



CSC WORKING PAPER

**TWENTY-FIVE YEARS
OF INDUSTRIAL DEVELOPMENT.
RISE, DECLINE AND LEGACY OF GLOBALIZATION**

Fabrizio Traù

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TWENTY-FIVE YEARS OF INDUSTRIAL DEVELOPMENT. RISE, DECLINE AND LEGACY OF GLOBALIZATION

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Abstract

The paper analyses world industrial development in the course of the Globalisation Age. It focuses on four main issues: i) a retrospective analysis of development processes which characterized the different areas of the world in this period; ii) the rationale for manufacturing activity expansion in the so-called emerging economies; iii) the integration of manufacturing systems at the global level through the creation of international value chains and the expansion of direct investment flows; iv) the origin and main implications of the crisis which hit the world economy at the end of the long economic expansion cycle in the early years of the XXIst century.

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Nowhere have labor, economy, the spirit of invention, and the spirit of industrial enterprise, accomplished any thing great, where civil liberty, the institutions and laws, external policy, the internal government, and especially where national unity and power have not lent their support
(F. List, 1856, p. 178).

0. A premise

The industrial world is entering a new development phase whose preconditions are in discontinuity with the past. Many concepts that were held as certainties for a long time are now falling apart, and new paradigms are seeking to assert themselves.

The remarks contained in this paper refer to a time span that coincides with the time during which the *Globalisation Age*¹ emerged, tried to consolidate itself and finally foundered: leaving behind a high degree of international integration of production systems, a more articulated world (and in many respects characterised by greater inequalities), a lot of rubble as to the role of international institutions and – above all – an important change in the power relations between the developed world and those developing countries that have succeeded in emerging *through their own endeavours*.

In the following pages an attempt is made to trace a course in the midst of the many issues that have contributed to making these years so tumultuous, and look at the facts through less traditional lenses than those used in the great academic centres and in the most heeded global institutions. From this standpoint they also reflect the attempt to give space and, in some respects, provide guidance to the contributions of a literature which, also being of academic and institutional matrix, has tried to approach the matter on less ideological grounds, thus contributing to shedding a different light on many important phenomena.

The work can be broken down into four main and intertwined blocks: *i)* a retrospective analysis of the development processes that have characterized the different areas of the world during the *Globalisation Age*; *ii)* a discussion of the rationale for the expansion of manufacturing activities in the so-called emerging economies; *iii)* a measure of the integration of manufacturing systems at the global level via the creation of international value chains and expansion of direct investment flows; *iv)* a discussion of the origins and main implications of the crisis that struck the world economy at the end of the long expansion cycle in the early years of the 21st century. There is no pretension of providing an exhaustive discussion of any of these issues; the attempt is rather to try and weave them into a comprehensive approach that may help understand the

¹ Roughly the period going from the beginning of the 1980s to the crisis that broke out in the first decade of the 21st century.

paradigm shift that has taken place.

1. Globalization, growth, inequalities: A retrospective view

1.1. Globalisation, in the connotation it was given since it first came to the fore, developed on at least three different levels (UNCTAD 2016): political, with the removal of barriers to the cross border movement of goods, people and capital; economic, with the up-scaling of these flows and increasing international integration of economic systems at the production level; institutional (rules, norms, and organizations designed to oversee the huge development of international transactions).

All these phenomena were backed by a vision of the functioning of the economy that radically overturned the previous approaches, providing a theoretical substrate to the idea that the development of economic systems was to be always and in any case entrusted exclusively to the operation of market forces². Starting from the early Eighties of last century the spread of the new creed to the main international financial institutions (in particular the IMF and the World Bank) via the role played by the academic world and the most influential research centres, has led to the formulation of a *new* system of rules, commonly defined as Washington Consensus (wc).

The economic policy of the wc can be summarized in three basic principles: reaching macroeconomic stability through inflation and budget deficit control policies; liberalization of trade and capital flows; an extension of the market boundaries to be obtained through privatization and deregulation processes. The degree of attainment of these objectives by the individual economic systems ended up being the yardstick for measuring how “virtuous” they actually were: on the one hand subjecting the delivery of international aid to the countries’ compliance with the new rules; on the other, reducing the problem of development to the measurement of their performance (expressed in terms of GDP growth in the short term) following the adoption of the rules, in a framework where the need to make adjustments – soon

² At the end of the 1970s the substantial impossibility of governing the “new” problems of the economy with the instruments inherited from the regime of the Golden Age, originated the request for a radical change in the role of the State in the regulation process: in a world dominated by uncertainty, the poor results produced thus far by the large industrial systems called for the abandonment of the interventionist approach (where the coordination of production activities occurred outside of the market), orientating public choices in the direction of a system where market forces were left free to express their ability to adapt to a context where change had become a “structural” component. Beginning with the economic systems that had historically been more market oriented (United Kingdom and United States), the early 1980s witnessed the progressive assertion of a vision of the problem where the cornerstone of the development process was to “free” individual initiative from the constraints that had been imposed on them by the extensive public regulation inherited from the past. The deregulation and privatization of activities that had previously been under State control became the new intermediate goals of economic policy. Import substitution (isi) policies became the paradigm to be fought always and in any case. This orientation received an important push also by the eruption of the so-called Latin American “debt crisis” (opened by the declaration of default by Mexico in 1982). In time, it spread to the entire West; but in the meantime the political events opened up the market to the entire block of former Socialist Countries, that joined the group of economic systems that were lagging behind in the industrialization process, thus expanding the boundaries of the developing world. On this set of issues see Chang (1997).

to become the mantra of “structural reforms” – entailed the abandonment of major government plans aimed at transforming society³.

In this perspective, the very problem of development as a *process* (historically conditioned by specific connotations at each step) loses any meaning as far as the governments of the different economic systems (whatever their degree of development) are all called upon to do the same things all the time (“one size fits all”), hence sterilizing the economy from any possibility of taking any *nationally* oriented direction:

“No longer was it a matter of governments selecting their industrial investments with the correct shadow prices. Governments were now adjured to divest themselves of state-owned industries and to liberalize comprehensively – in goods markets, labour markets, financial markets, capital markets and foreign-trade markets. They were encouraged to concentrate their efforts on law and order, education and health” (Toye 2003, p. 31).

1.2. This vision of the world started to show signs of strain as early as the Nineties. At the centre of attention was the inadequacy of aggregate performance that could be observed following the introduction of the “new” policies. Namely, the substantial failure of the fundamental assumption of the wc, according to which the new orientation of economic policy was to encourage higher levels of growth, in particular in the economies whose development was lagging behind. In practice, the expectations of a faster pace of growth following the trend towards a reduction in public intervention and lower commercial barriers were totally frustrated. The specific point is that

“the growth rates of the developing countries since the 1980s, when they abandoned the supposedly disastrous isi policy and entered the ‘brave new world’ of neo-liberalism, have been much lower than that during the ‘bad old days’ of isi” (Chang 2008, p. 11).

The phenomenon was indeed visible already in the last years of last century and it fuelled a progressive dissatisfaction with the provisions of the wc by a growing number of observers. In the wake of Neoliberalism of the ECLAC analyses (1990 and 2000), that again questioned the dogma of the abolition of the import substitution policies in Latin America⁴, and in the wake of

³ It is worth pointing out that, at the same time, following the *Millennium Summit* held in New York in September 2000, the United Nations formulated the so-called *Millennium Development Goals*, putting a series of highly articulated development objectives at the heart of the world political agenda (among others: to eradicate poverty and hunger, achieve universal primary education, reduce child mortality, combat diseases, and ensure environmental sustainability). See on this United Nations (2000). In time, the pressure exerted by events (*infra*) was to lead to a partial softening of the more rigid version of the wc, that produced a formulation including some partial elements of flexibility that goes under the name of *Institutional View* of the IMF; see IMF (2012).

⁴ “Latin America represents, in this regard, an outstanding example of a region where the record of economic liberalization has not only been disappointing, but indeed has been considerably poorer than that of State-led (or import-substitution) industrialization” (Ocampo 2005, p. 4). Other than in the studies of the ECLAC, analyses of the effects of the wc upon the

the studies analysing the development model of the fast-growing East-Asian economies (for all, Chang 2006), the preconditions were informally laid for a “Southern Consensus”, oriented again towards the historic dimension of the phenomenon of development (Gore, 2000). In the matter of a few years, in the earlier part of the new century, a *New Development Economics* emerged from that milieu that put the development delay of Developing Countries at the centre of the political agenda. Such delay was viewed as an outcome of a market failure and as a problem linked first of all to the accumulation of manufacturing knowledge – thus restoring a central role to industrial policy (see among others Singh 1994, Amsden 2001, Chang 2002, 2003 and 2006, Reinert 2007, Arestis and Eatwell 2008, Cimoli *et al.* 2009, Stiglitz and Lin 2013, UNIDO 2009, 2013 and 2016, UNCTAD 2016).

The distinctive feature of the NDE was realism (one might say pragmatism) as opposed to the idealism of the wc⁵. In the outline suggested by Gore (2000), the fundamental traits were the idea that the introduction of liberalized trade into a system should be pursued “strategically” (and not in an unconditional manner); the importance attributed to the creation of industrialization policies aimed at creating comparative advantages of the dynamic type⁶; a pragmatic attitude of the public institutions also with regard to containing the production and distribution imbalances within individual economies⁷.

On this basis, and in the presence of a wc still formally in the saddle and vital (at least according to the declarations of the most prominent international institutions), the world started to reorganize itself in practice, triggering a gradual shift in attention towards a more inward looking direction. The result was that

Latin American performance (some of which offer comparisons with the different trend of Asian performances) have been provided by Palma (2003 and 2009) and Cimoli and Correa (2005). An important point in this connection is that Brazil in the XXIst century experienced a return to active industrialization policies (see Devlin and Moguillansky 2013).

⁵ “The ideologues believe that such globalization promises economic prosperity for countries that join the system and economic deprivation for countries that do not. It needs to be stressed that this intertwined normative and prescriptive view of globalization is driven in part by ideology and in part by hope. It is not borne out by experience” (Nayyar 2003, p. 68).

⁶ “In this forward-looking approach, the opportunities of current relative cost advantages are exploited to the full, but efforts are made at the same time to promote investment and learning in economic activities where comparative advantages can realistically be expected to lie in the immediate future” (Gore 2000, p. 797). See further details on this point *infra*, par. 2.

⁷ A spectacular example of the destructive consequences of an ideological application of the provisions of the wc is represented by the experience of the countries belonging to the former Soviet Union (including Russia), where the *simultaneous* implementation of policies on price liberalization, accelerated privatization, tax provisions and commercial opening – without building up market institutions beforehand – not only generated a recession, but also entailed a colossal dissipation of human capital that was unprecedented in history (for all see Stiglitz 2002, chapter 5). As observed by Lin (2009, chapter 5), the point in this case is that, in order for such a violent shock to have stimulating effects on the industrial structure, it would have required that the “weak” part of the production system should have been relatively small – and not the larger component. The most evident counter example is the maintaining of public property and control over domestic financial flows and capital movements in the Chinese case, and in general the set of strategies pursued by the East-Asian economies: “China, Vietnam and other east Asian transitional economies did not follow the Washington Consensus and adopted a dual-track, gradual approach – referred to by some economists as the ‘Asian approach’ ” (Lin 2009, p. 51).

"[b]y the mid-2000s, the Washington Consensus development model was already beginning to unravel. us hegemony was eroding and the large emerging economies, led by China and India, were altering the organization of production and how rules were made that affected the global economy. (...) When the global economic recession hit in 2008-09, this ended all prospects of a return to the old order " (Gereffi 2014, pp. 14-15).

But what continued to be missing was an alternative, widely shared, development strategy, *configured in the positive* and capable of replacing the WC whose death sentence had not been pronounced by anyone. Indeed everyone proceeded in random order. The result in time was the disappearance of the idea of a totally interdependent world, and – after the failure of the "Doha Round" – the modalities for the multinational expansion of business and of trade policies were entirely reconsidered. A government of trade appeared that was increasingly based on bilateral agreements (also in the version of "selective multilateralism" like the so-called TTIP and the TPP⁸) and that was accompanied by the emergence of increasingly complex barriers (besides customs duties, regulation, quotas and the definition of technical and qualitative standards, *infra*, section 6).

1.3. The existence of a negative discontinuity in the rate of growth, represented by the watershed of the early 1980s, appears to be macroscopic even when seen from the perspective of today, which allows us to include the period of general expansion of the early 21st century in the data (Table 1). The comparison between the two great phases of development (pre and post WC) is immediate: with the exception of the East-Asian area, all the areas of the world (and the world itself) recorded after 1980 a marked decline in growth rates. For the developing economies, excluding the Asian area, the comparison is harsh, and the transition from the first to the second "model" coincided with a collapse of the growth rate from three to one⁹.

Of course the bad performance of the second of the two periods is affected by the crisis that in turn offset the expansion trend of the early years of the new century. But the crisis itself has to be considered as being rooted in the way development took place in the preceding period: from this point of view the intensity of the growth in the years spanning from the explosion of the "New Economy" bubble to the crisis of the subprime loans in the United States was fuelled by the accumulation of imbalances that were bound as such to explode, dragging with them the whole world economy (*infra*, par. 6).

⁸ The Transatlantic Trade and Investment Partnership and Trans Pacific Partnership, both of which are now at an impasse also because of the growing mass dislike for unconditional free trade.

⁹ "This is a particularly damning record for an economic doctrine that has prided itself in being single-mindedly focused on economic growth, on the grounds that 'we first have to generate wealth before we can redistribute it' " (Chang 2003, p. 6).

Table 1 – Average annual real GDP growth rates reale (PPP) for some areas and countries

| | 1951– 1980 | 1981– 2015 |
|---|------------|------------|
| Developed economies | 3.5 | 1.8 |
| United States | 2.3 | 1.8 |
| Developing economies | 2.7 | 3.8 |
| Africa | 1.8 | 1.2 |
| America | 2.6 | 1.3 |
| Asia | 2.8 | 5.0 |
| East Asia | 3.0 | 7.1 |
| China | 2.3 | 7.7 |
| South-East Asia | 2.6 | 3.5 |
| South Asia | 1.4 | 4.1 |
| West Asia | 4.4 | 1.4 |
| Transition economies | 3.2 | 0.5 |
| World | 2.7 | 2.1 |
| <i>Memo items:</i> | | |
| Developing economies, excl. China | 2.7 | 2.4 |
| Developing economies, excl. East Asia | 2.6 | 2.3 |
| Developing economies, excl. East and South-East Asia | 2.6 | 2.0 |
| Developing economies, excl. East, South-East and South Asia | 2.8 | 1.1 |

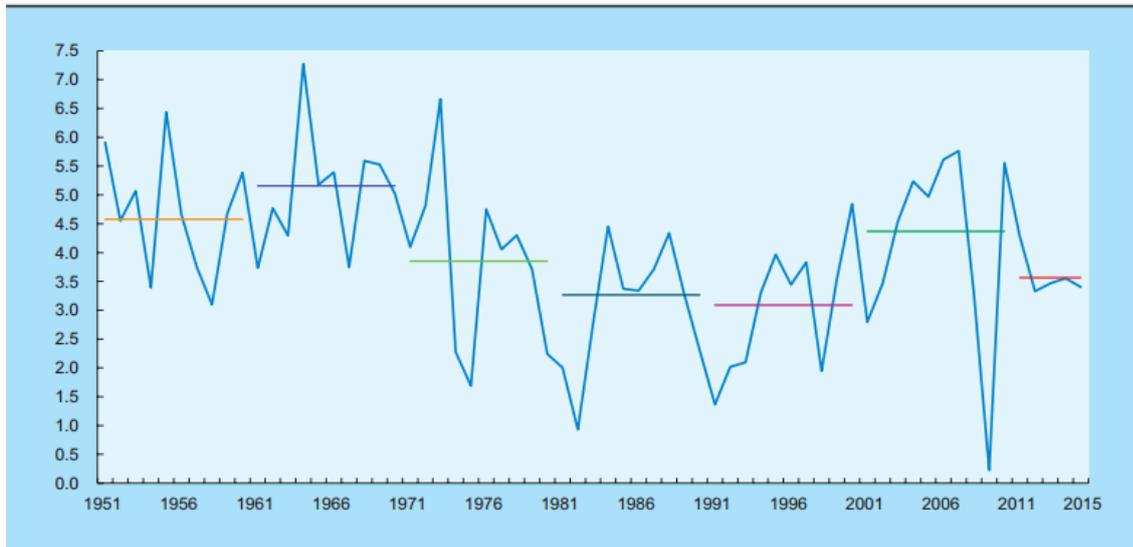
Source: UNCTAD (2016).

