

Industrial Policy: Concept Clarification. Convergent and Controversial Views

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Abstract

The article deals with problems of the design and implementation of industrial policy as a tool of Government intervention in the economy. The content of industrial policy, its scope, types, evolution of vision upon it, and modalities of implementation are specified. A large section is devoted to the presentation of arguments for and against the application of industrial policy, asserted by some international organizations and world renowned specialists. The conclusions underscore the requirement, under globalization and the effects of the global crisis that began in 2008, to use industrial policy as a tool able to provide a country's increasing economic competitiveness and sustainable economic development.

Keywords: *industry; industrial policy; types of industrial policy*

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Introduction

The concept of industrial policy is one of the most common in the economic literature of the last decades. This reality is explained, on the one hand, by the fact that it is a matter of fierce dispute among experts over the use or avoidance of effective tools that materialize it, and, on the other hand, by the extremely tortuous evolution of vision on its content, orientation and means of action.

In this context, we attempt to decipher the multiple meanings that are assigned to this concept, connotations attached to it, elements that give it content, its scope and large range of means of action to apply it.

Notion Explanations

Before proceeding to the details of the above items attached to the concept of industrial policy, it is necessary to specify the accurate acceptation in which the term of industry present in this syntagm is used.

In our view, *the industry encompasses all producers of identical or substitutable goods and services*. Such a definition corresponds to M. Porter's optics, for whom *the industry represents*

*group of companies that produce goods easy substitutable*¹. The author states that the most comprehensive and relevant definition of the industry has generated heated disputes in the scientific world, depending on the way to express substitutability of products - by products, technologies (processes) used in their manufacture or perimeters of specific markets.

The definition from which we start in our approach, congruent with that on which the industrial organization is asserted oneself as a scientific discipline, has two key implications. First, in this vision industry is no longer confined to traditional branch producing industrial goods, but extends to all economic branches, which means the existence of the tourism industry, insurance industry, communications industry, media industry, management consulting firms industry, etc.

Second, according to the definition, industry is homogeneous, bringing together only producers of a uniform range of products, including their variants; this means that you can no longer speak of machine building industry, reference sector in the regime of centralized economy and in its statistical data, but each of its components taken individually - industry of machinery and equipment, industry of motor vehicle, industry of other transport equipment, and so on.

The competitive forces that operate within an industry, identified by M. Porter - potential entrants, substitutes, bargaining power of suppliers, bargaining power of buyers, rivalry among firms facing on the specific market of the industry -, determine the profitability of the businesses and, hence, industry attractiveness for investors. The intensity with which each of the mentioned forces acts is, in turn, determined by a number of technical and economic characteristics, such as barriers to entry, economies of scale, the costs of switching from one product to another, profit, price / performance alternatives, the concentration of suppliers or buyers, etc. For industrial policy, the implications of this vision of dealing with industry are evident: the policy reference sphere is the whole economy, not limited to the traditional branches of industry. There is, however, a largely shared perception in Romania according to which the industrial policy refers only to the industry in the traditional sense, which is wrong, in total dissonance with that syntagm used in documents of international organizations, blocks of countries (like the European Union) and most countries of the world. Besides, the correct view on the subject and scope of industrial policy clearly result from the definitions given by international bodies and authors of unquestionable scientific authority.

Numerous definitions that try to capture the essence of industrial policy reflect, concomitantly, its high complexity and, implicitly, its multiple meanings. Analysis of the wide range of definitions of industrial policy emphasizes the existence of ones extremely brief, specifying only its essence, while others are more extensive and detailed, expressing multiple facets of the syntagm.

For example, R. Reich has a vision on industrial policy focused mainly on the private sector of the economy, according to which the respective policy is an economic program funded by the Government in which the public and private sectors coordinate their efforts to develop new technologies and industries. Industrial policy emphasizes cooperation between government, banks, private companies and employees to strengthen the national economy ².

