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Reviewing Italy's industrial policy (2006-2024)

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This Working Paper is the first contribution to the *LUHNIP Discussion Papers on Italy's Industrial Policy*, a series that will culminate in the publication of the "LUHNIP Italy's Industrial Policy Report" in Autumn 2025. The initiative aims to critically assess the evolution of Italy's industrial policy in light of the country's distinctive economic model and production structure, while offering concrete and actionable policy recommendations suited to a changing European landscape and global order. The project is independently funded by LUHNIP and jointly devised and coordinated by LUHNIP's Director, Dr. Donato Di Carlo, and Italy Lead and Head of Advisory, Dr. Lorenzo Moretti.

Reviewing Italy's industrial policy (2006-2024)

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Abstract

Focusing on the period from 2006 to 2024, this paper provides a synthetic overview of Italy's industrial policy. It draws on a systematic review of government annual reports and relevant grey literature to map the policy instruments adopted over nearly two decades. Building on the framework developed by Criscuolo et al. (2022), the analysis examines the scope and performance of these instruments across sectoral, territorial, and technological dimensions. The paper concludes with an appraisal of three core elements for effective industrial policy: strategic coherence, the use of conditionalities, and the capacity of the public sector to design and implement policy effectively.

Acronyms

CDP	Cassa Depositi e Prestiti
EC	European Commission
EU	European Union
IIP	Italian Industrial Policy
IRI	Istituto per la Ricostruzione Industriale
MISE/MIMIT	Ministero dello Sviluppo Economico (2006-2022)
	Ministero del Made in Italy (2022-)
MIUR/MUR/MIM	Ministero dell'Istruzione, Università e Ricerca (2006-2020)
	Ministero dell'Università e della Ricerca (2020-2022)
	Ministero dell'Istruzione e del Merito (2022-)
NRRP	National Recovery and Resilience Plan
OECD	Organisation for Economic Cooperation & Development
RRF	Recovery and Resilience Facility

Summary

- This paper reviews Italian Industrial Policy (IIP) from 2006 to 2024, analysing its evolution, highlighting its key structural characteristics, and offering some initial policy recommendations.

- The analysis shows that in the last 18 years, IIP has lacked strategic coherence, and has been characterised by high fragmentation and strong reliance on horizontal measures and subsidies.

- Institutional layering and weak implementation capacity limited the impact of IIP, with new initiatives often being added without appraisal or proper evaluation of the earlier ones – hence leading to an inefficient funding allocation and a diluted strategic focus.

- Besides a few exceptions, there has been little formal evaluation of specific IIP measures. This has weakened both policy accountability and policy learning – a notable gap compared to other best practices in other OECD countries.

- IIP should shift towards an integrated, accountable, and capability-based approach, combining:
    - a shared long-term strategy grounded in the direct engagement with societal stakeholders;
    - the use of conditionalities to align support investment in private actors with public value; and
    - investment in governance and administrative capacity to ensure reliable policy delivery.

1. Introduction

After World War II, Italy extensively employed industrial policy to develop its manufacturing base – particularly in the emerging industries of the 1950-60s (steel, automotive, chemicals) and the 1970-80s (electronics, telecommunications, aeronautics). In these attempts, industrial policy also played a key role in equipping the country with modern infrastructure (Ciocca e Toniolo, 2004). These years saw the widespread use of state-owned enterprises (SOEs) as key instruments for the reconstruction of the country and the expansion of the available national capital stocks in strategic sectors – including energy production, distribution, as well as other key public services. In this regard, Italy aligned with a global trend where, by the early 1980s, SOEs ranked among the largest companies worldwide.[1]

With the acceleration of European integration through the Single Market and Monetary Union (EMU), the early 1990s marked a significant shift for European countries – including Italy (Mosconi, 2015). The political and legal developments underpinning European integration moved the focus of national industrial policy from 'vertical' interventions supporting specific sectors/companies to 'horizontal' measures aimed at creating a level playing field in the single market (Mosconi, 2019; Blauberger, 2009). In Italy, the scope for industrial policy reduced, also in light of the worsening performance of IRI (Locke, 1995) and increased budgetary pressures to achieve EMU targets. As stressed by Lucchese et al. (2016), during these years public intervention in the industrial and service sectors decreased from 1.6% of GDP in 1992 to around 0.2% in 2013 – including via the privatisation of SOEs. This shift aligned with a broader reduction in industrial policy expenditure across the EU, a trend that continued until the financial crisis of 2008 (European Commission, 2024; see Figure 1).

However, following the 2008 financial crisis—and especially during the COVID-19 pandemic— there has been renewed interest in the concept and practice of industrial policy (Evenett et al., 2024). Notably, since the mid-2010s, the European Commission has adopted a more flexible approach to state aid ("Modernisation"), allowing targeted investments in priority areas affected by market failures – such as innovation (LUHNIP, 2024). During the COVID-19 crisis, and the subsequent energy crisis, the EU state aid exemption regulations enabled national governments, including the Italian one, to support their industrial structure much more extensively than before.

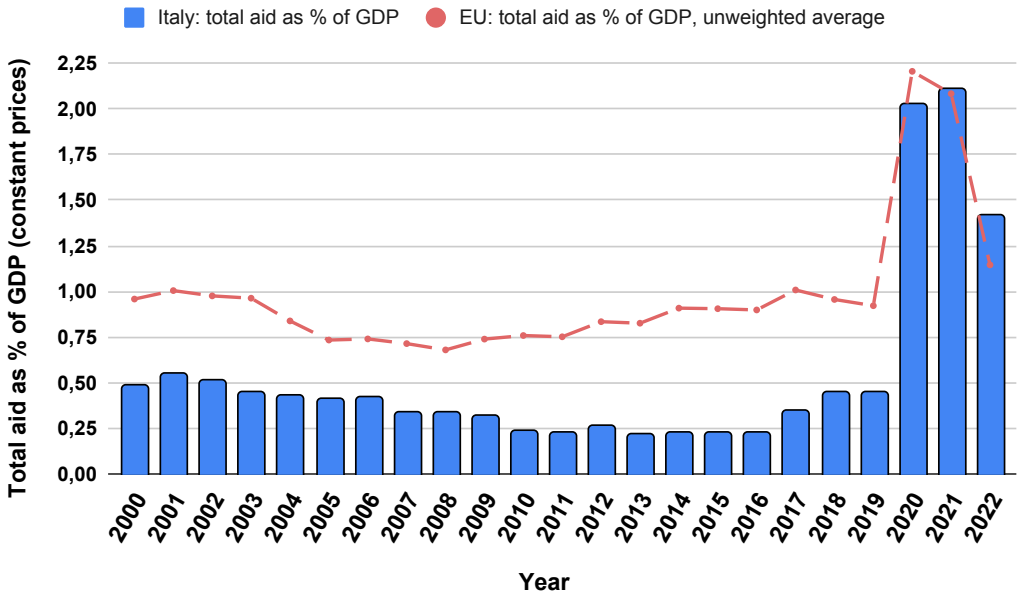
In this context, Italy has again expanded its use of industrial policy and the related expenditure, while remaining below EU average (European Commission, 2024; see Figure 1).[2] However, there is limited evidence on the role and scope of this renewed industrial policy action – particularly with respect to its underlying strategic focus. This paper aims to help Italian policymakers understand what the focus of

[1] To explore the historical evolution of the Italian system of SOEs, see Gasperin (2023).

[2] Figure 1 and later elaborations (see sections below) use expenditures for state aid as a proxy for expenditure on industrial policy. Using state aid expenditures as a proxy for industrial policy spending may present challenges, as industrial policy usually includes a broader set of tools, such as tax incentives and infrastructure investments, which are not fully captured by state aid data. In the absence of consistent data on the full range of industrial policy expenditures across tools, state aid figures serve as a useful second-best proxy (see also Criscuolo et al., 2022).

Italian industrial policy (IIP) has been during the last 18 years. This appears to be a critical task at a time when industrial policy is being placed again at the centre stage of economic policy and Italian policymakers are therefore called on to make important decisions on this front.

Figure 1. Expenditure for State Aid in Italy and European Union, by year



Notes: The figure shows the expenditure on State Aid in Italy (taken as a proxy of industrial policy expenditure; see also footnote 4) as a percentage of national GDP (blue bars) and the unweighted average percentage expenditure across EU countries from 2000 to 2022. The countries included in the average are Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Germany, Denmark, Estonia, Greece, Spain, Finland, France, Croatia, Hungary, Ireland, Italy, Lithuania, Luxembourg, Latvia, Malta, Netherlands, Poland, Portugal, Romania, Sweden, Slovenia, and Slovakia. Similar results are obtained focusing only on major European economies (France, Germany).

Source: Authors' elaboration on European Commission data (European Commission, 2024).

The paper shows how Italian Industrial Policy (IIP) experienced major challenges and shifts, yet consistently lacked a cohesive long-term strategy in the period from 2006 to 2024. While evolving through different 'eras' and tentative directions, IIP has been marked by gaps both in design and, most notably, in implementation. Those are summarised in six findings: a persistent lack of strategic design; a predominance of horizontal policies; a large reliance on subsidies and guarantees; a focus on supply-oriented measures; considerable institutional layering; and an absence of evaluation mechanisms.

As a result, the paper recommends a comprehensive reappraisal of IIP to tackle its longstanding deficiencies and align it with current developments seen across OECD countries. First, it suggests elevating the development of an integrated industrial strategy as a national priority, engaging private and societal actors to identify long-term priorities by drawing inspiration from other leading countries. Second, it advocates streamlining and rewiring the extant policy mix with conditionalities capable of ensuring its accountability and coherence – including via a rationalisation of extant public funds and evaluation criteria. Third, it emphasises the need to map and strengthen the governance infrastructure

of IIP, performing gap assessments to better invest in administrative capacity building, and fostering better coordination among actors for effective implementation.

The remainder of the work is organised as follows. Section 2 presents the analytical framework employed. Section 3 elaborates on the main strategic 'eras' of Italian industrial policy from 2006 to 2024. Section 4 discusses the main findings of the analysis. Last, Section 5 concludes the paper with recommendations for the main areas for policy improvement.

2. Methodology and data

2.1. Analytical framework

Today, policymakers thinking about industrial policy cannot easily find one definition and set of best practices. As a result, while definitions of industrial policy abound, the scope of the instruments that underpin it varies considerably for each author, policymaker, or context.[3] This work relies on the most recent conceptual framework adopted by the OECD, which adopts the following definition:

> *Industrial policy encompasses all types of [policy] instruments that intend to structurally improve the performance[4] of the domestic business sector* (Criscuolo et al. 2022).

This definition has two characteristics: first, it is purposefully broad as it aims to provide a framework to analyse interactions between different policy instruments; second, it includes both horizontal policies (i.e., available to all firm regardless of their activity, technology, or location) and targeted policies (i.e., available to a subset of firms based on one or more of these criteria); third, to keep the analysis tractable, it excludes all other policy areas that have an important but only indirect impact on the performance of the business sector (i.e., fiscal, trade, competition, regulation, education, business framework, or macroeconomic).

The definition lays the foundation for an analytical framework that can be used to analyse industrial policy in a holistic fashion. Such framework is structured around three dimensions (see Figure 2):[5]

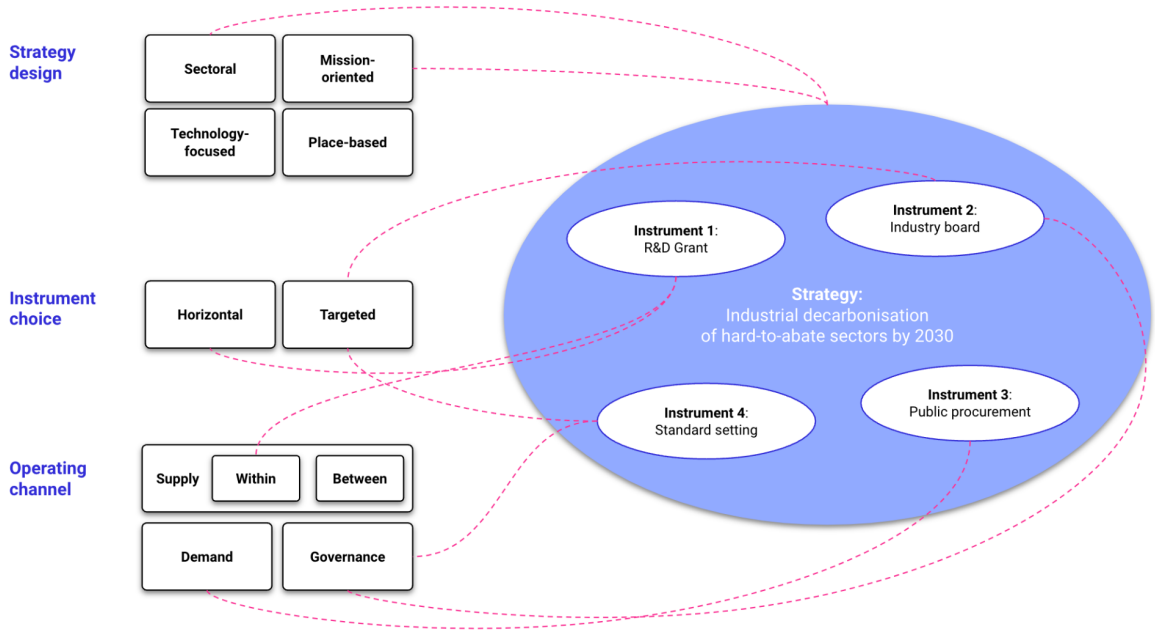
1. *Strategy design*: the connection between a (set of) objective(s) and policy instruments.
2. *Instrument choice*: the target and key characteristics of any given policy instrument.
3. *Operating channel*: the mechanism by which it improves domestic performance.