Indeed, if considered in a long-term perspective, the world growth had a steady downward trend at least from the late 1960s (namely with the end of the *Golden Age*) to the end of the century (Fig. 1). Yet the gradual inclusion of the emerging economies in the arena of growth had a compensating role in this picture and, in the early 21st century, the world growth rate started to rise again – up until the 2008 crisis.

Therefore, as long as world growth was substantially determined by the advanced economies, the radical change in orientation of the rationale of economic policy imposed by the wc did not affect the pace of its substantial decline¹⁰. Things started to change when some new economic systems burst into the global arena, exercising an increasingly visible impact due to the combined effect of their sheer size and the (exceptionally high) growth rates typical of early stages of development.

¹⁰ It could be said that for these economies growth continued to slow down throughout the period, following the pattern highlighted in the literature since the late 1970s (see Matthews, 1982). On the role that the persisting slowdown of the advanced economies played during the *lost decades* of the 20th century in determining the slowdown of global growth – in spite of the dramatic turnabout in economic policy – see also Easterly (2001).

Fig. 2 – World output growth rate, 1951-2015, per cent



Source: UNCTAD secretariat calculations, based on The Conference Board, *Total Economy Database*, May 2015.

In this context, the point is that the group of laggards that succeeded in joining the development race were in turn clearly delimited. An immediate measurement of the differences among the different groups of countries may be expressed in terms of their development *gap* vis-à-vis the United States (Fig. 2).

By equating to 100 the US per capita income, along the whole 1980-2000 twenty-year period, the gap becomes greater (or at least it is stabilized) for all areas¹¹. It is only in the last fifteen years that the gap has started to decrease, albeit to a small extent, and only for the economies of the Asian area. The relative position of Africa, Latin America and the Middle East has worsened even further with respect to 1980 (when their degree of development was insignificant)¹².

¹¹ The only group that behaved differently was that of the so-called Asian *first tier* Countries (Korea, Taiwan, Hong-Kong and Singapore), whose catching up process was steady over time, even though in 2015 their per capita income was still just above 50% as compared to US. Similar results are obtained on the basis of the data expressed on a PPP basis by UNCTAD (2016).

¹² In this connection it has to be borne in mind in any case the growth slowdown in the developed world ("Average annual GDP per capita growth in the developing world during the 1980s and 1990s was actually lower than in the 1960s and the 1970s, with convergence resulting from economic slowdown in the developed economies and accelerating growth in East Asia", UNCTAD 2016, p. 37, emphasis added).

2. Industrialization (“the rest” vs. “the remainder”)

2.1. In general, the globalisation years coincided with the emergence of a series of new countries as manufacturers¹³. The growth rate of these countries was on average greater – and in some cases much greater – than that of the industrialized economies, for quite physiological reasons¹⁴. The point is that the sudden bursting onto the economic scene of these new manufacturing systems was accompanied by the persistent stagnation of a conspicuous part of the economies of the “South” of the world (involving in turn an increase in inequality within the whole group of laggards)¹⁵.

As can be seen in Figure 3, showing the relationship between the level of per capita manufacturing output in 1990 and the increase in manufacturing output in the 1990-2008 period, when *all* economic systems are taken into account (and not just those in which strong growth has *actually* taken place) the relation between backwardness and (the speed of) development is by no means obvious. The graph shows the coexistence – given quite similar levels of per capita output at the beginning of the period – of quite *dissimilar* rates of growth. Minimal rates of industrialisation correspond to both very high and very low rates of growth, as well as rising rates of industrialisation – scattered along a quite wide range – are paralleled by very similar rates of growth. Economic development (and, in particular, manufacturing development) is *not* a *mechanic* issue – it is not something like an unavoidable destiny which sooner or later every economic system in the world has to come across.

The very same international “regime” (the wc) has produced highly varying, and even opposite, results in different economic areas. But why did it happen that one group of countries succeeded in reaching the status of emerging economy, while others continued to lag behind?

As widely documented in literature, the two pillars of this process were the orientation

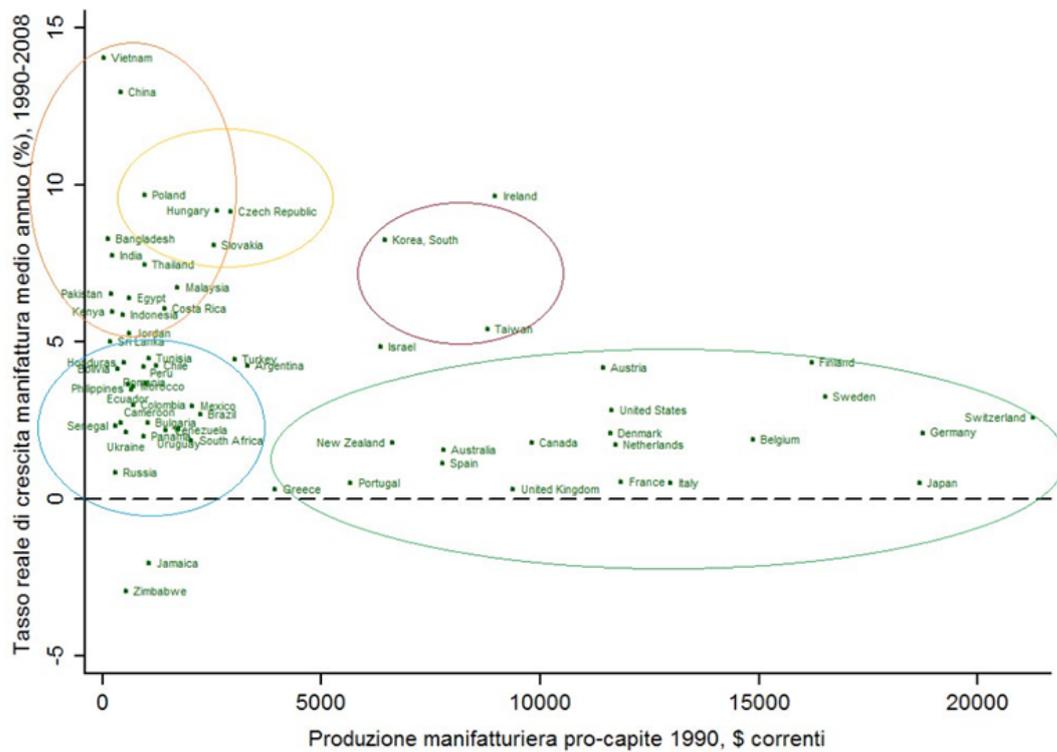
¹³ This section broadly summarizes the arguments set forth by Romano and Traù (2014).

¹⁴ On the one hand, moving from minimal values, the percentage variations in production levels show, by definition, particularly high increases; on the other hand, the initial stages of production activity are by their very nature characterized by sustained growth rates, that cannot be maintained throughout all the ensuing stages of the process (due to the effects of structural change, involving, beyond a given level of development, a gradual shrinking of the relative weight of manufacturing activities). Following Kindleberger (1958), the intertemporal profile of growth can be likened to the Gompertz’s curve – so that the general principle holds according to which “the higher rate of growth has the prospect of slowing down” (p. 315). On this point see also Cameron (1989).

¹⁵ This issue addresses the several attempts to verify the role played by globalization in pushing towards a reduction in inequalities at the global level. For a critical review see in particular Dowrick and Akmal (2005), who discuss the methodological difficulties of the two main criteria for measuring per capita income levels (at current exchange rates, which show a further widening of the gap, and at PPP exchange rates, in which case the gap decreases), concluding that by taking into account the problems of both approaches the gap substantially remains as it is (with a slight rise, if anything). It must however be pointed out that, in all these cases, the analyses refer to the gaps between countries weighted by population: in other terms these are analyses aimed at measuring the phenomenon from the standpoint of *individuals*; if the investigation unit is instead an individual country, Dowrick and Akmal themselves argue that the gap widens even in the case of the measurement in PPP. The difference in perspective is important: think of China and (to a much lesser extent) India, that are at one and the same time two of the countries that succeeded in emerging, and that account for one third of the world’s population. The point here is that unlike what happened in the past (e.g. with the famous four “Asian tigers”), this time the countries that grew were countries of huge size (see also *infra*, section 6).

towards an industrialization policy and – even prior to this – the determination to build institutions capable of managing its implementation.

Fig. 3 – Manufacturing growth versus the initial level of industrialization



Source: Romano and Traù (2014).

The point being made in this paper is that the laggards which succeeded in emerging during the years of globalization had actually laid the foundations for their development long *before* globalization appeared. In other words, they reached the appointment with globalisation in conditions that enabled them to take advantage of what it had to offer: they were able to exploit the possibilities made available by the liberalization of trade (and of capital movements) and they expanded their supply capacity. The driving force of this process was their capacity to *build* the conditions for *industrial* development.

In general, over time,

“[t]he social accumulation of productive knowledge has not been a universal phenomenon. It has taken place in some parts of the world, but not in others. The enormous income gaps between rich and poor nations are an expression of the vast differences in productive knowledge amassed by different nations”

(Hausmann et al., 2011, p. 7)¹⁶.

Following Amsden (2001), it can be observed that the economies that were still lagging behind in the mid 20th century (“the rest”), i.e. those that – unlike the first comers – had not succeeded in riding neither the First nor the Second Industrial Revolution, had to face a knowledge level which was beyond their possibilities to manage. The main barrier to access was the basic absence of crucial *proprietary* information. The existence of a deep-rooted technological discontinuity between the countries that today we call industrialized countries and those that we call emerging countries put the latter in the condition of having to set up their development strategies on *different* foundations.

This means that the entire architecture of the process was different, and that their industrialization process was characterized *right from the beginning* by a radical peculiarity that marked the whole of its subsequent evolution.

The fact that in the years following World War II a portion of the economies lagging behind succeeded gradually in starting along the path of industrial development may be considered to be a function of the breadth of their manufacturing knowledge – albeit not proprietary – that they had built up in time and of the extent to which their institutions were capable of translating this capital into a different industrialization model. As a result of the initial differences between the different areas of the developing world, in terms of their knowledge base and the role of the State, industrialization took place only in *some* of the developing Countries and not in all of them.

“Countries in ‘the rest’ that industrialized rapidly after World War II had accumulated manufacturing experience in the pre-war period. This differentiated them from countries in ‘the remainder’”. Path dependence was such that no economy emerged from the blue as an industrial competitor” (Amsden 2001, p. 99)¹⁷.

¹⁶ On the role played by knowledge (and not only coded knowledge) in explaining the development gaps, see also the remarks contained in Cimoli et al. (2009).

¹⁷ In the wording suggested by Amsden (2001), “the rest” includes China, India, Indonesia, Korea, Malaysia, Taiwan and Thailand in Asia; Argentina, Brazil, Chile and Mexico in Latin America, and Turkey in the Middle East. As can be seen, these are countries whose manufacturing take-off occurred at different moments in time (Korea “started” in the 20th century from the early 1960s; the South American economies – except for Mexico – experienced their first stage of development via *import substitution* measures right from the post World War II period). In addition, it is worth mentioning in this connection the group of the economies belonging to the former Soviet block and the problems linked to their subsequent inclusion in a re-industrialization process (and opening up to worldwide trade). The development of these countries, that Amsden (2001, see in particular chapters 4 and 5) illustrates through the review of a massive series of analyses relating to the individual economies, takes on a different profile depending on the way in which the economies lagging behind acquired manufacturing knowledge (and, in particular, depending on the presence or absence of a prior colonial experience). In general, the countries that in the post war period invested more in national enterprises and skills were those that had experienced a colonial presence in their territory, and that, through nationalization, directly acquired manufacturing “know-how”; the others remained mostly linked to the presence of multinationals, with knowledge that was mostly non proprietary (which substantially prevented the creation of a competitive *national* industry that could have access to foreign markets). The first group includes among other Countries China, India, Korea and Taiwan; the second group includes Argentina, Brazil and Mexico. In this sense, while the *existence* or absence of a previous manufacturing

Hence, at the dawn of globalization, the universe of the laggards was *already* divided into two groups: on the one hand “the rest” (namely the group of countries *already oriented*, to a greater or lesser extent and with differing degrees in the implementation of the process, towards an explicit industrialization objective), and on the other “the remainder” (without manufacturing knowledge and without adequate institutions). In this framework, the strength and the determination shown by the public institutions in “forcing” the industrialization process – culminating with the emergence of the *Developmental State* in South-East Asia – were the elements that enabled the latecomers of the first group to build in the medium term – and often from scratch – *dynamic* comparative advantages in different commodity areas (Chang 2006)¹⁸. In such perspective the keystone of economic policy is not macroeconomic stability, but the acquisition of technological skills by the domestic firms as the instrument for a constant competitive upgrading (intermediate objective) of the manufacturing system:

“[I]t is well-established that the East Asian export-led growth model, including its more recent variants, is about maximizing the developmental benefits of trade by managing it through proactive industrial, macroeconomic and social policies, including the pairing of export promotion with the protection of infant industries and import substitution, particularly in the initial stages of industrialization. Indeed, managing trade to support domestic development was the same approach used by almost all of today’s developed countries at some point in their industrializing history” (unctad 2016, p. 97).

This very recent assessment, that draws on previous editions of the *Trade and Development Report*, ends with a point that has been masterly highlighted in the work by Chang (2002) and Reinert (2007): the conditions for manufacturing development *do not change in time*, and the path followed by the economies that have succeeded to emerge is *not* the one laid down by the wc; just as the industrial development of advanced economies themselves would not have been even imaginable in their time without the active role of their institutions.

Having set up the actions for bridging huge development gaps on the denial of this principle – by assuming that it was possible for the very first time in history to industrialize laggards through simple market forces – has only had the effect of deepening the inequalities at the global level, keeping “the remainder” out of the development process¹⁹.

