Cristina Pinheiro²

Abstract: In this essay, we challenge the view that freedom of enterprise and property rights constitute a sufficient condition for sustained economic upgrading, especially for catching-up nations squeezed by stringent competition from both advanced innovators and lower-cost imitators. Drawing from developmental state and systems of innovation literature, we contend that prosperity requires central coordination by the state to orchestrate economy-wide concerted actions in order to constantly adapt national production capacities to the ever changing conditions of international supply and demand.

1. Introduction

In their influential book *Why nations fail: The origins of power, prosperity and poverty,* Daron Acemoglu and James A. Robinson (2012) claimed that the reason why countries like Egypt or Guatemala are poor is because they have always been ruled by narrow elites who created and perpetuated institutions designed to extract riches for their own benefit at the expense of the people. By contrast, in rich nations power became more dispersed, preventing elites from concentrating resources exclusively in their hands. The more diluted distribution of power over resources allowed societal groups benefiting from it to effectively push for more inclusive institutions reinforcing that distribution – like parliaments and new property rights. These new institutions incentivised entrepreneurship and innovation, hence triggering, according to the authors, the scientific and technological progress and consequential productivity increases underlying the large-scale improvement of living conditions in those nations.

The depiction of viciously predatory elites minding nothing but their material enrichment, and fearful that prosperity might weaken their grip on power, offers a compelling rationale for why so many nations fail to provide the vast majority of their

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² E-mail: Cristina_Pinheiro@iscte-iul.pt.

citizens with the means to live comfortable, rewarding lives. However, the argument is less convincing when it comes to explaining the cases of success, in particular the extraordinary development experiences of the Asian "miracles". The reason is twofold.

First, nations with some of the most spectacular catching-up track records, like Japan, South Korea and Taiwan, did achieve relentless economic upgrading with political institutions quite far from pluralist. In fact, their social systems were marked by severely constrained parliamentarism, weak labour organisation and varying degrees of discretionary repression. For this reason, the authors had to acknowledge that sustained growth can, after all, occur under extractive political institutions; but only, they argued, when they permit increasingly more inclusive economic institutions that secure property rights and economic opportunities for a broad cross-section of society.

This exception to the general rule makes the second shortcoming more evident: it remains unclear how much economic inclusiveness is required for the virtuous circle of prosperity to "spontaneously" unfold. Acemoglu and Robinson (2012) do not elucidate to which extent resources should be redistributed away from inherently extractive elites in order to ensure sustained growth. Is it the case that the more distribution the better? Or how much concentration of property is too little/much? Should workers be granted appropriability over a higher proportion of profits? Should innovators be prevented from excessively hoarding resources obtained as a consequence of innovation itself? In short, where does the frontier lie, i.e. at which point should the actual violation of previous property rights give in to the inviolable protection of new ones?

In the next section, these issues are discussed in more detail, taking as reference the authors' comparison of North and South Korea. In section 3, we summon up evidence from developmental state literature and sectoral systems of innovation case-studies to show how the state, not private individuals nor corporations, planned and operationalised the build-up of new comparative advantages across several key sectors. In section 4, the elements of such effective state intervention are summarised. Section 5 presents a short reference to the role of political coalitions supporting the pursuit of a developmental agenda via industrial policies, and section 6 briefly outlines how external factors and geopolitics can significantly narrow the policy option set. Section 7 closes the essay with a few concluding remarks.

A disclaimer might be advisable to stress that the aim is by no means to praise any

form of authoritarian ruling, not even if with the purpose or effect of consistently improving the living conditions of millions of people. Nor is it to suggest that political and economic inclusiveness are irrelevant or even detrimental for the achievement of developmental goals – though admittedly the constraints imposed by electoral politics can, in some cases, complicate the pursuit of developmental agendas. The point made here is that freedom, pluralism and appropriability do not guarantee economic prosperity. Something else is required: central coordination.