H. Pack and K. Saggi have a more rigorous view on industrial policy, which they consider “*any selective intervention or government policy that attempts to change the structure of production*”

¹ M. Porter. *Competitive strategy*, The Free Press, New York, 1980, p. 5 (paper was voted by the Fellows of the Academy of Management in the United States as the new management book among the most influential in the 20th century)

² R. Reich. *The Work of Nations: Preparing Ourselves for 21st Century Capitalism*, Vintage Press, New York City, 1992

towards sectors that are expected to provide better prospects for economic growth than would have occurred without such intervention, for example in market equilibrium “³.

In a relatively close way is defined industrial policy in an economic dictionary of reference: “Government policy establishing industries that develop and, implicitly, those restricting, by subsidies, tax cut and other aid favoring industries. The goal, leaving aside political favor, may be supporting competitive advantage where there are beneficial externalities and / or economies of scale “⁴.

In the view of the World Bank, industrial policy appoints “government efforts to alter industrial structure in order to promote productivity-led growth” ⁵.

Many EU programming documents refer to industrial policy as one of the most effective tools to achieve the declared goals of community ensemble, primarily to increase the competitiveness of the EU economy as a whole and those of member countries. Defining rigorous, comprehensive, detailed vision of the European Commission on this instrument is made in a reference programmatic document: “The main role of industrial policy is to provide the appropriate framework conditions for enterprise development and innovation in order to make the EU an attractive place for industrial investment and job creatio [...] From the perspective of industrial policy, the role of public authorities is to act only when needed, for example when certain types of market failures justify Government intervention or should be supported structural change. The latter can reclaim the introduction of complementary measures to reduce the social costs of structural change, based on a continuous dialogue with all relevant holders of interests. For that the public authorities can make use of policy instruments such as better regulation, single market, innovation and research policies, social policy, policy concerning use of labour, and so on, applied horizontally in economy without distinction between sectors or companies, together with other complementary measures to facilitate economic and social cohesion.

The Commission is committed to using the horizontal nature of industrial policy and to avoid a return to selective interventionist policies. However, the scope of policy instruments should not be seen as limited to very wide horizontal measures Policies need to be combined in a match, based on specific characteristics of the sectors and the opportunities and the specific challenges they face “⁶.

This long excerpt from the mentioned document provides the most comprehensive and detailed picture of the contents of industrial policy and how to be used, compared to other definitions found in the literature.

Relevant explanations are also provided in a document of UNCTAD, which states that the rationale use of industrial policy “in the sense of selective promotion of certain industries, remains strong despite recent developments. What, however, has changed over time, is the context in which industrial policy falls. Globalization, general predilection for liberal economic policies and increasing trade openness did not make to disappear industrial policy, but determined a fundamental change in the vision of what governments can and should do to support industrialization. Perhaps the most important change was the role of trade policy, which has been the main instrument for industrial promoting in the past. What remains relevant

³ H. Pack, K. Saggi. The case for industrial policy: a critical survey, World Bank, Washington D.C., 2006 (survey partially funded by the Development Research Group of the World Bank)

⁴ Investor Words. Biggest, Best Investing Glossary. www.investorwords.com

⁵ World Bank. *The East Asian Miracle*, Washington D.C., U.S.A., 1993

⁶ European Union. Implementing the Community Lisbon Programme: A policy framework to strengthen EU manufacturing – towards a more integrated approach for industrial policy, Brussels, COM (2005) 474 final, p. 3

and useful to the policy instrument is that the general reduction of trade barriers and more rigorous regulations of the WTO have resulted in reducing its importance”⁷.

OECD worked out annual reports on industrial policy of the member states of the Organization and non-member countries, in which presented guidelines and appropriate measures for different components of industrial policy: sectoral adjustment; promotion of industrial investment; formation and use of labor; promoting R & D, innovation and technology diffusion; regional development; environmental protection; strengthening competition and deregulation; trade and international investment; international cooperation; support for small and medium; role of public enterprises⁸.

In an integrative view it is also treated the issue of industrial policy in recent programmatic documents of the European Union⁹. In Europe 2020 document, the concept of industrial policy covers a wide range of Community policies such as competition, trade, innovation and energy, all having an impact on industrial competitiveness. In addition, integrated policy means also putting on the same level competitiveness and sustainable development, as well as the requirement for synergistic cooperation and coordination of companies efforts at national level and economies at the community level.

