105. Els dos cànons en teoria econòmica

"One cannot profitably add as much human capital to the job of washing dishes as to the job of being a lawyer. For this reason economists would often recommend for their children professions which require a university education, although by doing this they express what they – at the macro level of an African nation – would describe as 'a mercantilist preference for one profession to another'. On the macro level the same economists recommend nations to stick to their comparative advantage, whatever it may be. Compared to this modern logical inconsistency in advice between 'my children and the children of Africa', Adam Smith comes across as being much more consistent. He argues that the mechanisms that work on the macro also work at the micro level: all risks considered it is safer to let your son become a shoemaker's apprentice than to become a lawyer (Adam Smith had no children)."

"Renaissance economics saw no limits to progress … In Adam Smith's system, however, nations reach a stationary state where they can 'advance no further', when that 'full complement of riches which the nature of its soil and climate ... allowed it to require' had been reached … In today's setting, Smith's attitude to new knowledge might have made him into a believer in de-growth."

"In the understanding of wealth and poverty, the Cold War gave us a strange set of mutually exclusive countermovements: on the one hand, the Marshall Plan (1947) that emphasized the importance of manufacturing industry; but on the other hand, Paul Samuelson's revival in 1948–1949 of David Ricardo's 1817 trade theory … that 'proved' the exact opposite: whatever a country produced there would be a tendency for the prices of the factors of production – capital and labour – to 'equalize'. The latter became the centrepiece of post-war international trade policy."

"My contention is that the cumulative effects of the blind spots listed below, in distorting the reality as it is seen by mainstream economics, are formidable, as are their effects on the inability to cure poverty.

TEN BLIND SPOTS

1. Synergies

The basic insight that synergies, based on the diversity of economic activities in an area, are an important wealth-creating mechanism creating a common good … dates back to the Florentine philosopher and statesman Brunetto Latini (1220–1294) and to Niccolò Machiavelli (1469–1513) … The growth of towns and cities brought these synergies into evidence. Towns permitted communication that unleashed individual freedom, creativity, diversification and synergies that together created unprecedented wealth. This was the fundamental observation of one of the earliest best-selling books in economics, *Delle Cause della Grandezza delle Città* written by Giovanni Botero (1543–1617) … The subject was kept alive over centuries … But in spite of all this accumulated knowledge the World Bank and the International Monetary Fund (IMF) fail to see the dangers when they fail to warn poor countries against monoculture and lack of economic diversity more than 500 years later."

"Historically the most important of all synergies was specified already in 1767 by David Hume, Adam Smith's best friend, when he discussed the reign of Henry VII (starting in 1485): 'Promoting husbandry ... is never more effectually encouraged than by the increase of manufactures' … The introduction of manufactures creates employment, increases wages, and diminishes population pressure, and is at the core of the cumulative causations which we call development. As US Secretary of State George Marshall expressed in his Harvard speech in June 1947, announcing what came to be called the Marshall Plan: 'the farmer has always produced the foodstuffs to exchange with the city dweller for the other necessities of life … This division of labor is the basis of modern civilization'."

2. Institutions

"The ability to create such Schumpeterian institutions ['change-inducing and change-enabling institutions'] which enable the structural change that we call economic development, and to change these institutions when new conditions so require, comes across as a key feature of the organisational capability of any society."

"Some institutional innovations are crucial to create economic growth. Primogeniture – the right of the first-born legitimate son (or child) to inherit his parents' entire estate – has created stability in European kingdoms compared, for example, to the Arab world. In agriculture, primogeniture prevented farm sizes from diminishing into or beyond self-sufficiency."

"It is generally most useful to see institutions as born out of problems in the production system … The problem came before the solution: it is not that the Venetians invented insurance so that they could have long-distance trading, it is the other way around. In contrast, in their 2012 book *Why Nations Fail: The Origins of Power, Prosperity, and Poverty*, Daron Acemoglu and James Robinson in practice come to the defence and salvation of neoclassical theory by blaming former European colonies for not 'getting the institutions right' … They seem to disregard the key point that the 'extractive institutions' they blame for the lack of development represent the very essence of Western colonialism. When explaining that 'North America became more prosperous [than Peru and Mexico] precisely because it enthusiastically adopted the technologies and the advances of the Industrial Revolution'…, Acemoglu and Robinson leave out that Peru and Mexico for a long time were colonies, and that a key element in colonial policies was precisely to prohibit manufacturing there. When Peru and Mexico later gained formal independence, they were still de facto colonies, as power just shifted from Spaniards in Spain to Spaniards residing locally, locked into the same system of exporting raw materials. In this way, Acemoglu and Robinson appear to be blaming the victims of colonialism for their own poverty."

3. Knowledge/Technology Adding Value

"Giovanni Botero's (1589) bestselling *On the Greatnesse of Cities* explains the wealth of cities mainly by the value added to raw materials, emphasising the difference between 'a heap of logs and stones and a house', and 'a marble block and what Michelangelo does to it'. What Nietzsche called *Geist und Willenskapital* – Mankind's wit and will … – is there in Schumpeterian evolutionary economics, but not in mainstream neoclassical economics."

"In 1994 the world's most efficient producers of baseballs (which are hand-sown) worked in Haiti earning US$0.30 an hour; whereas the world's most efficient producers of golf balls (a mechanised production), in the United States, made at least $9 an hour. In the mercantilist/Renaissance view, by exporting baseballs and importing golf balls Haiti exchanged 30 hours of labour (in baseball production) for one hour of labour (in golf ball production). At the time, Haiti had a very large share of the world market in baseballs… Whereas golf ball production is mechanised, all the capital of the United

States has yet to mechanise the production of baseballs. This uneven advance of technical change makes it possible for a nation to be locked into a comparative advantage of being poor and ignorant. This possibility is ignored in today's economic theory, but was clearly perceived by the more sophisticated Renaissance mercantilists, who held the variables of skill and knowledge up front."

4. Time-Specific Technological Contexts Produce Different Windows of Opportunity for Growth

"Here also, Giovanni Botero's 1589 book is an early mover. He finds that there are more opportunities for innovation in city activities than in countryside activities. Also, when we talk about historical periods as the Stone Age and Bronze Age we implicitly understand that at a certain point the opportunities for innovation are greater in Bronze Age activities than in Stone Age activities. We find this as a basis of the work of Carlota Perez (2003) and her techno-economic paradigms."

5. Diminishing and Increasing Returns

"Former World Bank Chief Economist Justin Yifu Lin very succinctly writes: 'Except for a few oil-exporting countries, no countries have ever gotten rich without industrialization first' … At the core of an explanation for this lies the dichotomy between diminishing returns (in raw material) and increasing returns (in industry). Explaining wealth and poverty by contrasting increasing and diminishing returns entered economics in 1613, in a book written in a prison cell in Naples by a certain Antonio Serra."

"If we ask ourselves why the most efficient farmers in the world, in the European Union (EU) and US, to such a large degree depend on protection and subsidies, the reasons are the same: diminishing returns, perfect competition (no market power), and price volatility due to variabilities in climates and harvests."

"Alfred Marshall recommended taxing diminishing returns industries (agriculture, fisheries and mining) in order to give bounties to activities produced under increasing returns (industrial goods). The first part has proved difficult, due to the low income in the agricultural sector, but the second part – giving bounties (and protection) to manufacturing industry – has been necessary in all countries that have travelled the road pointed to by Justin Yifu Lin."

"In 1981 – at the age of 28 – later Nobel economist Paul Krugman briefly reintroduced Antonio Serra's increasing/diminishing returns dichotomy in international trade … Reintroducing this dichotomy, Krugman found what others had been finding for centuries: in a world with increasing and diminishing returns to scale, some countries may find themselves specialising in diminishing returns industries and consequently being poor … Some years ago, I had a student go through Krugman's later writings, and he never found the increasing/diminishing returns dichotomy used again.

Schumpeter had invented the 'Ricardian vice': the tendency for economists to make and test theories that are not troubled by the complexities of reality, resulting in theories that are mathematically beautiful but largely useless for practical applications … I added the 'Krugmanian vice': having produced a much more relevant theory than Ricardo, but refusing to apply it in practical economic policy.

So, in practical policy this literature had no influence whatsoever on the policy recommendations of the Washington Consensus. Krugman had rediscovered the medicine that worked against poverty, but refused to use it, apparently for ideological and/or career reasons … I find it deeply unethical that economists as a community – starting with the mature Alfred Marshall – have so systematically shown so much more loyalty to their models than to the fate of the poor. In my imagination this resembles a medical doctor having an effective medicine on the shelf, but refusing to use it for ideological reasons."

6. How the Benefits from Innovations Spread

"The fruits of new knowledge and new technology may spread in the economy in two different ways, reflecting two different regimes of appropriation: in the classical mode, through reduction in prices to the consumer; in the collusive mode, through higher profits to the capitalist, higher wages to the producer, and a larger economic base for government to tax. Here, rents from new innovations are shared between capital, labour and government."

"In industries that might be labelled 'high-quality activities', this profit-enhancing innovation can involve increasing the skill levels of workers. Note that this will increase workers' value in the labour market; this is precisely the US 19th century 'high-wage strategy' argument. Under Schumpeterian competition, a high degree of collusive spread is normal; the individual rent-seeking of the Schumpeterian entrepreneur is converted into collective rent-seeking on behalf of society. Under these conditions, what's good for General Motors generally is what's good for the country."