2. The opposite of the predatory state is the developmental state

Acemoglu and Robinson's (2012) pessimistic take on the reasons why so many nations fail is blended with a symmetrically idyllic perspective of what drives prosperity. But the view that freedom of enterprise and property rights are what it takes for countries to prosper is hardly sustained by the harsh reality of how the first industrialisers have actually developed their productive powerhouses. It is even more inconsistent with the experience of catching-up nations, who found themselves torn between advanced innovators and lower-wage imitators.

This shortcoming is evident in the authors' comparison of the two Koreas. They state that the South did incomparably better because the leaders who ruled the nation after the war (Syngman Rhee and General Park Chung-Hee), though authoritarian, promoted a market economy based on property rights and freedom of enterprise. In their view, South Korea became prosperous due essentially to the establishment of economic institutions that 'allow and encourage participation by the great mass of people in economic activities that make best use of their talents and skills and that enable individuals to make the choices they wish' (Acemoglu and Robinson, 2012: 74). To be inclusive, such institutions should 'feature secure private property, an unbiased system of law, and a provision of public services that provides a level playing field in which people can exchange and contract' and 'permit the entry of new businesses and allow people to choose their careers' (2012: 74-75). In essence, South Korea's prosperity is attributed to wide-ranging economic liberalism (2012: 73-74):

Imagine teenagers in North and South Korea and what they expect from life. Those in the North grow up in poverty, without entrepreneurial initiative, creativity, or adequate education to prepare them for skilled work. Much of the education they receive at school is pure propaganda, meant to shore up the legitimacy of the regime; there are few books, let alone computers. After finishing school, everyone has to go into the army for ten years. These teenagers know that they will not be able to own property, start a business, or become more prosperous . . . They also know that they will not have legal access to markets where they can use their skills or their earnings to purchase the goods they need and desire. They are even unsure about what kind of human rights they will have.

Those in the South obtain a good education, and face incentives that encourage them to exert effort and excel in their chosen vocation. South Korea is a market economy, built on private property. South Korean teenagers know that, if successful as entrepreneurs or workers, they can one day enjoy the fruits of their investments and efforts; they can improve their standard of living and buy cars, houses and health care.

In the South the state supports economic activity. So it is possible for entrepreneurs to borrow money from banks and financial markets, for foreign companies to enter into partnerships with South Korean firms, for individuals to take up mortgages to buy houses. In the South, by and large, you are free to open any business you like. In the North, you are not.

Of course, the case for declaring North Korea the ultimate example of a failed state is obvious. Precisely because of that, North Korea's failings do not tell us much about South Korea's outstanding success. The comparison between countries with blatantly extractive regimes and disastrous economic performance, on one hand, and rich ones with much more inclusive institutions, on the other hand, certainly confirms a link between economic inclusiveness and sustained growth. But to unravel this relationship, one would need to compare also similarly inclusive countries in order to understand the influence of other factors. This would require a rigorous measurement of economic inclusiveness, in the first place.

Perhaps more importantly, though, Acemoglu and Robinson's (2012) argument does not seem to take into account the evidence gathered by widely quoted scholars who delved into the development experiences of Asian nations in great depth. Their depiction of how South Korean prosperity was achieved seems to overlook accounts by Jones and Sakong (1980) and Amsden (1989), in particular, on the role of the state in actively engineering structural transformation, especially in the earlier phases of its development path. It is inconsistent with that evidence for it seems to reduce state's role in the process to essentially giving people the freedom to chose what they wanted to do.

But having the freedom to ask for a loan to implement a good investment idea does

not mean the bank will be willing to grant it. Being free to enter into partnerships with foreign companies does not mean domestic producers will have the capacity to form joint ventures of the kind that leads to the transfer of advanced knowledge. In general, the absence of legal and bureaucratic barriers to start any business one likes does not guarantee that most people will have the capacity to do so. Nor does it warrant that the combination of their individual initiatives will transform the country into an advanced economy able to compete internationally with technological powers.

Moreover, nowadays South Korean teenagers might know they will be materially rewarded if they become successful entrepreneurs or workers, and that is certainly a very important motivation for them to strive; but that will not help them much, nor the prosperity of the nation, if many of them do not have access to all the resources required to actually become successful.

