

FOCUS



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The business insolvency paradox in Europe: miracle and mirage

Normally, insolvencies rise when the economy contracts. Yet, in 2020, and during its deepest recession, insolvencies fell in all major eurozone economies, notably by -38% in France, -32% in Italy, and -15% in Germany and Spain. It is safe to assume that government support is keeping many fragile firms alive – are we therefore seeing the “calm before the storm”, with a wave of insolvencies around the corner?

The true impact of the Covid-19 crisis will remain unclear until companies release their financial reports. We have therefore simulated companies' financial health by calculating a sectorial solvency ratio (gross operating profit/net debt), taking into account both the negative revenue shock and the positive effect of government assistance. We ran these simulations on 6 sectors in the 4 largest eurozone economies¹ using data on turnover, furlough use, state-backed loans and, for France, the Solidarity Fund. We examined a sample of sectors typically accounting for ~80% of total insolvencies². Sectoral granularity is a key element of our analysis: sectors have not all been equally hit by the crisis, nor benefited from the same government aid. Crucially, not all sectors contribute equally to overall insolvencies, due to overrepresentation in the aggregate figures (even in normal times).

Our simulation shows that, despite the stabilizing effect of government support, corporate financial health did deteriorate noticeably in 2020 – which would normally lead to a rise in insolvencies. According to our model, insolvencies in 2020 should have grown by 19% in Spain, 6% in France, 6% in Germany, and 7% in Italy (we call this number “simulated insolvencies”). That they instead decreased suggests that many insolvencies have been postponed rather than prevented, meaning 2020 has left us with a large number of “hidden insolvencies” that are taking much longer than usual to materialize. But how many?

If we take the 2020 insolvency numbers derived from our simulations (i.e. the “simulated insolvencies”) and we subtract the officially reported 2020 insolvency figures (i.e. “observed insolvencies”), we can get an estimate. Simulated insolvencies reflect the underlying damage companies have suffered. Observed insolvency figures, on the other hand, still seem too low even after considering the effects of government measures. Therefore, we can read the difference between simulated insolvencies and observed insolvencies as an approximation of hidden insolvencies. We thus estimate the size of hidden insolvencies to be around 44% of 2019 insolvencies for France (22,500), 39% for Italy (4,100), 34% for Spain (1,600), and 21% for Germany (3,950). Without state intervention, insolvencies would be higher by an order of magnitude. In this sense, governments' success in saving firms is a small miracle of economic policy. But the 2020 insolvency figures are, to a large extent, a mirage.

¹ Germany, France, Italy and Spain

² Construction, retail, manufacturing, tourism, business services, and transport.

The insolvency paradox revisited

Overall GDP results in 2020 were disastrous, with many eurozone countries experiencing the worst short-term recession since the end of World War II. Accordingly, companies and governments braced themselves for a major wave of insolvencies. The memories of the insolvency wave of 2009 were still vivid, and the spectacular GDP contractions suggested that this time it would be even worse (**Table 1**). But, as official insolvency numbers were released, rates remained low. So what was and still is different this time? The logical explanation is public intervention.

TABLE 1:
GDP & insolvency development (YOY change)
comparison 2009 to 2020

	GDP growth		Insolvency growth	
	2009	2020	2009	2020
Germany	-5.7%	-4.9%	11.6%	-15.0%
France	-2.9%	-8.2%	20.4%	-37.8%
Italy	-5.3%	-8.9%	29.0%	-32.1%
Spain	-3.8%	-11.0%	78.8%	-14.4%

Source: Statistical Offices, Datastream, Coface

INSOLVENCIES IN 2020: THE BIG SURPRISE

Insolvency forecast models typically capture the negative relationship between insolvencies and GDP: when the economy contracts, insolvencies shoot up. However, this was not the case in 2020. For Germany, Coface's GDP-based model forecast a 9% increase in insolvencies compared to 2019, while in reality they fell by 15% year-on-year (YOY)³⁴. Part of this is due to

governments suspending the obligation of filing for insolvency⁵ (*insolvency moratoria*) to give support measures time to take effect. These moratoria have ended in Italy and France, but are still in force in Spain and Germany⁶⁷. Nevertheless, this is only part of the answer. France returned to its normal insolvency legal framework in August, without seeing anything close to a pick-up in insolvencies figures in H2 2020, and this is true for the whole country⁸ and across all sectors, even those the most affected by the Covid-19 restrictions. Only a few sectors in Germany and Spain have registered growing insolvencies. The German metal and automotive sectors, both in recession since well before the pandemic, registered rising insolvencies compared to 2019. In Spain, the yearly growth rate of insolvencies shot-up for tourism in Q3 and Q4 to around 90% YOY, bringing overall insolvencies near to their 2019 level again.

