



Business dynamics during the COVID pandemic

Business dynamics seem to be slowing down in the Netherlands. Over the course of 2020, fewer new businesses were established than in any 'normal' year and fewer closed down than during the financial crisis in 2009. Of the 19 economic sectors, 18 saw a decline in new entrants. Most of the new entrants are self-employed and online businesses. These trends may have adverse effects on long-term productivity.



COVID-19 publication

In this series, CPB analyses the economic consequences of the COVID-19 crisis.

CPB COVID-19 publication

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1 Introduction

The spread of the COVID-19 virus followed by lockdown measures and changes in economic behavior have led to severe economic disruptions. Businesses in general but especially in sectors such as tourism, restaurants or personal services have been severely impacted through a number of different channels including confinement measures, an imposed decrease in consumer demand, disruptions in supply chains and reductions in their productivity and capacity. In the eurozone, GDP in Q4 of 2020 shrank by 4.9% relative to Q4 in 2019. With a contraction of 3%, the Netherlands experienced a somewhat less severe decline.¹

Governments of most developed countries have responded with a diverse and sizeable set of support instruments. Virtually all governments in high income countries offer the option of tax deferral, provide state credit guarantees, subsidize fixed and wage costs and give income support to entrepreneurs and the self-employed.² In the Netherlands, businesses received a tax deferral of 13,3 billion euro and received direct support, mostly via a wage cost subsidy (the NOW) and a compensation for fixed costs (called the TVL). The total government expenditures, including tax related outlays, in the Netherlands for corona support are about 5,1% of GDP.³ Internationally, the estimated cost of non-health related spending and forgone revenue is around 8% of GDP, on average, for advanced economies in 2020.⁴ The aim of these economic support schemes is to protect employment, help businesses stay afloat and prevent socially costly bankruptcies. According to some preliminary estimates, these support schemes could have saved 15% of employment and a quarter of value added of the corporate sector in Europe (Ebeke et al., 2021).

The support schemes and confinements affect future productivity via business dynamics. Business dynamics play a central role in promoting reallocation of production factors and economic growth. Confinements and support can affect business dynamics through two main channels: entry and exit. Firstly, the pandemic may have reduced the rate of entry of more productive firms. Secondly, relatively unproductive firms may not need to quit and insolvent firms may postpone bankruptcies, which prevents a productivity-enhancing reallocation of labor and capital (Acemoglu et al., 2018; Clementi and Palazzo, 2016). It is important to take stock of how business dynamics – entries, exits and bankruptcies – have changed during the corona crisis amidst the government’s fiscal support schemes, because these changes ultimately determine productivity.

This research provides a descriptive analysis of the changes in business dynamics during the COVID crisis. Given data constraints, we focus on business entries, exits and bankruptcies. A business entry refers to a genuine new firm (name change or a merger or takeover are not included). An exit occurs when a firm with its employees is no longer active. A firm can exit voluntarily or involuntarily via a bankruptcy. A merger or acquisition in itself does not constitute an exit. A firm goes bankrupt when an insolvent firm is declared so by a court. A bankruptcy is a special case of an exit. We study how the overall trends in business dynamics have changed in the Netherlands in 2020, and how these

¹ CPB (2021) *Centraal Economisch Plan* ([link](#)).

² IMF (2021) *Database of fiscal policy responses to Covid-19* ([link](#)).

³ CPB (2021).

⁴ IMF (2021).

trends differ across firm sizes, sectors, countries and other economic crises such as the financial crisis. Note, however, that historical comparisons are a bit tricky, as the administrative process of starting a firm may have significantly become less costly over the years, thanks to digitalization, and this may be particularly relevant for small or one-person firms.

We rely on data from various sources. The quarterly data on business entries and exits from Statistics Netherlands (CBS) is available from Q1 of 2007 to Q4 of 2020, whereas the data on bankruptcies is available from Q1 1980 to Q4 2020⁵. The data on business entries for online businesses comes from the Dutch Chamber of Commerce (KvK). For international comparisons, we gathered the data from national authorities of respective countries and the OECD. The cross-country data on fiscal support comes from the IMF. To capture the changes in business dynamics, we look at year-on-year percentage changes in absolute numbers, in line with the recent literature on business dynamics during the corona crisis⁶.

The main findings of this research are:

- Business dynamics in 2020 – entries, exits and bankruptcies – look quite different from business dynamics in the years preceding the corona crisis or during the financial crisis.
- In 2020 the number of new firms with more than one employee declined by 6.5% in comparison with 2019. Furthermore, 18 out of 19 economic sectors saw a decline in entries from 2019 to 2020. Although the decline of 6.5% is significant, it is smaller than the decrease during the financial crisis when in 2009 the number of new firms with more than one employee dropped by about 30% compared to the year before.
- The change in the total number of new firms from 2019 to 2020 is slightly positive (0.5%) but statistically insignificant as compared to previous years⁷. This increase is primarily driven by wholesale and retail trade sector (primarily e-commerce retailers) and new one-person businesses.
- The change in exits for businesses with more than one employee was merely 0.8% from 2019 to 2020, as compared to about 32% during the financial crisis, and no large firm (250+ employees) reported an exit in 2020. When one-person firms are included, the number of exits increased by about 22% from 2019 to 2020. This large and statistically significant increase mainly comes from exits by one-person businesses.
- The total number of bankruptcies decreased by 17% from 2019 to 2020. However, the hardest hit (contact-intensive) sectors, such as accommodation or food services, saw an increase in overall bankruptcies. Lastly, this overall decrease in bankruptcies during the pandemic is quite different to that of the financial crisis, as bankruptcies jumped up by 53% from 2008 to 2009.