Last but not least, while Rhee's government was indeed supportive of market economy arrangements, South Korea made little progress under his ruling. Only with Park's government did the country take-off in a blazing trajectory of economic upgrading.³ So market arrangements *per se* can hardly be praised as the main causal element behind South Korea's prosperity. Acemoglu and Robinson (2012) made one short reference to the role of Park's government intervention. Stating that 'after 1961, Park effectively threw the weight of the state behind rapid economic growth, channelling credit and subsidies to firms that were successful' (2012: 71-72), they seemingly suggested that state support targeted firms that had proven competitive. But evidence shows that Park's government intervened systematically to support both ailing and entirely new businesses (although, and these were the truly distinctive features, in sectors deemed strategic and upon the condition that firms achieve ambitious performance targets, otherwise state help would be discontinued).

In fact, the developmental state literature has widely documented that the opposite of the predatory state that cripples the economy by suppressing all incentives for

³According to Jones and Sakong (1980: 2), the discontinuity in South Korean growth rate in the early 1960s can be at least partially explained by Rhee's prioritisation of political and integrative tasks, while Park Chung-Hee put growth at the top of the regime's value hierarchy. Rhee's anti-Japanese stance retarded trade with what was otherwise a natural trading partner, and his high hopes at reunification (and the subsequent access to electric power and heavy industries located in the North) made him reluctant to develop the South as an independent economy.

individuals to work and create is not a state that provides them with (some) means to pursue their dreams, expecting the aggregate sum of their individual initiatives to spontaneously bring about prosperity. The antipode of the predatory state is the developmental state: a state that establishes discretionary incentives towards activities and technologies with higher potential to structurally boost the nation's productivity in the long-run, and steps in to organise concerted actions by several actors and even invest or produce, when required, with the intent to develop productive capacities in that direction.

3. Building-up comparative advantage

When General Park's government decided to create the Pohang Iron and Steel Company, Ltd. (POSCO) in the late 1960s, the Korean steel industry was composed mostly of technologically obsolete, small-capacity furnaces. As Amsden (1989: 291-295) thoroughly described, the government had been trying to finance entry into steelmaking all throughout the decade, including a later effort with an international consortium that included the World Bank. But all efforts had failed over disagreement about scale. The World Bank held the view that an integrated steel mill was not economically feasible in South Korea. Indeed the challenges were plenty. First, the industry is highly capital-intensive and Korea lacked capital. Second, it has significant economies of scale, yet Korea's domestic market was small and the largest market in the vicinity, Japan, hosted the world's most efficient producer. Third, South Korea lacked the main raw material, iron ore, and was located far from the main suppliers. The technology was mature and, therefore, well diffused and incorporated in equipment that could be imported, but running it required complex engineering skills.

According to Amsden (1989), despite all these obstacles, South Korea's government decided to venture into steel-making, assuming entirely the risks with the creation of a state-owned enterprise for that purpose. It used financing in the form of reparations from its former coloniser, Japan, for the purchase of equipment. It also subsidised the massive supporting infrastructure facilities – roads, harbours and electricity generation. What is more, the government organised the transfer of technology. First, the Japan Group provided the engineering reports. Then, the government bought the services of an Australian company to review and evaluate those reports and to advise on

procurement contracts for individual plants. Third, it hired a Korean steel specialist working in Japan to review the work of both Japanese and Australian companies. Fourth, it made sure that POSCO's engineers worked closely with the suppliers of equipment to assimilate precious tacit knowledge. Last but not least, import-substitution in steel was integrated in the Big Push programme to foster steel-consuming industries, which created a large domestic market to sustain POSCO's economies of scale.

POSCO became an emblematic case contradicting the myth of public enterprises' inefficiency. As Amsden (1989) noted, it was profitable right from the first year of production and consistently reinvested profits to constantly upgrade production processes. Less than twenty years after its creation, POSCO was exporting technology. It reached an iconic milestone in 1986, when it entered a joint venture with United States Steel to modernise a plant in California, undertaking the design and also the training of American managers and workers.

