

12 The Italian economy, the economic crisis and industrial policy

Michele Di Maio

1. Introduction

This paper presents an analysis of the most important aspects of the Italian economy in the midst of the current economic crisis and discusses the country's past and current approach to industrial policy (IP). Our focus is on the characteristics and evolution of the manufacturing sector and on how this has influenced the country's competitiveness and structural change dynamics. We made this choice because, although other aspects of the economy are also important, we believe that the current difficulties of the Italian economy are deeply rooted in the dynamics of the industrial sector. We supplement this analysis with a discussion on the historical and current characteristics of IP in Italy and how these should be modified to give IP a positive role in helping the economy to overcome the current economic crisis.

There are two main motivations for this paper. The first one is the economic importance of Italy. Italy is the seventh largest economy in the world; it is the second largest industrial country in Europe and the fifth at world level (UNStats 2012). As shown in Table 12.1, even if things are changing rapidly, with new competitors emerging and old ones becoming stronger, Italy is still among the top players in the global economy. It follows that it is important to understand how and to which extent Italy is reacting to the current crisis because this will also have an impact on world trade.

The second motivation for this paper is the potential usefulness of the analysis of the Italian case for other countries in the European periphery. A preliminary step in this direction is to correctly evaluate how much the current difficulties of the Italian economy are related to the crisis and how much they are instead the results of previous weaknesses of the Italian economy. For this reason, this paper presents a stylised historical overview of the evolution of the Italian economy and its IP from the 1950s to today. In particular, our aim is to understand if and how much the weakness of the Italian economy is caused by the type of IP implemented in the country in these decades and how, in this case, it should be modified to favour structural change and sustained growth.

In this paper, we adopt a broad definition of IP: IP includes all the policies aimed at favouring the restructuring of existing industries and the development of new ones (Bianchi and Labory 2011; Cimoli et al. 2009; Di Maio 2014). In this sense, IP is obviously not just state aid or (horizontal) R&D support policies. Instead, it is understood as a set of measures designed

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Table 12.1 World top 10 manufacturers (percentage world value added, 2010)

	1990	2000	2010
China	3,2	8,3	18,9
United States	22,8	26,0	18,2
Japan	17,7	17,7	10,7
Germany	9,6	6,7	6,0
Italy	5,3	3,5	3,0
Brazil	1,7	1,7	2,8
Korea	1,4	2,3	2,7
France	4,4	3,3	2,6
United Kingdom	4,5	3,9	2,3
India	1,1	1,2	2,2

Note: Manufacturing refers to industries belonging to International Standard Industrial Classification (ISIC) divisions 15-37. Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs. It is calculated without making deductions for depreciation of fabricated assets or depletion and degradation of natural resources.

Source: UNStats (2012).

to favour structural change and a particular a particular development path. This interpretation of IP is clearly in accordance with the one adopted in the other chapters of this book. The adoption of this definition implies a broad set of instruments and objectives being ascribed to IP. For this reason, following Cimoli et al. (2009), we argue that IP naturally includes policies belonging to different domains, thus: i) innovation and technology policies; ii) education and skill formation policies; iii) trade policies; iv) targeted industrial support measures; v) sectoral (competitiveness) policies; vi) competition regulation policies. While all these sets of policies are important to correctly describe the IP of a country, special attention will be paid to innovation polices, given their strategic importance in the current world economy.

Our definition of IP embraces a very large set of policies but it does not include all those that may impact on the manufacturing sector, such as exchange rate policy and labour market policies. Our choice is motivated by the need for a compromise between a broad definition able to capture the multiple aspects involved in the concept of IP and a reasonable number of different policy measures to be considered as part of it. A precise definition of the contours of IP—to clearly distinguish it from the country's general overall development strategy—is in fact a necessary condition for discussing the features, changes, and results of the different industrialisation strategies pursued by Italy in the last 50 years.

Our analysis will mostly focus on the last 20 years. There are several reasons for choosing this timespan. First, the world has changed greatly in the last two decades. For instance, since China entered the WTO the rules of the game and the players in world trade are not the same anymore. Second, this period gives us a sufficiently large time frame to provide a perspective on structural change and competitiveness issues. Third, this

is the period that more or less coincides with the European Single Act of 1986, which was an important step in the creation of the Single European Market. This is quite a relevant event for our analysis since one of its consequences was a severe limitation on the possibility to use traditional IP instruments (including credit policy, trade policy, measures to support 'national champions', etc.) at the national level. Finally, during this period the EU member countries adopted the euro, which many see as one of the causes of the current crisis.

