

INDUSTRIAL POLICY IN ASIAN NEWLY INDUSTRIALIZED COUNTRIES: CONTROVERSIES, REVIEW AND LESSONS

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ABSTRACT

The paper's aim is to use the successful example of the newly industrialized Asian countries, as well as the countries of the East Asian region in general, to prove the need to implement industrial policy in many countries, both those lagging behind in industrial development and those that have reached the technological frontier. The paper describes the evolution of industrial policy in these countries and what distinguishes them from other developing countries that were unsuccessful in its implementation: the developmental state, which recognized timely the turning point from the strategy of import substitution to the strategy of export promotion, implemented both strategies simultaneously, picked winners, provided support to infant industries through selective interventions, but also disciplined the recipients of its support, tracked its own comparative advantages and anticipated their changes, with a strong synergy between the state and private sectors, and looking at Japan as a model of industrial development, i.e. the lead goose. Industrial policy is one of the most controversial issues in economics. There has been a long debate between two schools of thought - orthodoxy and heterodoxy - as to whether there is a need for industrial policy in general, as well as the role of the state in the process of its creation and implementation, as opposed to the free market model of development in which there is no place for industrial policy, and if it appears it can be only of a general nature, and by no means in the form of selective interventions. Over the last 10 to 15 years, there has been a revision both at the academic level and in the real world that has made industrial policy more acceptable, and thus the debate about it has become less ideologically colored and more pragmatic and nuanced. At the theoretical level, the market fundamentalist view of little theoretical justification for industrial policy has lost its dominance. Despite maintaining neoliberal orthodoxy as the advice

of international financial institutions in the process of creating economic policy in developing countries, industrial policy remained important for the promotion of industrial development, especially the infant industries. It is accepted that there are many types of market failures that must be addressed through industrial policy. It is increasingly recognized that industrial policy is not just a highly idiosyncratic practice associated only with the miracle economies of East Asia, but what most of today's developed countries used when they were in the position of the catching-up countries. As a conclusion, the paper discusses the possibility of transferring the East Asian model to other countries, and sheds light on the determinants of industrial policy success and failure. The key conclusion is that there is room for successful industrial policy even in countries that have reached the technological frontier and want to push it further, as well as in countries lagging behind in industrial development, although the global context in which industrial policy is situated has changed over time. A special commentary is referred to the economic and industrial development of the former countries of Yugoslavia.

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1. INTRODUCTION

Although focused on the growth and development of the industry, industrialization represents an extremely broad issue related to almost all aspects of economic development.

Although industrial policy as a factor of economic growth is crucial, it has long been neglected and underestimated by many authors. However, a heterodox perspective has challenged the prevailing orthodox paradigm of industrial policy by emphasizing the need for government intervention to promote industrial development.

Stimulating the development and growth of the industrial sector became a priority in most developing countries (LDCs) after the Second World War. Despite efforts, the industrial sector has experienced uneven growth in major world regions. Generally, Asian newly industrialized countries (NICs) have recorded positive and high growth rates (Amsden, 1985), while most other LDCs achieved negative or negligible industrial sector growth.

The basic idea of industrial policy in Asian NICs (except Hong Kong) was that the state should create temporary protective barriers in order to provide incentives for enterprises to establish infant, that is, new industries, and engage in research and development activities. All Asian NICs (except Hong Kong) share a common industrial policy in terms of picking winners (Lall, 1994), meaning the early identification of activities that could provide a strong boost to growth. These industries were given priority in obtaining directed (and often subsidized) loans and foreign exchange, state investment funds, and other support measures.

Since the industrial policy measures used in Asian NICs were similar to those used in other LDCs where such policies were less successful, the question arose as to why Asian NICs were particularly successful in using these measures. Overall, Asian NICs simply adopted productive industrial strategies because they followed their own comparative advantages; the state anticipated changes in comparative advantages in the East Asian NICs (Islam, 1992); industrial policy was characterized by flexibility: import substitution and export promotion strategies were not static choices but the sequence of events with certain overlapping; the state recognized the turning point and gradually reduced protection (Yang, 1994); the emphasis on exports provided a relatively objective criterion for disciplining aid recipients; the state had more autonomy - it was a developmental state. The autonomy of the state was firmly supported by a dense network of institutions that facilitated productive links between the public and private sectors. Additionally, Asian NICs were generally more successful than other LDCs in attracting and utilizing foreign capital (Adams & Davis, 1994), although Evans emphasizes that industrialization in this region, with the exception of the Philippines, largely occurred without foreign investment until the industrial sector was firmly established.

The second question pertains to the possibility of replicating the East Asian model to other LDCs.

Despite the fact that the growth of industrial exports is the most prominent feature of the economic miracle of Asian NICs, agriculture made a significant contribution in the early stages of industrialization in many countries, except those endowed with mineral wealth, those having service-based economies, and those receiving substantial economic aid. These countries realized in a timely manner that the appropriate development of agriculture forms the basis for neutralizing other developmental gaps. Empirical data for the period 1965-1995 show that countries that neglected agriculture grew more slowly than countries that focused on agricultural development. During the period 1970-1993, agricultural production in the East Asian NICs grew on average at a rate

of about 3.6% per year, compared to Latin American (LA) countries (2.7%) and Sub-Saharan African (SSA) countries (1.7%).

On the whole, agricultural development in Asian NICs, in contrast to other LDCs, effectively provided the foundation for industrial growth, as agriculture became a source of savings and foreign exchange for investment in other sectors, as well as for securing income for farmers, which increased domestic demand (Naya & McCleery, 1993). According to Roemer, the integration of agricultural development and industrialization in Taiwan may be the most successful in the world.

Today, there is a consensus that there was no singular Asian model of industrialization but rather different models for individual countries with a considerable number of similar measures. There is no single Asian strategy for industrial development but rather a continuum of different approaches (Lindauer & Roemer, 1994). Each country set different industrial goals, utilized different interventions, and thus had different patterns of industrial and export growth, reliance on FDI, development of technological capabilities, and so on.

1.1. Research Methodology

In this paper the following research methodology is used: methods of comparison, analysis, synthesis, induction and deduction and the method of statistical analysis, tabular and other method of text illustration, historical method, method of generalization and specialization, etc.

2. COMPONENTS OF THE INDUSTRIAL STRATEGY OF ASIAN NICS

Among Asian NICs industrialization was carried out by pursuing comparative advantages determined by existing and potential factor endowments. However, the economic policy measures that supported industrialization were far from neoclassical ideals in all countries except Hong Kong and, to some extent, Singapore. It can be argued that the Republic of Korea, Taiwan, and the Southeast Asian NICs even employed protectionist regimes. These five countries insulated exporters from disincentives resulting from protectionist regimes, creating a *simulated* free trade environment that offered easy access to inputs at essentially world prices (Lindauer & Roemer, 1994).

Authors of the neoclassical orientation advocate the view that Hong Kong and Singapore are generally open to world trade. However, in Singapore, the state has

managed the economy with a *firmer hand* to accelerate changes in comparative advantages by intervening in setting wages and influencing private investment decisions (Roemer, 1994).

Republic of Korea and Taiwan generally represent more complex cases. Both countries avoided overvaluation of the exchange rate and operated with flexible labor markets where wages remained low, reflecting a surplus of labor, while their rapidly growing export-led demand did not increase wages.

