



Business dynamism during the COVID-19 pandemic: Which policies for an inclusive recovery?

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Key messages

- The COVID-19 pandemic has had large impacts on business dynamism. Firm entry has rebounded after the drop experienced during the first lockdowns of early 2020. Yet, the recovery in entry rates is highly heterogeneous across countries, with possible long-term implications for employment and output growth. Entry in industries with higher information and communication technology (ICT) intensity and a higher propensity for telework was less hit during the lockdowns, while that in industries relying more heavily on face-to-face contact with customers was more significantly hit.
- Financial support to firms' liquidity and temporary changes to insolvency procedures have been effective in reducing bankruptcies, on average, by more than 30% relative to the pre-pandemic period. Policy measures may have protected viable and productive firms and avoided the systemic risks posed by a wave of bankruptcies, but at the risk of potentially keeping non-viable (the so-called zombie) firms afloat.
- Governments should implement a balanced strategy to phase out emergency support policies. A gradual approach focusing on restoring the equity of distressed firms, encouraging timely debt restructuring and improving the efficiency of liquidation procedures should be pursued, with the aim of fostering resource reallocation.
- To support a strong and resilient recovery, policy interventions should boost technology diffusion, provide the right conditions and incentives for start-ups, and ensure business-friendly framework conditions to enable experimentation and resource reallocation, while supporting transitions into new jobs, especially for more disadvantaged groups of workers.



Overview

Business dynamism – and in particular the process of firm entry and exit – is key for creative destruction and to foster resource reallocation, which are crucial elements of long-run economic growth.

The COVID-19 pandemic and the related containment measures induced a quick and sudden global recession. Among OECD countries, GDP fell by 1.8% in the first quarter of 2020 and by 10.6% in the second one. As lockdowns were lifted during summer and restrictions to economic activities were eased, output rebounded, growing by 8.8% in the third quarter of the year (OECD, 2021b). However, prospects remain uncertain with the resurgence of the COVID-19 infections and the re-imposition of containment measures in many countries in recent months.

Focusing on firm entry and exit is particularly relevant at this time, when the fall in business registrations and the potential rise in bankruptcies (OECD, 2020d; Demmou et al., 2021) and exits may amplify and propagate the effect of aggregate shocks, as previous recessions have shown (Clementi and Palazzo, 2016), potentially leaving long-lasting scars to the economy (Sedláček, 2020; Gourio, Messer and Siemer, 2016).¹

In this context, this note focuses on business registrations² and bankruptcies³ during the COVID-19 pandemic. It presents novel cross-country evidence based on publicly available monthly or quarterly data to evaluate firm dynamics in a timely manner, and discusses the key role of policy to strengthen business dynamism and ensure an inclusive and timely recovery.⁴

Across the OECD, there has been a substantial rebound in firm entry after the initial drop during the first months of lockdown in 2020. Yet, the recovery has not been homogeneous. Some countries (notably Australia, Canada, Norway, the United Kingdom, the United States and Singapore) experienced a smaller drop in entry during the first lockdown, followed by a steep rebound (a V-type recovery): by September, cumulative firm entry in these countries was above 2019 levels. In other countries (such as Italy, Portugal and Spain), the drop in entry until April was more marked and the recovery much more sluggish (a U-type recovery). The experience of other countries (mostly composed of countries from Continental Europe) is in between these two groups. Simulation results show how these two patterns may have significant long-term implications for employment growth after the COVID-19 pandemic.

Focusing also on sectoral changes in firm entry during the pandemic across countries this note provides novel insights, despite pointing to significant cross-country heterogeneity. Entry in sectors such as Hotels and Restaurants, Real Estate and Arts and Entertainment declined substantially in most countries. Manufacturing and Construction have been significantly affected in general, but they have experienced a faster recovery in several countries. The impact on the Trade sector (covering Wholesale and Retail Trade) displays considerable heterogeneity across countries, which appears to be related to the strength of the recovery.

Regression analysis shows that sectors where workers perform tasks that are more ICT-intensive and more easily amenable to teleworking experienced a lower drop in entry during the lockdowns of the first half of 2020. However, in sectors that require more face-to-face contact with customers, entry dropped significantly more during lockdowns. These differences were no longer relevant during the third quarter of the year, suggesting that other factors, such as relief policies, the timing of the second wave of the pandemic, or institutional factors were contributing to shape the recovery.

Financial support to firms' liquidity and temporary changes to insolvency procedures seem to have been very effective in reducing bankruptcies. According to the latest available data from October 2020, total cumulated bankruptcies since January (March) were down around 25% (32%) relative to the corresponding period of 2019.

There is not yet enough evidence to disentangle the role of regulatory interventions on insolvency from that of financial support on bankruptcies: both may have played a role, the former particularly in the early stages of the pandemic, when most countries were implementing such regulations. The note discusses the main trade-offs raised by these interventions, aside from their costs in terms of public finance: policy measures may have protected viable and productive firms from the recent shock and avoided the systemic



risks posed by a wave of bankruptcies, but at the risk of potentially keeping non-viable (zombie) firms afloat, thus impairing resource reallocation.

In addition, pre-existing structural trends may be exacerbated by the COVID-19 pandemic. These include declines in business dynamism (Calvino, Criscuolo and Verhac, 2020; OECD, 2021a), sluggish productivity growth and increasing polarisation and inequalities, with increasing differences between firms and workers. Policy-makers need therefore to complement emergency measures with interventions that address these longer-term challenges in order to boost the speed and inclusiveness of the recovery.

Policy interventions should not only focus on measures limiting widespread financial distress and the negative effects of debt overhang in the short term. They should also be coupled with interventions aimed at:

1. boosting technology diffusion for an inclusive digital transformation
2. providing the right environment and incentives for start-ups to innovate and grow, and for potential entrepreneurs to enter the market
3. ensuring business-friendly framework conditions, to foster experimentation and resource reallocation
4. supporting transitions into new jobs, especially for more disadvantaged groups of workers.

This policy bundle would strengthen the speed and inclusiveness of the post-COVID-19 recovery also in the longer run, bringing double dividends for policy makers.

Start-ups at the time of COVID-19

New and young firms are key for job creation, innovation, and economic growth. On average, across OECD countries, they employ around 20% of the total workforce and create almost [half](#) of new jobs.

New firms are also key in the long-term sectoral transformation of the economy (Dent et al., 2016). In the United States, for example, innovations by young firms account for half of aggregate productivity growth (Klenow and Li, 2020). During recessions, however, a fall in firm entry may amplify the drop in output and reduce the speed of recovery (Clementi and Palazzo, 2016) and potentially leave long-lasting scars to the economy (Sedláček, 2020; Gourio, Messer and Siemer, 2016).