There are many common elements in most definitions, whose highlighting allows sufficiently rigorous circumscription of all elements that make up industrial policy, both in theory, as a complex concept, and in practice, as a crucial tool in the economic and social development strategy of a country. The common elements, that are true landmarks for determining the main orientation, the scope and modalities of implementation of industrial policy, along with other comments to clarify some issues, are discussed below.

a) The primary objective of any industrial policy is to improve the current state of the economy, the prospects for economic development, regardless of the terms expressing this state - productivity, financial and economic performance, competitiveness, and so on;

b) Evolution of industrial policy reference definitions throughout the second half of the last century up to the present highlights the essential changes suffered by this concept, which is completely different in orientation and content from that of the last century. If in the sixth and seventh decades of the twentieth century most Governments counted on protectionism, promoted by industrial policy focused on the use of discriminatory trade barriers to protect their businesses, the currently dominant option is the maximum opening of the economy to the outside, considering that liberalization is likely to offer considerable opportunities for economic expansion and benefit to businesses and consumers. Focus on supporting industries with difficulties and stimulating the ones with promising development prospects moved on improving mechanisms of functioning of markets, by removing the current failings and improving production factors - primarily labor and capital use.

c) The definitions also reveal that adopting industrial policy by the central authorities in one country can be made from a range of options, depending on the specific economic and social conditions of the country. The range of industrial policies can include: *horizontal policies* (neutral, general, providing measures with the same impact on all sectors); *vertical policies* (selective, with specific measures aimed at particular sectors); *specific policies on activities* (selective, with measures in favor of activities found in all sectors such as labor training and development, R & D, implementation of information and communications technologies - ICTs, export, etc.); *specific policies on industries* (defined more narrowly in certain sectors such as machinery and equipment, road vehicles, etc.); *specific policies on companies* (targeting certain

⁷ UNCTAD. *Rethinking Industrial Policy*. Discussion papers, No. 183, April 2007, p. 10

⁸ See OECD. *Industrial policy of the OECD countries*, annual issues

⁹ European Commission. *Europe 2020. A strategy for smart, sustainable and inclusive growth*, Brussels, COM (2010) 2020 final, p. 15

large companies with strategic role in the economy); *regional policy* (selective measures to support the accelerated development of certain regions).

The main assumptions to be taken into account when choosing the type of industrial policy are endowment with production factors and their quality, major orientation of Government policies, the openness of the economy to outside, external geo-political situation of the country, etc. The evolution of formulated definitions of industrial policy also indicates that vertical measures, supporting certain sectors or industries, continually lost ground in favor of horizontal ones, phenomenon particularly pronounced in the last two decades of the previous century;

d) Horizontal policies aimed, primarily, to significantly improve the quality of entrants in productive activity, achievable, especially, by targeting prevailing investment to intangible assets - R & D, innovation and technology diffusion, education, facilitating access of companies to specialized consulting services. Reconsidering the role of intangible assets to ensure sustainable economic development has been determined by the gradual awareness of its importance for firms alignment with the advanced world technology. Alignment at this level and adequate labor training to properly exploit the technological potential require the existence of "strategic vision" and indispensable know-how, necessity which can be satisfied by initiating and carrying out programs to promote and support intangible investments;

e) From some definitions resulted that essential changes produced in favor of horizontal policies did not mean giving up further support to sectors or industries in temporarily commercial, financial and structural adjustment difficulties, in this respect even countries known for their emphasized economic liberalism providing examples for reference. The explanation is that certain sectors or industries present a special strategic interest in the national economy, in that they are important for the sustainable development of the country and the international competitiveness of its economy. Currently, in the industrial policy of many countries is far prevailing its neutral component, along with much diminished presence of vertical support measures, which are reflected in the following: reduction in supporting the declining sector in favor of their technological modernization, to bring them to the state of art existing at world level; promoting intensive development, including by international cooperation programs, of peak sectors, strong technological intensive and low intensive in terms of energy and material resources consumption; supporting the development of sectors which generate enabling technologies, fundamentally new, and those which produce equipment suitable for use of these technologies;

f) Action programs and industrial policy implementation measures have also experienced significant changes over the past two decades, their main purpose being, currently, boosting the competitiveness of firms, sectors and the economy as a whole, provided that certain *requirements* determined by economic developments in recent years are observed:

