economists ignore the issue of opportunity costs of institutional reform, when it comes to implementing those institutions that they like.

Two mainstream views on institutional changes – voluntarism versus fatalism

At this point, it must be noted that not all interlocutors of the dominant discourse on institutions and development think that institutions are easy to change. Actually, some of them think that institutional changes are nigh impossible. They think that institutions are determined by immutable things such as climate and culture, so they cannot be changed, except through some epoch-making external shocks, like colonization.

So, for example, temperate climate in the USA is supposed to have made small-scale land ownership the natural institution of land ownership, which then led to greater demands for democracy and education by smallholders, which then made the USA a wealthy country by restraining the scope of arbitrary government expropriation. In contrast, the tropical climate in many Latin American countries is supposed to have led to latifundia-dominated agriculture, producing the opposite results (Engerman and Sokoloff, 1997).

For another example, the Europeans brought with them bad institutions, mainly aimed at resource extraction, when they colonized tropical countries, because they did not want to settle in those countries due to tropical diseases, while they brought better institutions into settler colonies in the temperate zone because they wanted to live there themselves. These institutions, it is argued, have

then determined how well private property is protected in a country, thereby determining its growth performance until today (Acemoglu *et al.*, 2001).

For yet another example, Botswana's historically inherited consensus-oriented political culture, with strong grass-roots influence, is supposed to have made its post-colonial leaders to create an inclusive property rights system, which has allowed the country to avoid the likely 'resource curse' (it has a lot of diamonds) and achieve successful economic development (Acemoglu *et al.*, 2003).

The upshot of this view is that a country's fate is already 'written'. Institutions are relevant – no, they are more than relevant, they are arguably the most important – in explaining which country does better than others, but they are not really something that we can change – they are products of immutable things such as climate and culture, affected only by epochal external shocks like colonization.

So, curiously, the dominant discourse on institutions and development seems to prefer 'corner solutions' when it comes to institutional changes. On the one hand, we have the extreme voluntarism of the GSI school, which believes that institutions can be changed very easily if there is a political will. On the other hand, we have the extreme fatalism of the climate-culture school, which believes that institutional patterns are deeply influenced by immutable (or at least near-immutable) factors, such as climate and culture, and therefore that there is nothing much we can do about it.

Against the voluntarism of the GSI school

Even though we may not want to (and we should not, as I will argue later) go as far as accepting that a country cannot get out of its historical groove which it has fallen into thanks to some long-standing 'tradition' or some epoch-making events, the extreme voluntarism of the GSI literature is unwarranted. There are many reasons why institutions cannot be changed at will.

Now, in the rationalist discourse of GSI, all rational government leaders should adopt GSIs, as they are proven to be the best institutions – that is, unless they are motivated by self-interests and want to preserve socially inefficient institutions that benefit them personally. The benefits could be of material kinds – for example, concentrated land ownership, as in many developing countries today – or ideational – for example, the Gold Standard in the 1920s or Marxist ideology in the Soviet Union before its fall (on the role of ideas in institutional changes, see Blyth, 2003).

However, it is not always, or even necessarily predominantly, because those who have (financial, political and ideological) power want to preserve those institutions that serve their interests that institutional changes are difficult to bring about.

First, the rational-choice framework of the GSI discourse may make us think that institutions are products of rational (and selfish) choices of individuals, but human beings are products of existing institutions, which are in turn a mixture

of deliberate choices made by agents of yesteryears and the institutions that had existed prior to those agents and at least partially formed them (this is what Chang and Evans, 2005, call the ‘constitutive’ role of institutions). Given this, the very notions of self-interests and rationality are defined by history. What they want and how they think they can best achieve it depend on who the people in question are. Thus seen, in refusing to introduce a GSI, a country may not be being ‘irrational’ or driven by the ‘rational’ choice of selfish rulers, as mainstream institutional economists are likely to think. It may be following its own notion of rationality, efficiency and justice. In this sense, the path-dependence in the process of institutional evolution operates at a more fundamental level than we normally think.

Second, insofar as some institutions have been deliberately designed and codified, they often contain rules that make changes difficult. Institutions are *meant to be stable* – otherwise they will have no use. So, if you are designing a new institution, you will make it sure that it cannot be changed too easily. And the degree to which you will make an institution difficult to change will be greater, the more important the institution is considered to be. So, typically the constitution will be far more difficult to change than lesser laws. In other words, institutions often have in-built mechanisms against change.