The steel industry is paradigmatic of how South Korean officials intervened to create comparative advantage nearly from scratch. But they seem to have been aware that imitation in mature industries with highly diffused technology bears an important risk. Since those industries have already exhausted their technological dynamism, they present limited chances for continued productivity increases in the future; hence, countries specialising in these activities may become stuck in low growth traps later on (Perez and Soete, 1988). So, in parallel, Korean decision-makers proceeded to set in motion the creation of comparative advantage in the emerging sectors of electronics and digital telecommunications.

According to Amsden (1989: 82-83), in the 1970s, South Korean leaders decided to create domestic capacity in higher value added processes beyond the assembly of TV sets, which had been promoted in the previous decade mostly to boost employment. Besides taking on the task of arranging foreign loans to finance domestic producers, the government established the Electronics and Telecommunications Research Institute (ETRI) and provided extensive funding and real estate for its installation. In the 1980s, it restricted imports of computers and peripherals to protect domestic catch-up. Foreign direct investment in electronics was restricted, with the exception of joint ventures which ensured the transfer of knowledge from abroad. Most of the *chaebol* – Hyundai, Daewoo, Lucky Goldstar and Samsung – formed them with government brokerage. The

production of very large-scale integrated circuits became a high-priority national project involving collaboration between the *chaebol*'s R&D labs and the ETRI. The government sponsored these collaborative projects in a variety of ways - subsidised credit, tax exemptions, lower tariffs on imports of equipment for R&D purposes, public venture capital funds to help start-ups and public procurement.

As Lee *et al.* (2012) described, also due to state initiative, South Korea leapfrogged into the production of digital switches for fixed line telecommunications without ever having produced any crossbar equipment before. The state purchased digital switching design and engineering technology from Ericsson in the early 1980s and, on that basis, ETRI eventually developed its own, superior digital switch. ETRI then transferred this technology to four firms - Goldstar Semiconductor (a joint venture between LG Electronics and AT&T), Daewoo Telecom, Dongyang Electronic & Telecom, and Samsung Semiconductor and Telecom. In exchange, these manufacturers were required to transfer a portion of their profits back to finance ETRI operations. These firms initially mass produced for rural and small city markets, where multinational corporations (MNCs) were not present. The ETRI, together with manufacturers and universities, and supported by government restrictions on imports of foreign switches plus public procurement for the telecommunications network, eventually developed a large capacity technology.

Hence, unlike Acemoglu and Robinson (2012) seemed to suggest, South Korean state intervention did not target industries that had already proved successful. According to Wade (2004), neither did the Taiwanese state. In the 1950s, the government in Taipei stepped in to help the struggling labour-intensive cotton industry become competitive (2004: 79). It resorted to price-distorting measures such as tariffs and quantitative restrictions on imports of yarn and garments, and even supplied raw cotton directly to spinning mills, advancing all working capital and buying the whole production.

Wade (2004) described in detail how the Taiwanese state also engineered the buildup of comparative advantages in new industries, which were unlikely to have emerged without governmental push. It played the crucial initiator role in the synthetic fibres industry to diversify textiles away from cotton by organising the transfer of technology from a U.S. company to a joint venture of local public and private textilers. The resulting enterprise, China Man-Made Fiber Corporation, began producing rayon in 1957. The deal

set a precedent for government intervention to attract foreign providers of licenced technology and broker partnerships with local producers. A few years later, that same company, together with a state financing agency, created the United Nylon Corporation to launch the production of nylon. Several private firms followed suit. By the beginning of the 1980s, Taiwan had become the fourth biggest producer of synthetic fibres in the world.

The first PVC plant in the island was also built under government initiative, in the late 1950s. That is how the Formosa Plastics Group was born. In the steel industry, stateowned China Steel launched a large-scale integrated mill in 1974. Domestic machine toolmakers were supported by import restrictions, while receiving subsidised credit from the development bank and training and technology inputs from state-sponsored institutes.