The experiences of both countries depart from the neoclassical prescriptions in the realm of financial market management. *Chaebol*¹ had access to subsidized bank loans, while smaller firms had to borrow at much higher interest rates in informal credit markets. On the other hand, Taiwan granted bank loans at relatively high interest rates but was similar to Korea in other aspects of its financial system.

Neoclassical economists, due to these discrepancies from the orthodox strategy of outward orientation and export-led development, explain the growth of Republic of Korea and Taiwan in terms of comparative advantages and export-oriented state interventionism. This neoclassical interpretation of the interventionist but *market-conforming* approach of Republic of Korea and Taiwan was not accepted by a group of authors, including Westphal (1990), Amsden (1985) and Wade (2003a, 2003b, 2014, 2015). Noting the same phenomena, these authors suggest much deeper conclusions.

Westphal (1990) argues that export subsidies for established industries achieved only slightly more than what a neutral incentive system would have accomplished. However, for a small number of *infant* industries targeted as future exporters, a whole range of incentives was provided, and for the most part, these industries experienced rapid productivity growth and success in export markets. Amsden (1985) contends that the development of Japan, Republic of Korea, and Taiwan exemplifies *the thesis of late industrialization*. Wade (2003a, 2003b, 2014, 2015), analyzing Taiwan, speaks of a *state market*. In the Southeast Asian NICs, state intervention yielded mixed results. In Indonesia, Thailand, and the Philippines, the ruling regimes are significantly reliant on a reciprocal system known as *clientelism*. In clientelistic states, intervention primarily benefits *rent-seeking* rather than rapid export growth. High protective barriers are maintained long after the sector has matured, suffocating the export growth of sectors that process products from other sectors into final goods. However, three Southeast Asian

¹ When the state adopted an export promotion strategy in the early 1960s, special roles were assigned to conglomerates known as *chaebol*. Some of these conglomerates became so-called *general trading companies* which directed the exports of small and medium-sized producers. They can take the form of a single large company or several groups of companies.

NICs (excluding the Philippines) were exceptionally successful in implementing export-oriented growth.

It can be said that Asian NICs developed a continuum of successful industrialization strategies. Hong Kong, and to some extent Singapore, applied a market-based model of an open economy in line with neoclassical economics. In Republic of Korea, and to a lesser extent in Taiwan and Singapore, state interventions and market forces were at play. The three Southeast Asian NICs generated export-led growth by implementing two interventionist measures - sound macroeconomic policies and isolating exports from the adverse effects of protectionism and rent-seeking, along with the adoption of gradual reform programs.

3. THE ROLE OF THE STATE IN THE INDUSTRIAL DEVELOPMENT OF ASIAN NICs

Since industry was meant to be the leading sector in Asian NICs, it had to receive greater priority in terms of resources, labor, and so on. In *state-led* economies, it was believed that even assuming that entrepreneurs correctly assessed a country's *existing* comparative advantages, they were by no means able to do so regarding *future* comparative advantages (Woronoff, 1992). This was already a sufficient reason for the state to make the majority of decisions. This approach is considered typical and characteristic of East Asian NICs. As Woronoff argues, industrial policy was very detailed, specifying the development not only of sectors but often products and even determining companies and their roles in the sector.

Since the goal was to promote the development of specific key sectors, industrial policy in Asian NICs set priorities, which formed the basis for developing an element of the strategy called *targeting*. The state made choices of strategically most important sectors to be particularly promoted, and then the focus would shift to other sectors. At the core of targeting there was an idea of *dynamic* comparative advantages, which means that sectors that currently do not have, but should acquire comparative advantages, were promoted. Targeted sectors/activities were rarely those taken up by the private sector.

Amidst industrial policies and targeting, planning was the third integral component of the developmental strategy of Asian NICs. The effectiveness of economic planning bodies significantly varied over time, but the general impression is that planning was most influential in Republic of Korea. Planning certainly played a useful role in mobilizing resources and directing them. It helped to some extent in avoiding overlaps and duplications, preventing gaps and bottlenecks, and

expanding the economic base. Even when plans were not strictly implemented, they served as a guide for action.

It is difficult to say [...] which path (*command* or *liberal* economy) is superior, as both have their advantages and disadvantages. It is evident that planning, industrial policies, and targeting sometimes go too far and that it is occasionally necessary to rely more on market signals. Where everything is left to free enterprise, there is sometimes a feeling that more government leadership is needed [...]. In this way, perhaps the best middle ground between opposing approaches can be found.

3.1. State and Interventionist Industrial Policy

Before the economic take-off of Asian NICs, most authors dealing with economic development considered that markets in LDCs are either *non-existent* or *inefficient*. Since it was believed that *infant* industries in LDCs were not internationally competitive, there was an accepted need for the state to protect these new industries. This paradigm accurately identified many market shortcomings that hindered economic development, as well as the need for a decisive role of the state in guiding and coordinating industrial activities.

Authors of orthodox orientation believe that there are no circumstances in which the state can act impartially and effectively, in the national interest. In other words, there is no need to doubt the success of the market. This line of thinking in the literature on economic development has been influential and convincing at the same time, prevailing in some countries even today.

The empirical challenge grew in the second half of the 1980s because evidence had accumulated showing that most East Asian NICs did not conform to the neoclassical characterization. Asian NICs aggressively selected or created *winners* at the sectoral (and even corporate) level by intervening in trade, allocating credit, importing and diffusing technology, building domestic technological capacity, investing in education, promoting exports, etc. These countries achieved unprecedented rates of economic growth and diversification of industrial sectors and exports, albeit with significant variations among countries reflecting different levels and types of interventions. This raised the dilemma of whether interventions were desirable due to market imperfections (in which case it challenged neoclassical development theory) or whether interventions were irrelevant (in which case an explanation was needed as to why they were not as ineffective as elsewhere in the world) (Lall, 1996).

3.1.1. Controversies

Roughly speaking, East Asian NICs experienced an average growth rate of 5-6% of GDP p/c during the second half of the 20th century. The measure of development in these countries can be better assessed when considering that GDP p/c growth in today's developed countries (MEDCs) during the Industrial Revolution averaged around 1-1.5% or during the Golden Age of Capitalism (1950-1973) when it averaged 3%. In the debate that accompanied this spectacular economic transformation, the most contagious discussion was about the role of industrial policy.

At the beginning, there was hesitation among orthodox economists even to acknowledge the existence of industrial policy in the East Asian NICs. In 1993, the World Bank entered the debate with an analysis intended to examine the role of state intervention in economic, and particularly, industrial development but based on the neoliberal perspective that it represents.

In the *East Asian Miracle Study* (EAM), the analysis of the Bank focused on three types of government interventions: 1) directed loans, 2) export promotion, and 3) structural policies, concluding that in the East Asian NICs, the first and second groups of measures were successful, while the third was not. However, all three types of interventions should be evaluated together because otherwise, the Bank de facto evaluates one component of industrial policy without taking into account their interrelationships.

