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The Financial Situation of SMEs in August 2021 Based on Their Bank Accounts

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Based on a sample of more than 100,000 bank accounts of Crédit Mutuel Alliance Fédérale's sole proprietorships, micro-enterprises and SMEs, we trace the evolution of their liquidity and net financial position from the beginning of the health crisis to August 2021.

The liquidity of businesses in our sample has improved significantly over this period in almost all economic sectors. The risk of illiquidity among micro-enterprises and SMEs is limited in the short term, which suggests that corporate bankruptcies should not rise in the coming months.

Firms' net financial position provides us with a partial indication of a company's solvency situation: it has improved on average since the end of winter 2020, but our analysis also suggests that the situation is quite heterogenous both between sectors and within sectors. Overall, the situation is less favorable for SMEs than for micro-enterprises, and particularly for SMEs in so-called S1 sectors (sectors most affected by health restrictions) and in Ile de France. Surprisingly, micro-enterprises in S1 sectors have experienced an improvement in their financial position. A potential explanation is that the public subsidies received by these firms more than compensated the fall in profit they experienced due to the Covid shock. It may also partially reflect seasonal effects. Overall, micro-enterprises seem to have been better protected than SMEs.

The firms that took out a State-Guaranteed Loan (SGL) were already in a worse financial position before the Covid shock. They are also the firms whose net debt increased the most during the crisis. Our data indicate that about 40% to 50% of the SGL was consumed over our sample period: these results suggest that the SGL was taken out by firms that needed it; they also suggest that these loans were used to absorb losses rather than to finance investment or to credit savings accounts, even though this should be interpreted with caution because of the limitations of our data.

In some sectors or regions (notably construction, manufacturing, ICT service activities, and SMEs in accommodation and food service activities in Ile de France), a small number of micro-enterprises and SMEs have experienced a significant increase in net debt. For these companies, the risk of insolvency seems significant. As a result, the withdrawal of public support for this subset of firms should probably be done cautiously, and their liquidity situation monitored frequently. Whether their debt is sustainable in the long-run remains a question for their various creditors (banks, government, social security, suppliers).

The Crédit Mutuel Alliance Fédérale bank account data will make it possible to check in the coming months, at a high frequency, whether the economic recovery offsets the fall in government support and therefore how quickly the debt accumulated by some of the companies during the crisis can be repaid.

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1. Introduction and presentation of data

In 2020 and 2021, a large number of French micro-enterprises and SMEs experienced an unprecedented drop in turnover and, at the same time, a large reduction in their costs (via the short time work scheme in particular), financial support (via the solidarity fund) and liquidity support (via the State Guaranteed Loan (SGL) and the deferral of social security and tax payments). These shocks have been heterogeneous both between and within sectors. How these shocks and the public response to these shocks have affected firms' solvency is still difficult to ascertain. As the economic recovery is underway and aid to businesses is gradually being withdrawn, it is important to assess the financial position of micro-enterprises and SMEs so that we can detect any fragility. This analysis needs to assess the financial position of micro-enterprises and SMEs beyond liquidity, i.e. accounting for their net debt; account for the complexity and heterogeneity of firm-level outcomes, which requires using individual data; use the most recent data possible, given how quickly the overall economic and financial situation is evolving.

According to the latest monetary and financial statistics from the Banque de France (end of July 2021), the net debt of non-financial companies has almost returned to its pre-crisis level (end of December 2019) after a relatively modest increase in 2020.[1] However, this observation at the aggregate level may conceal significant heterogeneity across industries or firm size. The microsimulation exercises on individual data conducted by INSEE and the Banque de France highlight the heterogeneity of cash flow shocks between sectors and within each sector for 2020 (see Box 1). The balance sheet data collected by the Banque de France also confirm this heterogeneity: based on 200,000 balance sheets and income statements up to either June 2020 or December 2020, the Banque de France notes that while cash flow has increased for a majority of companies, 14% of the firms in their sample are experiencing both an increase in their debt and a decrease in their liquidity, which, according to the Banque de France, puts them in a weak situation.[2]

Box 1. Comparison with other existing studies

Our approach is complementary to the work done by the Banque de France and INSEE[1]. These institutions mainly use rich administrative data (balance sheets, VAT, short time work, deferred social contributions) to simulate shocks on the financial position of companies, while we analyze companies' *actual* bank accounts. Their data essentially stop at the end of 2020, whereas our business bank account data are available until August 2021. Finally, we focus our analysis mainly on SMEs and micro-enterprises, while their analyses typically include larger companies. Their results are, however, broadly consistent with ours: they also measure significant heterogeneity both between and within sectors; like us, they note that the dispersion of companies' financial situation has increased.

The IPP[2] has studied the issue of SGLs through the lens of administrative data. They find that a large share of eligible firms has borrowed using SGLs, and that, while the gross debt of SGL beneficiaries has increased, their net debt has remained rather stable over the year 2020, most likely due to other government support measures. The IPP analysis (not limited to SMEs) seems positive on the ability of companies to repay their SGLs in the short term (situation at the end of 2020).

Abroad, the Bank of England[3] has also studied the financial situation of UK SMEs through bank. account data.

(1) Bureau B., A. Duquerroy, M. Lé, F. Vinas, J. Giorgi and S. Schott (2021): "What Individual Data Tells us about the Covid-19 Impact on Corporate Liquidity in 2020", *INSEE Working Paper*, no 2021-03.

(2) Bach L., N. Ghio, A. Guillouzouic and C. Malgouyres (2021): "Les Prêts garantis par l'État (PGE) vont-ils pouvoir être remboursés ?", *Note IPP*, no 70.

(3) Hurley J., S. Karmakar, E. Markoska, E. Walczak and D. Walker (2021): "Impacts of the Covid-19 Crisis: Evidence from 2 Million UK SMEs", *Bank of England Staff Working Paper*, no 924.

(1) www.banque-france.fr/sites/default/files/media/2021/09/07/821009_3_impact_crise_covid_septembreok.pdf

(2) https://blocnotesdeleco.banque-france.fr/billet-de-blog/limpact-differencie-de-la-crise-sur-la-situation-financiere-des-enterprises

Where do we stand today? In this Focus, we try to assess the financial position of companies based on anonymized corporate bank accounts data provided by Crédit Mutuel Alliance Fédérale.[(3)] The sample consists of approximately 70,000 micro-enterprises, 25,000 SMEs and 20,000 Sole Proprietorships (SPs)[(4)] that have a bank account with CIC, a subsidiary of Crédit Mutuel Alliance Fédérale. One advantage of this dataset is that it is available monthly from November 2019 to August 2021, which allows us to make a near real-time analysis of both the liquidity of companies (measured by their current account balance) and their net financial position (measured by the balance of their checking and savings accounts net of their debts). As such, our approach complements the statistics derived from balance sheets data and the results of micro-simulations. The monthly update of our data will also allow us to monitor the evolution of the financial situation of SMEs and micro-enterprises in the coming months, as public support gets significantly withdrawn.

A limitation of our data is that they do not provide information on the earnings and non-bank liabilities of firms.[(5)] They also do not contain any information on firms tangible and intangible assets. A second limitation of our corporate account data is that they come from a single bank (CIC), while we know that a non-trivial share of firms has multiple bank relationships. However, we believe that this pitfall is limited for the data we use. For data confidentiality reasons, our sample excludes the largest firms and only includes micro-enterprises (up to 10 employees) and SMEs (from 11 up to 250 employees). For these firms, multiple banking relationships are much less frequent (see Box 2). Our working assumption is therefore that corporate customers of CIC, about one third of companies in France,[(6)] are representative of corporate customers of other French banks. Despite these limitations, we think our analysis remains important, especially as we are the first study in France making use of such corporate account data.

Box 2. Banque de France data and multi-banking

We also had access to anonymized and secured bank data from the Banque de France.

The "Centrale des Risques" (SCR), reports the loans granted by credit institutions to businesses when they exceed the €25,000 threshold. This dataset allows us in particular to study the frequency of multiple banking relationships among French micro-enterprises and SMEs. The vast majority of micro-enterprises and SMEs only have a single banking relationship (75% to 80% depending on the study).[(1)] Among those that have multiple banking relationships, very few have more than two. These numbers have remained similar during the Covid crisis. Moreover, a study based on the credit register of the Banque de France, Beaumont et al (2019) show that the behaviour of credit is no different for firms that are customers of a single bank vs. firms with multiple banking relationship.[(2)]

The SCR database also allows us to validate and deepen our studies on SGLs, in particular through the joint use of the legal entity analysis database, which gives us access to corporate credit ratings.

(1) The number of banks of a firm is usually measured by the number of banks with which this firm has a credit or a credit line. In the case of France, in 2018 mores than 80% of firms with bank credit of more than 75,000 euros had only one banque, *cf*. Boualam Y. and C. Mazet-Sonilhac (2021): "Aggregate Implications of Credit Relationship Flows: A Tale of Two Margins", *Banque de France Working Paper*, no 801. According to our studies on the SCR database, we observe that 77% of SMEs and 76% of micro-enterprises are mono-banked.

(2) See Beaumont P., T. Libert and C. Hurlin (2019): "Granular Borrowers", *Université Paris-Dauphine Research Paper*, no 3391768, May.

(3) We work on a sample constructed by randomly drawing corporate bank accounts and respecting statistical confidentiality. The monthly data make it possible to describe incoming and outgoing flows, checking and savings account balances, and liabilities (cash and investment debts). See Box 3 at the end of the *Focus*.

(4) Our analyses will in most cases focus on micro-enterprises and SMEs, excluding sole proprietorships. This is due to the legal nature of sole proprietorships as well as to the data accuracy. It is indeed more difficult to separate sole proprietorships from households (especially for flows), which could disrupt the analysis.

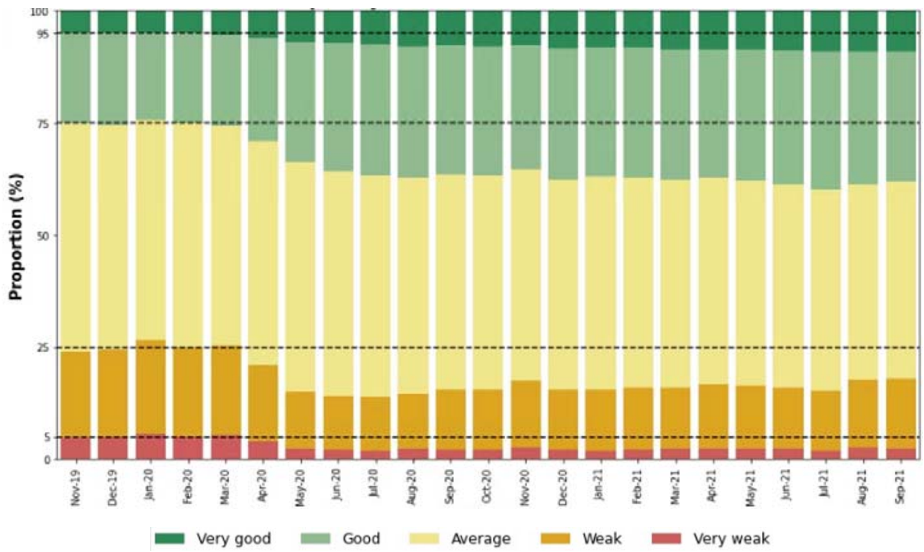
(5) This includes social security debts, fiscal debts and trade credit.

