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# South Korea's and China's catching-up: a new-developmentalist analysis

## *O catching-up da Coreia do Sul e da China: uma análise novo-desenvolvimentista*

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RESUMO: O objetivo deste artigo é analisar o processo de catching-up da Coreia do Sul e da China pós-reformas de 1978 a partir de uma abordagem novo-desenvolvimentista que considere quatro fatores fundamentais: 1) uma relação de complementaridade entre Estado e mercado como um processo dinâmico que se altera ao longo do tempo; 2) necessária complementaridade entre política macroeconômica e política industrial; 3) papel fundamental do Estado dos bancos de desenvolvimento no enfrentamento do problema do "financiamento do desenvolvimento"; e destaque à 4) centralidade da taxa de câmbio e do manejo na administração do balanço e pagamentos no processo de desenvolvimentos desses países. A questão fundamental do artigo é em que medida o processo de catching-up nesses países pode ser entendido como uma aplicação de uma estratégia novo-desenvolvimentista, levando em conta as devidas mediações históricas de cada país.
PALAVRAS-CHAVE: Leste Asiático; China; catching-up; macroeconomia do desenvolvimento; estratégia novo-desenvolvimentista.

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ABSTRACT: The purpose of this paper is to analyze the catching-up processes of South Korea and post-1978 reforms China, based on a new-developmentalist approach that considers four fundamental factors: 1) a complementarity relationship between the state and the market as a dynamic process that changes over time; 2) necessary complementarity between macroeconomic policy and industrial policy; 3) the key role of public and development banks in attacking the problem of "development financing"; and a particular focus on 4) the centrality of exchange rate and balance of payments administration for the development process in these countries. The paper's fundamental question is to what extent the catching-up process in these countries can be understood as the application of a new-developmentalist strategy, taking each country's particular historical traits into account.
**KEYWORDS**: East Asia; China; catching-up; developmental macroeconomics; new-developmentalist strategy.
JEL Classification: O1; O5.

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It is consensus among economists that South Korea since the 1960 and China after the 1978 economic reforms are catching-up success cases, unlike Latin America, whose growth process began to collapse after the Mexican debt crisis of 1982. Within the framework of the crisis, Latin American countries embraced agendas that toed the line of the Washington Consensus, in particular trade openness. They thereby dismantled the mechanism that neutralized the Dutch Disease by means of taxes on imports and subsidies to manufactured goods exports, financial accounts openness, and market-determined foreign exchange rates; and dismantled the developmentalist economic policy regime that had marked its industrialization in the four previous decades and launching a process of de-industrialization and exports (re)primarization.

Most of the research on East Asia's economic development shares several points, some of which include: (1) the state's central role coordinating and developing industrial policy as means to execute the respective national development strategies; (2) the formation of public – or private-sector business conglomerates connected with the national financial systems; (3) challenging the chronic problem of eternal constraints based on international insertion strategies involving exports with increasing value-added over time, until the "technology frontier" is reached;[1] and (4) the formation of highly-educated bureaucracies committed to the national project, working both in the state bureaucracy and in the management of business conglomerates (chaebol, zaibatsu, keiretsu, large Chinese government companies, etc.) (Evans, 1993). The new-developmentalist approach, which a group of economists has been building since the beginning of the century, adds a fifth point, (5) an active macroeconomic policy, especially a foreign exchange policy, which was cru-

[1] In this sense, a central thesis in Amsden (2007, p. 29) lies in the fact that: "For the first time in history, 'lagging' countries industrialized without *innovations of their own*. [...]. Late industrialization was a case of p*ure learning*".

cial to theoretically explain the success of the East Asian experience, and the interruption of the process of economic development in Latin America from the 1980s. How does one explain this? Is it related with the former's lengthier maintenance of a developmentalist policy and the latter's radical dismissal of it? The problem still lacks development in the literature. Both classic Asian-style development studies and many more recent ones devoted little attention to economic policy analysis in the sense of creating the conditions for long-term growth.[2]

The dismantling of Dutch Disease-neutralizing mechanisms and the adoption of high interest rates to attract foreign capitals and try to grow with foreign savings lead, as the article will show, to a chronic currency overappreciation tendency that discourages investment and stimulates consumption. Hence the importance of adopting a relatively low interest rate level and handling the foreign exchange rate to ensure profitable investment opportunities for industrial firms, instead of keeping them under harm from a long-term competitive disadvantage. A central thesis of New Developmentalism is that a long-term appreciated exchange rate is a determinant of low private-sector investment, insofar as it denies demand access to non-commodity tradables producers using the best technology available. At the same time, extensive literature emerged showing a robust long-term relationship between a competitive foreign exchange rate and economic growth (Gala, 2007; Rodrik, 2008; Guzman et al, 2018).

The purpose of this paper is to analyze in general terms the catching-up of South Korea and post-1978 reforms China from a new-developmentalist approach taking account of four key factors: 1) a complementarity relationship between the state and the market as a dynamic process that changes over time; 2) necessary complementarity between macroeconomic policy and industrial policy; 3) the key role of public and development banks in attacking the problem of "development financing"; and a particular focus on 4) the centrality of exchange rate in these countries' development process.

This paper is organized into four sections other than this introduction. The following section discusses the fundamentals of a new-developmentalist catching-up strategy and how new developmentalism views the economic development process. The third section examines the application of the new-developmentalist strategy in the Korean case, whereas the fourth section analyzes the Chinese development strategy. Finally, the fifth section offers our concluding arguments.

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[2] Johnson (1982, p. 315-320), for example, emphasizes four main elements that explain Japan's success: 1) the presence of a small elite bureaucracy willing to best meet the requirements of the national project; 2) a political system to ensure this bureaucracy's freedom of action and scope; 3) perfect *market-conforming methods* that generate rational forms of state intervention in the economy; and 4) the key role of institutions like the Ministry of Industry and Foreign Trade (MITI) in the process of coordinating and executing the national project itself. At no point does he suggest the role of economic policy.

## NEW-DEVELOPMENTALIST STRATATEGY OF CATCHING-UP AND DEVELOPMENT FINANCING

The *new-developmentalist* strategy assumes that countries that adopted a developmentalist economic policy regime and managed to catch-up implemented national development strategies that attack the *foreign exchange overappreciation tendency*, which stems from two structural factors: the "Dutch Disease" and an additional currency appreciation caused by net foreign capital flows that the policy of growth with foreign savings fosters.