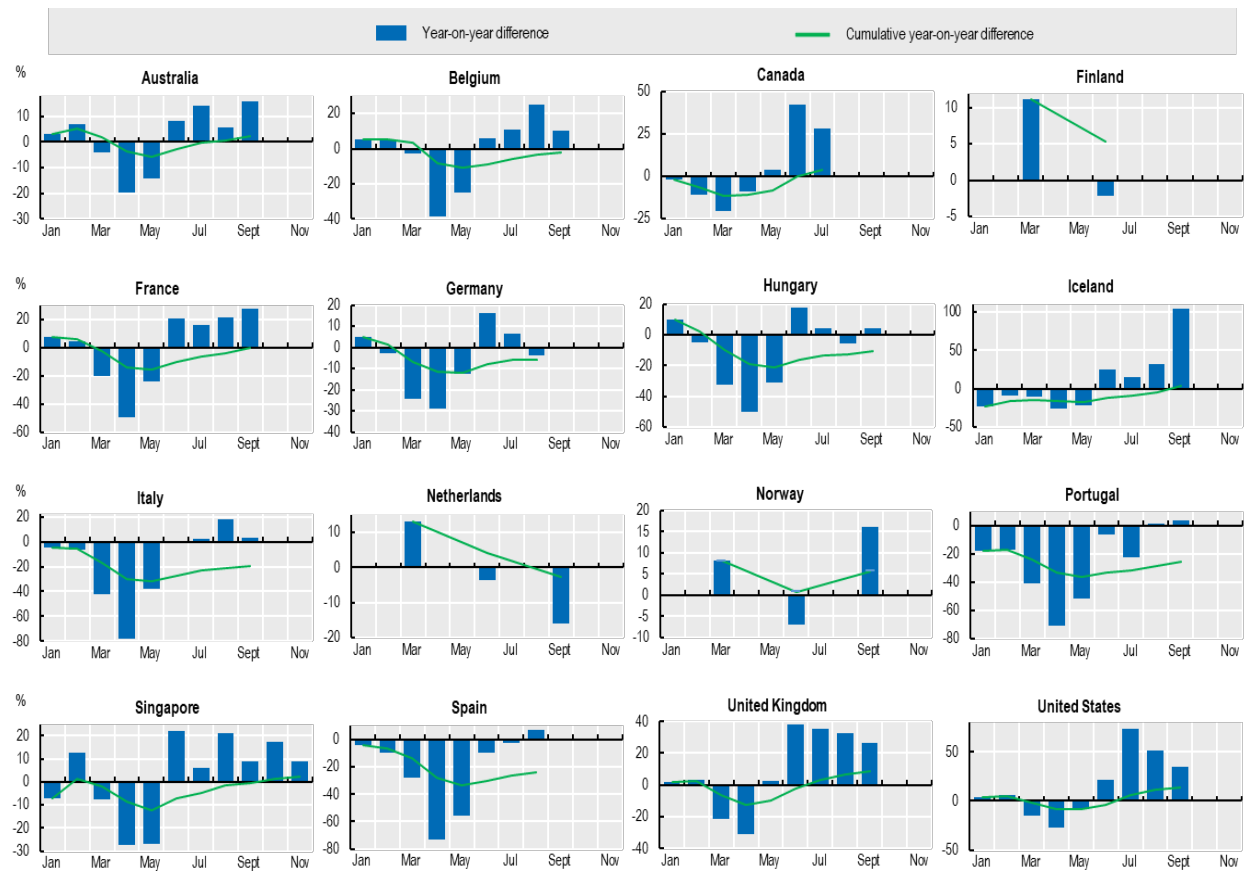
As highlighted by OECD analysis earlier in 2020, entry declined substantially in the first months of the COVID-19 pandemic, when the global economy was hit by a sudden and deep economic contraction (OECD, 2020a). Extending the data to new countries (see Table A.1) shows that this pronounced decline in entry is observed across many economies. At its trough (which for most countries corresponded to April 2020), the number of new entrants per month was between 20 and 60% lower than the corresponding figure in 2019 (Figure 1).

Starting in June 2020, entry generally improved. Yet, the strength of the recovery displayed a substantial degree of heterogeneity across countries. Some countries (such as Australia, Canada, Norway, the United Kingdom, the United States and Singapore) experienced a V-type recovery: the rebound was sufficiently strong to offset the losses in total entry registered since the beginning of the year.⁵ Other countries (including Spain, Italy, and Portugal) seemed to struggle with a U-type recovery: business registrations rose less significantly after June (and continued to decline in some cases) and, as a result, by September the total number of entrants remained significantly below the 2019 level. Other countries for which data are available (Belgium, France, Germany, Hungary and Iceland) fared in between these two groups. For the Netherlands, data shows that the drop continued in the third quarter of 2020.

It is too early to assess how entry has performed during the lockdowns of the late 2020, as the data collected so far stop in September in most cases, right before the second wave of the pandemic hit most OECD countries.⁶ However, the overall drop in business registrations observed so far in several countries may exacerbate secular trends of declining dynamism that have been observed across many OECD countries over the last two decades (Calvino, Criscuolo and Verhac, 2020).



Figure 1. Aggregate business registration: differences 2020 vs. 2019



Notes: The figure plots the year-on-year difference in business openings each month (or quarter for Finland, The Netherlands and Norway) in percentage, comparing the level of business openings to the same month (quarter) of 2019 (blue bar). The green line instead plots the difference in percentage of cumulative openings from January to each month considered. The data usually refer to business registrations, focusing when possible on all businesses (including sole proprietorship), but similar dynamics are evident when focusing on legal entities only. Data may be preliminary, experimental and subject to revision, and differ from official data.

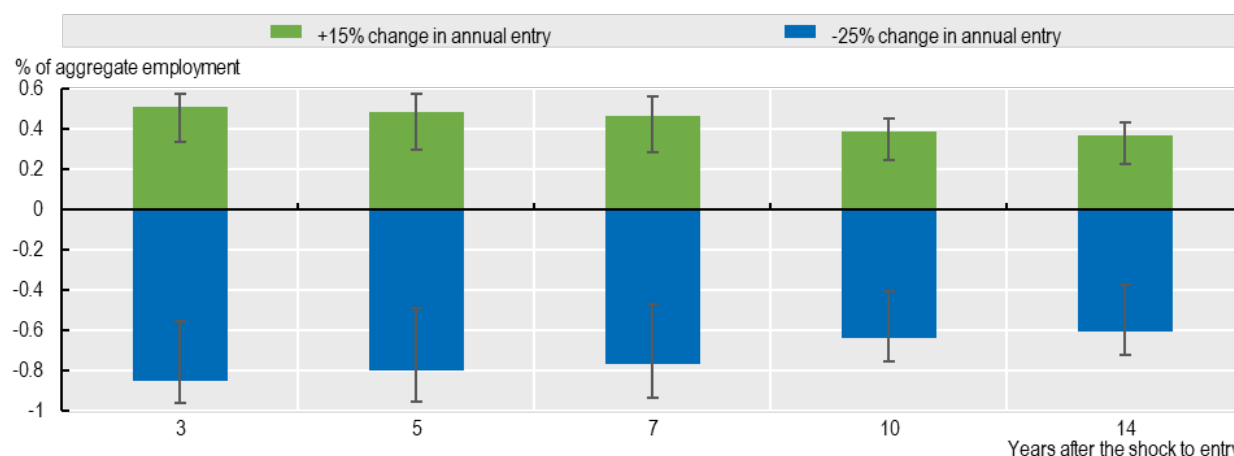
Source: OECD calculations based on official sources (see Table A.1).

Moreover, given the crucial role of young firms for job creation and output growth, the ability of entry rates to recover swiftly from the COVID-19 shock may have significant implications in the medium term for the aggregate economy, and in particular for employment. To show this, a simulation, based on the [OECD DynEmp3 database](#), of the employment effect of the shock of the pandemic on entry is reported in Figure 2, under two scenarios.⁷ The first scenario represents a slow, U-type recovery: a 25% annual decline in 2020 which corresponds to the worst cumulative difference reported as of September 2020 in Figure 1. The second scenario corresponds to a swift V-type recovery, whereby a more dynamic business environment allows start-ups to reap the opportunities generated by the COVID-19 pandemic, and entry displays a cumulative growth of 15% year-on-year.

In the first scenario the “missing generation” of new firms resulting from the decline in entry would significantly weigh on the economic cost of the COVID-19 pandemic, depressing aggregate employment by around 0.85% three years after the shock. Conversely, in the second scenario, the rebound of entry would substantially limit the impact of the COVID-19 pandemic on employment, improving aggregate employment by 0.5% after three years. These effects are strongly persistent over time, with around 70% of the aggregate losses or gains still being observed after 14 years.



Figure 2. Simulation of the impact of a shock to entry on employment under two scenarios



Notes: The figure shows the employment losses or gains associated to a 25% decline (blue bar) or 15% increase (green bar) in the number of entrants, relative to aggregate employment in the initial year, on average across countries and cohorts of entrants in 1995, 1998, 2001, 2004, 2007, 2010 and 2012 depending on availability. The bands represent low and high values of the effects of the shocks, representing respectively the 25th and 75th percentiles. The simulation is based on the decomposition proposed by Calvino, Criscuolo and Menon (2016), focusing on SNA A38 industries in manufacturing and non-financial market services. Countries included are Austria, Belgium, Brazil, Canada, Costa Rica, Finland, Hungary, Italy, Japan, Korea, The Netherlands, Norway, Portugal, Spain, Sweden and Turkey.
Source: OECD calculations based on the OECD DynEmp database.