(6) www.cic.fr/partage/fr/I14/telechargements/communiques/2019-07-01-Bpi-France-et-le-CIC-renforcent-leur-partenariat.pdf

2. More cash in all sectors

We know that corporate cash flows have increased significantly at the aggregate level, particularly as a result of the SGL. Our firm-level data allow us to show that this is also true for the vast majority of businesses. In all industries, there are fewer firms in August 2021 in what could be described as a "weak" or "very weak" liquidity position[7] than in the four months prior to the pandemic. For each sector, we select, over the months of November 2019 to February 2020 (the pre-pandemic period), the 5% of businesses with the smallest balance on their checking account. This allows us to determine a pre-pandemic "financial fragility threshold". We then estimate the share of firms in August 2021 whose checking account balance is below this threshold. We calculate the 25%, 75% and 95% thresholds in the same way, which allows us to construct five categories based on pre-covid liquidity: below the 5% threshold ("very weak"), between the 5% threshold and the 25% threshold ("weak"), between the 25% threshold and the 75% threshold ("average"), between the 75% threshold and the 95% threshold ("good"), and above the 95% threshold ("very good"). We trace the evolution of the share of companies in each category until August 2021 (Figure 1). In all sectors, even those most affected by the health crisis, we see that the share of firms (both micro-enterprises and SMEs) with a "very weak" liquidity situation has fallen sharply. This result suggests that, in the short term and as was already observed in 2020, business failures should not be a strong concern given this observed improved liquidity. This conclusion is also reached by the IPP, which shows that the liquidity brought by SGLs significantly reduced the risk of corporate bankruptcies.

Figure 1. Company liquidity situation



Note: The dark red part ("Very weak") corresponds to the share of firms whose liquidity situation at the end of the month is below the threshold that corresponded to the worst 5% of firms before the crisis. The other thresholds are the 25%, 75% and 95% thresholds. The thresholds are calculated within each type of company (SME or micro-enterprise) as well as within companies in the same turnover bracket.

Source: Crédit Mutuel Alliance Fédérale data.

Overall, we see a clear general improvement in corporate liquidity positions, especially at the top of the distribution: there is a marked increase in the share of firms with either good or very good liquidity situations.[8] Conversely, there are fewer companies at the bottom of the distribution, i.e. firms with weak or very weak liquidity positions. The situation varies according to the sector, with a very clear improvement in the accommodation and food services industries and a much more limited one in the construction industry (Figure 2).

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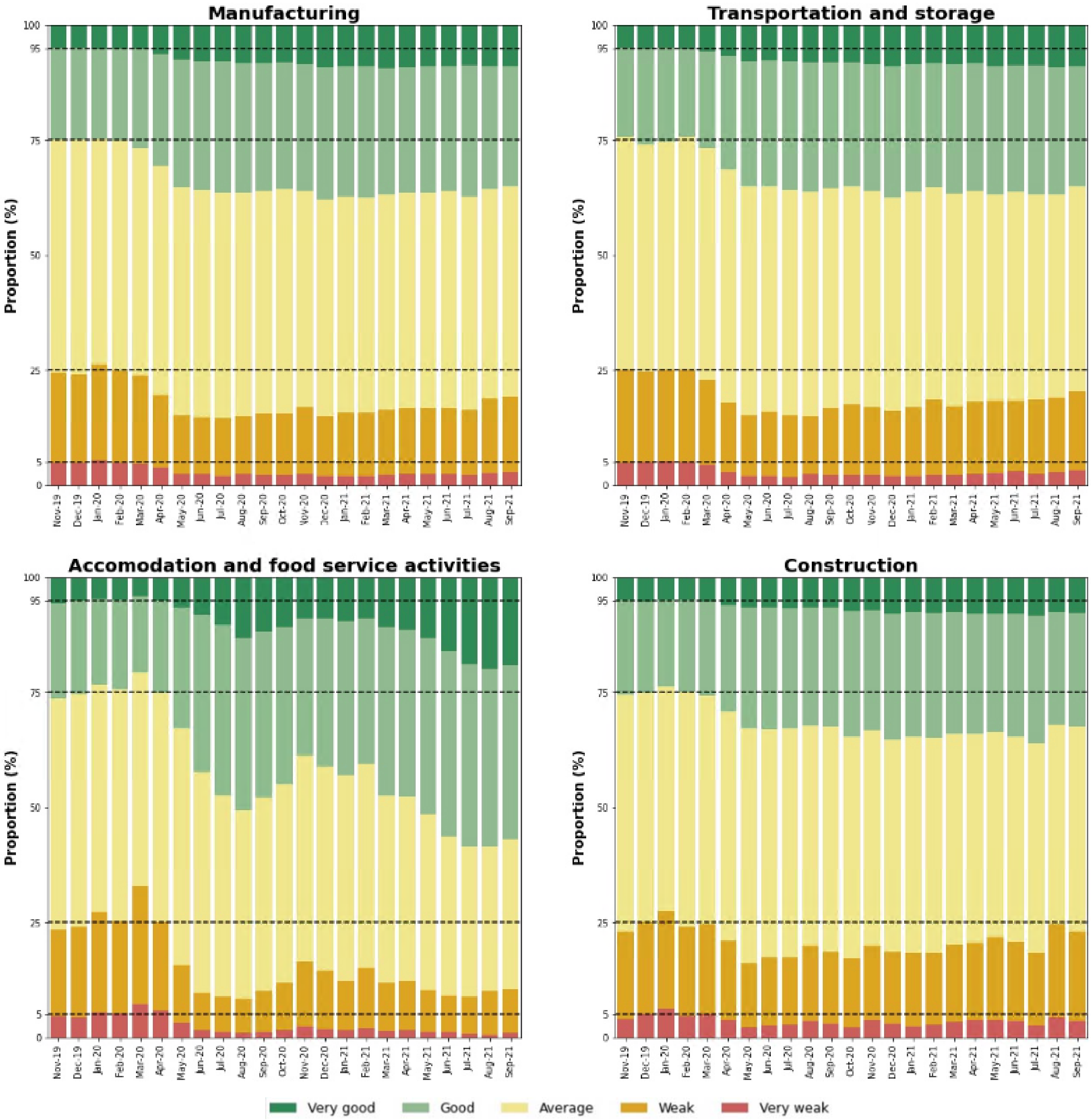
(7) To qualify a "very weak" cash flow situation, we use the following convention: in a pre-crisis situation, we use the liquidity threshold below which the 5% of companies with the lowest levels are found. These thresholds are differentiated according to the size of the company. In most sectors, this threshold corresponds to a checking account with a negative balance.

(8) As a reminder, the quantiles are calculated here within each type of firms (micro-enterprise or SME) and turnover bins before being aggregated. The threshold taken is the average of the thresholds for the four pre-crisis months (November 2019 to February 2020).

Figure 2. Liquidity by sector

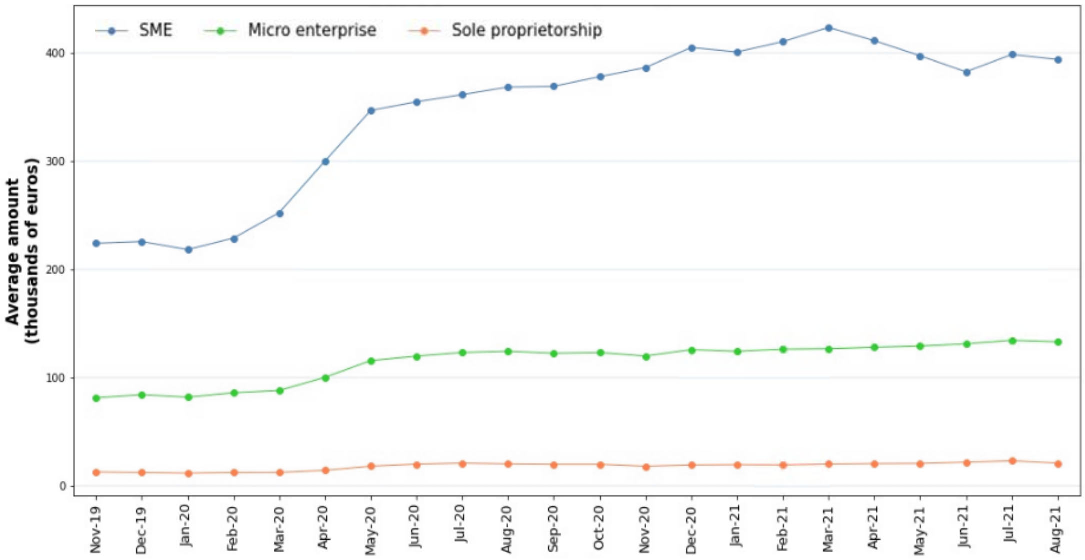


Note: The dark red part ("Very weak") corresponds to the share of companies whose liquidity position at the end of the month is below the threshold that corresponded to the worst 5% of companies before the crisis. The other thresholds are the 25%, 75% and 95% thresholds. The thresholds are calculated for each sector within each type of company (SME or micro-enterprises) as well as within companies in the same turnover bracket.

Source : Crédit Mutuel Alliance Fédérale data.

This improvement in August 2021 compared to the four months pre-crisis is not a seasonal effect: the strong improvement in liquidity in our sample occurred mainly between April and June 2020, i.e. exactly at the time when firms massively contracted a government-guaranteed loan (Figure 3). In fact, our data show that 80% of SGLs were taken out during these three months.

Figure 3. Company liquidity (average)



Source: Crédit Mutuel Alliance Fédérale data.

3. Net financial position: very heterogeneous situations in August 2021

In addition to the liquidity situation, a second indicator of the financial situation of firms is its net debt (net financial position), which gives an indication of their insolvency risk. Net debt corresponds to the balances on corporate checking and savings accounts net of the stock of outstanding loans made by the bank to the firm.(9) These loans are of two types: term loans contracted mostly for investment purposes (which we call investment loans) and shorter-term loans contracted for liquidity management purposes, including in particular State-guaranteed-loans (SGL).

It is important to note that the net banking balance does not change when a firm takes a new loan and does not use it: the value of the corporate checking account and the value of the debt held by the firm increases by the same amount. However, if the firm uses part of the SGL (for example, to pay suppliers), then its net debt increases as the value of the checking account increases by less than the value of the debt.