[3] For a review, see Warwick (2013).

[4] The definition of performance depends on the objective of the policymaker. For example, while some policy measures may target exclusively economic performance, others may target the social and/or economic performance of a given industry. In this respect, the definition is agnostic and non-normative.

[5] The work adopts a modified version of the framework proposed in Criscuolo et al. (2022) in which 'scope' and 'channel' are divided into two separate dimensions (instead of conflating them as 'instrument choice'). The rationale lies in the intent to highlight distinctive features of the Italian industrial policy mix with respect to both of these dimensions.

Figure 2. Analytical framework and example



Source: Authors' adaptation and elaboration of Criscuolo et al. (2022), p.6. The example is fictitious.

At the level of strategy design, the work identifies four main types: sectoral (focused on a specific sector or group of interrelated sectors); mission-oriented (focused on specific societal challenges); technology-focused (focused on a specific set of technologies); and place-based (focused on the regional distribution of economic activity). Two caveats should be added to this typology: strategies may overlap (strategies can at the same time be place-based and sectoral); and strategies may either be 'intended' (deliberately designed) or 'emergent' (result from the layering of policy instruments designed in different circumstances and for different purposes).[6]

At the level of instrument choice, the paper identifies two types: horizontal policies (which do not imply any discretionary selection of recipients by a public organisation) and targeted policies (which do imply such selection). At this stage, the analysis also accounts for the specific parameters that characterise any policy instrument – including designated recipient; amount of allocated funding; method of implementation; et cetera.

Lastly, at the level of operating channels, the work identifies three types: supply (affecting domestic production); demand (affecting domestic consumption); and governance (affecting coordination among relevant stakeholders – including those beyond the business sector, such as public and research institutions). Importantly, the supply channel can be further split into two sub-channels: the 'within' channel (affecting efficiency within the firm) and the 'between' channel (affecting efficiency in the allocation of production factors between firms).

[6] The distinction between 'intended' and 'emergent strategy draws on Mintzberg and Waters (1985).

2.2. Data

The following analyses are based on a systematic review of two main sources: i) annual reports published by Italy's Ministry of Made in Italy (MIMIT); and ii) grey literature published by independent organisations (OECD for industrial policy evaluation). Additional information on industrial policy expenditures is derived from official sources when not available through annual reports by MIMIT.[7] The first source (MIMIT's annual reports) is used to identify industrial policy instruments and main expenditures, while the second (grey literature) to gather further evidence of the aggregate, sectoral, regional, and technological impact. As this approach may involve biases arising from both the primary source (MIMIT's annual reports) and the authors' perspective, the work also relied on a recent appraisal performed by Zecchini (2020) on IIP – up to the present, the most authoritative mapping of the landscape – and shared the dataset compiled during the research with prominent IIP experts for validation. Overall, in the absence of a comprehensive dataset on IIP, this work seeks to lay the groundwork for further research on the systematic appraisal and historical evaluation of IIP.

2.3. Empirical approach

The analysis leverages the analytical framework discussed in section 2.1 to characterise the nature, evolution, and role of IIP from 2008 to 2024. First, a general overview of IIP figures is derived from MIMIT's annual reports, focusing on the number of reported policy instruments – both at national and regional level – and associated aggregate expenditure levels.[8]

Second, MIMIT's annual reports are scanned to identify the *main* national policy instruments adopted and specify their i) 'instrument choice' (horizontal or targeted), iii) 'operating channel' (supply – within or between –, demand, or governance), iv) 'type' (Tax expenditure, Equity/VC, Support/Coordination, Grant/Subsidy, Loan/Guarantee), (v) 'criteria' (R&D, Place-based, Labour, Sectoral, Size/age, Green, Technology-focused), (vi) 'expenditure' levels[9], (vii) related national or subnational 'law' and (vii) 'managing entity'.[10] The classification of policy instruments by operating channel, instrument choice, and criteria was guided by the need to identify the primary focus of each instrument while acknowledging the multi-dimensional nature of many policies.

- For the operating channel, policies were categorised based on whether they primarily acted through supply-side support (e.g., subsidies or incentives to firms), demand-side initiatives (e.g.,

[7] As the study focuses on the evolution of Italy's industrial policy (IIP) between 2006 and 2024, the work relies only on sources that have been published in this period. The Ministry responsible for IIP changed name in 2022: from the Ministry of Economic Development (MISE) to the Ministry of Made in Italy (MIMIT).

[8] In the following, aggregate expenditure levels refer to amount granted (i.e. 'concessioni') and not to the amount of resources eventually disbursed (i.e. 'erogazioni'). Similar results are obtained using information on 'erogazioni', while the average aggregate yearly amount for 'erogazioni' is consistently lower than the one for 'concessioni'.

[9] Information on expenditures for single policy measures is derived from additional sources (see below). Expenditure levels for policy measures are not directly comparable for lack of consistent information across data sources (cf. notes to Tables B.1., B.2., B.3., B.4., B.5. in Appendix B).

[10] Several policy measures, such as the 'Fondo di Garanzia', remain active across various IIP 'eras'. The following review provides information on these measures for the period when each policy was first introduced.

encouraging consumer uptake or enhancing public procurement), or governance-oriented measures (e.g., regulatory frameworks or administrative support).

- The instrument choice – horizontal (applying across sectors) or targeted (applying on specific sectors or regions) – was determined by the dominant intention of the policy.
  Similarly, for criteria, the underlying goals and target areas of each policy were analysed – for example, when distinctively focused on a (set of) technology(ies) or sector(s).

The primary classification is chosen and reported wherein policies intersect multiple domains. As a final step, the resulting longlist of policy instruments is mapped from MIMIT's reports into different 'eras' based on the presence of an intended strategy (e.g., Piano Industria 4.0 in 2013) or an emergent strategy following a critical juncture (e.g., in the aftermath of the Great Financial Crisis in 2008). Overall, this mapping resulted in the identification of five 'eras' – four of which represent intended strategies, and one an emergent strategy. The descriptive results of the data gathering process are presented in the next section. A critical appraisal of the IIP trajectory throughout the last 18 years is then presented in Section 4.

3. Italian Industrial Policy (IIP) over 2006-2024

This section focuses on the main characteristics and phases of IIP over the period 2006-2024, as identified through MIMIT's annual reports.

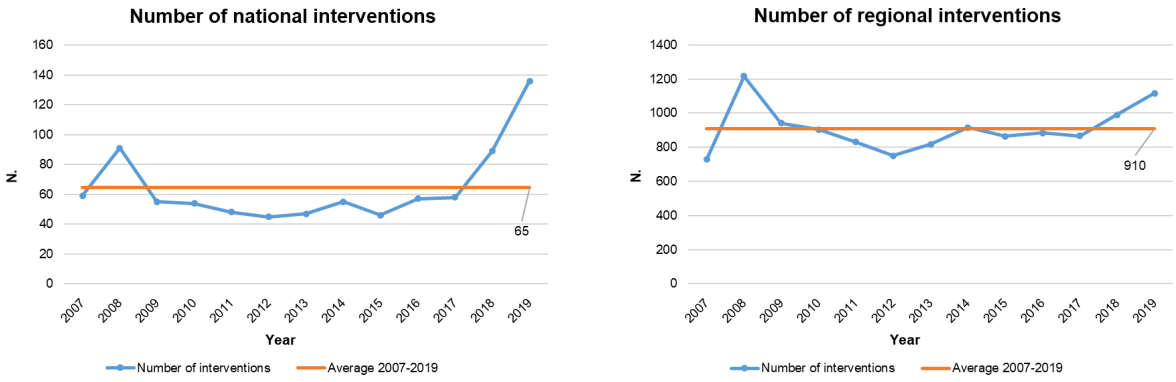
Figure 3 reports the number of policy interventions mapped over the years.[11] In general, IIP has been characterised by a high number of interventions, both at the national (panel 3.a) and regional (panel 3.b) levels. On average, 65 policy measures were active during the period at the national level; around 910 measures were active at the regional level. While the number of interventions was almost stable over the years 2009-2017;[12] the year 2019 saw a sharp increase in the number of interventions.[13]

[11] Policy interventions are all those interventions that the authors have manually gathered and coded from the MISE / MIMIT annual reports between 2006 to 2024. No expenditure threshold has been used.

[12] The number of interventions increased in 2007-2008 *vis-à-vis* 2005-2006, also as a consequence of the Global Financial Crisis.

[13] The number of interventions increased substantially in 2020 and in the subsequent years.

Figure 3. Number of policy interventions over 2007-2019, national and regional levels



(a) *(b)*

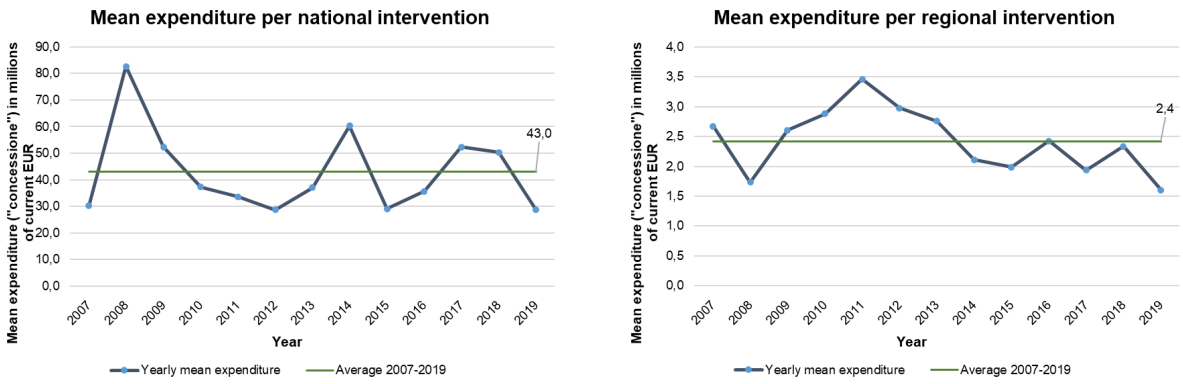
Notes: The Figure shows the number of national (panel 3.a) and regional (panel 3.b) policy interventions over the period 2007-2019 (blue line), as well as the average number of interventions active during the period (orange line). Notice that the y-axes across the two panels have different scales. The number of yearly interventions is derived – for each year *t* – using information from the corresponding annual report (published in year *t+1*). For years 2007, 2009, 2010, information from the 2013 annual report was used instead (due to the lack of information from the corresponding reports). For the year 2018, the average number of interventions between 2017 and 2019 is used due to the lack of information in the reports. For some reports, the evolution of the number of interventions is also accounted for: using the most updated values for each year, the figures remain similar. Figure A.1. in shows the same information including the years 2005 and 2006, for which the mapped number of national and regional interventions were lower. Notably, for the year 2005 the mapped number of regional interventions was 291, while the number of national interventions was 54. For 2006, mapped regional interventions were 283 while national interventions were 56. Period averages including the years 2005 and 2006 are consequently smaller but close to the reported values for 2007-2019.

Source: Authors' elaborations based on MIMIT annual reports (2008-2020).