Starting a steady and stable development process has always been a function of the

experience set apart the Countries that emerged from those that remained still, the *type* of previous experience affected the nature and intensity of development among emerging countries.

¹⁸ Of course, also within the group of the “rest”, the institutional establishment differed from country to country, with important consequences on the intensity of the industrialization processes. For a comparison in particular between China and India see Saith (2008).

¹⁹ From this standpoint, the persistent practice of an important international institution like the imf of continuing to include in the same statistical aggregate the whole of the “emerging and developing countries” is all the harder to understand.

capacity to dynamically build the foundations for a competitive manufacturing industry based on proprietary knowledge in a forward-looking perspective²⁰. This approach – that is deeply rooted in a wide range of theoretical contributions in the history of economic thought²¹ – stands opposite to the idea according to which it is opening outside *as such* that provides the preconditions for aggregate growth (through the exploitation of *current* comparative advantages). The logic here is instead that of *emulation*:

“No businessperson expects an industrial company to make money from day one; [t]he similar logic was used for centuries as it regards industrial systems. A new industry could not be expected to be profitable immediately. Indeed England protected her manufacturing industry heavily for more than 350 years, the United States only for about 100 years, and Korea for only 40 years. (...) [A]ll countries that have moved from being poor to wealthy have done so by going through a period of emulation – of infant industry protection – in order to work their way into the areas where technological progress is concentrated at the time. This has been a mandatory passage point in human history” (Reinert 2009, pp. 81 and 100, emphasis added).

Emulation brings about the progressive attainment of competitive advantages *that were not there before*. This principle naturally drives the industrial system that adopts it towards a gradual widening of its supply matrix. This point is of the utmost importance and is discussed extensively in the next paragraph.

3. Globalization of value chains, trade in tasks, diversification

3.1. The issue dealt with in these pages is that differences in the degree of development reflect differences in the degree of industrialization; and that the degree of industrialization comes from afar, in that it is the result of a process that has had the time to unfold over a suitably long period of time. A fundamental role in this process is played by the existence of adequate institutions and of manufacturing knowledge that emerged gradually in time; but of course without the activation of an adequate demand, manufacturing will not develop.

Given the fact that in laggard countries – even in those of continental dimensions – domestic demand was bounded to a minimum up until the end of last century, the way out of

²⁰ On this specific point see also unido (2016): “low-income countries ... can overcome their economic marginalization by acquiring skills and knowledge to diversify their economic portfolio rather than by focusing on ‘what they do best’ ” (p. 78). It is worth observing that the reforms that were introduced after the abolition of the import substitution policies in Latin America steered politics in precisely the opposite direction, with the objective of increasing efficiency in existing sectors rather than developing new sectors, pursuing static comparative advantages (in this case, unskilled labour and natural resources). On this aspect see, in particular, Peres (2013) and the analyses on the modalities of inclusion of the Latin American economies within the gvcs contained in Hernandex et al. (2004, Chapter 2). However, the failure of this note pièapproach encouraged, in recent years, a return to more active and selective policies – albeit different from those adopted at the time of isi; for a review see Devlin and Moguillansky (2013). This point has probably implications also for some of the empirical results of this paper, as shown further on (infra, fig. 5).

²¹ See on this point Reinert (2007)

underdevelopment had to come from *external* demand. From this standpoint, the great opportunity arose from the ripple effects of what was called the second “great unbundling” that started the exploitation on a global scale of the so-called trade in tasks²².

In a very few words, the knocking down of barriers following the spread of multilateralism has linked together the most industrialized and the less industrialized economies in the world. As far as this simple fact made it possible to exploit the huge cost differentials, the conditions were created for a more or less extensive transfer of production stages – in general the more labour intensive steps – from the former to the latter. This phenomenon consisted in the transfer abroad of a part of domestic production. But it also took the form of the sheer development of activities already located abroad, whereby at a given point in time the expansion of the company started implementing almost exclusively in developing areas (active multinationalization).

Whatever its main form, through this type of cross-country diffusion of production activities, supply chains became fragmented on a global scale²³. On the whole the fragmentation of the supply chains at the global level has determined an unprecedented demand shock. The breakdown of (some) complex industrial processes into technologically interdependent, but separated production phases, was the channel through which many economies, that had not been capable of developing the technology required to accomplish the entire process, started to have the possibility of being involved in the production of specific *components*²⁴, thanks also to the lifting of barriers to commercial integration.

In this way the arrival of multinational companies or orders from abroad linked to specific production stages were the lever through which it was possible for emerging countries to gradually develop – starting by initially competing on prices – *specialized* economies or skills that grew in time through the unfolding of growing dynamic returns²⁵. In the words of the *Industrial Development Report*,

“Potentially, trade in tasks ... simplifies getting started. Instead of needing to acquire the entire range of skills necessary to produce a product all at once, manufacturing can start with specialization in tasks most suited to the skills available” (unido, 2009, p. xiii, emphasis added).

When measured in terms of the dynamics of the trade in intermediate products (Fig. 4),

²² See in particular Baldwin (2006, 2012 and 2014) on the former and UNIDO (2009), WTO - IDE-JETRO (2011) on the latter.

²³ The endless literature on Global Value Chains cannot be summarised here. Basic reference include among others Gereffi *et al.* (2005), Sturgeon (2008), Nolan *et al.* (2008), Cattaneo *et al.* (2010), Gereffi (2014).

²⁴ According to Stigler (1951), the first condition for this to happen, i.e. for the *division* of labour to start, is the separability of cost functions, which may present marked differences between different industries. As a result, trade in tasks is likely to affect more extensively some activities with respect to others.

²⁵ As pointed out above, the introduction of multinational companies within the context of developing economic systems is not at all a new phenomenon. The matter that counts here is the extent to which – unlike the past – the presence of multinational companies in emerging countries has encouraged or not the activation of endogenous industrial activities.

the degree of expansion achieved by the gvcs results, starting from the late 1980s, rapidly increasing. In absolute terms the increase – clearly much greater than for the other categories of commodities – appears to be exponential up until the crisis, and shows an evident decline in subsequent years. As a percentage of the world GDP, the trade dynamics of intermediate inputs rises vertically in the first half of the 1990s (in 1995 it is four times larger than in 1988), and then tapers off.

The occurrence of the crisis, from this standpoint, does not alter the general trend towards a gradual slowdown in their elasticity with respect to output²⁶.

3.2. Be that as it may, for the purposes of this paper it is important to note that the creation of the Global Value Chains (gvc) is not enough in and of itself to start a manufacturing development process on endogenous grounds. In fact, it is by no means obvious that the *tasks* acquired within an economy that has not developed yet would necessarily be such as to trigger a widening of the supply matrix. Indeed, the opposite may occur:

“Task-based production [can] potentially pull in the opposite direction, encouraging countries to specialize in a narrower range of industrial production. (...) If tasks are unsophisticated, they may fail to spur growth in the late industrializing countries that seek to use task-based production as an industrial development strategy.” (unido 2009, p. 19).

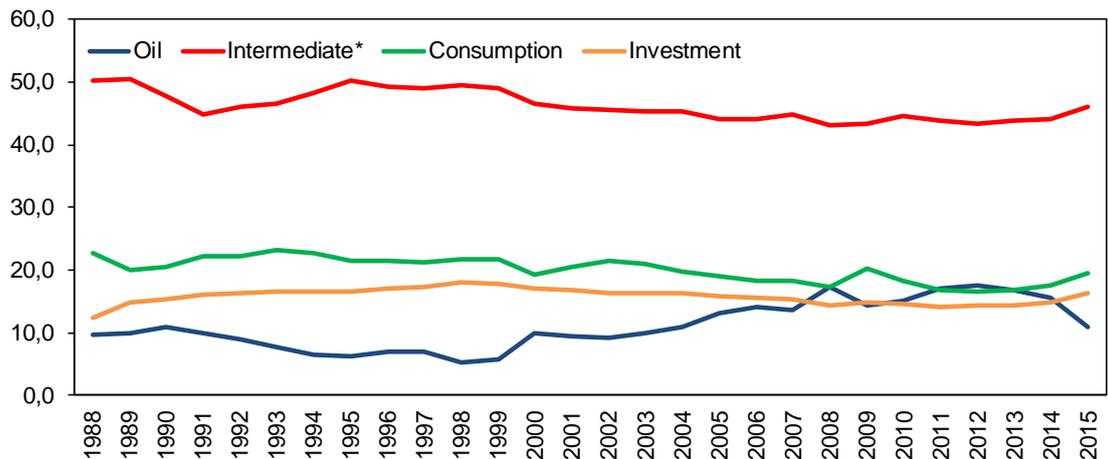
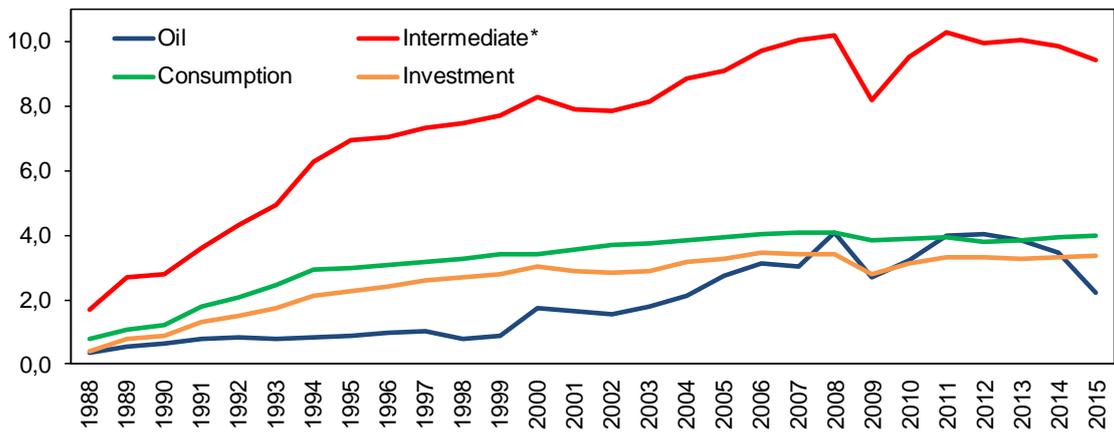
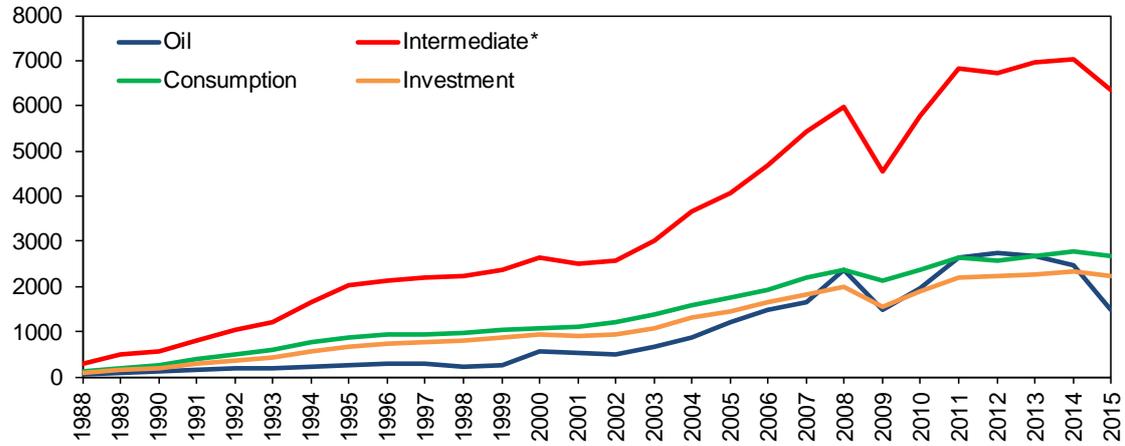
The point is that

“[d]eveloping countries ... [r]ather than having to build capabilities over the complete range of industrial activities ... can enter slices of gvcs (...). But if their activities remain limited to thin slices, they may become too specialized, with little impact on growth” (unido 2016, pp. 95-96).

²⁶ The same figure shows, however, that the trading of intermediate products, that accounts for about 50% of world trade throughout the time period being examined here, does not increase in terms of its share in the total trade of manufacturing goods – if anything, it partially shrinks in the years following the crisis. This means that the *relative* importance of intermediates did not change even in the phase when the trade in tasks was believed to be at its high (up until the crisis, trade in intermediates did not increase any more than the trade in final products). By expressing the imports of intermediates with M_i , total imports with M_t , and the gdp with Y , the M_i/Y ratio may be expressed as $(M_i/M_t) * (M_t/Y)$; given the trends observed in the figure, there derives that the increase in the weight of trade in intermediates is associated with a general increase in trade volume with respect to gdp.

Fig. 4 – World trade in goods, import by commodity class

(In sequence: billions of dollars, in % of the GDP, composition %)



* Net of oil.

Source: CSC elaborations on United Nations data

Once it has started, in order for the expansion of manufacturing to take on the form of an *endogenous* development process, it needs to be capable of triggering at the local level “*forward and backward linkages*” in the sense suggested by Hirschman (1958 and 1981):

“[D]evelopment is essentially the record of how one thing leads to another, and the linkages are that record. (...) [O]ngoing activities, because of their characteristics, push or, more modestly, invite some operators to take up new activities. (...) On the one hand, there are situations in which the same economic operators who are already engaged in the ongoing activity are impelled to undertake the new activity; this is ‘inside linkage’. On the other hand, the push ... might be carried on by indigenous economic operators. This is ‘outside linkage’.” (1981, quote from a reprint of Adelman (2013), pp. 169-170).

This may occur either through the direct action of companies external to the area that locate there (multinationals), or as an effect of market demand coming from the outside; but in both cases there needs to be a progressive interaction with the local economy ²⁷. This vision, which is very close to the idea of *cumulative causation* that we find in Myrdal (1957) and Kaldor (1981), and that – following Young (1928) – basically derives from Smith, attributes to some “ongoing activity” the task of activating around it forms of endogenous growth. Therefore, in order to create a process of endogenous development in the developing world there needs to be not only a productive activity, but also an activity that is capable of triggering other activities *through the market*.

According to Rodrik (2005, p. 10):

“The key point in this respect is that ... the dynamic that drives growth is not fundamentally linked to any notion of static comparative advantage; on the contrary, it ... leads some countries to gradually diversify their investments into a whole range of new activities. Thus, the most prosperous countries are those where new investments are being made in new areas, while the countries that have failed are those where this has not taken place”.

The matter is further complicated by the fact that while globalization allows for the cross-country transfer of manufacturing activities, it nevertheless acts in the direction of forcing the recipients to specialize; in other terms, it makes the success of new initiatives subject to the *rapid* acquisition of a comparative advantage.

As pointed out elsewhere²⁸, in a context of open markets (i.e. the opposite to the situation of infant-industry protection), the countries that take the path of industrialization must come to terms with global markets that are already structured, and market shares that are

²⁷ The multinationals as such do not necessarily activate an endogenous growth (if the United States were to actually “withdraw” all their companies, almost nothing would be left in Mexico). It is only through the activation of chains at the local level that *endogenous* development can be engendered; in this sense it is the market that would fuel it.