To oppose this tendency, New Developmentalism prescribes a foreign exchange policy based (a) on capital controls; (b) Dutch Disease neutralization; (c) the rejection of two commonplace policies that imply rising interest rates and undesirable capital inflows: the policy of growth with foreign savings and the foreign exchange rate as an inflation anchor. The objective is an "industrial equilibrium" exchange rate – that is, the one that industrial companies using state-of-the-art technology need for international competitiveness (Bresser-Pereira, 2008).

Current-account deficits do not usually finance investment, but rather consumption. However, economic policymakers usually reject policies that exchange rate-appreciating policies due to "currency populism" – the fact that an appreciated exchange rate facilitates reelection of incumbent rulers because it "artificially" increases workers' wages and rentiers' income (interest, dividends and rents).

New-developmentalist macroeconomic policy regards the exchange rate as a strategic variable. A competitive exchange rate, in addition to stimulating exports with greater added value, also encourages investment in the domestic market. The consumption-led expansion has limited effects: consumption can temporarily only generate economic growth, as long as it is politically and economically feasible to induce income redistribution towards the working class. The absence of clear limits for the increase of wages' share in national income makes investments and exports the main factors of economic growth in the long run" (Bresser-Pereira et al., 2014).

According to New Developmentalism, there is no conflict between developing the domestic market and an exports-based growth strategy, as exports increase employment, wages and domestic consumption; in addition, they stimulate the main variable of demand, which is investment.

The foreign-exchange policy must make sure that properly operated companies located in the country have *access* to domestic and international demand – something that conventional economics assumes to be assured as long as there is demand. However, if the exchange rate tends to remain chronically appreciated, and only devalues under crises, this access becomes a precondition for investment and economic development.

Bresser-Pereira (2008, 2010) points out that the middle-income countries that faced the Dutch Disease and still managed to catch-up were able to somehow neutralize this competitive disadvantage. In practice, several counties that selected industrialization as an objective did so intuitively, using multiple exchange rates, import tariffs, and subsidies to exports that implied a disguised tax on commodities.

It is worth mentioning that, according to the new-developmentalist strategy, industrial policy cannot offset an appreciated exchange rate.

Finally, New Developmentalism rejects foreign financing, which is only beneficial in specific situations, when growth gains "miraculous" pace, expected profit rates increase, marginal propensity to invest also increases, and the rate of substitution of foreign for domestic savings drops (Bresser-Pereira e Gala, 2008). Beyond this particular condition, foreign debt, even in the form of direct investment, only appreciates the exchange rate in the long run (while financing the current account deficit requires additional capital inflows) and increases the consumption of workers and rent seekers.

Whereas foreign financing is rejected, domestic financing of investments is naturally essential. Keynes (1937), in a discussion soon after the 1936 publication of the *General Theory*, drew an important distinction between savings and financing: what am entrepreneur needs to realize investment decisions is access to liquidity, whether provided by the banking industry or through a sizeable share of agents' waiver of liquidity, but not through preexisting savings. This requires a banking industry capable of creating new purchasing power through credit. Ex-post savings are generated from autonomous investment decisions, as a result of the multiplier effect of income (which is partly consumed and partly saved). These ex-post savings, if properly channeled to the financial system, can help consolidate the short-term debt of investing firms into a long-term debt structure compatible with the maturity of their long-term assets, reducing growing economies' tendency towards financial fragility. In this sense, a functional financial system for economic-development purposes is one that can provide finance to enable entrepreneurs to invest and that channels savings to fund their debt. The 20th century's experience shows that every country that managed to catch-up shows some sort of state intervention in financing investment, be it directly through government-owned banks, be it indirectly with subsidized credit facilities run by private-sector banks. There is no reason to assume that financing mechanisms, and funding mechanisms above all, will spontaneously emerge simply based on the functioning of the markets (Paula, 2013).

As we will see next, the economies of South Korea and China not only embraced balance of payments management policies and a exports-led growth strategy to catch-up, but also addressed the matter of the financial constraint facing the development process. Obviously, each case's particular characteristics must be taken into account, including in terms of the timing of their catching-up processes: from the 1970s to the mid-1990s for Korea, and from the 1980s for China. With the required adaptations, evidence exists that the two countries adopted development strategies that lie close to New Developmentalism.

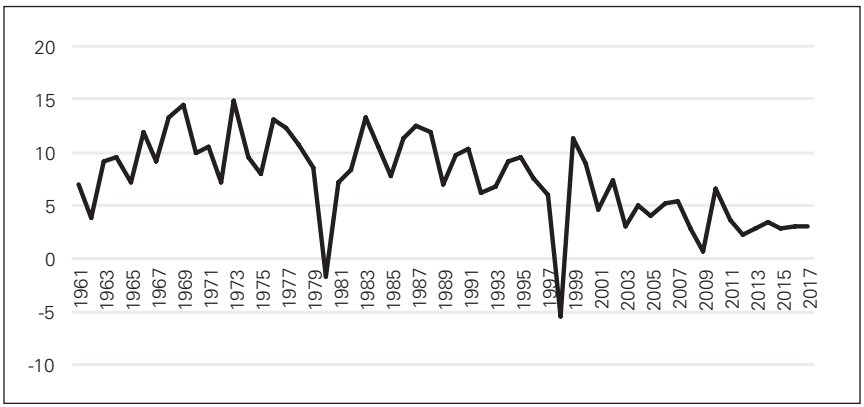
## SOUTH KOREA: EXPORT-LED GROWTH AND NEW DEVELOPMENTALISM AND THE SOUTH KOREAN CASE

The micro – and macroeconomic policies that East Asian countries embraced in the wake of the Japanese model moved in formation, like migrating geese, in stark

contrast with slow-growing Latin-American economies (Akamatsu, 1962; Palma, 2008). There is no novelty in assigning to Japan, South Korea and China successful catching-up paths and in explaining them based on a series of economic policies including: (a) domestic policies intended to create large conglomerates; (b) aggressive domestic market development and formation – and protection – strategies; (c) use of international trade as a strategic variable that facilitated the internalization of cutting edge technologies and exports of high value-added per capita; (d) large trade surpluses with the United States that enabled current-account surpluses;[3] (e) high investment in education and technology; and (f) the widespread use of strategic industrial policies (Johnson, 1982; Amsden, 1989). To these policies, which New Developmentalism defends in the light of the East Asian experience (and, in the background, the Latin American experience of the 1970s), New Developmentalism also adds macroeconomic policy, which was new-developmentalist because it kept the two macroeconomic accounts (fiscal and foreign) in relative balance, and because it used not only monetary and fiscal policy, but also foreign exchange policy, to keep the five macroeconomic prices (profit rate, interest rate, foreign exchange rate, wage rate and inflation rate) correct, thereby ensuring to local firms the conditions to compete on equal footing with firms from other countries.