Based on annual expenditure data from the reports (see Figure A.3. in Appendix A), Figure 4 presents the average yearly expenditure for national (panel 4.a) and regional (panel 4.b) interventions. The analysis reveals that the average national measure absorbed 43 million EUR per year, while regional interventions averaged around 2.4 million EUR per year.[14] However, the simple averages hide the unequal distribution of resources across measures. As shown in Figure 5, between 2010 and 2017 more than 70% of national resources were concentrated on the 5 largest policies adopted that year. This concentration of resources in a few major initiatives suggests that most national policies operated on a much smaller budget, with a high dispersion and fragmentation of resources. When considering the period from 2018 to 2019, the evidence further suggests an increase in the dispersion in the allocation of resources, as the allocation became more spread out among a wider range of interventions.

[14] Similar figures are obtained using 'erogazioni' (actual payments) as the main expenditure measure. In general, actual payments 'erogazioni' result on average lower than granted expenditure 'concessioni' (see Figure A.4. in Appendix A).

Figure 4. Mean expenditure per intervention over 2007-2019, national and regional levels

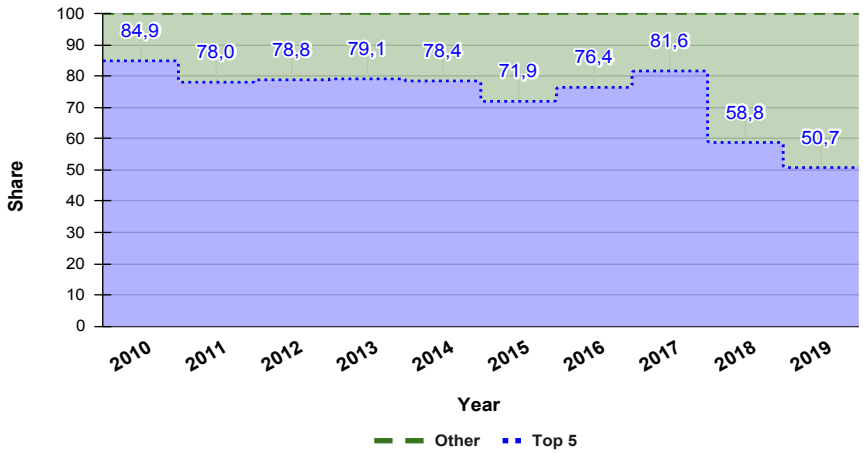


(a) *(b)*

Notes: The Figure shows the mean expenditure per national (panel 3.a) and regional (panel 3.b) intervention over the period 2007-2019 (blue line), as well as the average over the period (green line). Notice that the y-axes have different scales. The number of yearly interventions is derived – for each year *t* – using information from the corresponding annual report (published in year *t+1*). For years 2007, 2009, 2010, information from the 2013 annual report was used instead (due to the lack of information from the corresponding report). The number of interventions (used at the denominator) is reported in Figure 3. The yearly expenditure refers to the most updated figure for granted expenditures ('concessioni'). Notably, for the period 2014-2019 information from the 2020 report was used. For the period 2012-2013 information from the 2018 report was used. For 2011, the 2017 report was used. For 2010, the 2016 report was used. For 2008-2009, the 2014 report was used. For 2007, the 2013 report was used. Values for expenditures are in current EUR (not deflated). Similar figures are obtained using 'erogazioni' or alternative measure for expenditures (State Aid data, cf. Figure 1). Figure A.2. in Appendix A shows the same Figure including the years 2005 and 2006.

Source: Authors' elaborations based on MIMIT annual reports (2008-2020).

Figure 5. Share of expenditure for the top 5 national policies vis-à-vis other policies



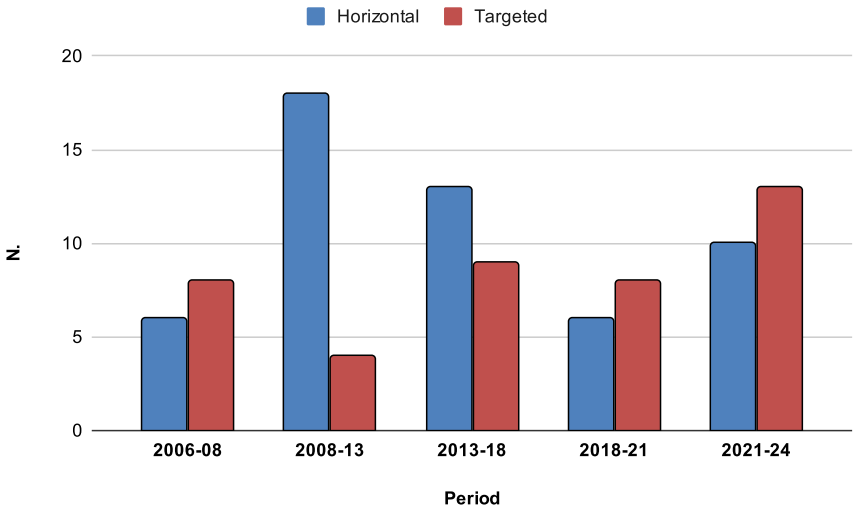
Notes: The Figure reports the share of national resources devoted to the largest 5 national measures in each period as compared to other policy measures active in the same period. The information on top measures is derived each year using information available in annual reports, see also Notes to Figure 4.

Source: Authors' elaborations based on MIMIT annual reports (2011-2020).

Leveraging the analytical framework presented in Section 2 and focusing only on national measures, this paper uncovers a number of stylised facts about IIP across 2006 and 2024. First, mapped horizontal policy measures were dominant both in 2008-13 and in 2013-18. Conversely, the IIP mix was much more balanced in 2006-08, 2018-21 and in 2021-24 (see Figure 6 and next subsections). Also, as shown in Figure 7, mapped grants and subsidies were the most regularly used instruments within IIP. Following them in descending order come support/coordination instruments, tax expenditures, loans and guarantees, equity/VC. In addition, supply-oriented policy measures have been consistently and by far the most popular throughout the period of analysis.

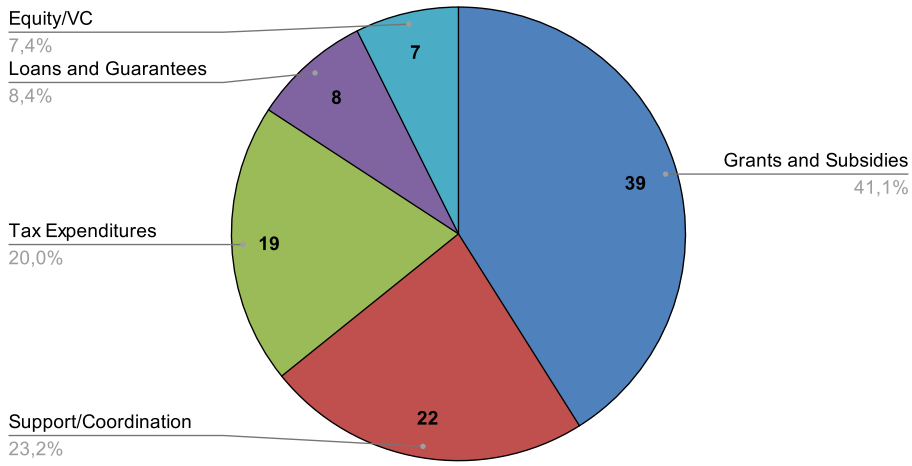
Building on this descriptive evidence, the next subsections deep dive into the main (national) policy tools implemented over the years and related information from the annual reports. Overall, the report identifies five 'eras' of IIP: 'Piano Industria 2015' (2006-08) (analysed in subsection 3.1); through the crisis (2008-13) (3.2); 'Piano Industria 4.0' (2013-2018) (3.3); 'Piano Transizione 4.0' (2018-21) (3.4); 'Piano Nazionale di Ripresa e Resilienza' (2021-24) (3.5).

Figure 6. Horizontal and targeted policy measures over the five IIP eras



Source: Authors' elaborations based on the policy mapping (MIMIT annual reports, 2008-2024).

Figure 7. Instrument types, distribution over the five IIP eras



Notes: The Figure reports the number of mapped policy measures across 2006-2024. The Figure does not account for the relative importance of each measure, e.g. in terms of expenditure.

Source: Authors' elaborations based on the policy mapping (MIMIT annual reports, 2008-2024).

3.1. Piano Industria 2015 (2006-2008)

Shortly after the beginning of the 'Prodi II' Government, Italy advanced its first industrial strategy in more than a decade: the so-called 'Piano Industria 2015'. Developed by Minister of Economic Development Pier Luigi Bersani, its main goal was to address the decreasing competitiveness of the Italian industrial structure by bringing manufacturing back to the core of national economic strategy and reviving its potential by providing support to strategic innovation – including through its integration with advanced services and new technologies. The five strategic domains initially identified by the strategy included i) energy efficiency; ii) sustainable mobility; iii) new life technologies; iv) new technologies for Made in Italy; v) new technologies for cultural heritage – thus indicating the pursuit of a largely sectoral approach. From a policy mix perspective, the strategy relied on three main pillars:

1. Industrial Innovation Projects ('PII'): a co-funding instrument with which core ministries (MISE, MIUR, Ministero dell'Innovazione) would support consortia of public, private, and research stakeholders in the implementation of industrial innovation projects selected on the basis of a set of strategic guidelines – including foreseen macroeconomic impact.
2. Industrial districts ('Distretti produttivi'): the institutionalisation of legal personality for groups of SMEs that wish to cooperate with each other on the basis of a shared sectoral focus, in view of prospective organisational, financial, and fiscal benefits – such as their ability to bank individual as well as joint investment projects.
3. Innovative finance ('Finanza innovativa'): the institutionalisation of two new public funds for the implementation of the strategy – the Fund for Competitiveness and Development (FCS; bringing together existing tax relief and credits under one umbrella) and the Fund for Enterprise Finance (FFI; helping businesses access financial markets).

These pillars were complemented by several key measures – including the implementation of the triennial Research National Plan (PNR 2005-2007); the rationalisation of existing funding schemes for research (Fondo Investimenti per la Ricerca Scientifica e Tecnologica – FIRST); targeted tax credits (R&D and place-based); targeted investments inherited from the previous government (naval and maritime); and the organisation of a ministerial structure within MISE for industrial crisis management which will play a growing role throughout the following years (see Table B.1. in Appendix B).

Despite its ambitions, 'Industria 2015' was never implemented at full scale. Exceptional delays in the design and finalisation of the grant schemes that would have enabled the selection and financing of 'PIIs' led to the implementation of initiatives in only three of the original five domains (energy efficiency; sustainable mobility; new technologies for Made in Italy). As a result, while the funds made available by the programme were initially planned at €663M, only €23M were effectively provided to awarded consortia for a total of 30 projects (European Commission, 2015). Similarly, the second pillar of the strategy ('Distretti produttivi') failed to specify the focal criteria and potential benefits of SME aggregation and ended up subject to several amendments from following governments.

Overall, while 'Industria 2015' manifests the government's intention to play a proactive role in steering the rebirth of Italy's industrial prowess, the main regulatory and administrative means deployed for this goal (and the short life of the government) proved insufficient. The mismatch between the stated ambition of the strategy and the comparatively little resources allocated for achieving it (let alone spent) signals important capacity constraints.

3.2. Through the crisis (2008-2013)

The legislature following the 2008 national elections was characterised both by the absence of an explicit industrial strategy and by the lasting effects of a double-dip recession prompted first by the Global Financial Crisis (2007-2008) and then by the European Sovereign Debt Crisis (2009-2012). Under the leadership of Claudio Scajola and Paolo Romani ('Berlusconi IV') and Corrado Passera ('Monti') at the MISE, the two governments that governed Italy in this period pursued policies which – while perhaps fragmentary and contingent in conception – are nevertheless relevant today. Among many others, the most notable include the following (see also Table B.2. in Appendix B):

1. Rebooting of Central Guarantee Fund ('Banca del Mezzogiorno-Mediocredito Centrale'): first established in 1996 to ease access to credit by providing public guarantees on the loans that eligible MSMEs may ask of private banks, this instrument was indirectly brought closer to public control starting from 2009 (first through the ownership of Poste Italiane in 2011 and then through the development agency Invitalia in 2017) and assigned a wide set of policy goals – including financing of strategic investment projects, new businesses and internationalisation initiatives – with a focus on Southern regions.
2. Rationalisation of the existing incentive system ('FCS – Fondo di Crescita Sostenibile'): first established in 1982 to support strategic R&I projects for industrial competitiveness, MISE's Technological Innovation Fund (FIT) was restructured and rebranded in 2012 in the effort to bring order to existing industrial policy instruments.