²⁸ See here Romano and Traù (2016), who in this regard offer a new critical discussion, at both the theoretical and empirical levels, of the scheme suggested by Imbs and Wacziarg (2003).

already in the hands of the incumbents. In other terms, the laggards who benefitted from unbundling in any case had less time available to them to exploit the learning curves (growing dynamic returns) of any given activity and to expand their supply matrix before it would be washed away by globalization. As they were compelled to seek competitive advantages *right from the beginning of their industrialization process*, the possibilities of diversifying their products were strongly restrained right from the start, thus determining a concentration by sector ahead of time (and, consequently, a phenomenon of “early de-industrialization”)²⁹.

Hence, in the absence of an adequate volume of domestic demand (i.e. unless the countries were very large, *infra*) the manufacturing development of the emerging economies in a context of strong commercial opening has been structurally restricted to an export-led strategy, leading to concentration in those areas where competitiveness was highest³⁰. *Insofar as there are no explicit policies designed to gradually build competitive advantages extended to a wider range of activities*, the supply matrix remains restricted.

Then what actually happened in the emerging economies during the globalization years? (In which way did the unbundling process and the creation of GVCs affect their development?).

3.3. In the perspective delineated so far, what counts is the extent to which an economic system succeeds in starting a process of growing articulation of its production structure from an initial production core (see among others Lall 2003, Rodrik 2005, Kaulich 2012, Hausmann *et al.* 2011), and, in particular, the extent to which this articulation is paralleled by the accumulation of knowledge, allowing competitiveness to consolidate on endogenous foundations.

The matter can be viewed according to the perspective suggested by Hausmann *et al.* (2011), arguing that the backbone of the development process is – in accordance with Smith – the multiplication of knowledge induced by the division of labour. In this scheme the most important force that generates learning is not so much the development of skills that already exist, but it is the creation – through investments – of new ones. In a context where demand rises, labour may continuously continue to divide, each time starting new forms of specialization and hence new knowledge. In conditions of open markets, the breadth of the supply matrix defines at each instant the range (the amount) of the knowledge which an economy can rely upon – as far as the activities it has developed are those which sustain competition on the domestic and/or on the foreign markets).

Yet in order for this to occur (and, more in general, in order for the forward and backward linkages to be developed) it is necessary that the starting tasks are not too elementary: for very

²⁹ On this see also the references contained in Romano and Traù (2016).

³⁰ For a developing country, in a context of strong opening up of markets, the existence of a global foreign demand defeats the domestic demand – for reasons of scale – and hence it defeats all the productions for which the country does not have a comparative advantage, which are not worthwhile developing. As a consequence, the greater the gap between the size of the domestic economy and the size of the global market in the phase when industrialization is taking off, the faster the attainment of an upper bound of the industrialization rate.

simple activities will not fuel a true division of labour, and hence will not trigger a learning process. In this perspective, therefore, the degree of articulation (“complexity”) of the production structure of a country is bound at each instant by the level of knowledge that it has been capable of accumulating up to that moment. The wider the range of supply, the greater the development potential³¹. The issue appears to be clearly stated in the same terms in the analyses of UNCTAD:

“[t]he accumulation of new knowledge helps raise productivity, including through the introduction of new products, processes and organizational forms of doing business, which become more important as manufacturing output begins to expand. such new knowledge supports further diversification of manufacturing activities, which in turn require a wider range of capabilities” (2016, p. 60).

In the instance of an export-led development – which is the type of development activated by the trade in task type – what counts is that

“the exporting sector should be able not only to strengthen and raise its own productivity, but also to generate positive linkages with the rest of the economy; [in ragione della] ... substantive difference between the narrow benefits of enclave production, and those derived from strong production, income and learning linkages” (pp. 99-100).

An implication of the picture traced thus far is that, in general, a greater degree of manufacturing diversification should correspond to a greater level of development³². The correlation between the degree of concentration (Gini) and per capita output level bears this out (fig. 5).

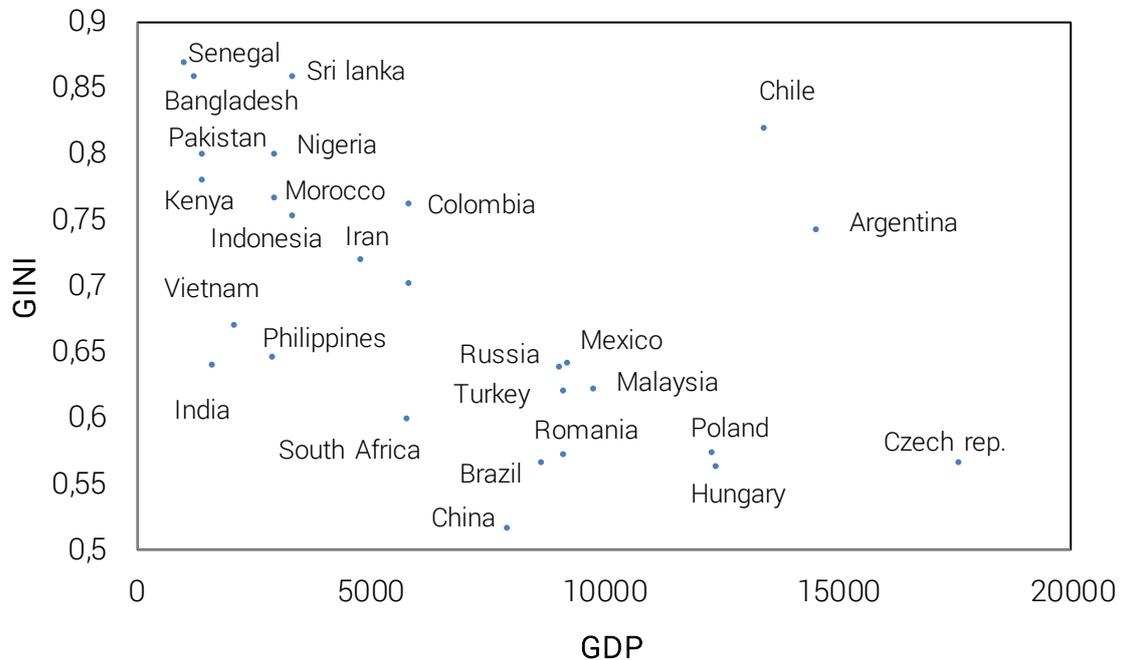
The scatter in the figure shows a direct relationship between the degree of diffusion of manufacturing activities and output, where, in the upper left-hand part of the diagram (low diversification and low manufacturing per capita output) there are the African Countries and the two less developed economies of Central Asia (Pakistan and Bangladesh), and in the lower right-hand side there are the East-European economies³³.

³¹ In Hausmann *et al.*, the articulation of the supply matrix is approximated by exports, that directly measure the competitive potential of a country as far as they represent the share of output that has *already* beaten international competitors in the various markets.

³² With reference to the scheme suggested by Imbs and Wacziarg (2003), it can be said that the analysis made below is restricted to considering the “left half” of the curve schematized by I&W, namely to the curve corresponding to the limited per capita income level of the emerging economies.

³³ Similar results are reported in the last *Annual Report* by UNIDO (2016, chapter 3).

Fig. 5 - Per capita GDP (horizontal axis) and sectoral concentration in manufacturing in terms of value added (Gini index), 2015, current prices



Source: elaboration on IHS-Markit data.

4. Multinationals and the control of the value chains

4.1. The development of the emerging world has been fuelled to a considerable extent also by the flow of direct investments from abroad. In particular, a considerable amount of the trading in intermediate inputs occurred through *intra-firm* exchanges, namely within the boundaries of multinational companies, and hence had an inherently "hierarchical" nature.

According to the evaluations made by UNCTAD (2013), in 2010 about 33% of international trade consisted of *intra-firm* exchanges; when considering the totality of exchanges that in any case involved the multinational companies in various forms (exchanges with other companies, contracts, licences, etc.) the share was estimated to rise to about 80%.

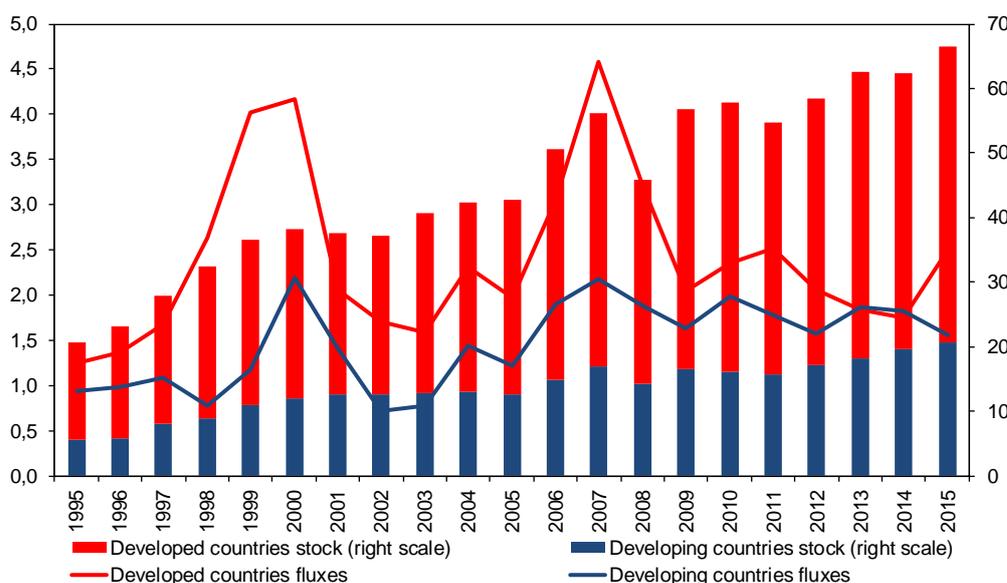
In quantitative terms, the profile of multinationalisation in the Globalisation Age is summarized in Fig. 6, showing the FDI world flows and stocks as a percentage of GDP. It appears that from the early 1980s to the present day the *dynamics* of the phenomenon strongly increased at first, and then it gradually declined. In particular after the hike in the second half of the 1990s (followed by the crisis linked to the explosion of the *dot.com* bubble in 2001), the FDI flows at first returned to the previous trend, but then, after the crisis, they were clearly sized down. The fall

after the crisis was stronger in the case of investments made by companies in the industrialized world, but – albeit attenuated – it is visible also for those from the emerging countries.

This change in course – often described as the “withdrawal” of the multinationals, such as to mark the return to a less interdependent world (and to investments that once again tended to be made mainly within national borders)³⁴ – does not appear to radically alter the degree of global interdependence: as to flows, FDI in 2015 were in any case globally twice the value recorded before the boom of the 1990s; as to stocks they were at least three times larger). The “withdrawal” sounds actually as an exaggeration.

The point is that a “less active” behaviour by the multinationals has been often claimed to be the signal of a new trend in the industrial world, leading towards less global interdependence. From this standpoint it has been strongly emphasised the existence of a trend towards the re-shoring of previously outsourced (offshored) activities; such trend has been deemed to bring about a new focus on production within the boundaries of advanced economies³⁵.

Fig. 6 - Outward FDIs as a percentage of GDP



Source: CSC elaborations on UNCTAD data.

³⁴ See the recent *survey* by the Economist on this issue (2017).

³⁵ The matter has been extensively dealt with in the periodical press (see The Economist 2013), but it has also been analysed in the scientific literature: among others see Tavassoli (2103), Gray *et al.* (2103), Ellram *et al.* (2013), and, for a general overview, Fracocchi *et al.* (2104). An evaluation of the phenomenon is also contained in UNCTAD (2013). In most cases, reintegration refers to both the “hierarchical” and the “market” components: “The term is agnostic as to whether the manufacturing being brought home occurred in a wholly owned facility in an offshore location or in the factory of an offshore supplier. (...) Reshoring, as such, is fundamentally concerned with *where* manufacturing activities are to be performed, independent of *who* is performing the manufacturing activities in question” (Gray *et al.* 2013 p. 28, Authors’ italics). This means that in-house manufacturing abroad could be replaced by domestic in-house manufacturing (hierarchy-hierarchy) or by a domestic supplier (hierarchy-market); and a supplier abroad could be replaced by domestic national manufacturing (market-hierarchy) or by a domestic supplier (market-market).

A variety of reasons have been put forward at the theoretical level to explain the existence of *re-shoring* (also referred to as *back-shoring*); but conceptually the aspects involved are substantially two: the first is the idea that “going back” means in any case acknowledging a previous strategic error; the second is that firms’ choices depend on the context, and when the context changes, also strategies need to change³⁶. At the empirical level, the most frequently evoked problems relate to the management of quality, flexibility and efficiency of the local supply chains. Data about this aspect is still rather fragmented (also due to the fact that the measurement unit is often difficult to identify, as the phenomenon mostly relates to *parts* of companies or of supply chains). The reviews presented by Ellram et al. (2013) and Fratocchi et al. (2014) show results that differ depending on the countries, the data sets, and the time periods considered; but it is evident that the United States are the country where the phenomenon took on the strongest relative intensity (or in any case greatest visibility), both as a result of the breadth and duration of the previous offshoring activity and for the very emphasis given to the issue of the re-industrialization of the country in the political agenda in post-crisis years.

In the American context, considerable interest was shown for the subject also by economic research, in particular as to the idea that the extended tendency to the offshoring of manufacturing activities by the large American companies has ended up eroding all the specialized skills at home (*industrial commons*)³⁷. According to Pisano and Shih (2012, pp. 15-16),

“[t]he industrial commons perspective suggests that a decline of competitiveness of firms in one sector can have implications for the competitiveness of firms in another. Industries and the suppliers of capabilities to the industries need each other. (...) Even worse, the loss of a commons may cut off future opportunities for the emergence of new innovative sectors if they require close access to the same capabilities”.

In practice, the sustainability of the spatial separation of manufacturing activities from the “brain” of the firm (R&D, innovation, commercial strategies) – even if it was boldly asserted for many years – is not much more than a claim. An efficient interaction between the different segments of a company requires a certain degree of physical proximity. It is for this very reason that, in the meantime, the ties between the “thinking” and the “operational” parts of the company ended up being shifted to where the latter was actually located, fuelling the development of complex manufacturing systems *in the emerging world*. And indeed this very phenomenon is a

³⁶ In order for the second proposition to hold – and not the former – the relative conditions in the host countries must have changed with respect to the offshoring phase. Furthermore, in many cases divestiture linked to the exhaustion of the relative advantage does not necessarily entail any sorts of backshoring, but may actually turn into new investments abroad in *other* areas still deemed to be convenient (see UNCTAD 2013).

³⁷ “Today’s industrial commons consist of a web of technological know-how, operational capabilities, and specialized skills that are embedded in the workforce, competitors, suppliers, customers, cooperative R&D ventures, and universities and often support multiple industrial sectors” (Pisano and Shih, 2012, p. 13).

powerful obstacle today to the mere “return” home of the manufacturing activities that, for such a long time, were delegated to the developing economies, for it is in those economies that supply chains were gradually built up. In this sense the possibility of efficiently reconstituting them back home in a reasonable time lapse is not at all a given³⁸.