Third, some other times, potentially beneficial institutional changes are not made because only simultaneous changes in complementary institutions can bring about enough benefits (Aoki, 2007). For example, land reform will work well only when the changes in land ownership are accompanied by the introduction of institutions that can supply affordable inputs (e.g., credit, infrastructure, fertilizer) to the newly created smallholders, such as cooperatives, public irrigation corporations, public rural banks – as seen in the cases of East Asia and the US examples (Chang, 2009). Unless (at least enough of) its supporting institutions are correctly identified and installed at the same time, introducing a new institution may not bring about the desired outcomes.

So, it not just because of the ‘stupidity’ and the self-interest of those who lead developing countries, which have supposedly inferior institutions, that institutional reforms do not happen easily. It is also because of the constitutive role of institutions, the inherent change-resistance of designed institutions, and the interdependence between institutions. Given that the GSI discourse’s understanding of institutional change is so fundamentally at odds with the very things that we know to characterize the process of institutional changes, we need to be very wary of its extreme voluntarism.

*Against the fatalism of the climate-culture school*⁹

Now, criticizing the GSI school for its extreme voluntarism is quite easy, if not totally painless. However, that does not mean that we should go to the other

⁹ This section draws from Chang (2007b).

extreme and agree with those who think that institutional changes are basically impossible and therefore that the institutional arrangements which a country has inherited determine the course of its history – unless we have really huge, epoch-making external shocks such as colonization. History is in fact full of examples of big institutional changes made through deliberate human actions, not totally determined by the existing institutional structures.

How is this possible? Did I not just say that institutions are very difficult to change?

The dominant discourse on institutions in the tradition of the climate-culture school thinks that all institutions in a country are permeated by one ‘tradition’ – so, for example, the political culture, and thus the process of institutional evolution, in the USA was driven by the desire of the small men to protect themselves against the intrusion of the central government, while Botswana’s modern-day political culture, and thus the country’s institutional evolution in the recent period, was indelibly marked by its tradition of grass-roots participation and consensus-building.

However, in reality, a country’s institutional complex contains various elements, and therefore can usually be described as pro-developmental, anti-developmental, or whatever we want, depending on which particular elements we choose to highlight. In this sense, explanations that rely on culture and institutions (as the embodiments of cultural values) can easily degenerate into *ex post* justifications. Let me illustrate my points with a few examples.

First, take the case of Confucianism. Today, many people argue that it is a culture that is inherently pro-developmental. Indeed, if we highlighted its emphasis on education, its notion of ‘heavenly mandate’ (which gives some important voice to the grassroots and justifies dynastic changes), its emphasis on frugality, and so on, you cannot have a better culture for economic development. However, if we emphasized its hierarchical nature (which is supposed to stifle creativity; see Krugman, 1994), its penchant for bureaucracy, its detestation for craftsmen and merchants (engineers and businessmen in modern terms), we cannot have a worse culture for economic development. Indeed, until the 1950s, many people, including the East Asians themselves, argued that the East Asian countries were not developing because of Confucianism.

Now, contrast this with Islam, which today is considered to be the ultimate anti-developmental culture. Indeed, if we focused only on its emphasis on after-life, its repression of women (although one should note that more than 60% of university students in Iran are women and that more than half the professional staff at the Malaysian central bank are women), and its militaristic streak (as embodied in the notion of *jihad*), we will end up with a picture that does not look very promising for economic development. However, we could isolate its lack of social hierarchy, its respect for commerce (the Prophet himself was a merchant), its contractual culture, its strong legal tradition (Muslim countries had trained judges centuries before the Christian countries), and its emphasis on

learning (the Muslim world was the centre of world science and mathematics around the 10th century), and make Islam look even more pro-developmental than Confucianism (see Chang, 2007a: chapter 9; however, for a discussion of the anti-developmental aspects of the Muslim legal system, such as the inheritance law, see Kuran, 2004). Of course, we do not use this characterization of Islam, not because these characteristics are not there but because most Muslim countries have not been very successful in economic development.

For another example, France is usually seen as a country of *dirigiste* culture and institutions, at least since the days of Jean-Baptiste Colbert, Louis XIV's finance minister. However, *laissez-faire* was also a strong French tradition. Between the fall of Napoleon and the Second World War, the country was even more liberalized in its economic policy than the then very liberalized Britain in some respects (Kuisel, 1981; Chang, 2002a: chapter 2). The current French 'tradition' of *dirigisme* was revived in the 1950s after a century and a half of coma.