3. Startup Act ('Decreto Crescita 2.0' and 'Smart&Start'): drawing on the recommendations of a high-level expert group, the Act provided Italy's first legal framework and subsidised loan programme for the recognition and support of innovative startups. In the following years, the Act would become the foundation for further support schemes.
4. National Technology Clusters ('Cluster Tecnologici Nazionali'): starting from 2012, new public-private networks were identified and financially supported as pivotal stakeholders in supporting the coordination of industrial research, training and technological transfer in eight sectors – including, e.g., Aerospace, Agrifood, Manufacturing, and Life Sciences.
5. Cassa Depositi e Prestiti (CDP)'s 'comeback': after its privatisation in 2003 – with the Ministry of Economy as the sole shareholder – Italy's main development bank took off during the years of the crisis and began assuming an active role to strengthen national capital markets both via indirect lending to SMEs and two new funds – the Strategic Investment Fund (sovereign wealth fund, from 2016 onwards CDP Equity) and the Italian Investment Fund (private equity fund co-invested by CDP Equity and other key national financial institutions).[15] As of today, CDP acts as the state's major holding company.

Notwithstanding these efforts, the loss of productive capacity in the Italian manufacturing sector due to the impact of the double-dip recession between 2008 and 2013 was estimated by the Ministry of the Economy to be from 11% to 17% (MEF, 2016). Meanwhile, the number of successful applications to the Guarantee Fund increased almost by 4 times (+374.5%; from 12,940 in 2007 to 61,407 in 2012) including a major jump from 2009 to 2010 (+203.6%; from 24.958 to 50.074). While the intended focus of the Fund was on the South – wherein accessing credit is both more difficult and expensive also due to the few bank branches – their geographical distribution during 2007-2012 was skewed towards the North (47.2% vs. 21% South vs. 31.8% Centre) (MISE, 2013, pp.82-107). This data reflects pre-extant and well-consolidated asymmetries within the Italian 'two-tiered' productive structure: on the one hand, an export-led North strongly based on manufacturing SMEs; on the other hand, a consumption-led South strongly based on public employment (Di Carlo et al., 2024).

The trends highlighted above illustrate the 'defensive character' of Italy's 'realised' industrial strategy in this period: i.e., a focus on ensuring the survival of the national industrial structure in the face of a dramatic financial crisis. At the same time, it is nevertheless important to stress that several measures enacted by then had contributed to the further evolution of the country's policy mix in the following years. Besides the ones previously highlighted (Startup Act, CTN), two additional measures were refinanced by subsequent governments and have survived until today: Aid to Economic Growth ('ACE') – a fiscal deduction offered to businesses in proportion to self-funded capital increases (which was just abolished by the 2023 budget law); and the 'Nuova Sabatini' – an interest deduction offered to businesses on bank loans targeting investments in selected capital goods (which is still included in the current policy mix).

[15] See also De Cecco e Toniolo (2014) and Bulfone and Di Carlo (2021).

3.3. Piano Industria 4.0 (2013-2018)

Following national elections in 2013, the new legislature gradually developed a clear strategic intent with the so-called 'Piano Industria 4.0' – the impact of which is still evident in today's IIP. Developed under the leadership of Carlo Calenda ('Renzi', 'Gentiloni') and after the relatively stable mandates of Paolo Zanonato ('Letta') and Federica Guidi ('Renzi'), the strategy focused on supporting a widespread uptake of the key enabling technologies behind the so-called 'Fourth Industrial Revolution' (4.0) – such as advanced manufacturing, additive manufacturing, augmented reality, digital twins, cloud systems, Internet of Things, and data analytics (Martinelli, Mina, and Moggi, 2021). As these were expected to support considerable productivity increases in Italy's traditional industrial sectors via process and product innovation, the strategy aimed to provide an ample set of measures to support businesses in their adoption (see Table B.3. in Appendix B). They included:

1. Incentives to investments ('Super-/Iper-ammortamento'; 'Nuova Sabatini'): tax deductions to all businesses investing into tangible (250%) or capital (140%) assets or technologies enabling the 4.0 transition, along with extra interest deductions (from 2.75% to 3.575%).
2. Incentives for capacity building ('Nuovo credito R&S'; 'Credito formazione'; 'Patent box'): tax credits to all business investing in R&I (50%) and education (40%) or profiting from the use of patented technologies (up to a 50% discount on the business income tax rate).
3. Structures for ecosystem coordination ('Competence Centre 4.0'; 'Accordi innovazione'): eight competitively selected public-private partnerships facilitating businesses' uptake of 4.0 through industrial R&D projects aimed at new products, processes or services.
4. Targeted investments in critical infrastructures ('Strategia Italiana Banda Ultra Larga'): most significantly, via the set-up of a dedicated plan and governance for the realisation of public infrastructure providing ultra-broadband network connection nationally. This plan was entrusted to Infratel – the inhouse public company controlled by Invitalia.

Available evidence shows that the strategy has been an effective mean to support the digital transformation of Italian firms, especially in manufacturing; and that these new investments have supported employment growth (Bratta et al., 2023).[16] At the same time, the regional distribution of beneficiaries has been largely skewed towards the Northern regions (74.3% of R&D credit beneficiaries) rather than the Southern ones (8.0%) (ISTAT, 2018). While the automatic nature of some policy instruments under the strategy has made distributing benefits easier and more coherent, it remains unclear whether this has helped narrow or instead widened existing competitiveness gaps in the national economy (Cappellani et al., 2017).

3.4. Piano Transizione 4.0 (2018-2021)

The industrial policy adopted by governments following 2018 national elections ('Conte I' and 'Conte II') was characterised by considerable continuity with the former one despite considerable political

[16] Bratta et al. (2020) point out that, while an econometric assessment of the additionality of the Industry 4.0 hyper-depreciation bonus is not possible, a demographic assessment of the firms that made use of it suggests that the measure had a non-negligible effect on technology investment propensity.

change. By mid-2020, the decision to build and expand on the pre-extant strategy was formalised with the presentation of 'Piano Transizione 4.0' – the two essential objectives of which were declared to be: i) stimulating private investments through wider tax expenditures; ii) ensuring the stabilisation of such measures for the near future. As a result, under the leadership of Luigi di Maio ('Conte I') and Stefano Patuanelli ('Conte II') at the MISE, the new strategy (see Table B.4. in Appendix B) expanded the previous one in three main respects:

1. Rationalisation of 4.0 policy mix ('Nuovi crediti R&S'; 'Voucher consulenza'): revision and integration of the pre-extant incentive scheme structure – including through the inclusion of activities for sustainable 4.0 innovation and new instruments such as the 'consultancy voucher' (helping businesses contract personnel to support 4.0 organisational change).
2. Expansion of technological focus ('FNI'; 'Fondo IPCEI'; 'Fondo IA-B-IoT'; 'FTT'): several initiatives were dedicated to boosting national investment capacity in strategic stages of the innovation process (CDP's 'National Innovation Fund' – CDP Venture Capital – and private foundation Enea Tech's Tech Transfer Fund') or targeted technologies (Infratel's 'Fund for technologies applying AI, Blockchain, IoT'; or MISE's participation in 'Important Projects of Common European Interests' via the 'IPCEI Fund'). This included the rise of relevant strategic coordination efforts in the field of space & aerospace policy (as exemplified by the release of the new 'strategic document of national space policy').
3. Integration of green transition ('PNIEC'; 'Green New Deal'; 'Superbonus 110%'): besides the 'greening' of pre-extant industry 4.0 measures, the design of the first ever National Integrated Plan for Energy and Climate ('PNIEC') fed into the creation of a new fund for the 'Green New Deal' (currently co-managed by Mediocredito Centrale and SACE) and ad-hoc incentives (such as the 'Superbonus 110%' – which aimed at boosting demand for energy efficiency restructuring and revitalising the building industry).

Since its foundation in late 2018, the IPCEI Fund has catalysed large forms of co-investments in key technologies for the green and digital transition at national and EU level (i.e., microelectronics, cloud services and infrastructures, electric batteries, hydrogen): indeed, Italy was one of the two countries (together with France) to participate in all of the ten IPCEIs notified up to September 2024. In its first five years of activity, CDP Venture Capital demonstrated high dynamism – opening 13 thematic funds and launching a National Network of 19 thematic Accelerators to facilitate matchmaking between (national or international) VC investors and startups. Enea Tech Foundation underwent several rounds of organisational review which halted the implementation of its own Technology Transfer Fund, independently from the gradual uptake of a tighter focus on biomedical, IT, green and circular economy, agri-tech and deep-tech. From a green transition perspective, the coherence of the implementation of the 'Green New Deal' Fund also remains opaque due to the high number of stakeholders involved (MISE, MCC, SACE, CDP to the least) and lack of clarity on the modalities of selection for the supported projects.

Overall, while remaining within the scope of the former strategy's 'horizontal' industrial policy approach, the new one presents a timid but relevant number of targeted policies. At the same time, the

impact of these efforts on the national industrial structure remains unclear or at least highly fragmented. Moreover, the public debate in this domain has been largely overhauled by Superbonus 110% – a measure which imposed enormous costs on public finances without achieving the targeted reductions in carbon emissions (Capone and Stagnaro, 2024).

3.5. Piano Nazionale di Ripresa e Resilienza (2021-2024)

The beginning of the 2020s' was characterised by another crisis for the Eurozone – this time caused first by the outbreak in March 2020 of the Covid-19 pandemic and its lasting effects during 2021, and then by the energy and geopolitical crisis sparked by the direct conflict between Russia and Ukraine from February 2022. In this context, a consistent and varied set of measures adopted by the national governments ('Conte II' and 'Draghi') aimed at supporting the recovery of the industrial sectors affected by these two crises (see Tables B.5., B.6. and B.7. in Appendix B). In parallel, the adoption of 'NextGenerationEU' by the European Commission expanded Member States' financial capacity through the formation of the Recovery Resilience Facility (RRF) and the related implementation of National Recovery and Resilience Plans (NRRPs).

While the Italian NRRP is not specifically focused on industrial policy, its scope includes several policy instruments with direct implications for long-term national economic development and, therefore, illustrate how subsequent Italian governments conceived industrial strategy. Adopted in July 2021 following the approval of the European Council, Italy's NRRP was elaborated at the MISE first by Stefano Patuanelli ('Conte II') and then Giancarlo Giorgetti ('Draghi'). It has six missions, three of which relate to industrial policy: 'Digitalisation, innovation and competitiveness'; 'Green & ecological transition'; and 'Education and Research'. After the election of a new government in 2022 ('Meloni' – with Adolfo Urso at the Ministry of Made in Italy, MIMIT), the NRRP was then amended in December 2023 and integrated with a new mission dedicated to REPowerEU – EC's plan to push for energy independence from Russian fossil fuels. Currently, its key industrial policy characteristics can be summarised as follows:

1. Expansion of pre-extant policy tools ('Transizione 4.0'; 'Piano 1 Giga/5G'; IPCEI Fund): the NRRP renews the focus on previous technological strategies – 4.0, ultra-broad band networks, space policy – while broadening the scope of the companies that can benefit from them; the set of subsidised intangible investments; and the allocated investment. Moreover, it identifies new areas of international cooperation through the IPCEI Fund.
2. Diversification of the green energy investment mix ('Rinnovabili'; 'Idrogeno'; 'GTF'): the NRRP expands the commitment of IIPP to the green transition via multiple investments in different energy technologies – including, most notably, the large-scale deployment of renewable energy sources (photovoltaic, wind, storage) and increased investment in the development of national hydrogen. While most measures focus on deployment, minimal resources are also allocated to targeted R&I in these areas.
3. Higher investment in R&I and technology transfer ('Ecosistemi'; 'Campioni nazionali'): the NRRP expands governmental support to foundational and applied research through provision of sizeable funding to universities; private-university partnerships; prospective 'national champions' in R&I on key enabling technologies; and innovation ecosystems centred around

'territorial R&I leaders'. These measures ultimately aim to strengthen the integration of the applied research and industry communities, yet are largely horizontal.

Importantly, the NRRP was complemented by the so-called "Fondo Complementare al PNRR (PNC)", aimed at integrating, with national resources, the interventions of the NRRP for a total of 30.6 billion euros for the years from 2021 to 2026 (see Table B.6. in Appendix B).