The study made a distinction between *market-friendly* and *market-unfriendly* interventions. The first set of interventions was *functional* - they did not attempt to direct resources towards specific activities but rather aimed to remove inherent market deficiencies. *Market-unfriendly* interventions were *selective*, diverting resources to winners chosen by the state. The World Bank attributed the success of East Asian countries to *market-friendly* interventions, while labeling selective interventions as unnecessary.

The World Bank's analysis of *market-friendly* versus selective interventions represents the final word on industrial policy from the leading global proponent of neoliberal economic development policies.

Singh argues that the World Bank is unaware of the ironic implications of its analysis because if, despite state intervention, the industrial structure in Republic of Korea (as well as in Japan) is still consistent with their dynamic comparative advantages, the conclusion must be that, on average, the state correctly chose the *winners*. Therefore, according to the World Bank's criteria, Korea's (and Japan's) industrial policy should be considered successful.

The Bank's claims about industrial policy are biased and partial, and the theoretical framework is inadequate. EAM evaluates itself as *a religious essay*, but it is also an *essay based on faith* because it essentially reaffirms the official belief system of the World Bank (Yanagihara, 1994).

3.1.2. Revision

Since the late 1980s, there has been a significant shift in thinking about the need for industrial policy and its contribution to the development of numerous countries. Many authors, with Japanese and generally Asian authors as pioneers, emphasize that industrial policy has played a significant role in the economies of the East Asian region.

Revisionists believe that we should not evaluate the success or failure of industrial policy based on individual cases. Firstly, everyone is susceptible to mistakes, so the fact that a state made a poor decision in the realm of industrial policy is not an argument *against* industrial policy; secondly, the assessment of industrial policy largely depends on the used performance measures (Chang, 2006); thirdly, it all depends on the time frame; and fourthly, the impact of industrial policy cannot be measured solely in relation to what happened in a specific sector, as orthodox economists typically do, due to spill-over effects, which are highly significant in evaluating industrial policy.

Heterodox authors have conducted a strong revision of neoclassical views in the field of criticizing state intervention and advocating for free trade. Structuralists argue for *the thesis of positive effects* of various forms of state assistance to targeted sectors in countries of the East Asian region, which were provided during the creation of comparative advantages.

However, Chowdhury and Islam (1993) argue that structuralists tend to treat the process of creating industrial policy in a too mechanical way, with the private sector passively responding to bureaucratic initiatives and state leadership. Neoclassical economists believe that since protectionism cushions corruption, the state *de facto* tends to protect industries with low and declining comparative advantages, rather than industries expected to become internationally competitive (Smith, 1995).

Finally, many authors suggest that the neoclassical paradigm has entered its degenerative stage, much like what happened with classical economics in the years before Keynes.

Today, economic theory fully acknowledges that interventions can help correct market failures. However, neoclassical economists argue that the risk of state

failure in some cases is so significant that it is better not to rely on selectivity but rather for the state to limit itself to *market-friendly* interventions.

The state is prone to mistakes, but the market is also susceptible to them. Furthermore, the capacities of the state are not static nor given forever, and there are also different levels of selectivity in intervention. The general conclusion is that as long as the development process faces widespread market imperfections, there are valid reasons to apply selective and functional intervention.

The experience of major East Asian NICs precisely indicates that these market constraints can be reduced, and the process of industrialization can be significantly stimulated and invigorated by appropriate interventions (Lall, 1996).

4. PATTERNS AND STRATEGIES OF INDUSTRIALIZATION

4.1. Autarkic versus competitive industrial policy

Autarkic industrial policy protects *infant* industries longer than competitive ones, so the maturation of heavy and chemical industries takes several decades. Neoclassicists believe that a sector must mature within a period of 5 to 8 years. The key drawbacks of autarkic industrial policy are: 1) as the size of the protected industrial sector grows relative to competitive tradable goods, its failure to generate foreign exchange negatively affects macroeconomic performance; 2) it excessively burdens the primary sector as it experiences a relative decline with the growth of GDP p/c; 3) it works against *unprotected* industries that already possess comparative advantages, such as agriculture and light industry.

The positive contribution of competitive industrial policy to economic growth can be observed in the crucial second and third stages of the development model of the East Asian NICs, when there was an expansion of labor-intensive industries (production primarily oriented towards exports). In the case of Taiwan and Republic of Korea, *the turning point* came 12 years after the adoption of competitive industrial policy. The turning point (Auty, 1994) the next stage of economic development begins with involves the gradual abandonment of lagging, low-productivity industries and the conquering of industries with growing competitive advantages.

Competitive industrial policy provides assistance in acquiring technology, subsidized loans, tax reliefs, and trade incentives for *infant* industries, provided that they quickly achieve *economic* and *technological maturity* (Auty, 1994). *Economic* maturity implies international competitiveness of companies without subsidies, while *technological* maturity implies that up-to-now infant companies

must make necessary technical adjustments that enhance the productivity of newly installed production capacities.

4.1.1. Industrialization strategy for *latecomers*: inward versus outward-oriented industrialization strategy

According to Kubo, Robinson and Dollar (1992), the strategy of export-oriented industrialization is superior because it surpasses the limitations of the domestic market. The potentials of export markets are greater and can grow faster than domestic markets. As highlighted by Hatcher and Salvatore, an export-oriented strategy involves more efficient resource utilization and has higher investment rates and increasing capital intensity. Dollar (1992) adds that because exports provide access to foreign capital without increasing external debt, outward-oriented economies have been more successful in avoiding debt crises.

However, most authors acknowledge that mere export growth is not sufficient and that the growth of industrial exports has been the crucial contributor to economic growth. As Bradford (2005) emphasizes, an export promotion strategy serves to achieve industrial development by moving a country's production structure up the technological ladder, shifting from labor-intensive to capital-intensive industries, and towards skill-intensive and technology-intensive industries. This structural change places a strong emphasis on improving existing and acquiring new technologies.

While several LDCs, primarily Asian NICs, have successfully completed the transition from inward-oriented to outward-oriented development, the question remains as to why the majority of LDCs have failed to achieve this transition. After the initial stage of import substitution, they turned to further import substitution, which included raw materials and capital goods.

According to Gereffi (1995), that is the main reason why other LDCs lagged behind in redirecting themselves from the primary phase of the industrialization strategy through import substitution to the secondary one and from the primary phase of the industrialization strategy through export orientation to the secondary one. For example, Latin America should have shifted towards an export-oriented industrialization strategy by the 1950s, prior to the East Asian NICs.

The Great Depression of the 1930s and the Second World War initiated the adoption of inward-oriented strategies in LA countries, which reached their zenith in the 1970s [...]. Trade relations tended to worsen for LA [...]. Overall, this meant that development efforts were focused on satisfying the needs of

the domestic market, often substituting imports that could not be sourced from outside the region due to the constraints imposed by the war (Gajinov, 1997).

The inward-oriented and outward-oriented strategies are not two opposing strategies but rather two complementary approaches to achieving the same goal. The objective of both is for *latecomers* to catch up with the MEDCs because LDCs show technological lag, which is further complicated by the fact that technical innovations in MEDCs are rapidly pushing the technological frontier forward (Grabowski, 1994).

