Business and employment dynamics play a central role in market economies. Understanding the characteristics and potential of businesses that populate the economy, in different sectors of activity and over time, and the extent to which they contribute to job creation and reallocation is central for economic policy. This Country Note presents the key findings of the OECD DynEmp project for Italy.

Taking advantage of the DynEmp data infrastructure, this Country Note provides evidence that is highly relevant for policy making in Italy, taking into account in the broader economic context of the country.

The main results from the analysis of Italian employment dynamics reflect the specific structure of the Italian economy, which comprises a large share of micro and small firms, one of the country’s most striking structural characteristics. Difficulties for small, high potential firms entering the market and scaling up, as well as incentives for existing firms to remain small, represent important hurdles to Italian economic growth and business dynamism.

**Highlights**

- Italy has a large share of small and old firms. This group of firms destroys more jobs than in the benchmark countries in both manufacturing and services, and was particularly affected by the financial crisis.
- Entry rates in Italy are well below the benchmark across almost all industries, indicating that entry barriers may be high.
- Ensuring the right policies, improving legal framework conditions, and financial access are important to support young innovative firms.

**Country background**

The current academic and policy discussion on Italy is to a large degree centred around the modest recovery from the European debt crisis and low growth rates of the economy. Despite structural reforms and favourable global economic conditions, Italy’s GDP is expected to fall further in 2019 according to the latest OECD Economic Survey of Italy (OECD, 2019).

Productivity growth in Italy has been stagnating since the middle of the 1990s (Calligaris et al., 2016; Berlingieri et al., 2018; Bugamelli et al., 2018). This is in contrast to many other European countries and the US (Decker et al., 2016) where a slowdown took place later, in the aftermath of the global financial crisis. At the time of the 1990s...
Italian firms, typically smaller in size than the European average, were predominantly productive in traditional sectors characterised by low technology, low human-capital intensity, and low productivity. In the 1990s, the rise of globalisation and the ICT revolution changed the competitive environment radically. Small firms faced higher barriers in adopting new technologies, could not respond appropriately to their changing environment, and participated little in global trade (Pellegrino and Zingales, 2017). Competitiveness remained particularly low for these types of firms, making it difficult for them to grow.

The particularly high share of small firms in the Italian economy as well as their problems with expansion and growth is one of the main findings of this report. The growth of young firms depends strongly on a country’s institutional and policy settings (Calvino, Criscuolo and Menon, 2016). In Italy, a number of structural features are likely to hamper business dynamism at the firm level, and may explain some of the observed patterns and trends in the data. Among these structural characteristics are inefficiencies in public administration and business regulations that create barriers for firms entering the market. Low competition, stringent regulations, and public administration inefficiencies have a negative impact on the ease of doing business, labour productivity and business dynamism.

Even though significant improvements have been made in recent years, ranging from labour market reforms through the Jobs Act to a decree for reforms of bankruptcy laws, the implementation of these reforms is not yet completed (OECD, 2019). High regulatory barriers still make it difficult for young and innovative firms to grow. These have also been found to negatively affect the allocation of production factors, with capital and labour tied up in low productivity firms (Gopinath et al., 2017) making it difficult for young firms to access necessary resources.

An issue related to limited access to credit is the high level of debt and in particular of non-performing loans (NPLs), at a share of about 10% of loans in 2018 (IMF, 2019). This high level of NPLs has direct implications for access to finance, capital allocation and firm dynamics. As found by Adalet McGowan, Andrews and Millot (2017) and Andrews and Petroulakis (2017), weak insolvency regimes coupled with high bank forbearance lead to the prevalence of “zombie firms”, i.e., firms which would exit the market under competitive conditions. Because these firms stay in the market, they not only pull down aggregate productivity, but also bind resources that would otherwise be available to new firms or more productive incumbents, thereby also constraining future growth. In particular young, innovative firms continue to suffer from limited access to bank and equity finance (OECD, 2017).

Furthermore, Italy’s employment rate is not only one of the lowest in OECD countries, but also exhibits the highest regional disparities (OECD, 2018) with gaps having increased even further after the crisis (Adda and Triggari, 2016). Young and less educated people living in the south of Italy in particular have trouble finding jobs. The OECD (2018) study shows that in the four Southern regions, Calabria, Apulia, Campania and Sicily, more than 55% of young adults are unemployed, which is another important structural characteristic affecting the Italian economy and its business dynamism.

