

Box B

Business Failure Risk in the COVID-19 Pandemic

The COVID-19 pandemic has disrupted economic activity and sharply reduced the revenue of Australian businesses. The number of businesses that fail in this episode will depend on a range of factors, including the size of individual businesses' cash buffers just prior to the pandemic, the decline in their revenue during the downturn, their capacity to reduce operating expenses, and the extent of support from both the Government and private lenders. This Box explores how the risk of business failure in the non-financial sector has evolved during the pandemic.^[1]

Businesses failures are a key risk to the financial system for a few reasons. First, a higher rate of business failure means there will be larger loan losses, since insolvent firms hold debt (by definition). Second, an increase in the rate of business failures can pose indirect risks to the financial system if they lead to widespread job losses that put household finances at risk. Third, there can be adverse spillover effects if firms in financial trouble do not pay debts to other businesses in their supply chain. Finally, widespread business closures can lead to an increase in property fire sales, with flow-on effects to the prices of commercial properties, which are used as security for many business loans.

Business failure is an incomplete metric of financial health. Before businesses become insolvent, some may choose to exit voluntarily because of limited growth prospects or a lack of access to credit. Consistent with this, business exits are

typically 10 times larger than failures in any given year. In quantifying the number of business failures as a result of the pandemic it is important to benchmark the additional expected failures to the significant number of firms that fail even in good times; typically between 15,000 and 20,000 firms fail each year.

The analysis in this Box suggests that, in the absence of any policy support, the 3 per cent decline in business revenue that is estimated to have occurred in the 2019/20 financial year would have caused about 1,400 additional business failures, relative to normal times. The effect is relatively small because firms tend to offset declines in revenue by reducing their operating expenses and because the COVID-19 shock only affected businesses in the last quarter of the financial year. If there was no recovery in turnover in 2020/21, annual revenue would be a further 9½ per cent lower than in the previous year and an additional 5,200 businesses would be expected to fail. However, to date, actual business failures remain at historic lows.

The relatively low business failure rate to date is due to the support policies (including loan repayment deferrals and rent reductions) and temporary insolvency relief. The firm-level analysis indicates that the support policies, particularly the JobKeeper payroll subsidy and the Cash Flow Boost for Employers, have significantly increased business cash flow and reduced the number of business failures by around 4,600 firms so far (relative to a

situation in which revenue declines sharply and there is no policy support).^[2] These two policies have had the largest effect because they reduce labour costs, which constitute a significant expense for most businesses. However, the actual failure rate since the pandemic has been lower than can be explained by these support policies. Most of this 'failure gap' between actual and estimated failures can be attributed to the temporary insolvency relief.^[3]

Many businesses entered the pandemic with limited cash buffers

Prior to the pandemic, around half of all Australian firms only had enough cash on hand to cover one month of expenses (Graph B.1).^[4] If 'cash on hand' is broadened from the value of firms' cash and deposit holdings to include other liquid assets such as inventories and accounts receivable, the share with limited 'cash' falls to about 35 per cent of all firms (shown by the dot on the first bar in Graph B.1).

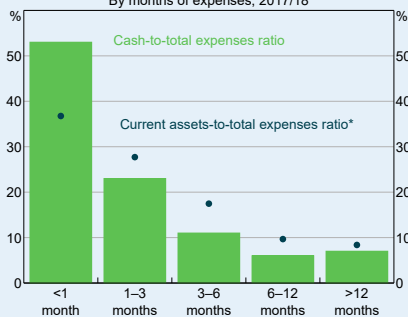
The smallest and most affected firms had even less cash on hand to cope with a decline in revenue

Some firms were better placed than others to withstand the downturn leading into the pandemic. Large and publicly listed companies had much larger cash buffers than small unincorporated businesses, holding more than three times as much cash, on average. Large, listed companies were also more likely to have access to large credit lines, further boosting their liquidity position. Many companies drew down on their available credit lines in the early stages of the pandemic to shore up their cash holdings (Graph B.2, see the Bank's August 2020 *Statement on Monetary Policy*).

Firms in some industries had relatively large cash buffers, although they tended to be in sectors that the downturn has had little or no impact on, such as mining. In contrast, firms in the industries hardest hit by the pandemic, such as accommodation and food services and arts and recreation services, tended to have smaller cash buffers, making them more vulnerable to a sharp decline in their revenues.