From a strategic perspective, the NRRP shows a gradual rebalancing of horizontal and targeted policies – the latter becoming increasingly as prominent as the former. Nevertheless, these two types of policies identify different goals: on the one hand, the focus on strengthening the R&I and technological endowment of Italian industry; on the other hand, the focus on wide investments in infrastructures that are bound to play a key role in the green and digital transition. In this sense, despite the structuring of the NRRP around key 'missions', its underlying strategy design can be defined as firmly technology-focused, and therefore in continuity with earlier trends within Italian industrial policy. As this work is written more than halfway through NRRP's implementation, progress has been two-faced. On the one hand, as of August 2024 Italy was the second beneficiary country in Europe for the ratio between resources received vs. allocated through the RRF – i.e., €102.5MLD vs. €194.4MLD (63%) – just after France (77%) and much before Spain (30%) (PdC, 2024). On the other hand, the country's ability to disburse promptly the resources received via the RRF still lagged behind: as of October 2024, only €53.5MLD were spent (27.5% of the total NRRP allocation) – half of which were invested in major fiscal measures, such as Superbonus 110% (€13.9MLD) and Transizione 4.0 (€13.4MLD) (UPB, 2024).

Besides the NRRP, the current government is also deploying a new plan called 'Transizione 5.0'. The plan builds on the legacy of the pre-extant policy mix ('Industria 4.0' & 'Transizione 4.0') to provide businesses with key fiscal incentives to support their investment in the 'Twin Transition' – i.e., green and digital – via €6.3MLD of resources from REPowerEU. The key policy changes include a redesign and expansion of the eligibility of the measure for companies of diverse sizes and sectors; the inclusion of carbon emission reduction as a key conditionality for receiving the tax credit; the inclusion of investments related to advancing firms' energetic self-sufficiency; and a higher allocation of subsidies to investments in workforce reskilling (Governo, 2024a). Other key developments include the publication of a new AI strategy (AGID, 2024) and an imminent hydrogen strategy (MASE, 2024). Moreover, an important policy change is the creation of a unified special economic zone (SEZ) for the whole 'Mezzogiorno' – i.e., South of Italy – in lieu of the many pre-extant ones. While the purpose of the SEZ is to create a dedicated channel for streamlining bureaucratic procedures and providing ad-hoc fiscal incentives, its constitution also re-centralises its governance and may preclude the development of a new strategy for the development of the Mezzogiorno.[17]

[17] Further details on the development of such a strategy are expected. See Governo (2024b).

4. Summary of the main findings

This section analyses the information reported above by summarising the evolution of IIP in the last 18 years. Overall, the review leads to six main descriptive insights.

Insight no.1: During 2006-24, IIP largely lacked a proper strategic design.

The five 'eras' analysed in this report show that the underlying vision of the policymaker for IIP rarely managed to become an ambitious collective strategy for the long-term transformation and strengthening of the Italian industrial and innovation ecosystem. In the case of Piano Industria 2015 (2006-08), a glaring implementation gap inhibited the sectoral vocation of the approach. Through the crisis (2008-13), IIP gained a 'defensive' character which struggled in shielding the country's productive backbone from profound financial distress. The only discontinuity lies in the Piano Industria 4.0 (2013-2018) through which IIP assumed a technological orientation that has not been challenged but expanded in Piano Transizione 4.0 (2018-21) and NRRP (2021-24). Still, place-based and mission-oriented aspects remain mostly underdeveloped in all strategies despite strong trends in the opposite direction across OECD countries (OECD, 2024). Also, IIP total expenditure appeared consistently fragmented in a very high number of interventions, with a very low average amount of expenditure per intervention, especially at the regional level.

Insight no.2: During 2006-24, IIP mostly opted for horizontal policy measures.

The five 'eras' also show that horizontal policy measures are mostly prevalent within IIP. With reference to the measures listed in Tables B.1. to B.5. in Appendix B, horizontal policy measures were dominant both in the 2008-13 era (18 horizontal policies vs. 4 targeted ones) and the 2013-18 (13 vs. 9). Conversely, the IIP mix was much more balanced in the 2006-08 (6 vs. 8), as well as in 2018-21 (6 vs. 8) and in 2021-24 (10 vs. 13) (see also Figure 6). Yet, it is important to note that some of the major targeted policies pursued in those time frames were either not fully implemented (2006-08), unfunded strategic plans (2018-21), or focused on infrastructure investments (2021-24). All considered, while there is an evident rise of a more targeted approach within IIP – e.g., in sectors such as TLC, energy, aerospace, and semiconductors – the horizontal approach has been quantitatively (number of measures) and qualitatively (size of expenditure) widespread during 2006-24.

Insight no.3: During 2006-24, IIP mostly opted for subsidy/guarantee instruments.

The five 'eras' show that grants and subsidies are the most regularly used instruments within IIP (39 instruments out of 95 mapped; 41,1% of the total policy mix). Following them in descending order comes support/coordination instruments (22/95; 23,2%), tax expenditures (19/95; 20%), loans and guarantees (8/95; 8.4%), equity/VC (7/95; 7.4%) (see also Figure 7). Thus, IIP seems to be historically relying on measures that are easier to administer due to either their rigid procedural dimension (e.g., grants/subsidies, loans/guarantees) or automatic distribution (e.g., tax expenditures). Vice versa, measures that require stronger administrative capacity and active engagement with the industrial ecosystem (e.g., support/coordination and equity/VC) are much less prominent. These metrics must be taken with caution nonetheless, as they do not reveal the size of the resources allocated to instrument types. For example, a key outlier is the Central Guarantee Fund – which plays an extremely relevant

role in the national policy mix due to its considerable resourcing since the aftermath of the financial crisis. For this reason, it is more precise to identify not only subsidies but also guarantees as key beacons of IIP.

Insight no.4: During 2006-24, IIP privileged supply-oriented measures.

The five 'eras' show that supply-oriented policy measures have been consistently and by far the most popular throughout the period of analysis. Overall, the Tables B.1. to B.5. in Appendix B identify a total of 75 supply-oriented measures *vis-à-vis* 17 governance-oriented and 3 demand-oriented measures. While governance-oriented measures are evenly distributed through the 'eras', demand-oriented measures appear only in the last two – including the 'Superbonus 110%' for the energy efficiency of built environment (2018-21) and two NRRP investments linked to the twin transition: public investment in ultra-broad band networks and electric buses (2021-24). Moreover, the large majority of supply-oriented measures targeted the 'within' channel (64) rather than the 'between' channel (11) – aiming to improve company productivity across the board instead of affecting the allocation of resources between companies. The persistence of public and political struggles around the approval of stricter competition laws is further evidence of this point.

Insight no.5: During 2006-24, IIP witnessed considerable institutional layering.

One of the most interesting aspects of IIP is the frequency with which 'flagship initiatives' initially promoted as transformative are quickly 'forgotten' once moved to implementation. A byproduct of this trend is that those initiatives are rarely discontinued or renewed *intentionally* before their natural end – thus often consuming their budget regardless of the emerging challenges or the effective results. On the one hand, this trend has a clear negative impact both on the long-term coherence of IIP as well as on the accountability of the public spending that underpins it. On the other hand, yet, it also entails that there is a limited grasp of the potential hidden in the initiatives already underway, yet rarely followed in the public debate. This review helped identify critical examples of such cases – e.g., the ever-growing role of the Guarantee Fund (since the double-dip recession onwards); the layering of (non-)sectoral technology transfer initiatives (e.g. National Technology Clusters; Competence Centres 4.0; new NRRP partnerships); and the most recent development in the Italian VC space (CDP Venture Capital's Network of Accelerators). Crucially, this also applies to the number of actors creating IIP: from ministries (MEF, MIMIT, MUR) to state-owned companies, banks, and subsidiaries (CDP, Invitalia, Infratel) to the many technology transfer centres previously mentioned. Reconstructing the complex governance architecture of IIP is a difficult, yet fundamental task in its own account.

Insight no.6: During 2006-24, IIP was rarely (if ever) properly evaluated.

It follows from the previous insight that the fifth striking aspect of IIP is the persistent lack of any proper evaluation mechanism – both at the level of individual measures and policy mixes. Over the last 18 years, there has been little to no assessment of the impact achieved by most of the many measures implemented over the last 20 years. A key exception is the 2012 Startup Act, for which annual monitoring and reporting was mandated by law (see Menon et al., 2018). Yet, the largely dominant approach seems to entail the neglect of continuous policy learning as a critical precondition for

successful IIP implementation. Such neglect has been recently pointed out in a shared report published by the OECD and MIMIT, in which strategies to strengthen the ministry's analytical and evaluation capabilities are explored in depth (OECD, 2023).

Overall, while appraising the whole IIP between 2006-2024 is beyond the scope of this paper, it is key to highlight that every era was characterised not only by the measures mentioned above, but also by myriads of extra micro-interventions – including at regional and local level. While singularly modest in spending, these measures have relevance in aggregate expenditure. Yet, their strategic relevance has rarely been analysed or questioned. In this sense, it seems critical that, building on the initial effort carried out in this work, the complexity of IIP is further explored and deepened to evaluate its potential both at individual and aggregate level. Indeed, in such an analysis there is a chance to identify and fine-tune the utilisation of a large pool of public spending which would then either help build a more holistic and integrated IIP or liberate fiscal capacity for additional forms of intervention. However, this would be conditional on the presence of a strategic intent which is today absent in IIP. The next section hones in on this issue to provide recommendations against this state of play.

5. Policy recommendations

The analysis reported in this paper suggests that, as of today, IIP appears to inherit a range of weaknesses accumulated during the last 18 years (if not before): a narrow and undiversified policy toolbox; a high degree of policy and project fragmentation; a dearth of coordination within and beyond the public sector; a lack of nation-wide strategic focus and of contextual adaptation to regional and sectoral differences; and a persisting implementation gap evident in the limited spending capacity of the state. While it is worth reflecting on the underlying reasons behind these trends, it would be behind the scope of this paper to explore them in greater depth. Vice versa, this section identifies a set of policy recommendations to address these weaknesses in order to directly stir the debate concerning the future of IIP. Based on the analytical framework, this work suggests three sets of recommendations.

Strategy design and scope

As shown above, IIP has rarely if ever been systemic in its conception during the last 18 years. This applies both at any time (any single government's vision) and as a whole (how the policy instruments layered over time onto each other interact with each other). Instead, several smaller technology-focused strategies emerged in distinctive areas, e.g., space tech; ultra-broadband networks; AI; and hydrogen. Yet, it is debatable whether any of these can be elevated from the status of 'guidance' for national stakeholders to that of industrial 'strategy' capable to articulate a vision for the future of the Italian industrial and innovation ecosystem and of reorienting the extant policy mix accordingly. As argued by the OECD, effective industrial strategies have shared objectives and provide a clear direction for societal change (Criscuolo et al., 2022).

While IIP is 'siloed' in a myriad of technology-focused strategies, this work suggests recalibrating IIP design towards a more holistic mission-oriented and place-based approach. Following other OECD

countries (such as France)[18] this includes the development of ambitious, long-term national roadmaps with key stakeholders and the elevation of the search and discovery of Italy's future comparative advantage as a key public priority. Crucially, this task should build *on top of* rather than neglect the extant policy mix.

***Recommendation no.1**: Elevate the shared development of an integrated industrial strategy for the transformation of the Italian industrial and innovation ecosystem as a national priority.*

- **1A**. Engage private and societal stakeholders (both at national / macro-regional level) in the evidence-based identification of broad, ambitious, long-term industrial priorities.
- **1B**. Build upon the results of this report to diagnose and simplify the extant policy mix as inherited from previous strategic cycles and evaluate its potential / build upon it.
- **1C**. Learn from competitor countries (e.g., France, Germany, and UK) the diversity of contemporary industrial strategy to inspire the design of a distinctive Italian approach.

Policy instrumentation

Even if IIP had a clear strategic focus, this precision would amount to nothing without a strong connection to a coherent policy instrumentation. In this paper, it emerged how IIP tends to make very limited use of the breadth and diversity that the contemporary industrial policy toolbox manifests across OECD countries. Yet, the most concerning bit of IIP does not lie in its narrow approach to design, but in its lack of accountability. For example, IIP has accumulated a considerable amount of investment funds that claim to be 'strategic' for the progress of both horizontal (e.g., FFI, FSI, FII) and vertical targets (e.g., FCS+, FNI, GTF, Fondo IA). Yet, there is still very limited strategic visibility and awareness of how this money is allocated; whether and how they reflect the intended policy goal; and whether and how they contribute to the advancement of any given sectoral or technology roadmap. For this reason, there seems to be much potential in the opportunity to reform the extant policy mix in order to maximise the public value it can generate, rather than in a dramatic and likely unfeasible overhaul. This can be done by means of conditionalities: namely, requirements attached to a given policy that are used by governments to maximise the value generated by public support to a third party – for example, a private company benefiting from a subsidy (Mazzucato and Rodrik, 2023).