The rest of this Country Note is organised as follows. First, the analysis of the DynEmp data focuses on the aggregate size and age distributions, in manufacturing and (non-financial market) services comparing Italy to benchmark group of countries. The attention then shifts to patterns of net employment creation by size and age class. The Country Note concludes by looking at entry dynamics in the Italian economy, as well as at the growth rates of new firms.

**Employment dynamics**

**Size distribution**

Knowing the size and employment distribution of firms within the Italian economy is crucial for policy makers. It provides an understanding of the structure of the economy and an indication of the role of micro, small and medium firms in overall employment dynamics.

Figure 1 shows the average size distribution in Italy of firms with two or more persons engaged, over the period 2001-15. The upper panel (a) treats firms as units, while the bottom panel (b) weights them by employment. The numbers show that Italy’s employment in both manufacturing and services is highly concentrated in micro (2-9) and small (10-49) firms. Firms with 50 or more employees play a less important role than in other countries in both macro sectors. In services, micro firms appear to be even more important, particularly in terms of employment.

Differences in the firm size distribution within sectors across different countries have been increasingly linked with diverging productivity growth and innovation patterns. Pagano and Schivardi (2003) show that in Italy, where the average firm size is significantly below their benchmark of eight European countries, R&D expenditure is lower. The OECD (2017) report also shows that in 2015, business R&D as percentage of gross domestic expenditure on R&D...
was lower in Italy than the OECD and the EU average. The positive relation between innovation and firm size can help explain why Italy is lagging behind in terms of adaptation to technological changes (Hall, Lotti and Mairesse, 2008). Policies encouraging the scaling up of micro and small firms have the potential to significantly increase productivity growth.

Figure 1. Size distribution
Manufacturing and non-financial market services
Italy vs benchmark countries, 2001-15
(a) Firm distribution
(b) Employment distribution

Note: The figure reports the size distribution in Italy and in the benchmark group of countries for six size classes, separately for manufacturing and non-financial market services on average in the period 2001-15. Shares are calculated in terms of (a) firm units, and (b) employment.

Source: Calculations based on OECD DynEmp3 database, August 2019. See Box 1 for details.

Specific national framework conditions creating barriers to competition can explain the high share of small firms in Italy and their difficulties in scaling up (OECD, 2017). For example, the Italian tax regime exempts firms controlling stakes from inheritance taxes, thereby encouraging family ownership while depressing equity-share sales to outside parties. In addition, size-based thresholds of taxes create incentives for firms to stay small, at least with respect to their formal workforce. Closely linked to this is the high rate of tax evasion in Italy, dragging down formal employment growth and business dynamism as well. Operating informally and avoiding taxes can also represent an incentive for firms to stay small. According to the World Bank’s “Paying taxes” indicator, measuring the time and
cost of paying taxes, Italy is one of the worst performing OECD members, ranking 128th out of 190 countries in 2020 (World Bank, 2020). Nevertheless, the government is taking action. In 2018 for example, the government reduced the corporate income tax rate and lowered social security contributions for new employees in order to reduce the burden on small firms. Further broadening the tax base through more comprehensive reform would promote fairness and reduce tax uncertainties for small firms.

Further, a rigid wage system reduces competitiveness by driving up unit labour costs (Kangur, 2018). Wage bargaining set at the sectoral level tends to lower profits and employment. This makes it particularly difficult for small firms to scale-up. Decentralising wage bargaining to the firm level to align with firm-level productivity could help enable upscaling of firms (OECD, 2017).

A new Competition Law approved by the government in 2017 demonstrated that efforts are being made to address these issues, but initial ambitious reform efforts were significantly weakened during the parliamentary process. Addressing high barriers to competition especially in local services, highly regulated professions and retail sectors, as well as strengthening the Competition Authority therefore remain on the agenda.

### Box 1. The DynEmp project

The DynEmp project provides a unique comprehensive overview of employment and business dynamics across countries over the last two decades. The main contribution of the project is the creation of a harmonised micro-aggregated database with which business and employment dynamics can be analysed across countries in a comparable way. The data are based on administrative records with quasi-universal coverage (such as business registers or social security records). Assessing employment and business dynamics in comparison to those of an appropriately defined benchmark group of countries can further inform and orient policy intervention. 

The DynEmp database generally covers most sectors of the economy, but in order to enhance cross-country comparability, the country profile focuses on manufacturing and non-financial market services (or “services” for brevity). The data source for Italy is the Business Register (Asia), complemented with the statistical register Frame SBS from 2011 onwards. See Desnoyers-James, Calligaris and Calvino (2019) for more details on the underlying data.