The point is that, even when we accept that a country's institutions (and culture that underlies them) are given, deliberate choices still matter because there are always elements in a country's cultural/institutional complex that are pulling in different directions. Depending on how people interpret their 'tradition', which aspects of it they choose to highlight, and which interpretation wins in political and ideological battles, a country could evolve into very different directions.

More importantly, over the long term, 'traditions' are not immutable. Cultures and institutions themselves change, often dramatically.

For example, as pointed out above, the Muslim culture was more tolerant, scientifically minded, and pro-commerce than the Christian ones until at least the sixteenth century. The intolerant, other-worldly streak became prominent only recently, with the general economic decline of the Muslim world. As also pointed out above, the Confucian societies, including China itself more recently, have transformed what once was an anti-developmental culture and engineered the biggest economic miracles in human history during the last half a century.

One reason for such cultural and institutional shifts is that, as I pointed out above, economic development brings about cultural/institutional changes, as much as the latter changes bring about economic development. For example, industrialization makes people more 'rational' and 'disciplined'. This is testified to by the fact that before their countries achieved a high degree of industrialization, the Germans and the Japanese were described by visitors from economically more advanced countries as lazy, irrational, and even congenitally incapable of dealing with machinery – completely different from their modern-day racial stereotypes (for further details, see Chang, 2007a: chapter 9).

For example, in 1903, the American missionary Sidney Gulick observed that many Japanese 'give an impression . . . of being lazy and utterly indifferent to the passage of time' (Gulick, 1903: 117). Gulick was no casual observer. He lived in Japan for 25 years (1888–1913), fully mastered the Japanese language,

and taught in Japanese universities. After his return to the USA, he became a champion of racial equality for Asian-Americans. Nevertheless, even he saw ample confirmation of the then Japanese cultural stereotype of an ‘easy-going’ and ‘emotional’ people who possess qualities such as ‘lightness of heart, freedom from all anxiety for the future, living chiefly for the present’ (ibid.: 82).

Before their economic take-off in the mid-19th century, the Germans were typically described by the British as ‘a dull and heavy people’ (Hodgskin, 1820: 50). Mary Shelley, the author of *Frankenstein*, wrote in exasperation after a particularly frustrating altercation with her German coach-driver: ‘the Germans never hurry’ (Shelly, 1843: 276). It was not just the British. A French manufacturer who employed German workers complained that they ‘work as and when they please’ (Landes, 1998: 281). Talking about excessive German emotion, Sir Arthur Brooke Faulkner, a physician serving in the British army, observed that ‘some will laugh all sorrows away and others will always indulge in melancholy’ (Faulkner, 1833: 155). Given that Sir Arthur was an Irishman, this would have been like a Finn describing the Jamaicans a gloomy lot, according to today’s cultural stereotypes!

Another, and possibly more important, reason for cultural/institutional shift is that, to paraphrase Marx, it is humans that change institutions, albeit not in the institutional context of their own choosing.

In the dominant institutional discourse, this is impossible because there is no real human agency. Material interests that motivate people to change institutions (e.g., pressure for democracy from small independent farmers) are predetermined by ‘objective’ economic (or even natural) conditions, which will be obvious to all rational agents (that is, everyone), and therefore there is no real ‘choice’ in what we do (Chang and Evans, 2005). Or alternatively we are just carriers of cultural ‘memes’ – such as Botswanan ‘democratic’ political culture or the Confucian ‘work ethic’.

However, in reality, people make choices that are *not* totally determined by their ‘objective’ economic interests. Ideas, and institutions that embody them, influence how people perceive their interests (and therefore there is no such thing as ‘objective’ interest in the final analysis) and sometimes even make people defy their own ‘objective’ interests because of the ideas that they have internalized.¹⁰

We will be able to break away from the cultural/institutional determinism so prevalent among mainstream institutional discourse (unless they indulge

¹⁰ One interesting example is the case of a Korean planning agency, the Economic Planning Board (EPB). Although it was the centre of government intervention until the 1970s, for various reasons many bureaucrats at the EPB adopted neo-liberal ideology since the 1980s. By the early 1990s, some EPB bureaucrats were even calling for the abolition of their own ministry. This flies directly in the face of the fundamental assumption of self-seeking in orthodox economics. Unless we accept the importance of human agency and the influence of ideologies on it, we will never be able to understand why these bureaucrats went against their ‘objective’ interests and campaigned for the reduction of their own power and influence. For further details, see Chang and Evans (2005).

themselves in boundless optimism of the GSI discourse) only if we recognize the complexity of the nature and the evolution of culture and institutions, on the one hand, and accept the importance of human agency in institutional change, on the other hand.