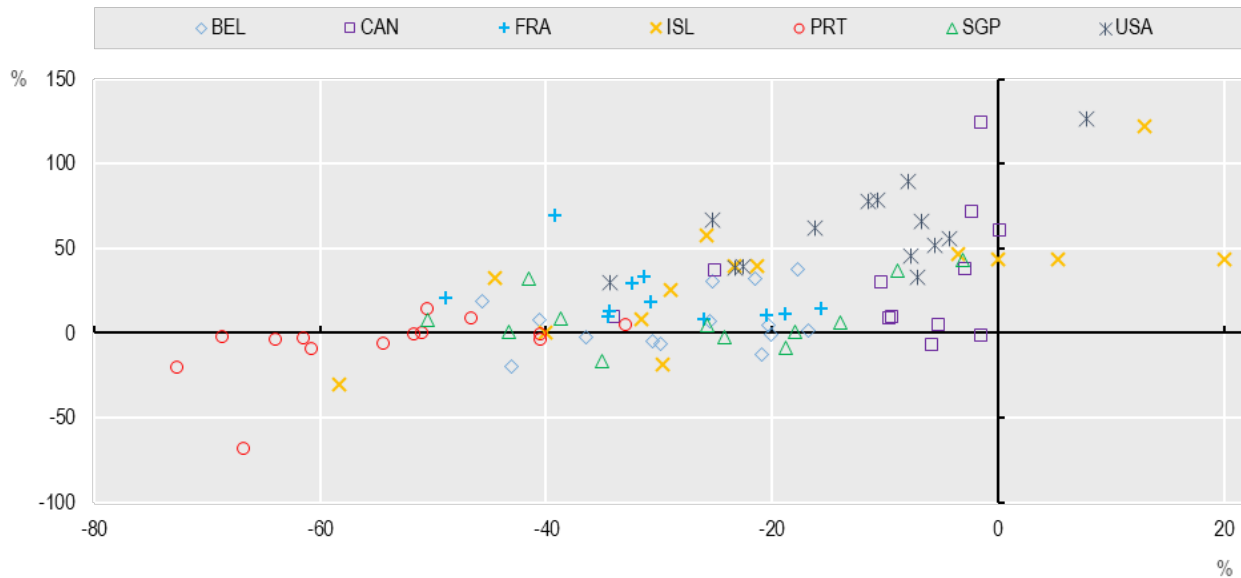
The analysis of monthly sectoral data at the SNA A21 level, for the subset of seven countries for which this information is available, provides additional insights into the heterogeneous response of entry to the COVID-19 shock. Panels A to G of Figure A.1 in Annex A show the change in entry during the contractionary period (March to May 2020) and in the following expansionary phase (June to September/November 2020 – depending on data availability). Sectors, such as Hotels and Restaurants, Real Estate, and Arts and Entertainment, were significantly affected during the contractionary phase, in most countries for which data are available. However, their dynamics during the third quarter significantly differed across countries, possibly partially reflecting differences in the easing of lockdown measures. Manufacturing and Construction were significantly hit in general during the contractionary period, but also displayed a strong recovery later on. The drop in the Trade sector and its recovery are particularly heterogeneous across countries, with Canada, Singapore and the United States experiencing a very mild contraction, or even no contraction, followed by a robust rebound. Conversely, other sectors, such as Information and Communication have been less hard hit, with lower declines in entry during the contractionary period.⁸

Despite significant heterogeneity in the drop in entry and the pace of recovery, Figure 3 shows that country-sectors that have been more resilient to the first phase of lockdown displayed also a more dynamic recovery during summer. The correlation presented in this figure reflects the role of both sector- and country-specific factors. When controlling for the average magnitude of the decline and recovery in the country, it appears that sectors that have been less hard hit also benefited to some extent from a more dynamic recovery. At the same time, controlling for sector-specific dynamics shows that countries with a milder decline in entry have also been able to restore or increase levels of firm creation from previous years (as also visible in Figure 1). This suggests that the rebound in business creation observed in some countries and sectors does not only reflect a catch-up phenomenon but may instead indicate also the emergence of new business opportunities.



Figure 3. Correlations between the depth of the drop in entry during the first lockdown and its recovery afterwards

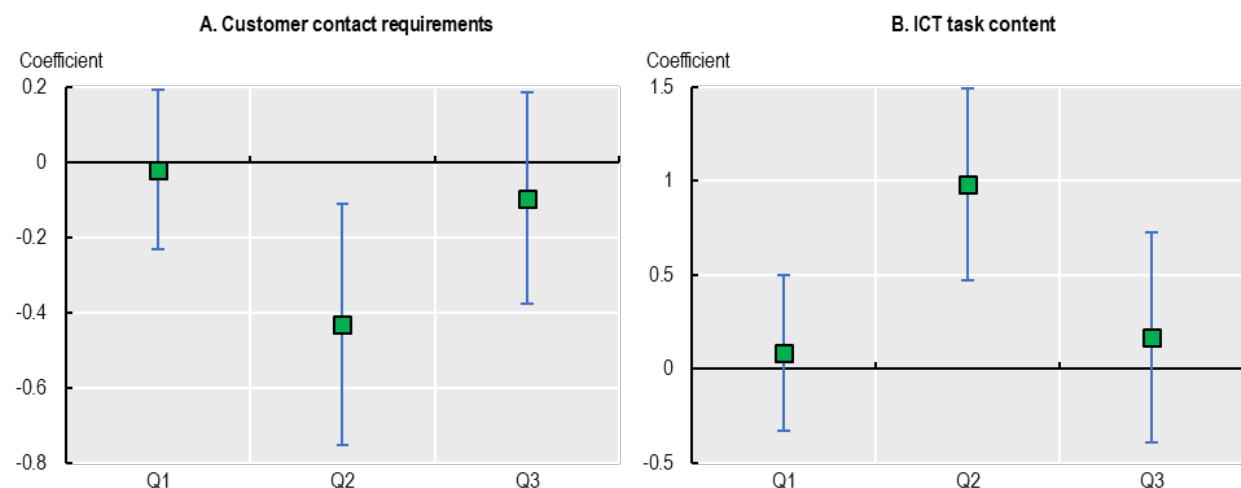
Percentage change in entry over the period June-November 2020 compared to 2019 (y-axis), against percentage change in entry over the period March-May 2020 compared to 2019 (x-axis)



Notes: This figure plots the correlation between year-on-year growth in cumulative business openings during the first lockdown period (March to May) compared to the same period of 2019, and the year-on-year growth in business openings during the recovery period (June to November, depending on data availability) relative to the same period of 2019. The figure is based on monthly sectoral data at the SNA A21 level. The data usually refer to business registrations, focusing when possible on all businesses (including sole proprietorship), but similar dynamics are evident when focusing on legal entities only. Data may be preliminary, experimental and subject to revision, and differ from official data.

Source: OECD calculations based on official sources (see Table A.1).

Figure 4. Sectoral characteristics amplify or mitigate the decline in entry in the second quarter



Notes: These figures plot the correlation between year-on-year growth in entry and the industry share of employment in occupations involving regular face-to-face contact with customers (panel A) and the correlation with industry-level ICT tasks contents of jobs (panel B). The correlation is computed from a regression of year-on-year entry growth on the relevant variable interacted with quarter dummies, and country-quarter fixed effects. Blue bands represent 90% confidence intervals, based on robust standard errors. Customer contacts requirements and ICT tasks content are measured at the SNA A38 industry level, and are sourced from Koren and Peto (2020) and Calvino et al. (2018), respectively.

Source: OECD calculations based on: official sources (see Table A.1), OECD (2021a), "Declining business dynamism: Cross-country evidence, possible drivers and the role of policy", www.oecd.org/sti/ind/declining-business-dynamism.pdf and Calvino et al. (2018), <https://doi.org/10.1787/f404736a-en>.