"In avoiding ruinous price-competition, the dynamic process of Schumpeterian rent-seeking produces an ever-increasing diversity of products; competition is based on product differentiation and different quality levels. Development and the impact of innovation will – over time – fan out to encompass more and more of the economy.

The two modes of diffusion of productivity

Characteristics of mode	The collusive mode	The classical mode
Divisibility of investments Degree of perfect information	Indivisible, comes in 'chunks' Imperfect (e.g., patents, internal research and development)	Divisible Perfect (competitive market for technology itself)
Source of technology from user company point of view	Internal, or external in big chunks = high degree of economies of scale	External
Type of innovation	Product innovation	Process innovation
Barriers to entry Industry structure Economies of scale Market shares	Increase Increases concentration Increase Very important	No change Neutral No change Unimportant
How benefits spread		
Gross national product as measured	Highly visible	Tends not to appear (Solow paradoxes)
Profits level	Increases stakes: possibilities for larger profits or losses	No change
Monetary wages Real wages (nationally) Price level Terms of trade	Increase Increase No change No change	No change Increase Decreases Turns against industries experiencing technological progress
Examples of innovations in the two groups	New pharmaceuticals, mainframe computers, automotive paint production	Electricity, telephones, sewing machines, use of personal computers, dispersion paint production, containers
Where found	Mainly in industry, in recent products and processes	In primary and tertiary sectors, use of new generic technologies, mature industry

In any system with differing degrees of increasing and diminishing returns, and with a mixture of collusive and classical means of distributing gains from technical progress, some nations will be better off under autarchy than under free trade; at least until they have secured a competitive base in increasing-returns/collusive spread activities. This is the basic reason why Werner Sombart and most other German historical economists were critical of free trade between nations at different levels of technological development."

"In a world where the benefits from innovation spread in these two different ways, it is virtually impossible for an agricultural nation to innovate itself out of poverty. The only way to do this is by being part of an industrial society, and converting agricultural products into niche products, restricting the area in which the products are produced, such as Parmesan cheese and Parma ham. This strategy was first invented in 1716 with the Gallo (rooster) brand for Chianti wine by Grand Duke Cosimo III of Florence."

"Since the end of the Cold War the economic strategy of Europe had, in the spirit of Friedrich List, been based on a symmetrical form of integration among nations at approximately the same level of industrialisation and technical sophistication. The underlying assumption, which was left from the spirit of the Marshall Plan, was that manufacturing matters.

The integration of Spain into the EU had taken place in the 1980s by gradually reducing Spain's import duties – which had been very high – in order to make sure that advanced industries, such as the car industry, survived. We later found the opposite mechanism – a shock therapy type of integration – and documented how this form of integration of former Comecon … countries very frequently led to a de-industrialisation of these countries. As a consequence, the social structures of these countries became more like those found in Latin America."

"… we noticed what we called the Vanek–Reinert effect: with rapid trade liberalisation the most efficient industries in the least developed of the trading partner countries are the first to become extinct."

7. The Two Roles of Human Beings: Consumers and Producers

"During the 19th century US debate on protectionism, the Americans granted the English free traders the point that locally produced goods in the US initially would become more expensive, punishing the US consumers. But, the Americans countered, in the long run this would be more than compensated by the much higher wages the same consumers would receive as producers in an industrialised economy, rather if they had stayed employed as farm hands.

In a dynamic setting, high wages would also be driving technological development, forcing employers to make productivity-enhancing investments … The failure of neoclassical economics to see the advantages of high wages, combined with a lack of understanding of any positive role of unions (after all, trade unions increase demand), has clearly prevented technological development and caused unnecessary poverty in the US."

9. Separating Productive Capital from Mammon

"A key element in Western culture has been the prevention of hoarding. In other words, making sure that money was circulating, not idle. The biblical term for idle money is mammon … Continental European economics has always continued this in a sense Biblical separation of the financial economy from the real economy."

"In good times the financial economy serves as scaffolding for the real economy; as a bridge in time, as Keynes put it. If allowed to grow in ways that do not positively impact upon the real economy – by making money on money without going through production in the real economy – the financial sector will become like a parasite which grows at the expense of the real economy. Since the times of Hammurabi, 1500 BC, societies which survived have managed to cancel unpayable debt. Bankruptcy, like bookkeeping, was a necessary invention in the early centuries of capitalism."

10. Unlearning the Balance of Countervailing Powers

"The most successful and powerful states of the Renaissance – Venice and Florence – both had systems which consciously created a political balance of countervailing powers preventing both the concentration of powers and corruption. In Venice the head of government, the Doge, was elected in a

Starting point for the standard canon	Starting point for the 'Other Canon'
Equilibrium under perfect information and perfect foresight	Learning and decision-making under uncertainty (Schumpeter, Keynes, Shackle)
High level of abstraction	Level of abstraction chosen according to problem to be resolved
Man's wit and will absent	Moving force: *Geist- und Willenskapital*: Man's wit and will, entrepreneurship
Not able to handle novelty as an endogenous phenomenon	Novelty as a central moving force
Moving force: capital per se propels the capitalist engine	Moving force: new knowledge which creates a demand for capital to be provided from the financial sector
Metaphors from the realm of physics	Metaphors (carefully) from the realm of biology
Mode of understanding: Mechanistic (*begreifen*)	Mode of understanding: Qualitative (*verstehen*), a type of understanding irreducible only to numbers and symbols
Matter	*Geist* precedes matter
Focused on Man the Consumer A. Smith: 'Men are animals which have learned to barter'	Focused on Man the Innovator and Producer.A. Lincoln: 'Men are animals which not only work, but innovate'
Focused on static/comparative statics	Focused on change
Not cumulative/history absent	Cumulative causations/ 'history matters'/ backwash effects (Myrdal, Kaldor, Schumpeter, German Historical School)
Increasing returns to scale and its absence a non-essential feature	Increasing returns and its absence essential to explaining differences in income between firms, regions and nations (Kaldor)
Very precise (would rather be accurately wrong than approximately correct)	Aiming at relevance over precision, recognises the trade-off between relevance and precision as a core issue in the profession
'Perfect competition' (commodity competition/ price competition) as an ideal situation = a goal for society	Innovation- and knowledge-driven Schumpeterian competition as both engine of progress and ideal situation; with perfect competition, with equilibrium and no innovation, capital becomes worthless (Schumpeter, Hayek)
The market as a mechanism for setting prices	The market also as an arena for rivalry and as a mechanism selecting between different products and different solutions. (Schumpeter, Nelson and Winter)

process so full of checks and procedures that to modern eyes it seems exaggerated. With the privilege and honour of being Doge came the duty to give up all his business interests, and he was in a sense a prisoner in his own city (…) In Florence the Prince ruler was not elected, but his government of eight or ten persons – *la Signoría* – all represented different branches of trade and industry. So this government only had a minority of one single person representing both bankers and dealers in gold and silver. This prevented the problems listed under point 7 above.

The importance of institutions creating a balance of countervailing powers was again brought into focus by Charles Montesquieu (1689–1755), and is reflected in Western constitutions. The freedom from arbitrary power is an important goal of these institutions. It was this freedom that eventually – in some areas well into the 20th century – killed feudalism in Europe.

In his 1952 book *American Capitalism: The Concept of Countervailing Power*, US economist John Kenneth Galbraith (1908–2006) explained to us how capitalism functioned at its best when subject to three countervailing powers: big business, big government and big labour. Neoliberalism removed big government and big labour, and left big business, inside which finance gradually took on more and more power."

Starting point for the standard canon	Starting point for the 'Other Canon'
Equality Assumption I: No diversity	Diversity as a key factor (Schumpeter, Shackle)
Equality Assumption II: All economic activities are alike and of equal quality as carriers of economic growth and welfare	Growth and welfare are activity-specific: different economic activities present widely different potentials for absorbing new knowledge
Both theory and policy recommendations tend to be independent of context ('one medicine cures all')	Both theory and policy recommendations highly context-dependent
The economy largely independent from society	The economy as firmly embedded in society
Technology as a free good, as 'manna from heaven'	Knowledge and technology are produced, have cost and are protected; this production is based on incentives of the system, including law, institutions and policies
Equilibrating forces at the core of the system and of the theory	Cumulative forces are more important than equilibrating ones, and should therefore be at the core of the system
Economics as *Harmonielehre*: The economy as a self-regulating system seeking equilibrium and harmony	Economics as an inherently unstable and conflict-rich discipline; achieving stability is based on Man's policy measures (Carey, Polanyi, Weber, Keynes)
Postulates the representative firm	No 'representative firm'; all firms are unique (Penrose)
Static optimum; perfect rationality	Dynamic optimisation under uncertainty; bounded rationality
No distinction made between real economy and financial economy	Conflicts between real economy and financial economy are normal and must be regulated (Minsky, Keynes)
Saving caused by refraining from consumption and a cause of growth	Saving largely results from profits (Schumpeter) and saving per se is not useful or desirable for growth (Keynes)

Reinert, Erik S.; Ingrid H. Kvangraven; eds. (2023): *A Modern Guide to Uneven Economic Development*, Edward Elgar.