The paper proceeds as follows. In the next section we provide a brief description of the current state of the Italian economy and discuss two anomalies that have characterised its evolution in the last three decades. Section 3 examines the historical and current characteristics of IP in Italy, emphasising its weaknesses and potentialities. In particular, we discuss the evidence concerning the recent evolution of IP in terms of budget size and composition. Section 4 describes how the approach of the European Commission to IP has changed in the last decades and how this has influenced the behaviour of all member states, Italy included. We also consider how the WTO agreements and the rise of new world powers have influenced what characteristics IP should have. Finally, in Section 5 we present some concluding remarks.

2. The Italian economy: characteristics and anomalies

According to the European Union Report *Member States Competitiveness Performance and Policies 2011*, manufacturing contributes 16.1 percent to Italy's total value added against 14.9 percent for the EU on average. Italy is relatively specialised in labour-intensive sectors, such as leather, clothes and apparel, and in high-tech sectors, such as fabricated metal products, domestic appliances, machinery and automotive, motorcycles and bicycles. Traditionally, Italy has also a comparative advantage in marketing-driven sectors, namely, luggage and handbags and high-quality food and beverages. It is this double nature that makes the Italian case an exception in the European context.

The recent economic and financial crisis had a strong impact on the Italian economy. Manufacturing production fell by around 25 percent during the crisis and it is still 17.4 percent lower than its previous cyclical peak. At the same time, not all the current difficulties of the Italian economy originated with the crisis. In fact, the decline in economic performance started before that. In the last decade, Italy has experienced a decline in cost and price competitiveness. Nominal unit labour costs increased by 31 percent between 2000 and 2010, compared to an increase of 14 percent in the EU-27 and 20 percent in the euro area. Labour productivity per hour worked has declined over the last decade and is now only marginally above the EU-27 average and about 13 percentage points below the euro area average (EC 2012).

Overall, the current situation of the Italian economy shows a mixed picture in terms of international competitiveness. While the Italian economy still features elements of strength in some high-skill (mechanical) sectors, its performance in knowledge-intensive sectors is weak and does not seem likely to improve in the short term. Next, we describe the two anomalies of the Italian economy and their role in determining the current situation of the country's industrial system.

The two anomalies of the Italian economy

The Italian economy can be characterised by two anomalies that have played an important role in shaping the country's current economic situation. The first is the trade specialisation pattern. The second is the size distribution of Italian firms.

The trade specialisation anomaly. There is widespread consensus that economic growth is to an important extent determined by a country's export performance and that the strength of this link depends on the sophistication level of its specialisation pattern (Dosi et al. 1990). These arguments have fuelled the debate about the possibility that the recent weak performance of the Italian economy is due to its misdirected pattern of specialisation. In fact, Italy is characterised by a peculiar "trade specialisation anomaly" (Onida 1999). This consists of: a) strong comparative advantages in low-skilled and labour intensive sectors, which implies that the Italian trade specialisation pattern is more similar to that of an emerging economy than of countries with comparable levels of per capita income, and b) a very high degree of persistence of this peculiar pattern of specialisation (De Benedictis 2005). In fact, the persistence of the specialisation pattern per se is not uncommon for developed countries. What is distinctive of the Italian case is that the persistence is associated with an anomalous (with respect to other developed countries) specialisation pattern. Interestingly, for a long period the anomaly did not prevent Italy from recording significant economic growth. Yet, it seems that more recently it has finally become a problem for the economy. Di Maio and Tamagni (2008) suggest that an explanation for this can be found in the evolution of the level of sophistication of world trade. Their analysis provides an empirical characterisation of the sophistication of the Italian specialisation pattern and of its evolution from the early 1980s to recent years. They show that, in the last two decades, the entry of new competitors (in particular, emerging countries) along with a vast worldwide redistribution of production has significantly changed the relative gains of exporting in each specific sector. In the face of these dramatic changes, the Italian specialisation pattern has changed little, while the sophistication level of its export vector has been decreasing. The analysis reveals that by the late 1990s, the sectors where Italy has been, and still is, highly specialised, are characterised by an inter-temporal reduction in the value of their PRODY index. This is an index whose value is higher the more the sector/product

is present in the export vector of advanced countries.¹ This result possibly explains why the “trade specialisation anomaly” was not a problem in the past whereas now it is. World trade is rapidly evolving but Italy is stuck with its traditional structure of comparative advantages, marked by strong specialisation in sectors which in the last years have become less and less sophisticated, and, thus, less and less able to sustain growth.

While the diagnosis is clear, the main challenge is to understand why no attempts have been made (or why these have been unable) to modify the specialisation pattern towards a more sophisticated export vector. There are several possible explanations. For instance, De Nardi and Traù (2005) argue that the numerous exchange rate depreciation episodes reduced incentives for firms to upgrade their products. Bottazzi et al. (2008) suggest that this is due to the (behavioural) reluctance of Italian firms to translate productivity and profitability into higher growth. Saltari and Travaglini (2006) instead argue that the cause could be the labour market reforms implemented in the second half of the 1990s that favoured cost-saving strategies rather than favouring productivity growth. Finally, Fagiolo and Luzzi (2007) suggest that a possible explanation is the inability of the credit market to sustain the best performing firms. While there is probably no single cause, all of them point to the absence of an effective IP that could counter the trade specialisation anomaly and sustain structural change and growth.