For five countries (Belgium, Finland, the Netherlands, Portugal and the United States) it is possible to exploit more disaggregated – SNA A38 – sectoral data, to investigate the link between the decline in entry and pre-existing sectoral characteristics. The analysis shows that the decline in entry during the period of national lockdowns (the second quarter of the year) was more pronounced in industries characterised by a larger share of employment in occupations involving regular face-to-face contact with customers (Figure 4, panel A).⁹ On the contrary, industries with a higher ICT task content of jobs have been relatively sheltered from the crisis, as evident from lower declines in entry in these industries (Figure 4, panel B).¹⁰ The latter result may be related to the higher propensity to telework in industries that require more ICT tasks from workers, as ICT content and ability to telework are empirically strongly correlated.¹¹ These industries may thus have been more able to continue operating during lockdowns. The temporary recovery during the third quarter of the year benefited both ICT intensive and non-intensive sectors alike, as well as sectors with different levels of requirements for face-to-face contact with customers, suggesting that other factors, such as the relief policies, the timing of the second wave of the pandemic, or institutional factors may have contributed to shape the recovery.

Bankruptcies over the pandemic: A delayed wave

The drop in global demand induced by the COVID-19 crisis halted firms' revenues and sparked the risk of a global liquidity crisis (OECD, 2020c). In the absence of governments' action, this would have likely quickly translated into a wave of corporate insolvencies (OECD, 2020d; Demmou et al., 2021), especially for small and young firms.

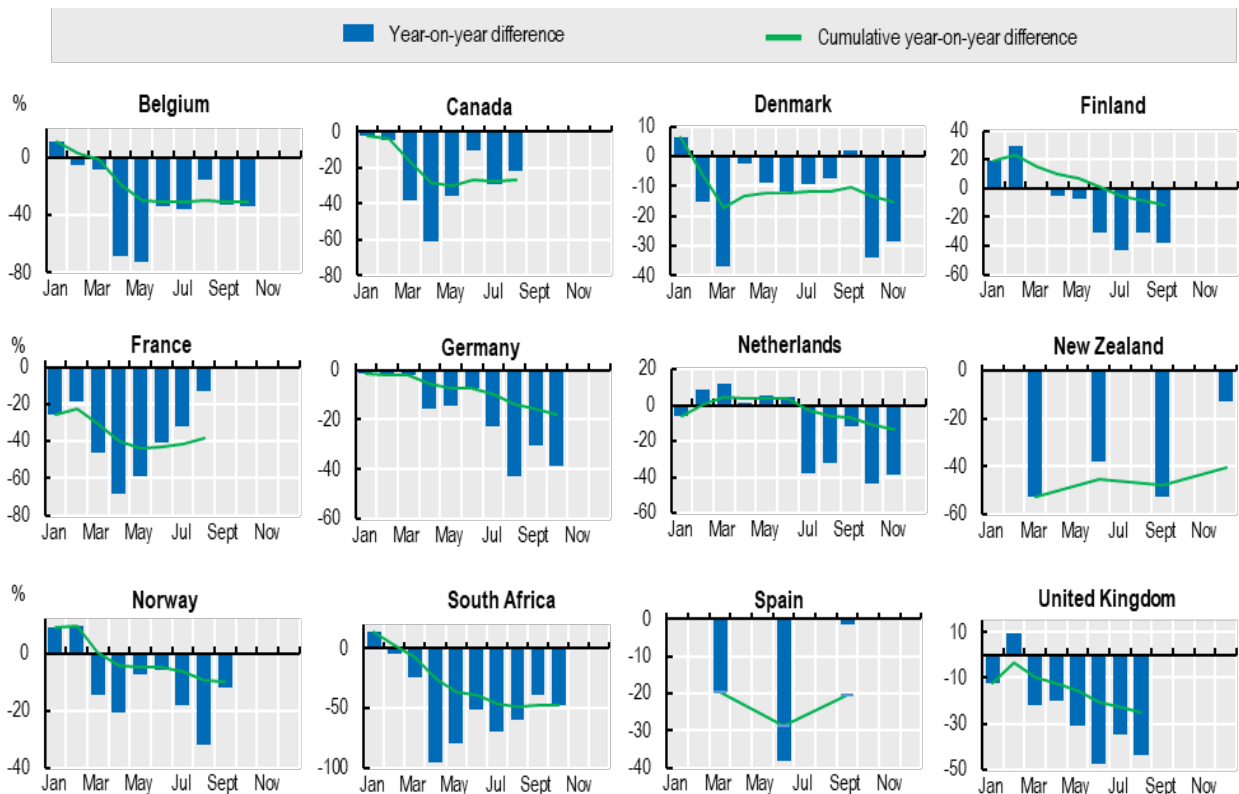
Indeed, mindful of this risk, governments adopted a range of emergency measures aimed at supporting firms' liquidity and curb the potential spike in bankruptcies. Liquidity support included direct transfers, financing of wage bills, tax deferrals, debt moratoria and extensions of state loan guarantees. Furthermore, many countries introduced non-financial regulatory interventions to effectively limit bankruptcies. To give some examples, the French Government changed the dates for characterising and declaring a firm as insolvent, limiting the obligations to file for bankruptcy if the firm started defaulting on its debts after 24 March; these temporary changes were in place until 24 August. In Germany, firms' obligations to file for insolvency have been suspended since 1 March. In Belgium, business courts and registries limited their activities until 18 May, and a temporary moratorium was in force until 17 June, to shelter enterprises that were healthy before 18 March from the effects of the COVID-19 crisis. In Italy, a moratorium on bankruptcies was in force until 30 June.

These interventions have limited the number of bankruptcies filed since the COVID-19 outbreak. Figure 5 presents evidence from a novel database covering information on bankruptcies for 12 OECD countries and partner economies, drawing from a variety of official sources (mostly National Statistical Institutes and Chambers of Commerce; see Table A.2). Across all surveyed countries, monthly bankruptcies dropped year-on-year by more than 30% on average since March 2020. Moreover, for the latest months available (ranging from September to November 2020), no significant rebound is observed and the total number of bankruptcies in 2020 remains markedly lower than in previous years.

There is not yet enough evidence to disentangle the role of regulatory interventions from the one of financial support measures. While for Belgium the drop in bankruptcies was more marked during April and May (when the moratorium was in force), and in France there seems to be a rebound around August, the drop is marked also in countries (like Canada, the Netherlands and Norway) where temporary changes to insolvency regimes were less significant or absent during the period of analysis.

The rapid slowdown in bankruptcies, likely induced by the large financial support and regulatory interventions, may be beneficial for the economy in the short run. Indeed, these measures may allow to support viable firms that would otherwise exit or shrink, reducing transitional firing and re-hiring costs, and limiting the loss of potential output (OECD, 2020b).



Figure 5. Aggregate number of bankruptcies: differences 2020 vs. 2019

Notes: The figure plots the year-on-year difference in bankruptcies each month (or quarter for Finland, The Netherlands and Norway) of 2020 in percentage, comparing the level of business openings to the same month (quarter) of 2019 (blue bar). The green line instead plots the difference in percentage of the cumulative number bankruptcies from January to each month considered. Data presented in this note, however, may refer to different definitions and bankruptcy laws differ markedly across countries. Data may be preliminary and subject from revisions and may differ from official data.

Source: OECD calculations based on official sources (see Table A.2).

At the same time, though, there is a growing concern that they may negatively affect resource allocation and aggregate productivity growth in the longer run, if unproductive (zombie) businesses are kept afloat, preventing capital and labour to be channelled towards new business opportunities. Moreover, if financial relief is channelled through bank credit, while firms continue to deplete their cash-flow and equity buffers, leverage is likely to increase markedly, putting more companies in a vulnerable financial position.

These measures may also be only postponing a new wave of bankruptcies. When emergency measures will be lifted, a possible sudden rise in bankruptcies would pose significant systemic risks, as the shock may propagate in the economy through financial intermediaries and trade credit chains (Jacobson and Von Schedvin, 2015; Kiyotaki and Moore, 1997). Policy-makers, however, may reduce those risks by implementing appropriate policy interventions, as discussed next.

Policies to strengthen dynamism and foster an inclusive recovery

The current developments of the COVID-19 vaccination campaigns have increased confidence in the ability to control the pandemic in the medium to long term. Yet, relevant economic risks still loom over the near future. The drop in entry still observed in several economies could slow down considerably the recovery of output and employment. An upcoming wave of bankruptcies may weigh heavily over an already very fragile business sector.