Two ways of understanding the economic world and the wealth and poverty of nations

106. Hipocresia en la política de desenvolupament

"There is currently great pressure on developing countries from the developed world … to adopt a set of 'good policies' and 'good institutions' to foster their economic development. According to this agenda, 'good policies' are broadly those prescribed by the so-called Washington Consensus. They include restrictive macroeconomic policy, liberalization of international trade and investment, privatization and deregulation. The 'good institutions' are essentially those that are to be found in developed countries, especially the Anglo-American ones. The key institutions include: democracy; 'good' bureaucracy; an independent judiciary; strongly protected private property rights (including intellectual property rights); and transparent and market-oriented corporate governance and financial institutions (including a politically independent central bank)."

"'How did the rich countries really become rich?' The short answer to this question is that the developed countries did not get where they are now through the policies and the institutions that they recommend to developing countries today. Most of them actively used 'bad' trade and industrial policies, such as infant industry protection and export subsidies — practices that these days are frowned upon, if not actively banned, by the WTO (World Trade Organisation). Until they were quite developed (that is, until the late nineteenth to early twentieth century), they had very few of the institutions deemed essential by developing countries today, including such 'basic' institutions as central banks and limited liability companies.

If this is the case, aren't the developed countries, under the guise of recommending 'good' policies and institutions, actually making it difficult for the developing countries to use policies and institutions which they themselves had used in order to develop economically in earlier times?"

"The nineteenth-century German economist Friedrich List (1789-1846) is commonly known as the father of the infant industry argument, namely, the view that in the presence of more developed countries, backward countries cannot develop new industries without state intervention, especially tariff protection (…) List argues that Britain was actually the first country to perfect the art of infant industry promotion, which in his view is the principle behind most countries' journey to prosperity."

" 'They [the British rulers] perceived that their newly established native manufactures could never hope to succeed in free competition with the old and long-established manufactures of foreigners [the Italians, the Hansards, the Belgians, and the Dutch] ... Hence they sought, by a system of restrictions, privileges, and encouragements, to transplant on to their native soil the wealth, the talents, and the spirit of enterprise of foreigners.'

This is a characterization of British industrial development which is fundamentally at odds with the prevailing view of Britain as a valiant free-trade, free-market economy fighting against the dirigiste countries on the Continent, eventually proving the superiority of its policies with an industrial success unprecedented in human history.

List then goes on to argue that free trade is beneficial among countries at similar levels of industrial development …, but not between those at different levels of development … To him, therefore, the preachings on the virtues of free trade by British politicians and economists of his time were done for nationalistic purposes …:

'It is a very common clever device that when anyone has attained the summit of greatness, he kicks away the ladder by which he has climbed up, in order to deprive others of the means of climbing up after him ... Any nation which by means of protective duties and restrictions on navigation has raised her manufacturing power and her navigation to such a degree of development that no other nation can sustain free competition with her, can do nothing wiser than to throw away these ladders of her greatness, to preach to other nations the benefits of free trade.'"

"When its industrial supremacy became absolutely clear after the Second World War, the USA was no different from nineteenth-century Britain in promoting free trade, despite the fact that it acquired such supremacy through the nationalistic use of heavy protectionism."

Chang, Ha-Joon (2003): *Kicking Away the Ladder. Development Strategy in Historical Perspective*, Anthem Press.

107. El pla Marshall (1948-1952)

"In the immediate post-World War II period, Europe remained ravaged by war and thus susceptible to exploitation by an internal and external Communist threat. In a June 5, 1947, speech to the graduating class at Harvard University, Secretary of State George C. Marshall issued a call for a comprehensive program to rebuild Europe. Fanned by the fear of Communist expansion and the rapid deterioration of European economies in the winter of 1946–1947, Congress passed the Economic Cooperation Act in March 1948 and approved funding that would eventually rise to over $12 billion for the rebuilding of Western Europe.

The Marshall Plan generated a resurgence of European industrialization and brought extensive investment into the region. It was also a stimulant to the U.S. economy by establishing markets for American goods ... The Marshall Plan was applied solely to Western Europe, precluding any measure of Soviet Bloc cooperation ... The Marshall Plan has been recognized as a great humanitarian effort. Secretary of State Marshall became the only general ever to receive a Nobel Prize for peace. The Marshall Plan also institutionalized and legitimized the concept of U.S. foreign aid programs, which have become a integral part of U.S. foreign policy."

https://history.state.gov/milestones/1945-1952/marshall-plan

108. Emulació

"The gap between the rich and the poor on this planet is larger than ever before and still growing (...) The human cost of poverty is enormous. The years of human life lost due to infant and child mortality, preventable disease and general low life expectancy add up to terrifying numbers. Civil wars and conflicts over scarce resources cause pain and suffering that in wealthy countries is mostly avoidable. To these can be added the likely impact of environmental degradation on the poor. In poor societies such vicious circles are easily created, where the only way to meet demands from an increasing population is to intensify the exploitation of nature."

"Neo-liberal economists argued that economic growth and welfare would be the default condition if market interventions were removed, rather than the result of a long-term process of building a particular form of economic structure … We must move away from a theory which poses economic harmony as an automatic outcome of divinely or mathematically premeditated harmony, and move back to one in which economic harmony is a product of conscious policies."

"… what Enlightenment economists called emulation, rather than 'comparative advantage' and 'free trade', lies at the heart of successful development. In this context emulation means imitating in order to equal or excel. If the tribe across the river has taken the step from the Stone Age to the Bronze Age, your own tribe is faced with the choice of either sticking to its comparative advantage in the Stone Age or trying to emulate the neighbouring tribe into the Bronze Age. Before David Ricardo there was little doubt that emulation would be the best strategy, and historically the most important contribution of Ricardo's trade theory was that, for the first time, it made colonialism morally defensible. Today we have totally dismissed the idea that a strategy of emulation was a mandatory passage point for all nations that are presently rich: we have outlawed the key tools needed for emulation."

"For centuries Europeans offered a huge diversity of approaches to technology and to institutions. The combination of diversity and emulation created a multitude of theoretical schools and technological solutions across Europe. These multitudes of ideas and their products were continuously compared, moulded and developed in marketplaces. The competition between city-states - later between nation-states - financed flows of inventions that also emerged here as unintended by-products of the emulation between nations and their rulers in war and luxury. Once it had been observed that throwing resources at problems during wartime produced inventions and innovations, this mechanism could be replicated in times of peace.

Europeans observed early on that generalized wealth was found only in areas where agriculture was absent or only played a marginal role, and came to be seen as an unintended by-product when many diverse branches of manufacturing were brought together in large cities. Once these mechanisms were understood, wise economic policy could spread wealth outside these few 'naturally wealthy' areas. Policies of emulation could, indeed, also spread wealth to formerly poor and feudal agricultural areas, but they involved massive market interventions. For laggard nations market interventions and wise economic policies could substitute for the natural and geographical advantages that produced the first wealthy states (…) Thus rivalry, war and emulation in Europe created a dynamic system of imperfect competition and increasing returns. New knowledge and innovations spread in the economy as increased profits and increased wages, and as larger bases for government taxation. European economic policy was based for centuries on the conviction that the introduction of a manufacturing sector would solve the fundamental economic problems of the time, creating much-needed employment, profits, higher wages, a larger tax base and a better circulation of the currency."

Reinert, Erik S. (2007): How Rich Countries Got Rich and Why Poor Countries Stay Poor, Constable.

109. Política industrial: desenvolupament, coordinació i captura

"Academic writing on industrial policy emphasizes the role of consultation and coordination with the private sector, both in designing appropriate public actions and in providing feedback. But, in many cases, a close relationship between business and government can lead to capture and inappropriate policy choices. Managing the tension between close coordination and capture is a central challenge in the practice of industrial policy. The academic literature on implementing industrial policy, however, is remarkably light on practical guidance for policy makers as to how to achieve coordination without capture. There is perhaps no region of the developing world more in need of this guidance than Africa."

"Industrial policy is finally moving away from the fruitless debate on 'picking winners' versus 'levelling the playing field' towards the development policy mainstream. There is increasing recognition that the market imperfections on which theoretical arguments for industrial policies rest are widespread in lowincome countries and that well-designed government policies can contribute to improved economic outcomes. There is also greater understanding that the private sector has a central role to play in formulating and implementing industrial policy."

"There is, however, less agreement on how government–business coordination should be structured, how its objectives should be defined, and how success should be measured. In fact, the academic literature on close coordination provides little guidance on how governments interested in developing a framework for public–private engagement should go about doing it. This is unfortunate, especially for Africa. Nowhere in the developing world is effective industrial policy more needed."

"A key role for industrial policy in developing economies is to speed up the process of structural transformation, the movement of labour from lower- to higher-productivity sectors. In Africa, structural transformation has contributed little to growth and job creation … Africa's economic structure has begun to change, but the shift has consisted largely of workers moving from agriculture into services such as trade and distribution. This is movement from very low-productivity to marginally higher-productivity jobs … Yet, industry, and especially manufacturing, has stagnated."

"The dominant view among economists during the past thirty years has been that industrial policy is a bad idea. The underlying argument is based on two lines of reasoning. First, governments do not have the information needed to 'pick winners' … Second, even if governments could solve the information problem, rent-seeking behaviour by private agents would undermine their well-meaning efforts. For this reason, the prevailing argument has been that private actors should be excluded from designing public policies because they will lobby for actions that serve their particular interests … Where market failures are present, the mainstream view has been that policy makers should identify the distortions and then design taxes or subsidies to reduce the gaps between market prices and marginal social costs or values."