South Korea's export-led growth throughout its catching-up period confirms the theory about the role of exports that the new-developmentalist strategy incorporates. The country's economic growth path is impressive: an average 9.6% p.a. from 1963 to 1996, as Figure 1 shows.

Figure 1: Real GDP Growth – % p.a. (South Korea, 1960-2018)

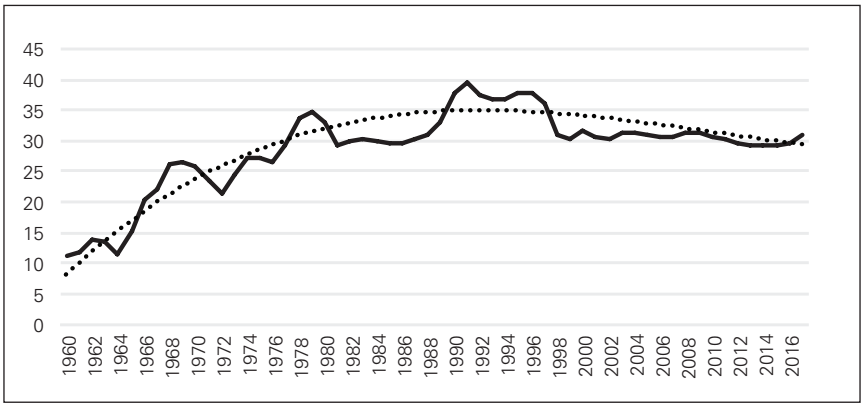



Source: World Bank.

[3] It is worth emphasizing that these countries took advantage of a period of fixed exchange rate pegged to the US Dollar (Bretton Woods regime) and of the favorable political conditions that the Cold War afforded. The question, in this case, *was not the opportunity itself, but the fact that the moment was exploited for vigorous*.

In the Korean case, the export-based dynamics had the support of a combination of pro-growth economic policy and sectoral and increasingly capital-intensive industrial policies. As Figure 2 shows, Korea's investment rate (a key variable in the analysis of catching-up processes) increased at a dizzying pace – from 11% in the first half of the 1960s to more than 20% of GDP in the mid-2010s, exceeding 30% since the early 1980s and peaking at more than 35% in the first half of the 1990s.

Figure 2: Gross Fixed Capital Formation over GDP – % (South Korea, 1960-2017)

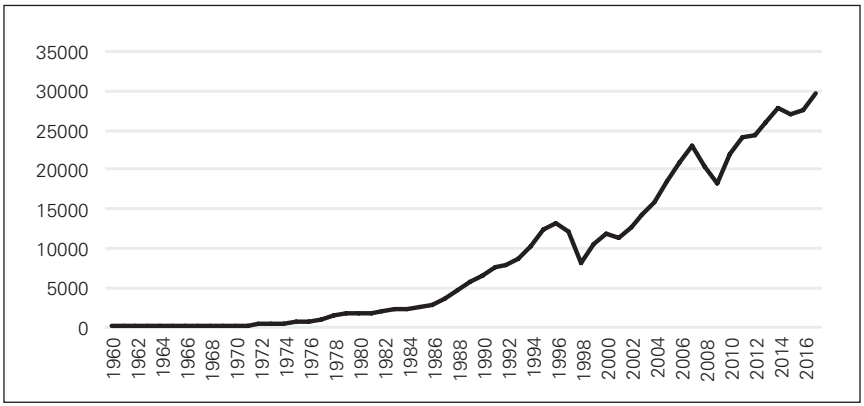



Source: World Bank.

As concerns per capita income, growth has been just as vigorous: from just US$ 133.45 in 1960, a level then similar to Haiti's, to US$ 830.70 in 1976, US$ 2,803.37 in 1986; from that point on, growth was exponential reaching US$ 13,137.91 in 1996, US$ 20,888.38 in 2006 and US$ 29,742.84 in 2017 (Figure 3). Behind this trend lay a rapid and intense change in the contry's productive structure, from an essentially agrarian to an industrial economy: the manufacturing sector's share (including mining) increased from 12.0% of GNP in 1954-56 to 30.0% in 1977-81, whereas the agricultural sector (including fisheries) dropped from 44.6% to 18.3% in the same period (Kim, 1991). Indeed, South Korea in the early 1960s was an economically lagging country and poor in in natural resources (with just 30% of farmable land).

South Korea's development process can be seen as the richest and most impressive catching-up process of the last quarter of the 20th century for its speed and the fact that it came hand-in-hand with a profound structural change. South Korea's success can hardly be assigned to a single factor. Generally speaking, the South Korean catching-up strategy included: (1) as in the Japanese case, early capital concentration and centralization in the form of large conglomerates, or *chaebols;* (2) heavy government participation in the 1960s and 1970s in the development of economic infrastructure (highways, ports, electric energy, irrigation, transportation, communications, etc.) through public funds and government-

Figure 3: Per-capita GDP in current US$ (South Korea, 1960-2017)




Source: World Bank.