Governments can play an important role in limiting these risks by implementing a balanced strategy to phase out emergency support policies. Exiting too early may have detrimental effects for the recovery and possibly amplify structural trends. This could for instance affect competition, possibly at the advantage of large firms, which, thanks also to a higher level of digital adoption, were better prepared to continue operating under the restrictions, and which have larger cash-holdings to shelter in the wake of a corporate bankruptcies crisis, and at the expenses of viable but more financially vulnerable competitors. This could also undermine the recovery of firm entry, further amplifying a long-term decline in business dynamism. On the other hand, exiting too late – while beneficial for viable firms – may have negative implications for resource reallocation and long-term costs in terms of aggregate output and productivity, since it may potentially keep some unviable firms alive for too long, and thereby risking a rise of zombie firms. In addition, maintaining financial support for long will become more and more costly for public finance.

Taking into account these risks, policy-makers should follow a gradual approach aimed at limiting widespread distress and the negative effects of debt overhang, while at the same time ensuring the restructuring of viable firms in temporary distress and efficient liquidation of unviable ones (OECD, 2020b; OECD, 2020d; Demmou et al., 2021). First, providing additional resources and restoring the equity of distressed firms may be beneficial to reduce the overall number of insolvencies. Furthermore, encouraging timely debt restructuring may help distressed firms to continue their operations smoothly. This may further decrease the number of viable businesses that would be otherwise liquidated. Finally, to smooth the reallocation of resources from non-viable businesses to more productive uses, the efficiency of liquidation procedures should be improved (OECD, 2020b; OECD, 2020d). Indeed, these measures should be considered as part of a long-term strategy to build a dynamic business environment, as discussed below.

Beyond the temporary consequences of the shock, pre-existing structural trends, including increasing polarisation of the economy may be exacerbated by COVID-19, as they have been by previous recessions (Hershbein and Kahn, 2018; Yagan, 2019; Jaimovich and Siu, 2020). In this context, policy-makers need to keep in mind not only short-term issues linked with the current economic and health situation, but also longer-term challenges related to declining business dynamism and increasing polarisation(s) in the economy in order to boost the potential for an inclusive recovery. Key policy recommendations in this context are described below.

1. Boost technology diffusion for an inclusive digital transformation

Digital technologies contribute to the introduction and fast upscaling of new goods and especially new services and, together with intangible assets, are transforming the way firms produce, with large expected gains in terms of productivity. Digital technologies and intangibles have also been key in preserving economic activity during lockdowns. However, not all firms adopt digital technologies in the same way nor benefit equally from the digital transformation. The increasing gaps between the “best” firms and “the rest” of the business population, are even stronger at a time when shifts to digital modes of production are more and more crucial.¹² Thus, stimulating technology and knowledge diffusion and ensuring that the benefits of the digital transformation are shared across firms and workers should remain key priorities for policy-makers. These priorities may be achieved by increasing awareness about suitable technologies, by boosting firms’ absorptive capacity (e.g. through supporting research and development, and fostering labour mobility) and by ensuring the conditions for an effective use of digital tools, especially focusing on improving relevant skills of all workers and enhancing managerial capabilities. Policies that preserve competition, contestability of markets and openness, are also key for technology diffusion as they increase firm incentives, boost managerial quality and expected returns from technology adoption. Finally, at a time in which many firms are in a fragile financial position, with elevated debt and depleted cash flows, addressing financial constraints – especially of young firms and small and medium-sized enterprises (SMEs) – may help reduce the digital divide that may otherwise worsen in the wake of the crisis.



2. Provide the right conditions and incentives for start-ups and potential entrepreneurs

Fostering entrepreneurship and a dynamic business environment are key to boost business dynamism, especially at a time when declines in business registrations are a growing cause of concern among policy-makers. This can be achieved by providing the right conditions and incentives for start-ups and potential entrepreneurs. Useful measures include, but are not limited to, reducing barriers to entry, minimising regulatory uncertainty, promoting entrepreneurship training, network development among different actors of the entrepreneurship ecosystem, and university-business collaborations. Indeed, especially after the liquidity crisis that firms are experiencing in the wake of the COVID-19 crisis, ensuring that funding for innovative start-ups remains available is of paramount importance. In particular, entry of new businesses and their contribution to employment and innovation may be hampered by constraints related to financial needs and the lack of an ecosystem oriented towards entrepreneurship. While these issues bear some similarities with the difficulties faced by incumbent firms, policy interventions should not ignore the specificities of start-ups and follow them throughout all stages of their development. This requires resorting to a variety of instruments (from simplifying venture capital financing to loan repayments linked to business' returns) in co-ordination with private actors that should adapt to the different needs of business in their life cycle.

3. Ensure business-friendly framework conditions to favour experimentation and resource reallocation

Governments have successfully stepped in to limit a wave of bankruptcies that could have further damaged employment and the productive capacity of economies through the failure of otherwise viable and productive firms. As emergency measures are phased out, policy-makers could take the opportunity to improve the efficiency of resource reallocation and encourage experimentation that goes hand-in-hand with the continuous process of firm entry and exit. In this context, reducing regulatory barriers to entry, levelling the playing field, improving judicial efficiency and the efficiency of liquidation procedures can stimulate business dynamism. Similarly, fostering experimentation and resource reallocation, while also reducing the share of capital sunk in zombie firms (Calvino, Criscuolo and Menon, 2016; Calvino, Criscuolo and Verlhac, 2020; Adalet McGowan, Andrews and Millot, 2017) can also contribute to achieving this goal.

4. Support transitions into new jobs, especially for more disadvantaged groups of workers

The reallocation of resources through creative destruction, while beneficial for the recovery and productivity growth, may have adverse effects for displaced workers (OECD, 2020g). Therefore, recovery plans should also support the transition into new jobs, especially for more disadvantaged workers, while at the same time fostering the ongoing digital transformation of firms and economies more generally. In particular, the heterogeneous impact of the crisis across sectors reflects to some extent the growing importance of occupations requiring digital skills, which may offer opportunities for displaced workers with adequate skills. In this respect, policies should not only aim at restoring the economy, but also at preparing workers for the future, boosting human capital and supporting efficient transitions across occupations (see for instance Andrieu et al., 2019). This, in turn, may increase the prospects of workers, minimise social costs and strengthen resilience and inclusivity of labour markets, ensuring that no worker is left behind (OECD, 2020e).

These policy actions together may bring double dividends for policy makers and strengthen the speed and inclusiveness of the post-COVID-19 recovery.



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Notes

¹ This effect may be at least partially attenuated by positive selection at entry and cleansing at exit (Ates and Saffie, forthcoming; Foster, Grim and Haltiwanger, 2016).

² The note relies on newly collected data related to business openings, based on official sources (mostly National Statistical Institutes) listed in Table A.1. The data usually refer to business registrations, focusing when possible on all businesses (including sole proprietorship), but similar dynamics are evident when focusing on legal entities only. Data used in this note may be preliminary, experimental and subject to revision, and differ from official data.

³ This note considers bankruptcies, rather than firm exit, because the use of the latter as a short-term indicator suffers from two problems: first, in several countries it is difficult to disentangle exit from temporary closures or periods of business inactivity; second, *true* firm exit may take several months or quarters to realise after the shock. Bankruptcy filings instead signal the beginning of a procedure which may end up with firm exit: they may, thus, react more swiftly to a shock. Data presented in this note, however, may refer to different definitions and, at the same time, bankruptcy laws differ markedly across countries, so the reader should be very careful in cross-country comparisons. Indeed, differences in regulations and laws may affect both the amount of monthly bankruptcies and liquidations filed and their reaction to economic shocks. See Table A.2 for additional details on data sources.

⁴ The note builds upon and complements previous OECD analyses on start-ups at the time of COVID-19 (OECD, 2020a), on SME policy responses (OECD, 2020f) as well as more recent OECD work on insolvencies during the pandemic (OECD, 2020b; 2020d; Demmou et al., 2021).

⁵ The significant rebound of US entry rates may be largely explained by start-ups in few sectors (US Census Bureau, 2020), including non-store retailing, personal and laundry services, professional, scientific and technical services. This may suggest that especially in these sectors in the United States, the pandemic may have uncovered relevant business opportunities. However, this should be taken with caution as available data by sector is experimental, and seem to refer to all business applications, rather than to those high-propensity applications (Buffington, Fields and Foster, 2021) that are more likely to turn into businesses with payroll, as presented in Figure 1.