The firms’ size distribution anomaly. As in other EU economies, the vast majority of firms in Italy are SMEs (99.9 percent of companies and 81.3 percent of employment). One difference with respect to other EU countries is that Italy has a higher share of micro-companies, with less than 10 employees (47.4 percent of employment, compared to the EU average of 29.8 percent). Moreover, the prevalence of SMEs is even stronger in the South, where the average number of employees per enterprise in the manufacturing sector is 5.8 compared to 8.5 nationally (EU 2012). While these data can be interpreted as showing the presence of a strong entrepreneurial spirit in Italy, they also raise some concerns as to the overall competitiveness of the economy in relation to its innovation possibilities.

In fact, this situation is not new. The decline in the presence of large firms in the Italian economy started in the 1970s. Again, this process did not create problems for a long time, especially in the economy of the North. Since the beginning of the 1980s, the organisation of production in the traditional sectors in the Northern regions has progressively evolved towards a situation characterised by the prevalence of SMEs, often organised in districts. Somewhat surprisingly, the districts expanded in number and size and consolidated over the years. The recipe for the success of the districts lays in the combination of the high competence of the entrepreneurs and employees, the flexibility provided by the family-ownership structure and the fruitful interaction with other firms in the district. This successful mix enabled the SMEs in these districts to gain national and international leadership in

specific market segments. For a long time, industrial districts have been the backbone of the Italian economy and have contributed to counter economic and industrial decline. In the long run, however, this system started showing its weakness due to the characteristics of the SMEs: low internationalisation, low level of investment in R&D, lack of managerial culture prevalence of small projects, and difficulties in scaling up production. In the South, SMEs were suffering from the same weaknesses in terms of innovation and potential growth but, in addition, their ability to cooperate was significantly lower: as a result there were fewer districts and on average they were smaller than in the North.

A comprehensive evaluation of the industrial district experience suggests that the idea that “small is beautiful” has its limits and these can be very significant in the long run. In fact, in those years, IP was unable to induce SMEs to develop and change to overcome the small-size anomaly. On the one hand, IP failed to provide incentives and programmes able to induce SMEs to upgrade their product and production processes. On the other hand, SMEs showed little interest in using the available policies, especially those supporting R&D and innovation, because of the small scale of their activities. In fact, the SMEs’ behaviour largely explains the extremely low investment in R&D and innovation activities in Italy.

3. Industrial policy in Italy: historical evolution and current characteristics

As we have seen, the current state of the Italian economy shows some serious difficulties. In this context, it is natural to ask what role, if any, IP could play in favouring structural change and economic recovery. In this case, which characteristics should IP have to be effective? Is the current Italian IP able to play this crucial role? To attempt to answer these questions, we start by looking at the historical evolution of IP and its current characteristics and how these have influenced and, in turn, been influenced by the two anomalies of the Italian economy.

IP has a long history in Italy that dates back at least to the “economic miracle” period (1950–1970).² After World War II, the Italian economy was still largely agricultural and characterised by high unemployment and large regional disparities. In the following two decades, the Italian economy recorded significant GDP growth and the industrialisation of the North of the country began (Silva 2008). Rota (2013) argues that during the “economic miracle” period there were two distinct phases of IP, each with its own characteristics. In the 1950s, the leading instruments for IP were the state-owned enterprises (SOEs) and public holdings. In the 1960s, the major instrument for sustaining the growth of the manufacturing sector was instead the (government controlled) credit system. Government intervention therefore contributed to creating and strengthening the metal production and chemical industries in the South and the metal production and mechanical industries in the Centre-North.

The industrialisation strategy adopted in the 1960s deeply influenced the evolution of the Italian economy in the following decades. Indeed, the divergence in the regional development between the North and the South and the economic slowdown of the 1970s can both be attributed to that strategy. In the South, the development model was centred on the establishment of capital-intensive, large-scale industries such as chemicals and metal production. These sectors increased employment in the region and created the conditions for a certain amount of technology transfer. But they were sectors dominated by a few large firms which remained isolated entities, and only a few of them were able to create backward linkages with the local SMEs. In the Centre-North, the development of the mechanical and the metal production industries led instead to a more diversified and balanced industrial structure: these sectors were populated by numerous small firms which interacted both as competitors but also to create various forms of cooperation. Most importantly, SMEs were often integrated in the production cycle of large firms and in several cases they evolved together. As a consequence, in the South a few large (state-owned and private) companies had a significant political influence whereas the SMEs were absolutely marginal to the political and economic decision-making. In the Centre-North, the situation was very different. SMEs had a strong political influence because they had adopted an organisational structure that also facilitated their coordination in terms of political representation, namely, the district.