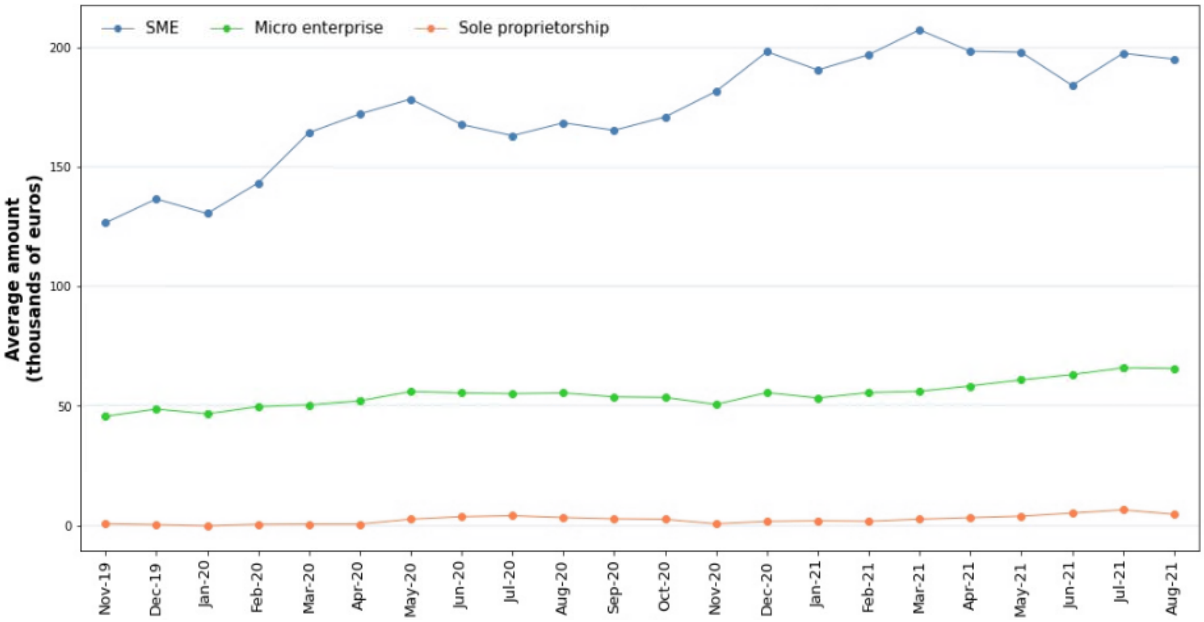
We find that the net financial position of sole proprietorships, micro-enterprises and SMEs has improved(10) between February 2020 (just before the first lockdown in France) and August 2021. This is true whether we look at the average or the median firm of our sample. This result differs slightly from what is observed at the macroeconomic level (quasi-stability between the end of 2019 and the end of July 2021, see *above*). However, our sample only contains micro-enterprises and SMEs, and is therefore not representative of the whole economy. The improvement in the net financial position of micro-enterprises and SMEs, especially since the beginning of 2021, seems consistent with the strong increase in the profit margin of non-financial corporations in the first half of 2021, as recorded in INSEE's quarterly national accounts.(11)

(9) Net banking balance = Balance (current account + savings account) – Stock (cash debts + investment debts).

(10) It should be noted, however, that the evolution of the median company is much less impressive than the average (see graph xx in the appendix).

(11) INSEE, Quarterly national accounts - first estimate - second quarter 2021.

Figure 4. The evolution of net banking balances (average)



Source: Crédit Mutuel Alliance Fédérale data.

This improvement for micro-enterprises and SMEs was not uniform across firms. Our econometric analysis shows that the improvement in net financial position was stronger for micro-enterprises than for SMEs (Figure 5). This is not surprising: subsidies provided through the so-called Solidarity Fund were initially only granted to micro-enterprises, and were only later extended to larger companies and for larger amounts. This can explain why, for a given industry and region, micro-enterprises have seen their net financial situation improve more than that of SMEs.

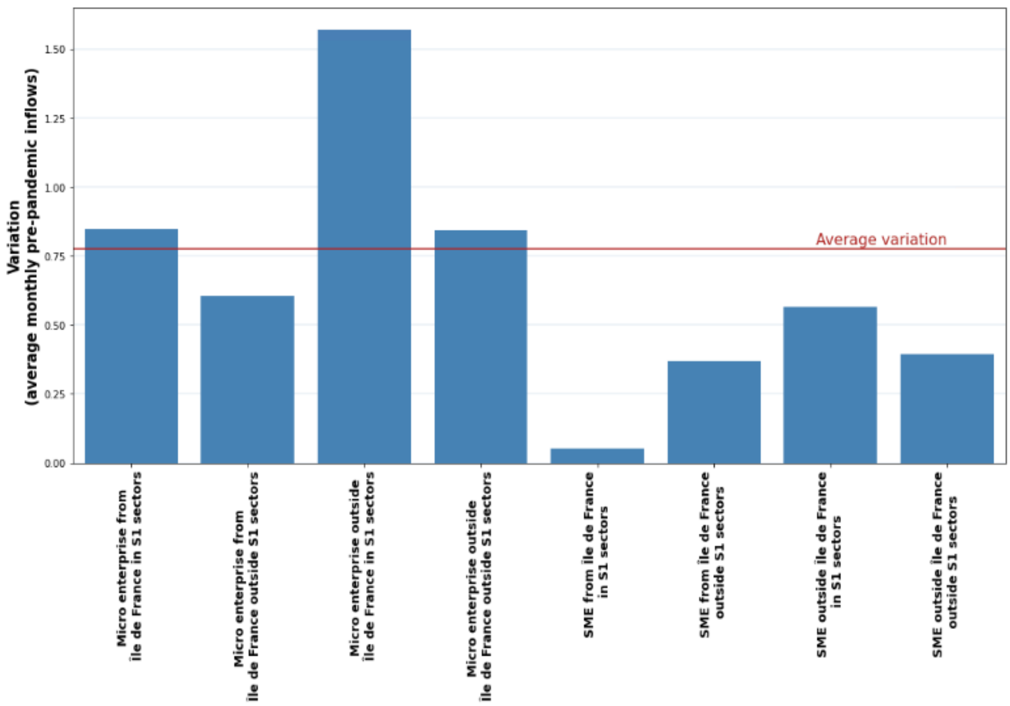
The improvement in firm's financial position was also less marked in Ile-de-France.(12) This finding is consistent with the view that the COVID shock was stronger in this region,(13) which is not surprising given the weight of foreign tourists in this region's economic activity. Our analyses also suggest that, regardless of the region, micro-enterprises in S1 sectors (the ones most affected by the health restrictions) have seen their net banking balance improve more than for similar firms outside these S1 sec tors.(14) While surprising, this result is consistent with the report of the "Coeuré Committee", which was set up to monitor and evaluate financial support measures for companies during the Covid-19 pandemic: this report finds that there were windfall effects from public support in that for some companies, public support may have over-compensated the drop in turnover generated by the economic crisis.

(12) We have as regions: the Ile de France and four large regions formed by the four cardinal points.

(13) See Barrot J-N. (2021): *Accélérer le rebond économique des territoires*, Report to the French Prime Minister.

(14) Unfortunately, we were unable to extend the analysis to firms classified as S1-bis. This is because the S1 bis classification covers sectors for which we have less detail in our data.

Figure 5. Variation of net banking balances by category



Note: This Figure is the result of a linear regression with the explanatory variable being the difference by firm between net banking balances in August 2021 and pre-crisis (average November 2019 to February 2020) divided by the average pre-crisis inflows. The bars correspond to the average effect for each category.

Source: Crédit Mutuel Alliance Fédérale data.

4. SGL and the net financial position of companies since the crisis

Around 35% of the SMEs and micro-enterprises in our sample have taken out an SGL, which is consistent with the share observed in other samples (e.g., "Coeuré Committee", IPP, etc.).[(15)] Figures 6 and 7 show the evolution, between November 2019 and August 2021, of the net debt of micro-enterprises and SMEs, distinguishing between companies that have taken out an SGL and other firms. These Figures highlight two main findings:

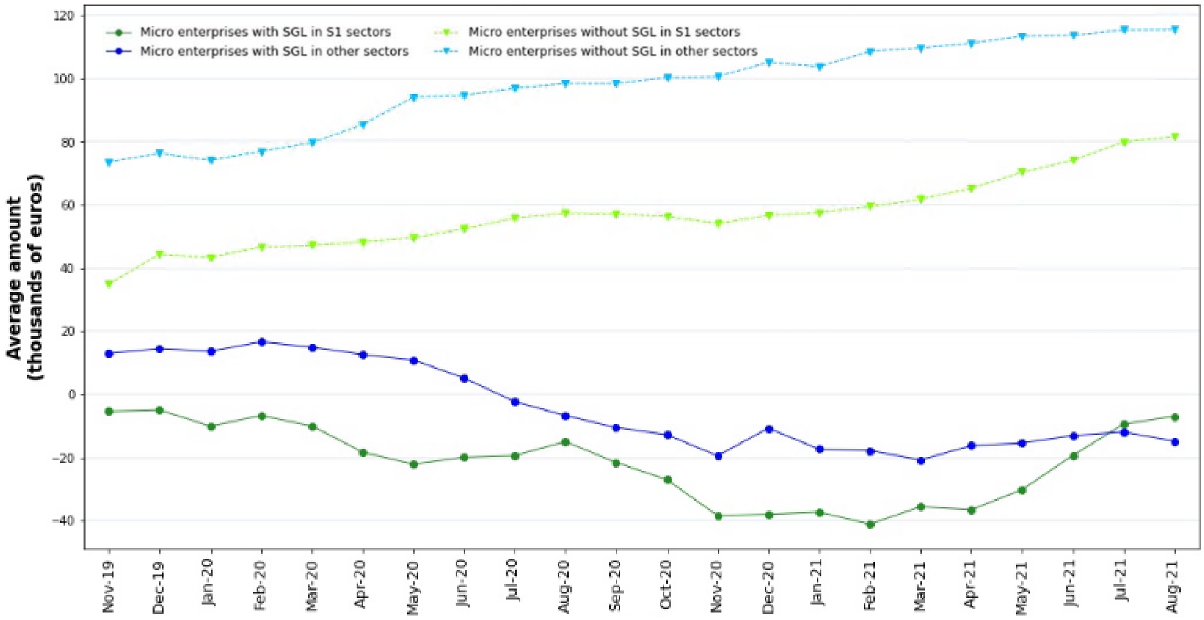
- Companies that have taken out an SGL (solid lines) are, on average, those whose pre-crisis financial situations were already more difficult (their net financial position is initially worse, and negative on average);
- These companies are also those whose financial situation has deteriorated the most during the crisis.