"There has been considerable rethinking of this conventional wisdom in the last decade … There is greater agreement in the profession that markets do not by themselves lead to economic efficiency or a desirable distribution of income, and that market imperfections in low-income countries impede structural transformation. Many markets are incomplete and suffer from coordination failures. Collateral constraints combined with asymmetric information in credit markets can limit investment; and there are potentially large spillovers associated with learning, not just among firms, but also among institutions. In addition, the new economic geography has drawn attention to a major collective action problem—agglomeration."

“There are, as well, broader industrial policy objectives at work … Stiglitz argues that in addition to addressing market failures, industrial policies should attempt to influence the trajectory of growth in favour of greater income equality … As the theoretical case for industrial policy has strengthened, new insights have also challenged the traditional top-down model of policy-making. Industrial policy must, in practice, identify and respond to the need for public actions across a very broad front of industries and possible interventions. The growth of global value chains has blurred the boundaries between manufacturing, agro-industry, and tradable services; and these ‘productive sector’ activities share a number of traits. They rely on export markets for scale, are subject to agglomeration economies, and depend on the knowledge of managers and workers to raise productivity and quality … Faced with this complexity, public officials cannot know where all of the relevant constraints and distortions are in an economy. Firms have information crucial to policy design and implementation, making coordination with the private sector essential at two levels: first, to identify and remove constraints to the more rapid growth of the current set of high-productivity industries, and, second, to design and implement strategies to transform the economy.”

“Beyond the helping hand, industrial policy in the large implies thinking of an industry or an activity one would want to see develop, and then putting in place all the public inputs needed for it to succeed … The economic rationale for this type of industrial policy rests on the presence of imperfect markets … Stiglitz also argues that markets are not well suited on their own to support structural transformations. Imperfections in risk and capital markets mean that individuals, who should move from old to new sectors in lowincome countries, cannot get access to the resources needed to make the shift; yet they have to bear the inevitable risks associated with the transition. Information externalities and coordination failures further inhibit structural transformation. Because there are high costs to private firms with regard to discovering the next new area in which an economy will be competitive … firms will tend to underinvest in new activities, even if they have high social returns. For this reason, implementing industrial policy in the large implies giving incentives to compensate first movers in a new sector for the positive information externalities they create by going where no business has gone before. Rent transfers can be in the form of a subsidy, such as trade protection or fiscal transfers, or by the provision of venture capital.”

“Any system of incentives designed to help private investors by removing constraints or through a system of incentives, may end up serving as a mechanism to transfer rents to corrupt businessmen or bureaucrats. This is what lies at the heart of some objections to public–private coordination: the fear that the state will be corrupted in the process … Managing the tension between coordination and capture is one of the central challenges in implementing industrial policy in practice.”

“Peter Evans’ (1995) influential study of South Korea introduced the term ‘embedded autonomy’ to describe a way of achieving balance between coordination and capture. The success of the Korean model, he argued, was due to the fact that the public institutions charged with industrial policy design and implementation were both autonomous and embedded in private sector networks (…) The objective is … to set up a framework that (i) engages the public sector in an ongoing conversation with the private sector; and (ii) has the capacity to respond selectively, using a range of policies, to the economic opportunities these conversations identify.”

“A defining characteristic of the East Asian deliberation councils was the high capacity of the bureaucracy charged with managing the process and with implementing decisions. As Lin and Vu note … ‘institutional initiatives that establish and support highly competent organizations dedicated to coordinate efforts for industrial diversification and upgrading, efficiency and productivity improvement, and export promotion, are critical to the success of a developing country's industrial policy implementation'. They argue that a number of emerging Asian economies have developed such high-quality implementation mechanisms."

"… there is no single 'East Asian Model' of industrial policy and public–private coordination. The objectives and instruments of industrial policy and the nature of the coordination process between government and business has varied across countries and over time within the same country. For example … South Korea has adapted its approach to industrial policy several times over the past forty years in response to growing democratization and a changing power dynamic between the state and business. While there is considerable diversity, there are a number of common threads that run through the country cases. Four of these are of particular relevance to understanding business– government coordination in East Asia: commitment, focus, experimentation, and feedback."

- Commitment

"A high level of commitment of senior government officials to the coordination agenda has been characteristic of Asian economies, ranging from Japan to Viet Nam … The public officials charged with coordination programmes were sufficiently senior to make the decisions needed for implementation and in most cases reported directly to the highest political authorities. In Japan, a powerful technocratic bureaucracy drove the early industrialization effort, supported by a consistent pro-industry, pro-export policy … In China, party and government officials at all levels ranging from the national to the municipal are actively engaged in the industrial development agenda and they are judged on results achieved."

- Focus

"One way in which the flow of information between the public and private sectors was encouraged and the risk of capture was reduced was by focusing on specific constraints to firm performance … The key elements of the process were agreement with the private sector on a specific objective and the proposed course of action. A timetable for resolution of the problem was announced and progress in implementation was monitored and reported, often within the context of a deliberation council. Another way in which focus was achieved was by creating localized enabling environments and extending the improvements across regions and sectors gradually in line with the government's available resources and implementation capacity."

- Experimentation

"East Asian industrial policy makers have shown a striking willingness to experiment. Ideas were often generated by observation of successful examples from elsewhere. Public actions were identified, developed, and then implemented. The results—measured in terms of specific outcomes—were subsequently carefully observed. When the chosen course of action failed to accomplish the desired outcome, it was usually modified or abandoned. Policies that were deemed successful were frequently replicated in other settings. This almost 'pharmacological'—observe, experiment, implement— approach to policy-making was heavily dependent on a strong two-way flow of information between firms and the government and a high degree of pragmatism on the part of the policy makers concerned."

- Feedback

"Feedback was an essential element of the Asian industrial policy process. Partly this was done … by measurement of observable outcomes, for example, the rate of growth of jobs, output, or exports. Partly it depended on information gleaned from the private sector … Meetings with the business community were held every year to identify obstacles to the operation and development of business, and equally importantly, to build trust. Hinh Dinh notes that in China local governments (prefectures, counties, townships, and villages) are directly connected to industrial clusters. By focusing on individual clusters and communicating frequently with local entrepreneurs, local governments devise policies clearly targeting specific industries … Using feedback was also an important means of building accountability."

"… one important outcome of public–private coordination is trust building. The African case studies reveal an uneasy partnership between the state and the business community, often characterized by shifting perceptions, mistrust, and lack of mutual comprehension."

"Effective coordination with the private sector and implementation of the public actions derived from the state–business dialogue require effective coordination within government … In the African case studies it often appears that the right hand of government is not aware of what the left hand is doing … Lack of intra-government coordination is also an important cause of the poor performance of SEZ [Special economic zones] programmes in Africa."

"The coordination mechanisms that evolved in Asia to manage the inevitable tension between coordination and capture have been likened to a contest. While the institutional forms varied, they featured three elements essential to all contests: rules, referees, and rewards … Kim emphasizes the role that 'carrots and sticks' played during South Korea's early industrialization drive. As the Park administration sought to transform the SBR [state–business relations] it used both access to resources and discipline. Dinh documents the role of contests in implementing China's decentralized industrial policies. The African case studies suggest that, in many cases, the rewards have been present while the rules and the referees have not. According to Bhorat, Cassim, and Hirsch … an unintended consequence of the structure of the South African economy has been to encourage rent seeking between key players. The corporate sector and trade unions have settled into a stable equilibrium, defined by high rents distributed between organized labour and big business."

"… how to strengthen business–government coordination in Africa. We can identify four key areas for action.

- Leaders Must Lead

High-level political commitment has been the hallmark of successful strategic coordination. One virtue of having a high-level champion is that it identifies the person who has the job of explaining the policy agenda and who can be held politically responsible for things going right or wrong … A second reason why high-level leadership is critical to the success of strategic coordination is the need for coherence within government in following up and implementing the decisions reached as a result of public–private problem solving (…)

- Go Local

A defining feature of the public–private coordination mechanisms in such countries as China, South Korea, Viet Nam, and Ethiopia is that they were the result of a national effort to shape institutions and set policy objectives. While the need for national solutions to industrial development problems sounds self-evident, national control of the industrial policy agenda is more often the exception than the rule in Africa … The public actions which should form industrial policy have been developed in Washington, instead of being a result of locally driven coordination between government and business … Because the objectives were not owned by the participants, the coordination mechanisms degenerated into 'chat shops'. To make progress, African governments will need to undertake the difficult task of wresting their industrial development agenda away from donor control. Where local initiatives have occurred in Africa, they have been most successful when business has taken a leading role (…)

- **Clarify the Rules**

Successful coordination requires that both government and the private sector are clear about objectives and how success will be measured … Clarity and transparency are also important tools for fostering accountability. Requests made by firms or business associations for government assistance should in principle be public information. Publication of the activities and decisions of coordinating bodies and periodic accounting of the expenditures made to implement their recommendation can increase public scrutiny (…)

- **Limit the Rewards**

The financial incentives offered under any industrial policy framework need to be commensurate with their social returns. Where governments have often erred in the past—and not just in Africa—is in overestimating the returns to the economy of new industrial activities. Set against that, however, is the risk of doing too little."