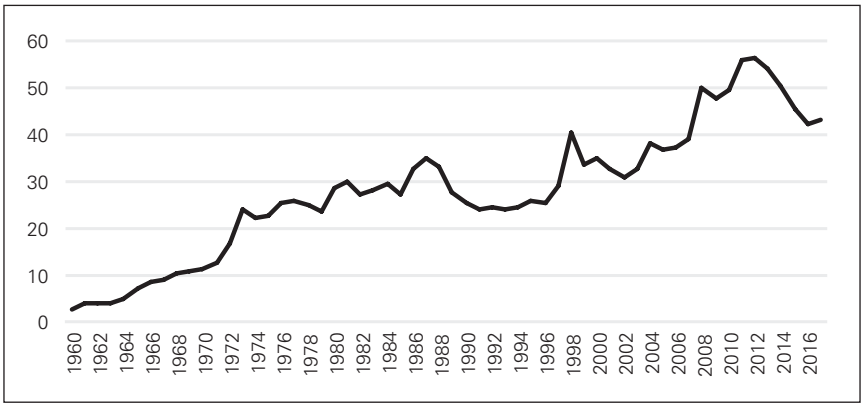
owned companies;[4] (3) a pragmatic – and crucially timed, as in 1956-1960 and the early 1980s – combination of competent prices stabilization macroeconomic policies (as Japan had in the 1950s) and imports substitution-oriented industrial policies that relied on import restrictions and increased customs tariffs; (4) *financial system nationalization* and use of the commercial banking system and the Korean Development Bank to leverage selected industrial sectors, in addition to the creation of the National Investment Fund (1973) and the Korean Exports and Imports Bank (1976) to finance exports at below-market interest rates (Coutinho, 1999, p. 353); (5) foreign-exchange unification (1961) and successive mini-devaluations of the exchange rate; (6) a wide range of government incentives – subsidies and credit guarantees, protection against imports, tax benefits, use of foreign loans to finance development (Aldrighi, 1997, p. 142); (7) active industrial policies mediated by comprehensive five-year plans; 8) a state bureaucracy capable of selecting its staff from the most talented members of the top universities, and of centralizing actions in institutions such as the Economic Planning Department (Evans, 1993, p. 110).

Figure 4 substantiates the presence of an export-led growth dynamics concomitantly with a continued capital accumulation effort – a development strategy that combined a vigorous imports-substitution process with a sharp dynamic boost from exports (Amsden, 1989). Indeed, the exports-to-GDP ratio increased vigorously from 2.62% in 1960 to more than 20% since 1973, rising erratically until peaking at over 40% since 2007, despite a more recent reduction. Another sign of this dynamicity lies in the rapid evolution of currency reserves, from US$ 20.4 billion in 1997 to US$ 392.5 billion in October 2018. This is clearly seen in the course

[4] The state's participation was of around 40% of total investment in 1963/1979, according to Kim (1991, Table 3.1).

charted by the successive five-year plans, from the industrialization effort based on light manufacturing such as the textile and garments industries (1st five-year plan, 1962-1967) until the end of the Korean imports-substitution era (heavy mechanical industry; 5th five-year plan, 1977-1981).

Figure 4: Exports over GDP – % (South Korea, 1960-2017)




Source: World Bank.

In addition to an ingenious trade-balance management process concomitantly with credit subsidies, the devaluation of the exchange rate – a key variable in terms of foreign competitiveness – favored South Korea's exporting dynamics. After the real exchange rate valuation in 1964-1971, a general currency-devaluation trade emerged until the early 2000s, when a process of gradual effective exchange rate appreciation began (Figure 5).

Figure 5: Real Effective foreign exchange rate – South Korea, 1964-2018 (2010=100)


Source: Federal Reserve Economic Data.

Clearly, the South Korean government not only carried out active foreign ex-

change policies, but also created an institutional export-stimulus apparatus, particularly since the 1960s. It was a system that protected the domestic market (through import tariffs) and relied on policies intended to increase the complexity of the country's own productive chains and reflects even now in the level of added value in the country's exports. This "planned foreign trade system", by combining with industrial and imports-substitution policies (particularly in the 1960s in the latter case) increasingly benefitted from sectoral policies targeted at productive chains capable of international competition. The Korean developmentalist model, which Kim (1991, p. 10) refers to as "neo-mercantilist", can be defined as a virtuous circle where the State provides the institutional conditions for development, or more widely, the overall conditions for capital accumulation.

A part of this foreign trade system, the protection of nascent industries in the domestic market, was key to the creation of competitive advantages in international markets (Aldrighi, 1997, p. 159). At the same time, the state provided all manner of concessions to exporting industries: 1) direct subsidies; 2) below-market interest rates for exporting companies;[5] and 3) quantitative restrictions on capital imports.[6]

From the angle of the credit and financing policy, one of the most important instruments for implementing an industrial-development sectoral policy was state control over credit allocation. Beginning with the financial reforms of 1964-65, Korea developed a "financial system based on bank credit". The ratio of domestic private-sector credit to GDP grew sharply from 56.3% in 1960 to 129.3% in 1972. Indeed, banking institutions, which were under direct or indirect government control, provided most of the financing for industrial investment. Of particular importance were a type of credit called "*policy loans*", with exceptionally low interest rates and lenient repayment terms, and managed by government-owned development banks. These were available primarily to financing exports and industries that were deemed key. The Economic Planning Department, a Ministry of Finance body, defined the criteria and conditions for access to "policy loans" through banking institutions, which were usually instructed to support sectors that the government had prioritized. A group of government-owned development banks was formed whose highlights included the Korea Development Bank (15% of all loans in 1984) and the Korea Export-Import Bank, which specialized in medium – and long-term foreign trade credit, and in exports in particular (Kim, 1991).

An important factor in the Korean strategy was the mix of foreign debt and foreign direct investment (FDI). The use of these instruments can be seen as consis-

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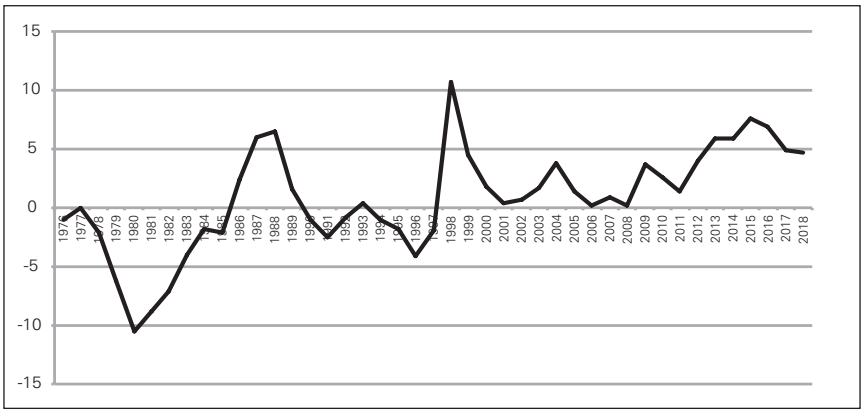
[5] According to Kim (1991, p. 22), the interest rates for exports in April 1962 were 12.7%, whereas commercial interest rates were 16.73%. This dynamic was consistent and even increased: in January 1980, interest rates for exporters were 12%, while commercial rates were as high as 25%. According to the author, credit subsidies to exports were among the most important incentives to them.