On the whole, there is undoubtedly evidence of a slowdown in direct investments abroad and, correspondingly, also more or less diffused cases of a return home of some productions. Yet the slowdown in multinationalisation must be considered to be largely physiological owing to the out-of-scale extent that offshoring had assumed before (at least along the two decades prior to the crisis). From this standpoint, the bursting onto the global scene of the East European economies, China, India and the other economies of the Asian area (what has been defined as the “great doubling” of the labour market) represents an unprecedented one-off event, encouraging an exceptionally intense race to offshoring by the Western industrialized economies³⁹.

That phenomenon is to be considered virtually over and, if anything, destined to be increasingly counterbalanced by the new IDE flows *coming from* the new economies (suffice it to mention the expansion of the China). From this point of view the dynamics observed in recent times could merely be a return to a more “normal” situation.

4.2. The idea that the different functions of a company represent, as a whole, a bundle of resources that is the result of a *collective* process of knowledge build-up – so that the physical separation of some of them from the others thwarts the overall development in the degree of knowledge of the firm as such – has deep roots and finds its natural theoretical foundation in the so-called *capability view*⁴⁰.

This viewpoint, whose origin can essentially be traced back to Penrose, has, however, a more general implication that concerns the very structure of the international organization of production and trade. The key point here is that in an evolutionary perspective the firm is always, in any case, an *active* agent. This means that whatever its orientation – whether it be towards offshoring or backshoring – as far as multinationalisation has become a mass phenomenon it is

³⁸ In general the issue appears blurred by the overlapping of economic problems over political questions (the strongest opposition against the proclamations of the new American presidency on the issue of bringing home the manufacturing activities located abroad seem to come from the top management of many multinational companies, being aware of the huge problems it involves).

³⁹ The expression *great doubling* is due to Freeman (2007). Whereas this type of investment was initially based on the advantages offered by huge cost differentials, in many cases its relative profitability gradually waned. With reference to the European area in the light suggested by Freeman see also Eurofound (2016). Of course, the reasons for the tumultuous growth of the IDE by the industrial countries were also linked to the possibility of expanding the market size (that is to the promise to sell the same things to a much higher number of consumers).

⁴⁰ The analysis by Pisano quoted above is explicitly based on this vision (see for example Teece *et al.* 2000). The subject is boundless; apart from the recent and less recent developments, basic reference needs to be made at least to Richardson (1972), to whom we owe the introduction of the term *capability*, and then Nelson and Winter (1982), Wernerfelt (1984 and 1995), Prahalad and Hamel (1990), Chandler (1992), and above all Penrose (1980 [1959]).

the *individual strategies* that explain the changes in industrial structure, not the other way round (“the primary causal link runs from the conduct of firms to market structure rather than vice versa”, Cantwell 2000, p. 15)⁴¹.

On the other hand, the fact that about 80% of world trade sees the involvement in some form of a multinational (and that a share close to 50% of this trade occurs between distinct firms) shows that the cross-border extension of the activities of businesses does not consist merely of transferring “pieces” of hierarchy abroad, but also involves the management of trade networks among firms that operate through the market. It can be observed that it is precisely the abovementioned logic of unbundling that has contributed in time to the expansion on a worldwide scale of inter-firm exchanges (even if under the substantial control of the multinational companies themselves).

The literature has attracted attention to this phenomenon ever since the mid-1990s:

“[N]ew strategies of complex integration ... are at the centre of an emerging system of integrated international production. Although such networks are indeed primarily under the overall governance of tncs, this does not necessarily mean that governance is implemented through direct ownership of productive assets. That is obvious true of intra-firm networks but the governance of inter-firm networks is based upon the power and ability to coordinate geographically and organizationally dispersed activities performed by independent and quasi-independent firms” (Kozul-Wright 1995, p. 153).

It was precisely the spread of value chains at the global scale that ended up determining new and different levels of governance of transactions along the vertical axis of the chains. In the early 21st century, the articulation of the phenomenon had already reached such an extent that it was possible to provide a taxonomy of the different types of such relationships. According to the framework suggested by Gereffi *et al.* (2005), three intermediate levels between the market and the hierarchy can be identified⁴².

The emergence within gvcs of firms taking the role of “sub-system integrators” determines the emergence at an intermediate level in the chain of new forms of market power. This means that some firms become able to affect the decisions of other companies at the production level far beyond the boundaries of mere ownership (control of assets):

⁴¹ For a more general analysis of the conduct of the multinational company according to Penrose’s views, see in particular Kogut and Zander (1993) and the contributions contained in a book edited by Pitelis and Sugden (2000). This point refers directly also to the analysis by Hymer (1976), whose position is perfectly in line with the vision according to which firms (in this case multinational ones) behave like an agent who – by seeking to gain market power – shapes its environment (“[f]irms are by no means equal in their ability to operate in an industry. Certain firms have considerable advantages in particular activities. The possession of these advantages may cause them to have extensive international operations of one kind or another”, p. 41).

⁴² *Modular value chains* (suppliers follow the specifications laid down by the clients but are responsible for the process technology); *Relational value chains* (the interaction is complex and requires mutual dependence and a high degree of specificity of the assets); *Captive value chains* (in practice suppliers depend on clients who are much bigger than them).

"[i]f we define the firm not by the entity that is the legal owner, but, rather, by the sphere over which conscious coordination of resource allocation takes place, then, far from becoming 'hollowed out' and much smaller in scope, ... [a]s the large firm has 'disintegrated', so has the extent of conscious coordination over the surrounding value chain increased. In a wide range of business activities, the organisation of the value chain has developed into a comprehensively planned and coordinated activity" (Nolan et al., 2008, p. 43).

In this sense the trade system, as it has evolved over the past fifteen years (or more), has increasingly been influenced by the strategic decisions taken by (multinational) enterprises, much more than by the "free choices" expressed on the demand side⁴³. Put in other words, as value chains have become global, the way they have been organising has increasingly shaped the structure of trade patterns. The diffusion of production on a global scale has had the effect of *directly* influencing the evolution of trade flows, making a significant portion of world trade a function not of evolution in the demand for final goods (whether consumer or investment products), but rather of the very logic underlying the organisation of production. This means that, at the start of the new millennium, the reasons underlying industrial development, more than consumers preferences, have defined the profile of world trade.

On conceptual grounds, in such a perspective it is not any more trade theory which can explain the whole of its dynamics, but a theory of the firm capable of explaining the strategic decisions implemented by businesses (often influenced at the institutional level) that decide where and what to produce, in a framework where

"global market engagement is reconceptualized from a passive process involving the reaction of independent actors to market signals, as in international trade theories ..., to a set of industrial transformations constructed within system-wide dynamics of coordination and control by economic and non-economic actors" (Neilson et al., 2014, p. 1).

4.3. This said, what is in fact the current structure of market exchanges emerging at the global level from the considerations made so far? And, in particular, what shape are the bonds holding together the different economic systems taking on?

One possible answer to this question may be drawn using a clustering algorithm for identifying groups of countries between which the relative intensity of exchanges is more significant. This algorithm comes from the GEPHI software; the analysis is applied to exports flows above the 0.01% threshold of global exchanges. The calculation was performed separately on consumer goods, investment and intermediate products (oil refinery products excluded) at three different times (2000, 2007, 2015). The results – that refer to 2015 only for reasons of

⁴³ The matter may be considered also according to the perspective suggested by Pitelis (1991), who starts from Hymer to argue that also in the case of exchanges between enterprises that take place on the market, there is always an asymmetrical relationship between demand and supply, and the problem lies simply in making the distinction between *market* and *non-market* hierarchies.

space– are presented in charts 7a, 7b e 7c. In the charts, the diameter of the circles for single countries measures their market share, while the colour links countries belonging to the same cluster. The higher the degree to which a country is linked to the rest of the world, the more central its position within the graph.

There are clear differences between three different groupings of industries: in composition (number of countries belonging to each cluster), position (centrality in the chart) and as to compactness (distance of single countries from the centre of the cluster).

For consumer goods the graph shows, in the top left-hand corner, the existence of a European cluster revolving around Germany. Outside this group distance seems to be relatively less important: many Asian countries, not just emerging ones (Japan and Korea are also in their midst), are in the same cluster which includes the NAFTA area. The same cluster also includes some minor economies of Central and South America, while Brazil and Argentina are in the group, dominated by China, that includes India and Pakistan.

The graph referring to investments goods shows some more relevance of proximity for spatial linkages. On the one hand, the block of European countries is still indeed clearly identifiable; on the other, there is a clearer distinction between an Asian block, which includes all the most important countries in the area, and the one grouping together the NAFTA area, to which also the main South American economies are connected.

The spatial characterisation of trade links is even more apparent in the case of intermediate products, where more direct connections between different economic areas within the value chains are visible. In this case the chart can be divided into three parts: Europe on the left side, with Germany still at the centre; the NAFTA area in the middle; and on the right side the Asian area, with China at the centre and large enough to include – unlike the case of investment products – the South American economies.

Hence: the current pattern of global commercial exchanges has been strongly affected by the fragmentation of IVCs that has developed in the course of the Globalisation Age, paralleled by the multi-nationalisation of businesses. These phenomena have all together contributed to shaping the structure of trade according to an *industrial*, and not merely a commercial logic. The high level of productive and commercial integration that can be observed in the data has, in this sense, resulted from the breaking down of trade barriers and the role that international institutions (*maxime* the WTO) played in encouraging the liberalisation of trade and capital movements. Precisely for the reasons underpinning it, the degree of international openness that has been achieved, in terms of both trade and FDI, has now taken on a structural character and cannot easily be dismantled through re-shoring mechanisms or more defensive trade policies.

From this standpoint, the abovementioned emergence of a more restrictive orientation in trade policies has not in fact reduced the degree of openness of the economic systems, but rather it has re-orientated them, encouraging the consolidation of links that have become more

structured on a bilateral basis. What has emerged is a profile of the trade pattern that in the case of consumer goods appears to reflect a commercial logic (and in fact does present a more “global” aspect), while in the case of investments, and above all intermediate products, it suggests the existence of strong links between production systems at a continental level – highlighting, even in the presence of a trade network that is in any case global, the emergence of three great areas that are strongly integrated internally (North America, Europe, East Asia). The overall picture is that of a gradual process of regionalisation of exchanges, where the network is dominated by “centres” (hubs), which are strongly influenced by determinants of a productive nature.

This same structure can also be viewed as a representation of the *selective* emergence of the economies that had lagged behind in the years of globalisation. Successfully entering into the international trade system – and, more than this, *using this as a lever* for manufacturing development – has been possible only for some, and it has not happened by chance.

On the other hand the gvcs’ structure has itself undergone, in recent years, significant changes which, in some emerging countries, have resulted in upgrading processes that have modified in many cases the power relations among firms, transforming some suppliers into evolved partners and driving towards a greater concentration in intermediate markets (Neilson *et al.* 2014, Gereffi 2014):

“In this new environment, the extreme asymmetries of power in favor of lead firms that characterized the buyer-driven and producer-driven chains are shifting in many cases toward the top manufacturers located in emerging economies such as China, India, Brazil and Turkey. These countries have well-organized domestic supply bases and they have moved up the value chain to incorporate key input suppliers, as well as pre-production (design, r&d and purchasing) and post-production (logistics, marketing and branding) services” (Gereffi 2014, p. 15).

By the way, among the consequences of this process there is the gradual loss of relative competitiveness of the developed world – of its ability to extract value from productive activities. But these trends are also dividing economic systems between those that are capable of achieving this move and those that are not, and whose manufacturing is destined to stay concentrated around the specialisation already acquired through trade openness.