"These considerations suggest four rules that should govern the use of incentives in implementing industrial policy:

- Incentives should be limited to new activities where there is evidence that social returns exceed market values.
- There should be clear criteria for success and failure.
- There must be a built-in sunset clause.
- There must be monitoring, benchmarking, and periodic evaluation."

Page, John; Finn Tarp; eds. (2017): *The Practice of Industrial Policy*, Oxford University Press.

110. Política industrial: desenvolupament i societat de l'aprenentatge

"A traditional criticism of industrial policies is related to 'political economy', that such policies are likely to be captured by special interests to advance themselves. However … not having an industrial policy—leaving it to the market, structured as it so often is by special interests—is itself a special-interest agenda. To avoid capture by special interests there must be openness, transparency, and a deeper understanding of the rationale for industrial policies."

"(1) Industrial policies … are not necessarily aimed at promoting industrialization. The term embraces any policy affecting the sectoral composition of the economy or the choice of technology. Thus, industrial policy in this sense should also be part of corporate governance, anti-trust and competition policy, and monetary policy and bankruptcy frameworks, as well as (more obviously) tax and expenditure policy.

(2) The success of industrial policy is not to be judged by the success or failure of any individual project, but rather has to be evaluated systematically …We made a case for an 'infant economy' argument for protection, which was distinctly different from an 'infant industry' argument … Moreover, good industrial policy incorporates risk taking, and risk taking means that there will be successes and failures. No oil exploration company would judge its performance by pointing out that it drilled some dry wells. What matters is its overall success rate—whether the successes sufficiently offset the failures. Too often, critics of industrial policy point to failures, without weighing against such failures the successes (…)

(3) Of course, if there are systematic, repeated failures, that points to a flaw in institutional design, which needs to be corrected. A central theme … is learning; that is, firms learn only by doing (e.g., the only way to learn to produce steel, and to become better at producing steel is to produce steel). However, the same point is true of institutions: the only way to learn how to do industrial policies is to carry out industrial policies, to learn consciously from one's successes and failures. One of the reasons for the renewed interest in industrial policies is that so many countries have successfully carried out such policies … East Asia carried out industrial policies when their incomes were far lower than they are today, and where their institutional development was much more limited.

Few economists argue that a country should not have a monetary policy or a central bank simply because in the past its central bank mismanaged. Rather, there is a broad consensus that countries can learn how to conduct monetary policy in ways that promote growth and stability; and that there are institutional arrangements that enhance the likelihood of success. The same holds for industrial policies, and the analysis here suggest that these policies may be as important for the long-term success of a development strategy as any other.

(4) East Asia's successful industrial policies were based on export-led growth … East Asia's success was based not only on exports … but on the exports of manufactured goods … There is a difference between exporting commodities and exporting manufactured goods: there are economy-wide benefits of learning (including institutional development) associated with the latter that are not typically associated with the former. However, global employment in manufacturing is likely to decrease, as a result of improvements in productivity outstripping increases in demand. China now has a formidable comparative advantage in a wide range of manufacturing goods, but as wages in China rise, its comparative advantage in basic manufacturing, requiring limited skills, is likely to diminish. This will open the opportunity for some other developing countries, at lower stages of development, to enter into manufacturing export-led growth."

- Imperfect Risk and Capital Markets

"Any investment in a new industry is risky, yet for reasons that are now well understood, financial markets provide far from adequate insurance against these risks. Industrial policies can help 'socialize' these risks, enabling projects that otherwise would not be undertaken to be implemented … Many of the industrial policies of East Asia were directed at correcting this market failure by providing access to funds at commercial or near-commercial rates These two limitations are especially relevant to firms (and sectors) where learning is important … Moreover, the value of this learning is highly uncertain (…)

- Structural Transformation

An important part of development is structural transformation, moving from an agrarian economy to an industrial economy. Markets do not make such transformations on their own well … Those in the declining sector often have low incomes, and the value of their assets (including their human capital) has been diminished by the same forces giving rise to the necessity for structural transformation. The imperfections of risk and capital markets … mean that individuals who should move from the old to the new sectors of the economy cannot get access to the resources needed to make the shift, and they have to bear the inevitable risks associated with the transformation. The result is that the economy can be 'stuck', unable to make a transformation that would be beneficial to most citizens of the country … East Asia managed to break out of the resulting inefficient equilibrium by focusing on exports … Import substitution policies got a bad name, especially in Latin America, because the industries that were created often only survived as the result of protection … Countries often paid a high price for this kind of protectionism, and the maintenance of this protection was often associated with corruption. The protected industries generated rents, and, as always, the recipients of such rents were willing to share some of the rents with the politicians who granted the rents to them (…)

- **Learning and Imperfect Appropriability**

Market failures associated with learning received insufficient attention in earlier literature… there are inevitably large spillovers associated with learning—not only technological spillovers, but also institutional spillovers. The development of institutions like financial institutions and an education system that facilitate the functioning of the industrial sector have important spillovers for the rest of the economy. Whenever there are spillovers, private returns differ from social returns … For instance, firms that take the risk of trying out whether a particular product grows well in the particular environment of the country will not be able to reap the full benefits—if the project is successful, it will be imitated, if it fails, the firm undertaking the experiment bears the losses."

- **Macroeconomic Externalities**

"The pervasiveness of market failures means that governments necessarily have to focus their attention on the most important failures. Among the most important failures are those that affect the macro economy. Firms, on their own, may engage in too much borrowing, especially in foreign-denominated debt. Banks, on their own, may engage in excessive risk taking. The social cost of instability is enormous, and firms and banks, in their own decision-making, do not fully take into account these social costs… There are, for instance, long-term hysteresis effects, as informational and organizational capital is destroyed as firms go bankrupt, as educations are interrupted, and as young people, who otherwise would be learning skills on the job, suffer unemployment and see their skills atrophy Thus, industrial policies also need to be designed to reduce the magnitude, structure, and consequences of the liabilities of corporations and banks, in an attempt to reduce the magnitude of economic fluctuations and the frequency of economic crises.

- **Inequality**

Inequality should be a concern to any society. Stiglitz (2012, 2015) explains why inequality is associated with better economic performance (higher growth and more stability) … Markets, by themselves, will pay no attention to their distributional impact. Thus, one of the objectives of industrial policies should be pursuing greater equality. For instance, policies that increase the demand for unskilled labour will reduce inequality.

- **Climate Change**

The objective of industrial policies is to address market failures … Climate change is perhaps the most important market failure facing the global economy. Charging a high enough carbon price would induce individuals and firms to significantly reduce carbon emissions, but with few exceptions, it has proven difficult to induce countries to impose carbon pricing. Instead, countries have been called upon to make commitments to reduce carbon emissions. One way that developing countries can succeed in reducing carbon emissions is industrial policies that encourage renewable energy, and discourage carbon-intensive industries and technologies."

"… successful and sustained growth requires creating a learning society … The transformation to 'learning societies' that occurred around 1800 for Western economies, and more recently for those in Asia, has had a far greater impact on human well-being than improvements in allocative efficiency or resource accumulation … This implies that our focus should be on the impact of policies on technological change, and how it is brought about by learning, as well as research and development (R&D). In the case of developing countries, the focus should be on the diffusion of knowledge from developed to developing country and the diffusion of knowledge within the country (...) What separates developing from developed countries is as much a gap in knowledge as a gap in resources. However, even in developed countries, there are large gaps between the productivity of the best firms and others. Markets, on their own, are not efficient in promoting innovation and learning."

"Because markets on their own will not do a good job in creating a learning society, there need to be systematic interventions by the government. The policies that do this are markedly different from those traditionally advocated by economists, which focus on improving the static efficiency of resource allocation and the accumulation of capital—including policies that constituted the Washington Consensus. Indeed, from the perspective of creating a learning society, those policies may be counterproductive. This analysis implies that a central question of growth and development should be: What should governments do to promote growth through learning (technological progress and innovation)?"

"Creating a learning society entails looking comprehensively at all the factors affecting learning: the education system; what has been called the economy's innovation system, which includes the intellectual property rights (IPR) regime and technology policy; macroeconomic policies, including exchange rate policy; investment policies, and industrial and trade policies."

The extent to which governments pursue macro-stability is itself an industrial policy and one that is especially important for creating a learning society.

"Stability is important to learning, for a number of reasons. Much of our knowledge resides within institutions and within organizations, like firms. Recessions destroy firms and the embedded knowledge that they contain. There is, in effect, negative learning. Moreover, recessions impede learning, as attention is focused on survival. In addition, recessions impede one of the most important aspects of human capital accumulation—on-the-job learning—with long-term consequences for growth and standards of living (...) There are significant long-term consequences of not having strong counter-cyclical policies. A focus on government debt can be short-sighted and counterproductive, since it can give rise to far more important adverse effects on real wealth accumulation."

Stiglitz, Joseph E. (2017): "Industrial Policy, Learning, and Development", capítol 2 a Page, John; Finn Tarp; eds. (2017): *The Practice of Industrial Policy*, Oxford University Press.

111. Política industrial: relació govern-empreses

"A key question is why the practice of industrial policy differs so much across countries: why do some economic policies succeed and others fail?"