4.2. Experience of Asian NICs in choosing the industrialization strategy

Since many authors had already noticed in the 1950s that an industrial strategy, based solely on import substitution, was not sufficient to achieve stable economic growth, many LDCs, including the East Asian NICs, redirected themselves toward outward-oriented industrialization in the 1960s. However, Adams and Davis believe that the economies of Asian NICs could only be characterized as outward-oriented or economies that implement export promotion strategies from the mid-1980s. Nevertheless, according to the World Bank, during the period 1963-1973, Hong Kong, Republic of Korea, and Singapore could be classified as *strongly* outward-oriented countries, while Indonesia, Malaysia, and Thailand fell into the *moderately* outward-oriented category.

In general, 1) Asian NICs implemented import substitution policies over a much shorter period compared to other LDCs; 2) they shifted towards export promotion earlier, that is, in a timely manner; 3) sometimes both strategies were implemented simultaneously; and 4) the import substitution strategy was much more moderate in terms of the intensity of applied protectionism and focused on the development of labor-intensive sectors.

However, Asian NICs do not constitute a homogeneous entity when it comes to the choice of industrialization strategy. These countries were driven by different goals, natural resource endowments, market sizes, etc., all of which resulted in significant differences among them in terms of the duration of the import substitution strategy, its intensity, and the *turning point* that marked the shift towards the export promotion strategy (Table 1).

In the third stage of industrialization, technology-intensive products and products with high added value gained increasing importance in Asian NICs. Singapore, Taiwan, and Republic of Korea, in particular, initiated the promotion of research and development by establishing technological cities and institutes, and technology transfer from abroad.

Table 1. SUMMARY OF INDUSTRIAL POLICIES OF EAST ASIAN NICs

| | Japan | Korea | Taiwan | Singapore |
|--|---|--|---|---|
| Policy | | | | |
| Infant industry protection | Very strong | Very strong | Very strong | None |
| Export promotion | Strong | Very strong | Very strong | Strong, but mostly indirect |
| SOEs in manufacturing | Not used | Used in some critical industries | SOEs ran most key upstream industries | SOEs ran some key capital-intensive industries |
| Large private-sectors firms | Strongly promoted (especially enterprise groups) | Strongly promoted (especially enterprise groups) | Discouraged (most large firms were SOEs) | Not promoted (large firms were either SOEs or TNCs) |
| SMEs | Promoted by encouraging large firms to upgrade their subcontractors | Weakly promoted (some SME-specific funds) | Promoted through strong public investment in R&D and infrastructure | Weakly promoted (some SME-specific funds) |
| Private-sector corporate restructuring | Some Involvement | Very deep Involvement | Deep Involvement | Some Involvement |
| TNCs | Strongly discouraged | Strongly discouraged outside selected sectors | Discouraged outside selected sectors | Strongly promoted, but in a targeted manner |
| R&D | Private-sector-led | Private-sector-led | Government-led | Government-led |
| Policy implementation | | | | |
| Centralization in policy making | Strong | Very strong | Very strong | Strong |
| Government-private sector relationship | Two-way cooperation, systematic | <i>Top-down</i> direction, less systematic than in Japan | Mixture of antagonism, benign neglect, and central control | Local private sector unimportant |
| Role of private-sector association | Very important | Important, but controlled by the government | Important, but controlled by the government | Local private sector unimportant |

Source: Chang (2006)

Regarding LA countries, certain *modalities* can be observed because export promotion was implemented with varying intensity and using different measures. There are two main variants: on one hand, *ideological* openness (practiced primarily by Chile, Argentina, and Uruguay), and on the other hand, *pragmatic* openness (adopted by Colombia, Brazil, and others) (Gajinov, 1997).

4.2.1. Industry targeting

A distinctive characteristic of the industrial policy of most Asian NICs was the promotion of the development of specific priority industries, products, and even enterprise development, known as *targeting*. Targeting can be defined as selective support for chosen industries and involves import protectionism, subsidies for the import of capital goods and other inputs, preferential loans, tax reliefs, etc. The targeted industries were rarely those that the private sector would deal with, so the state took on the task of promoting the development of specific industries or products. The state made choices of strategically most important industries and promoted those that did not yet have but should gain comparative advantages. The idea of *dynamic* comparative advantages was most pronounced in targeting (Woronoff, 1992).

Furthermore, when the targeted industries developed technological and managerial capacities and achieved international competitiveness, protection and other forms of support were gradually withdrawn, generally within a period of 5 or 10 years after initiation (Naya & Tan, 1995).

Structuralists believe that carefully targeted subsidies and protection enabled the development of new activities by reducing costs and risks, emphasizing that industrial policy became inefficient when the goals became overly ambitious or when too many industries were promoted simultaneously.

On the other hand, the neoclassical viewpoint rejects targeting, considering that it not only creates winners but also losers (Naya & Tan, 1995). Neoclassical economists believe that in the case of Asian NICs, this might have led to a slowdown in natural industrial development.

4.2.2. Dynamic comparative advantages, industrial transformation, and the evolution of export structure

In the context of structural changes in production and exports, East Asian NICs have held on to their own comparative advantages, although with significant differences. However, the extraordinary export performances of Asian NICs would not have been possible if these economies had relied solely on their initial comparative advantages (UNCTAD, 1996). They had to create new comparative advantages in other activities. In some countries, this process was largely spontaneous, while in others, there was a certain degree of intervention. This approach is considered typical and characteristic of East Asian NICs, and it is rightly regarded as the true source of the *economic miracle* in these countries.

It was considered that even under the assumption that the private sector correctly assesses the country's *existing* comparative advantages, it is in no way capable of doing so regarding *future* comparative advantages. Therefore, it was the role of the state to do this. The best example of such a strategy is Republic of Korea, to a significant extent Taiwan, while even Singapore was not entirely immune to it.

However, despite its advantages, this strategy had its drawbacks. As highlighted by [Woronoff \(1992\)](#), negative outcomes can take two forms: firstly, it is possible to invest in industries that do not and may never have comparative advantages, or to invest in promising industries too early or with excessive resources; secondly, there may be a lack of investment in non-targeted industries. Such a policy can lead to a *dual* economy that is divided between priority and non-priority industries, and between favored and neglected enterprises.

Therefore, encouraging labor-intensive industries was a reasonable decision. It is crucial to emphasize this if one wishes to understand where these *respected miracles* originated from. At their inception, they were indeed *miracles* of cheap labor and very little more than that ([Woronoff, 1992](#)).

However, East Asian NICs did not limit themselves to industries where cheap labor had a decisive advantage but used their initial advantage to penetrate other sectors that were hard to access for these countries. The most fascinating example is Korean shipbuilding², but also highly sophisticated electronic products.

While labor in the East Asian NICs was becoming increasingly expensive, there was also growing competition from poorer countries in South East and South Asia where labor was cheap. The only way to maintain efficient competitiveness was to reduce labor participation and correspondingly increase capital participation, which also required raising the technological level ([Woronoff, 1992](#)). Additionally, this implied another form of improvement, which was the enhancement of quality. In this way, since the late 1980s, there has been a drastic and qualitative change in the industrial structure of Asian NICs.