- ensuring the broadest possible impact of established programs and initiated measures, its ongoing evaluation in terms of competitiveness - cost, prices, investment, innovation etc. -, at the level of companies, sectors and the economy, as well as that of consumer satisfaction;
- ensuring fair competition on the domestic and international markets, firmly combating market sharing, discrimination in favor of public companies, concentration capacities or preventing cross-border activities;
- reducing the budgetary costs of promoting the development of certain sectors;
- improve access to finance for businesses and investors, easing the tax regime proved more effective for stimulating investment behavior than fiscal incitation to encourage such behavior;
- continuation of economic deregulation, in order to reduce the administrative costs of doing business, simplify the creation and termination of business procedures, increase efficiency

in the allocation and use of resources, flexibilization of mergers, acquisitions and establishing joint ventures that can increase competitiveness and business efficiency without harming the interests of consumers, even when determining concentration of economic activity in certain limits.

Controversies

Decision dilemma between calling industrial policy as an effective tool for producing structural changes to enhance the competitiveness of economic entities - companies, sectors, the economy as a whole -, and avoid recourse to it is a longstanding field of dispute among experts, grouped in two opposing camps, each with its arguments supporting or against contrary opinion.

The concept of industrial policy gradually crystallized, at first specifying only disparate directions of action at national level, which have been progressively articulated into less coherent economic programs, and then into unified and comprehensive industrial policies.

In the outstanding theoretical and pragmatic contributions of A. Smith¹⁰ may be surprising to find corresponding elements of real germs of industrial policy - advocacy for labor specialization that, by extension, led to specialization and diversification of industries, emphasizing the requirement of running free, unrestricted, the market and trade practice, limiting State involvement in economic activity.

Fr. Liszt¹¹, by his idea of creating and strengthening National System for which he pleaded, may be considered, also, an early proponent of what would become, a century later, industrial policy. This reference author argued ideas concerning productive capacity development in each country to support its welfare, to establish national programs to ensure passage through a series of successive steps to start from practicing free trade, to go to creation of own industry in conditions of protectionism, to return to the free trade regime when the industry is consolidated, to complete the integration of the country into a universal union and, lastly, to set up the trade association of German states (Zollverein) with a view to their rapid and balanced industrialization.

In "*the backwardness model*" or "*linear stages theory*" advanced by A. Gerschenkorn¹² can be also detected early elements of industrial policy, consisting in orientation through the banking system of capital towards developing industries, more accelerated development of capital-intensive production compared with that labor-intensive, general economic development based, preponderantly, on productivity growth, promoting selective sectors to overcome economic backwardness.

Currently, the large reference model proposed by M. Porter¹³ regarding the staging of a country's economic competitive development (based, successively, on factor endowment, on imports of technology and investment in capital goods, on industrial innovation and, finally, on the maintenance of achieved living standards), is, essentially, a plea for the application of specific industrial policy capable of ensuring the transition from one stage to a superior one.

¹⁰ A. Smith. *An Inquiry into the Nature and Causes of the Wealth of Nations*, The Glasgow edition of the works and Correspondence of Adam Smith, edited by D.D. Raphael and A.L. Macfie, Clarendon Press, Oxford, 1976

¹¹ F. Liszt. *The National System of Political Economy*, translated from German, Longmans, Green and Co., London, 1909

¹² A. Gerschenkorn. *Economic backwardness in historical perspective*, a book of essays, Belknap Press of Harvard University Press, Cambridge, MA, 1962

¹³ M. Porter. *The Competitive Advantage of Nations*, Free Press, New York, 1990

R. Rothwell and W. Zegveld¹⁴, dealing with the economies re-industrialization process, consider that it is conditioned by the nationwide technological potential, so that its amplification requires the adoption of policies capable of supporting strong science and technology development, the governmental authorities having the essential role in their establishment.

We quoted some of the most representative contributions which marked the gradual coagulation of the idea of industrial policy and then the appropriate concept increasingly well defined both in theory and as materializing ways and means. The reviewed views marked progressive development and articulation of ideas, pleading in favor of establishment and implementation of industrial policy. At the same time, there should be considered, from an unbiased position, opposite views of specialists which consider that resorting to industrial policy is not only undesirable, but even harmful to the economic development of a country.