In Taiwan as in South Korea, state initiative was key also in building comparative advantage in electronics. As Wade (2004) noted, in the 1950s-1960s, MNCs had no interest in relocating high value added processes to these countries beyond the labourintensive phases that benefited from low wages and repressed labour rights. But in the 1970s, the Taiwanese government intervened substantially to take hold of markets that Japanese firms were leaving behind as they moved to more sophisticated productions. The public Industrial Technology Research Institute (ITRI) created in 1973 became the engine of technological advancement in Taiwan. The ITRI established the Electronics Research and Service Organisation (ERSO) to develop and produce integrated circuits with the help of a foreign partner. ERSO signed a technology transfer agreement with the U.S. company RCA. As part of the deal, ITRI sent young engineers to RCA's facilities in the U.S. for training (Taiwan Today, 2010). At the same time, ITRI built the first wafer factory in the country to be run by those engineers upon return. ITRI's plant gave rise to United Microelectronics Corporation (co-held by ERSO and five private local firms) to produce application-specific integrated circuits (ASICS). Wade (2004: 104-105) contended that ERSO thought Taiwan should specialise in ASICS because they provided a source of innovation across the whole information industry, from data processing to consumer electronics and telecommunications. They also allowed to differentiate from South Korea's strategy of competing with U.S. and Japanese firms in high-volume products. But later in the decade, state officials decided Taiwan should also venture into

the production of very large-scale integrated circuits. The government then orchestrated a collaboration between Philips and several domestic public and private producers, covering nearly half of the start-up costs. The state owned 49% of the new company emerging from this partnership in 1987 (Rasiah *et al.*, 2012: 141), Taiwan Semiconductor Manufacturing Company (TSMC). TSMC would become one of the largest exporters of semiconductors in the world.

3.1. Seizing windows of opportunity

In orchestrating overall, large-scale economic upgrading, the South Korean and Taiwanese states took advantage from what Perez and Soete (1988) termed as 'windows of opportunity' created by the transition to a new techno-economic paradigm. Such opportunities arise because new technologies, though typically engineered in more advanced countries, might diffuse more quickly in less developed nations which had not invested so much capital and skills in the previous ones.

The transition to mobile telecommunications provides additional evidence of the crucial role of the state in early entry into new technologies. As Lee *et al.* (2012) described, extensive intervention by both Indian and Brazilian states had helped the development of domestic fixed line technologies in the late 1980s. In India, the state had created a public lab, C-DOT, which succeeded at developing several solutions adapted to the Indian market, in particular switches for the rural environment that could work without air-conditioning. The two service providers were state-owned, so public procurement was the main instrument used to promote local production. The Brazilian government had also created a public lab, the CPqD, which succeeded at developing a family of digital switches in the late 1980s. The technology was transferred to domestic private manufacturers who sold the equipment to the state-owned service provider, Telebras.

In the 1990s, however, the Indian state failed to support the transition to wireless communications. According to Lee *et al.* (2012), without support, local companies' R&D capacity proved insufficient to withstand competition from MNCs. In Brazil, financial troubles led the country to seek IMF assistance. With the opening up to foreign direct investment that ensued, most domestic manufacturers were either bought by MNCs or closed down. In 1998, Telebras was privatised. CPqD was privatised as well, being forced, in this way, to increasingly prioritise the pursuit of income-generating activities over

developmental goals.

Both India and Brazil failed, thus, to develop any domestic capacity in the production of mobile telecommunications equipment. By contrast, as Lee *et al.* (2012) noted, in South Korea the government declared the development of cellular phone technology as a national R&D project. It fostered a deal with U.S. Qualcomm to buy the initial technology, which ETRI once more re-engineered. In the late 1990s, Samsung started producing the core ship developed by ETRI.

These cases illustrate that, given the high frequency of innovation with huge first mover advantages in the wireless telecommunications industry at the time, it was unlikely that the necessary R&D could have emerged from private initiative alone, not even from giants like the South Korean *chaebol* (Lee *et al.*, 2012). But while in South Korea the state kept 'providing coordination and protection with a strategic vision', 'no sustained state activism existed in the cases of India and Brazil' (2012: 66). This critical difference dictated the latter's failure to develop domestic competitive capacity in the emerging technology.