The deep differences between these two industrialisation models clearly emerged in the 1970s. In those years, drastic changes in the dynamics of wages and in the prices of raw materials and energy became common. These shocks were absorbed differently by the two models. The South was the most adversely affected given the inability of large firms to react quickly to these shocks. The Centre-North was able to adapt better to the new macro-economic scenario, thanks to the flexibility of the SME system. In these circumstances, the government started to use competitive devaluation as an instrument of IP. This measure marked a deep change in IP perspective with regard to the activism of the 1960s (when IP was intended as planning, in the broad sense) and was particularly favourable to the SMEs in the Centre-North rather than to the weak and sparse SMEs in the South.

The large regional disparities did not disappear in the 1980s, indeed, if anything they increased. While income and industrial activity increased in some areas of the South, other areas suffered from widespread poverty and underdevelopment. It also became clear that the industrialisation of the South would have been extremely difficult and possibly would never take place (D'Antonio 1993). The situation was very different in the other parts of the country. In that decade, the Centre-North experienced high growth rates and in the Eastern regions, primarily along the Adriatic coast, there was a significant increase in manufacturing production. Again, most of this positive performance was due to the activity of the numerous SMEs established in those regions. This positive dynamic continued until the mid-1990s. Then, as we will see in Section 4, things started to change.

To understand the evolution of the Italian industrial structure, it is important to also look at the political and institutional part of the story. From the 1950s to the end of the 1970s, the development strategy and the IP were decided by the central government. At the time, IP was considered part of planning policy and its purpose was to allocate production and to direct domestic demand. In fact, decisions concerning IP were taken by two different ministries that were often in conflict: the Ministry of Industry, established in 1948, and the Ministry of State Holdings, established in 1956 (Silva 2008). The creation of these two ministries actually institutionalised the private/public-sector dualism that had characterised the Italian economy since the end of World War II (Prodi and Di Giovanni 1993). In those decades, IP was no different from those in other European countries in terms of objectives, but it did differ in terms of efficiency. In general, IP was marked by low efficiency and red tape, and was often subject to the influence of lobbies. In the 1970s, differences between the characteristics of the Italian IP and those adopted by other European countries started to emerge. While other countries were using IP to encourage mergers and strategic alliances, to create large conglomerates able to compete in the oligopolistic European markets, the priorities of IP in Italy were still to bailout firms in crisis and enlarge the sphere of action of the public sector. Silva (2008) argues that if any role was played by IP in those years in relation to industrial development in Italy, it was a negative one. In his view, IP has often been used to protect large firms that instead would have needed more competition. Although it reduced the costs of the structural adjustment in that period, this strategy caused a slow, inevitable decline of very important pieces of industry.³ Prodi and De Giovanni (1993) argue that in fact IP seemed to be designed to serve political objectives rather than foster structural change. Another important trait of the Italian industrial development process in those years was the use of SOEs as an instrument to reduce unemployment and regional inequalities (and to increase political support for the ruling party) (Leon 1993; Gros-Pietro 1993).⁴ This schizophrenic and ineffective approach to IP continued in the 1980s, rendering Italy unable to exploit the trade and technological opportunities that were emerging at the world level. As a consequence, at the beginning of the 2000s, the Italian industrial structure was characterised by: a) an international trade specialisation in products intensive in low-skill labour; b) a large presence of SMEs; c) few large firms able to compete at the world level; d) few new large firms being established. These elements motivate a serious concern about the competitiveness and the future prospects of the industrial sector in Italy.

IP in Italy has gone through several changes since the beginning of the 1990s. Two are particularly important. First, the country's autonomy in the design of IP has been severely limited by the strict guidelines issued by the EC. Second, it has changed where decisions on the design and implementation of IP are taken. Nowadays, most of the decisions on IP are taken by local governments (the Regions), especially regarding the measures aimed at supporting SMEs. This decentralisation of IP management