Fig. 8a – Network of market exchanges, 2015, consumer goods

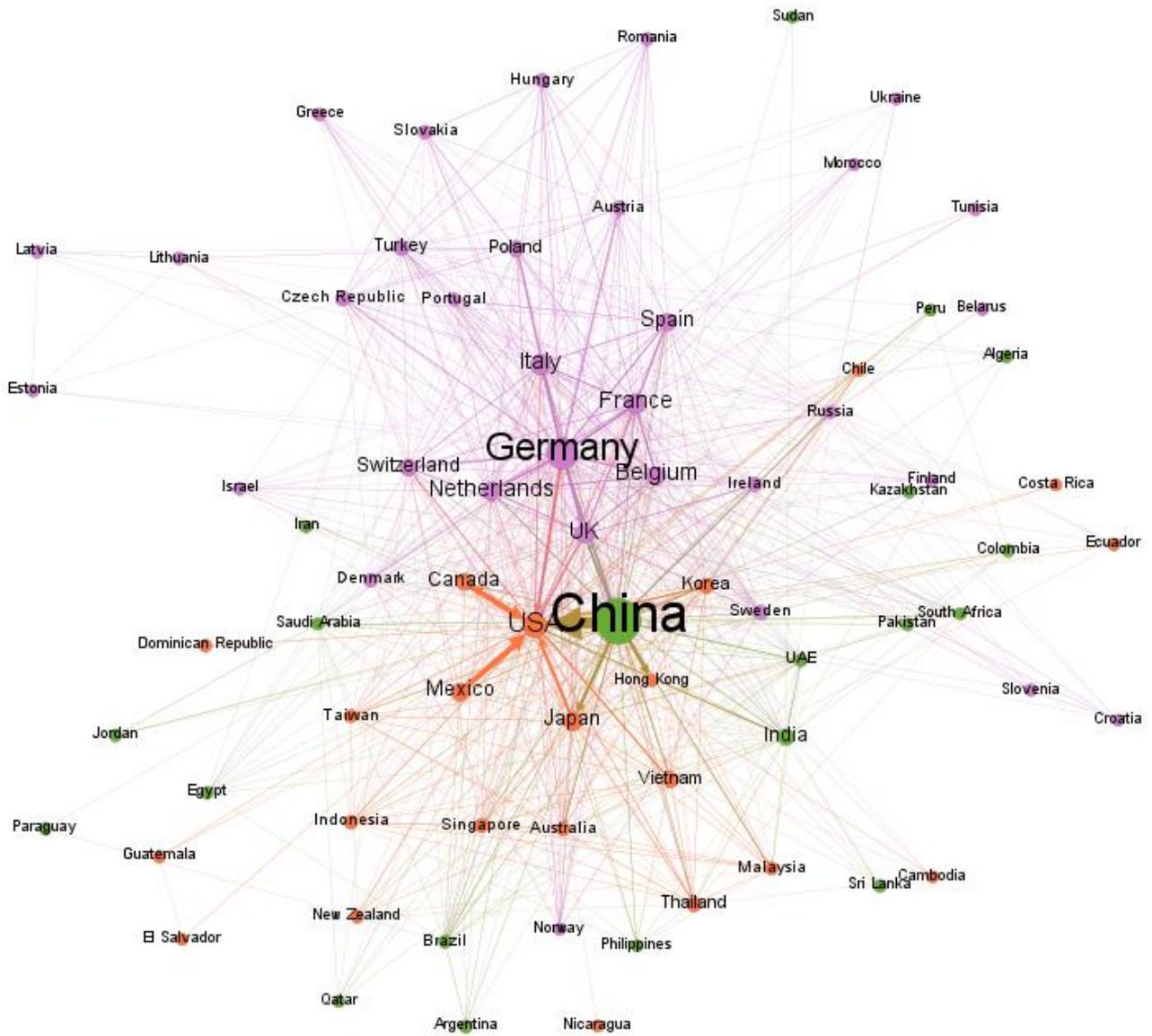
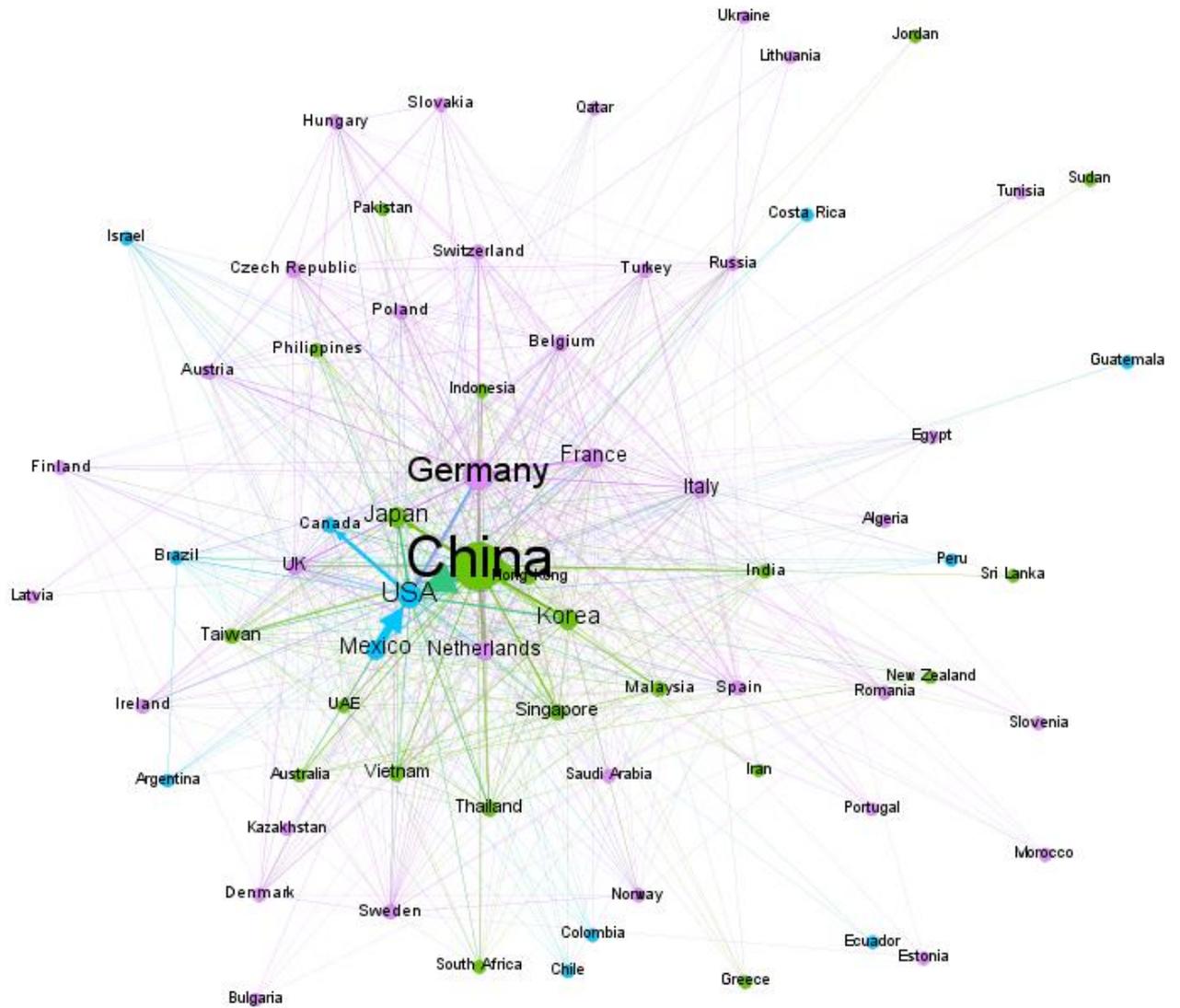


Fig. 8b – Network of market exchanges, 2015, investment products



6. The crisis

6.1. Aside from its immediate implications, which were the object of intense discussions right from its onset, over time the crisis took on its own physiognomy, making less and less relevant an interpretation of what was happening in a business cycle perspective and gradually hardening into a “state of affairs” that appears to have become a “new normal”. Compared to assessments made on the spur of the moment, more recent ones incorporate a greater awareness of the *structural* conditions that accompanied the onset of the crisis. From this point of view it is stressed the continuity between the time before and after, claiming that the new context reflects factors that preceded rather than followed the crisis itself⁴⁴.

The starting point should be the collapse in demand in some advanced economies that followed the long-lasting expansion of the 1990s and early 2000s, driven by a series of speculative bubbles (dot.com, housing) that for a long time had kept consumption at an exceptionally high level and, at the same, fuelled the consolidation of huge (trade and fiscal) deficits. The crisis came from the financial side (from the collapse of the American subprime mortgage bubble to the Lehman Brothers’ bankruptcy and the global collapse in the supply of credit) and caused – through the consequences of the contraction in consumer credit and the negative wealth effect brought about by the crisis in the real estate sector – a vertical drop in household consumption and demand in the building sector (fuelled till then by an unprecedented expansion of liquidity) and, consequently, in investment demand:

“It is generally agreed that difficulties associated with the housing segment of the us house property market were the immediate cause of the crisis (...). Complex financial instruments that incorporated subprime house mortgages lost their value as the housing bubble burst following ten years of continuous price rises based on expectations of a continuation of such increases. (...) In brief, house prices had risen because interest rates were low and credit was easily available, and prices were expected to continue to increase, much as in the case of the classic tulip mania and bubble in the early 17th century when, at its peak, the price of a tulip bulb Holland was equivalent to that of a three-story town house” (Singh and Zammit 2010, pp. 1-2).

In the presence of full-fledged global *supply chains*, the collapse in final consumption and investment demand also instantly blocked the world trade in intermediate goods – that had contributed to driving global exchanges so high throughout the preceding phase of development⁴⁵. The rise in import content per unit of output (in income elasticity) from this

⁴⁴ For a more comprehensive overview of the subject see Singh and Zammit (2010) and the references therein. For a fairly detailed reconstruction of the crisis mechanism see also European Commission (2009).

⁴⁵ “Hence, the strong collapse in exports in the recent months is at least partly driven by the same forces that allowed global trade to expand much faster than global GDP in the last two decades, i.e. global production networks” (Godart *et al.*,

standpoint entailed a larger contraction in trade than GDP. The point is that, after the initial recovery that immediately followed the crisis (again see fig. 4), elasticity remained low over the following years and translated into the discontinuity with the pre-crisis period that now appears to have become structural⁴⁶.

Recent studies have attributed this discontinuity to the rise of defensive national attitudes, in open contrast with the WC logic, leading to an increase in trade barriers and hindering world trade dynamics⁴⁷. According to UNCTAD (2014) assessments, however, “there is little evidence that tariff changes explain the prolonged sluggishness of global trade” (p. 18). And on the other hand, the *level* of tariffs, regardless of their dynamics, globally “has remained considerably and constantly below the corresponding level of the most favoured nation tariffs (p. 19)”⁴⁸.

Indeed, the orientation towards a higher degree of domestic market protection may also be expressed through a series of non-tariff measures, that undoubtedly have increased⁴⁹. Yet this relates to mainly qualitative measures, introduced by different countries and difficult to compare, the actual impact of which is in any event hard to assess, if not according to subjective criteria. On the whole, it is in any case hard to imagine that the “new protectionism” could actually create difficulties in the operation of supply chains that have become so strongly structured at cross-country level.

6.2. Whatever the effects of the recent rise of a “neo-protectionist” orientation at regulatory level, the current lower intensity of trade flows appears to be linked also to the structural changes that had characterised the years that preceded the crisis. In this sense, the slowdown can be considered to be, at least partly, *endogenous* to the logic of manufacturing development in the course of the Globalisation Age.

Here there are two relevant issues. The first one refers to the transfer of very large portions of world production to the emerging world, through which the rise in consumer demand in the “developed” world has been managed. From this point of view, localisation in areas characterised by costs that were (initially) one order of magnitude lower than those in the industrialised West (directly) favoured imports of *finished* products manufactured in the Third World – pushing down their prices. But at the same time it also (indirectly) provided incentives to seek to reduce the cost of products manufactured in the *advanced* economies through the purchase of imported *intermediate* inputs. In this sense,

2009, p. 123). On this point see also Escaith (2009), Milberg and Winkler (2010).

⁴⁶ In the twenty years that preceded the crisis world trade’s output elasticity was about 2.4%, and it dropped in the following years to about 1% (see Centro Studi Confindustria 2016).

⁴⁷ See for example Haugh et al. (2106).

⁴⁸ This means that the average tariffs actually applied globally remained between 1995 and 2014 systematically below the tariffs “agreed” with the most favoured nations.

⁴⁹ See in this regard the Global Trade Alert periodical updates (www.globaltradealert.org).

"[a]s lead firms headquartered in the global North ruthlessly relocated upstream activities to lower cost production sites in the global South, they manufactured the global conditions of debt and imbalance that ... lay at the heart of recent global economic turmoil" (Neilson et al. 2014, p. 4).

The second issue refers to the out-of-scale ("*aberrant*"⁵⁰) level of the consumer boom starting from the '90s that this "solution to the production problem" – together with a practically unlimited supply of liquidity – fuelled in advanced countries, and that could not but be destined to peter out in the presence of large (commercial and budget) deficits, also due to the impossibility to use public intervention to support aggregate demand in the long term (due to obvious solvency problems).

The combined outcome of these two issues is lower demand on the part of the developed world for manufactured production from the emerging world – which in turn in the meantime had grown considerably. Potentially, this situation provides some room for a rebalancing of supply from the emerging world (and simultaneously of the trade imbalances), reducing the export led vocation that has accompanied its development and orientating greater volumes of resources, compared to the past, towards domestic demand.

In actual fact, this is exactly what appears to have happened in China, where, after decades in which consumption has been reduced in favour of capital accumulation, between 2006 and 2015 the Chinese manufacturing industry's propensity to export (exports as a percentage of production) dropped from 35 to 13%. At the same time, import penetration (imports in relation to apparent domestic demand) also dropped from 22.6 to 8.3% (chart 8a and 8b), i.e. imported inputs have been replaced by inputs produced domestically. The sum of the two outlines a situation where development begins gradually to move away from an export led logic and behaviour that is typical of economies of (very) large size begins to gain ground: where international trade weighs relatively little because of the existence of considerable room for growth of domestic supply.

⁵⁰ On this particular point see Kaplinsk and Farooki (2010).

Fig. 8a - Exports in % of manufacturing production (current prices)

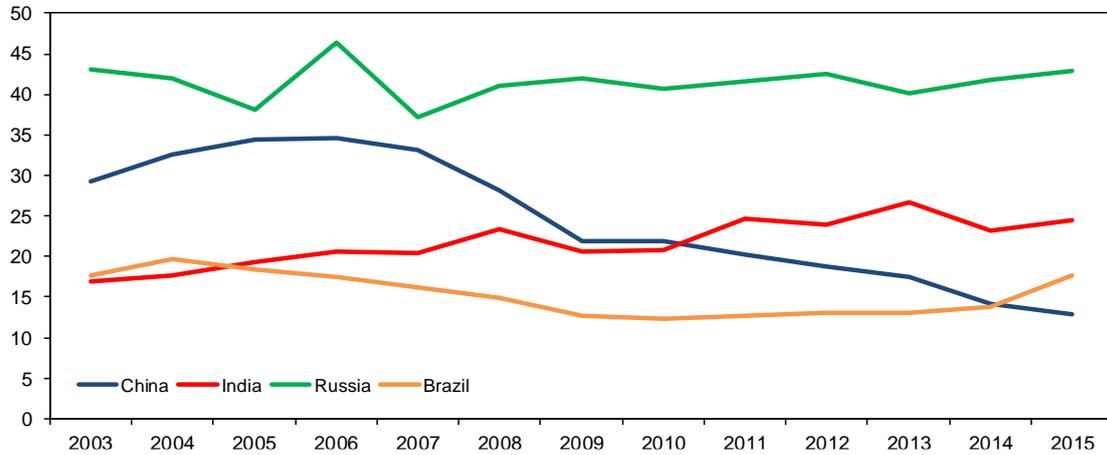
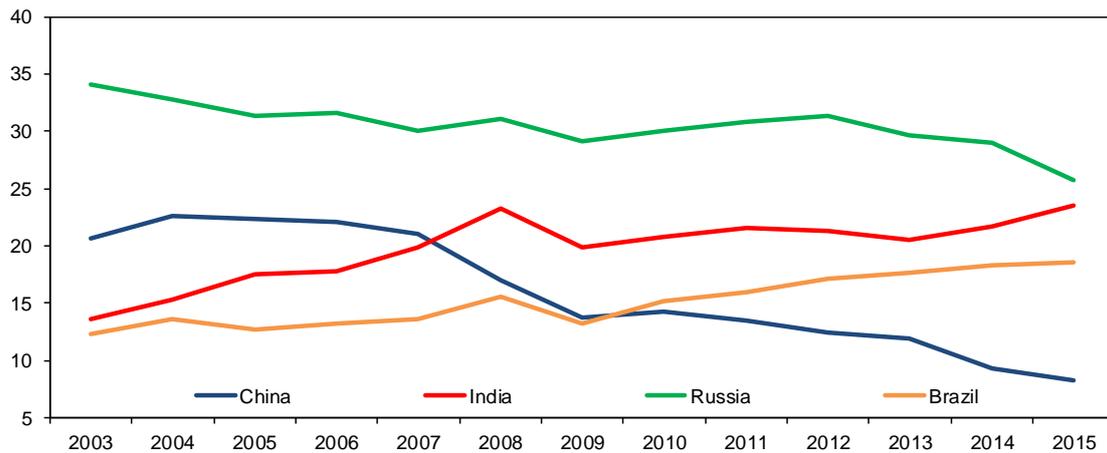


Chart 8b - Imports in % of apparent domestic manufacturing demand (current prices)



Source: CSC elaborations on HIS-MARKIT data.

As the charts themselves show, China's economic behaviour seems in any event to be basically anomalous if compared to the other great emerging economies⁵¹; the reasons for this are to be found in her achievement of a quite higher level of industrialisation with respect to other BRICS, which can ensure that an increasing amount of domestic demand can actually be met by

⁵¹ See on this point also UNCTAD (2016, chapter 1), which shows that in the course of the crisis overall dependence on Chinese exports was considerably reduced, and points out that this did not apply to any other emerging country. This is an important point because – as shown in WTO – IDE-JETRO (2011, chapter 7), the competitiveness of Chinese exports was not in the past linked only to low production costs, but also to complex imported inputs (not only from inside the Asian area).

internal production⁵². But this is also linked to the very existence of strong domestic demand, fuelled by the GDP growth that followed manufacturing development.

In this regard, it is worth mentioning that the different behaviour of the other great economies considered here (and more generally of those that have persistently lagged behind in their development) compared to China is to be considered at least partly endogenous: in the sense that China's emergence as a producer is somewhat disruptive not only in relation to industrialised economies' productions, as is often said, but also to developing ones⁵³.