In a nutshell, the evidence gathered by both developmental state and sectoral systems of innovation scholarships shows that, contrarily to Acemoglu and Robinson's (2012) claim, prosperity is not the direct product of protected property rights and levelled playing fields. Instead, it requires ubiquitous and persistent state intervention to support the strengthening of productive capacities and to build-up comparative advantages in new, higher value added activities with rising demand prospects. In fact, as the Brazilian case strikingly illustrates, when less developed domestic industries were left to play in the same field as the much stronger MNCs, domestic capacity was wiped out.

4. Effective state entrepreneurship

As the cases described in the previous sections show, sustained, large-scale economic upgrading requires coordination by some sort of central agent (Chang, 1994) to mobilise collective concerted efforts towards that goal. Japanese, Taiwanese and South Korean governments assumed that role. They played chief entrepreneurs for the whole

economy.⁴ They could be described as conductors of the 'orchestra' of national producers, evoking Amsden's felicitous metaphor (Van Der Hoeven, 2008 cited in Andreoni and Chang, 2019: 147). They imparted a vision for their economies - what Wade (2004: xliii) eloquently termed 'directional thrust'.

Certainly, as Chang (1994: 299) emphasised, all entrepreneurial visions, private or public, run the risk of being wrong. But, as he also noted, that risk can be minimised via social dialogue, ensuring that state's vision is formed out of the juxtaposition of different visions coexisting in society. Park's government seemed to do well in this domain (though dialogue was restricted to business and academia – labour had no voice). As Jones and Sakong observed (1980: 65-66):

within the strictly limited realm of economic affairs, there is virtually unlimited freedom of expression and dissent. Critics may have to be careful to attribute existing shortcomings to concerned ministers rather than the President or the regime as a whole. These, however, are minor restrictions and a variety of economic opinion is not only tolerated but often heeded.

State's commitment to structural change was reflected in the remarkable coherence of these countries' policies, across policy domains and time. Andreoni and Chang (2019) emphasised the cruciality of this coherence to avoid situations in which policies could have contradicted and undermined each other.

The contrasting experiences of Brazilian and Indian pharmaceutical industries described by Ramani and Guennif (2012) illustrate the importance of policy alignment. After World War II, India sought to achieve some self-sufficiency in the production of vital drugs, in particular antibiotics. The government undertook large investments to establish state-owned enterprises, supported by high import tariffs, export subsidies and strict regulation requiring any firm wishing to expand capacity, import or export in

⁴ This often entailed public ownership and direct management, but not always. In Taiwan, the absence of large businesses from the start made it a pragmatic necessity that the launching of new activities be often conducted by state-owned enterprises (Wade, 2004). In addition, the trauma of being undercut by particularistic private interests on the mainland, together with the fear of strengthening the power of politically hostile native islanders, led the Taiwanese government to embrace elements of Sun Yat-sen's anticapitalistic ideology (Evans, 1995 pp. 55). In Japan, the state engaged the big business groups (*zaibatsu*) that had grown since the Meiji restoration in the implementation of its structural transformation plans. When political conditions forced it to loosen its strict regulatory grip, the developmental agenda was kept on track via softer coercion practices like administrative guidance and the "descent from heaven" of retired state bureaucrats into senior management positions in private firms (Johnson, 1982). Unlike the Japanese *zaibatsu*, the Korean *chaebol* were not allowed to own banks, so financing was entirely under state's direct control (Jones and Sakong, 1980). Still, these large business groups were pivotal partners of the state in the operationalisation of South Korea's developmental agenda.