5. Conclusion

I have critically examined the recent mainstream discourse on the role of institutions in economic development. I critically examined the theories that the dominant discourse uses in explaining the relationship between institutions and economic development and discussed their limitations. Not only do the theories ignore the influence of economic development on institutional changes, but they are also biased (towards ‘liberalized’ solutions), simplistic, linear, and pays insufficient attention to the fact that the relationship may differ across time and space.

The evidence provided by the dominant discourse in support of its proposition that ‘liberalized’ institutions that provide maximum business freedom and strongest protection of private property rights are the best for economic development also turns out to be very partial, conceptually fraught, and full of practical measurement problems. The evidence largely comes from cross-section econometric studies, with little attention paid to time-series (in the broad sense) data. The inherent problems with defining and measuring institutional quality, especially of the composite kinds (e.g., governance, property rights system), are ignored and the limitations of cross-section regressions for highly heterogeneous samples are not taken seriously.

The currently dominant discourse on institutions and development also has a very poor understanding of how institutions themselves change. Despite their usual emphasis on scarce resource and opportunity costs, mainstream institutional economists almost entirely ignore the issue of the costs of establishing and running institutions, thus making their proposals for institutional reforms appear more attractive than what they really are. Also, in methodological terms, they are either hopelessly optimistic about the prospects of institutional change (the GSI discourse) or unduly fatalistic (the climate-culture school). I argue that these ‘corner solutions’ are the results of very simplistic views on what institutions are and how they change. Only theories that take both structural constraints and real human agencies seriously can help us steer a nuanced middle course between these two absurd extremes.

I would like to conclude this article with a plea. It is that institutional economists need to pay more attention to the real world, both of the present and historical – not the fairy-tale retelling of the history of the world that has come to characterize mainstream institutional economics today (from the Glorious Revolution to Botswana political culture) but capitalism as it really has been. Very often, institutional economic theories, including many non-neoclassical

kinds, have been developed on the basis of rather stylized understanding of reality. However, as I have tried to show in this article, reality is often stranger than fiction and therefore our theories need to be more richly informed by real-world experiences – both history and modern-day events. Only on this basis will we be able to develop theories that are nuanced enough to let us come up with policy conclusions that go beyond the wild voluntarism of the GSIs discourse school and the simple-minded determinism of the climate-culture school. Institutions have become politically too important to be left to those who believe in these simplistic and extremist arguments.

References

- Acemoglu, D., S. Johnson, and J. A. Robinson (2001), 'The Colonial Origins of Comparative Development: An Empirical Investigation', *American Economic Review*, **91**(5): 1369–1401.
- Acemoglu, D., S. Johnson, and J. A. Robinson (2003), 'An African Success Story: Botswana', in D. Rodrik (ed.), *In Search of Prosperity: Analytic Narratives on Economic Growth*, Princeton: Princeton University Press, pp. 80–119.
- Acemoglu, D., S. Johnson, and J. A. Robinson (2005), 'Institutions as the Fundamental Cause of Long-Run Growth', in P. Aghion and S. Durlauf (eds.), *Handbook of Economic Growth*, Amsterdam: North-Holland, pp. 385–472.
- Albert, M. (1991), *Capitalism vs. Capitalism*, New York: Four Walls Eight Windows.
- Aoki, M. (2007), 'Endogenizing Institutions and Institutional Changes', *Journal of Institutional Economics*, **3**(1): 1–31.
- Aron, J. (2000), 'Growth and Institutions: A Review of the Evidence', *The World Bank Research Observer*, **15**(1): 99–135.
- Blyth, M. (2003), 'Structures Do Not Come with an Instruction Sheet: Interests, Ideas, and Progress in Political Science', *Perspectives on Politics*, **1**(4): 695–706.
- Chang, H.-J. (1997), 'Markets, Madness, and Many Middle Ways – Some Reflections on the Institutional Diversity of Capitalism', in P. Arestis, G. Palma, and M. Sawyer (eds.), *Essays in Honour of Geoff Harcourt – volume 2: Markets, Unemployment, and Economic Policy*, London: Routledge, pp. 30–42.
- Chang, H.-J. (2000), 'The Hazard of Moral Hazard – Untangling the Asian Crisis', *World Development*, **28**(4): 775–788.
- Chang, H.-J. (2001), 'Intellectual Property Rights and Economic Development – Historical Lessons and Emerging Issues', *Journal of Human Development*, **2**(2): 287–309.
- Chang, H.-J. (2002a), *Kicking Away the Ladder – Development Strategy in Historical Perspective*, London: Anthem Press.
- Chang, H.-J. (2002b), 'Breaking the Mould – An Institutionalist Political Economy Alternative to the Neo-Liberal Theory of the Market and the State', *Cambridge Journal of Economics*, **26**(5): 539–559.
- Chang, H.-J. (2005), 'Globalization, Global Standards and the Future of East Asia', *Global Economic Review*, **34**(4): 363–378.
- Chang, H.-J. (2007a), *Bad Samaritans*, London: Random House, and New York: Bloomsbury.
- Chang, H.-J. (2007b), 'Understanding the Relationship between Institutions and Economic Development – Some Key Theoretical Issues', in H.-J. Chang (ed.), *Institutional Change*