In essence, the dispute over the use / non-use of industrial policy is determined by the position adopted in the report State - market treatment.

State intervention through industrial policy is determined by the requirement to improve the mechanisms of the market by preventing failures, its setback. Indeed, achieving supply-demand balance, which is provided by the market and constitutes one of its primary virtues, is accompanied, frequently, by record of high social costs, most often in the form of unemployment. Other market failures that are favorite *targets of criticism* in support of industrial policy are:

- the existence of high barriers to entry in markets characterized by a low level of concurrency;
- attitude to avoid business risk many private producers have, determined by the prospect of high costs registration in case of failure of business undertaken;
- informational deficit of economic operators who do not have full range of information necessary to substantiate their decisions;
- outsourcing of activities and costs which generate considerable differences between what is profitable for the manufacturer and what is advantageous to society;
- market inertia, meaning that it tends to maintain structural configuration corresponding to existing comparative and competitive advantages, created by factor endowment in one period, and delays transition in the next period to a new structure corresponding to factors change;
- position of banks to avoid credit risk of economic agents associated with private investment orientation towards objectives that make short-term profits, which prevents the refurbishment and modernization of industrial processes that require long periods and have often uncertain prospects of success;
- completely free trade between countries leads in time to deindustrialization by cheap imports from countries with lower levels of labor costs, which has negative impact on domestic producers specialized in production of imported products;
- the market does not create jobs in high-tech industries at the level of those missing in other industries, engendering unemployment and other social problems;
- the market alone fails to resolve cases when investment in different sectors are interdependent and need to be coordinated properly (for instance, when an investment in a sector is dependent on an investment made in another sector).

¹⁴ R. Rothwell, W. Zegveld. Reindustrialization and Technology, Longmans Group Limited, London, 1985

Market disruptions mentioned above, that sometimes become manifest with vigor even in developed economies and more intensely in the developing countries, have gradually led to a significant increase of arguments force and industrial policy advocates number, so that, lately, center of gravity of the dispute has shifted visibly from supporting or opposing industrial policy to finding the most appropriate ways of its guidance and enforcement.

Regarding these ways, some subjects are intensely debated:

a) *Guidance on the type of industrial policy to be adopted*

According to Justin Yifu Liu, Senior Vice President and Chief Economist of the World Bank 2008-2012, the type of policy that is chosen should correspond to the level of development of the country and its economic capabilities, whereas the volume and factors endowment structure are valid a period and varies considerably from one stage of development to another; therefore, the optimal industrial structure of the economy evolves according to its development¹⁵. For this reason, it is recommended that developing countries to capitalize firstly their more competitive products in international markets, regardless of their technological level, which allows the accumulation of human capital and technology as a base on that can later reinvest profits in sectors with high added value and improve thus the economy structure.

This view is countered by Ha-Joon Chang, who argues that industrialized countries that have been developed based on the practice of interventionist economic policies, currently recommends developing countries to avoid the use of such policies¹⁶; therefore, it is indicated that the latter countries to practice from the beginning interventionist policy not to capitalize their comparative advantages, but to promote high-tech industries even in early stage of their development. Staunch advocate of State intervention in the economy, Chang argues that although interventionism has resulted into frequent failures, the overall achievements are superior to those made by free market economies¹⁷.

It should also be taken into consideration the reality highlighted by D. Rodrik that many governments practise, in fact, elements of industrial policy when initiating measures for investors attracting, export stimulation, free trade zones expanding, privatization of companies, etc., which they consider as such and not industrial policy¹⁸.

b) *Ability of Executive to apply appropriate Industrial Policy*

Executive experience, commitment and capabilities condition decisively the success of followed industrial policy. In developing countries, these premises are deficient and, in addition, the government system is often cliental, dependent on interest groups, which making more difficult to establish and implement industrial policy. The fact is that thorough grounding, including on ongoing and fruitful dialogue with the business, recognizing mistakes and rapid intervention with remedies, according incentives exclusively depending on performance are effective ways to ensure the success of industrial policy, proven as such by positive experiences of countries in Southeast Asia.