In this case, what matters is not the pace, albeit exceptionally fast, of growth – that already in the past had characterised other economies, in particular in the Asian area – but the *scale* of manufacturing activities, which is unprecedented. As already mentioned, other economies in the Asian context had already in the past recorded growth rates comparable to China's, but “[t]ogether, Japan and Korea never exceeded 5 per cent of the global population. In 2008, China alone accounted for 20 per cent of global population, and together with India, for almost 37 per cent of the global total” (Kapliski and Farooki 2010, p. 138). From this point of view, even the (unavoidable) slowdown in the pace of China's growth does not alter the problem: a 5% annual growth rate in an economy with a GDP of 11 thousand billion dollars traces a situation where it is as if *every year* a country the economic size of Argentina were to enter into the world system⁵⁴.

6.3. The slowdown in demand in the developed world takes on a more radical meaning if viewed in terms of a “re-entry” into a pathway of *secular stagnation*. The matter has been explicitly raised on a number of occasions by Summers (2015), with an open reference to Hansen (1939), and is widely – and problematically – addressed in a recent collection of works (Teulings and Baldwin 2014). The reasons this work suggests for supporting the hypothesis of stagnation⁵⁵ take into account both the demand and the supply side and can be briefly summarised as follows: *i*) zero nominal interest rates (expected along a fairly long time span) entail the persistence of an under-employment equilibrium: if not even rates equal to zero are enough to re-

⁵² In 2015 the manufacturing shares of GDP for China, India, Russia and Brazil were respectively 29.3, 17.3, 14.6 and 9.7 per cent. As to the reasons for the differences in intensity of the Chinese industrialisation process compared to that of the other great economies considered here, see, as regards Russia and Brazil, the remarks provided above (section 1). As to the slowness of India manufacturing development (and the limited rate of industrialisation it reached, which led to talk of early de-industrialisation), see Kambhampati's recent paper (2016), Basu and Maertens (2007) and above all Dasgupta and Singh (2005) and Singh (2009), who underline that during the mid-90s the growth pattern had begun to diverge from the one set out by Kuznets, showing an exceptionally strong expansion – for that level of development – of the services' share (arguing that this may be an *asset* worth exploiting through a targeted industrial policy). The variability in the behaviour of these countries in recent years highlights the fact that the BRIC category nowadays appears as having vanished into thin air.

⁵³ See for instance, on this specific point, with reference to the Latin American context, Jenkins *et al.* (2008). The problem arises in connection with both direct (export/import) and indirect competition (on third markets), and also includes the effects on industrial development of the fact the FDI's from the industrialised world are “diverted” from other areas to China.

⁵⁴ In 2015 Chinese GDP amounted to 11,008 billion dollars, Argentina's to 583 (World Bank, *World Development Indicators*).

⁵⁵ See in particular the essays by Summers himself, Gordon, Krugman and (in milder terms) Eichengreen.

create full employment, the liquidity trap becomes the new normal; *ii*) in demographic terms, the exit of baby-boomers from the labour market, that has been accelerating over the past decade, and more generally the population's low growth rate entail a drop in aggregate demand (which is Hansen's theory); *iii*) the impact that the advent of mass schooling has had on productivity in Western countries as of the 1960s – regardless of its *slowdown* – needs to be considered as a no longer duplicable one-off; *iv*) the move towards a polarisation of incomes, that globalisation has contributed to accentuating, has brought about a rarefaction in the ranks of the *middle-class* and exercised a negative impact on final demand levels, *structurally* lowering the propensity to consume⁵⁶; *v*) public debt in many Western economies cannot be increased and makes it impossible to make use of public demand.

It may be observed that all these factors *do not take into account* – as Gordon himself points out – considerations relating to technological developments, that generally provide the grounds for the arguments of “optimists”: in the sense that – even with technological innovations taking place at a regular and not necessarily decreasing pace – their action may be important. Even more radically, it might be argued that what needs to be explained is not the current slowdown, but rather the exceptional growth rate that preceded it: as observed in relation to the United States (and similarly to what can be stated about other great western economies),

“For decades, macroeconomists struggled to understand the post-1970 productivity growth slowdown. But in fact our entire generation has been asking the wrong question. Instead of wondering why there was a productivity growth slowdown after 1972, we should have asked: ‘Can we explain the productivity miracle that occurred in the us economy between 1920 and 1970?’ ” (Gordon 2014, p. 53).

In this regard, the entire problem could be reversed: what would the pace of growth have been during the 20th century without World War II, the baby boom, the massive investments made “for creating modern suburbia”, the role of the State? In this perspective, no one can exclude that other future events of an exogenous nature (currently impossible to determine) might have a positive influence on the pace of growth in coming years, but no one can state that this *must* happen either: according to information available *now*, the chances appear to be relatively low.

7. A few (very preliminary) final considerations

The *Globalisation Age* coincided with the development of manufacturing expanding beyond the G7's borders. This development, however, involved a relatively limited group of

⁵⁶ The emergence of growing income inequality within the advanced economies has become so evident that it has deserved an explicit study in a very recent Outlook by the IMF, an institution that has traditionally been very supportive of the merits of globalisation (IMF 2017, Chapter 3).

countries and, in any event, left out most of the economies that used to be described as *underdeveloped* (and today are rather nonchalantly defined as *developing*).

The liberalisation of trade and capital movements played an important role in encouraging the transfer of manufacturing phases from the North to the South of the world, including through so-called *trade in tasks* and the globalisation of value chains new countries within the perimeter of the industrial world. This process was considerably speeded up by the “unfreezing” of large economic systems that still in early 1990s were sealed within a parallel world, outside of the area of market exchanges. Within an exceptionally narrow period of time (little over a decade, from Deng’s launch of the “four modernisations” in 1978 to the re-entry of the main South American economies into the area of representative democracy to the “fall of the Wall”), *new economic areas* (and populations) *simultaneously* came to be part of the global world, alongside other lagging economies already included in the trade system. The outcome was a one-off event, unprecedented in industrial history, that opened up to the already “emerged” world a new labour market characterised by an unlimited availability of labour at a very low cost.

This new order, that outlines a situation that is very similar to the one described in Lewis-Kindleberger’s stylised model (extended to the global level)⁵⁷, has made it possible – *wherever some manufacturing know-how was already available* – to launch an industrialisation process triggered from the outside – without, for a long time, any tension on prices.

But at the same time the globalisation logic itself (that did indeed encourage this launch through trade liberalisation) held back the spread of manufacturing to a large range of activities, making possession of a comparative advantage essential. In this respect, the idea that opening up international trade *as such* (together with measures to liberalise domestic markets and a strict budgetary discipline) could be the *driver* of the development of manufacturing *for everyone* soon encountered a boundary. In a context of strong international competition, this has been represented by the difficulties encountered by the laggards in achieving an appropriate degree of expansion of their supply matrix (and hence an industrialisation rate) such to enable an endogenous development.

Certainly, in this regard, the scale of the different economies is decisive: while the smaller ones necessarily need to base their development on specialisation (few industries that are competitive at the international level), the larger ones can benefit from a domestic market that can activate supply also in non-competitive environments. This is clearly the case of China, that (unlike India) has embarked on the road of a new balance between external and domestic demand to the benefit of the latter, at the same time succeeding – because of the high degree of industrialisation achieved – in reducing her dependence on imports. But, in addition to the scale of countries, the orientation of the institutions is enormously important: and a now very ample literature proves that this plays a decisive role in launching, accelerating and making the

⁵⁷ See Lewis (1954).

industrialisation process endogenous.

Looking forward, the combination of these elements might indicate the emergence of a *new* fault line (in *addition* to the one that emerged some time ago between the “rest” and the “remainders”) within the very same block of emerging countries. As far as participation in the gvcs has undergone considerable changes, asking for increasingly evolved suppliers and a greater concentration of upstream markets, it is in no way obvious that the pathways followed so far shall be maintained by everyone. On the contrary, it is possible that – also as a consequence of the displacement that the more competitive (and largest) emerging economies exercise on those that are not equally strong – a separation between the emerging economies that succeed in keeping the pace and those that do not will emerge.

The matter also involves not too indirectly the industrialised countries that, having transferred to the emerging world many activities and a considerable share of their supply chains (and in some cases having, as a result, accumulated significant trade deficits) now see economic systems that have for too long been viewed as colonies (in the twofold sense of suppliers of privileged supply terms and *captive* markets) take on an increasingly autonomous role. This fact of the matter, in this respect, is that it is not sufficient to have *entered*, sooner or later, the industrial world: the real question – that concerns everyone – is what is required (also in terms of the design of the institutional order and the tools of policy) to *remain* in it.

Whatever the case, the overview briefly summarised in this paper, makes it possible to dismiss – or at least question – a number of clichés that have now become part of the *mantra* of political, as well as economic, jargon. To mention just a few, briefly: *i*) the growth of the most successful emerging countries has not been driven just by the fact that they opened up to trade and it did not take place in the presence of restrictive budgetary policies and the liberalisation of capital movements and domestic markets (one might say that it took place in the presence of the *opposite* policies, such as the adoption of expressly selective policies that in some cases also strongly distorted competition – suffice it to consider control over financial flows – and in any case under strict public control); *ii*) *trade in task* has not in itself been enough to generate always and under all circumstances in the emerging economies a gradual extension of the supply matrix, that in many cases instead remained congealed around the initial specialisation, generating early de-industrialisation phenomena; *iii*) the proclamations – mostly of a political nature - on *re-shoring* have in actual fact resulted in a fairly limited real move to bring back to the country of origin productions that had been transferred abroad, because of the – foreseeable – dampening effect represented by the development of structured supply networks in the economies involved (and by their parallel dissipation in the homeland: it is always easy to destroy, almost never easy to rebuild); *iv*) in the face of repeated alerts concerning re-emerging protectionism (referred to by some as an *explanation* of the slowdown in growth), the dynamics of both trade and FDI seem to be still now characterised by a high degree of inertia, that also

reflects the global extension reached by supply chains. The idea of a totally inter-dependent world has faded totally, but the inherited degree of inter-dependence cannot be viewed as an easily reversible phenomenon; v) the explanatory power of the BRICS category, coined in the name of the similarity of the main emerging economies (mostly in terms of their size), appears to have already evaporated: the differences nowadays seems to be more – and more significant – than the similarities; vi) in real terms, the onset of the crisis is not the event that altered the pace of development (and relations between the North and the South of the world): the pace and the way development took place in the years that preceded the crisis were the factors that determined its intensity and direction, creating the conditions for the current *impasse*.

But – for the industrial systems of the advanced economies – the most relevant effects of the legacy of the years of globalisation (and of the crisis) has to do with an increase in the differences in their firms' performances. From this standpoint, the increased competition implied by free trade and the downsizing of demand from the onset of the crisis represented two sequential shocks that required more highly evolved survival strategies – discriminating between the results of enterprises that had the resources to achieve them and the ones that did not.

This has generated greater difficulties for the enterprises less equipped to face the market; and therefore resulted in a greater dependency on their part on the availability of public goods that could enable the construction of development strategies in the new environment. In this respect, the very consequences of the Globalisation Age paradoxically reassign to politics an important ("strategic") role in putting once again less "efficient" enterprises in a position to compete in a more complicated world. The time for an ideological rejection of industrial policy seems to be over.

References

Adelman J. (2013, ed.), *The Essential Hirschman*, Princeton and Oxford, Princeton University Press.

Amsden A. (2001), *The Rise of the Rest. Challenges to the West from Late-Industrializing Economies*, New York, Oxford University Press.

Arestis P., Eatwell J. (eds.), *Issues in Economic Development and Globalization*, Basingstoke and New York, Palgrave MacMillan.

Baldwin R. (2006), *Globalization: the Great Unbundling(s)*, Prime Minister's Office, Economic Council of Finland, 20 September.

Baldwin R. (2012), *Global Supply Chains: Why They Emerged, Why They Matter, and Where Are They Going*, CTEI Papers, 2012-13, Geneva, The Graduate Institute, Centre for Trade and Economic Integration.

Baldwin R. (2014), *Trade and industrialization after globalization's 2nd unbundling: how building and joining a supply chain are different and why it matters*, in: R.C. Feenstra, A.M. Taylor, (eds.), *Globalization in an age of crisis: multilateral economic cooperation in the twenty-first century*, Chicago, Chicago University Press.

Basu K., Maertens A. (2007), *The Pattern and Causes of Economic Growth in India*, *Oxford Review of Economic Policy*, 23 (2), 143-167.

Cameron R. (1989), *A Concise Economic History of the World*, New York, Oxford University Press.

Cantwell J. (2000), *A Survey of Theories of International Production*, in C.N. Pitelis, R. Sugden (2000, eds.), *The Nature of the Transnational Firm*, 2nd ed., London and New York, Routledge.

Cattaneo O., Gereffi G., Staritz C. (2010, eds.), *Global Value Chains in a Post-Crisis World. A Development Perspective*, Washington, The World Bank.

Centro Studi Confindustria (2016), *Scenari Industriali*, n. 7, novembre.

Chandler A.D. (1992), Organizational Capabilities and the Economic History of the Industrial Enterprise, *Journal of Economic Perspectives*, 6 (3), 79-100.

Chang H.J. (1997), The Economics and Politics of Regulation, *Cambridge Journal of Economics*, 21 (6), 703-728.

Chang H.J. (2002), *Kicking Away the Ladder. Development Strategy in Historical Perspective*, London, Anthem Press.

Chang H.J. (2003), Introduction, in H.J. Chang (ed.), *Rethinking Development Economics*, London and New York, Anthem Press.

Chang H.J. (2006), *The East Asian Development Experience. The Miracle, the Crisis and the Future*, London and New York, Zed Books.

Chang H.J. (2008), The Third World Industrial Revolution in Historical Perspective, in P. Arestis and J. Eatwell (eds.), *Issues in Economic Development and Globalization*, Basingstoke, Palgrave MacMillan.

Cimoli M., Dosi G., Stiglitz J.E. (eds.), *Industrial Policy and Development*, New York, Oxford University Press.

Cimoli M, Correa N. (2005), Trade Openness and Technology Gaps in Latin America: A 'Low-Growth' Trap, in J.A. Ocampo (ed.), *Beyond Reforms. Structural Dynamics and Macroeconomic Vulnerability*, Palo Alto (Ca.) and Washington, Stanford University Press and The World Bank.

Cimoli M., Dosi G., Stiglitz J.E. (2009), The Political Economy of Capabilities Accumulation: The Past and Future of Policies for Industrial Development, in M. Cimoli, G. Dosi, J.E. Stiglitz (eds.), *Industrial Policy and Development*, New York, Oxford University Press.

Dasgupta S., Singh A. (2005), Will Services Be the New Engine of Economic Growth in India?, *Centre for Business Research Working Paper Series*, n. 310, September.

Devlin R., Moguillansky G. (2013), What's New in the New Industrial Policy in Latin America?, in J.E. Stiglitz, J.Y. Lin (2013, eds.), *The Industrial Policy Revolution I, The Role of Government Beyond Ideology*, Basingstoke and New York, Palgrave MacMillan.