- and Economic Development*, Tokyo: United Nations University Press, and London: Anthem Press, pp. 17–33.
- Chang, H.-J. (2008), ‘State-owned Enterprise Reform’, in UNDESA (United Nations Department of Social and Economic Affairs) (ed.), *National Development Strategies – Policy Notes*, New York: United Nations, pp. 113–156.
- Chang, H.-J. (2009), ‘Rethinking Public Policy in Agriculture – Lessons from History, Distant and Recent’, *Journal of Peasant Studies*, 36(3): 477–515.
- Chang, H.-J. (2010), ‘*Hamlet* without the Prince of Denmark: How Development Has Disappeared from Today’s “Development” Discourse’, in S. Khan and J. Christiansen (eds.), *Towards New Developmentalism: Market as Means rather than Master*, Abingdon: Routledge, pp. 47–58.
- Chang, H.-J. and P. Evans (2005), ‘The Role of Institutions in Economic Change’, in G. Dymski and S. Da Paula (eds), *Reimagining Growth*, London, Zed Press, pp. 99–129.
- Cimoli, M., G. Dosi, and J. Stiglitz (eds.) (2009), *Industrial Policy and Development: The Political Economy of Capabilities Accumulation*, Oxford: Oxford University Press.
- Engerman, S. and K. Sokoloff (1997), ‘Factor Endowments, Institutions, and Differential Growth Paths among New World Economies’, in S. Haber (ed.), *How Latin America Fell Behind*, Stanford: Stanford University Press, pp. 260–304.
- FAO (1966), *Agricultural Development in Modern Japan – The Significance of the Japanese Experience*, Rome: Food and Agriculture Organization of the United Nations.
- Faulkner, A. (1833), *Visit to Germany and the Low Countries*, vol. 2, London: Richard Bentley.
- Freeman, C. (1982), *The Economics of Industrial Innovation*, London: Pinter Publishers.
- Garraty, J. and M. Carnes (2000), *The American Nation – A History of the United States*, 10th edn, New York: Addison Wesley Longman.
- Glaeser, E., R. La Porta, F. Lopez-de-Silanes, and A. Shleifer (2004), ‘Do Institutions Cause Growth?’, *Journal of Economic Growth*, 9(3): 271–303.
- Glyn, A., A. Hughes, A. Lipietz, and A. Singh (1990), ‘The Rise and Fall of the Golden Age’, in S. Marglin and J. Schor (eds.), *The Golden Age of Capitalism – Reinterpreting the Postwar Experience*, Oxford: Clarendon Press, pp. 39–125.
- Gulick, S. (1903), *Evolution of the Japanese*, New York: Fleming H. Revell.
- Hall, P. and D. Soskice (eds.) (2001), *Varieties of Capitalism*, Oxford: Oxford University Press.
- Hamilton, A. (1789), *Report on the Subject of Manufactures*, as reprinted in Hamilton, A. (2001), *Hamilton – Writings*, New York: The Library of the America, pp. 679–708.
- Hodgskin, T. (1820), *Travels in the North of Germany*, vol. I, Edinburgh: Archibald Constable & Co.
- Hodgson, G. (2009), ‘On the Institutional Foundation of Law: The Insufficiency of Custom and Private Ordering’, *Journal of Economic Issues*, XLIII(1): 143–166.
- Kapur, D. and R. Webber (2000), ‘Governance-related Conditionality of the IFIs’, G-24 Discussion Paper Series, no. 6, Geneva: UNCTAD.
- Kaufmann, D., A. Kraay, and P. Zoido (1999), ‘Governance Matters’, World Bank Policy Research Working Paper No. 2196, Washington, DC: World Bank.
- Kaufmann, D., A. Kraay, and P. Zoido (2002), ‘Governance Matters II: Updated Indicators for 2000–01’, World Bank Policy Research Working Paper No. 2772, Washington, DC: World Bank.