THE STATE AS A FIRE BRIGADE: A CLOSER LOOK AT GOVERNMENT MEASURES

Governments reacted to the pandemic with record levels of public spending. We focus on the impact of three types of measures: furlough schemes, guaranteed loans, and France's Solidarity Fund (SF). Furlough schemes allow firms to save on labour costs by reducing working hours. The state subsidizes part of the wage bill, covering workers' income and preventing layoffs. Guaranteed loans ensure abundant bank funding for firms at risk. Their utilization varies from country to country, with many German firms discouraged by the administrative burden they entail. Uniquely in France, the government has launched the Solidarity Fund, an outright subsidy scheme whose size (EUR 12 billion in 2020) roughly equals half the amount spent on furlough.

TABLE 2:
Main public support measures, their longitude and their scope

Measures		Germany	France	Italy	Spain
Furlough Scheme	until	12/31/2021	not defined	31/3/2021 - 30/06/2021	5/31/2021
	scope	€30 bn. (0.9% of GDP) for 2020	€25.1 bn. (1.1% of GDP) as of 30/11/2020	€22 bn. (1.2% of GDP) as of 30/09/2020	€17.8 bn. (1.4% of GDP)
Guaranteed loans	until	6/30/2021	6/30/2021	6/30/2021	6/30/2021
	scope pledged	€757 bn. (24% of GDP)	€300 bn. (13% of GDP)	€571 bn. (32% of GDP)	€150 bn. (12% of GDP)
	scope allocated*	€55 bn. (2% of GDP)	€124 bn. (5.0% of GDP)	€117 bn. (7% of GDP)	€108 bn. (9% of GDP)
Business Insolvency Procedure	until	4/30/2021	8/24/2020	7/31/2020	4/30/2021

Source: Countries' governments, Coface
* as of November 2020

The measures in **Table 2** are the most crucial and therefore the object of our simulation exercise, though they are not the only ones⁹. We should always keep in mind that the legal characteristics of national insolvency procedures strongly affect the number of insolvencies. The proportion of businesses opting to file

for insolvency depends greatly on the cost, the length, and the potential personal cost for debtors associated with this procedure, which vary greatly from one country to another¹⁰, despite a recent trend towards harmonization.

3 At the time of the writing, not all insolvency numbers for 2020 have been published.

4 These forecasting challenges are not unique to Coface. For instance, a forecast by the Bank for International Settlements from October 2020 yielded similar results. See R. Banerjee, G. Cornelli and E. Zakrajšek: "The outlook for business bankruptcies", (BIS Bulletin, October 2020).

5 Normally, companies have to file for insolvency after a couple of weeks of defaulting on their creditors.

6 In Germany, this scheme only applies to companies who successfully applied for state-support in from Nov. 2020 - Mar. 2021.

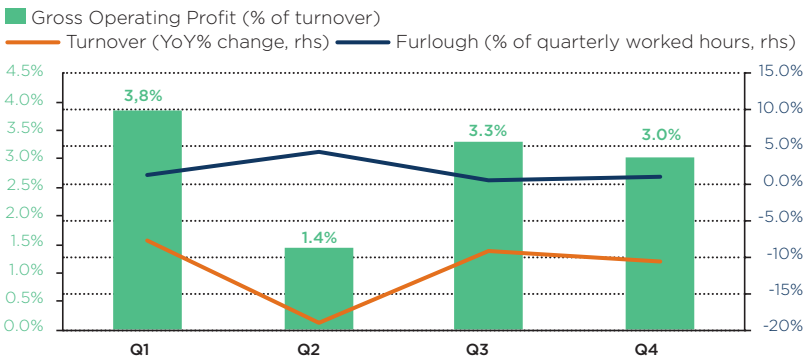
7 B. De Moura Fernandes: "Corporate insolvencies in Europe: temporary framework amendments kick the can down the road", (Coface Focus, June 2020), <https://www.coface.com/News-Publications/Publications/Focus-Corporate-insolvencies-in-Europe-temporary-framework-amendments-kick-the-can-down-the-road>.