Graph B.1

Distribution of Business Liquidity
By months of expenses, 2017/18



* Current assets include cash and deposits, inventories and accounts receivable
Sources: ABS, RBA

Graph B.2

Non-financial Business Cash Holdings*
By months of expenses



* Total expenses estimated as the difference between gross operating profits and total sales from the ABS Quarterly Business Indicators Survey
Sources: ABS, RBA

Scenario analysis shows the impact of the pandemic and policy responses

Scenarios using firm-level data are used here to explore how many businesses are likely to be able to withstand the sharp decline in economic activity and the effect of various support policies on firms' viability.

The analysis considers three scenarios: 1) a COVID-19 pandemic shock scenario (with a decline in business revenue of close to 3 per cent in 2019/20 and a further 9½ per cent in 2020/21 and no policy intervention); 2) a COVID-19 pandemic policy scenario (with the same sharp decline in revenue but including policy intervention); and 3) a counterfactual 'normal times' scenario based on 2017/18 balance sheets for both companies and unincorporated businesses. These scenarios rely on assumptions that are discussed in the Technical Appendix.

The income support policies have significantly increased business cash flow

Business cash flow would have declined sharply because of the contraction in economic activity due to COVID-19 in the absence of a policy response. The scenario analysis suggests the median firm's cash flow would have fallen substantially following the economic downturn (Graph B.3). However, the policy interventions significantly boosted cash flow and reduced the share of businesses facing cash shortfalls.

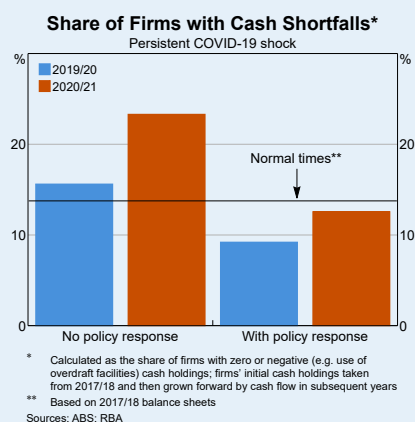
The estimated effect of the income support policies on business cash flow is mainly driven by the JobKeeper and Cash Flow Boost for Employers programs. These two policies have the most significant effects because they target labour costs, which constitute a large component of expenses for

most businesses.^[5] While eligibility for JobKeeper depends on the fall in revenue, not labour costs, the take-up of JobKeeper has been much higher for labour-intensive businesses (Graph B.4).

Business failures would have risen if it were not for the income support policies

A firm-level model is used to estimate the share of businesses that would have failed because of the economic downturn and in the absence of the policy support. The model assumes that the relationship between cash flow and failure is not linear in that the failure

Graph B.3



Graph B.4



rate of businesses is assumed to increase a lot more when cash flow falls to very low levels.

Estimates from the model indicate that a 3 per cent decline in annual revenue, roughly the size of the aggregate decline observed in 2019/20, is associated with the probability of failure rising by 6 basis points, relative to more normal economic conditions and without any policy response. This would be the equivalent of about 1,400 more failures in 2019/20 than would have occurred without the COVID-19 shock. The decline in revenue to date would have been larger in the absence of the policy response, and so likely understates the effect of the COVID-19 pandemic. Assuming no recovery in revenue in 2020/21, the model estimates a further 5,200 additional firms would fail, relative to normal times. This provides an estimate of the direct effect of the COVID-19 downturn on business failures through cash flow. There are also likely to be indirect effects, as declines in cash flow gradually reduce business cash buffers and decrease the value of total assets (so leverage increases).

Overall, the analysis suggest that the income support measures boosted business cash flow (relative to total assets) by 25–35 percentage points, on average. This is estimated to have reduced business failures by around 4,600 firms in 2019/20, and so more than offsets the COVID-19 shock (Graph B.5). Assuming that JobKeeper and other policy stimulus is tapered in line with current announcements, a further 6,600 firms are estimated to be saved in 2020/21, relative to no policy response. These differences are most pronounced in the accommodation and food services, arts and recreation services, and other services industries. Firms in these industries were proportionally more likely to receive the JobKeeper wage subsidy.