Tables 2 and 3 show a whole series of similarities as well as significant differences in industrial transformation between the East Asian NICs and the Southeast Asian NICs, as well as within each group. The evolution of the export structure of the East Asian NICs shows a clear pattern of sequential transformation from primary products and activities in free zones, through more advanced stages of industrialization, towards products that require the highest level of skills

2 At the beginning, Republic of Korea had the capability to produce the steel framework and some simpler equipment, while the engine and more complex equipment were purchased from Japan or Europe. Nevertheless, the advantage in labor-intensive work was sufficient for Republic of Korea to push Japanese and European shipyards out of the market.

and technology (UNCTAD, 1996). They followed the model and space in the form of export markets that remained behind Japan, after leaving each stage of development according to *the theory of flying geese*. Japan was the *leading goose*. In follower countries, imported goods in the initial phase squeezed out many domestic producers from the market. However, over time, as imports facilitate the transfer of technology and the acquisition of capital goods needed for the production of import-substituting products, and as the domestic market for technologically advanced products increases in these countries, domestic companies find a niche in the domestic market. In leading countries, when they lose competitiveness, production is discontinued and replaced with imports from follower countries that have built a competitive industry for the production of that product. In this way, this sequence of events combines the life cycle of a particular product with the dynamic process of changing comparative advantages. The result is a regional division of labor that constantly evolves within the group of economies (Gajinov, 2023).

In the case of Southeast Asian NICs, a less systematic development pattern is observed, as well as greater differences among the countries compared to the East Asian NICs, but they also followed the model and space in the form of export markets that remained behind the East Asian NICs, according to the same theory.

The transformation in the Southeast Asian NICs in comparison to the East Asian NICs has been slower. However, differences in the pattern and course of transformation may be even more significant. In the Southeast Asian NICs (Table 3), a relatively modest export-oriented development of industries with low to medium skill requirements, technological complexity, capital, and production volumes is observed, and, in contrast, in Malaysia and Thailand, rapid growth in the export of more sophisticated industries has been evident since the early 1980s.

While East Asian NICs achieved a relatively diversified export structure, in the Southeast Asian NICs a dual structure largely emerged, with exports grouping at both the upper and lower ends of the knowledge and technology ladder (UNCTAD, 1996). Furthermore, the total export of the upper segments from the Southeast Asian NICs conceals a significant import content/dependence. In the Southeast Asian NICs, a larger portion of imported elements is processed for export in the form of components, much less in the form of final products. The import content of exports is significantly higher in Malaysia and Thailand than in Republic of Korea and Taiwan.

In this way, what appears to be a jump from the lower end of knowledge and technology ladder to the higher end of exports consequently largely reflects a

growing division of labor among the countries in the region, where the Southeast Asian NICs take over less demanding and more labor-intensive assembly processes. However, this export structure is more a result of the success of the Southeast Asian NICs in attracting the subsidiaries of TNCs rather than utilizing existing domestic capacities in those industries. In this context, [...] the idea of *recycled comparative advantages*, which combines domestic cost advantages with the technology and skills of TNCs, may not necessarily have the same implications for the host country and foreign firms (UNCTAD, 1996).

Table 2. FIRST-TIER NIES: COMMODITY STRUCTURE OF EXPORTS, 1965-1994 (% of total non-oil exports)

| Commodity group | Republic of Korea | | | | Taiwan | | | | Singapore | | | | Hong Kong | | | |
|--------------------------------------|-------------------|------|------|------|--------|------|------|------|-----------|------|------|------|-----------|------|------|------|
| | 1965 | 1975 | 1985 | 1994 | 1965 | 1975 | 1985 | 1994 | 1965 | 1975 | 1985 | 1994 | 1965 | 1975 | 1985 | 1994 |
| Group I | 42.8 | 17.7 | 5.9 | 5.3 | 60.0 | 19.0 | 8.6 | 7.0 | 61.1 | 36.9 | 23.3 | 8.6 | 7.5 | 3.2 | 4.0 | 5.0 |
| Food | 17.5 | 14.1 | 4.4 | 2.8 | 53.0 | 16.6 | 6.2 | 4.0 | 21.2 | 11.8 | 7.6 | 4.8 | 4.7 | 1.9 | 2.1 | 2.9 |
| Other primary commodities | 25.3 | 3.6 | 1.5 | 2.5 | 7.0 | 2.4 | 2.4 | 3.0 | 39.9 | 25.1 | 15.7 | 3.8 | 2.8 | 1.3 | 1.9 | 2.1 |
| Group II | 43.8 | 53.3 | 36.3 | 25.2 | 26.3 | 48.7 | 44.4 | 25.7 | 12.6 | 12.4 | 10.6 | 6.1 | 74.4 | 69.0 | 56.4 | 48.4 |
| Wood and paper products | 11.1 | 5.6 | 0.7 | 1.1 | 7.3 | 5.2 | 2.9 | 1.7 | 1.3 | 3.1 | 2.4 | 1.0 | 0.5 | 0.3 | 0.6 | 1.5 |
| Textile, cloth, footwear | 30.9 | 43.9 | 32.1 | 22.7 | 15.8 | 38.9 | 32.6 | 19.4 | 9.1 | 7.8 | 6.5 | 4.0 | 64.2 | 60.4 | 46.7 | 44.8 |
| Non-metallic mineral products | 1.7 | 2.3 | 1.2 | 0.7 | 2.6 | 1.1 | 2.3 | 1.2 | 1.9 | 1.1 | 0.9 | 0.7 | 0.9 | 0.8 | 0.5 | 0.7 |
| Toys and sport equipment | 0.1 | 1.5 | 2.3 | 0.7 | 0.6 | 3.5 | 6.6 | 3.4 | 0.3 | 0.4 | 0.8 | 0.4 | 8.8 | 7.5 | 8.6 | 1.4 |
| Group III | 9.1 | 11.0 | 30.8 | 14.7 | 4.2 | 6.1 | 11.1 | 9.6 | 5.4 | 8.6 | 4.8 | 3.9 | 7.7 | 4.4 | 3.6 | 2.7 |
| Iron and steel | 7.7 | 4.9 | 6.4 | 5.4 | 2.6 | 1.9 | 2.1 | 1.9 | 2.3 | 2.6 | 1.4 | 0.9 | 0.9 | 0.1 | 0.1 | 0.2 |
| Fabricated metal products | 1.3 | 2.6 | 5.2 | 2.8 | 1.2 | 2.7 | 5.4 | 6.1 | 2.5 | 2.0 | 1.7 | 1.3 | 3.6 | 2.9 | 2.5 | 2.3 |
| Ships and boats | 0.0 | 3.0 | 17.9 | 5.6 | 0.0 | 0.4 | 0.6 | 0.5 | 0.1 | 3.8 | 1.4 | 1.1 | 0.5 | 0.3 | 0.1 | 0.0 |
| Other ^a | 0.1 | 0.6 | 1.3 | 1.0 | 0.4 | 1.1 | 3.0 | 1.0 | 0.5 | 0.2 | 0.3 | 0.6 | 2.6 | 1.2 | 0.9 | 0.2 |
| Group IV | 3.0 | 10.9 | 13.4 | 35.3 | 3.1 | 11.7 | 19.0 | 29.2 | 13.7 | 24.8 | 29.4 | 32.7 | 4.7 | 9.5 | 12.9 | 18.2 |
| Rubber and plastic products | 0.7 | 3.7 | 2.0 | 2.2 | 0.3 | 3.1 | 4.1 | 3.9 | 0.8 | 0.6 | 0.8 | 1.1 | 1.0 | 2.8 | 2.3 | 1.8 |
| Non-electrical machinery | 1.5 | 0.7 | 2.0 | 5.7 | 1.4 | 2.8 | 4.5 | 8.2 | 4.6 | 8.6 | 8.6 | 7.5 | 0.6 | 1.6 | 3.3 | |
| Electrical machinery | 0.3 | 6.4 | 7.2 | 20.8 | 1.4 | 5.1 | 9.1 | 15.1 | 1.8 | 13.2 | 19.0 | 23.4 | 3.1 | 6.1 | 9.0 | 13.1 |
| Road motor vehicles | 0.6 | 0.1 | 2.2 | 6.6 | 0.0 | 0.7 | 1.3 | 2.0 | 6.5 | 2.4 | 1.0 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| Group V | 1.4 | 7.2 | 13.5 | 19.5 | 6.4 | 14.4 | 17.0 | 28.5 | 7.4 | 17.4 | 31.9 | 48.7 | 5.8 | 13.9 | 23.1 | 25.8 |
| Chemicals and pharmaceuticals | 0.2 | 1.6 | 3.6 | 7.1 | 4.9 | 2.0 | 2.9 | 6.1 | 5.7 | 6.0 | 8.7 | 6.9 | 1.3 | 0.9 | 1.1 | 4.0 |
| Computer and office equipment | 0.0 | 1.0 | 2.1 | 4.0 | 0.0 | 1.6 | 4.5 | 13.5 | 0.3 | 2.6 | 9.3 | 27.6 | 0.0 | 1.7 | 5.7 | 7.1 |
| Communication equipment ^b | 0.9 | 3.0 | 5.7 | 6.7 | 1.3 | 9.0 | 7.7 | 6.6 | 0.5 | 4.9 | 8.6 | 10.4 | 3.6 | 7.0 | 6.9 | 4.5 |
| Other ^c | 0.3 | 1.7 | 2.1 | 1.7 | 0.1 | 1.8 | 1.9 | 2.3 | 0.9 | 4.0 | 5.3 | 3.8 | 0.9 | 4.3 | 9.4 | 10.2 |