⁶ The OECD will continue to collect data to monitor entry dynamics and evaluate the strength of the recovery and the effects of the second wave and subsequent developments.

⁷ The simulation is based on the decomposition of the contribution of new firms to job creation proposed by Calvino, Criscuolo and Menon (2016). It decomposes the average number of jobs created by surviving entrants (as a share of aggregate employment) into four components: start-up ratio, average size at entry, survival share, and post-entry growth, bearing similarities with the Startup Calculator presented by Sedláček and Sterk (2020). The simulation presented here accounts for the effects of a change in the first component (number of entering units), keeping the other margins constant. The other components may also affect the impact on employment associated with a U-type or V-type recovery of entry. For instance, if entrants are of higher quality, they may also have higher survival rates and post-entry growth, thus reducing the negative effect of the shock on aggregate employment or amplifying positive effects.



⁸ Indeed, Information and Communication was the sector with the lowest decline in entry in France, Iceland and Portugal, and was generally among the sectors with a milder or average decline in the other countries. However, its recovery appears quite heterogeneous across countries.

⁹ The measure aggregates the indicator by Koren and Peto (2020) at the SNA A38 industry level. A job is defined as involving face-to-face contact if it involves tasks such as dealing with external customers, assisting and caring for others, or providing consultation and advice to others, and face-to-face communication occurs at least several times a week. Indicators are constructed by matching the tasks associated with different occupations in O*NET, then matching these to the occupation structure of NAICS17 three-digit industries using the US Bureau of Labor Statistics industry-occupation matrix for February 2020.

¹⁰ The ICT task content measure is sourced from Grundke et al. (2017) and Calvino et al. (2018) and is based on the information reported in the OECD Programme for the International Assessment of Adult Competencies (PIAAC) dataset to measure the frequency with which surveyed individuals carry out tasks which are related to the use of ICT on the job.

¹¹ The measure of teleworkability is sourced from Espinoza and Reznikova (2020) and classifies an individual job as teleworkable based on the tasks performed. Cross-country data on tasks from the OECD Program for the International Assessment of Adult Competencies (PIAAC) are averaged at the sector-level. By construction, the measures of potential for telework and ICT task contents are strongly correlated (as the use of ICT on the job is one of the indicators of teleworkability). The sector-level correlation coefficient between the two measures is above 0.8. Conversely, the index of the share of employment requiring customer contacts is only marginally correlated with these two measures (correlation coefficients below 0.1).

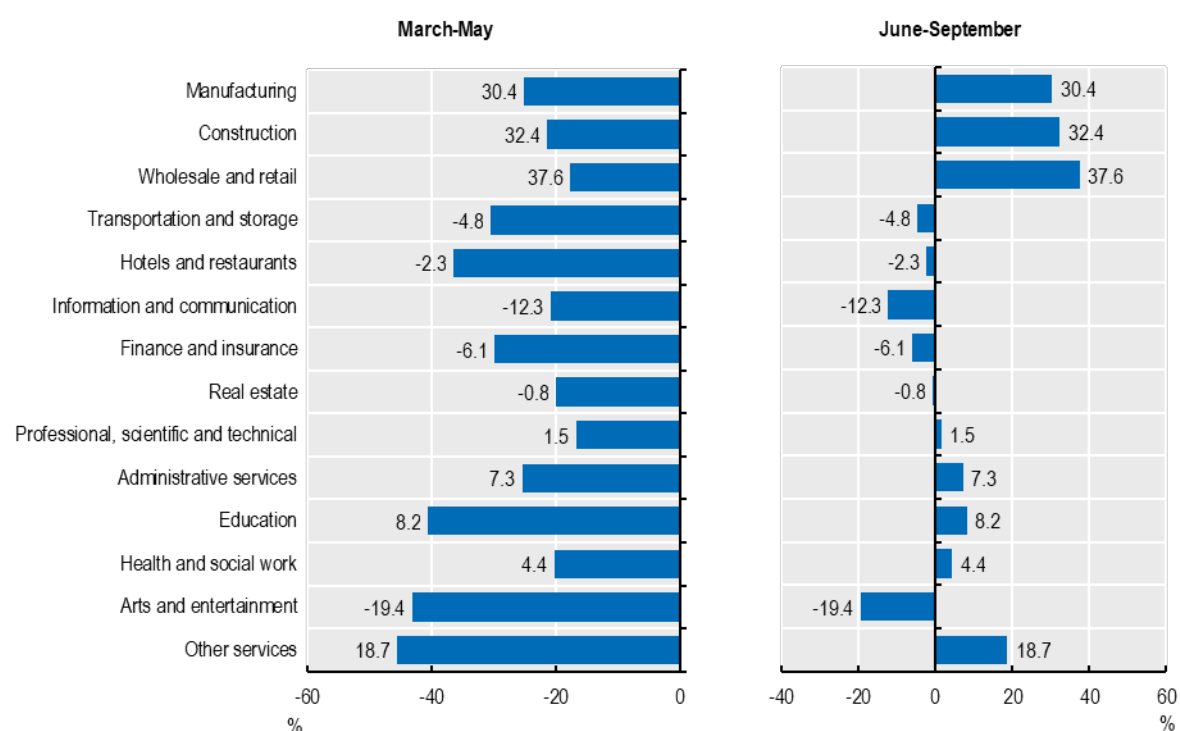
¹² Recent OECD work (Andrews, Criscuolo and Gal, 2016; Berlingieri et al., 2020; Calvino, Criscuolo and Verlhac, 2020) shows that this structural change occurs at a different speed for firms at the frontier and laggards, contributing to slow aggregate productivity growth, rising firm heterogeneity, declining business dynamism and increasing industry concentration.



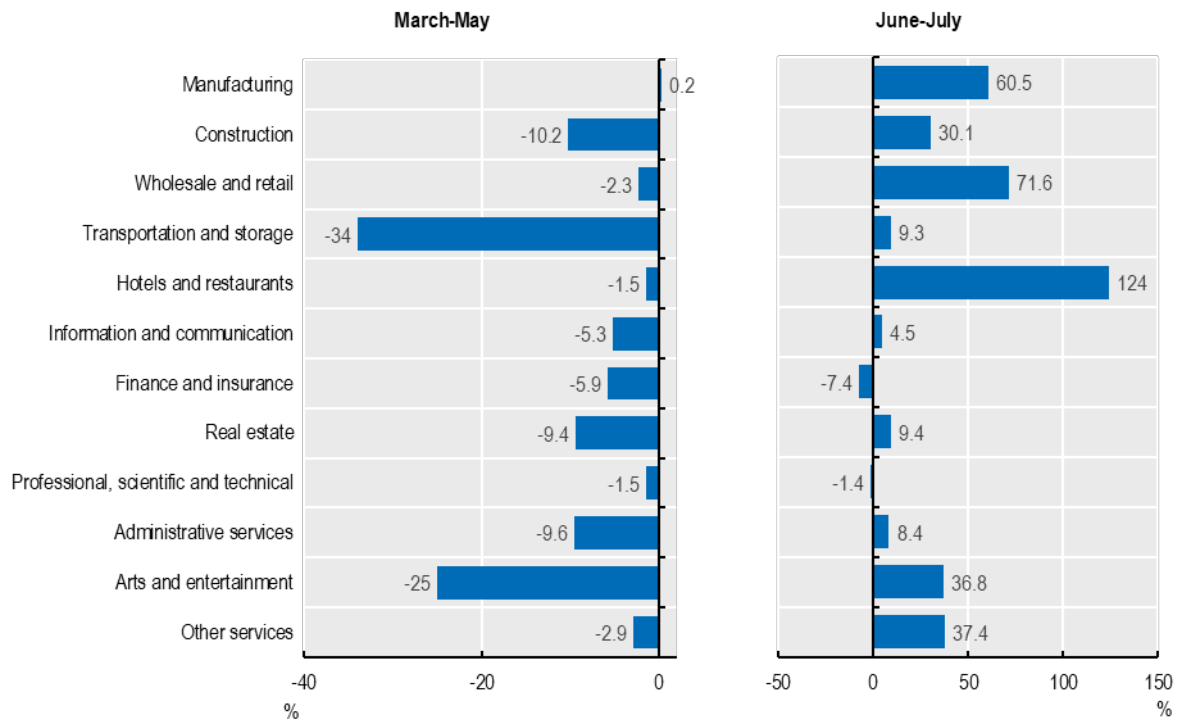
Annex A. Additional figures and tables

Figure A.1. Year-on-year differences in business registration by selected SNA A21 sectors