Dowrick S., Akmal M. (2005), Contradictory Trends in Global Income Inequality: A Tale of Two Biases, *Review of Income and Wealth*, 51 (2), 201-229.

Easterly W. (2001), The Lost Decades: Developing Countries' Stagnation in Spite of Policy Reform 1980-1988, *Journal of Economic Growth*, 6 (2), 135-157.

ECLAC (1990), Changing Production Patterns with Social Equity. The Prime Task of Latin American and Caribbean Development in the 1990s, Santiago (Chile), United Nations.

ECLAC (2000), Equity, Development and Citizenship, Santiago (Chile), United Nations.

Eichengreen B. (2014), Secular Stagnation: A Review of the Issues, in C. Teulings, R. Baldwin (eds.), *Secular Stagnation: Facts, Causes and Cures*, A VoxEU.org eBook, London, CEPR Press.

Ellram L.M., Tate W.L., Petersen K.J. (2013), Offshoring and Reshoring: An Update on the Manufacturing Location Decision, *Journal of Supply Chain Management*, 49 (2), 14-22.

Escaith H. (2009), Trade Collapse, Trade Relapse and Global Production Networks: Supply Chains in the Great Recession, paper presented to the OECD Roundtable on Impacts of Economic Crisis on Globalizations and Global Value Chains, Paris 28 ottobre 2009.

Eurofound (2016), ERM Annual Report 2016: Globalisation Slowdown? Recent Evidence of Offshoring and Reshoring in Europe, Publications Office of the European Union, Luxembourg.

European Commission (2009), Economic Crisis in Europe. Causes, Consequences and Responses, *European Economy*, 7, Directorate General for Economic and Financial Affairs, Bruxelles.

Fratocchi L., Di Mauro C., Barbieri P., Nassimbeni G., Zanoni A. (2014), When Manufacturing Moves Back: Concepts and Questions, *Journal of Purchasing & Supply Management*, 20 (1), 54-59.

Freeman R.B. (2007), The Great Doubling: The Challenge of the New Global Labor Market, in J. Edwards, M. Crain, A.L. Kalleberg (eds.), *Ending Poverty in America. How to Restore the American Dream*, New York, The New Press.

Gereffi G., Humphrey J., Sturgeon T. (2005), The Governance of Global Value Chains, *Review of International Political Economy*, 12 (1), 78-104.

Gereffi G. (2014), Global Value Chains in a Post-Washington Consensus World, *Review of International Political Economy*, 21 (1), 9-37.

Godart O., Gorg H., Gorlich D. (2009), Back to normal? The Future of Global Production Networks, in H. Klodt, H. Lehment (eds.), *The Crisis and Beyond*, Kiel Institute for the World Economy, Kiel, November.

Gordon R.J. (2014), The Turtle's Progress: Secular Stagnation meets the Headwinds, in C. Teulings, R. Baldwin (eds.), *Secular Stagnation: Facts, Causes and Cures*, A VoxEU.org eBook, London, CEPR Press.

Gore C. (2000), The Rise and Fall of the Washington Consensus as a Paradigm for Developing Countries, *World Development*, 28 (5), 789-804.

Gray J.V., Skowronski K., Esenduran G., Rungtusanatham M.J. (2013), The Reshoring Phenomenon: What Supply Chain Academics Ought to Know and Should Do, *Journal of Supply Chain Management*, 49 (2), 27-33.

Hansen A.H. (1939), Economic Progress and Declining Population Growth, *American Economic Review*, 29 (1), 1-15.

Haugh D., Kopoin A., Rusticelli E., Turner D., Dutu R. (2016), Cardiac Arrest or Dizzy Spell: Why Is World Trade So Weak and What Can Policy Do About It?, *OECD Economic Policy Paper n. 18*, Paris, September.

Hernández R.A., Martínez-Piva J.M., Mulder N. (2014, eds.), *Global Value Chains and World Trade. Prospects and Challenges for Latin America*, ECLAC, Santiago.

Hausmann R., Hidalgo C.A., Bustos S., Coscia M., Chung S., Jimenez J., Simoes A., Yildirim M.A. (2011), *The Atlas of Economic Complexity. Mapping Paths to Prosperity*, Harvard University, Center for International Development, Harvard Kennedy School and MIT MediaLab.

Hirschman A. (1958), *The Strategy of Economic Development*, New Haven, Yale University Press.

Hirschman A.O. (1981), A Generalized Linkage Approach to Development, with Special Reference to Staples, in A.O. Hirschman, *Essays in Trespassing*, Cambridge, Cambridge University Press.

Hymer S. (1976), *The International Operations of National Firms: A Study of Direct Investment*, Cambridge (Ma.), The MIT Press.

Imbs, J., Wacziarg, R. (2003), Stages of diversification, *American Economic Review*, 93 (1), 63-86.

IMF (2012), *The Liberalization and Management of Capital Flows: an Institutional View*, Washington, International Monetary Fund, November.

IMF (2017), *World Economic Outlook. Gaining Momentum?*, Washington, International Monetary Fund, April.

Jenkins R., Dussel Peters E., Mesquita Moreira M. (2008), The Impact of China on Latin America and the Caribbean, *World Development*, 36 (2), 235-253.

Kaldor N. (1981), The Role of Increasing Returns, Technical Progress and Cumulative Causation in the Theory of International Trade and Economic Growth, *Economie Appliquée*, 34 (4), 593-617.

Kambhampati U. (2016), *Industrial Development in India*, in J. Weiss and M. Tribe (eds.), *Routledge Handbook of Industry and Development*, Abingdon and New York, Routledge.

Kaplinski R., Farooki M. (2010), Global Value Chains, the Crisis, and the Shift of Markets from North to South, in O. Cattaneo, G. Gereffi, C. Staritz (2010, eds.), *Global Value Chains in a Post-Crisis World. A Development Perspective*, Washington, The World Bank.

Kaulich (2012), *Diversification vs. Specialization as Alternative Strategies for Economic Development: Can We Settle a Debate by Looking at the Empirical Evidence?*, Vienna, UNIDO, Working Paper 3/2012.

Kindleberger C. (1958), *Economic Development*, New York, McGraw-Hill.

Kogut B. Zander U. (1993), Knowledge of the Firm and the Evolutionary Theory of the Multinational Corporation, *Journal of International Business Studies*, 24 (4), 625-245.

Kozul-Wright R. (1995), Transnational Corporations and the Nation State, in J. Michie, J. Grieve-Smith (eds.), *Managing the Global Economy*, New York, Oxford University Press.

Krugman P. (2014), Four Observations on Secular Stagnation, in C. Teulings, R. Baldwin (eds.), *Secular Stagnation: Facts, Causes and Cures*, A VoxEU.org eBook, London, CEPR Press.

Lall S. (2003), Technology and Industrial Development in an Era of Globalization, in H.J. Chang (ed.), *Rethinking Development Economics*, London and New York, Anthem Press.

Lewis W.A. (1954), Economic Development with Unlimited Supplies of Labour, *The Manchester School*, 22 (2), 139-191.

Lin J.Y. (2009), *Economic Development and Transition. Thought, Strategy, and Viability*, New York, Cambridge University Press.

List F. (1856), *National System of Political Economy*, Philadelphia, J.B. Lippincott and Co.

Matthews R.C.O. (1982), *Slower Growth in the Western World*, London, Heinemann.

Milberg W., Winkler D. (2010), Trade, Crisis and Recovery: Restructuring Global Value Chains, in O. Cattaneo, G. Gereffi, C. Staritz (2010, eds.), *Global Value Chains in a Post-Crisis World. A Development Perspective*, Washington, The World Bank.

Myrdal G. (1957), *Economic Theory and Under-Developed Regions*, London, General Duckworth & Co..

Nayyar D. (2003), Globalization and Development, in H.J. Chang (ed.), *Rethinking Development Economics*, London and New York, Anthem Press.

Neilson J., Pritchard B., Yeung H.W. (2014), Global Value Chains and Global Production Networks in the Changing International Political Economy: An Introduction, *Review of International Political Economy*, 21 (1), 1-8.

Nelson R.R., Winter S.G. (1982) - *An Evolutionary Theory of Economic Change*, Belknap, Harvard University Press, Cambridge (Ma.) and London.

Nolan P., Zhang J., Liu C. (2008), The Global Business Revolution, the Cascade Effect, and the Challenge for Firms from Developing Countries, *Cambridge Journal of Economics*, 32 (1), 29-47.

Ocampo J.A. (2005), The Quest for Dynamic Efficiency: Structural Dynamics and Economic Growth in Developing Countries, in J.A. Ocampo (ed.), *Beyond Reforms. Structural Dynamics and Macroeconomic Vulnerability*, Palo Alto (Ca.) and Washington, Stanford University Press and The World Bank.

Palma (2003), Latin America During the Second Half of Twentieth Century, in H.J. Chang (ed.), *Rethinking Development Economics*, London and New York, Anthem Press.

Palma (2009), Flying Geese and Weddling Ducks: The Different Capabilities of East Asia and Latin America to 'Demand-Adapt' and 'Supply-Upgrade' Their Export Productive Capacity, in M. Cimoli, G. Dosi, J.E. Stiglitz (eds.), *Industrial Policy and Development*, New York, Oxford University Press.

Penrose E.T. (1980), *The Theory of the Growth of the Firm*, Oxford, Basil Blackwell (1st ed. 1959).

Peres W. (2013), Industrial Policies in Latin America, in A. Szirmai, W. Naudé, L. Alcorta (eds.), *Pathways to Industrialization in the Twenty-First Century*, Oxford, Oxford University Press.

Peteraf M.A. (1993), The Cornerstones of Competitive Advantage: A Resource-based View, *Strategic Management Journal*, 14 (3), 179-188.

Pisano G.P., Shih W.C. (2012), *Producing Prosperity. Why America Needs a Manufacturing Renaissance*, Boston (Ma.), Harvard Business Review Press.

Pitelis C. (1991), *Market and Non-market Hierarchies*, Oxford, Blackwell.

Pitelis C.N., Sugden R. (2000, eds.), *The Nature of the Transnational Firm*, 2nd ed., London and New York, Routledge.

Prahalad C.K., Hamel G. (1990), The Core Competence of the Corporation, *Harvard Business Review*, 68 (3), 79-91.

Reinert E.S. (2007), *How Rich Countries Got Rich ... and Why Poor Countries Stay Poor*, London, Constable.

Reinert E.S. (2009), Emulation vs. Comparative Advantage: Competing and Complementary Principles in the History of Economic Policy, in M. Cimoli, G. Dosi, J.E. Stiglitz (eds.), *Industrial Policy and Development*, New York, Oxford University Press.

Richardson G.B. (1972), The Organisation of Industry, *Economic Journal*, 82 (327), 883-896.

Rodrik D. (2005), Policies for Economic Diversification, *CEPAL Review*, 87, 7-23.

Romano L., Traù F. (2014), Il ruolo delle istituzioni nello sviluppo manifatturiero del mondo emergente. Tre "modelli" di intervento pubblico negli anni successivi al secondo dopoguerra, *Rivista di Storia Economica*, 30 (2), 121-159.

Romano L., Traù F. (2017), The Nature of Industrial Development and the Speed of Structural Change, *Structural Change and Economic Dynamics*, 42, 26-37.

Saith A. (2008), Explaining Differential Performance: The Institutional Factor in Indian and Chinese Development, in P. Arestis and J. Eatwell (eds.), *Issues in Economic Development and Globalization*, Basingstoke, Palgrave MacMillan.

Singh A. (1994), 'Openness' and the 'Market Friendly' Approach to Development: Learning the Right Lessons from Development Experience, *World Development*, 22 (12), 1811-1823.

Singh A. (2009), The Past, Present and Future of Industrial Policy in India: Adapting to the Changing Domestic and International Environment, in M. Cimoli, G. Dosi, J.E. Stiglitz (eds.), *Industrial Policy and Development*, New York, Oxford University Press.

Singh A., Zammit A. (2010), The Global Economic and Financial Crisis. A Review and a Commentary, *Centre for Business Research Working Paper Series*, n. 415, December.

Stigler G.J. (1951), The Division of Labor is Limited by the Extent of the Market, *Journal of Political Economy*, 54 (3), 185-193.

Stiglitz J.E. (2002), *Globalization and Its Discontents*, New York and London, Norton.

Stiglitz J.E., Lin J.Y. (2013, eds.), *The Industrial Policy Revolution I, The Role of Government Beyond Ideology*, Basingstoke and New York, Palgrave MacMillan.

Sturgeon T.J. (2008), From Commodity Chains to Value Chains: Interdisciplinary Theory Building in an Age of Globalization, Industry Studies Association Working Papers, WP 2008-02

Summers L.H. (2014), Reflections on the 'New Secular Stagnation Hypothesis', in C. Teulings, R. Baldwin (eds.), Secular Stagnation: Facts, Causes and Cures, A VoxEU.org eBook, London, CEPR Press.

Summers L.H. (2015), Demand Side Secular Stagnation, American Economic Review, Papers & Proceedings, 105 (5), 60-65.

Tavassoli S. (2013), Manufacturing Renaissance: Return of Manufacturing to Western Countries, Center for Strategic Innovation Research, Electronic Working Paper Series n. 2013/4, September.

Teece D.J., Pisano G., Shuen A. (2000), Dynamic Capabilities and Strategic Management, in G. Dosi, R.R., Nelson, S.G. Winter (eds.), The Nature and Dynamics of Organizational Capabilities, New York, Oxford University Press.

Teulings C., Baldwin R. (2014, eds.), Secular Stagnation: Facts, Causes and Cures, A VoxEU.org eBook, London, CEPR Press.

The Economist (2013), Here, There and Anywhere, Special Report, January 19th.

The Economist (2017), The Retreat of the Global Company, January 28th.

Toye J. (2003), Changing Perspectives in Development Economics, in H.J. Chang (ed.), Rethinking Development Economics, London and New York, Anthem Press.

Traù F. (2010), L'Italia e il nuovo modello internazionale di sviluppo industriale, L'industria, 31 (4), 563-575.

UNCTAD (2013), World Investment Report. Global Value Chains: Investment and Trade for Development, New York and Geneva, United Nations.

UNCTAD (2016), Trade and Development Report. Structural Transformation for Inclusive Growth, New York and Geneva, United Nations.

UNIDO (2009), Industrial Development Report. Breaking In and Moving Up: New Industrial Challenges for the Bottom Billion and the Middle-Income Countries, Vienna, United Nations.

UNIDO (2016), The Role of Technology and Innovation in Inclusive and Sustainable Industrial Development, Vienna, United Nations.

United Nations (2000), United Nations Millennium Declaration, Resolution Adopted by the General Assembly, 55th Session, Agenda Item 60 (b), 18 September.

Wernerfelt B. (1984), A Resource-Based Theory of the Firm, Strategic Management Journal, 5 (2), 171-180.

Wernerfelt B. (1995), The Resource-Based View of the Firm: Ten Years After, Strategic Management Journal, 16 (3), 171-174.

WTO – IDE-JETRO (2011), Trade Patterns and Global Value Chains in East Asia: From Trade in Goods to Trade in Tasks, http://www.wto.org/english/res_e/publications_e/stat_trade_pat_glob_val_chains_e.htm