c) *The potential of industrial policy to improve business*

Many experts see the reform of the business environment as something outside industrial policy, since the latter is focused on removing market failures and structural improvement of the

¹⁵ J. Y. Liu. *New Structural Economics. A Framework for Rethinking Development*. Policy Research Working Paper 5197, The World Bank, Development Economics, Office of the Vice President, February 2010

¹⁶ Ha-Joon Chang. *Kicking Away the Ladder: Development Strategy in Historical Perspective*, Anthem, 2002

¹⁷ Ha-Joon Chang. *Bad Samaritans: The Myth of the Trade and the Secret History of Capitalism*, Bloomsbury Publishing, London, 2008

¹⁸ D. Rodrik. *Normalizing Industrial Policy*, Harvard University, Revised, September 2007, p. 3

economy in order to increase competitiveness, while the first mentioned term aims at removing institutional constraints and simplifying legal constraints and administrative procedures to initiate and conduct business. Weiss Research Inc. demonstrate the compatibility of the two terms, however, when the industrial policy is neutral type, horizontal, provides support measures for correct market functioning and is based on continuous dialogue between the Government and business representatives¹⁹.

d) *Area of industrial policy effects*

Industrial policy, judiciously established and grounded according to the above premises and skilfully applied, has a beneficial impact on a wide variety of areas corresponding to the specific policies which it sums and were mentioned above—competition, R&DI, growth and improving human capital, inter-regional disparities, exports stimulation, promoting international cooperation, stimulating SMEs development etc. Since in some developed and developing countries income differences between social classes were increased, there were proposals for the adoption of “*industrial policies of social inclusion*”, which provide measures to support industries characterized by high labor intensity of low skill, disadvantaged or vulnerable social categories and sparsely developed regions with acute social problems.

One of the strongest proponents of industrial policy calling, D. Rodrik, acknowledges that if the theoretical support of such a position is sufficiently convincing, empirical evidence of the effects of policy is not as persuasive, the reference cases ranging from the extreme of the dramatic failures to that of remarkable successes²⁰. He considers that the industrial policy should not consist, according to the traditional model, in setting objectives, plotting coordinates of action and designating the instruments to be used, but to a true “discovery process”. The process consists of obtaining information from the business on its availability to invest for removing obstacles to structural adjustments to increase competitiveness. In other words, the process requires a close dialogue between Government and the private sector, in which the first finds out “opportunities” that should be capitalized by industrial policy. The process requires: a non “top-down” approach, but an emanating policy at all levels of economic activity (through roundtables organized by industries, committees of analysis, reflection and deliberation forums, research networks, etc.); judicious combination of incentives with discipline of their beneficiaries (“carrots and sticks” principle); strict accountability of policy makers for the quality of their decisions (according to the model of the central bank independence, which should however provide a clear representation of missing targets in inflation).

Another reference position in sustaining support for industrial policy is that of J. Stiglitz, Nobel Laureate for Economics 2001 and Chief Economist of the World Bank from 1997 to 2000, along with J. Yifu Liu and C. Monga²¹. The authors consider industrial policy as policies affecting the economic structure of a country. The argument that the market operates efficiently, making unnecessary Government intervention, and that even if it works ineffectively not even Government could not do better, received a heavy blow from the global financial and economic crisis in 2008, and led to the formation of a broadly spread views in favor of the use of strong Government intervention. Such a view is shared by the Executive heads of the U.S., the UK, the EU, and BRIC countries. “Re-rejuvenation” or “renewal” of industrial policy in current optics differ but considerably from that in which this instrument was treated a few decades ago; optical change is due to increasing awareness of progressive key role the intangible assets mentioned

¹⁹ The Donor Committee for Enterprise Development – DCED. Private Sector Development Synthesis Note. Industrial Policy – The Approach and Current Debates, August 2013. J. Weiss. Strategic Industrial Policy and Business Environment Reform: Are they compatible?, DCED, Synthesis documents, 2013

