

## Corporate zombification poses significant risk to the European economy



**The ECB's loose monetary policy and government bailouts during the pandemic have aided and abetted the corporate zombification process in Europe and led to a sharp decline in insolvencies in the past 18 months. The acceleration of zombification and the decoupling of insolvencies from economic developments pose significant risk to the European economy.**

Zombie companies have negative consequences for the entire economy. While they can secure jobs in the short term, in the long term, they can lead to a misallocation of resources and a delay in structural changes. As a consequence, the survival of weak companies contributes to lower productivity.

We estimate that Covid-19 bailouts prevented about 60,000 corporate insolvencies in Europe in 2020. Government bailouts likely led to over-compensation such that fewer companies faced the risk of going out of business than in 2019. However, we believe that few of those 60,000 companies are economically viable.

Zombie companies will not be able to withstand rising interest rates or a deterioration in economic fundamentals. In these circumstances, credit risk would deteriorate and likely trigger a wave of insolvencies that could lead to a major risk for the banking sector.

### Zombie companies: too little to live, too much to die

Zombie companies are not a new phenomenon. The term originated in Japan to describe companies that were only generating enough cash to pay interest on their debt. After the collapse of the Japanese asset-price bubble in the early 1990s, Japanese banks continued to support weak or failing firms instead of letting them go bankrupt. In the rest of the world, the importance of zombie companies has also increased significantly.

A more precise definition of zombie companies is companies that have existed for several years but which have had an interest coverage ratio of less than one for at least two consecutive years. In some definitions, the market value of the company also matters.

Since zombie companies are barely able to cover their costs, they have no excess capital to invest to generate growth. They are typically subject to higher borrowing costs and may be only one negative event away from insolvency or a bailout. Zombies are especially dependent on banks for financing, which is their life support. They are similarly heavily dependent on low interest rates.

A study by the Bank for International Settlements (BIS)<sup>1</sup> analysed the development of zombie companies based on data from 32,000 listed companies from 14 OECD countries. The BIS classification was based on two criteria: (1) The interest coverage ratio (ICR, defined as interest payments as a percentage of earnings before interest and taxes) is below one, and (2) the ratio of the market value of their assets to replacement cost (Tobin's Q) is below the median for the sector. Both criteria must have been met for at least two years.

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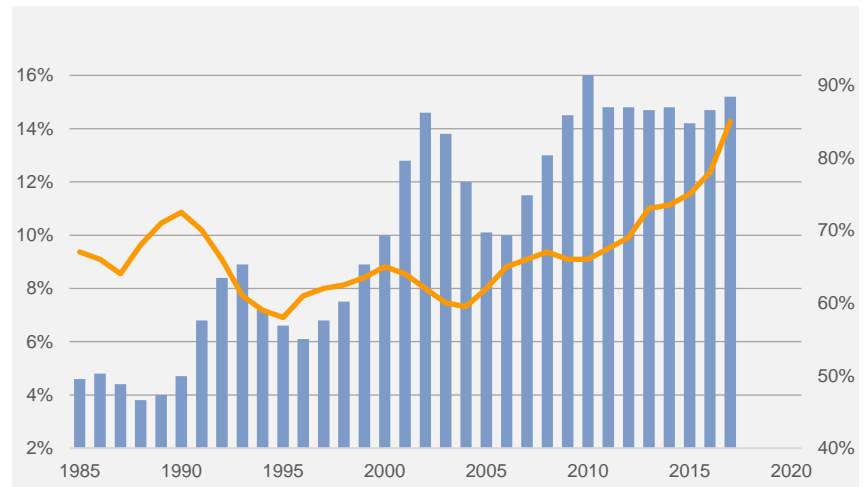
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<sup>1</sup> [BIS Working Papers No 882 - Corporate zombies: Anatomy and life cycle](#)

**Figure 1: Zombie companies: pre-pandemic share and persistence**



Source: BIS, Datastream Worldscope, Scope Hamburg; lhs: share of zombie companies, rhs: probability of remaining a zombie

*Presence and persistence of zombie companies increased significantly*

Zombie companies have increased significantly since the mid-1980s. Across the 14 economies, the share of zombie companies rose to 15% on average by 2017 (Figure 1, blue bars), an increase of 3.75x the level of around 4% that prevailed in the late 1980s. At the same time, there has been a greater persistence in zombification, with firms staying in a zombie state for longer. The orange line shows the evolution over time of the probability of a firm remaining in a zombie state from one year to the next. The probability of a zombie remaining a zombie in the following year rose from around 70% in the late 1980s to more than 85% in 2017.