⁵ This is the latest available data at the time of writing of this report. Please note that some of these numbers might be updated in the near future by CBS.

⁶ See, for instance, Buffington et al. (2021), Djankov and Zhang (2021) or OECD (2021).

⁷ Unless specified otherwise, differences that are discussed in this report are significantly different from changes in the period 2010-2019, on the basis of a t-test.

2 Background and related literature

Economic theory and a large body of empirical research support the idea that business dynamics is central for productivity growth. The notion that the process of firm entry and exit is a key driver for growth goes back to at least Joseph Schumpeter's famous description of "creative destruction". The endogenous growth theories of Aghion and Howitt (1992) and more recently Acemoglu, Akcigit, Alp, Bloom and Kerr (2018) formalize the relation between business dynamics, reallocation and growth. The theoretical insights are corroborated by a number of empirical studies, including Foster, Haltiwanger and Krizan (2001, 2006), Bartelsman, Haltiwanger and Scarpetta (2013) and Syverson (2011).

Economic downturns are generally likely to impact business dynamics. During an economic recession, demand is depressed, which lowers expected profitability and may also lower banks' willingness to provide capital. Because of this, entry tends to be lower during a recession and the number of firms that exit or go bankrupt is likely to be higher. This temporary increase in exit may have a "cleansing effect" on the economy, as the least efficient firms are likely to go first, which can spur a productivity enhancing reallocation effect when production factors move to more productive firms. The net effect of a downturn on productivity is ambiguous however. The fall in entries can amplify the effect of economic shocks (Clementi and Palazzo, 2016) and Foster, Grim and Haltiwanger (2016) and Bartelsman, Lopez-Garcia and Presidente (2018) find that reallocation during the Great Recession was less productivity enhancing than in prior recessions.

The impact of the corona crisis on business dynamics is likely to be different from previous economic crises. First, non-pharmaceutical interventions such as closing of shops or restaurants and travel restrictions, have a relatively large impact on specific sectors. The scope for (profitable) entry in those sectors seems to be diminished. This differs from a normal recession in which expected profitability is lower across the board. Second, the broad public economic support aimed at protecting firms and jobs lowers the probability of insolvency (which triggers a bankruptcy) or lowers the incentive for voluntary exit. In previous recessions firms did not have access to these support instruments.

The preliminary statistics and first publications on business dynamics in 2020 give a mixed message. The number of bankruptcies was much lower in 2020 than in 2019, not only in the Netherlands but also in most other developed countries. According to OECD (2021) the year-on-year drop in the number of bankruptcies in surveyed OECD-countries was more than 30%. This suggests that, most likely because of the generous government support, firms that would have failed otherwise survived (for the time being). Additionally, OECD (2021) finds that the number of new businesses in April 2020 was 20% to 60% lower than in April 2019. Starting from June 2020, the entry rate seems to recover somewhat. Buffington, Chapman, Dinlersoz, Foster and Haltiwanger (2021) rely on a Census survey of small US firms and report that those firms exhibit negative growth. The impact of the corona crisis thus far seems to be largest for business in Accommodation and Food, but other sectors are also negatively affected. A more positive view is offered by Van Dijk and Stam (2021), who look at Dutch administrative data (CBS and KvK) and conclude that business dynamics look healthy as net firm growth was positive in 2020, driven by a strong increase in the number of new firms. This is not unique

for the Netherlands: Djankov and Zhang (2021) report a remarkable strong growth in the US of new firms in early 2020.

3 What do we know about business dynamics during the corona crisis?

3.1 Business entries

Entries for businesses with more than one person have strongly declined. The overall number of business entries, including one person firms, increased slightly by 0.5% from 2019 to 2020⁸. A closer look indicates that this positive increase in 2020 is mainly driven by one-person businesses. Entries for businesses with more than one person have declined by about 6.4% from 2019 to 2020 (Table 1)⁹. Entries of businesses with 2 to 10 employees and 10 to 50 employees have declined by about 28.6% and 6.0% respectively. These trends are worrisome as the decrease in new firms represents missed opportunities for innovation and productivity growth.

Table 1: Change in business entries across firm sizes

Firm Size	Number of business entries			Percentage change		
	2018	2019	2020	2017-2018	2018-2019	2019-2020
1 person	167270	189645	191845	11.0%	13.4%	1.2%
2 to 10 persons	16445	17420	16380	-3.5%	5.9%	-6.0%**
10 to 50 persons	400	420	300	1.3%	5.0%	-28.6%***
50 to 250 persons	35	15	30	0.0%	-57.1%	100.0%***
250 or more persons	0	0	0	-	-	-
Total (All businesses)	184150	207500	208555	9.5%	12.7%	0.5%
Total (excluding one-person businesses)	16880	17855	16710	-3.4%	5.8%	-6.4%**

Source: CBS. NB *, ** and *** denote statistical significance at 10%, 5% and 1% respectively, based on a t-test¹⁰.