^a Transport equipment other than road motor vehicles, ships and aircraft; and sanitary and plumbing;

^b Telecommunications and sound recording and reproducing apparatus and equipment and semiconductors.

^c Aircraft and associated equipment; and scientific instruments, including watches, and photo equipment.

Source: Author's calculations based on data: UN CommodityTrade Statistics.

Table 3. FIRST-TIER NIEs: COMMODITY STRUCTURE OF EXPORTS, 1965-1994 (% of total non-oil exports)

| Commodity group | Indonesia | | | | Malaysia | | | | Thailand | | | |
|--------------------------------------|-----------|------|------|------|----------|------|------|------|----------|------|------|------|
| | 1967 | 1975 | 1985 | 1994 | 1965 | 1975 | 1985 | 1994 | 1965 | 1975 | 1985 | 1994 |
| | 96.7 | 95.8 | 75.9 | 42.0 | 94.8 | 81.0 | 63.6 | 23.6 | 98.0 | 85.7 | 63.3 | 28.7 |
| Group I | 27.0 | 22.7 | 14.6 | 11.7 | 6.9 | 7.7 | 6.1 | 3.6 | 55.2 | 64.0 | 47.4 | 22.7 |
| Food | 69.7 | 73.1 | 61.3 | 30.3 | 87.9 | 73.3 | 57.5 | 20.0 | 42.8 | 21.7 | 15.9 | 6.0 |
| Other primary commodities | 0.2 | 0.4 | 16.4 | 43.6 | 1.5 | 5.6 | 7.0 | 12.0 | 1.6 | 11.1 | 22.5 | 27.1 |
| Group II | 0.0 | 0.1 | 10.0 | 17.3 | 0.7 | 2.6 | 1.5 | 4.1 | 0.1 | 1.3 | 1.3 | 1.1 |
| Wood and paper products | 0.2 | 0.3 | 6.1 | 24.7 | 0.5 | 2.7 | 4.5 | 6.2 | 0.5 | 6.6 | 16.7 | 20.4 |
| Textile, cloth, footwear. | 0.0 | 0.0 | 0.4 | 1.0 | 0.3 | 0.3 | 0.5 | 1.1 | 1.0 | 3.2 | 4.2 | 4.0 |
| Non-metallic mineral products | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 0.4 | 0.7 | 0.0 | 0.0 | 0.3 | 1.6 |
| Toys and sport equipment | 0.1 | 0.3 | 0.4 | 3.0 | 0.3 | 0.8 | 2.2 | 3.0 | 0.1 | 0.8 | 1.7 | 3.3 |
| Group III | 0.0 | 0.0 | 0.3 | 1.0 | 0.1 | 0.2 | 0.5 | 0.8 | 0.0 | 0.3 | 1.0 | 0.7 |
| Iron and steel | 0.1 | 0.2 | 0.0 | 1.1 | 0.2 | 0.4 | 0.5 | 1.1 | 0.1 | 0.5 | 0.6 | 1.5 |
| Fabricated metal products | 0.0 | 0.1 | 0.0 | 0.2 | 0.0 | 0.1 | 1.2 | 0.6 | 0.0 | 0.0 | 0.0 | 0.2 |
| Ships and boats | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 0.1 | 0.1 | 0.5 | 0.0 | 0.0 | 0.1 | 0.9 |
| Other ^a | 2.5 | 1.4 | 1.0 | 3.9 | 2.3 | 5.7 | 20.7 | 29.8 | 0.1 | 1.6 | 9.6 | 20.7 |
| Group IV | 0.0 | 0.0 | 0.1 | 0.9 | 0.5 | 0.7 | 0.6 | 1.3 | 0.0 | 0.4 | 1.3 | 2.8 |
| Rubber and plastic products | 2.5 | 0.8 | 0.2 | 0.6 | 0.7 | 1.6 | 2.1 | 3.6 | 0.0 | 0.2 | 1.8 | 3.7 |
| Non-electrical machinery | 0.0 | 0.6 | 0.8 | 2.1 | 0.2 | 3.1 | 17.9 | 24.5 | 0.1 | 1.0 | 6.3 | 12.7 |
| Electrical machinery | 0.0 | 0.0 | 0.0 | 0.4 | 1.0 | 0.4 | 0.2 | 0.4 | 0.0 | 0.0 | 0.2 | 1.5 |
| Road motor vehicles | 0.5 | 2.1 | 6.3 | 7.5 | 1.2 | 6.9 | 6.5 | 31.6 | 0.1 | 0.9 | 3.0 | 20.2 |
| Group V | 0.5 | 1.4 | 5.9 | 3.2 | 1.1 | 1.0 | 1.6 | 3.1 | 0.1 | 0.6 | 1.4 | 3.0 |
| Chemicals and pharmaceuticals | 0.0 | 0.0 | 0.0 | 0.9 | 0.0 | 0.9 | 0.2 | 10.0 | 0.0 | 0.0 | 0.8 | 9.5 |
| Computer and office equipment | 0.0 | 0.1 | 0.0 | 2.5 | 0.0 | 0.6 | 3.3 | 13.8 | 0.0 | 0.1 | 0.1 | 4.2 |
| Communication equipment ^b | 0.0 | 0.6 | 0.4 | 0.9 | 0.1 | 4.4 | 1.4 | 4.7 | 0.0 | 0.2 | 0.7 | 3.5 |

^a Transport equipment other than road motor vehicles, ships and aircraft; and sanitary and plumbing;

^b Telecommunications and sound recording and reproducing apparatus and equipment and semiconductors.