Caveats

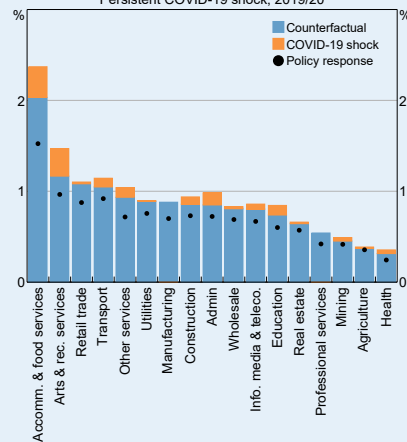
The analysis in this Box focuses on firm failures, which is a relatively narrow and extreme measure of financial stress. Entering external administration is costly. Some firms may prefer to scale down their operations or ‘voluntarily’ exit in response to a demand shortfall, rather than continue trading until they are insolvent. It is also worth noting that the 13,000 business failures that occurred in 2019/20 is smaller than the 15,000 to 20,000 annual businesses failures that have typically occurred in recent years.^[6]

The analysis above is based on a sample of businesses that includes companies, partnerships and trusts but excludes sole traders as they are not required to report balance sheet information to the Australian Taxation Office, which is used in this analysis. Sole traders may be more likely to fail in response to a sharp decline in cash flow than other businesses. As evidence of this, the exit rate of sole traders rose significantly more than for other types of businesses during the

Graph B.5

Predicted Failure Rate by Industry*

Persistent COVID-19 shock, 2019/20



* Dots represent estimated failure rates with policy response (e.g. includes the effect of JobKeeper, Cash Flow Boost for Employers, rental holidays and interest payment deferrals)

Sources: ABS; RBA

global financial crisis. The analysis may therefore underestimate the effect of cash flow on total business failures.

The analysis is also based on the historic relationship between business balance sheets and failures over the period from 2002/03 to 2015/16. These relationships may not hold during extreme episodes like the COVID-19 pandemic. Moreover, the relative stability of the Australian economy during the sample period affects the ability of the analysis to identify the effects of a large decline in cash flow on business failures. Aggregate estimates of failure rates during the early 1990s recession can be used to provide a rough guide as to how a large economic downturn might affect business failures. These estimates suggest that the aggregate business failure rate in the early 1990s was about double that of the current failure rate (Graph B.6). Applying the same failure rate from the 1990s recession to the business population today implies that nearly 7,000 more businesses would be expected to fail compared to more normal times (or about 25,000 failures in total). This simple calculation does not take into account the relative magnitudes of the stimulus during the current pandemic and in the 1990s recession.

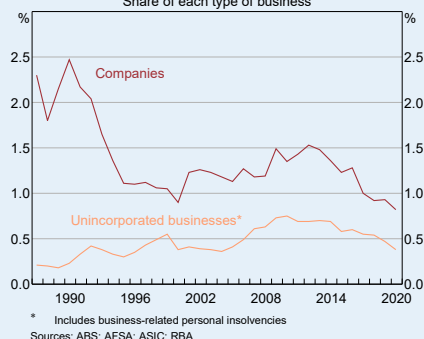
Endnotes

- [1] The analysis mainly uses data from the Australian Bureau of Statistics (ABS) Business Longitudinal Analysis Data Environment (BLADE). BLADE includes longitudinal tax records of nearly every business since the early 2000s, with balance sheet information up to 2017/18. More detail is included in the Technical Appendix.
- [2] The analysis in this Box does not incorporate the effect of any business income support announced in the 2020/21 Federal Budget.

More broadly, the results exclude any indirect or multiplier effects of both the COVID-19 downturn and the policy responses. For example, the JobKeeper subsidy can directly affect business cash flow by reducing operating expenses, which is captured in the analysis, but it also boosts business revenue because it increases household cash flow and therefore spending. The analysis also captures only the direct effect of the COVID-19 downturn on business cash flow and not the indirect effects through possible changes in business cash buffers and indebtedness. ✎

Graph B.6

Business Failures
Share of each type of business



- [3] The 'failure gap' may also reflect model error or misspecification. For example, the analysis in this Box does not explicitly account for second-round demand boost from the increase in incomes caused by the support policies.
- [4] This is a stock-flow concept measuring how long a firm is able to finance its operating costs without additional cash from creditors or shareholders. Alternatively, it measures how long a firm can survive on its existing stock of cash

before it needs to generate more revenue to cover its costs.

- [5] For instance, suppose a firm experiences a 40 per cent decline in revenue but that labour costs comprise more than 40 per cent of their expenses. If the policies effectively reduce labour costs to zero, this firm will be in a better cash flow position compared to the period before the pandemic.

- [6] These failure estimates are calculated by adding together estimates of corporate insolvencies (from the Australian Securities and Investments Commission (ASIC)) and business-related bankruptcies for unincorporated businesses (from the Australian Financial Security Authority (AFSA)).