Conditionalities are extremely diverse both in what type of behaviour they target (e.g., access to the resulting products and services; direction of investment; profit-sharing; profit reinvestment) and how they are governed (e.g., fixed versus negotiable conditions). Nevertheless, their ultimate goal is to embed reciprocity in public-private partnerships, thus indirectly also creating greater accountability for

[18] The approach behind the 'France 2030' Industrial Strategy is detailed in Gouvernement (2024).

how public money is disbursed, as well as coherence about its ends. As conditionalities gain greater momentum worldwide in the effort of governments to steer private companies towards the green transition, it seems that IIP can also benefit from their use.

***Recommendation no.2**: Rewire the extant IIP mix through a conditionality-based approach to engender greater accountability and coherence in the implementation of industrial policy.*

- **2A**. Simplify the public funding infrastructure to industrial and innovation policy across national ministries, public agencies and development banks to create new synergies.
- **2B**. Ensure that each public fund adopts clear evaluation criteria and is bolstered by transparent, day-to-day feedback mechanisms among all stakeholders involved.
- **2C**. Embed strategic conditionalities on the funds that private companies receive in line with the intended public value generated by their industrial and innovation efforts.

Operating channels

While a clear strategic focus and a strong conditionality-based approach would be essential to a more effective IIP, even a better design would falter if not bolstered by reliable implementation mechanisms. It is beyond the scope of this paper to identify the relative merits of supply-, demand-, and governance-oriented measures relative to the context of IIP. However, the analysis points out how the complex, multi-layered combination of ministries, development agencies, banks, technology transfer offices, and public-private partnerships scattered across the country can hinder the implementation of IIP. On the one hand, the large diversity of these organisations provides IIP with a wider range of tools and the capacity to intervene at different levels of granularity (sectoral, geographical, technological, thematic) than if the government was alone. On the other hand, it remains difficult to seize and make the most of such 'firepower' without an understanding of the administrative capabilities – or the lack thereof – which may underpin these organisations (Kattel and Mazzucato, 2018). In this perspective, a thorough assessment of the available capacities and expertise across the current IIP governance infrastructure would be paramount to its effective implementation both in the short and in the long run.

Administrative capabilities can be deliberately nurtured and cultivated through continued investment over time (Kattel, 2022). However, in the short term, IIP should first and foremost be designed within the broader context of those available to the government at the time of its design in order for it to credibly maintain the intended strategic focus. For this reason, the last set of recommendations suggesting an approach to mapping out such administrative capabilities and start investing in their gradual development both through organisational growth and reskilling, as well as through better interorganisational coordination across the whole of the IIP governance infrastructure. Without such investment, there is a high likelihood that even a compelling policy design may fail to deliver its intended results.

***Recommendation no.3**: Map the underlying governance infrastructure of contemporary IIP to invest in the strengthening of administrative capabilities and, thus, effective implementation.*

- **3A**. Develop a systemic view of the IIP governance infrastructure to better understand 'who is doing what' and the capacities and capabilities available to the government.
- **3B**. Perform a gap assessment and evaluation of the IIP governance infrastructure to allocate investments in organisational growth and reorient the policy mix accordingly.
- **3C**. Refocus cooperation among the key stakeholders involved in IIP implementation around the day-to-day delivery of key governmental strategic priorities.

6. Conclusions

This paper has analysed how contemporary Italian Industrial Policy (IIP) is affected by structural yet urgent challenges. An increasing number of countries are adopting industrial and innovation strategies more ambitious and explicit than ever (mission-oriented and/or place-based); fuelled by thick mixes of demand- and supply-oriented measures; and bolstered by strong engagement with private, research, societal stakeholders (Millot and Rawdanowicz, 2024). At the EU level, the NRRP has brought a renewed commitment to targeted and ambitious investments in infrastructures and strategic sectors. Against this backdrop, the approach underpinning Italy's IIP remains rooted in a traditional framework: largely horizontal, predominantly supply-side, and heavily reliant on grants and subsidies. Between 2006 and 2024, Italian IIP has been marked by relatively modest resource allocations compared to other major EU economies, yet an exceptionally high number of policy interventions—particularly at the regional level. Considering today's rapidly evolving geopolitical and economic landscape, there is an urgent need to reassess whether this fragmented policy model is adequate to drive sustained improvements in business sector performance and to reignite productivity growth.

While the analysis focuses on the period between 2006 and 2024, its policy recommendations remain relevant for IIP measures adopted in the latter half of 2024 and the first half of 2025. First, the initial implementation phase of the 'Transizione 5.0' plan has been marked by a notably slow uptake of tax credits intended to support firms' investments in green and digital technologies—only €573 million out of the allocated €6.3 billion had been claimed as of March 2025 (Innovation Post, 2025a). This highlights persistent difficulties faced by the Italian state in designing and enforcing effective strategic conditionalities (Innovation Post, 2025b). Second, the recent measures aimed at enhancing the resilience of strategic supply chains appear to be motivated more by the urgency to protect industrial districts amid geopolitical instability than by a comprehensive long-term vision for national industrial transformation (MIMIT, 2025a; MIMIT, 2025b). In this context, forward-looking IIP will increasingly require stronger alignment and coordination with EU-level industrial policy—both in terms of strategic framework design (Draghi, 2024) and the identification of priority sectors (European Policy Analysis Group, 2024).

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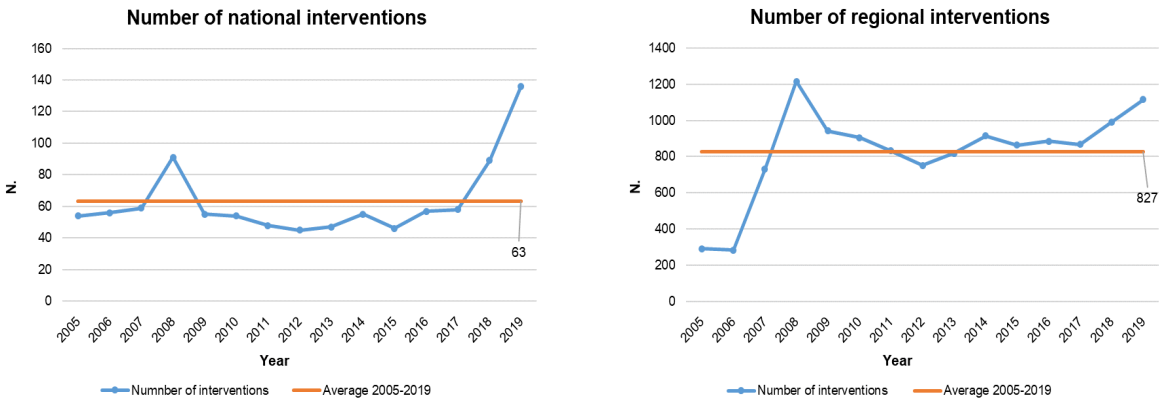
Appendix A - IIP analysis: additional figures

Figure A.1. Number of policy interventions over 2005-2019, national and regional

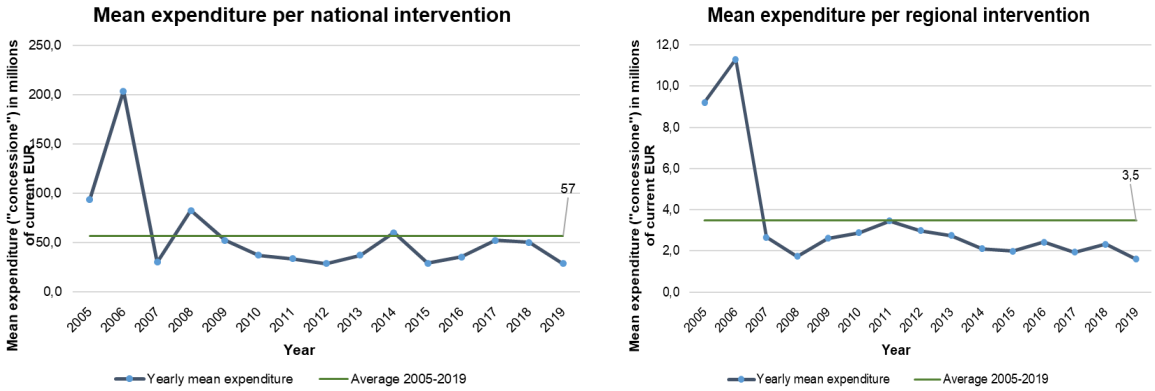


(*a*) (*b*)

Notes: The Figure shows the number of national (panel 3.a) and regional (panel 3.b) policy interventions over the period 2005-2019 (blue line), as well as the average number of interventions active during the period (orange line). Notice that the y-axes have different scales. The number of yearly interventions is derived – for each year *t* – using information from the corresponding annual report (published in year *t+1*). For years 2007, 2009, 2010, information from the 2013 annual report was used instead due to the lack of information from the corresponding reports. For some reports, the evolution of the number of interventions is also accounted for: using the most updated values for each year, the figures remain similar.

Source: Authors' elaborations based on MIMIT annual reports (2008-2020).

Figure A.2. Mean expenditure per intervention over 2005-2019, national and regional

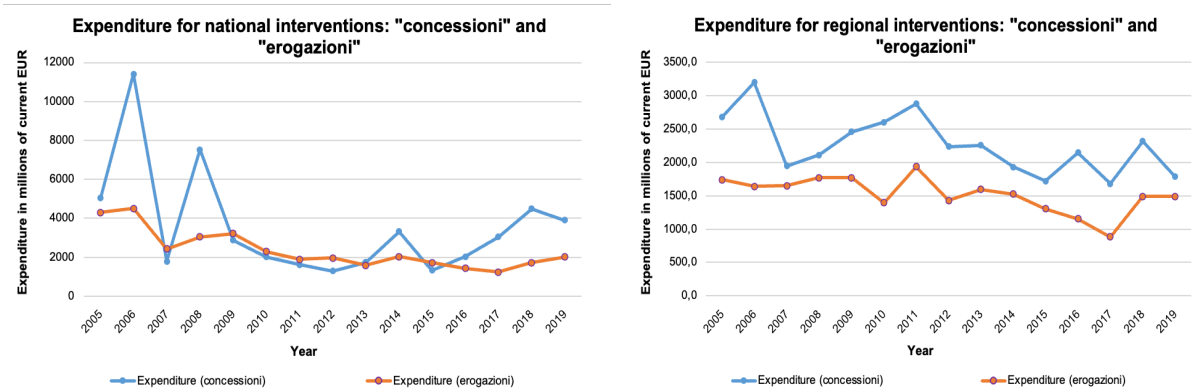


(a) *(b)*

Notes: The Figure shows the mean expenditure per national (panel 3.a) and regional (panel 3.b) intervention over the period 2005-2019 (blue line), as well as the average over the period (green line). Notice that the y-axes have different scales. The number of yearly interventions is derived – for each year *t* – using information from the corresponding annual report (published in year *t+1*). For years 2007, 2009, 2010, information from the 2013 annual report was used instead due to the lack of information from the corresponding report. The number of interventions (used at the denominator) is reported in Figure A.1. The yearly expenditure refers to the most updated figure for granted expenditures ('concessioni'). Notably, for the period 2014-2019 information from the 2020 report was used. For the period 2012-2013 information from the 2018 report was used. For 2011, report 2017. For 2010, report 2016. For 2008-2009, report 2014. For 2007, report 2013. Values for expenditures are in current EUR (not deflated). Similar figures are obtained using 'erogazioni' or alternative measure for expenditures (State Aid data, cf. Figure 1).

Source: Authors' elaborations based on MIMIT annual reports (2008-2020).