^c Aircraft and associated equipment; and scientific instruments, including watches, and photo equipment.

Source: Author's calculations based on data: UN CommodityTrade Statistics

When analyzing the evolution of the export structure of the East Asian NICs, it is particularly noticeable that the share of capital goods exports in total exports, which ranged from a min. of 3% to a max. of 10% in 1965 (Republic of Korea and Singapore), increased in 1990, ranging from a min. of 24% to a max. of 48% (Hong Kong and Singapore). The share of both natural resource-based products (ranging from a max. of 72.6% in Singapore in 1970 to a min. of 10.5% in Republic of Korea in 1987) and labor-intensive products (ranging from a max. of 76.2% in Hong Kong in 1970 to a min. of 39.0% in Republic of Korea in 1987) drastically declined, while the share of exports of physical and human capital-intensive goods, which ranged from a min. of 12.3% to a max. of 19.6% in 1970 (Republic of Korea and Hong Kong), increased in 1987, ranging from a min. of 45.4% to a max. of 54.9% (Hong Kong and Singapore).

In the evolution of the export structure of the Southeast Asian NICs, the rapid increase in the share of industrial exports in total exports is even more noticeable,

rising from 3%-6% in 1965 to 41% for Indonesia and 61%-71% for the other three countries in 1991. Within industrial exports, the share of labor-intensive products increased from nearly 0% in 1965 to 17% for Thailand and 61%-71% for the other three countries in 1991. The share of capital goods in total exports was still negligible for Indonesia in 1991, reached 14% for the Philippines, and 22% for Thailand but increased to 38% for Malaysia, thanks to the activities of TNCs in this country.

4.2.3. Export-led growth

Export-led growth refers to a pattern of growth based on the interconnected expansion of industrial production and exports.

East Asian NICs, and to a lesser extent Southeast Asian NICs, took advantage of a fortunate circumstance in the form of rapidly growing global markets during the 1970s, although their development did not solely depend on global demand growth. East Asian NICs achieved significant export results already after 1965. By 1986, these countries became the most significant exporters among LDCs. Taiwan led the way with a \$40 billion USD in exports, followed by Hong Kong and Republic of Korea with a \$35 billion USD in exports each. Singapore ranked third with \$22 billion USD in exports. In the East Asian NICs, in the first half of the 1980s, the share of exports in GDP amounted to 35% in Republic of Korea, over 50% in Taiwan, and even 100% in the city-states of Hong Kong and Singapore.

Among Southeast Asian NICs, annual growth rates ranged from 17% to 30%. These countries were predominantly exporters of primary products in the 1960s and 1970s, with the export of industrial products contributing 8% or less to total commodity export revenues in 1970. In 1990, the export of industrial products accounted from 35% (in Indonesia) to 64% (in Thailand) of total export revenues (Roemer, 1994). According to data from the United Nations Industrial Development Organization - UNIDO from 1991, the share of East and Southeast Asian NICs in global exports of industrial products increased from 3.5% in the 1970s to 12% in 1988.

Export-led growth is measured by the speed of expansion and growth in the export of industrial products. *The rate of export industrialization* represents the ratio between the export of industrial products and total exports (Table 4). Although this indicator varies significantly for Asian NICs, all countries recorded increasing rates. In 1984/85, the rate exceeded 90% for East Asian NICs, with the exception of Singapore. Southeast Asian NICs lag behind East Asian NICs in this regard, although there is a noticeable and rapid growing trend, even during the period of the global recession in the period 1980-1985.

Market placement is another significant indicator of export-led growth. The majority of exports from Asian NICs was placed in MEDCs. By the late 1980s, Republic of Korea directed 67% of its exports to Japan, the United States, and the EC-9. The corresponding shares were 48.2% for Hong Kong, 71.3% for Taiwan, 44.9% for Singapore, and 64.4% for the Southeast Asian NICs. The United States was individually the largest market for all East Asian NICs. Southeast Asian NICs export more to Japan, primarily due to Japan's demand for raw materials. However, for the export of industrial products, the United States remains the largest market.

Table 4. EXPORT INDUSTRIALIZATION RATES

| | 1970 | 1980 | 1985 | 1986 | 1987 |
|-------------|------|------|------|------|--------|
| USA | 70.1 | 67.9 | 74.6 | 76.5 | 77.9 |
| Japan | 93.3 | 95.6 | 97.1 | 97.3 | 97.3 |
| R. Korea | 76.7 | 89.9 | 91.4 | 92.0 | 92.8** |
| Taiwan | 76.1 | 87.9 | 90.5 | 91.0 | 91.8 |
| Hong Kong | 92.9 | 92.4 | 91.6 | 92.1 | 92.4 |
| Singapore | 30.5 | 53.9 | 58.4 | 65.4 | 71.7 |
| Thailand | 10.7 | 29.0 | 39.3 | 44.6 | - |
| Malaysia | 7.4 | 19.0 | 27.3 | 37.3 | 39.8 |
| Philippines | 7.6 | 37.0 | 57.1 | 58.0 | - |
| Indonesia | 1.4 | 2.4 | 13.2 | 19.5 | 24.3 |
| Mexico | 32.5 | 11.9 | 27.1 | 30* | - |
| Brasil | 14.2 | 38.6 | 44.8 | 41* | - |
| Argentina | 13.9 | 23.2 | 21.4 | 26.4 | - |
| Chile | 4.4 | 9.7 | 7.4 | 9.2 | - |

Note: Industrial exports are defined as SITC 5-9 (excl. SITC 68).

* IBRD, World Development Report, 1988; **Each country's trade statistics.

Source: Author's analysis.

Unfortunately, at the same time, new forms of protectionism and trade regionalism are on the rise in MEDCs. The global trade system is moving away from the most-favored-nation treatment towards selective quantitative restrictions under the pretext of voluntary export restrictions. These measures are disproportionately targeted against the industrial exports of Asian NICs and other LDCs.

5. CONCLUSIONS

Although the experiences of other countries can be considered valuable lessons, there is no a particular pattern of good industrial policy that countries can adopt immediately. The fact is that policy making is fundamentally context-specific. Similar policies may work well in one country but not in another. Thus, the choice of industrial policy is quite unique to the circumstances of each individual country. Even among countries in East and Southeast Asia there are significant

differences in the industrial policy measures, the duration of their implementation, and their outcomes. The measures used in successful countries are not necessarily vastly different from those used in less successful economies. Success is based on original combinations of policy measures and the effectiveness of their implementation.

On the other hand, the question is whether the numerous measures that are an integral part of the industrial policy of Asian NICs can be replicated in other countries today. Because, today, the room for maneuver by LDCs in shaping policies is largely limited.

The lessons we can draw from the experience of economies in the East Asian region will always encounter skepticism from those who wonder whether Asian NICs are unique and characterized by special circumstances. They are indeed unique - due to their history, geopolitical circumstances, geographical location, cultural elements, and so on.