pharmaceuticals to seek a licence. But twenty years of these policies did not prevent MNCs from still controlling 80% of the production. They were ineffective because India had in place a strict Intellectual Property Regime (IPR) inherited from British rule which prohibited re-engineering when nearly all patents were held by MNCs. In 1970, the government passed a new Patent Act which (together with the U.S. Hatch-Waxman Act stimulating the U.S. market for generics) boosted a spur in Indian production. India would eventually emerge as an international power in pharmaceuticals. In Brazil, by contrast, IPR was flexible from the beginning. In the 1950s, it covered only processes and re-engineering was allowed. But macroeconomic policies to attract foreign direct investment undermined the positive effects of the lose IPR regime. Many domestic producers were acquired by MNCs. As medicines remained scarce and expensive, the government felt compelled to act and decided to remove process patents as well. But the move hardly produced any results, as the severe macroeconomic crisis of the 1980s forced cuts in nodal bodies like the National Scientific and Technical Development Fund. Protectionist measures were then enacted, but proved insufficient to compensate for the shortage of funding. In the 1990s, sudden, across-the-board liberalisation in the context of IMF financial assistance brought simultaneously the reinforcement of IPR (several years ahead of what was required by WTO's TRIPS) and the reduction of import tariffs from 70% to 14%. The few local companies that existed by then exited the market on a large scale.

Brazil's inability to align policies around the developmental agenda contrasted with South Korea's ability to constantly adapt them to changing circumstances and unforeseen consequences of state's own interventions. Korean officials' effectiveness at removing bottlenecks as they unfolded along the industrialisation pathway (Andreoni and Chang, 2019) was fostered by speed and flexibility of government action. As Jones and Sakong (1980: 64) noted, '[r]apid structural change and unpredictable exogenous shocks continually produce new imbalances which outdate earlier policies and require quick adjustments if growth is to be sustained'. South Korean state intervention proved particularly adapted to this fast changing reality (1980: 63):

Rather than studying the problem to death, the government moves quickly to achieve the perceived benefits immediately and then modifies its position quickly as deleterious side effects become apparent. Flexibility thus substantially reduces the costs of speedy decision-making.

Speed and flexibility were a manifestation of developmental states' pragmatism in pursuing their number one goal. This pragmatism was also reflected in their extensive toolbox: whatever seemed to work was used, from subsidised credit to tax exemptions, from tariffs and other imports restrictions to foreign exchange controls, from stateowned enterprises to partnerships with private business groups. The South Korean "miracle" was 'a pragmatic non-ideological mixture of market and non-market forces. Where the market works, fine; where it doesn't, the government shows no hesitation in intervening by means that range from a friendly phone call to public ownership' (Jones and Sakong, 1980: 3).

5. Building political support for the prioritisation of industrial policy

Shortly after General Park Chung-Hee took power in a military coup in May 1961, most of South Korea's leading businessmen were arrested under the accusation of having taken advantage of their positions and connections with civil servants, politicians and government officials, to illicitly accumulate wealth. Threatened with confiscation of their assets (so long for the protection of property rights), they were released shortly after, upon the condition that they would build new industrial factories following government guidance.

As Jones and Sakong (1980: 282) pointed out, the incident reflected the combination of South Korean government's commitment to the development of productive capacities and its belief that 'entrepreneurs were an essential scarce commodity to be utilized in pursuit of that goal'. A pattern was then initiated whereby substantial state assistance was provided to businessmen who committed to launching new manufacturing and export activities, and proved successful at making them competitive.

But public-private partnerships did not merely serve an instrumental purpose. Engaging the wealthiest businessmen in the process of structural change by offering them opportunities for extensive profit was also a way to win their political support. Likewise, economic development itself was also a means to ensure the acquiescence of the masses and appease often intense social conflict. Of course, both businessmen and workers grew more powerful in the process (though disproportionately), creating additional downstream political challenges. But the fear of consequently losing their grip on power further down the line did not discourage ruling elites from stimulating

prosperity.