[6] For more information on export incentives and restrictions against imports, see Kim (1991) and Aldrighi (1997).

tent with a development strategy that combined a certain level of short-term scarcity of resources with the desired sovereignty in the face of a changing world including the approximation between the United States and China (1971) and its effects on the South Korean growth dynamics (Aldrighi, 1997, p. 159). South Korea's foreign indebtedness in the 1970s served as funding for specific productive purposes (and not to increase domestic consumption): financing the purchase of complete technology packages by the private sector and long-term investments, such as in economic infrastructure. The growth rate in the 1970s was spectacular, providing massive investment opportunities. As a consequence, as new-developmentalist theory proposes, marginal propensity to save increased and, thereby, the rate of substitution of foreign for domestic savings was relatively low. Thus, in this period, foreign savings added to domestic, instead of replacing it as would normally be the case.

Indeed, the 1970s' foreign debt gave rise (given the implementation of the heavy mechanical and chemical industries) to an indirect increase in the domestic savings rate because of the rapidly growing income and output level: savings-to-GDP increased from 8% in 1965 to 38% in 1989; FDI were never a crucial element of domestic production (Aldrighi, 1997, p. 168-169). It is worth pointing out the particular shape of the country's current transactions behavior. Figure 6 shows a behavior over time where high deficits occurred mainly in the early days of catching-up, from 1976 to 1985 – due in part to the effects of the oil shocks of 1973 and 1979. Therefore, foreign savings (including unilateral US assistance) never exceeded 10% of the country's funding for fixed-capital investment. On the other hand, the Korean foreign indebtedness experience stands out for the lower share of public-sector debt, keeping adjustments from weighing on government finances (as was the case in Brazil in the 1980s).

Figure 6: Current Transaction over GDP – South Korea, 1976-2018 (% of GDP)




Source: World Bank

Another dimension of the South Korean strategy lies in the connection between wages and labor productivity. This connection must serve both a virtuous functional distribution of income and profit rates that will be attractive to private-

sector investment. In this sense, one may argue that South Korea traveled the "Lewis model", where abundant labor was key to capital accumulation insofar as it was responsible for keeping the wage rate practically unchanged from 1958 to 1967 (Kim, 1991, p. 44). In the mid-2000s, the country was at an intermediate level among the wages in the USA and Japan, on the one hand, and the remainder of Southeast Asia, on the other (Guarini and Rabellotti, 2006, p. 7). Table 1 shows that the real wage rate growth was always below labor productivity from 1967 to 1975, and began to reverse this trend in 1976. Significant wage increases can be seen in the late 1970s, when new labor laws and regulations were adopted and enforced – also a fruit of the rising unionization of urban workers.

Table 1: Real wages and labor productivity in Industry (1967-1978)

| Years | Growth rate | | Index (1966=100) | |
|---|---|---|---|---|
| | Real wage rate | Labor productivity | Real wage rate | Labor productivity |
| 1967 | 10.4 | 17.7 | 110.4 | 117.7 |
| 1968 | 13.9 | 19.8 | 125.7 | 141.1 |
| 1969 | 21.7 | 26.5 | 153.1 | 178.4 |
| 1970 | 11.5 | 12.6 | 170.6 | 200.8 |
| 1971 | 2.4 | 9.8 | 174.7 | 220.5 |
| 1972 | 1.9 | 9.0 | 178.0 | 240.4 |
| 1973 | 14.4 | 10.4 | 203.7 | 265.4 |
| 1974 | 8.9 | 11.2 | 221.8 | 295.1 |
| 1975 | 1.5 | 11.6 | 225.1 | 329.3 |
| 1976 | 17.7 | 11.9 | 265.0 | 368.5 |
| 1977 | 20.6 | 3.9 | 319.6 | 382.9 |
| 1978 | 17.1 | 11.5 | 374.3 | 426.9 |

Source: Kim, 1991, p.43.

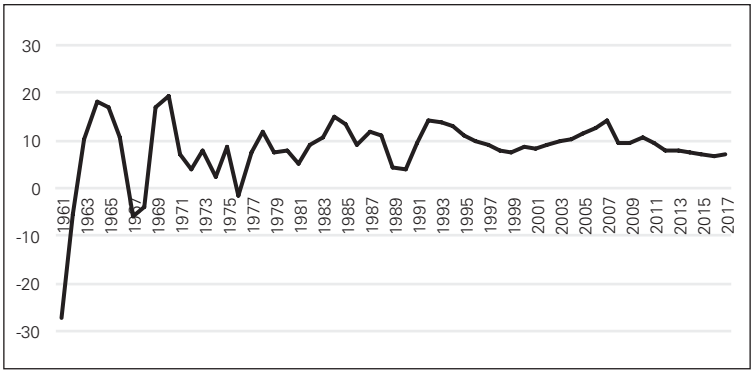
## CHINA: CONTINENT-SIZED NEW DEVELOPMENTALISM

It can be said that the late 20th century was marked by the confluence of an extreme case of catching-up that began in the last four decades of that century (South Korea) and the beginning and consolidation of one of the most impressive cases of robust and continued development in history (the People's Republic of China), still underway.