3.1.1 How do business entries vary across sectors?

In 18 of the 19 sectors the number of new firms with more than 1 employee declined (Table 2). The only sector with an increase in new firms in 2020 is the Wholesale and Retail Trade sector, with 26.5% more as compared to 2019. Moreover, a large portion of these new firms happen to be online retailers (Figure 1). About 86% of these new firms in Retail Trade (G3) were online businesses in 2020, as compared to 66% and 78% in 2018 and 2019 respectively. This large increase is consistent with an ongoing push towards remote interactions between consumers and businesses, and the ongoing pandemic seems to have amplified this trend of more remote interactions. Other developed countries such as the U.S. and France have experienced a similar surge in online retailers during the pandemic (Buffington et al., 2021). An open question however is whether these resulting new businesses will

⁸ In line with the recent literature, we have looked at percentage change in absolute numbers from 2019 to 2020. In section 4, we also provide business dynamics as a fraction of total existing businesses.

⁹ A comparison of how business entries varied during the financial crisis across different firm sizes is provided in the appendix (Table 7).

¹⁰ The null hypothesis is that the difference in the means for 2019-2020 and previous years (2010 to 2019) is equal to zero.

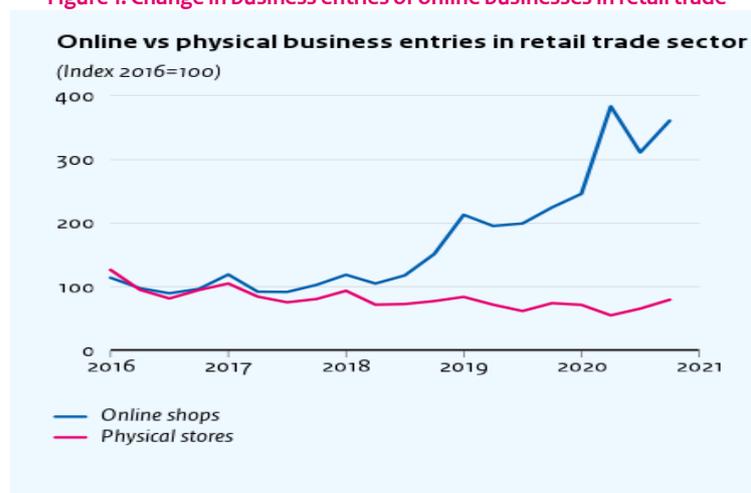
have different characteristics from those started during the non-pandemic era in terms of their growth trajectory, scale and value added.

Table 2: Change in business entries across sectors

	All business entries			All business entries with >1 persons		
	2019	2020	%change	2019	2020	%change
A Agriculture, forestry and fishing	3300	3360	1.82%	535	495	-7.5%
B Mining and quarrying	80	85	6.25%	5	0	-100.0%
C Manufacturing	6155	6085	-1.14%	600	545	-9.2%
D Electricity, gas, steam and air conditioning supply	275	230	-16.36%	20	10	-50.0%
E Water supply	275	150	-45.45%	20	15	-25.0%
F Construction	22885	21355	-6.69%	925	910	-1.6%
G Wholesale and Retail trade	27680	35020	26.52%	4730	5415	14.5%
H Transportation and storage	7220	6960	-3.60%	660	560	-15.2%
I Accommodation and food services	7950	7420	-6.67%	1790	1510	-15.6%
J Information and communication	11300	11300	0.00%	1145	1000	-12.7%
K Finance and insurance	8930	8470	-5.15%	470	270	-42.6%
L Real estate	2400	2300	-4.17%	460	280	-39.1%
M Professional, scientific and technical activities	41455	40125	-3.21%	2315	2075	-10.4%
N Administrative and support service activities	12005	11890	-0.96%	1105	1010	-8.6%
O Public administration and defence	30	30	0.00%	5	0	-100.0%
P Education	14050	13670	-2.70%	710	640	-9.9%
Q Human health and social work	20165	18940	-6.07%	1125	975	-13.3%
R Arts, entertainment, recreation	11355	10395	-8.45%	770	575	-25.3%
S Other service activities	9985	10780	7.96%	470	420	-10.6%

Source: CBS. NB the only sector with an increase in new businesses with more than 1 employee in 2020 is Wholesale & Retail Trade. The number of new firms is rounded off to a multiple of 5.

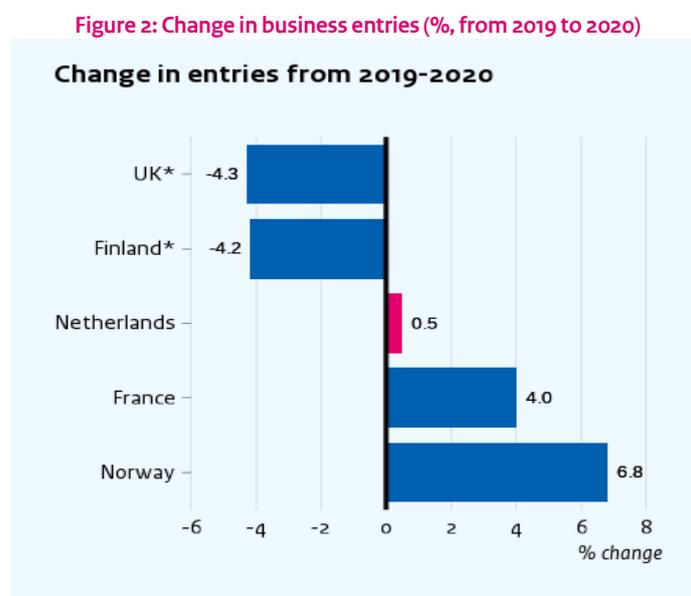
Figure 1: Change in business entries of online businesses in retail trade



Source: KvK.