Unless otherwise indicated, the presented numbers rely on averages for the period for which data are available; for Italy, this is 2001-15. To allow an evaluation of Italy’s performance relative to that of other countries, the Italian results on employment and business dynamics are compared to a “benchmark” group of countries for which DynEmp data are available: Austria, Belgium, Brazil, Canada, Costa Rica, Finland, France, Hungary, Italy, Japan, Portugal, the Netherlands, New Zealand, Norway, Spain, Sweden and Turkey. Unless indicated otherwise, all findings presented also hold when the benchmark set is restricted to a more homogeneous group consisting only of EU countries. Results presented in this paper are sourced from the DynEmp3 database as at August 2019. Owing to methodological differences, figures may deviate from officially published national statistics.

### Age-size distribution and trends in employment creation

The age structure of small firms is of particular interest. A large number of small firms can originate on the one hand from many small entrants (indicative of a more dynamic economy), or from a large number of old firms that did not upscale. The latter would be indicative of a less dynamic economy and potentially raises policy concerns, as old SMEs tend to destroy jobs, rather than create them (Criscuolo, Gal and Menon, 2014). The age distribution of small firms in Italy reveals a relatively large share of old firms in the smaller size categories together with a smaller share in young businesses compared to the benchmark, both in manufacturing and services.

The following two figures show the net job creation rate by size and age class, first as an average over the sample period (Figure 2), as well as a trend over time (Figure 3). Figure 2 shows that young firms contribute positively to employment creation (for new entrants, which are included in the category, this is the case by definition), but at a lower rate in Italy than in the benchmark, particularly in services (Figure 2). In services, net job creation by young and small firms declined over time, mostly associated with a significant decline during the crisis and a slow recovery since then (Figure 3). In manufacturing, young and small firms were also hit significantly by the crisis but were reaching pre-crisis levels by the end of the observed period. At the same time, job destruction by old shrinking firms (≥6 years) is high, especially in manufacturing (Figure 2). This reflects both the larger employment share of old, small firms and a higher rate of net job destruction within this group, while in services the higher net job destruction
in Italy is due solely to the relatively larger employment share of these firms in the sector. Old and small firms in manufacturing were impacted the most by the economic crisis but have seen some recovery since, while in services this group experienced a slower but more sustained decline (Figure 3).

**Figure 2. Net job creation by size and age class**
Manufacturing and non-financial market services
Italy vs benchmark countries, 2001-15

Besides the high regulatory barriers to firm growth discussed above, the aftermath of the crisis revealed another relevant factor that hampers the growth dynamics of young firms, namely the increased difficulty of access to bank credit. This situation was exacerbated by an underdeveloped non-bank financial system in Italy. Lending and investment activity in the Italian economy has been further constrained through high levels of non-performing loans. In this context, Manaresi and Pierri (2018) show how negative credit supply shocks affect firm productivity in Italy through lower IT adoption, innovation, and exporting. The OECD (2019) economic survey finds a negative effect of credit supply to be especially adverse for small firms, where innovation remains low.

The National Industry 4.0 Plan, launched by the government in 2016, provides financial support (of approximately EUR 13 billion) to boost innovation in new technologies and to invest in start-ups and innovative SMEs. Nevertheless, room for improvement remains and the effectiveness of current programs needs to be monitored and evaluated carefully. Specifically in the context of the “Start-up Act” introduced in 2012 aimed at creating favourable conditions for new innovative firms, the OECD report by Menon et al. (2018) recommends assessing the need for further development of the Italian venture capital industry, constantly monitoring the partial public guarantee fund (Fondo di Garanzia) for SMEs and start-ups, as well as maintaining and possibly expanding incentives for equity financing.

Note: The figure reports the contribution of net job creation to aggregate employment change by size (with a cut-off at >= 250 employees) and age (with a cut-off at >= 6 years) for manufacturing and non-financial market services. It is defined as average net job creation (i.e., the difference of total employment at time t and t-1) over the period 2001-15 of the particular group over total employment in the macro-sector.

Source: Calculations based on OECD DynEmp3 database, August 2019. See Box 1 for details.
Figure 3. Net job creation by size and age class, time trends
Manufacturing and non-financial market services
Italy, 2001-15

Note: The figure reports net employment creation in each group (size-age class) relative to aggregate employment (average over years t and t-1) in manufacturing and non-financial market services. It is defined as the ratio of net job creation of the particular group over total employment, between t and t-1.