All of the data ahead shows that it is an experience whose meaning and policy strategy correspond to the strategy that New Developmentalism defines. China's economic growth in 1980-2017 has been outstanding: average real GDP growth in the period was 9.2% p.a. Therefore, the country has been for more than four decades been growing above the international average in an almost uninterrupted

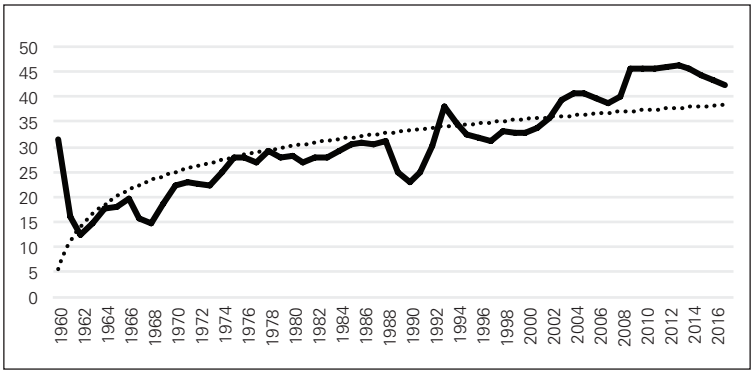
manner (Figure 7). The average rate of growth of China's per capita GDP over more than 35 years, by its turn, has averaged close to 9.0% p.a., and its per capita income (at Purchasing Power Parity) has gone from a mere US$ 250 in 1980 to US$ 8,827 in 2018 – a 36-times increase! The process came hand-in-hand with a high investment rate that averaged 36.9% of GDP in 1982-2011 and exceeded 40% from 2004 until the present day (Figure 8).

Figure 7: Real GDP growth – % p.a. (China, 1960-2017)




Source: World Bank.

Figure 8: Gross Fixed Capital Formation over GDP – % (China, 1960-2017)



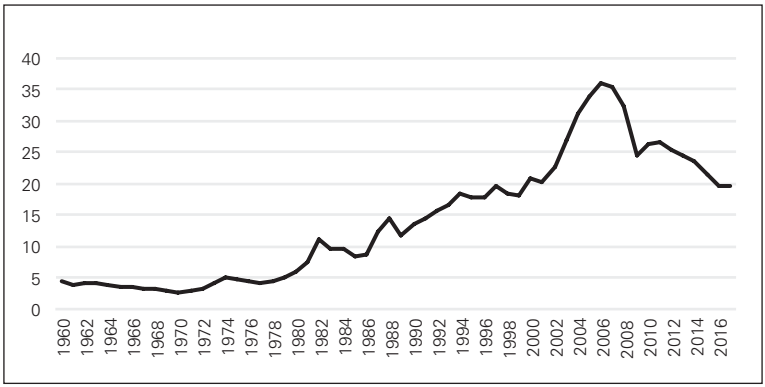

Source: World Bank.

China has since 2013 been the country with the largest volume of foreign trade in the world, a performance that has had material impact on almost every national economy. It also became a large capitals exporter through direct investment abroad (from US$ 0.8 billion in 1990 to US$ 101.9 billion in 2017). As a recipient of foreign capital, foreign direct investment (FDI) went from US$ 1.4 billion in 1984 to US$ 168.2 billion in 2017. While, until 1991, direct investment in China was targeted exclusively at exporting industries, with high concentration in Guangdong, from that year on a growing share of FDI in the form of joint ventures turned

towards construction and expansion of domestic-market oriented expansion of production capacity. This is not to say, however, that China grew based on a policy of growth with foreign savings. China only posted a current-account deficit (that is, used foreign savings) in three years from 1980 to 2018. As New Developmentalism argues, China did not make the mistake of attempting to grow with foreign savings thereby preventing its exchange rate from appreciating and its companies from losing competitiveness.

The weight of the country's international influence reflects the size and growing complexity of its industry.[7] In 1978, China's exports were of around US$ 9.75 billion, reaching US$ 2.42 trillion in 2017. The country posted trade deficits until 1989 because of the greater growth of imports (food products, capital goods, etc.) *vis-à-vis* exports. The latter, however, benefitted from the currency devaluation and began to grow sharply from 1995, together with the (slightly lower) growth of imports, which were subject to customs and non-customs tariffs and a devalued exchange rate, stimulating a vigorous process of imports substitution and a strong boost to exports.

Figure 9: Exports over GDP – % (China, 1960-2017)




Source: World Bank

Currency reserves, by their turn – notwithstanding China's massive investments abroad –, rose from US$ 1.6 billion in 1978 to US$ 3.09 trillion in March 2019, pushed by trade performance and FDI inflows, and are by far the world's largest. The fact that exports overtook imports in the early 1990s and that the ratio between the two abides by a "proximity line" shows that management of the balance of payments is a key aspect of the Chinese development strategy. Real interest rate

[7] The exports mix shoed rising weight of manufactured goods with greater value added, such as electronics and machinery: electronics exports went from US$ 19.4 billion in 1991 to US$ 83.8 billion in 1997 and US$ 174 billion in 2002, reaching US$ 718 billion in 2014. Machinery exports were US$ 18.7 billion in 1997 and increased more than tenfold in ten years, reaching US$ 215 billion in 2008 and US$ 318 billion in 2014 (OEC, 2016).

and inflation data support the relationship between the two variables in a catching-up country: real interest rates, reacting to increased currency supply and reflecting the strategy of shifting the economy's drive from investment to consumption, dropped from 7.2% p.a. on average in 1997-1999 to 2.1% p.a. in 2000-2018. Inflation as measured by the consumer price index, after the 1993-1995 rebound that averaged 18.6% p.a., has been kept at low levels since the late 1990s, averaging 1.9% in 1997-2017.[8] The combination of a stable foreign exchange rate, gradual trade liberalization, rising labor productivity, and sharp increase in productive capacity has put strong downwards pressure on inflation since 1997.

Since the 1990s, there have been two major state intervention moves on the Chinese economy. The first one came with the 1999 release of the Great Western Development Program, which quickly became the modern world's greatest territorial income transfer (Jabbour, 2006). The program was the first major stride towards the unification of China's economic territory, similar to what happened in the United States in the latter half of the 19th century (Oliveira, 2003). It was also a response to the impacts of the Asian financial crisis of 1997-1998 on the economy and the employment level.

The second large "mass intervention" move by the Chinese state was macroeconomic in nature. It came in response to the international crisis that began in 2008. On November 5 of that same year, the Chinese State Council announced to the world a vigorous economic stimulus package of around US$ 600 billion – corresponding to 12.6% of GDP at the time. It was a true mass state intervention in the economy. In just a few years, thousands of kilometers of new high-speed railways, subways and highways, crisscrossed the country.[9]

Side by side with the construction of *institutionalities*, the various accumulation dynamics also embedded new state-driven economic and industrial policies. With every new *cycle of institutional innovations*[10] one can find a *qualitative* increase of the state's role, together with *quantitative* gains of the market/private sector. In this sense, "investment socialization" policies and their mechanisms stand as the ultimate expression of a process of building institutions capable of reflecting the country's strategy over time.