This differentiated evolution can be interpreted as the result of a self-selection mechanism whereby companies that were initially more fragile and anticipated a drop in their profits due to the crisis chose to insure themselves by contracting an SGL. An analysis using the Banque de France's SCR database confirms these results. Like the Coeuré Committee report, we find an inverted U-shaped relationship between a firm's utilization of its SGL and the firm's credit rating. Firms in very good or very bad financial situations made less use of the SGL than firms in the middle of the distribution. Within firms with an "average" rating (rating 4, 5+ and 5), the usage rate is higher for micro-enterprises with a rating of 5 (i.e., "the company's capacity to honour its financial commitments is deemed weak") and 5+ ("fairly weak capacity"), and slightly lower for micro-enterprises with a score of 4 ("fair capacity").

(15) Precisely 34% for micro-enterprises and 36% for SMEs in our sample of CIC client companies. These rates are consistent when we look at the Banque de France's SCR database, where we find an almost identical rate of recourse to the SGL for micro-enterprises and SMEs of around 35%.

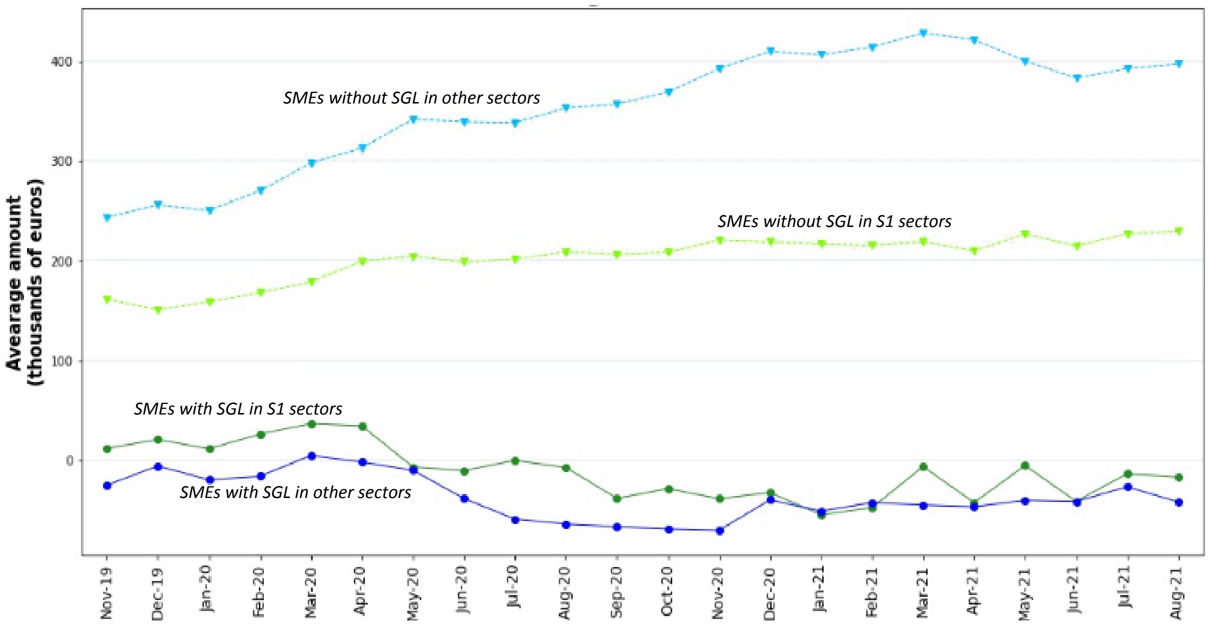
We also note that the net financial position of micro-enterprises in S1 industries that have taken out an SGL has been less adversely affected than that of firms outside these S1 industries. This is again consistent with the possibility of overcompensation of public subsidies for micro-enterprises in S1 industries.

Figure 6. Net banking balances of micro-enterprises; S1 sector and others; with and without SGL



Source: Crédit Mutuel Alliance Fédérale data.

Figure 7. Net banking balances of SMEs; S1 sector and others; with and without SGL



Source: Crédit Mutuel Alliance Fédérale data.

For the accommodation and food service activities (Figure 8), the deterioration in net financial position is quite severe during the first two lockdowns, but has improved substantially starting in February 2021. The situation remains quite different, however, depending on whether or not firms have taken an SGL.

Figure 8. Net banking balances of micro-enterprises and SMEs from accommodation and food services activities; with and without SGL, November 2019-August 2021

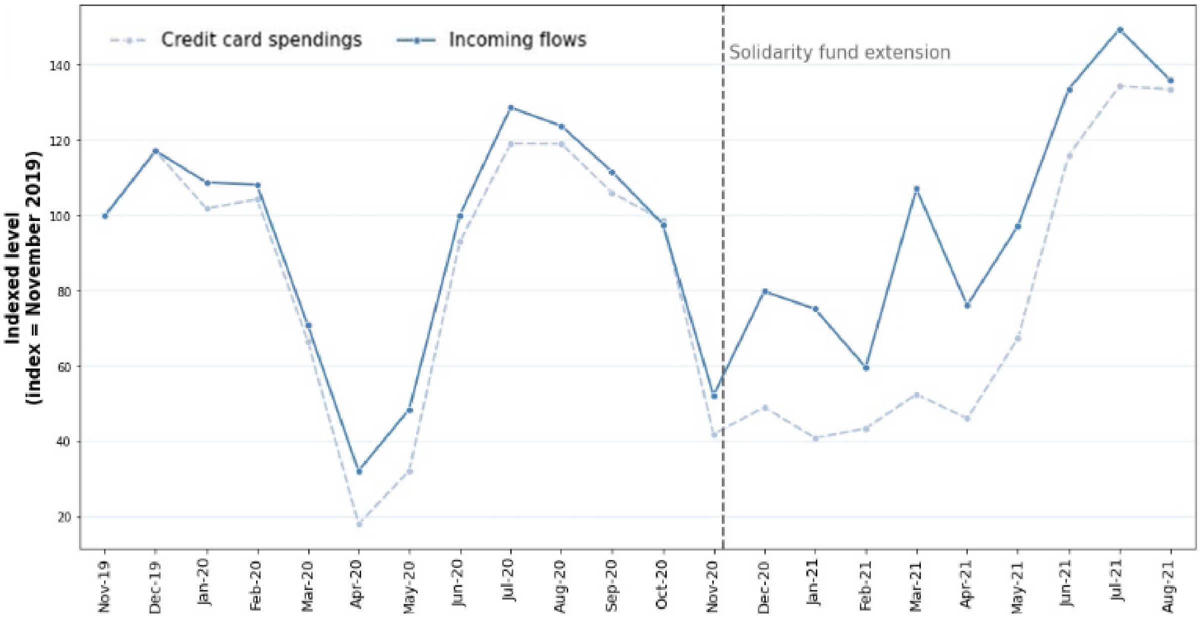
Note: Here, SMEs and micro-enterprises are mixed. The top line shows the change in net banking balances for companies that did not take out the SGL, the middle line shows the average for all companies and the bottom line shows companies that took out the SGL.

Source: Crédit Mutuel Alliance Fédérale data.

We check the accuracy of our data for the food service industry by comparing incoming flows in corporate checking account with aggregate credit card transactions.[16] Figure 9 shows that in the months preceding the crisis, the two measures coincide almost perfectly. We also use the credit card transaction data to better understand the role of subsidies in driving the sector's overall liquidity. During the first lockdown, the fall in inflows observed in corporate account data is smaller than the drop in consumption observed in the credit card data. This seems to indicate the important role of public subsidies (e.g., short time work, solidarity fund, etc.) in smoothing out the shock for firms. We also note that the gap between consumption and inflows widens from December 2020 to May 2021, which is probably the result of the extension and increased generosity of the so-called solidarity fund.

(16) See Fize É., C. Landais and C. Lavest (2021): "Consommation, épargne et fragilités financières pendant la crise Covid : quelques enseignements additionnels sur données bancaires", *Focus du CAE*, no 054-2021, January and, for households, Bounie D., Y. Camara, É. Fize, J. Galbraith, C. Landais, C. Lavest, T. Pazem and B. Savatier (2020): " Consumption Dynamics in the COVID Crisis: Real Time Insights from French Transaction and Bank Data (Dynamiques de consommation dans la crise : les enseignements en temps réel des données bancaires)", *Focus du CAE*, no 049-2020, October.

Figure 9. Evolution of incoming flows and receipts by credit cards in the restaurant sector

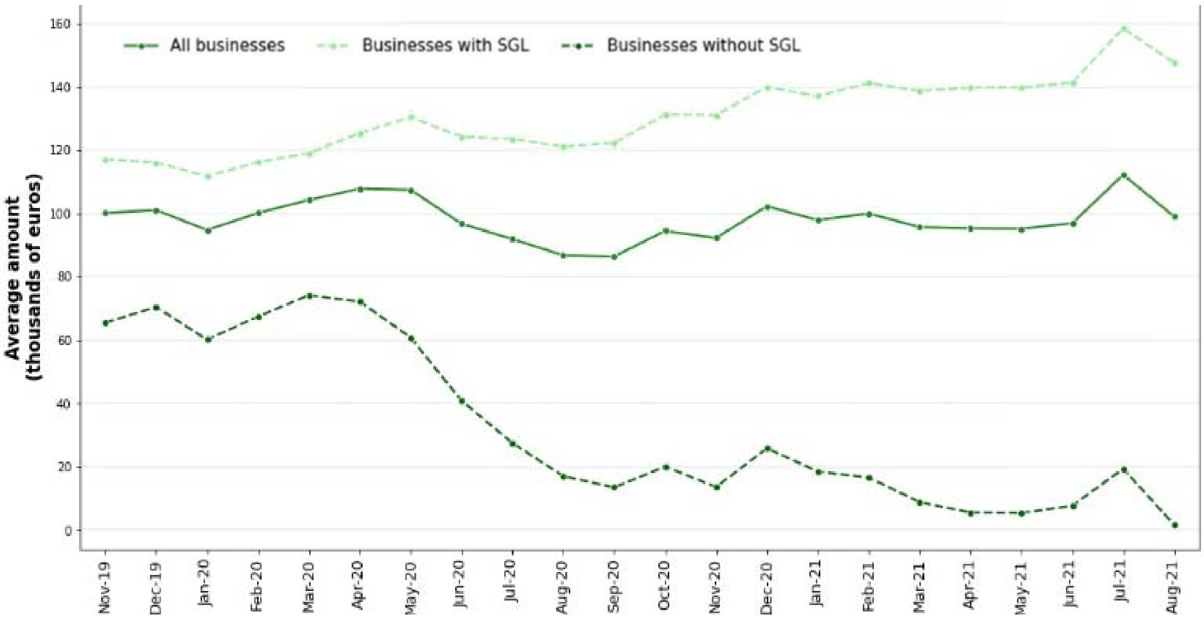


Note: This Figure represents in base 100 in November 2019 the evolution of incoming flows for companies in the restaurant sector (NAF 56) and the evolution of credit card receipts in the same sector (MCC: 5811, 5812, 5813 and 5814). The credit card data also come from the CIC. The dotted vertical bar corresponds to the period when the solidarity fund was extended.