"The debate on industrial policy has evolved considerably in recent decades. From the 1950s to the 1980s, the structuralists ... suggested a policy of import substitution to promote heavy manufacturing and reduce commodity dependence. By the 1990s, it had become clear that the suggestions from the structuralists led to practical problems and the Latin American debt crisis followed. The Washington Consensus ... emerged, which suggested a range of key market policies that did not foresee a role for industrial policies ... This consensus also ran into problems because some countries that followed these policies (several Latin American countries) grew unsatisfactorily, whilst others that did not follow these policies (China, Viet Nam) grew rapidly.

The 2008 Growth Commission report marked some change. Its review of successful experiences of growth, mentioned, for example, the key role played by leadership in promoting economic growth, along four other key ingredients of growth. Hausmann, Rodrik, and Velasco (2008) made a significant further step, by emphasizing that the binding constraints to growth are country specific."

"Which individuals and organizations can support and engineer the growth process? Recently, a range of new policy insights have emerged on promoting growth … they all seem to argue for a more pragmatic (between the extremes of free market and centrally-led concepts of growth) and gradual approach. Page (2012) discusses three ways for promoting economic growth: tilting production towards exports, supporting agglomerations, and attracting and building firm capabilities … Much of the literature thus points to the importance of policies to actively support the growth process. All of the approaches mentioned require an institutional setting for policies to work properly, one where the state and business can interact to agree on the best direction for the economy.

The question is no longer, whether industrial policy is important, but rather how to use such policies and to examine the institutional setting that determines the design and implementation of good policies. With some notable exemptions, this question of how the state and business interact to formulate good policies has been lacking from the literature on growth and industrial policies."

"SBRs are relations between the public and private sectors. As they are shaped by the way states and businesses interact … SBR forms can vary significantly, ranging from formal, regular coordination arrangements to informal, ad hoc interactions. They can cover the whole economy or target specific sectors types of firms, or policy processes. In some situations, they involve highly organized relationships in others they are loose relationships between the state and business. In some cases the formal aspects matter most … but in other informal arrangements, rules, norms, and agreements dominate all other institutions."

"… in the invisible-hand model … the role of the state is limited to providing public goods (e.g., contract enforcement), but leaves allocative decisions to the private sector. However, in a helping-hand model, organized bureaucrats actively promote private sector activity, 'support some firms and kill off others, pursue industrial policy, and often have close economic and family ties to entrepreneurs' … In a grabbing-hand model, bureaucrats are less well organized and pursue their own (corrupt) agendas. The government is above the law and uses its power to extract rents.The rationale for an effective role of SBRs in the growth process is that the invisible-hand model provides sub-optimal outcomes, and the grabbing-hand model leads to inefficient outcomes in the long-run, but the helping-hand model can be an effective way in which state and business can interact."

"… effective SBRs fulfil a helpful steering role in industrial development by overcoming two concerns: (1) there are market failures …; markets can fail in areas such as education, innovation, or climate change; and (2) there are government failures (state actors may not be able to address market failures on their own). Governments can fail, as they are unlikely to have perfect information and perfect foresight, suffer from moral hazard problems … or are captured by elites. However, effective SBRs can address market, coordination, and government failures through effective communication and remove binding constraints to growth by improving the investment climate, providing market-enhancing public investment, and reducing policy uncertainty. The role of agencies and their effective interactions complement the price mechanism in allocating resources and promoting industrial development."

"Rodrik (2004) lists three key elements for an appropriate institutional architecture: (1) political leadership at the top, (2) coordination and deliberation councils, and (3) mechanisms of transparency and accountability. Rodrik (2008) has also argued that developing countries should be aiming for second best institutions, which means that developing countries should not be aiming for 'best-practice' institutions as used in developed countries but rather institutions that take into account both the local context as well as issues that cannot be quickly resolved. More recently, Rodrik has developed … these key elements into three prerequisites required to promote policy reform— embeddedness, discipline, and accountability."

Lemma, Alberto; Dirk Willem te Velde (2017): "State–Business Relations as Drivers of Economic Performance", capítol 4 a Page, John; Finn Tarp; eds. (2017): *The Practice of Industrial Policy*, Oxford University Press.

112. Protecció de la indústria immadura (*infant-industry protection*, A. Hamilton, 1791)

"A key question is why the practice of industrial policy differs so much across countries: why do some economic policies succeed and others fail? (…) The expediency of encouraging manufactures in the United States, which was not long since deemed very questionable, appears at this time to be pretty generally admitted."

"It is a primary object of the policy of nations, to be able to supply themselves with subsistence from their own soils; and manufacturing nations, as far as circumstances permit, endeavor to procure, from the same source, the raw materials necessary for their own fabrics (…) But it is also a consequence of the policy … that the foreign demand for the products of Agricultural Countries, is, in a great degree, rather casual and occasional, than certain or constant (…) Independently likewise of the artificial impediments, which are created by the policy in question, there are natural causes tending to render the external demand for the surplus of Agricultural nations a precarious reliance."

"To secure such a market, there is no other expedient, than to promote manufacturing establishments. Manufacturers who constitute the most numerous class, after the Cultivators of land, are for that reason the principal consumers of the surplus of their labour.

It merits particular observation, that the multiplication of manufactories not only furnishes a Market for those articles, which have been accustomed to be produced in abundance, in a country; but it likewise creates a demand for such as were either unknown or produced in inconsiderable quantities. The bowels as well as the surface of the earth are ransacked for articles which were before neglected. Animals, Plants and Minerals acquire an utility and value, which were before unexplored."

"The foregoing considerations seem sufficient to establish, as general propositions, That it is the interest of nations to diversify the industrious pursuits of the individuals, who compose them—That the establishment of manufactures is calculated not only to increase the general stock of useful and productive labour; but even to improve the state of Agriculture in particular; certainly to advance the interests of those who are engaged in it."

"… the United States cannot exchange with Europe on equal terms; and the want of reciprocity would render them the victim of a system, which should induce them to confine their views to Agriculture and refrain from Manufactures. A constant and encreasing necessity, on their part, for the commodities of Europe, and only a partial and occasional demand for their own, in return, could not but expose them to a state of impoverishment, compared with the opulence to which their political and natural advantages authorise them to aspire."

"The objections to the pursuit of manufactures in the United States, which next present themselves to discussion, represent an impracticability of success, arising from three causes—scarcity of hands—dearness of labour—want of capital (…) There remains to be noticed an objection to the encouragement of manufactures, of a nature different from those which question the probability of success. This is derived from its supposed tendency to give a monopoly of advantages to particula⟨r⟩ classes at the expence of the rest of the community, who, it is affirmed, would be able to procure the requisite supplies of manufactured articles on better terms from foreigners, than from our own Citizens, and who it is alledged, are reduced to a necessity of paying an enhanced price for whatever they want, by every measure, which obstructs the free competition of foreign commoditi⟨es.⟩"

"But though it were true, that the immedi⟨ate⟩ and certain effect of regulations controuling the competition of foreign with domestic fabrics was an increase of price, it is universally true, that the contrary is the ultimate effect with every successful manufacture. When a domestic manufacture has attained to perfection, and has engaged in the prosecution of it a competent number of Persons, it invariably becomes cheaper … The internal competition, which takes place, soon does away every thing like Monopoly, and by degrees reduces the price of the Article to the minimum of a reasonable profit on the Capital employed … It is the interest of a community with a view to eventual and permanent oeconomy, to encourage the growth of manufactures. In a national view, a temporary enhancement of price must always be well compensated by a permanent reduction of it."

"… two important inferences are to be drawn, one, that there is always a higher probability of a favorable balance of Trade, in regard to countries in which manufactures founded on the basis of a thriving Agriculture flourish, than in regard to those, which are confined wholly or almost wholly to Agriculture; the other (which is also a consequence of the first) that countries of the former description are likely to possess more pecuniary wealth, or money, than those of the latter. Facts appear to correspond with this conclusion."

"In order to a better judgment of the Means proper to be resorted to by the United states, it will be of use to Advert to those which have been employed with success in other Countries. The principal of these are.

I Protecting duties—or duties on those foreign articles which are the rivals of the domestic ones, intended to be encouraged (…)

II Prohibitions of rival articles or duties equivalent to prohibitions.

This is another and an efficacious mean of encouraging national manufactures, but in general it is only fit to be employed when a manufacture, has made such a progress and is in so many hands as to insure a due competition, and an adequate supply on reasonable terms (…)

III Prohibitions of the exportation of the materials of manufactures (…)

IV Pecuniary bounties

This has been found one of the most efficacious means of encouraging manufactures, and it is in some views, the best."

"There is a degree of prejudice against bounties from an appearance of giving away the public money, without an immediate consideration, and from a supposition, that they serve to enrich particular classes, at the expence of the Community.

But neither of these sources of dislike will bear a serious examination. There is no purpose, to which public money can be more beneficially applied, than to the acquisition of a new and useful branch of industry; no Consideration more valuable than a permanent addition to the general stock of productive labour.

As to the second source of objection, it equally lies against other modes of encouragement, which are admitted to be eligible. As often as a duty upon a foreign article makes an addition to its price, it causes an extra expence to the Community, for the benefit of the domestic manufacturer. A bounty does no more: But it is the Interest of the society in each case, to submit to a temporary expence, which is more than compensated, by an increase of industry and Wealth, by an augmentation of resources and independence; & by the circumstance of eventual cheapness, which has been noticed in another place (…)

V Premiums

These are of a Nature allied to bounties, though distinguishable from them, in some important features. Bounties are applicable to the whole quantity of an article produced, or manufactured, or exported, and involve a correspondent expence. Premiums serve to reward some particular excellence or superiority, some extraordinary exertion or skill, and are dispensed on⟨ly⟩ in a small number of cases. But their effect is to stimulate gener⟨al⟩ effort (…)

VI The Exemption of the Materials of manufactures from duty (…)

VIII The encouragement of new inventions and discoveries, at home, and of the introduction into the United States of such as may have been made in other countries; particularly those, which relate to machinery.