3.1.2 International comparison of business entries

The change in business entries during the pandemic varies across developed economies. On one hand, there was an increase in business entries in countries such as Norway (6.8%) and France (4%) – an increase which was higher as compared to the Netherlands. On the other hand, entries have declined in a number of countries such as the UK and Finland (Figure 2).



Source: CBS, local authorities of respective countries and OECD.

NB the time period for UK and Finland consists of Q1-Q3 for both years due to data constraints.

3.2 Business exits

Exits for businesses with more than one person have remained almost unchanged (0.8%) in 2020. This is different from what we saw in the financial crisis. Then, exits for businesses with more than one person went up by about 32% from 2008 to 2009. This indicates that during the (first year of the?) corona crisis there is less scope for productivity-enhancing reallocation. The difference between this and the 2009 recession can perhaps be explained by the economic support schemes. For all firms, including one person firms, the number of exits increased by 22% from 2019 to 2020, which is necessarily driven by one-person businesses (Table 3).

There is a lot of variation in business exits across different firm sizes in 2020. This increase in exits was the highest for businesses with 1 person (25.6%), 10 to 50 persons (28.8%) and businesses with 50 to 250 persons (41.7%). On the other hand, there was not a single large firm (with 250 + persons) which exited in 2020 and businesses with 2 to 10 persons also saw a small decline of 0.8% in exits from 2019 to 2020 (Table 3)¹¹.

¹¹ A snapshot of how business entries varied during the financial crisis across different firm sizes is provided in the appendix (Table 8).

3.2.1 How do exits vary across sectors?

Similarly, there are noticeable differences in exits across sectors (Table 4). Three sectors with the highest net increase in the number of exits from 2019 to 2020 were: Professional, scientific and technical activities (10,460), wholesale and retail trade (3465) and information and communication (2810). Sectors which are less contact-intensive and are more suitable for teleworking are relatively less hit by the pandemic as compared to sectors which rely more on face-to-face customer interactions.

Table 3: Change in business exits across firm size

Firm Size	Number of business exits			Percentage change		
	2018	2019	2020	2017-2018	2018-2019	2019-2020
1 person	86465	99145	124500	11,1%	14,7%	25,6%***
2 to 10 persons	14120	14855	14730	11,2%	5,2%	-0,8%
10 to 50 persons	625	730	940	-1,6%	16,8%	28,8%***
50 to 250 persons	75	120	170	-11,8%	60,0%	41,7%***
250 or more persons	0	15	0	-	-	-100,0%
Total (All businesses)	101285	114865	140340	11,0%	13,4%	22,2%***
Total (excluding one person businesses)	14820	15720	15840	10,5%	6,1%	0,8%

Source: CBS. NB *, ** and *** denote statistical significance at 10%, 5% and 1% respectively, based on a t-test.

Table 4: Change in business exits across sectors

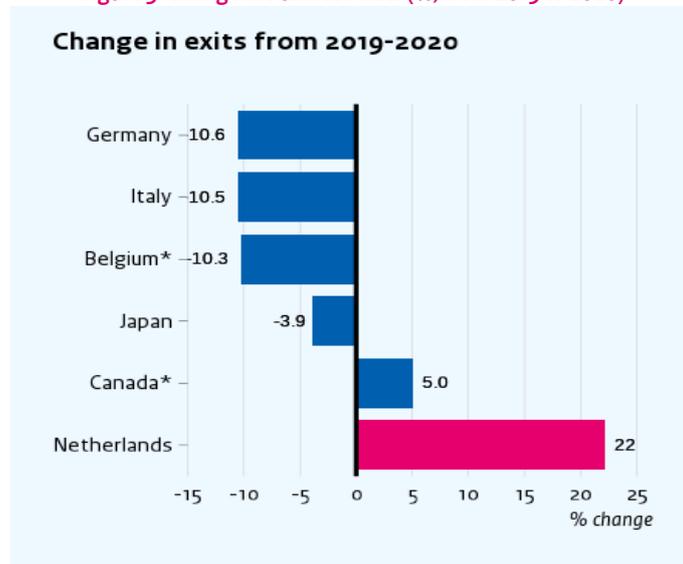
	All businesses			All businesses > 1 persons		
	2019	2020	% Change	2019	2020	%change
A Agriculture, forestry and fishing	2415	2180	-9.73%	765	585	-23.5%
B Mining and quarrying	50	60	20.00%	10	5	-50.0%
C Manufacturing	3505	4280	22.11%	615	660	7.3%
D Electricity, gas, steam and air conditioning supply	95	160	68.42%	15	20	33.3%
E Water supply	125	100	-20.00%	20	15	-25.0%
F Construction	8605	10395	20.80%	840	770	-8.3%
G Wholesale and Retail trade	19115	22580	18.13%	4265	4360	2.2%
H Transportation and storage	3570	4055	13.59%	645	595	-7.8%
I Accommodation and food services	4215	4735	12.34%	1525	1550	1.6%
J Information and communication	6680	9490	42.07%	930	915	-1.6%
K Finance and insurance	7420	7910	6.60%	320	415	29.7%
L Real estate	1660	1890	13.86%	285	300	5.3%
M Professional, scientific and technical activities	23380	33840	44.74%	1975	2010	1.8%
N Administrative and support service activities	5885	7345	24.81%	950	970	2.1%
O Public administration and defence	50	20	-60.00%	30	0	-100.0%
P Education	5855	6535	11.61%	540	560	3.7%
Q Human health and social work	9010	9095	0.94%	915	995	8.7%
R Arts, entertainment, recreation	6380	8010	25.55%	595	620	4.2%
S Other service activities	6825	7635	11.87%	465	485	4.3%
U Activities of extraterritorial organisations	5	10	100.00%	0	10	-

Source: CBS. NB shaded cells indicate an increase in exits.