²⁰ D. Rodrik, op. cit., p. 40

²¹ J. Stiglitz, J. Yifu Liu, C. Monga. The Rejuvenation of Industrial Policy. Policy research Working Paper 6628, The World Bank, Development Economics Vice Presidency, Office of the Chief Economist, September 2013

above have in increasing competitiveness and sustainable economic development. The cited authors emphasize the idea that the differences between developed and developing countries are, essentially, in terms of knowledge, in all forms, and markets prove themselves imperfect regarding the potential of innovation and diffusion of technologies (technology transfer). They point out that the clear distinction made before between horizontal, neutral, policies, and those vertical, sectoral, begins to be increasingly blurred, given that, for example, the exchange rate may favor some sectors and penalize others; also, there are many cases in which the public enterprises have worked very well in circumstances of widespread Government failures.

Liu and Monga dealt with identifying the conditions that determine the success or failure of industrial policy, in general of any Government intervention in the economy²². They consider that the main cause of failure of industrial policy is too unrealistically set of too ambitious goals, inconsistent with the country's development and the actual state of its endowment with factors at the time, reason for advocating in favor of idea to set up respective objectives depending on existing structure of resource endowment.

As a result of the evolution of ideas and accumulated empirical evidence, industrial policies have been preponderantly targeted, in recent years, to support export, education, R&DI, emerging investments, health, promoting information and communication technologies, i.e. to achieve structural transformation in economy adequate for building the knowledge society; this orientation corresponds to the current phenomenon of globalization, characterized, among others, by the mobility of factors of production, which makes knowledge a sustainable competitive advantage for any country.

Regarding the other pole of the dispute – lack of State intervention in the economy and ensuring unhindered operation of market mechanisms - the *arguments* in favor of such a position are also numerous.

a) *Lack of reliable, sufficient and timely information at governmental level*, prevents the Executive to make effective decisions, solidly grounded in the allocation and efficient use of resources. F.A. Hayek, for example, expressed, seven decades ago, deep doubts about the ability of government authorities to practice industrial policy based on “selective targeting” of industries, to have a clearer perspective on the issues compared with firms in those sectors acting within their competitive market conditions²³.

Indeed, the availability of information required at this level is dependent on the existence of a national information system rigorously organized, with data collecting and processing procedures, and transmission, aggregation and analysis of information strictly prescribed, with many control loops, which is difficult in countries with low level of development.

b) *Market failures*, whose control is the goal of industrial policy, are not signalled by enough relevant information, which makes their perceptions are often distorted, either magnified or diminished. Lack of this information may lead to erroneous decisions of industrial policy when²⁴: failures can not be precisely located and evaluated in magnitude, which makes the idea of their fight to be widely recognized, but the available information does not provide clues on how to do; industrial policy aims to improve the “ inputs” in the production process (labor, capital, information technology), but there is not enough domestic demand for them, a common situation in developing countries; good performance of firms is not consistent with the

²² J.Y.Liu, C. Monga. Comparative Advantage: The Silver Bullet of Industrial Policy. A paper presented at the Roundtable on New Thinking on Industrial Policy, organised by the International Economic Association (IEA) and the World Bank, 22-23 May 2012, Washington D.C.

²³ F.A. Hayek. The Use of Knowledge in Society, in: American Economic Review, Vol. 35, 1945, pp. 519-530

²⁴ See UNCTAD. Irfanul Haque. Rethinking Industrial Policy. Discussion Papers No. 183, April 2007, United Nations, Geneva, pp. 3-4

objectives of the national economy, which determines those companies to move to another country with more favorable conditions, situation with serious implications in the country of origin.

c) *Executive decisions on incentives (tax facilities, primarily) and subsidies*, which are conjugated with electoral or personal interests, may be influenced, in decisive measure, by interest groups with high influence power. As a result, there is the risk of adopting industrial policies to support “rent seeking” by the political elite, simultaneously with deliberate provocation of market distortions that prevent the efficient allocation and use of resources.