This is among the most useful and unexceptionable of the aids, which can be given to manufactures. The usual means of that encouragement are pecuniary rewards, and, for a time, exclusive privileges (…)

IX Judicious regulations for the inspection of manufactured commodities.

This is not among the least important of the means, by which the prosperity of manufactures may be promoted. It is indeed in many cases one of the most essential. Contributing to prevent frauds upon consumers at home and exporters to foreign countries—to improve the quality & preserve the character of the national manufactures, it cannot fail to aid the expeditious and advantageous Sale of them, and to serve as a guard against successful competition from other quarters (…)

XI The facilitating of the transportation of commodities."

"In countries where there is great private wealth much may be effected by the voluntary contributions of patriotic individuals, but in a community situated like that of the United States, the public purse must supply the deficiency of private resource."

Alexander Hamilton's Final Version of the Report on the Subject of Manufactures, 05 Dec 1791
https://founders.archives.gov/documents/Hamilton/01-10-02-0001-0007

113. Protecció de la indústria immadura (Friedrich List, 1841)

"It is not true that population increases in a larger proportion than production of the means of subsistence; it is at least foolish to assume such disproportion, or to attempt to prove it by artificial calculations or sophistical arguments, so long as on the globe a mass of natural forces still lies inert by means of which ten times or perhaps a hundred times more people than are now living can be sustained. It is mere narrow-mindedness to consider the present extent of the productive forces as the test of how many persons could be supported on a given area of land. The savage, the hunter, and the fisherman, according to his own calculation, would not find room enough for one million persons, the shepherd not for ten millions, the raw agriculturist not for one hundred millions on the whole globe; and yet two hundred millions are living at present in Europe alone."

“The causes of wealth are something totally different from wealth itself. A person may possess wealth, i.e. exchangeable value; if, however, he does not possess the power of producing objects of more value than he consumes, he will become poorer. A person may be poor; if he, however, possesses the power of producing a larger amount of valuable articles than he consumes, he becomes rich. The power of producing wealth is therefore infinitely more important than wealth itself; it insures not only the possession and the increase of what has been gained, but also the replacement of what has been lost. This is still more the case with entire nations (who cannot live out of mere rentals) than with private individuals.”

“In order to allow freedom of trade to operate naturally, the less advanced nations must first be raised by artificial measures to that stage of cultivation to which the English nation has been artificially elevated. In order that … those nations which feel themselves to be capable … of developing a manufacturing power of their own must adopt the system of protection as the most effectual means for this purpose. The effects of this system for the purpose in view are of two kinds: in the first place, by gradually excluding foreign manufactured articles from our markets, a surplus would be occasioned in foreign nations, of workmen, talents, and capital, which must seek employment abroad; and secondly by the premium which our system of protection would offer to the immigration into our country of workmen, talents, and capital, that excess of productive power would be induced to find employment with us, instead of emigrating to distant parts of the world and to colonies.”

“Manufactories and manufactures are the mothers and children of municipal liberty, of intelligence, of the arts and sciences, of internal and external commerce, of navigation and improvements in transport, of civilisation and political power. They are the chief means of liberating agriculture from its chains, and of elevating it to a commercial character and to a degree of art and science, by which the rents, farming profits, and wages are increased, and greater value is given to landed property. The popular school has attributed this civilising power to foreign trade, but in that it has confounded the mere exchanger with the originator. Foreign manufactures furnish the goods for the foreign trade, which the latter conveys to us, and which occasion consumption of products and raw materials which we give in exchange for the goods in lieu of money payments.

If, however, trade in the manufactures of far distant lands exercises admittedly so beneficial an influence on our agricultural industry, how much more beneficial must the influence be of those manufactures which are bound up with us locally, commercially, and politically, which not only take from us a small portion, but the largest portion of their requirements of food and of raw materials, which are not made dearer to us by great costs of transport, our trade in which cannot be interrupted by the chance of foreign manufacturing nations learning to supply their own wants themselves, or by wars and prohibitory import duties?”

“The great statesmen of all modern nations, almost without exception, have comprehended the great influence of manufactures and manufactories on the wealth, civilisation, and power of nations, and the necessity of protecting them. Edward III comprehended this like Elizabeth; Frederick the Great like Joseph II; Washington like Napoleon.”

“… the system of protection can be justified solely and only for the purpose of the industrial development of the nation. It may then, by thus basing the system of protection as regards manufactures on correct principles, induce nations which at present adopt a rigidly prohibitive system, as e.g. the French, to give up the prohibitive system by degrees.”

List, Friedrich (1991 [1841]): *The national system of political economy*, Augustus M. Kelley.
https://web.archive.org/web/20090801134149/http://socserv2.socsci.mcmaster.ca/~econ/ugcm/3ll3/list/list2

114. L’auge d’Anglaterra per la política industrial

“In all ages there have been cities or countries which have been pre-eminent above all others in industry, commerce, and navigation; but a supremacy such as that which exists in our days, the world has never before witnessed.”

“… England. She has become an example and a pattern to all nations -- in internal and in foreign policy, as well as in great inventions and enterprises of every kind; in perfecting industrial processes and means of transport, as well as in the discovery and bringing into cultivation uncultivated lands, especially in the acquisition of the natural riches of tropical countries, and in the civilisation of barbarous races or of such as have retrograded into barbarism (…) Let us then congratulate ourselves on the immense progress of that nation, and wish her prosperity for all future time. But ought we on that account also to wish that she may erect a universal dominion on the ruins of the other nationalities?

“… the culture and civilisation of the human race can only be brought about by placing many nations in similar positions of civilisation, wealth, and power; that just as England herself has raised herself from a condition of barbarism to her present high position, so the same path lies open for other nations to follow … Let us now state summarily the maxims of State policy by means of which England has attained her present greatness. They may be briefly stated thus:

- Always to favour the importation of productive power, in preference to the importation of goods.
- Carefully to cherish and to protect the development of the productive power.
- To import only raw materials and agricultural products, and to export nothing but manufactured goods.
- To direct any surplus of productive power to colonisation, and to the subjection of barbarous nations.
- To reserve exclusively to the mother country the supply of the colonies and subject countries with manufactured goods, but in return to receive on preferential terms their raw materials and especially their colonial produce.
- To devote especial care to the coast navigation; to the trade. Between the mother country and the colonies; to encourage seafisheries by means of bounties; and to take as active a part as possible in international navigation.
- By these means to found a naval supremacy, and by means of it to extend foreign commerce, and continually to increase her colonial possessions.
- To grant freedom in trade with the colonies and in navigation only so far as she can gain more by it than she loses.
- To grant reciprocal navigation privileges only if the advantage is on the side of England, or if foreign nations can by that means be restrained from introducing restrictions on navigation in their own favour.
- To grant concessions to foreign independent nations in respect of the import of agricultural products, only in case concessions in respect of her own manufactured products can be gained thereby.
- In cases where such concessions cannot be obtained by treaty, to attain the object of them by means of contraband trade.
- To make wars and to contract alliances with exclusive regard to her manufacturing, commercial, maritime, and colonial interests. To gain by these alike from friends and foes: from the latter by interrupting their commerce at sea; from the former by ruining their manufactures through subsidies which are paid in the shape of English manufactured goods.

These maxims were in former times plainly professed by all English ministers and parliamentary speakers."

"In Adam Smith's time, a new maxim was for the first time added to those which we have above stated, namely, to conceal the true policy of England under the cosmopolitical expressions and arguments which Adam Smith had discovered, in order to induce foreign nations not to imitate that policy.

It is a very common clever device that when anyone has attained the summit of greatness, he kicks away the ladder by which he has climbed up, in order to deprive others of the means of climbing up after him. In this lies the secret of the cosmopolitical doctrine of Adam Smith … Any nation which by means of protective duties and restrictions on navigation has raised her manufacturing power and her navigation to such a degree of development that no other nation can sustain free competition with her, can do nothing wiser than to throw away these ladders of her greatness, to preach to other nations the benefits of free trade, and to declare in penitent tones that she has hitherto wandered in the paths of error, and has now for the first time succeeded in discovering the truth."

https://web.archive.org/web/20090801134200/http://socserv2.socsci.mcmaster.ca/~econ/ugcm/3ll3/list/list4

115. Objeccions a la política industrial de 'missions a la Lluna' (*moonshots*)

"Until recently, there was a broad consensus that free trade, domestic deregulation, and the removal of entry barriers and other policies that curtail competition were the keys to stimulating economic growth and societal welfare. In the business realm, the prevailing sentiment was that policy's primary objective was to create a level playing field for companies … This perspective significantly influenced the establishment of an internal market within the European Union.

However, this consensus has shifted in recent years. Western governments are now launching expansive programs to not only rejuvenate their economies post-pandemic but also achieve ambitious goals such as sharply reducing and eventually eliminating CO2 emissions … Highlighting the purported immediacy of the problems they aim to address, these increasingly interventionist and specialized industrial policies are frequently termed 'Missions' or 'Moonshots.'