Source: Crédit Mutuel Alliance Fédérale data.

In the construction sector, we observe, for companies taking out a SGL, an important increase in net leverage following the first lockdown. From September 2020 onwards, the situation stabilizes with no marked changes since. Conversely, firms in this sector that have not taken out a SGL (61% of companies in this industry) do not experience a significant decline in their net financial position, which has even improved since September 2020. The relatively stable situation for the average firm in this industry thus masks important disparities.

Figure 10. Net banking balances of micro-enterprises and SMEs in construction; with and without SGL, November 2019-August 2021



Note: Here, SMEs and micro-enterprises are mixed. The top line shows the change in net banking balances for companies that did not take out the SGL, the middle line shows the average for all companies and the bottom line shows companies that took out the SGL.

Source: Crédit Mutuel Alliance Fédérale data.

For SMEs and micro-enterprises, our data suggest that about 40-50% of the SGL was used, resulting in a worsening of the net financial position. On average, firms did not simply park their SGL on their checking accounts, but instead used partially these SGLs to cover expenses or losses. Figures 19 and 20 in the appendix show the evolution of firms' checking account balances, net financial position and the amount of the SGL in a window around the signing of an SGL. This event study allows to estimate how much of the SGL is consumed by the average firm in our sample. As expected, we see that the checking balance increases sharply after the SGL is contracted. At the same time, we observe that the net banking balance (accounts balances minus debt stock) deteriorates progressively after the SGL is taken out. This is consistent with firms progressively using their SGL.

We also see on these figures that, on average, the SGL was consumed mainly during periods of sharp falls in sales rather than on a regular basis. The decline in the net financial position of micro-enterprises with a SGL occurred mainly during the first two months of lockdown (Figure 20). This dynamic is in itself reassuring, as it indicates that it is the pandemic shock (which a priori will not last) rather than a poor persistent performance that has worsened the financial situation of companies. On the other hand, we note that the average financial situation improves for micro-enterprises and SMEs over the first half of 2021, even during the third lockdown. As noted earlier, an advantage of our data is that it will allow us to monitor the evolution of firms' financial situation monthly. In August 2021, we see that 15-25% of firms with a SGL (Table 1) would be unable to repay an annuity of 20% of their SGL.(17) More generally, there remains significant uncertainty regarding the ability of SMEs to repay the debt contracted during the COVID crisis. On the one hand, the current economic recovery should lead to increased revenue that should help cover financial costs. On the other hand, public subsidies and governmental support is fading out.(18) The net effect is unclear, which makes a high frequency monitoring of firms liquidity situation even more important.

Table 1. Share of companies (among those who have taken out a SGL at some point) whose current account is less than 20% of cash debt

	January 2021	August 2021
S1 Micro-enterprises	15.61	15.22
Micro-enterprises outside S1	18.68	24.51
S1 SMEs	19.51	19.81
SMEs outside S1	21.84	25.77
All companies in S1	16.72	16.52
All companies outside S1	19.55	24.86

Note: For two dates: January 2021 and August 2021, we look at the share of firms by category whose current account is less than 20% of cash debt.

Source: Crédit Mutuel Alliance Fédérale data.

Our analysis of the consumption of SGLs is subject to some caveats. For instance, it is possible that part of the SGLs was used to repay trade credit, which we cannot observe directly in our dataset. If this is the case, our conclusions are too pessimistic, as true net debt (including trade credit) would have gone more than what we find in our data. In fact, according to our analysis of the so-called "Centrale des Risques", firms partially used their SGL for the repayment of some short-term debt, but especially for the repayment of trade payables. This use of the SGL likely prevented a contagion of the crisis through supply chain networks. Note, however, that the repayment of payables should be observed in our dataset, to some extent, as inflows into the checking account of firms that are themselves suppliers of goods and services. In this sense, the use of SGL to repay trade credit should lead to an increase in the net financial position of firms in our sample, and therefore not significantly affect our conclusion. Another caveat is that SGLs could have been

(17) Here we consider a company unable to repay an annuity if its current account is less than 20% of its total SGL.

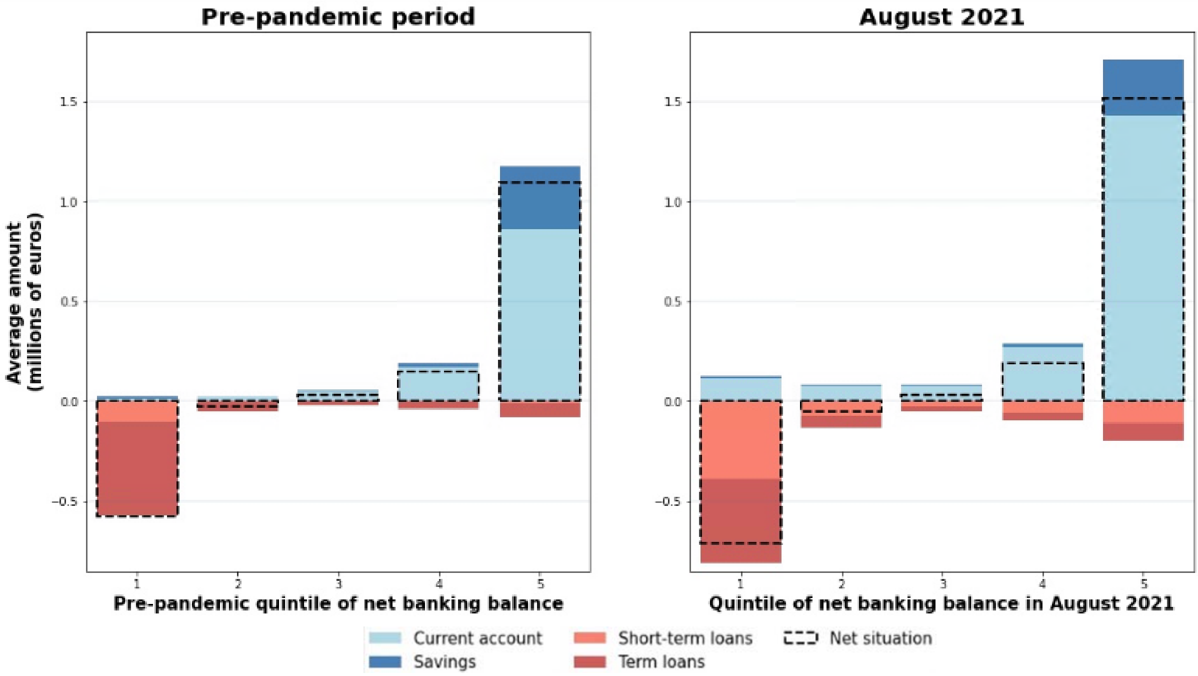
(18) On this subject, see the Banque de France's blog post on repayment terms according to cash flow: https://blocnotesdeleco.banque-france.fr/billet-de-blog/crise-sanitaire-quel-impact-sur-lendettement-des-pme

used to finance investment, which we are not able to observe in the data. Again, that would lead us to under-estimate the true financial position of firms in our sample, since they would now own assets that we don't account for (e.g., machinery, equipment, real estate, etc.). However, the aggregate investment of non-financial firms fell by 9.6% in 2020.(19) While the massive issuance of SGLs may have mitigated the drop in investment, it does not seem plausible that it financed an increase in investment by micro-enterprises and SMEs in our sample. Moreover, in our sample, we do not find that firms taking out a SGL used it to repay term loans (which are essentially contracted for investment purposes). These loans remained stable over the period, which is likely due to the broad moratoria on loans offered by banks over the period. This finding is confirmed by our analysis that uses the Banque de France data: there too, we find that SGL loans were not used to repay long-term investment loans. Finally, in our CIC sample, the SGL does not appear to have been used to increase balances on corporate savings accounts.

The COVID shock has changed the nature of corporate debt. Before the crisis, it was mainly used to finance investment: 91% of bank debt for micro-enterprises and 81% for SMEs was term loans, compared with 9% and 19% respectively for shorter-term loans. With the crisis, a large proportion of bank debt is now used to finance liquidity needs in August 2021, 44% of the total debt of micro-enterprises is now short-term debt and is 52% for SMEs. At the same time, we find that the amount of term loans on the balance sheet of firms in our sample has changed little during the crisis. The rise in short-term loans is essentially due to SGLs, which were initially issued as short-term loans, but whose maturity got extended during the crisis. In addition, these SGLs carry advantageous interest rates.

The change in the nature of debt has not been uniform across firms. Before the crisis, firms with the highest net debt were essentially borrowing using term loans. In August 2021, firms with the highest net debt are no mostly indebted through SGLs.

Figure 11. Breakdown of net banking account balances by quintile



Note: The two histograms show the average value of the outstanding amounts of each type of account for an SME located in one of the quantiles of the net banking balance distribution.

Source: Crédit Mutuel Alliance Fédérale data.

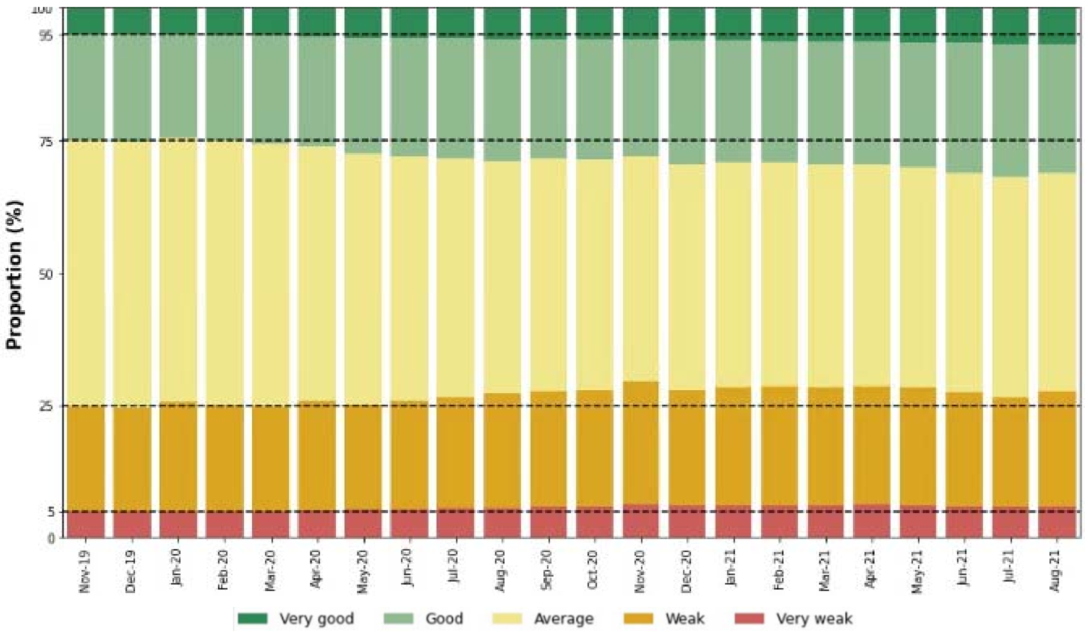
(19) See INSEE Economic Outlook, 11 March 2021. p 83. www.insee.fr/fr/statistiques/5232075?sommaire=5232077. It should also be noted that on this point, the IPP publication indicates a significant drop in investment in the first half of 2020 and a rebound in the second. This rebound is particularly high among companies that have been little affected by the crisis and that have contracted a SGL.