Source: Calculations based on OECD DynEmp3 database, August 2019. See Box 1 for details.

Entry dynamics and growth of new firms

New firms are the engines of the “creative destruction” process (Schumpeter, 1942), through which innovation replaces outdated production units. New entrants are therefore an important indicator of a dynamic business sector and can be considered a source of potential future growth.

In Italy, entry rates in many industries are substantially below the benchmark average across almost all industries (Figure 4), which is in line with findings from Eurostat data. Except for two sectors, net entry rates are negative as well. The low entry rate reflects barriers for small innovative firms to enter the market, due to high costs and difficult access to credit. There are a number of empirical analyses studying the effect of barriers to entry in Italy. Bripi (2015) documents the negative effect of regulatory barriers on firm entry in Italy. Exploiting regional heterogeneity, he demonstrates that entry rates of limited liability firms tend to be higher in provinces where entry costs are lower. Amici et al. (2016) investigate the impact of a recent reform establishing effective municipal one-stop shops on entry rates. According to their findings, the reform led to a positive effect on entry rates, however mainly for sole-proprietor firms. Besides regulatory barriers, the World Bank’s “Starting a Business” indicator (2019)
for Italy shows that while the time needed to start a business is shorter than in Spain and Germany, the costs are significantly higher than the high-income OECD average. To start a business in Italy, a company representative has to execute a public deed of incorporation and company bylaws, pay a government tax and register with Comunicazione Unica and the Labour Office. All in all, the cost of starting a business in Italy amounts to 13.8% of income per capita, while the OECD average is at 3% income per capita.

Given the low levels of firm entry, enabling young innovative firms to enter and grow is important for employment creation, aggregate economic growth and productivity. Removing barriers to firm entry also helps ensure competitive pressures and allocate resources efficiently into their most productive uses.

**Figure 4. Entry rate across industries**

Manufacturing and non-financial market services

Italy vs benchmark countries, 2001-15

![Bar chart showing entry rates across industries for Italy and benchmark countries, 2001-15](chart)

Note: Entry rates are defined as the number of entering units over the sum of entering and incumbent units in a sector.

Source: Calculations based on OECD DynEmp3 database, August 2019. See Box 1 for details.

Figure 5 presents the average post-entry growth performance of cohorts of entering firms in Italy, comparing them with the benchmark group of countries. While before the 2008/2009 crisis Italy performed better than the benchmark countries in terms of the 3-year growth rate after entering, particularly in manufacturing, post-entry growth in Italy has substantially contracted since the 2008/2009 crisis. In services, new firms in Italy have grown more slowly than in other countries post-crisis, suggesting higher barriers to scale-up. In manufacturing, firms born prior to the crisis experienced rapid initial growth, whereas post-entry cohorts grew more slowly, at a similar rate to the benchmark.

After the crisis, access to credit became increasingly difficult for these firms. Nevertheless, it has to be noted that the survival share three years after entering the market in Italy is close to that in other countries. In services, the survival share is even higher in Italy (70% on average across the time period) than in the benchmark (66% on average) showing that once entered, new firms are more likely to remain in business. However, it also has to be noted that after three years, the growth profile of firms in Italy tends to remain flat, whereas in benchmark countries firms grow more over time, pointing to potential barriers to growth over the entire firm age distribution.

OECD work by Calvino, Criscuolo and Menon (2016) has shown that entering firms are more susceptible to institutional settings and policy than incumbents. Significant regulatory barriers, such as the complexity of the tax system and size-based thresholds, as well as weak contract enforcement have been found to be possible hurdles to the expansion of Italian small businesses (OECD, 2014; Bobbio, 2016; OECD, 2017; IMF, 2019). Bankruptcy procedures in Italy take about 6 years on average. With a reform adopted in 2015, the average length is expected to drop around 3 years, and to 4-5 years in a less favourable scenario (Marcucci et al., 2015). Further promoting the efficiency of the legal system is not only relevant for firms exiting the market, but has also implications for facilitating lending for new firms through effective collateral laws. As pointed out by Calvino, Criscuolo and Menon (2016),
strong contract enforcement reduces risks for entrepreneurs more generally, thereby contributing to a more dynamic start-up environment.\textsuperscript{12}

**Figure 5.** Average growth of cohorts of entrants over different time horizons
Manufacturing and non-financial market services
Italy vs benchmark countries, 2001-15

(a) Manufacturing

(b) Services

Note: This figure reports the average employment growth rate by firms founded in different years \(t = 2001, 2004, 2007, 2010\) and 2012 after 3, 5, 7, 10 and 14 years.