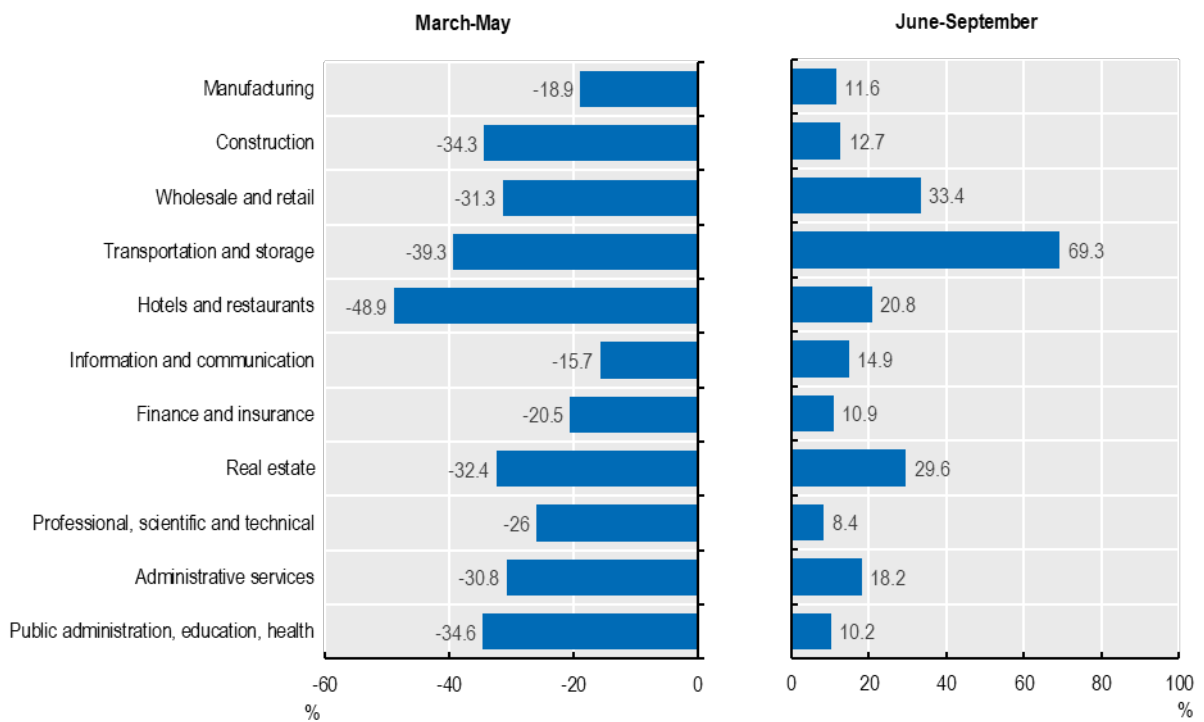
A. Belgium



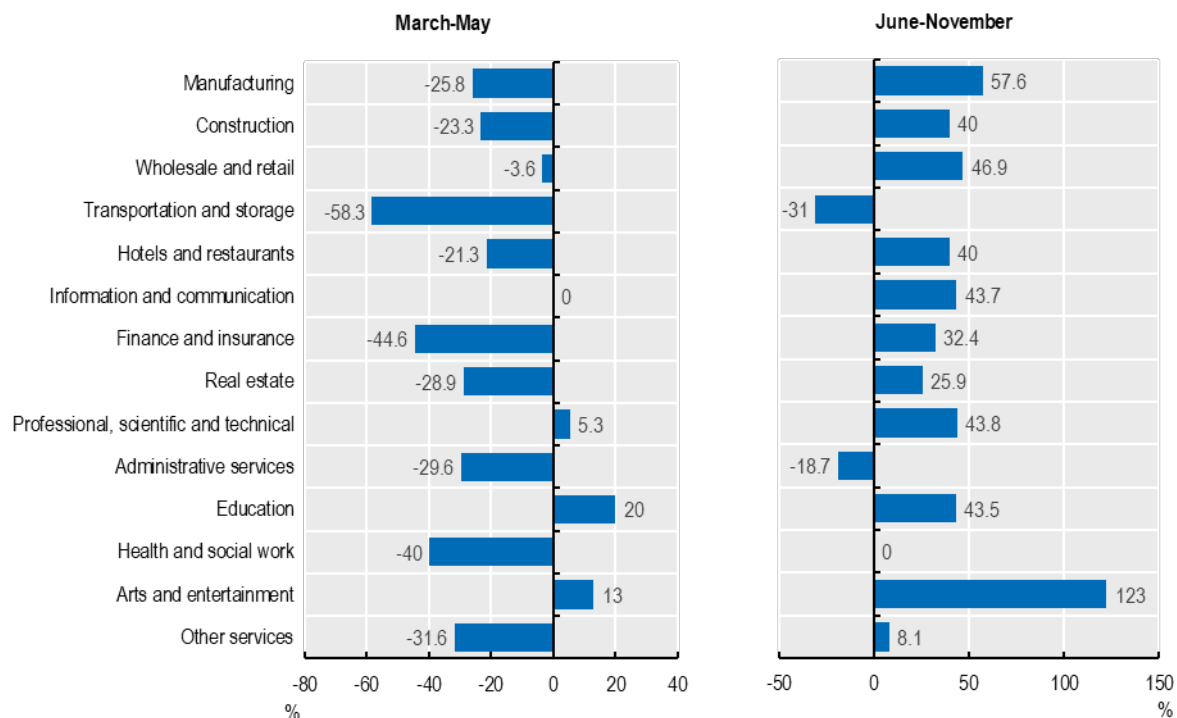
B. Canada



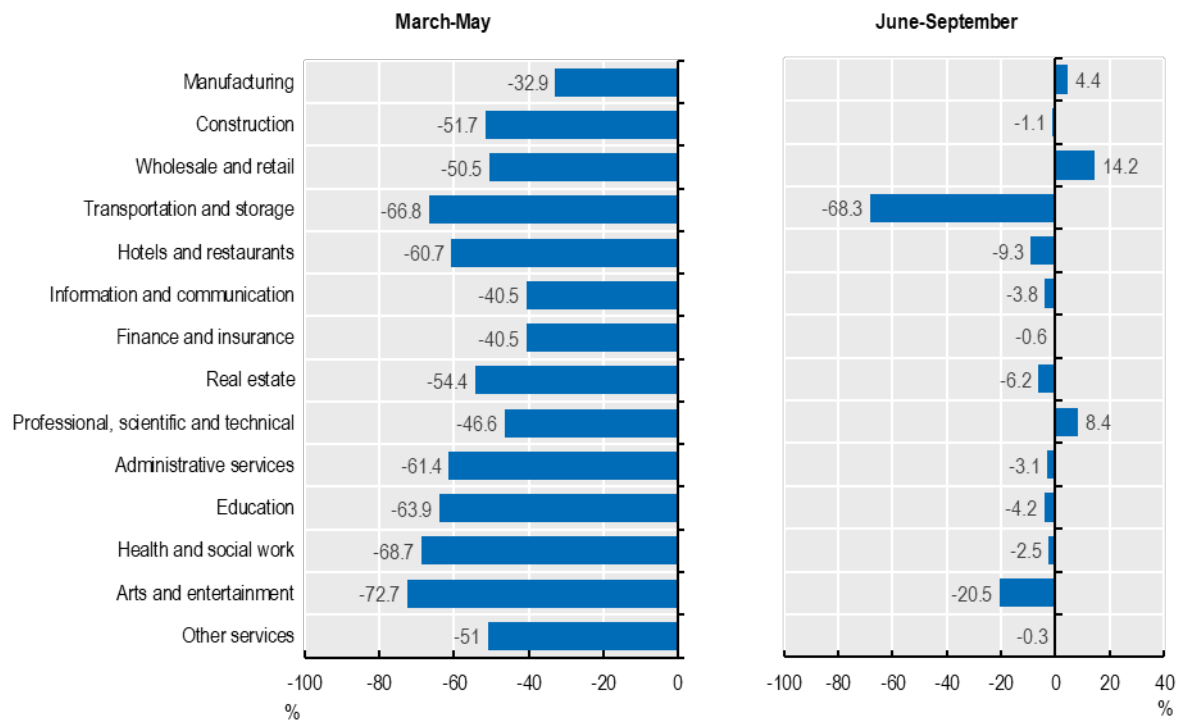
C. France



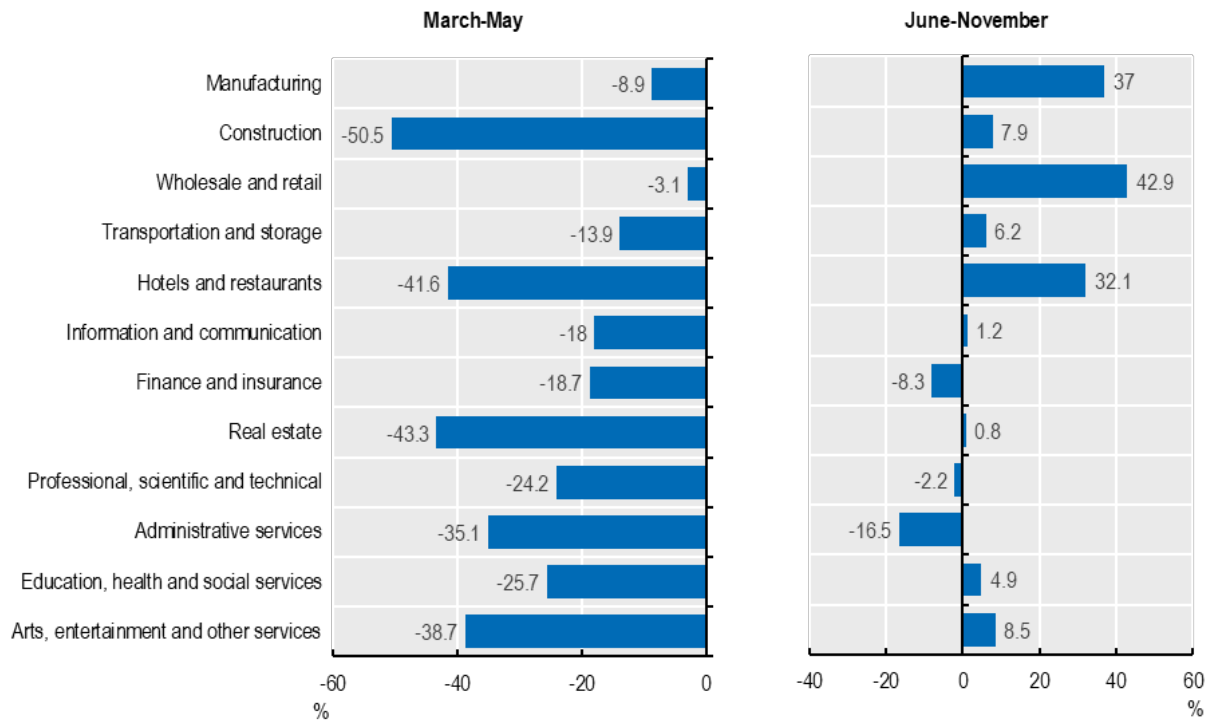
D. Iceland



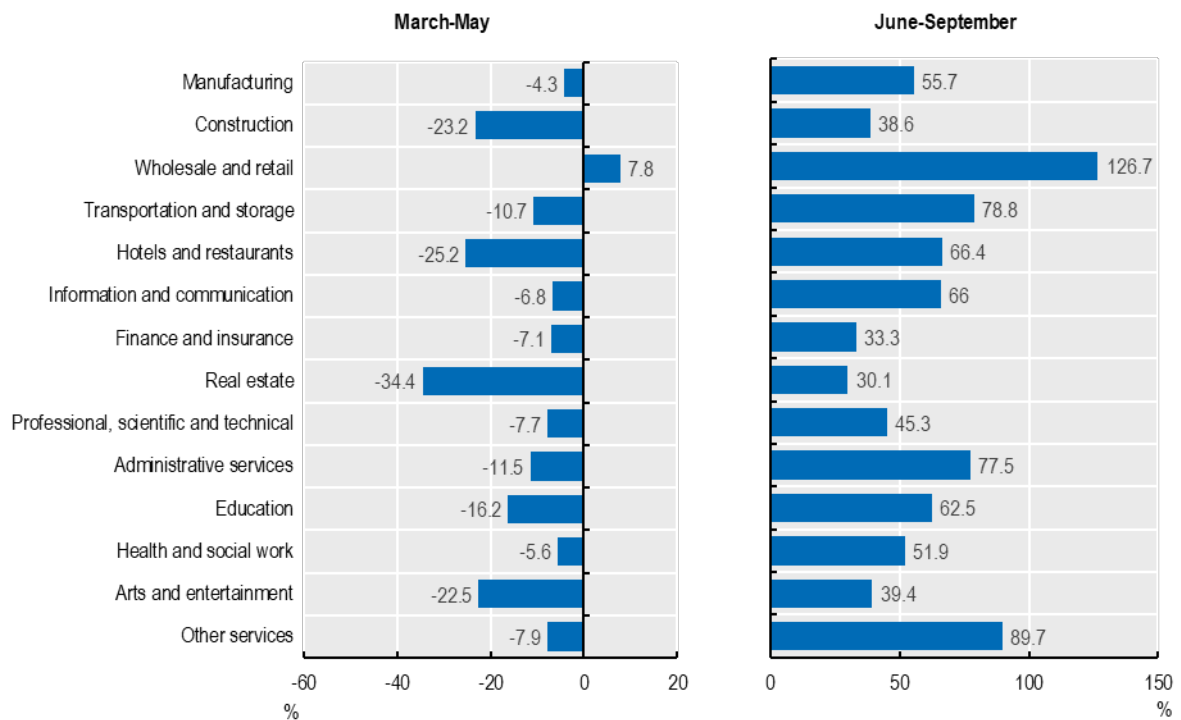
E. Portugal



F. Singapore



G. United States



Notes: This figure plots, for each country (panels A to G), the year-on-year growth in cumulative business openings during the first lockdown period (March to May) compared to the same period of 2019, and the year-on-year growth in business openings during the recovery period (June to last available month) relative to the same period of 2019. The figure is based on monthly sectoral data at the SNA A21 level. The data usually refer to business registrations, focusing when possible on all businesses (including sole proprietorship). Data may be preliminary, experimental and subject to revision, and differ from official data.

Source: OECD calculations based on official sources (see Table A.1).



Table A.1. Data sources on firm entry

Country	Frequency	Source
Australia	Monthly	Australia Securities & Investments Commission
Belgium	Monthly	Banque Carrefour des Entreprises