Another limitation of our dataset is that we do not observe the social security and fiscal debts owed by firms in our sample. At the aggregate level, social security debts are around 15.6 billion euros for SPs, micro-enterprises, and SMEs ("Coeuré" report). Fiscal debts are smaller (3.5 billion for the whole economy). Given our estimate of the consumption of the SGL by micro-enterprises and SMEs, we consider that the increase in net bank debt linked to the SGL is likely the main source of the increase in corporate debt. According to the Coeuré report, the total amount of loans allocated to micro-enterprises/SMEs represents 120 billion of the total 140 billion. If we assume that 50% of this loan is consumed, this amounts to a net debt increase of 60 billion, an amount four times higher than social security debts.

5. Losers and winners in the crisis within each sector, for some an increase in insolvency risks

The share of firms with low liquidity has declined across all sectors. What about their net financial position? As we did above, we use the pre-crisis period as a reference. For each industry, we select the 5% of companies with the lowest average level of net banking balance (balance [checking + saving account] – debt stock [short-term + term loans]) between November 2019 and February 2020. This defines a threshold of "financial fragility". We then estimate the share of companies whose net banking balances in August 2021 are below this threshold. We do the same with the 25%, 75% and 95% thresholds and define, as for liquidity, five categories: firms with "very weak", "weak", "average", "good" and "very good" financial position.

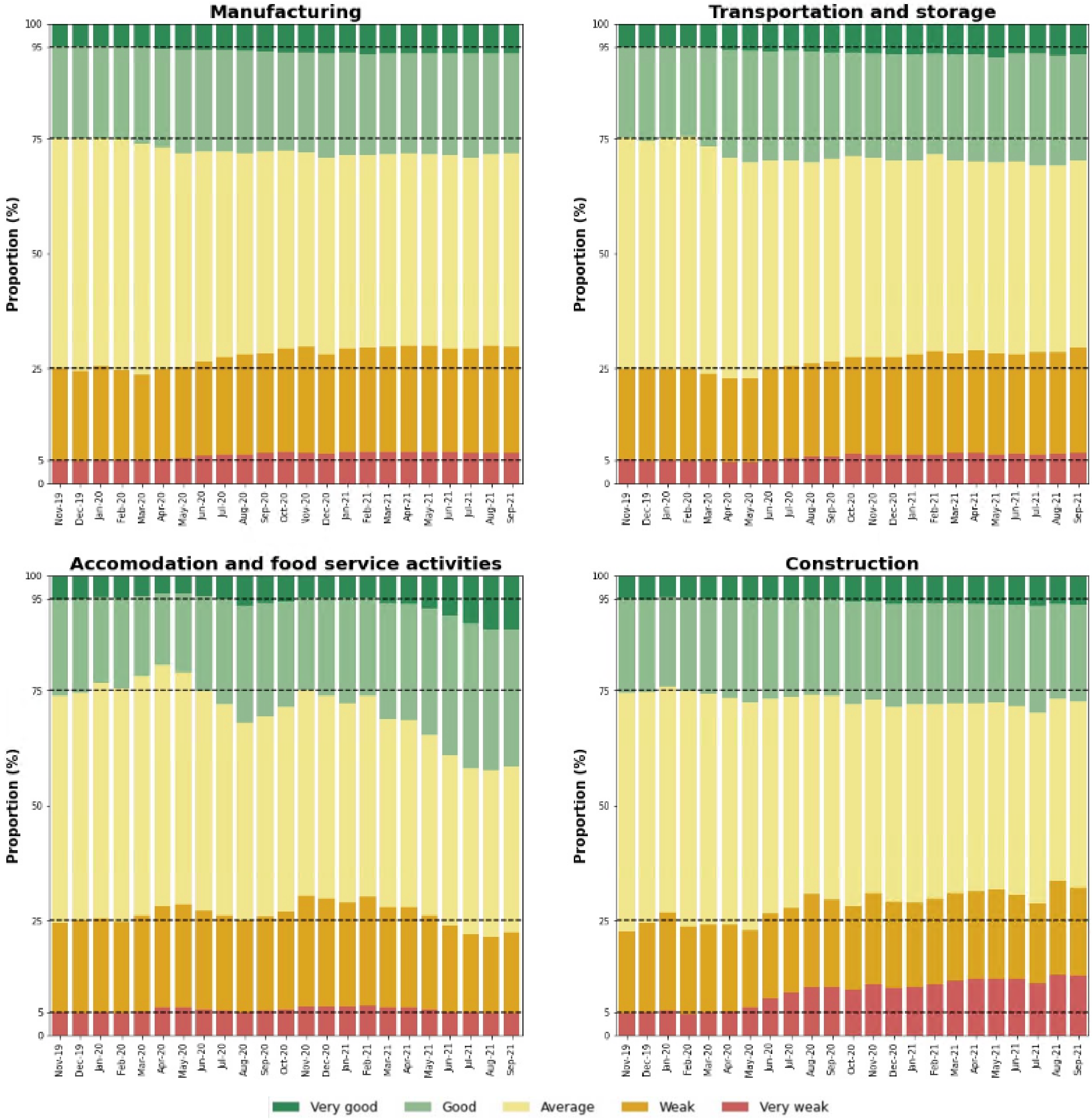
Figure 12. Net banking balances



Note: The dark red part ("Very low") corresponds to the share of companies whose net banking balance at the end of the month is below the threshold that corresponded to the worst 5% of companies before the crisis. The other thresholds are the 25%, 75% and 95% thresholds. The thresholds are calculated within each type of company (SME or micro-enterprise) as well as within companies in the same turnover bracket.

Source: Crédit Mutuel Alliance Fédérale data.

Figure 13. Net banking balances by sector



Note: The dark red part ("Very low") corresponds to the share of companies whose net banking balance at the end of the month are below the threshold that corresponded pre-crisis to the worst 5% of companies. The other thresholds are the 25%, 75% and 95% thresholds. The thresholds are calculated for each sector within each type of company (SME or micro-enterprise) and within companies in the same turnover bracket.

Source: Crédit Mutuel Alliance Fédérale data.

Figures 12 and 13 (and the summary table) confirm that, within each sector, the heterogeneity of financial situations is greater in August 2021 than before the pandemic. There are both more firms in a difficult financial situation (i.e. "very weak")[20] and in a strong financial situation (i.e. "very good") in almost all sectors. A few notable exceptions are: 1) the accommodation and food service activities, arts,

(20) An alternative method of estimating the share of micro-enterprises and SMEs in financial difficulty today is to use for each sector the percentage of companies that defaulted in 2019. For example, in the manufacturing industry the default rate for SMEs was 0.8% in 2019. In August 2021, 1% of SMEs in this sector had a net banking balance situation below the threshold that would have placed them among the most fragile 0.8% in January 2020. For construction, these figures are 1.5% and 3.2% respectively. As with the previous method, these figures therefore suggest that difficult financial situations have increased. The ranking of the sectors with this method is similar to that obtained with the arbitrary 5% threshold, notably the construction sector appears here again to be particularly vulnerable.

entertainment and recreation[21] and other services sectors, are the only industries for which the number of firms in financial difficulty has decreased in August 2021 compared to November 2019-February 2020; 2) the construction industry, and to a lesser extent ICT service activities, appear to be the most fragile, with a large increase in the number of micro-enterprises and SMEs in a "very weak" financial situation. The construction sector is traditionally characterized by a large proportion of fragile businesses and a high bankruptcy rate. However, the increase in the share of firms in financial difficulty since the crisis may come as a surprise, especially relative to a sector like accommodation and food services, which was more directly affected by health restrictions. One potential explanation is the smaller amount of subsidies received by firms in this sector: the Coeuré report shows construction has benefited little from the solidarity fund, whereas the accommodation and food service industry was one of its biggest beneficiaries.[(22)]

Table 2. Net banking balances of companies

	Number of companies	Percentage of firms in financial position "very weak"	"very good"
Manufacturing	11,902	6.69	6.57
Construction	14,697	13.21	6.17
Wholesale and retail trade; repair of motor vehicles and motorcycles	24,405	5.37	7.88
Transportation and storage	4,666	6.54	6.92
Accommodation and food service activities	8,884	4.83	11.73
ICT service activities	3,268	9.73	6.95
Real estate activities	3,967	4.99	6.38
Professional, scientific and technological activities	10,745	6.05	6.75
Administrative and support service activities	4,240	6.46	6.25
Education	1,188	7.66	8.17
Human health and social work activities	1,961	5.15	9.38
Arts, entertainment and recreation	1,029	4.47	8.94
Other service activities	2,927	4.48	10.59

Note: This table presents for the month of August 2021 the share of firms by sector that are below the worst 5% thresholds in the pre-crisis period and of firms that are above the best 5% pre-crisis in terms of net banking balances.

Source: Crédit Mutuel Alliance Fédérale data.

We know that, thanks in particular to liquidity assistance, the number of bankruptcies has fallen sharply in 2020 (by around 38% compared with 2019). This drop in insolvencies implies that a certain number of businesses survived in 2020 and 2021 that would have disappeared in normal times. These businesses are certainly now among those we consider to be in financial difficulty. In some sectors (e.g., accommodation and food services activities, retail, human health) the fall in insolvencies compared with a normal year would be sufficient to explain the increase in the number of businesses in a very weak financial situation.[(23)] In the long term, an increase in insolvencies in these sectors would indicate a catching-up process. In other sectors, on the other hand (e.g., construction, manufacturing, ICT service activities) the survival of the weakest businesses before Covid is not sufficient to explain the increase in the number of businesses in a very weak financial position.

(21) For these two sectors, however, accommodation-food service activities and arts and entertainment, a seasonal effect may be at play, with the summer being a season of higher activity compared to the pre-crisis period for which we have only November 2019 to February 2020. It will be important to continue to analyze this data in the coming months to ensure an analysis of two comparable periods.

(22) A seasonal effect can also play a favourable role in the accommodation and catering sector (see above).

(23) Under the assumption of no seasonal effect, which may be excessive for certain sectors such as accommodation and food service activities or arts, entertainment and recreation for which summer corresponds to the "high" season, with a naturally more favourable financial situation compared to other periods of the year.