implies that the effectiveness of the different measures and programmes now *also* (but not only) depends on the efficiency of the individual regions. A paradoxical consequence of this change is that pinpointing responsibility for each specific policy is now, in many cases, less clear than in the past, making policy evaluation even more difficult. Furthermore, the magnitude and target of government intervention has significantly changed in the last decade. Figure 12.1 reports government disbursements for IP in Italy for the period 1999–2011. As can be seen from the graph, between 2002 and 2011 the total amount of government disbursements has decreased by almost 70 percent. It is interesting to note that, in the period under consideration, there was a drastic reduction in the amount of non-repayable disbursements under state aid. For a long time these formed the majority of government measures, especially with respect to firms in the Mezzogiorno. Nowadays this measure represents only 27.5 percent of the total (compared with 59 percent in 2005) and 38.7 percent of the total resources for the Mezzogiorno (the figure was 80 percent in 2005). It is also interesting to look at the changes in the objectives pursued by state aid. As shown in Figure 12.2, the general support for the accumulation of capital (General) has decreased significantly, halving in size. The main objectives have become support for R&D (which increases from 14 percent to 43 percent) and for internationalisation activities (from 3 percent to 12 percent). As we have said, another important change in the IP concerns the increasing importance of the Regions in terms of the amount of resources provided, now standing at 32 percent of the total. Still, there are large differences across Regions, depending on a number of elements, among which the specialisation pattern of the region, the type of measures implemented, the ability of the Regions to access European Funds, and so on. In

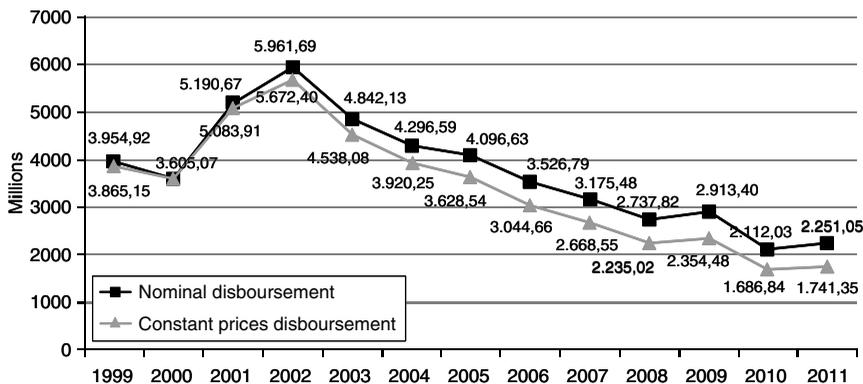


Figure 12.1 The evolution of government disbursements for industrial policy in Italy (millions of euro), industry and services to production, 1999–2011.

Source: Brancati and Maresca (2013) using data from the MET Dataset.

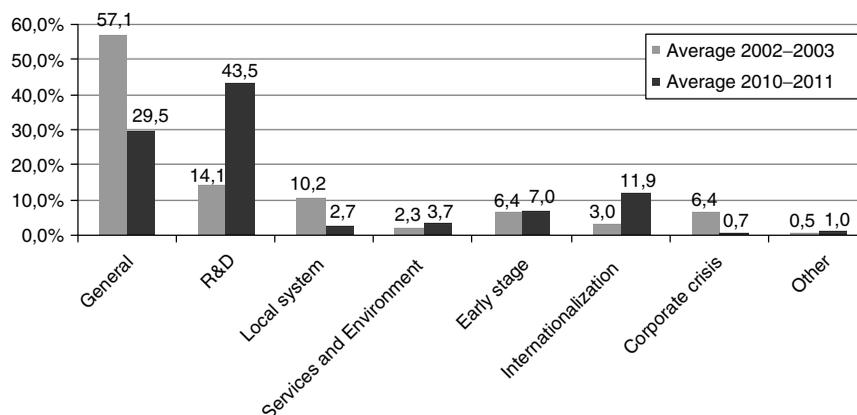


Figure 12.2 Distribution of government disbursements by objective, average 2002–2003 and 2010–2011, percentages.

Source: Brancati and Maresca (2013) using data from the MET Dataset.

fact, a divide between the North and the South regions again emerges: in the former, most of the intervention takes the form of measures to support private R&D and exports, while in the latter most of the measures are directed at supporting capital accumulation (General). The differences across regions in terms of product specialisation also explain the regional differences in terms of state aid objectives.⁵

The general framework for IP in Italy is currently provided by Industria 2015. The program was launched by Minister of Industry Pierluigi Bersani during the second Prodi government in 2006. The main objective of the programme was to bring back industrial development as one of the government's priorities. The IP strategy designed in the programme is based on two main pillars. The first is deregulation in the service sector (e.g., insurance companies, banks, distribution, etc.). The objective is to promote more competition in those sectors in order to stimulate productivity improvement in the overall economy. On the whole, the effect of this action has been modest, largely because those measures faced strenuous opposition from the lobbies of the to-be liberalised sectors. The second pillar is a national innovation policy strategy. The government's goal was to improve the coordination of the different regional innovation policies and to create five Industrial Innovation Projects (Energy Efficiency, Sustainable Mobility, New Life Technologies, New technologies for the "Made in Italy," Innovative Technologies for Cultural Goods). While the Prodi government did not last long enough to see the results of this strategy (and thus a detailed evaluation is not possible), there is a general consensus that the first signs were positive. The implementation of programme is now ongoing and has also

been confirmed as a priority by the current government. However, progress in the actual disbursement of funds appears to be quite slow.