d) *Industrialization through import substitution*, which is a major coordinate of industrial policy followed by many countries, at least during some period of their economic development, present high risks of favoring expansion of inefficient industries with high levels cost, and little or no significant added value. The main reason is that the drastic reduction in imports deprives domestic presence of competing products and services, allowing domestic producers not to invest in upgrading their productive apparatus and continue to record low yields, whose gap to world average levels is increasing. Thus one reaches the paradoxical situation that less performing firms should be supported by Government intervention more substantially than performing ones, this also as a result of intense lobbying campaigns that they do. Technological stagnation can be combated only by wider economy opening to the outside, unhindered international trade capable of providing long-term gradual modernization of the economy and increase its competitiveness. Not to be overlooked the fact that this long process, based on the idea of the low State involvement in the economy, requires the creation and strengthening of labor training system, according to the requirements of the evolving technological advances, the use of incentives increasing performance etc., which are also linked to the industrial policy.

e) *“Picking winners”, i.e. “national champions”* - performing industries or firms in economy which should be supported in their efforts to increase competitiveness -, is another coordinate of industrial policy followed by some developed countries. The approach of choice for these winners is, however, of high risk, so it is most often criticized by opponents of industrial policy for the following reasons: industrial policy makers do not have all the information necessary grounding the choice in all its aspects - technical, technological, economic, social, ecological, commercial; situation of chosen “winners” may be due to temporary favorable circumstances, which makes their prospects not very reliable; dynamic technological progress may change significantly, in relatively short periods of time, some competitive advantages held by the companies, which again means uncertain prospects for some “winners”.

f) *Difficulty in applying industrial policy* is also a strong argument put forward by its critics. The difficulty can be caused by various factors: economic actors’ resistance to changes, especially when they involve investments that will not or can not be made; lack of consultation by policy makers of industrial business on major orientations, the established targets and instruments used; lack of sufficient support of emerging industries (“infant industries”) through industrial policy, whereas their prospects were not realistically assessed; harmonization of complementary policies which give industrial policy content (mentioned in the previous section, according to the OECD) is an extremely complex and difficult exercise, requiring the presence of a body of experts in strategic planning with high competence and long experience, hardly to make up particularly in developing countries.

Conclusions

Our synthetic presentation of the theoretical background and main ideas which mark out controversy concerning the adoption or rejection of industrial policy as an instrument of economic and social development of a country, allows us to highlight some *conclusions*:

- In the dispute between supporters of industrial policy and its opponents, the former have, at present, upper hand, outcome favored by the outbreak in 2008 of the global financial and economic crisis, which demonstrated that the lack of timely and effective correction of market failures can generate, in the context of globalization, crisis phenomena even on a planetary scale;
- The industrial policy instrument, used effectively in seventh and eighth decades of the last century, especially in Western Europe, Japan and South Korea, occurs after economic experiments focused on the idea of creating the necessary conditions for unimpeded manifestation of market forces (“Reaganomics”, “Thatcherism”), which significantly eroded the perception of industrial policy as an indispensable tool;
- Industrial policy, by its very nature, presents many hazards. As market may have failures presented above, and State intervention in the economy can lead to dramatic setbacks. Indeed, empirical evidence has shown that many public companies may be performing and supporting sectors and import substitution can be successful; but if industrial policy that determines these situations is not dynamic, unable to keep pace with global developments and the performance of its economy, can fail;
- The key issue now is not *whether* to resort to industrial policy, but *how* to design it judiciously and effectively apply it, according to the actual condition of a set of determinants - the country's development, the overall level of labor training, innovation potential, domestic investment potential, attractiveness for foreign investors, openness of the economy to the outside, maturity and strength of financial institutions and banks. Industrial policy success depends on consistency and firmness with which it respects the principle of conditionality, whereby the granting of any incentive or creating any temporary facilities must be accompanied by commitment and responsibility of beneficiaries to achieve certain required performance;
- The center of gravity of intervention instruments used in industrial policy has moved from the subsidies and selective incentives to the horizontal measures with the same impact on all sectors and firms, in which the promotion of investment in intangible assets becomes primordial;
- Competition policy, as a component of industrial policy, is essential for the proper functioning of markets, the sine qua non condition for attracting foreign investors, who are known to avoid economies where domestic producers are protected and there are high barriers to entry the market;
- Funding, establishing and implementing industrial policy require, under current conditions, close collaboration between the Government and business, whereas only through dialogue and mutual compromise between the parties is possible to identify the most appropriate ways and means of action consistent with the current state of conditioning factors mentioned above.

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