Figure A.3. Expenditure in 2005-2019: 'concessioni' and 'erogazioni', national and regional interventions

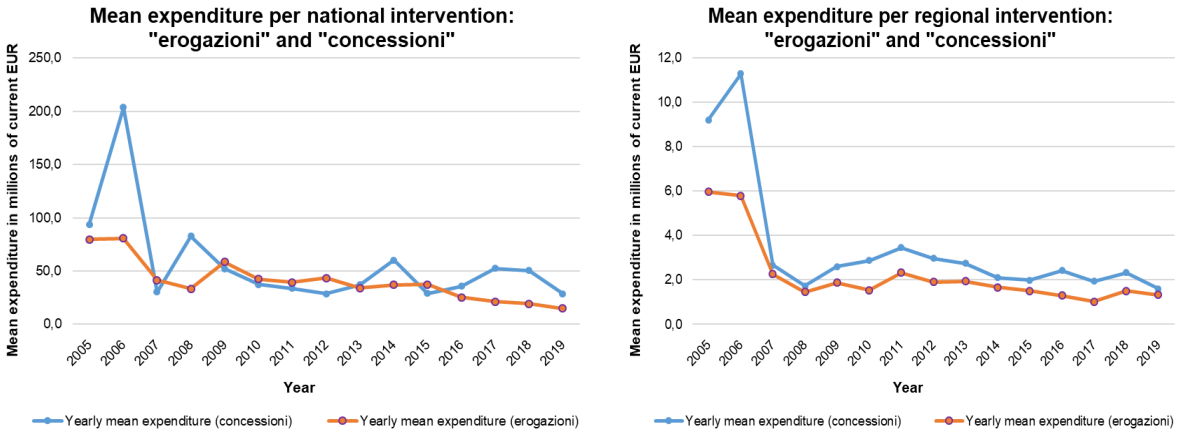


(a) *(b)*

Notes: The Figure shows the expenditure for national (panel 3.a) and regional (panel 3.b) interventions over the period 2005-2019 (blue line), as well as the average over the period (green line). Notice that the y-axes have different scales. The number of yearly interventions is derived – for each year *t* – using information from the corresponding annual report (published in year *t+1*). For years 2007, 2009, 2010, information from the 2013 annual report was used instead due to the lack of information from the corresponding report. The number of interventions (used at the denominator) is reported in Figure A.1. The yearly expenditure refers to the most updated figure for granted expenditures ('concessioni'). Notably, for the period 2014-2019 information from the 2020 report was used. For the period 2012-2013 information from the 2018 report was used. For 2011, report 2017. For 2010, report 2016. For 2008-2009, report 2014. For 2007, report 2013. Values for expenditures are in current EUR (not deflated).

Source: Author's elaborations based on MIMIT annual reports (2008-2020).

Figure A.4. Mean expenditure per intervention over 2005-2019: 'concessioni' and 'erogazioni', national and regional levels



(a) *(b)*

Notes: The Figure shows the mean expenditure per national (panel 3.a) and regional (panel 3.b) intervention over the period 2005-2019 (blue line), as well as the average over the period (green line). Notice that the y-axes have different scales. The number of yearly interventions is derived – for each year *t* – using information from the corresponding annual report (published in year *t+1*). For years 2007, 2009, 2010, information from the 2013 annual report was used instead due to the lack of information from the corresponding report. The number of interventions (used at the denominator) is reported in Figure A.1. The yearly expenditure refers to the most updated figure for granted expenditures ('concessioni'). Notably, for the period 2014-2019 information from the 2020 report was used. For the period 2012-2013 information from the 2018 report was used. For 2011, report 2017. For 2010, report 2016. For 2008-2009, report 2014. For 2007, report 2013. Values for expenditures are in current EUR (not deflated). Similar figures are obtained using 'erogazioni' or alternative measure for expenditures (State Aid data, cf. Figure 1).

Source: MIMIT annual reports (2008-2020).

Appendix B - IIP eras: tables

Table B.1. IIP highlights: from 2006 to 2008

Strategy	**Name:** Piano Industria 2015			**Design:** Sectoral		
Channel	**Instrument**	**Type**	**Criteria**	**Law**	**Exp [mld€]***	**Management**
Horizontal policies						
Supply (W)	Credito d'imposta aree svantaggiate	Tax expenditure	Place	296/06 (c.271-79)	0.75	N/A
	Credito d'imposta R&S	Tax expenditure	R&D	296/06 (c.280-284)	0.37	N/A
	FCS (Fondo per la Competitività e Sviluppo)	Grant/Subsidy	N/A	296/06 (c.841)	N/A	MISE
	FIRST (Fondo Investimenti Ricerca Scientifica & Tecn)	Grant/Subsidy	R&D	296/06 (c.870)	0.600	MIUR
	Bando ISI (Miglioramento condizioni lavoro)	Grant/Subsidy	Labour	81/08 (11, c.5)	0.780	INAIL
	FFI (Fondo per la Finanza d'Impresa)	Loan/Guarantee	N/A	296/06 (c.847)	N/A	N/A
Targeted policies						
Supply (W)	Ricerca in campo navale	Grant/Subsidy	R&D	12/06 (5, c.3)	N/A	N/A
	Investimenti imprese marittime	Grant/Subsidy	Sectoral	80/06 (c.34-octries)	N/A	N/A
	ZFU (Zone Franche Urbane)	Grant/Subsidy	Place	296/06 (c.341)	0.802	N/A
	Innovazione industria cantieri	Grant/Subsidy	Sectoral	296/06 (c.1040)	0.075	MIT
Supply (B)	Struttura per le crisi d'impresa	Support/Coordination	Size/age	296/06 (1, c.852)	0.0003	MISE
Governance	PNR 2005-2007	Support/Coordination	R&D	CIPE 18/03/2005	N/A	CIPE
	PII (Bandi Industria 2015)	Grant/Subsidy	R&D	296/06 (c.841-845)	1.02	MISE
	Distretti Produttivi	Support/Coordination	Place	296/06 (c.366-372)	N/A	N/A

Notes: Expenditure (in billions of EUR) amounts refer to planned expenditure for 'Credito d'imposta aree svantaggiate'; for 'Credito d'imposta R&S', the expenditure refers to 'erogazioni' for the year 2010. For the FIRST, values refer to the additional resources allocated by l.296/2006 (c. 874) for 2007 and 2008. For Bando ISI, the value refers to 'concessioni' for the years 2015-2019. Values are not deflated. For ZFU, amount refers to 'concessioni' in 2014 and 2017. Innovazione Industria cantieri refers to l.296/2006 (c. 1041) for 2007-2009. 'Struttura crisi d'impresa' refers to l.296/2006 (c.852). PII (Bandi Industria 2015) refers to l.296/2006 (c. 841). *Expenditure levels for policy measures are not directly comparable for lack of consistent information across data sources (see also footnote 10).

Sources: MIMIT annual reports, 2008-2024. European Commission (2008).

Table B.2. IIP highlights: from 2008 to 2013

Strategy	**Name:** N/A			**Design:** N/A		
Channel	**Instrument**	**Type**	**Criteria**	**Law**	**Exp [mld€]****	**Management**
Horizontal policies						
Supply (W)	Internazionalizzazione imprese	Grant/Subsidy	N/A	133/08 (6, c.2a)	0.98	SIMEST
	Agevolazioni R&S industriale	Grant/Subsidy	R&D	DM 6/08/2010	N/A	N/A
	ACE (Aiuto crescita economica)	Tax expenditure	N/A	DL 201/11	N/A	N/A
	Brevetti+	Tax expenditure	Technology	GURI 179/11	N/A	Invitalia
	Riordino incentivi – FCS (Fondo Crescita Sostenibile)	Grant/Subsidy	N/A	DL 83/12 (23)	2.574*	MISE/MCC
	Agevolazioni imprese a forte consumo di energia elettrica	Grant/Subsidy	Green	DL 83/12 (39)	2.574*	N/A
	Agevolazioni misure ricerca scientifica e tecnologica	Grant/Subsidy	R&D	DL 83/12 (60-63)	2.574*	N/A
	Italian Startup Act	Grant/Subsidy	Size/Age	DL 179/12		MISE
	Smart&Start (Start up)	Loan/Guarantee	Size/Age	DM 6/03/2013	0.167	Invitalia
	Bando Investimenti Innovativi	Loan/Guarantee	Technology	DM 29/07/2013	0.465	MISE
	Nuova Sabatini	Loan/Guarantee	N/A	DL 69/13	1.394	MISE
	Voucher digitalizzazione PMI	Grant/Subsidy	Digital	DL 145/13	0.490	MISE
Supply (B)	FII (Fondo Ital. Investimento)	Equity/VC	N/A	N/A	N/A	CDP
Governance	Contratti di sviluppo	Support/Coordination	R&D	112/08 (43)	2.782	MISE
	Contratti di rete	Support/Coordination	N/A	99/09	N/A	N/A
	Contratti di innovazione	Support/Coordination	Technology	DM 14/12/09	N/A	N/A
	PNR 2011-13	Support/Coordination	R&D	N/A	N/A	MIUR
	Gestione Riconoscimento Incentivi Rinnovabili	Support/Coordination	Green	DM 06/07/2012	N/A	N/A
Vertical policies						

Supply (W)	Progetti R&S industriale in aree del PNR 2015- 2020	Grant/Subsidy	R&D	DL 83/12	N/A	N/A
Supply (B)	Banca del Mezzogiorno - Mediocredito Centrale (Fondo di Garanzia)	Loan/Guarantee	Place	662/96	0.085	N/A
	FSI (Fondo Strategico Italiano)	Equity/VC	N/A	DL 34/11 (7)	N/A	CDP
Governance	CTN (Cluster Tecn. Nazionali)	Grant/Subsidy	Technology	DD 257/ric 30/05/12	N/A	N/A

Notes: Expenditure (in billions of EUR) amounts refer to: "concessioni" 2011-2019 for "Internazionalizzazione imprese"; "concessioni" 2015-2016 for measures marked with *; "concessioni" 2014-2015 for "Smart&Start"; "concessioni" 2014-2015 for "Bando Investimenti Innovativi".; "concessioni" 2014-2019 for "Nuova Sabatini"; "concessioni" 2018-2019 for "Voucher digitalizzazione PMI"; "concessioni" 2012-2019 for "Contratti di Sviluppo"; "concessioni" 2010-2013 for "Banca del Mezzogiorno - Mediocredito Centrale", "Fondo di Garanzia". **Expenditure levels for policy measures are not directly comparable for lack of consistent information across data sources (see also footnote 11).

Sources: MIMIT annual reports, 2007-2020.

Table B.3. IIP highlights: from 2013 to 2018

Strategy	**Name:** Piano Industria 4.0			**Design:** Technology-focused		
Channel	**Instrument**	**Type**	**Criteria**	**Law**	**Exp [mld€]***	**Management**
Horizontal policies						
Supply (W)	Credito R&S	Tax expenditure	R&D	DL 145/13 (3)	0.6	MISE
	Patent box (4.0)	Tax expenditure	R&D	190/14 (c.37-45)	N/A	MISE
	CDP Equity	Equity/VC	N/A	N/A	N/A	CDP
	Sostegno PMI esportatrici	Equity/VC	N/A	DM 07/09/16	0.227	SIMEST
	Super-ammortamento (4.0)	Tax expenditure	Technology	208/15 (c.91)	N/A	MISE
	Iper-ammortamento (4.0)	Tax expenditure	Technology	232/16 (c.9)	N/A	MISE
	Nuovo credito R&S (4.0)	Tax expenditure	R&D	232/16 (c.15)	N/A	MISE
	Centri di competenza 4.0	Support/Coordination	R&D	232/16 (c.115)	0.072	MISE
	Accordi per l'innovazione 4.0	Support/Coordination	R&D	DM 24/05/17	N/A	MISE
	Credito formazione 4.0	Tax expenditure	Technology	205/17 (c.46-56)	0.250	MISE
	Bando Investimenti Innovativi	Grant/Subsidy	Technology	DM 09/03/18	N/A	N/A
Supply (B)	Piano Made in Italy	Support/Coordination	Sectoral	DL 133/14	N/A	ICE
	Strategia Banda Ultra Larga	Support/Coordination	Digital	CIPE, 65/15 (1)	7	Infratel
Targeted policies						
Supply (W)	Credito Mezzogiorno	Tax expenditure	Place	208/15 (c.98-108)	N/A	N/A
	Incentivi fonti rinnovabili	Grant/Subsidy	Green	DM 23/06/16	N/A	N/A
	Credito settore cinematografico	Tax expenditure	Sectoral	DIM 04/08/17	N/A	N/A
	Resto al Sud	Loan/Guarantee	Size/age	DL 91/17 (1)	0.778	Invitalia
	ZES (Zone econ. speciali)	Tax expenditure	Place	DL 91/17 (4-5, c.2)	N/A	N/A
	Promozione biometano e biocarburanti nei trasporti	Tax expenditure	Sectoral	DM 02/03/18	N/A	N/A

Governance	PNR 2015-2020	Support/Coordination	R&D	N/A	N/A	MIUR
	SNSI 2015-2020	Support/Coordination	Sectoral	N/A	N/A	MISE
	Nuovi CTN	Grant/Subsidy	Technology	DD 1610/ric 3/8/16	N/A	MISE

Notes: Expenditure (in billions of EUR) amounts refer to: DL 145/13 (3) for 2014-2016; "concessioni" for 2018-2019 for "Sostegno PMI esportatrici". For "Strategia Banda Ultra Larga", allocated resources (from report Strategia Banda Ultralarga). For Centri di competenza, allocated resources for "Bando 2018" (see source). For "Credito formazione 4.0", l. 205/17 (c.56) for 2019. DL 91/17 (1) for Resto al Sud, maximal amount of expenditure for 2017-2019. *Expenditure levels for policy measures are not directly comparable for lack of consistent information across data sources (see also footnote 10).