A particularly important domain for IP is that of innovation, because of its potential impact on the process of economic change and its role as a source of positive externalities. It is exactly for these reasons that the EC in fact allows some room for government intervention to help domestic firms when this takes the form of support for their innovation effort. According to the Innovation Union Scoreboard 2010, Italy is below the European average in terms of innovation, in particular concerning private R&D investment (0.65 percent of GDP) (EU 2012). The share of high-tech exports is also lower than the European average, a fact in line with the peculiar product specialisation of the Italian industry as we discussed in the previous section. The Italian regional divide is even more evident when it comes to innovation activities: for instance, the level of R&D expenditure in the South is one third lower than that in the Centre-North. Recently, some attempts have been made to improve the effectiveness of innovation policies in Italy.⁶ Some new instruments are now available to support private firms' research projects and attempts have been made to ease the access to financing in the field of industrial research, and to facilitate contacts between private firms and the Ministry for Education, University and Research. In April 2011, the National Research Programme (NRP) 2011–2013 was presented after a long process of consultation with all the stakeholders.⁷ Interestingly, the NRP defines the major objectives for the Italian research system as increasing R&D expenditure, improving competitiveness in key technological areas, encouraging cooperation between companies and public research institutions, improving analysis and evaluation of research programmes and bodies. One of the main goals of the NRP is to rationalise and reinforce a number of already-existing measures and projects, such as the Technology Districts, the National Technology Platforms and the National Excellence Poles. Furthermore, 14 priority projects (*Progetti bandiera*) have been identified, most notably in relation to key enabling technologies, energy and space (EU 2012).

Another strategic domain of intervention for IP is SMEs. The measures promoting SMEs emanate from both the Regions and the central government, and in fact represent a significant share of the total resources of state aid. One of the main objectives of the measures to support SMEs is actually to foster their dimensional growth since firm size is strongly correlated with export-orientation and innovation. The financial structure of Italian SMEs, which are relatively less capitalised than those in other countries, is an important factor limiting dimensional growth. This situation is made even more complicated by the fact that the Italian venture capital and private equity markets remain relatively underdeveloped, which makes Italian SMEs more reliant on short-term borrowing than those in other EU countries. To address these problems, in 2010 the Italian government created the Italian Investment Fund (*Fondo Italiano d'Investimento*) to provide risk capital to SMEs. Another strategy adopted by the government to overcome the

problems related to the small size of firms has been to favour cooperation between firms. This is the aim of the “network contract” (*Contratto di Rete*) which encourages firms to collaborate on specific projects, such as R&D and internationalisation activities. While these measures are likely to be steps in the right direction, the firms’ size anomaly which characterizes the Italian economy needs a more comprehensive intervention.⁸

4. A new economic context for IP: the European Union, the WTO, and the new world

The future evolution of IP in Italy will depend not only on the domestic political and economic equilibrium but also on the behaviour of a number of other actors, including the European Commission (EC), the WTO and the new emerging economies.

The EC approach to IP has changed drastically in the last three decades. Until the 1970s, the main objective of IP in Europe was to save industries in decline, and national champions were strongly supported by state intervention, often through public ownership. Starting from the 1980s, the globalisation process forced European countries to devise a new approach to IP, which found its final form in the Bangemann Report (EC 1990), then included in the Maastricht Treaty (Labory 2006). Since then, the EC has adopted an approach favouring government intervention through the use of (only) horizontal policies. The Maastricht Treaty put the IP of the member states under much stricter control, leading to a reduction in the type and extent of measures and the type of interventions that could be adopted. In particular, the creation of the Common Market in 1993 formally marked the end of the use of traditional IP tools, such as protectionist trade policy and direct transfers and subsidies for domestic firms. The strong effort made by the EC to reduce the possibility for governments to support domestic firms has been most visible in the push to reduce state aid and liberalise government procurement (Silva 2008). In line with this strategy, in the 1990s the EC forced Italy to significantly reduce the amount of direct disbursements to domestic firms (Ninni 2007). It is interesting to note that the market-oriented approach to IP of the EC in the last decade is also contained in the rules that regulate the WTO. For instance, the Agreement on Subsidies and Countervailing Measures strictly forbids the use of any specific subsidies (see Belloc and Di Maio 2012). Moreover, since 1996 the Government Procurement Agreement (GPA) imposes the non-discrimination of foreign firms competing with domestic ones for any government procurement contract. Thus, two of the most traditional trade policy measures that had been most widely used to sustain economic growth are now banned by the WTO, exactly as they are banned by the EC.