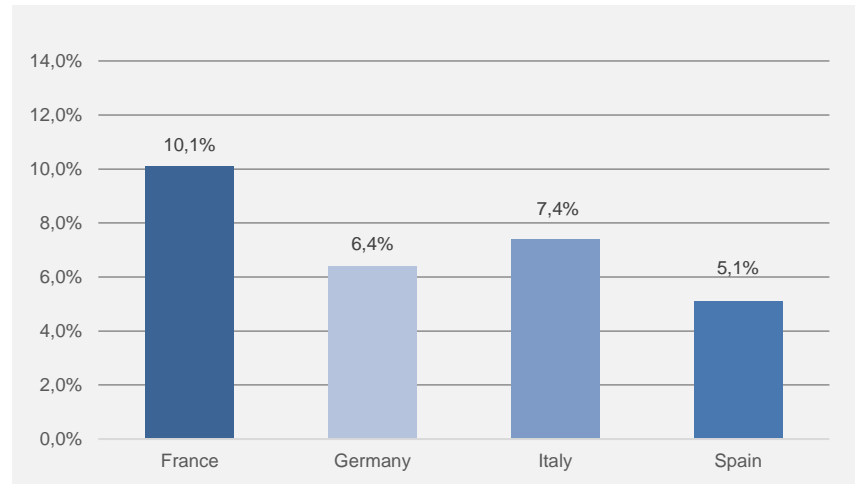
*Zombie company share is highest in Anglo-Saxon countries*

The aggregate figures conceal considerable differences between countries. The zombie share is highest in Anglo-Saxon countries. Australia and Canada registered the highest zombie shares in 2017, at around 30%. The numbers in the United Kingdom and the United States are relatively high, near 20%. In this group of countries, except for Australia, the share of zombies has kept on rising since the global financial crisis.

*In France, the share of zombie companies has increased sharply*

In continental Europe, zombie numbers tends to be lower, ranging from 10% to 15% and they have stayed flat or have fallen since the global financial crisis. The exception is France, where the share has more than doubled since 2008. Due to this sharp increase, the share of zombie companies in France was significantly higher than in Germany, Italy and Spain in 2017 (Figure 2).

**Figure 2: Share of zombie companies**



Source: BIS, Worldscope, Scope Hamburg

**The persistence of zombie companies in a low-interest environment**

*Due to weak profitability, zombies can only avoid insolvency through low interest rates.*

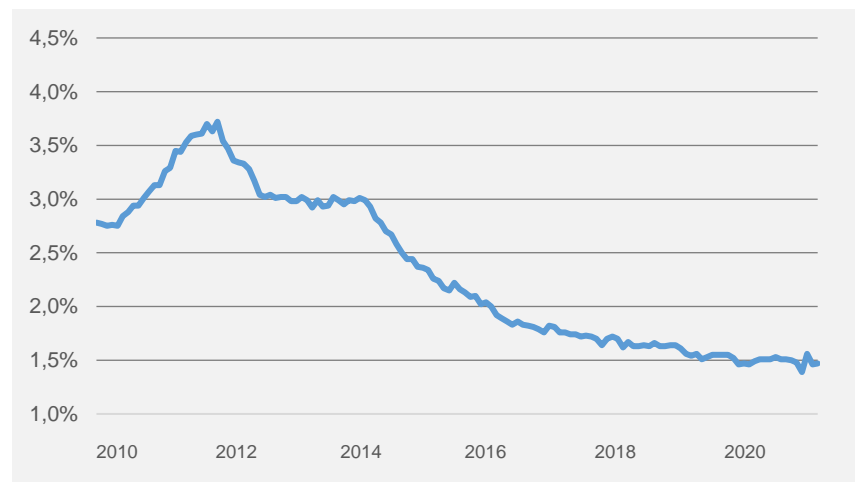
The extremely loose monetary policy of the European Central Bank (ECB) in response to the negative effects of the 2008 global financial crisis was an important driver for the pre-pandemic increase in zombie companies. Permanently low interest rates, which are supposed to create incentives for more investment and thus economic growth, also help financially distressed companies to survive.

Due to their weak profitability, these companies are only able to survive because of the banks' increased willingness to lend, and permanently low interest rates. Since many financial institutions have been struggling with weak equity ratios since the financial crisis and are afraid of further write-offs, banks keep on extending loans to zombie companies.

*Interest rates have fallen continuously since 2014*

The effects of the ECB's low interest-rate policy as well as the various special monetary policy measures adopted since 2014 are reflected in the development of interest rates on corporate loans, which have fallen continuously since 2014.

**Figure 3: Cost of borrowing for corporations – Euro Area**



Source: ECB, Scope Hamburg

*Few zombie companies would be able to withstand rising interest rates*

Many companies would not currently be able to withstand rising interest rates. Credit risk would deteriorate in the event of a material increase in interest rates. We believe a rise in interest rates could trigger a wave of insolvencies, which could lead to a major risk for the banking sector.