At this stage, we think that the increase in insolvencies among micro-enterprises and SMEs should be contained in the short term: firms have, on average, plenty of liquidity and their net debt has not increased much. Most of the expected increase in insolvencies should be the result of a normal catch-up process: firms that were already fragile prior to the crisis should have disappeared last year but were able to survive thanks to exceptional government support. In some sectors or regions (notably construction, manufacturing industry, ICT service activities,[24] SMEs in the accommodation and food service activities in Ile de France), a small but growing number of micro-enterprises and SMEs call for vigilance. For these companies, the risks of insolvency seem greater than the risks of illiquidity, as these firms have consumed a significant share of their SGL to finance losses experienced during the crisis. This observation suggests that aid in these industries should be withdrawn with caution. The liquidity and solvency positions of firms in these sectors should undoubtedly be monitored by their creditors (banks, government, social security, suppliers). The Crédit Mutuel Alliance Fédérale corporate account data will also allow to us to assess this situation at a high frequency.

3. Data from Crédit Mutuel Alliance Fédérale

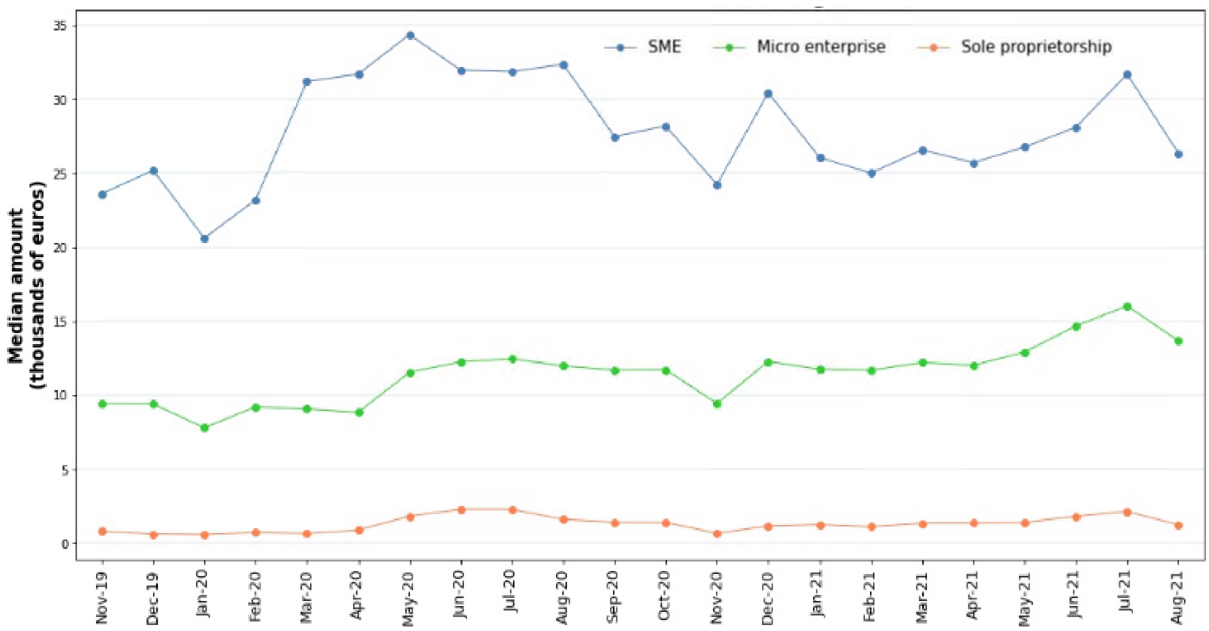
Crédit Mutuel Alliance Fédérale, the first bank to adopt the status of a company with a mission, contributed to this study by providing bank account data based on two samples: a sample of companies and a sample of households, randomly drawn and constructed in such a way (exclusion of small sub-populations) that companies or households could not be identified. All the analyses carried out in the context of this study were carried out on strictly anonymised data on Crédit Mutuel Alliance Fédérale's secure information systems in France. For Crédit Mutuel Alliance Fédérale, this approach "is in line with the missions it has set itself:

- Contributing to the common good by working for a fairer and more sustainable society: by participating in economic information, Crédit Mutuel Alliance Fédérale reaffirms its desire to contribute to democratic debate;
- Protecting the digital intimacy and privacy of each individual: Crédit Mutuel Alliance Fédérale ensures the absolute protection of its customers' data".

(24) This sector includes activities (publishing and audiovisual) that could be assimilated to the cultural sector.

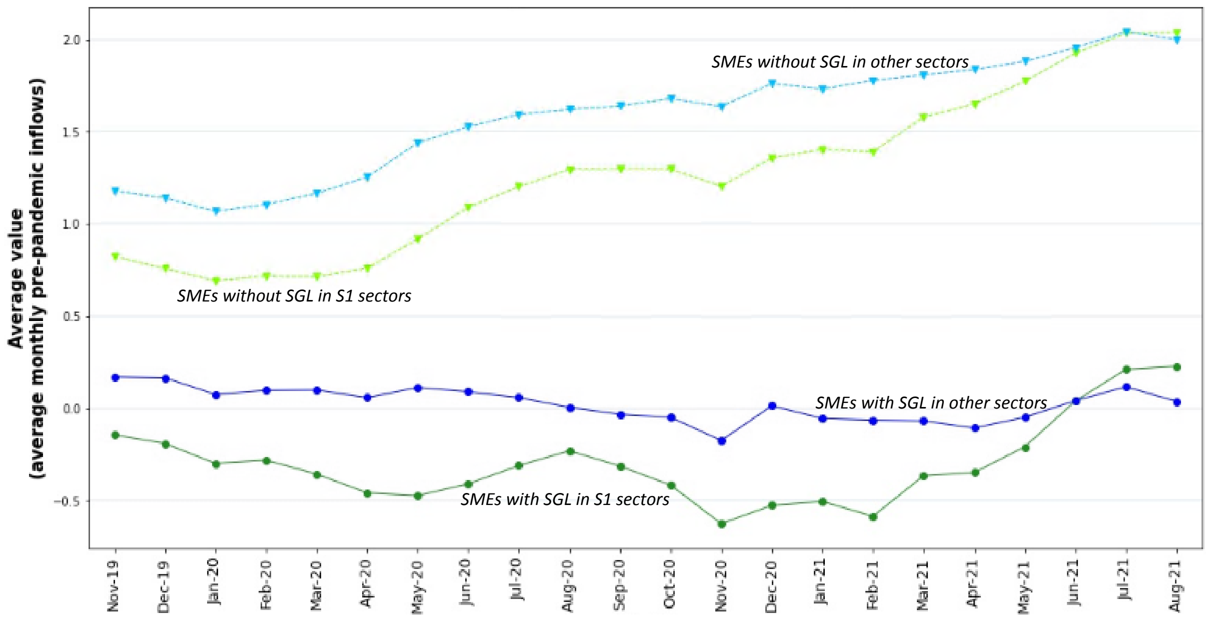
Appendix

Figure A14. Net Banking balances (median)



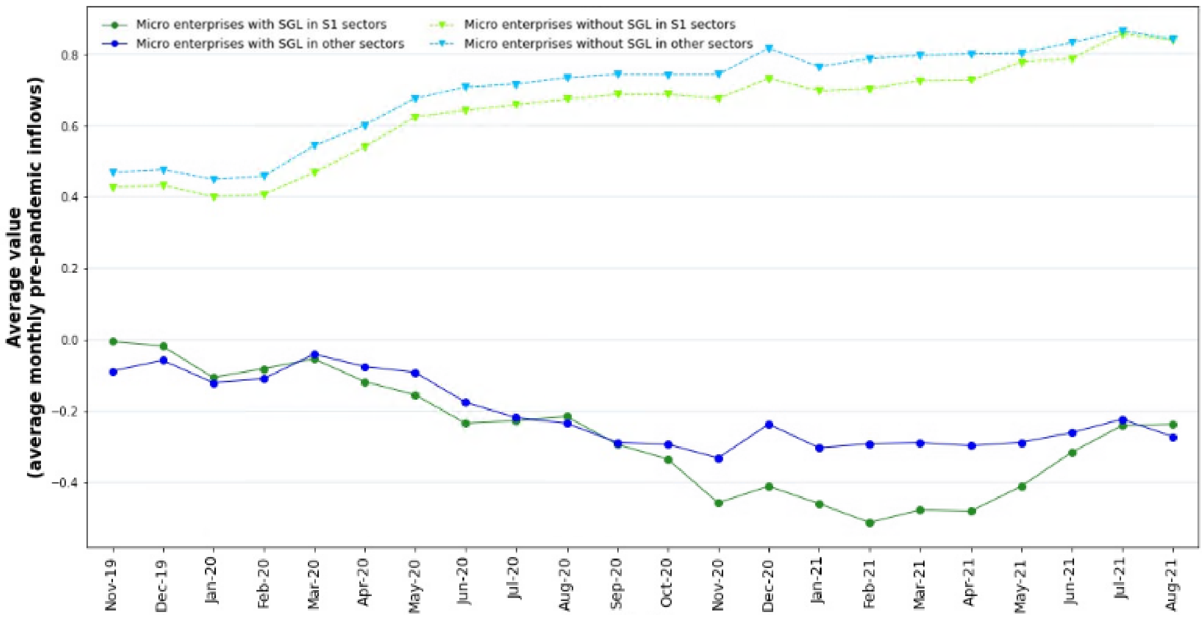
Source: Crédit Mutuel Alliance Fédérale data.

Figure A15. Net banking balances of SMEs; S1 sectors and others; Micro-enterprises with and without SGL, November 2019-August 2021 (normalized by turnover)



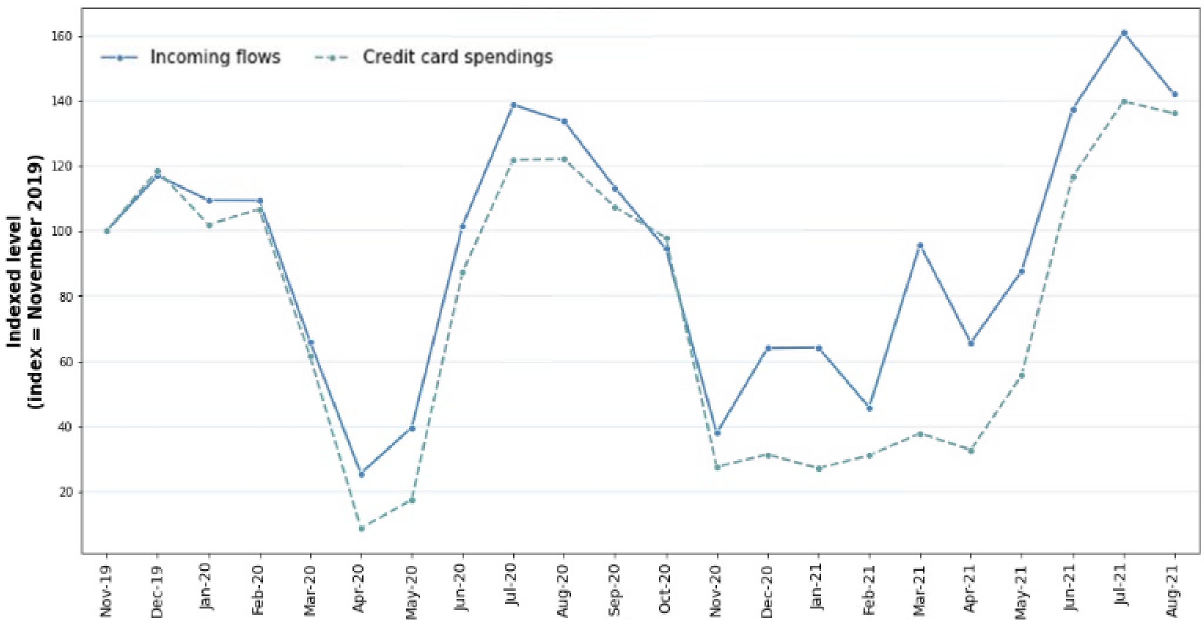
Source: Crédit Mutuel Alliance Fédérale data.