8 The number of insolvencies has plunged in all regions.

9 Tax deferrals (which we interpret as very short-term credits and thus exclude from our solvency estimations) have been a popular tool. Moreover, the governments introduced bridging aids (e.g. take-over of fixed costs for SMEs or rent subsidies), specific subsidies for special sectors or populations (like tourism or parents) or pledged big investment programs.

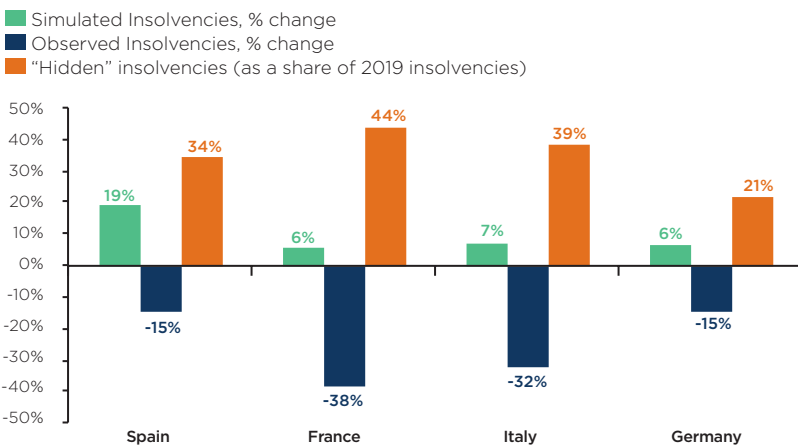
10 K. Ait-Yahia, B. De Moura Fernandes & P. Weil: "Companies in France: fewer business insolvencies, but still just as many zombies", (Coface Panorama, March 2018), <https://www.coface.com/News-Publications/Publications/Companies-in-France-fewer-business-insolvencies-but-still-just-as-many-zombies>

CHART 1:
Simulated Gross Operating Profit in 2020, Spanish Retail Sector



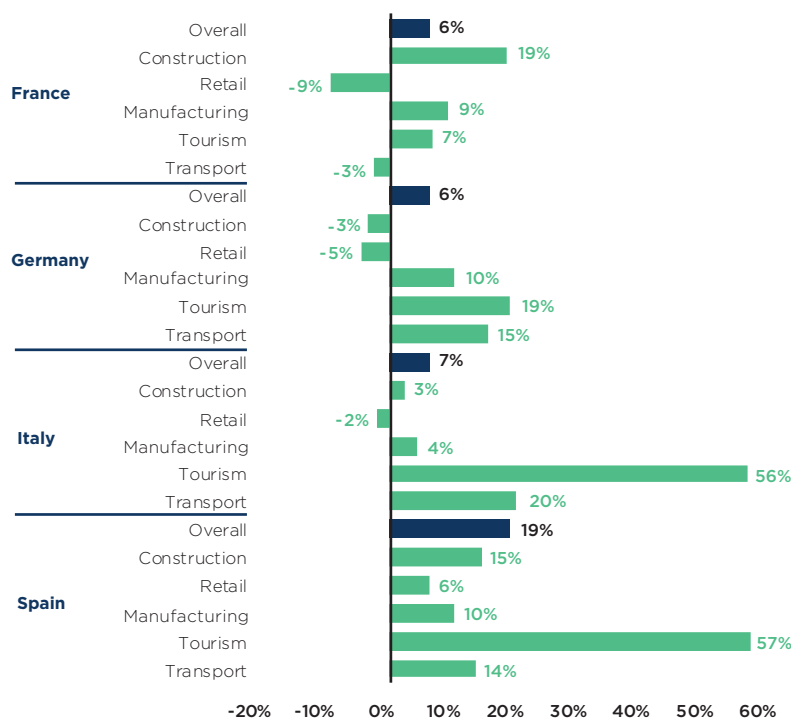
Source: Coface calculations based on data from official sources

CHART 2:
2020 results for simulated, observed, and total "hidden" insolvencies (YOY)



Source: Coface calculations based on data from national sources

CHART 3:
Simulated insolvencies for the year 2020 across countries and sectors (YOY change in %)