Canada	Monthly	Statistics Canada
Finland	Quarterly	Statistics Finland
France	Monthly	INSEE
Germany	Monthly	Destatis
Hungary	Monthly	Hungarian Central Statistical Office
Iceland	Monthly	Internal Revenue Directorate
Italy	Monthly	Bank of Italy
Netherlands	Quarterly	Chamber of Commerce
Norway	Quarterly	Statistics Norway
Portugal	Monthly	Statistics Portugal
Singapore	Monthly	Singapore Department of Statistics
Spain	Monthly	Instituto Nacional de Estadística
United Kingdom	Monthly	Office for National Statistics
United States	Monthly	US Census

Table A.2. Data sources on firm bankruptcies

Country	Frequency	Source
Belgium	Monthly	Banque Carrefour des Entreprises
Canada	Monthly	Canada Revenue Agency
Denmark	Monthly	Statistics Denmark
Finland	Monthly	Statistics Finland
France	Monthly	Banque de France
Germany	Monthly	Federal Statistical Office of Germany
Netherlands	Monthly	Statistics Netherlands
New Zealand	Monthly	Insolvency and Trustee Service New Zealand
Norway	Monthly	Statistics Norway
Spain	Quarterly	Instituto Nacional de Estadística
South Africa	Monthly	Statistics South Africa
United Kingdom	Monthly	Office for National Statistics



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