Sources: MIMIT annual reports, 2007-2020.

Table B.4. IIP highlights: from 2018 to 2021

Strategy	**Name:** Piano Transizione 4.0			**Design:** Technology-focused		
Channel	**Instrument**	**Type**	**Criteria**	**Law**	**Exp [mld€]***	**Management**
Horizontal policies						
Supply (W)	Voucher consulenza in innovazione	Grant/Subsidy	Technology	145/18 (c.228-31)	0.075	MISE
	Nuovi crediti beni strumentali	Tax expenditure	Technology	160/19 (c.184-197)	N/A	MISE
	Nuovi crediti R&S	Tax expenditure	Technology	160/19 (c.198-209)	N/A	MISE
	IncentivO Lavoro (IO Lavoro)	Grant/Subsidy	Labour	DD 52 11/02/20	0.3294	INPS
Supply (B)	FTT (Fondo Trasferimento Tec.)	Loan/Guarantee	Technology	DL 34/20	0.5	Enea Tech F.
Governance	Capacity market (en. elettrica)	Support/Coordination	Green	DM 28/06/19	N/A	MISE
Targeted policies						
Supply (W)	Fondo IA Blockchain IoT	Grant/Subsidy	Technology	145/18 (c.226)	0.045	Infratel
	Incentivo Occupazione Sud	Grant/Subsidy	Labour/Place	DD 178/19	0.12	ANPAL
Supply (B)	FNI (Fondo Naz. Innovazione)	Equity/VC	Technology	145/18 (c.209)	1	CDP
	Fondo IPCEI	Support/Coordination	Technology	145/18 (c.203)	0.160	MISE
	'Green New Deal' (FCS+)	Loan/Guarantee	Green	160/19 (c.85-89)	N/A	MCC/SACE
Demand	Superbonus 110%	Tax Expenditure	Green	34/20 (c.119)	N/A[19]	MEF
Governance	PNIEC (Piano Nz. En. e Clima)	Support/Coordination	N/A	N/A	N/A	N/A
	DSPSN (Politica Spaziale Naz.)	Support/Coordination	N/A	N/A	N/A	ASI

Notes: For "Voucher consulenza in innovazione", amount refers to allocation for 2019, 2020, 2021 (Decreto ministeriale 7 maggio 2019). For "IncentivO Lavoro (IO Lavoro)", Art. 11 DD 52 11/02/20. For "FTT", art. 42 of DL 34/20, for year 2020. For "Fondo IA Blockchain IoT", 15 millions EUR for each of the years 2019, 2020, 2021. For "Incentivo Occupazione Sud", art. 11 of DD 178/19. For FNI, approximately one billion euros (estimated as a state guarantee, of which 310 million euros allocated by decree in 2019) managed by Cassa Depositi e Prestiti. For IPCEI, 50 millions EUR for each of the years 2019, 2020 and 60 for 2021. *Expenditure levels for policy measures are not directly comparable for lack of consistent information across data sources (see also footnote 11).

Sources: MIMIT annual reports, 2007-2024.

[19] Budget expenditure for Superbonus 110% is not specified due to the unavailability of reliable estimates on its final projected costs. As of November 2024, the latest data available released by National Agency ENEA reports an amount of ca. €124MLD (see also Capone and Stagnaro, 2024).

Table B.5. IIP highlights: from 2021 to 2024

Strategy	**Name:** Piano Nazionale di Ripresa e Resilienza			**Design:** Technology-focused		
Channel	**Instrument**	**Type**	**Criteria**	**Law**	**Exp [mld€]***	**Management**
Horizontal policies						
Supply (W)	M1-C2: 1.1 Transizione 4.0	Tax expenditure	Technology	DL 77/21	13.98	MIMIT
	M1-C2: 5 Filiere produttive	Grant/Subsidy	N/A	DL 77/21	1.98	SIMEST
	M1-C2: 6.1 Proprietà industriale	Grant/Subsidy	N/A	DL 77/21	0.03	N/A
	M4-C2: 1.3 Partenariati estesi	Grant/Subsidy	R&D	DL 77/21	1.61	N/A
	M4-C2: 1.4 Campioni nazionali	Grant/Subsidy	R&D	DL 77/21	1.60	N/A
	M4-C2: 1.5 Ecosistemi	Grant/Subsidy	R&D	DL 77/21	1.30	N/A
	M4-C2: 2.2 Partenariati Horizon	Support/Coordination	R&D	DL 77/21	0.20	MUR
	M4-C2: 3.1 Accordi innovazione	Support/Coordination	R&D	DL 77/21	1.58	N/A
	M4-C2: 3.2 Supporto start-up	Equity/VC	Size/age	DL 77/21	0.30	N/A
	M4-C3: 3.3 Dottorati innovativi	Grant/Subsidy	R&D	DL 77/21	0.60	N/A
Targeted policies						
Supply (W)	M1-C2: 4 Space economy	Grant/Subsidy	Technology	DL 77/21	1.29	N/A
	M1-C3: 4.2 Fondi per turismo	Grant/Subsidy	Sectoral	DL 77/21	1.79	MCC
	M2-C2: 3 Promozione idrogeno	Grant/Subsidy	Green	DL 77/21	3.19	N/A
	M2-C2: 5.1 Rinnovabili/Batterie	Grant/Subsidy	Green	DL 77/21	1.00	Invitalia
	M2-C2: 5.2 Idrogeno	Grant/Subsidy	Green	DL 77/21	0.45	N/A
	M2-C2: 5.4 GTF (Green Fund)	Equity/VC	Green	DL 77/21	0.25	N/A
	M4-C2: 2.1 Fondo IPCEI	Grant/Subsidy	N/A	DL 77/21	1.50	N/A
	Investimenti sostenibili 4.0	Grant/Subsidy	Place	DL 78/22	N/A	Invitalia
Supply (B)	ZES Unica	Tax expenditure	Place	DL 124/23	N/A	N/A
Demand	M1-C2: 3 Reti ultra-veloci	Grant/Subsidy	Digital	N/A	6.31	MIMIT/Infratel

	M2-C2: 5.3 Bus e treni elettrici	Grant/Subsidy	Green	DL 77/21	3.60	N/A
Governance	PN RIC 2021-27	Support/Coordination	R&D	N/A	N/A	N/A
	Revisione PNEC	Support/Coordination	Green	N/A	N/A	N/A

Notes: *Expenditure levels for policy measures are not directly comparable for lack of consistent information across data sources (see also footnote 10).

Sources: MIMIT annual reports, 2007-2024.

Table B.6. IIP highlights: response to Covid-19 and Ukrainian war

Strategy	**Name:** Measures against Covid-19 and Ukraine crisis			**Design:** N/A
Channel	**Instrument**	**Type**	**Criteria**	**Law**
Horizontal policies				
Supply (W)	DL Cura Italia: Regimi di aiuti (ad hoc e non) Covid-19	Grant/Subsidy	COVID-19	DL18/20 (72-78-79-89)
	DL Liquidità: Garanzia per lavoratori autonomi, PMI e imprese capitalizzate	Loan/Guarantee	COVID-19	DL 23/20
	DL Rilancio: Regime sostegno lavoratori e coop Covid-19	Tax expenditure	COVID-19	DL 34/20
	DL Sostegni: Finanziamenti per grandi imprese in difficoltà	Loan/Guarantee	COVID-19	DL 41/21
	Polis (II) – Sportello Unico	Support/Coordination	COVID-19	DL 59/21
	DL Aiuti: Fondi ISMEA/SACE	Loan/Guarantee	Sectoral	DL 50/22 (15, 20)
	DL Aiuti-bis: Sovvenzione bus	Grant/Subsidy	N/A	DL 115/22 (9, 3-4)
	DL Riordino	Support/Coordination	N/A	DDL 571/22
Targeted policies				
Supply (W)	DL Cura Italia: Garanzia statale a moratoria debito bancario	Loan/Guarantee	COVID-19	DL18/20 (56)
	DL Liquidità: Regime di aiuti per prestiti e sovvenzioni	Grant/Subsidy	COVID-19	DL 23/20
	DL Rilancio: Aiuti a capitale imprese medio-grandi	Loan/Guarantee	COVID-19	DL 34/20 (26-27)
	DL Rilancio: Quadro nazionale aiuti a settori per Covid-19	Grant/Subsidy	COVID-19	DL 34/20
	DL Agosto: Aiuti a imprese colpite da Covid-19	Grant/Subsidy	COVID-19	DL 104/20
	DL Ristori: Aiuti a sostegno del settore fieristico per Covid-19	Grant/Subsidy	COVID-19	DL 137/20
	DL Sostegni: Tax credit cultura	Tax expenditure	COVID-19	DL 41/21
	DL Sostegni: Indennizzo per start up impianti e fiere	Grant/Subsidy	COVID-19	DL 41/21
	DL Sostegni-Bis: Aiuti a capitale imprese medio-grandi	Loan/Guarantee	COVID-19	DL 73/21
	DL Sostegni-Bis: Risarcimento gestori di infrastrutture	Grant/Subsidy	COVID-19	DL 73/21

	DL Aiuti: Credito d'imposta per autotrasportatori	Tax expenditure	Sectoral	DL 50/22
	DL Aiuti: Sovvenzioni a imprese colpite dalla crisi ucraina	Grant/Subsidy	Ukraine war	DL 50/22
	DL Aiuti-ter: Fondo di garanzia SACE per gas naturale/energia	Loan/Guarantee	Ukraine war	DL 144/22

Table B.7. IIP highlights: 'Fondo Complementare al PNRR' (PNC), additional instruments

Instruments
Ecosistemi per l'innovazione al Sud in contesti urbani marginalizzati
Interventi per le aree del terremoto del 2009 e 2016
Rinnovo delle flotte di bus, treni e navi verdi - Bus
Rinnovo delle flotte di bus, treni e navi verdi - Navi
Rafforzamento delle linee ferroviarie regionali
Rinnovo del materiale rotabile e infrastrutture per il trasporto ferroviario delle merci
Strade sicure – Messa in sicurezza e implementazione di un sistema di monitoraggio dinamico per il controllo da remoto di ponti, viadotti e tunnel (A24-A25)
Strade sicure – Implementazione di un sistema di monitoraggio dinamico per il controllo da remoto di ponti, viadotti e tunnel della rete viaria principale
Sviluppo dell'accessibilità marittima e della resilienza delle infrastrutture portuali ai cambiamenti climatici
Aumento selettivo della capacità portuale
Ultimo/Penultimo Miglio Ferroviario/Stradale
Efficientamento energetico
Elettrificazione delle banchine (Cold ironing)
Strategia Nazionale Aree Interne - Miglioramento dell'accessibilità e della sicurezza delle strade
Sicuro, verde e sociale: riqualificazione dell'edilizia residenziale pubblica
Piano di investimenti strategici sui siti del patrimonio culturale, edifici e aree naturali
Salute, ambiente, biodiversità e clima
Verso un nuovo ospedale sicuro e sostenibile
Ecosistema innovativo della salute
Polis - Case dei servizi di cittadinanza digitale
Accordi per l'Innovazione
Costruzione e miglioramento padiglioni e spazi strutture penitenziarie per adulti e minori
Contratti di filiera e distrettuali per i settori agroalimentare, pesca e acquacoltura, silvicoltura, floricoltura e vivaismo
Iniziative di ricerca per tecnologie e percorsi innovativi in ambito sanitario e assistenziale