- Kaufmann, D., A. Kraay, and M. Mastruzzi (2003), 'Governance Matters III: Governance Indicators for 1996–2002', World Bank Policy Research Working Paper No. 3106, Washington, DC: World Bank.
- Kaufmann, D., A. Kraay, and M. Mastruzzi (2005), 'Governance Matters IV: Governance Indicators for 1996–2004', World Bank Policy Research Working Paper Series No. 3630, Washington, DC: World Bank.
- Kaufmann, D., A. Kraay, and M. Mastruzzi (2006), 'Governance Matters V: Aggregate and Individual Governance Indicators for 1996–2005', World Bank Policy Research Working Paper No. 4012, Washington, DC: World Bank.
- Kaufmann, D., A. Kraay, and M. Mastruzzi (2007), 'Governance Matters VI: Governance Indicators for 1996–2006', World Bank Policy Research Working Paper No. 4280, Washington, DC: World Bank.
- Kaufmann, D., A. Kraay, and M. Mastruzzi (2008), 'Governance Matters VII: Aggregate and Individual Governance Indicators, 1996–2007', World Bank Policy Research Working Paper No. 4654, Washington, DC: World Bank.
- Kaufmann, D., A. Kraay, and M. Mastruzzi (2009), 'Governance Matters VIII: Aggregate and Individual Governance Indicators, 1996–2008', World Bank Policy Research Working Paper No. 4978, Washington, DC: World Bank.
- Kim, L. and R. Nelson (eds.) (2000), *Technology, Learning, and Innovation – Experiences of Newly Industrializing Economies*, Cambridge: Cambridge University Press.
- Krueger, A. O. (1980), 'Trade Policy as an Input to Development', *American Economic Review*, 70(2): 288–292.
- Krugman, P. (1994), 'The Myth of Asia's Miracle', *Foreign Affairs*, 73(6): 62–78.
- Kuisel, R. (1981), *Capitalism and the State in Modern France*, Cambridge: Cambridge University Press.
- Kuran, T. (2004), 'Why the Middle East is Economically Underdeveloped: Historical Mechanisms of Institutional Stagnation', *Journal of Economic Perspectives*, 18(3): 71–90.
- Lall, S. and M. Teubal (1998), "'Market stimulating" Technology Policies in Developing Countries: A Framework with Examples from East Asia', *World Development*, 26(8): 1369–1386.
- Landes, D. (1998), *The Wealth and Poverty of Nations*, London: Abacus.
- La Porta, R., F. Lopez-de-Salinas, and A. Schleifer (2008), 'The Economic Consequences of Legal Origins', *Journal of Economic Literature*, 46(2): 285–332.
- Lipsey, R. and K. Lancaster (1956), 'General Theory of the Second Best', *Review of Economic Studies*, 24(63): 11–32.
- List, F. (1885), *The National System of Political Economy*, translated from the original German edition published in 1841 by Sampson Lloyd, London: Longmans, Green, and Company.
- Lundvall, B-Å. (ed.) (1992), *National Systems of Innovation*, London: Pinter Publishers.
- Nelson, R. and S. Winter (1982), *An Evolutionary Theory of Economic Change*, Cambridge, MA: Harvard University Press.
- North, D. (2005), *Understanding the Process of Economic Change*, Princeton and Oxford: Princeton University Press.
- Ostrom, E. (1990), *Governing the Commons: The Evolution of Institutions for Collective Action*, Cambridge: Cambridge University Press.
- Ostrom, E. (2007), 'Challenges and Growth: The Development of the Interdisciplinary Field of Institutional Analysis', *Journal of Institutional Economics*, 3(3): 239–264.

- Rodrik, D. (2009), *One Economics, Many Recipes*, New York: Princeton University Press.
- Schumpeter, J. (1987), *Capitalism, Socialism, and Democracy*, 6th edition, London: Unwin Paperbacks.
- Shelly, M. (1843), *Rambles in Germany and Italy*, vol. 1, London: Edward Monkton.
- Stein, H. (2008), *Beyond the World Bank Agenda – An Institutional Approach to Development*, Chicago: University of Chicago Press.
- Stiglitz, J. (2007), *Making Globalization Work*, London: Allen Lane.
- Streeck, W. (1992), *Social Institutions and Economic Performance*, London: Sage Publications.