The answer to the "big question" (the state vs. the market/private sector), and an understanding of how China prepared for the two big state intervention moves mentioned above came together with the introduction of mechanisms that lend "new-developmentalist" colors to the country's economic policy starting from the early

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[8] World Bank Data.

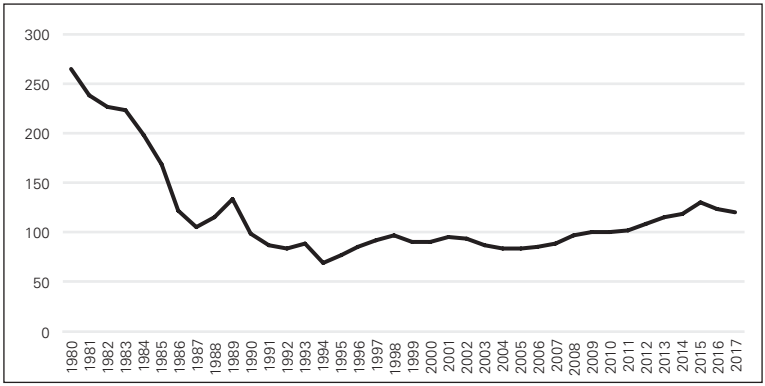
[9] It is worth emphasizing that: 1) the investment-to-GDP ratio reached an impressive 47.6% in 2011, providing production capacity ready to respond not only to domestic challenges but also external ones, such as that posed by the emergence of the New Silk (land and sea) launched by Chinese President Xi Jinping in September 2013; and 2) National Bureau of Statistics of China (NBSC) data show that the Chinese railways grid increased from 86 thousand to 121 thousand kilometers from 2009 to 2015.

[10] On institutional innovation cycles and their occurrence in China, see Jabbour and Paula (2018).

1990s: (1) fiscal reform, reversing the previous decentralizing trend and launching a process of creating the fiscal conditions to enable the later adoption of countercyclical policies in China; (2) establishment of capital flows control mechanisms, which were deemed needed to control the foreign exchange rate;[11] and (3) unification of the foreign exchange rate, which underwent a major devaluation in 1989-1994.

The Chinese experience shows the crucial roles of the *foreign exchange rate* and current account surpluses for the development process, validating the new-developmentalist approach. Its behavior is suggestive as concerns the *institutional change cycles* that the Chinese economy has undergone since the economic reforms began. The Yuan followed a continued trend of devaluations from 1981 until the 1994 maxi-devaluation, which took place alongside with a sharp domestic fiscal adjustment. A fixed exchange rate (1 US$ = 8.3 RMB) was in force in 1995-2006. Starting in 2006, a semi-fixed exchange regime was implemented. Since 2015, the People's Bank of China (PBC) has been intervening in the foreign exchange market, depreciating the Yuan in controlled manner. Figure 10 shows the behavior of the real foreign exchange rate in China in 1980-2017, it depicts a clear and gradual tendency of marked real exchange depreciation in 1980-1992, relative stability after that (although at levels regarded as undervalued), and a trend of real (and gradual) appreciation until the mid-2010s, when it resumed depreciating.

Figure 10: Real effective exchange rate (China, 1980-2017)



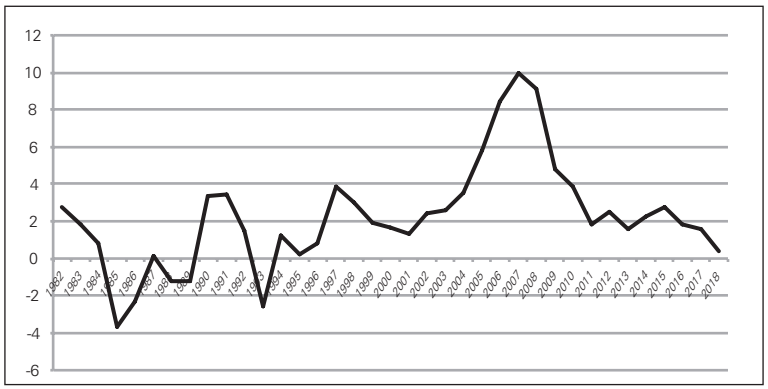

Source: Federal Reserve Economic Data.

Therefore, management of the balance of payments – through various instruments (and a competitive exchange rate in particular) – has been an important characteristic of the Chinese development process. Figure 11 shows that, starting

[11] The purposes of these controls changed over time, but, generally speaking they were intended to: (i) help channel foreign savings to the desired ends; (ii) keep monetary policy independent from the international environment's influence; (iii) keep companies and financial institutions from taking on excessive external risk; (iv) keep the balance of payments in balance and the foreign exchange rate stable; and (iv) isolate the economy from the effects of international financial crises (Zhao, 2006, p. 8).

in 1990, the Chinese economy posted expressive current transactions surpluses in almost every year, in line with the new-developmentalist development strategy.

Figure 11: Current transactions over GDP – China, 1982-2018 (%)




Source: World Bank.

The *institutional innovation cycle* of the 1990s raised the curtain on a growth dynamics based on "two combined dynamics": one export-led, the other investment-led.[12] This combination was articulated by an *industrial policy* that determined, and related, an increase of productive capacity to the expansion of foreign direct investment, which rose from de US$ 4.3 billion in 1991 to US$ 44.3 billion in 1997 (World Bank, 2017). In the early 2000s, the Chinese economy shows a new qualitative leap with the expansion of the *imports substitution* policy, now in new sectors related with the heavy mechanical industry (such as high-speed trains).[13] Comprehensive industrial policies targeted at the leading economic sectors have since then been drawn and implemented. Combined with an active foreign exchange policy, they protected the country from becoming just another Mexican-style *maquiladora* and enabled it to break through the *Prebisch frontier* around its former peripheral status, letting it through the doors into the *center of the system*.[14] The Chinese catching-up now takes the form of a major plan called "Made in China 2025".