3.2.2 International comparison of exits

Business exits have declined in most of the advanced countries in 2020 except the Netherlands. Although the latest data on business exits is not available for the majority of the OECD countries, Figure 3 does show that business exits have been going down in countries such as Belgium, Germany, Japan and Italy in 2020. This might have to do with the temporary changes in laws on business closures and bankruptcies which were adopted by countries such as Italy and Germany after the first wave of the pandemic (OECD, 2021). Moreover, as discussed before, the high number of exits in the Netherlands is primarily driven by one-person businesses. Exits of corporations (i.e. firms with more than one employee) are not quite different for the Netherlands as compared to other economies (OECD, 2021).

Figure 3: Change in business exits (% , from 2019 to 2020)



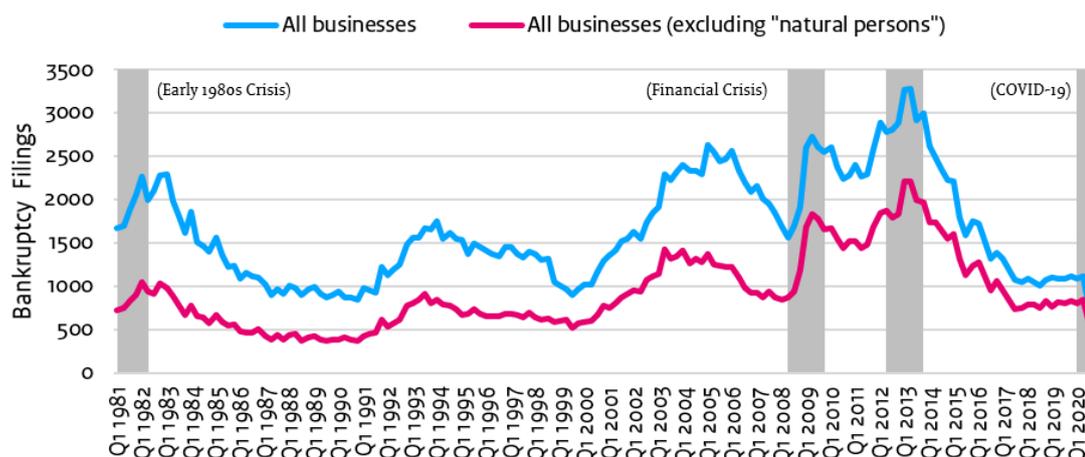
Source: CBS, local authorities of respective countries and OECD.

* time period for Belgium and Canada consists of Q1-Q3 for both years.

3.3 Bankruptcies

Bankruptcies are currently at their lowest level in more than two decades (Figure 4). Compared to 2019, the number of bankruptcies dropped by 17% in 2020. Economic crises are generally associated with an increase in bankruptcies since businesses who suffer losses find it hard to stay afloat and many end up failing. For example, from 2008 to 2009, overall bankruptcies in the Netherlands went up by about 53% .

Figure 4: Trend in number of bankruptcies (Q1, 1981 to Q4, 2020)



Source: CBS. NB the grey bars represent economic recessions where GDP growth rate was negative.

This decline in bankruptcies can be explained by two factors. First, the multifaceted policy response – including wage subsidies, tax cuts and deferrals, loan guarantees, allowance for fixed costs – may have helped businesses in staying afloat by providing accommodative financial conditions. Second, Ebeke et al. (2021) argue that businesses in advanced economies entered the corona crisis in a much better shape in terms of corporate profitability, level of indebtedness and presence of initial cash buffers as compared to the financial crisis, which might have played some role in keeping bankruptcies at bay. On one hand, this decrease in bankruptcies is a positive sign that illustrates the usefulness of policy response in helping businesses stay afloat and protect employment. On the other hand, it brings worries too as it might jeopardize future productivity (Blanchard et al. 2020).

3.3.1 How do bankruptcies vary across sectors?

Although overall bankruptcies are down, they are up in the hardest hit sectors. Sectors that are contact-intensive – for example accommodation and food services, arts and entertainment, transportation – saw an increase in bankruptcies from 2019 to 2020 (Table 5). Furthermore, there might be significant differences in bankruptcies across different firm sizes (Juergensen et al., 2020), similar to what we observed in business entries and exits. However, the data on bankruptcies across firm sizes is not available at the time of conducting this research.