The special circumstances argument can be equally applied to the development of the United States and the United Kingdom, as well as to the development of Asian NICs and countries in the region. For instance, the United Kingdom experienced prosperity during periods when it colonized weaker nations, used slaves, sold opium to China, and subjected children to 12-hour workdays in miserable working conditions. Throughout its development, the United Kingdom also routinely violated the intellectual property rights of others and in the period 1750-1842 maintained a law prohibiting the export of machinery to competing economies. The American economy benefited from similar conditions. Additionally, the United States benefited from its geographical size, large population, immigrant labor force, and exceptional endowment of natural resources.

Many authors, who are skeptical about the transferability of the model of Asian NICs, believe that the exact opposite can be said about the transferability of market-dominant model of Anglo-American economies.

We can conclude that each country is unique in terms of its own mix of history, culture, ethnic composition, timing, and development, etc. In this way, the experience of Asian NICs and, in general, the East Asian region is neither more nor less idiosyncratic than the experience of any other country.

Lessons for other countries from Asian NICs and, in general, countries in the East Asian region on industrial policy can be reduced to: 1) the importance of the state in targeting industries and promoting currently unprofitable industries, but with development potential; 2) budget transfers may not necessarily be the

most significant element of industrial policy; 3) other countries should clearly define the objective and duration of state intervention; 4) they should use both industrialization strategies, sometimes even simultaneously, and timely apply the turning point; and 5) Japan's recession should not be interpreted as evidence that industrial policy becomes ineffective upon reaching *technological frontier*.

As for the reflections regarding the successor countries of the former Yugoslavia (SCFY), it can be pointed out that they have shared several common characteristics with Asian NICs (primarily their peripheral status, which Asian NICs have long surpassed), but they also have many differences. Among the differences, one should certainly mention far more favorable geopolitical conditions, cheaper and facilitated transfer of high technologies, easier and unconditional access to all forms of foreign capital, open markets in MEDCs, etc., during the *take-off* phase, unlike the SCFY.

Therefore, undertaking industrial policy measures in the SCFY that were applied by Asian NICs has been and remains impossible because it would be in contradiction with the neoliberal policy of the EU, the United States, and international financial institutions, which have taken responsibility for the *growing up* of the economies of the SCFY.

We can list numerous areas where adopting industrial policy measures similar to those of Asian NICs is not possible: 1) the impact of foreign capital in SCFY: a) an enormous increase in foreign debt, mostly used to buy *social peace*, infrastructure projects with a very long payback period, etc.; b) foreign aid is the so-called *development* aid, inspired by the benefits of donors; c) FDI are highly concentrated in financial services. Investments in production are limited to assembly and light industries, without planning and interconnection. This is directly connected with the development model, which is shaped taking into account the weak role of industry. However, the *FDI-driven model* is approaching its end; 2) neglect of agriculture and the food industry along with a misguided subsidy policy: insufficient funding, irregular payments, and a lack of targeted support for specific sectors. It is essential to remember the example of Thailand, which initially invested all resources in developing a single crop - production and processing of rice; 3) only declarative implementation of the export-led growth strategy, persistently maintaining an unrealistic exchange rate that discourages exports; 4) strengthening partnerships between the state and the private sector because representatives of the private sector are de facto employees of the state apparatus, etc.

Changes in the economic policies of peripheral countries depend on and originate from political changes. Only politically independent countries can be

economically independent countries, and vice versa. They can be independent in creating economic in general, and industrial, and other policies.

The key conclusion is that there is room for a successful industrial policy even in countries that have reached *technological frontier* and want to push it further, as well as for countries that lag behind in industrial development, provided they meet the aforementioned conditions.

Conflict of interests

The author declares there is no conflict of interest.

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ИНДУСТРИЈСКА ПОЛИТИКА У АЗИЈСКИМ НОВОИНДУСТРИЈАЛИЗОВАНИМ ЗЕМЉАМА: КОНТРОВЕРЗЕ, РЕВИЗИЈА И ПОУКЕ

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Сажетак

Циљ чланка јесте да се успешним примјером новоиндустијализованих земаља Источне Азије докаже потреба за спровођењем индустријске политике у многим земљама - како у онима које заостају у индустријском развоју, тако и у онима које су достигле *технолошку границу*. Чланак описује еволуцију индустријске политике у овим земљама и оно што их разликује од других земаља у развоју које су биле неуспјешне у њеном спровођењу: развојна држава, која је препознала *тренутак заокрета* са стратегије супституције увоза ка стратегији промоције извоза, симултано спроводила обе стратегије, *бирала побједнике*, обезбиједила подршку *младим* секторима селективним интервенцијама, али и дисциплиновала њене примаоце подршке, пратила сопствене компаративне предности и

антиципирала њихове промјене, уз снажну синергију између државног и приватног сектора, и угледање на Јапан као модел индустријског развоја, односно *лидера*. Индустријска политика је једно од најконтроверзнијих питања у економији, нарочито у економији привредног развоја. Дуго се водила дебата између ортодоксне и хетеродоксне струје мишљења о томе да ли постоји потреба за индустријском политиком генерално, као и о улози државе у процесу њеног стварања и примјене, на супрот слободотржишном моделу развоја у коме нема мјеста за индустријску политику. Уколико се она и укаже може бити само општег карактера, никако у облику селективних интервенција и *избора побједника*. Током посљедњих 10 до 15 година дошло је до ревизије како на академском нивоу, тако и у реалном свијету који су учинили индустријску политику прихватљивијом, те је на тај начин дебата постала мање идеолошки обојена, а више прагматична и нијансирана. На теоретском нивоу, гледиште тржишних фундаменталиста слабог теоретског оправдања за индустријску политику је изгубило своју доминацију. Успркос задржавању неолибералне ортодоксности као *савјета* међународних финансијских институција у процесу стварања економске политике у земљама у развоју, индустријска политика је остала значајна за промоцију индустријског развоја, нарочито младих сектора. Постоји много врста тржишних неуспјеха који се морају рјешавати кроз индустријску политику. У раду су коришћене методе поређења, анализе, синтезе, индукције и дедукције и метода статистичке анализе, табеларне и друге методе илустрације текста, историјска метода, метода генерализације и специјализације и др. Све више се признаје да индустријска политика није само изразито идиосинкратична пракса повезана само са *чудотворним* привредама Источне Азије, већ оно што је већина данашњих развијених земаља користила када су биле у позицији земаља које су их *сустизале*. Као закључак, у раду се разматра могућност преношења *источноазијског* модела на друге земље и расвјетљавају детерминанте успјеха и неуспјеха индустријске политике. Кључни закључак је да простора за успјешну индустријску политику има чак и у земљама које су достигле *технолошку границу* и желе да је помјере, као и у земљама које заостају у индустријском развоју, иако се глобални контекст у коме се индустријска политика налази промијенио током времена. Посебан коментар се односи на економски и индустријски развој земаља бивше Југославије.

Кључне ријечи: *државна интервенција, млади сектори, касна индустријализација, секторске интервенције, државно тржиште, таргетирање, избор побједника, тржишни пласман, раст вођен извозом, динамичке компаративне предности, индустријска трансформација, еволуција извозне структуре.*