There is a suggestive link between the sharp fiscal adjustment of 1994 and the creation of an environment that propitiated the launch of a massive fiscal package intended to face the Asian crisis of 1997 through strengthened domestic demand.

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[12] The exports over GDP ratio increases from 7.5% in 1980 to 10.5% in 1986, 17.5% in 1991, 20.4% in 1995, 26.5% in 2003 and 35.7% in 2006; it then begins to decrease, down to 22.6% in 2015. The investment rate, as discussed, undergoes a sharp acceleration process from the late 1990s.

[13] By anticipating massive domestic demand and securing technology transfer agreements with countries holding cutting-edge technology in this area, under contracts that date back to the latter half of the 1990s, China ceased to be a high-speed train technology importer until 2004 to become the world market's leader since 2011.

[14] On the various industrial policies that the Chinese government adopted since the early 2000s, see Gabriele (2010) and Lo and Wu (2014).

This accurate economic policy was not limited to the presence of proper fiscal conditions, controlled inflation, low interest rates that appealed to expanding the production capacity, and access of domestic companies to domestic demand (enabled by a fixed and depreciated foreign exchange rate). A qualitative leap for state economic action was also forged over the course of the economic reforms: the formation of a public financial system intended for long-term financing.

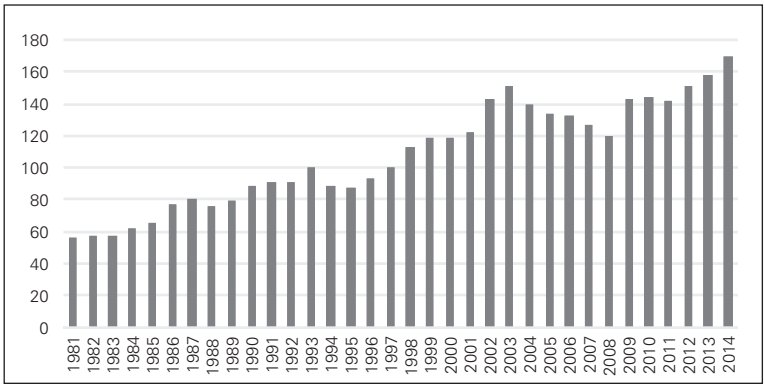
The financial system's institutional evolution kept up with, and even anticipated, the requirements of the economic reforms process, including overcoming the high level of financial repression. From 1978 to 1984, the People's Bank of China was in charge of regulating the financial system, governing bodies like the Chinese Banking Regulation Commission (CBRC), the Chinese Securities Regulation Commission, (CSRC) and the Chinese Insurance Regulation Commission (CIRC). At the same time, four major government-owned banks formed over time (the "Big Four"),[15] and a number of national and regional banks under different ownership types emerged to meet the requirements of farming, urban construction, infrastructure, and exports and imports financing. Furthermore, the Chinese capital markets gradually developed.

This clearly shows that China created a production financing system intended to structurally transform the economy and that this system served the purposes of the country's development well. Figure 12 shows that the ratio of domestic credit to companies to GDP (including mixed-ownership and government-owned companies, in addition to privately-owned companies) was at 50% to 70% in 1977-1985, and rose sharply since then, keeping up with the country's rapid economic growth process. It exceeded 100% by 1998, and was over 130% of GDP as from 2012. Indeed, the Chinese financial system and its remarkable credit expansion enabled financing investment in selected industries and companies, regions, and infrastructure, standing as "the backbone of the quantitative and qualitative dynamicity of investment" (Cintra and Silva Filho, 2015, p. 448).

In sum, the Chinese development strategy can be described as a combination of the following: (1) the presence of institutional innovation cycles that, by strategically recasting the state's role, enabled continuity solutions for the development process; (2) a foreign exchange policy associated with a current-account surpluses policy and controlled capital flows to keep the foreign exchange rate competitive and thereby guarantee (a) that domestic companies had access to domestic and foreign demand; (b) the correct management of the balance of payments; c) the formation of a policy space (through the formation of the world's largest currency reserves); (3) a low interest-rate policy that discourages capital inflows and stimulates, together with rising real wages, the role of consumption as a component of demand; (4) combination of a correct productive density strategy on the exports

[15] These include: the Industrial and Commercial Bank of China, the Construction Bank of China, the Agricultural Bank of China and the Bank of China. In addition to these, there are also three state-owned development banks: the China Development Bank, the Agricultural Bank of China and the Export-Import Bank of China, which are intended to support farming, infrastructure and foreign trade.

Figure 12: Domestic credit to the private sector (China, 1977-2016) – %




Source: World Bank

front and high domestic investment rates; and (5) significant state control over large government-owned assets in strategic sectors and the financial system.

## CONCLUSION

Let us return to this article's central question: to what extent can the South Korean and Chinese catching-up processes be seen as cases of new-developmentalist strategies? The answer is clearly positive, insofar is New Developmentalism is a theoretical system based mainly on the successful experience of East Asian countries. This article more specifically investigates and confirms this hypothesis. The authors detected a complementarity link between the state and the market as a dynamic process that changes over time. In addition to a strategic industrial policy, the accelerated growth phases show that (1) the two macroeconomic accounts were kept in balance; (2) the current account was generally kept at a surplus (where a country experiences the Dutch Disease); (3) capital inflows and outflows were not left at the discretion of the markets (which are incapable of keeping them balanced), but rather controlled; (4) the interest rates that the state pays were kept below the economy's growth rate, and not left at the markets' discretion, but controlled to keep public debt at reasonable levels; (5) investment financing was guaranteed by government-owned banks; (6) the five basic prices (foreign exchange, interest rate, wages, inflation and profit) were managed with a firm rein.

We emphasize the South Korean and Chinese development dynamics and underscore their distinctive export-led growth strategies, noting the weight of industrial policies, current-account surpluses, competitive foreign exchange rates, gradual wage growth, high investment rates, and stimulus to exports in general. This article attempts to show that proper *industrial policies* do not dismiss proper management of macroeconomic prices and the definition of a national development strategy. More generally, we argue that the two countries' economic policy regimes were not limited to incorporating the ideas of Classical Developmentalism, which are es-

sentially microeconomic, but also embraced the long-term view of New Developmentalism and its macroeconomics of development.

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