Table 5: Change in bankruptcies across sectors

Sectors (All Businesses)	2019	2020	Percentage Change
A Agriculture, forestry and fishing	31	20	-35.5%
B Mining and quarrying	2	0	-100.0%
C Manufacturing	264	226	-14.4%
D Electricity, gas, steam and air conditioning supply	9	6	-33.3%
E Water supply	19	9	-52.6%
F Construction	507	438	-13.6%
G Wholesale and Retail trade	847	673	-20.5%
H Transportation and storage	213	214	0.5%
I Accommodation and food services	254	286	12.6%
J Information and communication	144	87	-39.6%

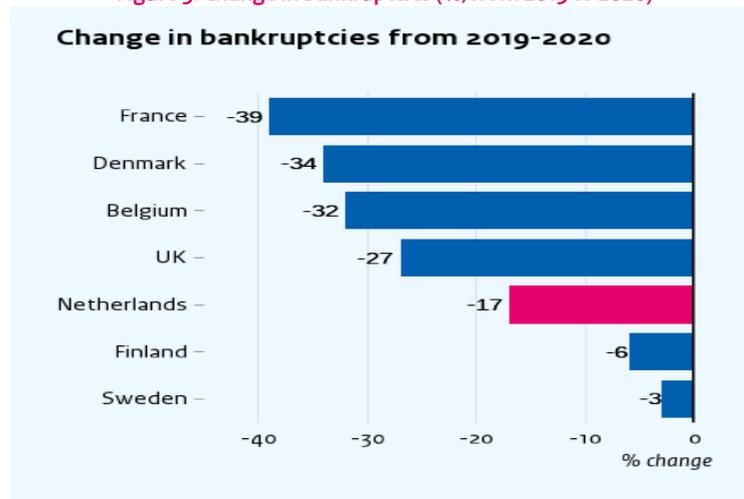
K Finance and insurance	398	312	-21.6%
L Real estate	53	45	-15.1%
M Professional, scientific and technical activities	421	308	-26.8%
N Administrative and support service activities	279	252	-9.7%
O Public administration and defence	0	0	
P Education	42	42	0.0%
Q Human health and social work	156	88	-43.6%
R Arts, entertainment, recreation	64	80	25.0%
S Other service activities	70	77	10.0%

Source: CBS. NB shaded cells indicate an increase in the number of bankruptcies.

3.3.2 International comparison of bankruptcies

Bankruptcies have gone down in most of the advanced economies in 2020. The decline in bankruptcies for 22 advanced economies from 2019 to 2020 is estimated to be about 17.2% (Djankov and Zhang, 2021). Some countries such as France and the U.K. have experienced a higher decline in bankruptcies as compared to the Netherlands (Figure 5). This can perhaps be attributed to the fact that bankruptcy filing were stopped for a few months in France mainly due to court closures during lockdowns. Furthermore, some countries such as the UK¹², Germany and Italy have tweaked their bankruptcy laws to accommodate businesses during the pandemic.

Figure 5: Change in bankruptcies (% from 2019 to 2020)



Source: CBS, local authorities of respective countries and OECD

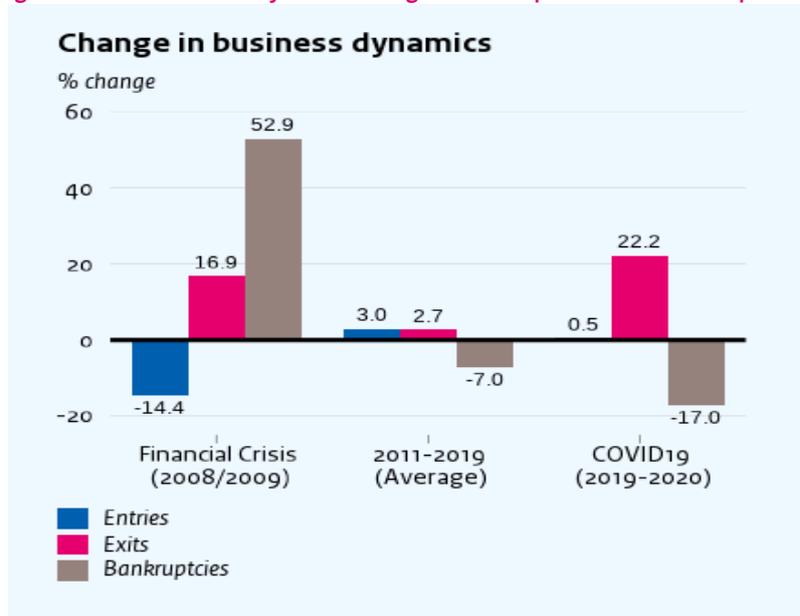
3.4 Summary of changes in business dynamics during COVID

In 2020 business dynamics looked very different from business dynamics in the years preceding the corona crisis or during the financial crisis of 2008/2009. The influx of new businesses in 2020 was comparable with the number in 2019, and high as compared to the financial crisis where the number of new businesses dropped by 14% (see Figure 6). Furthermore, the results show that bankruptcies went up during the financial crisis whereas they have declined sharply in 2020. A surprising result is that the total number of business exits increased in 2020 compared to 2019, but

¹² See Lambert and Van Reenen (2021) for a detailed discussion on change in bankruptcy laws in the U.K and its policy implications.

that the number of bankruptcies declined. This paradoxical finding can perhaps be explained by small businesses that do not apply for bankruptcy, but simply quit the market.

Figure 6: How do business dynamics during COVID compare with other time periods?