6. External forces, institutional lock-in and policy space

The aim of this essay is to point out the key role of central coordination by the state in actively promoting the structural transformation of the economy towards higher productivity activities, thus challenging the view that property rights and freedom of enterprise are all it takes to achieve prosperity. But it should be noted that even if political leaders are truly committed to a developmental agenda, they may not have enough policy space to effectively implement it. In particular, they may be constrained by external pressures from more powerful nations and bilateral and multilateral agreements that limit their policy toolbox (for instance, many of the instruments used by the Northeast Asian nations, such as reverse-engineering and local content requirements, were later banned by the WTO). Such accords might have been imposed upon (for instance, in exchange for financial aid) or wholeheartedly endorsed by their predecessors. And they may have been designed in a way to make them as close as possible to irrevocable.

Additionally, as Rodrik (2000: 182) has pointed out, when national economies become tightly intertwined, 'politics have to be exercised over a much narrower domain':

In such a world, the shrinkage of politics would get reflected in the insulation of economic policymaking bodies (central banks, fiscal authorities, and so on) from political participation and debate, the disappearance (or privatization) of social insurance, and the replacement of developmental goals with the need to maintain market confidence.

Thomas Friedman (1999, as cited in Rodrik, 2000: 182) elaborated on this narrowing of policy choices as economic integration compels political leaders to put on the 'Golden Straitjacket' of policies aimed at attracting trade and capital inflows:⁵

That is why it is increasingly difficult these days to find any real differences between ruling and opposition parties in those countries that have put on the Golden Straitjacket. Once your country puts on the Golden Straitjacket, its political choices get reduced to Pepsi or Coke—to slight nuances of tastes, slight nuances of policy, slight alterations in design to account for local traditions, some loosening here or there, but never any major deviation from the core golden rules.

⁵Rodrik (2000: 182) summarises: 'tight money, small government, low taxes, flexible labor legislation, deregulation, privatization, and openness all around'.

7. Concluding remarks

Secured property rights (if adequately distributed), freedom of enterprise and good education increase people's ability to create, innovate and produce. But alone they can do little to countervail the crushing forces of international competition.

To climb the development ladder, catching-up nations must build-up comparative advantages in more sophisticated, knowledge-intensive productions while facing fierce competition from other economies. This requires not only the previous accumulation of some critical level of capacities and skills, but also substantial investments. Beyond risky, these investments are wrapped in extreme uncertainty, for it is quite difficult to assess *ex ante* in which new activities a country could become competitive. Firms are unlikely to venture into such uncertain projects by themselves. They may organise consortiums to operate joint ventures into new productions, if they have enough skills and access to financing. But it is unlikely that such arrangements will respond to the need to articulate all sectors of the economy, in order to adapt them to accelerating shifts in international supply and demand by seizing windows of opportunity in emerging technologies.

To engineer and orchestrate such concerted efforts at the national level, central coordination capacity is required. The task calls for a kind of chief entrepreneur to supervise the economy's production profile. The same way that firms are centrally managed by some decision-making body, the vast constellation of producers that constitute an economy must be centrally organised to some degree too. Otherwise, the economy will simply drift. In face of the treacherous forces of competition, as free and skilled as citizens might be, it would take a tremendous amount of luck for the random combination of their uncoordinated individual efforts to spontaneously produce economic upgrading.

The prolific evidence from developmental state and sectoral systems of innovation scholarships has shown that, in the few truly successful cases of catching-up, the state assumed this role, 'rejecting the current endowment of resources as arbiter of how income is to be earned in the future' (Amsden, 1989: 292), and taking the risk of deciding which new productive capacities should be developed.

Of course, it cannot be overemphasised how Herculean and rife with obstacles this task is. The fact that so few nations succeeded in this endeavour is there to prove it. A

rare combination of factors is required. To start with, the political will to do so. The risk of capture by particularistic interests is always present. But in a hyper-complex societal system marked by overpopulation, extreme inequality, fierce competition and often war, even motivated political leaders and skilled, hard-working citizens may find themselves helplessly trammeled by a plethora of constraints, internal and external, rendering futile their efforts and aspirations to prosperity.

In face of multiple difficulties, some states did, nevertheless, succeed as chief coordinators of structural transformation and mediators of political consensus around effective industrial policies. And that is the reason why their nations thrived.

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