While the EC’s approach to IP in the last decades has been quite restrictive, there are now several signs indicating that this attitude is in fact changing.

This can be seen first of all in the larger room for decision left by the EC to individual member states with respect to IP design. While the emphasis of the EC remains on favouring competition, direct government support to improve firms' competitiveness—especially in new sectors—is no longer excluded *a priori*. In fact, in recent years, most of the European countries have increased expenditure for IP (Ninni 2007). Rota (2013) notes that the most recent economic events—from faster globalisation to the slowing down of economic growth in advanced countries and the difficulties of the world's financial system—have sharply refocused the attention on sector-based issues and on the possibility of a major role for national states in the promotion of development and economic growth.

The need for a deep rethinking of IP also derives from the fact that the world economic context has been continuously evolving and is now quite different from what it was some decades ago. The two most relevant differences are: the rules of world trade, and the international division of labour. Regarding the first, it is sufficient to note that the numerous multilateral, bilateral, and regional trade agreements have significantly curtailed the room available for using trade policy as an instrument to promote industrial development. The second important change relates to the characteristics of the global economic environment and in particular the new international division of labour. The level of competition in global markets has increased enormously, which is also due to the emergence of new world-level competitors: large developing countries such as China, India, and Brazil are now leaders in labour-intensive manufacturing. As we have seen, Italy is suffering much more from this new situation than other developed countries due to its trade specialisation anomaly. This new competitive environment requires the IP to embrace a different set of instruments and measures from the ones used in the past.

5. Some concluding remarks

The last few years have been characterised by a profound world economic crisis that had a particularly strong impact on the Southern European countries. Most governments have responded to the crisis by focusing on reducing the public debt and implementing the so-called 'structural reforms'—typically changes in the regulation of labour and product markets which aim at increasing the flexibility and cost-competitiveness of the economy. An alternative view on the strategy that should be implemented to react to the crisis suggests instead that what is needed is structural change and technological upgrading. In this case then, the view is that finding a sustainable path out of the present crisis requires addressing the challenges of productivity growth and competitiveness in the long run.

Italy is one of the countries that have been most affected by the recent economic recession. In fact, the crisis added to the country's already difficult economic situation. In the last two decades, the performance of the

Italian economy has been quite poor as measured by almost all economic indicators. While Italy still has a diversified and in some instances globally competitive industrial base, its overall growth potential is now becoming a source of concern. The negative effects of the two anomalies of the Italian economy (i.e., the trade specialisation anomaly and the firms' size distribution anomaly) on the future economic perspective of the country are becoming increasingly evident. Moreover, the economy suffers from a large and persistent (if not growing) North-South economic divergence and by the co-existence of very different (and sometime conflicting) regional economic models.

Given the historical and current structural difficulties of the Italian economy, it appears evident that the strategy and type of measures that the government—following other European governments—has recently adopted to overcome the crisis are not enough to restart a process of inclusive growth. Our analysis suggests that what it is needed instead is a set of measures that—taking into consideration the specificities of the Italian economy—would favour structural change and technological upgrading, which would allow the country to respond to future economic shocks and downturns.

We have argued that, in this context, IP has to play a central role. In fact, we believe that a large part of the difficulties of the Italian economy in the face of the current crisis is related to the characteristics and weakness of its IP. There is no doubt that a better IP alone would not prevent the crisis from impacting the economy if the crisis originates in the macroeconomic architecture of the Eurozone—as is convincingly argued by Boyer (this volume). But this would be asking too much to an IP: even the best designed IP would not be able to solve all the problems that emerged with the crisis, simply because not all the important domains of intervention that should be considered are part of IP (such as exchange rate policy, financial regulation, etc.). Nonetheless, whatever the origin of the crisis, a radically different and more effective IP would have allowed the Italian economy to have a more effective reaction. Moreover, we argue that by fostering structural change IP will help to reduce the risk of future crises by creating the conditions for the country to adapt more quickly to the changing environment.

To better understand to what extent IP could play a role in promoting growth in Italy, in this chapter we have described the historical evolution of IP in Italy and its current characteristics, so as to identify weakness and potentialities. Our analysis has shown that historically, IP in Italy has been marked by low efficiency and red tape, and has often been often captured by political objectives. Our analysis has also shown that it is not possible to underestimate its current weaknesses: most of the measures that are currently part of IP appear to be uncoordinated and fragmented. At the same time, potentially effective measures turn out to be only partly implemented or are delayed by lack of resources and complex decision-making procedures and practices.