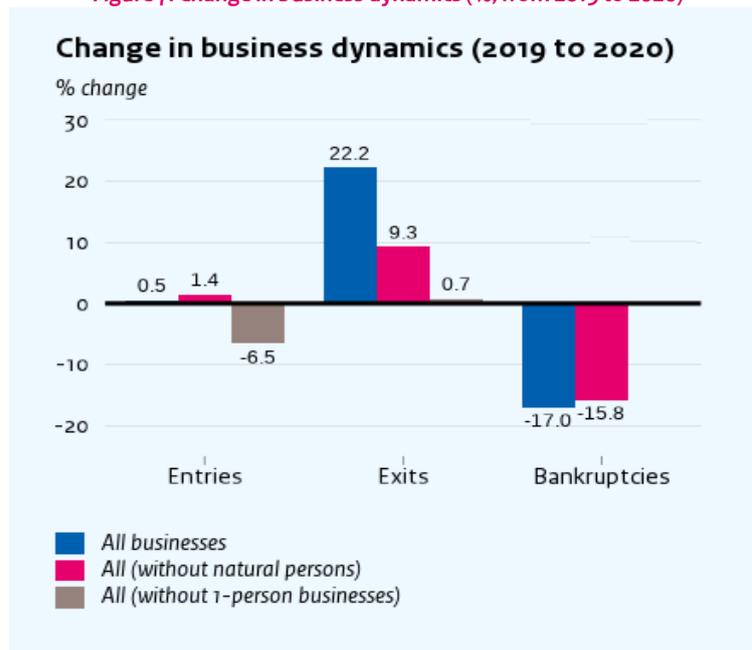


Source: CBS

This research has also highlighted that the aggregate numbers on business dynamics show only a part of the picture as there are significant differences across sectors and firm sizes. Overall, business entries grew by a modest 0.5%, business exits went up by 22% and bankruptcies went down by 17%. However, focusing on businesses with more than one person highlights that business entries have significantly declined by 6.4%, whereas exits remained almost unchanged (0.8%) in 2020 (Figure 7).

In line with the recent literature, we have looked at year-on-year percentage changes to study the change in business dynamics. Another way to study these changes is by looking at entries, exits and bankruptcies as a fraction of total existing businesses. Once we do that, we observe similar trends as before: overall bankruptcies are low as compared to previous years, exits are higher, whereas total entries are about the same as compared to previous years. These numbers convey that business exits, new business entries and bankrupt businesses represent a relatively small portion of all existing firms (Figure 9, appendix).

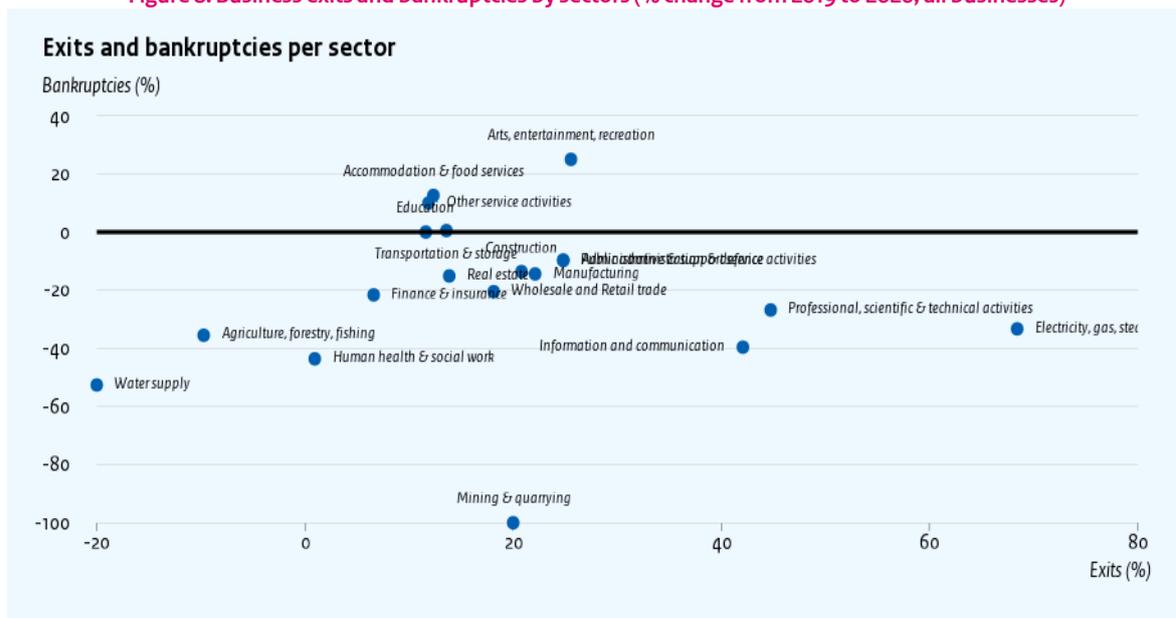
Figure 7: Change in business dynamics (% from 2019 to 2020)



Source: CBS. NB natural persons are personally legally liable for all business acts.

Some sectors have been disproportionately affected by the pandemic, mainly the **contact-intensive ones**. There are three sectors which saw an increase in exits and bankruptcies and a decrease in entries during 2020: accommodation and food services; transportation and storage; and arts, entertainment and recreation¹³. Figure 8 also underlines sectors (above the bold line) which had an increase both in exits and bankruptcies in 2020. Most of these sectors are contact-intensive and have been impacted the most due to lockdown measures and a decrease in consumer demand.

Figure 8: Business exits and bankruptcies by sectors (% change from 2019 to 2020, all businesses)



Source: CBS

¹³ See Table 6 in the appendix for details.

4 Concluding remarks

The change in business dynamics during the COVID pandemic has been quite different to that of the financial crisis or the years preceding the COVID pandemic. Fewer firms than expected have quit the market and less new firms have entered than in normal times. With lockdown measures preventing many businesses from operating at their full capacity, the broad range of policy responses and government support schemes in 2020 – such as wage subsidies, tax deferrals, loan guarantees or allowances for fixed costs – likely played an essential role in helping businesses survive, protect jobs, and avoid systemic risks arising from a surge in bankruptcies.