Source: Calculations based on OECD DynEmp3 database, August 2019. See Box 1 for details.

To sum up, one of the main concerns for the Italian business environment identified in this report is the large share of very small firms in Italy, as well as the difficulty of young firms to enter the market and to grow. This finding can be linked to the economic context and regulatory environment. The persistently high share of small firms is not due to high rates of entry of small firms. Rather, entry rates have been substantially below those in benchmark countries across almost all industries in the covered period. The high share of small firms and low entry rates reflect both a relative lack of growth among new entrants as well as barriers for small innovative firms to enter the market, due to high costs and difficult access to credit. The main barriers to growth include high regulations and administrative inefficiencies, as well as difficult access to finance for young firms. Further, small firms in Italy also face disincentives to growth, or at least disincentives to formal growth, emerging from the high rate of tax evasion and size-based tax thresholds. Ensuring the right policies, improving legal framework conditions and financial access are important to enable young firms to enter the market and scale-up. All in all, improving business conditions for young and small firms is crucial to develop business dynamism and to enhance employment growth in Italy.
Notes

1 The Italian firm size distribution within sectors has strong implications for productivity. De Nardis (2014) performs a productivity decomposition and shows that differences in the firm size distribution are more important than the sectoral composition in explaining differences in productivity levels between Italy and Germany.

2 Giordano et al. (2015) use heterogeneity in the efficiency of the public sector across different regions in Italy and show that inefficiencies have a significant negative impact on labour productivity.

3 Empirical evidence shows that the Jobs Act improved job market mobility (Boeri and Garibaldi, 2019; Sestito and Viviano, 2018).

4 The law enabling a reform of the bankruptcy code has become effective in November 2017. However, the government has still to issue the decrees that the parliament has to approve.

5 The beneficiary is required to continue the business activity or to retain control of the firm for at least five years.

6 It has to be noted that by definition, informal firms are not observed in our data.

7 The regional average of the paying taxes score of OECD countries is 84.3 compared to 64.0 for Italy (World Bank, 2020).

8 Additional OECD cross-country studies based on the DynEmp database (such as Criscuolo, Gal and Menon, 2014; Calvino, Criscuolo and Menon, 2015, 2016) or country-specific analyses (such as OECD, 2014, 2018, 2019) provide the interested reader with complementary policy-relevant findings.

9 This figure is not reported for brevity, but is available upon request. The age distribution is computed in the most recent available year (2015). Firm age is defined on the basis of the reported birth year or on the first year of appearance with positive employment. Left censoring of the underlying microdata is taken into account. Benchmark country averages are based on the latest available year for each country. See Desnoyers-James, Calligaris and Calvino (2019) for a coverage table.

10 The figures are not shown for the sake of brevity, but are available upon request.

11 The figures are not shown for the sake of brevity, but are available upon request.

12 In January 2019, the Italian Council of Ministers enacted Legislative Decree No. 14, taking into account recommendations of the European Commission with the aim to rationalise and reorganise the legislative system. The Code will enter into force on August 2020.
References


The global productivity slowdown and the simultaneous decline in business dynamism has prompted widespread policy concern. Productivity is the ultimate driver of living standards improvements in the long run, whereas a dynamic business environment is key in enabling job creation. Persisting negative trends can increase earnings inequalities and exacerbate pressures on governments’ budgets, thus threatening social cohesion and political stability.

While most existing analysis of productivity and business dynamics rely on macro-aggregated data, the OECD MultiProd and DynEmp projects utilise a distributed microdata methodology to construct unique sets of harmonised micro-aggregated statistics from confidential firm-level data. The resulting databases allow studying the role of individual firms in driving aggregate outcomes and explaining the observed macro trends across countries and over time.

OECD Insights on Productivity and Business Dynamics is a series of country profiles with a focus on the microdrivers of aggregate productivity and job creation. It makes available, to wider audiences, analytical material from the MultiProd and DynEmp databases that was prepared for use within the OECD.

Comment on this country profile is invited, and may be sent to OECD, 2 rue André Pascal, 75775 Paris Cedex 16, France, or by e-mail to dynemp@oecd.org.

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