Why then, given the historical negative experience and the shrinking space for implementing IP, do we argue that Italy needs an IP (and probably more today than ever)? There are two main reasons for this. First, the elimination of the two anomalies of the Italian economy requires a structural change that only an active IP can bring about. For instance, the reduction of the trade specialisation anomaly could be achieved by promoting investment in high-tech and high-skill intensive sectors. The measures needed to achieve this are naturally within the domain of IP. At the same time, the mitigation of the firms' size distribution anomaly requires measures that encourage firms to grow and that stimulate active cooperation between firms. Here, too, the required measures are part of IP as we have defined it. Second, almost every other country in the world uses IP to support their domestic firms, especially in innovation activities. Italy cannot do less than its competitors: Italy should provide its firms with all the instruments needed to enable them to start from a situation that is no worse than that of their competitors, even if this intervention turns out to be more difficult and possibly more costly than in other countries because of the two anomalies of the Italian economy (prevalence of SMEs specialised in low-skilled products).

While we have argued in favour of IP, we have also stressed that to be effective, IP has to be significantly different from what it was in the past. The world has changed; there are new rules, new actors and new challenges ahead. First of all, this means that IP must comply with the constraints emanating from the WTO agreements. One important implication of this is that it is no longer possible to adopt a protectionist approach to trade policy. In fact, the WTO regulations now allow trade policy interventions only in the form of selective subsidies, to promote: (i) domestic R&D; (ii) regional development; (iii) environmentally friendly activities. At the same time, the EC also severely restricts governments' possibility to support strategic sectors (with the important exclusion of support for firms' innovation and research activities). In general, there is still some room for direct measures to support structural change and the industrialisation process, but governments have to design their IP to explicitly take the new constraints into account.

As for the characteristics essential to an effective IP for Italy, we have argued that first of all it should be designed with the two anomalies that characterise the Italian economy in mind: the trade specialisation anomaly, and the firms' size distribution anomaly. Both these anomalies have important implications in terms of which measures can realistically be implemented and which are the most effective strategies for doing so. At the same time, Italy's IP has to be designed to take into account the various requirements of firms in the different regions. It follows that, in addition to the sectoral and technological dimensions, the regional dimension should be taken into account as well, in the design of the policies for sustaining economic growth. Finally, IP should be tailored to the new and different needs of firms. Italian firms are now definitely exposed to more competition than in the past and

each firm is facing a different type of threat, depending on its specific characteristics. The design of the new IP therefore needs to take into full account firms' heterogeneity. This implies that the correct measures to be part of the IP may only be identified through a continuous dialogue between the private sector and the government.

The aim of the analysis presented in this paper was not to provide conclusive solutions to the numerous problems affecting the Italian economy, but to try to redirect the discourse and to ask the right questions, such as: What are the causes of the current difficult situation? Should achieving the budget balance equilibrium be the main objective of the government? How to restart a process of structural change and economic growth? Which could be the role of IP in this process? What characteristics should IP have to be effective, given the actual conditions of the Italian economy? While we have only provided preliminary answers to all these questions, we believe that the exercise of trying to change the perspective with respect to the dominant view is useful, especially when the situation is very complicated. In fact, asking the right questions is the first step to finding the right solution to any problem. We hope this paper makes a useful contribution to this enormous but urgent challenge.

Notes

- 1 Specifically, the PRODY index is, for each traded sector (product), the weighted average of the per capita incomes of the countries that are exporting in that particular sector (product). Sectors are therefore ranked in terms of their productivity/income content, hence the name of the index (Hausmann et al. 2007).
- 2 For a detailed description of the content and characteristics of IP in Italy between 1950s and 1990s, see Spadavecchia (2007).
- 3 Silva (2008) notes that possible causes for this are wrong financial and investment decisions and a conflicting approach to industrial relations by the top management of large corporations (e.g., Edison, Montecatini, Olivetti, FIAT, IRI). However, these managers could not be removed because they controlled the financial markets and because of the ownership structure of these companies (family or state control).
- 4 On the complex theme of public and private-sector interaction in each phase of Italian industrial development, see Coltorti (1993).
- 5 It is obvious that regions (for instance, Calabria and Sardinia) in which the specialisation pattern is characterised by low-skill intensity are misaligned with respect to the full set of interventions that are directed at supporting R&D. For a detailed analysis of the regional dimension of IP, see Brancati and Maresca (2013).
- 6 The literature on the effects of the innovation policies in Italy in recent decades is quite limited. The few existing studies find the effect of public policies on supporting innovation is weak (Evangelista 2007; Merito et al. (2010).

- 7 The thematic working groups covered a vast range of topics including: environment, health, life sciences, energy, agriculture, nano-sciences and new materials, 'Made in Italy', ICT, aeronautics and space, sustainable mobility and transport, cultural goods, construction.
- 8 Albeit few in number, there are also successful examples of measures to support SME activities through effective IP. One of these is the case of the Emilia-Romagna region, discussed in Bianchi and Labory (2011).