Our results seem to suggest that there are reasons to be concerned. A decline in business entries for firms with more than one person and a steep decline in bankruptcies (including non-viable firms that might have gone bankrupt without government support) brings worries as it may jeopardize future productivity, impair resource allocation and stifle output growth. These worries relate to the longer term. Thanks to the economic support schemes, short term worries about quick increases in unemployment have been stalled for now.

Given our results, an interesting open question is how these current changes in business entries, exits and bankruptcies will impact future business dynamics and productivity. It would also be interesting to see whether any resulting new businesses will have different characteristics as compared to those that started during the non-pandemic era in terms of their scale, financial needs and value added. It is quite likely that there will be some complex and rich dynamics that will be at play in business dynamics over time which can be better captured perhaps by taking a more granular approach and analysing micro data. We hope that this research inspires other researchers to use the rich sources of information that will be available soon to further analyse these questions and help in devising policies for a smooth post-pandemic transition for businesses.

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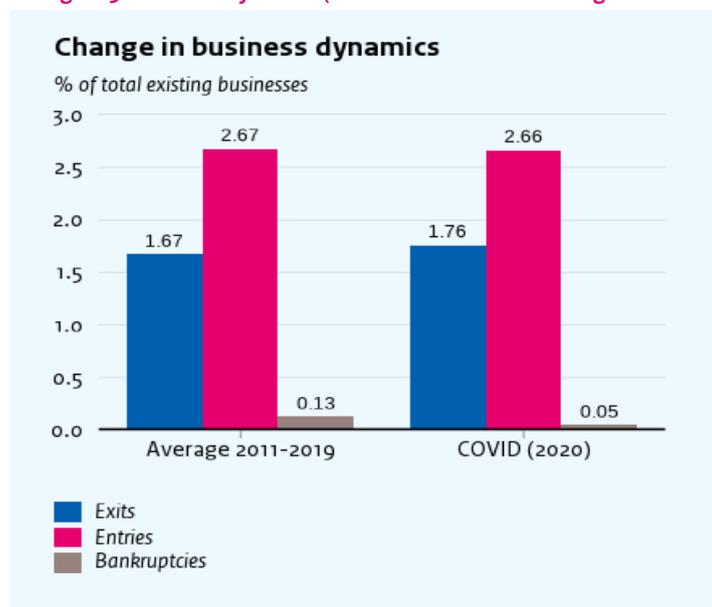
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Appendix

Figure 9: Business dynamics (as a fraction of total existing businesses)



Source: CBS

Table 6: Change in business dynamics across sectors

Change in businesses dynamics from 2019 to 2020			
All Businesses	Entries	Exits	Bankruptcies
A Agriculture, forestry and fishing	1,82%	-9,73%	-35,5%
B Mining and quarrying	6,25%	20,00%	-100,0%
C Manufacturing	-1,14%	22,11%	-14,4%
D Electricity, gas, steam and air conditioning supply	-16,36%	68,42%	-33,3%
E Water supply	-45,45%	-20,00%	-52,6%
F Construction	-6,69%	20,80%	-13,6%
G Wholesale and Retail trade	26,52%	18,13%	-20,5%
H Transportation and storage	-3,60%	13,59%	0,5%
I Accommodation and food services	-6,67%	12,34%	12,6%
J Information and communication	0,00%	42,07%	-39,6%
K Finance and insurance	-5,15%	6,60%	-21,6%
L Real estate	-4,17%	13,86%	-15,1%
M Professional, scientific and technical activities	-3,21%	44,74%	-26,8%
N Administrative and support service activities	-0,96%	24,81%	-9,7%
O Public administration and defence	0,00%	-60,00%	-
P Education	-2,70%	11,61%	0,0%
Q Human health and social work	-6,07%	0,94%	-43,6%
R Arts, entertainment, recreation	-8,45%	25,55%	25,0%
S Other service activities	7,96%	11,87%	10,0%

Source: CBS. NB shaded cells indicate sectors where entries declined and exits as well as bankruptcies went up.

Table 7: Change in business entries from 2007 to 2010 across firm sizes

	Number of business entries				Percentage change		
	2007	2008	2009	2010	2007-2008 (%)	2008-2009 (%)	2009-2010 (%)
Entry: 1	144890	135300	167465	142490	-6,6%	23,8%	-14,9%
Entry: 2 to 10	29180	28495	20055	17950	-2,3%	-29,6%	-10,5%
Entry 10 to 50	1940	1530	825	700	-21,1%	-46,1%	-15,2%
Entry: 50 to 250	235	175	110	90	-25,5%	-37,1%	-18,2%
Entry: 250 or more	0	0	0	0	-	-	-

Table 8: Change in business exits from 2007 to 2010 across firm sizes

	Number of business exits				Percentage change		
	2007	2008	2009	2010	2007-2008 (%)	2008-2009 (%)	2009-2010 (%)
Exit: 1	60110	74120	83630	77235	23,3%	12,8%	-7,6%
Exit: 2 to 10	22690	18355	24180	19555	-19,1%	31,7%	-19,1%
Exit 10 to 50	1625	1400	1955	1305	-13,8%	39,6%	-33,2%
Exit: 50 to 250	410	275	320	215	-32,9%	16,4%	-32,8%
Exit: 250 or more	0	0	0	5	-	-	-