The reemergence of state-driven strategies stems from several powerful dynamics: China's deployment of industrial policy fueling its remarkable growth, the West's perceived stagnation juxtaposed with China's swift technological advancements, the unforeseen disruption of the COVID-19 pandemic, climate change concerns, and growing geopolitical tensions. The ripple effect of imitation is evident: the European Union, observing the recent surge in subsidies and interventions in the United States, has reciprocated with measures of its own."

"Horizontal policies are universal, applying to companies regardless of their operations, geographic locations, or employed technologies. Such policies encompass measures such as R&D tax credits and accelerated depreciation allowances, which mitigate capital investment costs. In contrast, vertical policies are tailored to benefit particular sectors or even specific companies. A notable recent instance is the renewable energy tax credits included in the US Inflation Reduction Act."

"We observe how governments in the West are introducing large-scale government programs in their efforts to both reboot their post-pandemic economies and to attain bold targets such as sharply reducing and eventually eliminating CO2 emissions.

This broad trend toward increasingly interventionist industrial policies is often named missions, moonshots, or mission-oriented innovation policies (MOIPs). An archetypical example is the Cancer Moonshot, a large, government-directed effort to eliminate cancer, initiated by Barack Obama in 2016 (…) The EU Green Deal is an example of a new MOIP, amounting to EUR 1000 billion over a 10-year period (…) In the United States, the Biden presidency has put in place the Inflation Reduction Act (IRA), which is a combination of debt repayment (USD 306 billion) and funds specifically targeting cleantech."

"Despite many historical examples of failed moonshot policies, policymakers and scholars who engage in these large-scale programs which aim to accomplish industrial and environmental renewal are rarely questioned."

"The idea of mission-oriented innovation has its roots in the literature on evolutionary economics … and innovation systems … It is clearly steeped in the tradition of what could be called third-generation innovation policy, which posits that governments should not only provide basic research and contribute to the commercialization of it but also to guide innovation efforts in specific directions. According to this approach, it is no longer enough for the government to increase positive knowledge externalities by supporting R&D activities, nor is it enough to provide targeted support or platforms strengthening the links between diverse actors such as universities, start-ups, and incumbent firms. The purposeful direction of these activities and proactive intervention in the marketplace is deemed necessary. A critical element distinguishing the mission-oriented approach is therefore directionality."

"While several scholars have proposed more directed innovation policies, no one has been more successful in diffusing such ideas and popularizing them to policymakers than Mariana Mazzucato. Using the Apollo and Manhattan Projects as illustrative examples, she argues that the state should initiate bold efforts into novel, unchartered territory, thereby guiding and driving change to achieve social and economic progress."

"The purpose of MOIPs is to mobilize actors from various parts of society to address important challenges. Its proponents claim that missions can be launched in order to transition togreen energy, address homelessness, clean up oceans, or increase equality, to name a few examples. Ideally, these missions provide an overarching umbrella where actors can be mobilized and collaborate."

"… seven takeaways that together call into question the usefulness of MOIPs (…):

1. Wicked problems cannot be solved through missions.

2. Politicians and government agencies are not exempt from self-interest.

3. MOIPs are subject to rent seeking and mission capture.

4. MOIPs distort competition.

5. Policymakers lack information to design MOIPs efficiently.

6. Government support distorts incentives and creates moral hazard.

7. MOIPs ignore opportunity costs."

"Government-led, large-scale attempts to achieve industrial renewal or fulfil various desirable goals have often failed. This volume features several case studies of such failed endeavors, including foreign aid, the Brazilian shipbuilding industry and deep-sea drilling for oil, and the large-scale US government effort to eradicate homelessness. Other examples … concern the role of Fannie Mae and Freddie Mac in the global financial crisis, the US War on Cancer in the 1970s, and the Swedish Million Program for housing.

While many of these programs and initiatives were put in place prior to the widespread diffusion of ideas around a mission economy, it is still clear that they were inspired by a mission-oriented logic, often with explicit reference to the moonshot. The Brazilian shipbuilding industry MOIP, which led to the most extensive series of arrests of government officials in the country's history and the imprisonment of President Lula in 2018, was at its inception in 2005 compared to the 1960s US-Soviet 'space race' (…)

Our findings point to the risks of missions being captured by vested interests. We also observe that such large-scale government initiatives distort incentives and give rise to unproductive entrepreneurship. Subsidies, soft loans, and various targeted support programs aimed at objectives such as homeownership, building inexpensive housing, reducing homelessness, or nation-building provide an opportunity for companies and policymakers to engage in opportunistic behavior as someone else is footing the bill. Several chapters also emphasize that governments cannot set goals and design a credible plan for their accomplishment, as they have neither the ability to aggregate and process the required information nor the know-how to accomplish these goals."

"Proponents of MOIPs may criticize our suggested alternative approaches on the grounds that they deny the existence of grand challenges, such as climate change and global health inequality, that can only be solved through MOIPs. We do not deny that those challenges are formidable, but the evidence and theoretical arguments provided in this collective volume suggest that MOIPs are plagued by so many problems that they even may prove to be counterproductive … In effect, the 'bottom-up' premise is really the foundational alternative to the 'top-down' mission."

Henrekson, Magnus ; Christian Sandström; Mikael Stenkula; eds. (2024): *Moonshots and the New Industrial Policy. Questioning the Mission Economy*, Springer.

116. Definicions de política industrial

"We propose to adopt … the following … definition:

'Industrial Policy is any type of intervention or government policy that attempts to improve the business environment or to alter the structure of economic activity toward sectors, technologies or tasks that are expected to offer better prospects for economic growth or societal welfare than would occur in the absence of such intervention.'"

- The definition includes any type of intervention not just selective or targeted interventions, thus including functional or horizontal policies as well as more targeted approaches.
- Policies that aim to improve the business environment – sometimes referred to as 'framework conditions' – are included, not just those with the express aim of altering the structure of the economy.
- Policies include those that aim to alter the structure of economic activity, a much broader term than 'production', which might be construed as relating only to the production industries (typically manufacturing, construction, primary production and water and sewage) or the manufacturing sector alone or, even more narrowly, the fabrication stage of the manufacturing value chain.

Table 1.Definitions of industrial policy

"Industrial policies are concerned with promoting industrial growth and efficiency." (OECD, 1975)

"Industrial policy may be generally defined as any government measure, or set of measures, to promote or prevent structural change." (Curzon-Price, 1981)

"....the term industrial policy indicates the relationship between business and government on a microeconomic level..." (Wachter and Wachter, 1981)

"....everything which is useful to improve growth and competitive performance." (Adams and Klein, 1983)

"Industrial policy... means government policy aimed at or motivated by problems within specific sectors." (Tyson and Zysman, 1983)

"Industrial policy means the initiation and co-ordination of governmental initiatives to leverage upward the productivity and competitiveness of the whole economy and of particular industries in it." (Johnson, 1984)

"Industrial policies refer to those policies intended to affect in some ways manufacturing or service industries." (Graham, 1986)

"....a wide-ranging, ill-assorted collection of micro-based supply initiatives which are designed to improve market performance in a variety of occasionally mutually inconsistent ways." (Geroski, 1989)

"Industrial policy is an attempt by a government to encourage resources to move into particular sectors that the government views as important to future economic growth." (Krugman and Obstfeld, 1991)

Industrial policy is one "aimed at particular industries (and firms as their components) to achieve the outcomes that are perceived by the state to be efficient for the economy as a whole." (Chang, 1994)

Industrial policy "can be defined as any policy affecting the allocation of resources to industry and in this sense embraces both macroeconomic policy ... as well as the more traditional areas of microeconomic policy." (Sharp, 1998)

Industrial policy is "every form of state intervention that affects industry as a distinct part of the economy." (Foreman-Peck and Frederico, 1999)

Narrow view: "Restrict attention to policies that target particular firms and industrial sectors."

Broad view: "any policy that shapes or influences the competitiveness of a country's firms and industries." (Beath, 2002)

"...restructuring policies in favour of more dynamic activities generally, regardless of whether those are located within industry or manufacturing per se." (Rodrik, 2004)

Industrial policy is "the activity which creates a favourable environment for European business in general, the manufacturing sector and its industries in specific." (Aiginger and Sieber, 2005)

"Industrial policy refers to a set of measures taken by a government and aiming at influencing a country's performance towards a desired objective." (Pitelis, 2006)

Source: Based on Aiginger (2007) and White (2008).

- It is recognised that industrial policy may aim to switch resources not only to particular sectors but also towards certain technologies (for example biotech, ICT or clean-tech) or even 'tasks' (shorthand for both tasks and bundles of tasks or activities that make up stages in the value chain, for example design or logistics).
- Finally, although most explicit industrial policy generally has a productivity, employment or growth objective, it is recognised that governments have other policy goals that contribute to societal welfare, and the pursuit of these goals may have important industrial policy-type effects -examples might include regional policy, energy and climate change policy, health policy and defence/security policy. Often industrial policy is closely integrated with other policies as part of a broader government social and economic strategy with wide ranging goals."

Warwick, K. (2013): "Beyond Industrial Policy: Emerging Issues and New Trends", OECD Science, Technology and Industry Policy Papers, No. 2, http://dx.doi.org/10.1787/5k4869clw0xp-en