Source: Coface calculations based on data from national sources

Looking for the "hidden" insolvencies

Fundamentally, a widespread rise in insolvencies is the result of a generalized deterioration of corporate financial health. Financial analysts diagnose companies by using solvency ratios, metrics that can tell them if revenue is sufficient to meet debt commitments. These can also be applied at the sector level, and in particular, the ratio of Gross Operating Profit-to-Net Debt (GOP/ND or "the solvency ratio") shows a reliable empirical relationship with aggregate insolvencies. The first step of our strategy is therefore to simulate the GOP/ND ratio in real time¹¹, using data on turnover evolution, furlough use and, for France, the Solidarity Fund (SF). This gives us an idea of how company accounts have evolved during the pandemic. To derive an answer to the insolvency question, we also need to know how sensitive insolvencies are to changes in the GOP/ND ratio. Results from a panel regression show that, on average, insolvencies rise by 0.39% for every 1% deterioration of the solvency ratio. We run these simulations on a sample of sectors that regularly account for around 80% of insolvencies (construction, retail, manufacturing, tourism, professional services, and transport). We can therefore account for uneven performances and levels of targeted aid across sectors, as well as the structurally stronger representation of certain sectors in the insolvency population¹³. **Box 1** provides further details on the methodology.

The simulation approach allows us to single out the different effects underlying our forecasts. For example, in Q2 2020, revenue in the Spanish retail sector contracted by -16% YOY (**Chart 1**). Without adjusting labour costs, the combination of revenue loss and remaining costs would have resulted in an estimated -67% YOY fall in gross operating profit. Thanks to the Spanish furlough program, this fall was contained to an estimated -26%. Unsurprisingly, the tourism sector is one of the main drivers of insolvencies in our results, but France stands as an exception. Indeed, the targeted impact of the Solidarity Fund (SF) is especially salient in our results: without it, operating profit in the accommodation & food services sector would have contracted by an estimated -109%, instead of the -17% of our final results.

What could happen in 2021?

Our results indicate that corporate financial health did, in general, deteriorate noticeably in 2020, something that would normally translate into a rise in insolvencies. The contrast between our simulation results and the observed data suggests that there is a significant number of insolvencies that have been postponed but not prevented (**Chart 2**). If all of these "hidden"¹⁴ insolvencies manifest in 2021, and considering the base effect of the abnormally low 2020 numbers, we can expect substantial increases in insolvency figures in 2021. In Spain, for example, 4100 insolvencies were reported in 2020¹⁵, 15% down from the 4800 of 2019. However, a number of insolvencies in line with our simulated GOP/ND ratios would be closer to 5700. The difference between these "simulated insolvencies" and

11 Official statistics of company accounts at the aggregate level are only known with a significant lag, generally of at least 1 year.

12 There is a growing literature assessing the impact of the Covid-19 crisis using real-time simulations of corporate accounts. See OECD: "Insolvency and debt overhang following the COVID-19 outbreak: assessment of risks and policy responses" (November 2020) or Guerini et al.: "Firm liquidity and solvency under the Covid-19 lockdown in France" (OFCE Policy Brief, July 2020).

13 It is typical, for instance, for French insolvencies to be disproportionately driven by developments in the construction sector.

14 We define "hidden" insolvencies as the number of companies that are fundamentally insolvent but are yet to be declared officially bankrupt. They are calculated as the difference between "observed" insolvencies (the insolvencies we had) and "simulated" insolvencies (the insolvencies we should have experienced, according to our simulations).

15 Source: INE

the reported figure gives us our “hidden” insolvencies (around 1600, equivalent to 34% of 2019 insolvencies). **Chart 3** provides a sectoral breakdown of simulated insolvencies.

However, it is impossible to guarantee that all (or even the majority) of the 2020 hidden insolvencies will manifest in 2021. It is common for courts to be overwhelmed by a surge in insolvency applications, creating congestion in the insolvency system¹⁶. The results also suggest that the insolvency moratoria are not the only thing postponing the wave of insolvencies. In Spain, the increasing insolvencies in the tourism sector show that bank credit plays a crucial role. Data from the European Central Bank’s bank lending survey shows that Spanish banks are ahead of their peers in tightening lending standards. Banks’ willingness to support firms of borderline viability will therefore be key.

Comparing 2020 insolvency figures to the estimated health of companies, we have reason to expect a “catch-up” process in insolvencies starting in 2021, but the speed of this process and its result will depend on several significantly uncertain factors yet to be determined. First, it will depend on how quickly lockdowns end, which itself depends on the speed of vaccinations. It will depend on the continued will for state support, as fiscal concerns become more prominent. Lastly, there is the question of to what extent policymakers are willing to let companies fail, given the electoral costs of presiding over a wave of insolvencies. With an election year in Germany, a looming campaign in France, and Southern Europe never too far from a parliamentary breakdown, the political factor should not be discounted.