Figure A16. Net banking balances of micro-enterprises; S1 sectors and others; Micro-enterprises with and without SGL, November 2019-August 2021 (normalized by turnover)



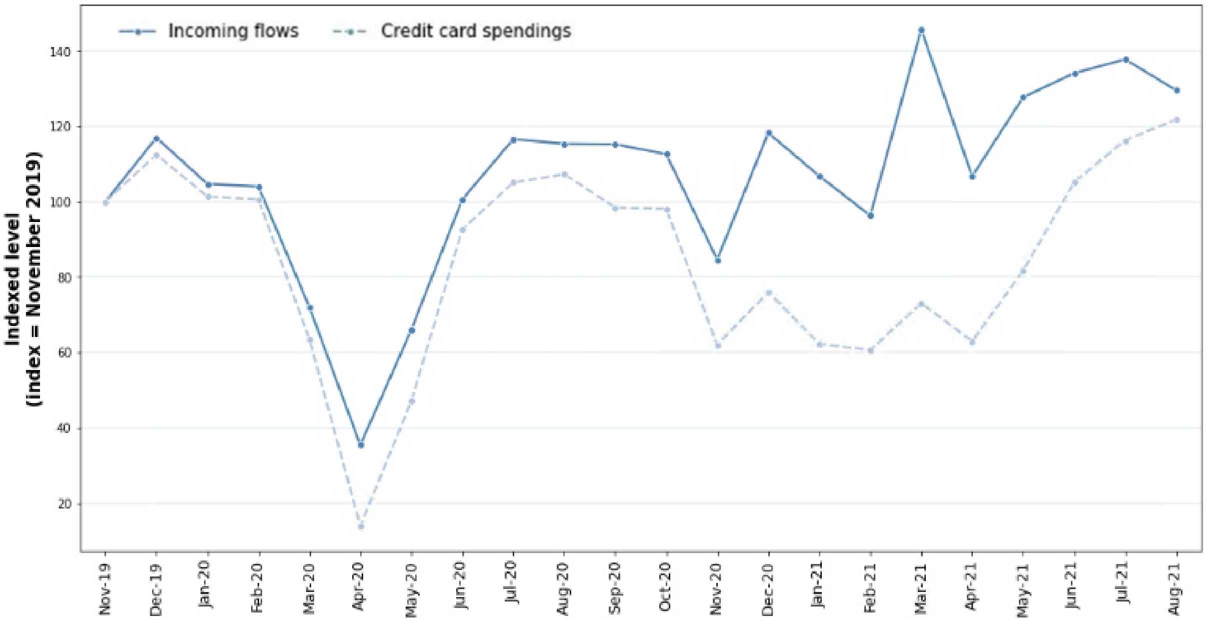
Source: Crédit Mutuel Alliance Fédérale data.

Figure A17. Evolution of incoming flows and receipts by credit card in the traditional restaurant sector



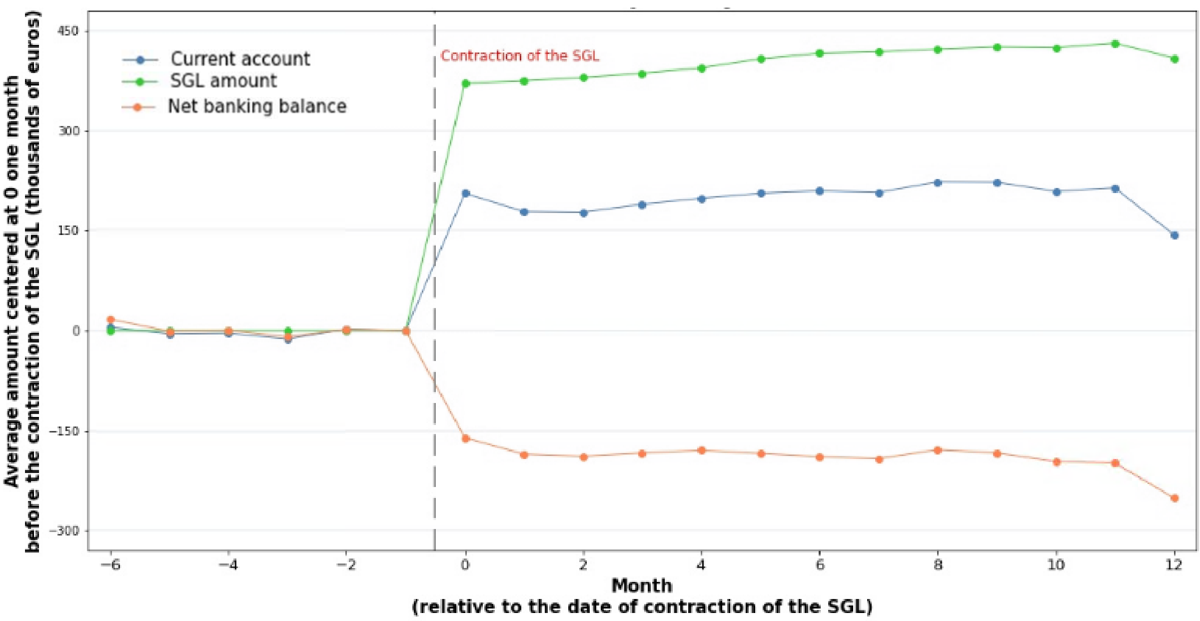
Source: Crédit Mutuel Alliance Fédérale data.

Figure A18. Evolution of incoming flows and receipts by credit card in the fast-food sector



Source: Crédit Mutuel Alliance Fédérale data.

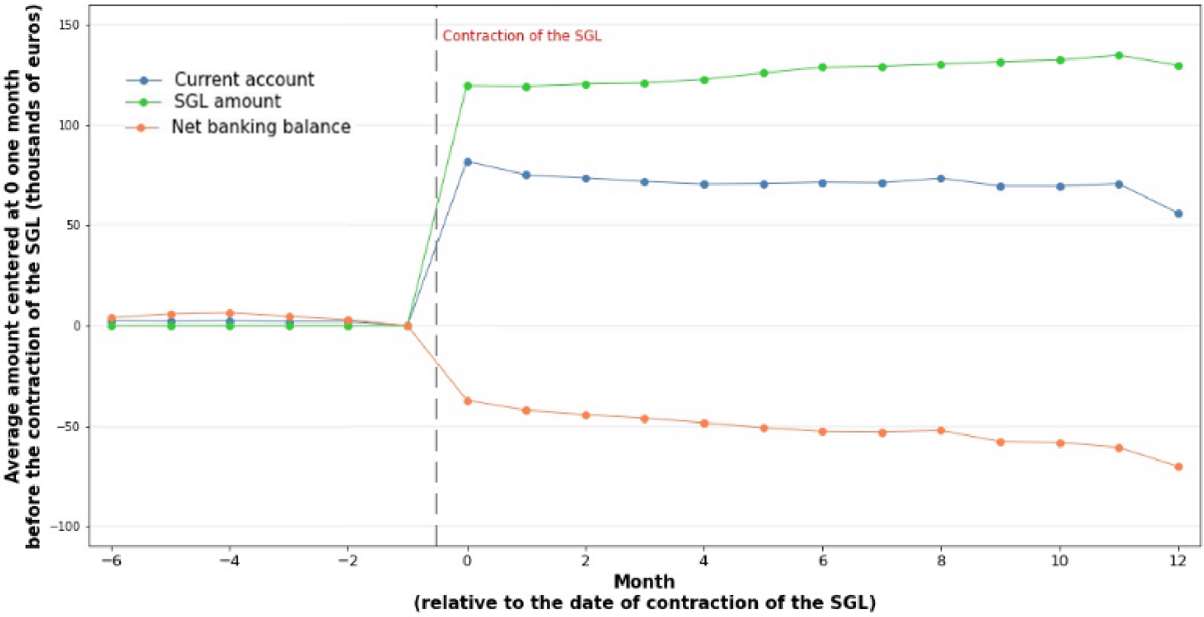
Figure A19. Evolution of the accounts around the taking out of SGL (SMEs)



Note: The Figure represents the changes in current accounts, cash debt and total net banking balances before and after the SGL was taken out. The values were set to 0 the month before the SGL was taken out (except for the SGL amount which by definition was 0 before the SGL was taken out).

Source: Crédit Mutuel Alliance Fédérale data.

Figure A20. Evolution of the accounts around the taking out of SGL (micro-enterprises)



Note: The Figure represents the changes in current accounts, cash debt and total net banking balances before and after the SGL was taken out. The values were set to 0 the month before the SGL was taken out (except for the SGL amount which by definition was 0 before the SGL was taken out).

Source: Crédit Mutuel Alliance Fédérale data.

Table A3. Businesses' cash position

	Number of companies	Percentage of firms in financial position "very weak"	"very good"
Manufacturing	11,902	2.62	8.96
Construction	14,697	4.48	7.62
Wholesale and retail trade ; repair of motor vehicles and motorcycles	24,405	2.4	10.74
Transportation and storage	4,666	2.83	9.09
Accommodation and food service activities	8,884	0.69	19.91
ICT service activities	3,268	2.63	8.81
Real estate activities	3,967	3.02	7.36
Professional, scientific and technological activities	10,745	2.65	9.13
Administrative and support service activities	4,240	2.33	8.47
Education	1,188	1.68	11.53
Human health and social work activities	1,961	2.19	10.2
Arts, entertainment and recreation	1,029	2.43	13.61
Other service activities	2,927	1.5	14.55

Note: This table presents for the month of August 2021 the share of companies by sector that are below the worst 5% thresholds in the pre-crisis period and companies that are above the best 5% pre-crisis thresholds in terms of liquidity.

Source: Crédit Mutuel Alliance Fédérale data.