¹⁶ B. Becker, M. Oehmke: “Preparing for the post-pandemic rise in corporate insolvencies” (ASC Insight, European Systemic Risk Board, January 2021).

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BOX 1:

Simulating the impact of COVID-19 on sector-level solvency

WHY LOOK AT THE GROSS OPERATING PROFIT/NET DEBT RATIO (GOP/ND)?

No single metric can capture all the relevant information for predicting insolvencies in 2020, but the GOP/ND (extracted from the Banque de France BACH database) ratio might be as close as it gets. It compares a company’s (or in this case, a sector’s) capacity to generate surplus from its ordinary business operations, and compares it to its debt burden, net of liquid asset holdings:

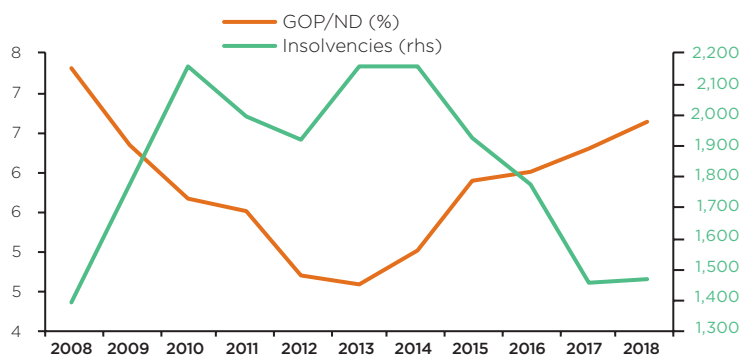
$$\frac{GOP}{ND} = \frac{Net\ Turnover + Subsidies - Staff\ Costs - Other\ Costs}{(Gross\ Debt - Liquid\ Assets)}$$

The ratio satisfies 2 desirable properties:

Predictive power: historically, the ratio features a reliable negative relationship with the evolution of insolvencies (e.g. **Chart 4** for the Italian construction sector). Therefore, by simulating the degree of degradation in this metric, we can estimate the way insolvencies would normally evolve.

CHART 4

Italian construction sector 2008 - 2018



Sources: CERVED, Banque de France, Coface

Capacity to account for government measures: the simplest way to include, in a single metric, the effects of the main government measures.

- We use monthly data on the evolution of furlough utilization to approximate how much each sector has been saving thanks to this measure.
- Given that the reimbursement schedule of guaranteed loans is heavily skewed to 2022 and beyond, we count them as increasing liquid assets, but without a corresponding increase in gross debt, as would be normal. As such, we interpret them as having the effect of a “liquidity grant” over the short run. The alternative (to register the increase in gross debt) would amount to thinking that guaranteed loans have a neutral effect on solvency over the simulation horizon. Over the medium term, the increase in debt should translate into more insolvencies, but this effect is expected to kick into gear in 2022 or later, (i.e. beyond the simulation horizon of this paper).
- For France, we counted Solidarity Fund financing as a subsidy, increasing operating income.

To derive the evolution of insolvencies implied by the simulations, we estimate the following log-log fixed effects panel regression on a sample of sectors¹⁷ (construction, retail, manufacturing, tourism, professional & administrative services, transport) in Spain, Germany, France and Italy over the 2008-2018 period (with “i” as the sector index):

$$\text{Log}(\text{insolvencies}_{i,t}) = \alpha_i + \beta_1 \text{Log}\left(\frac{GOP}{ND}_{i,t}\right) + \beta_2 \text{Log}(\text{insolvencies}_{i,t-1})$$

The β_1 coefficient is found to be statistically significant at the 99% confidence level with a value of 0.39. The estimates for sectoral insolvency growth rates associated to the simulated GOP/ND for 2020 are thus derived as:

$$\Delta\%(\text{insolvencies}_{i,2020}) = 0.39 \Delta\% \left(\frac{GOP}{ND}_{i,2020} \right)$$

¹⁷ Going from a GDP-based model to a model with sectoral breakdown adds a valuable layer of granularity, as the aggregate hides diverging performances. Moreover, some sectors tend to be represented more than others in the pool of overall insolvencies, even in years where they have a good performance. However, even sectoral breakdown leaves out important within-sector distinctions. This is relevant for sectors like retail and transport, where performance has been unequal among sub-segments. Unfortunately, data for government measures was not available at a more granular level.