*A good ICR is not automatically an indication of a good credit rating*

Low interest rates also have an important consequence for the assessment of credit risks: the generally very positive discriminatory power (differentiating good credit quality from bad credit quality) of the ICR has lost significance. While the ICR is good for assessing the credit risk of companies at "normal" interest-rate levels, the informative value of this financial ratio is currently of secondary importance. This means that a good ICR currently does not automatically translate into an indication for a good credit rating. For this reason, the ICR has minor importance in assessing credit risk.

*The survival of weak companies contributes to lower productivity*

### Negative effects of corporate zombification on economy

Besides the risks for the banking sector, zombie companies have negative consequences for entire economies. While they can secure jobs in the short term, in the long term they can lead to a misallocation of resources and a delay in structural changes. Zombie companies tie up capital and manpower that could be used more productively elsewhere. Therefore, even profits of healthy firms may decline. As a consequence, industries particularly affected by corporate zombification will be less productive and grow more slowly.

*Zombie companies prevent "creative destruction"*

There is also a risk that zombie companies prevent the process of "creative destruction" described by economist Joseph Alois Schumpeter. According to Schumpeter, "creative destruction" describes the "process of industrial mutation" that continuously revolutionises the economic structure from within, destroying the old one, creating a new one. As a result of the negative effects of zombie companies on economies, overall economic growth potential is not being realised.

*Covid-19's substantial economic impacts triggered unprecedented policy responses*

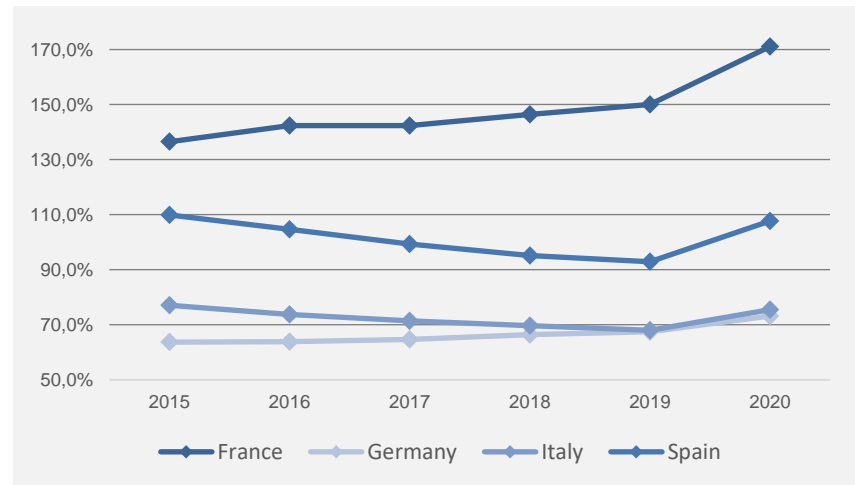
### Covid-19 bailouts accelerate corporate zombification

The pandemic has seriously affected the European economy, leading to an unprecedented decline in economic activity and uncertainty worldwide. Demand has collapsed, many companies have had to close because of forced shutdowns and related constraints, and many people whose income depends on these companies have lost their jobs. Given its significant impact on the economy, the pandemic has triggered unprecedented political responses across Europe and the world.

*Decline in sales had direct impact on profitability, cash flow generation and liquidity*

The implications of the pandemic have had extensive impacts on many companies. The collapse in demand led to a decline in sales for affected companies. The extent of these declines was sector-specific. Extensive declines in sales invariably had a direct impact on the profitability, cash flow generation and thus liquidity of the companies. As a result, many companies were forced to increase their debt in order to maintain business operations (Figure 4).

**Figure 4: Total credit to non-financial corporations (percentage of GDP)**



Source: BIS, Scope Hamburg

**Corporate debt rose most strongly in countries where it was already high pre-pandemic**

BIS data, available to the fourth quarter of 2020, clearly shows the significant increase in corporate debt. It is remarkable that debt increased most strongly in countries where it was already high before the crisis. In France in particular, corporate debt had risen sharply by the end of 2020. In contrast, the increase in Germany was comparatively moderate. Increases in corporate debt have continued in 2021.

**Credit risk of companies affected by the pandemic have risen sharply**

The developments described above have two negative effects for companies affected by the pandemic, which reinforce each other. On the one hand, sales, earnings and cash flows have declined. On the other hand, corporate debt has increased. Financial ratios such as debt-to-EBITDA and Funds from Operations (FFO)-to-debt, which we consider to be important for assessing credit risk, are thus adversely affected twice. It goes without saying that the credit risk of companies negatively affected by the pandemic has increased.

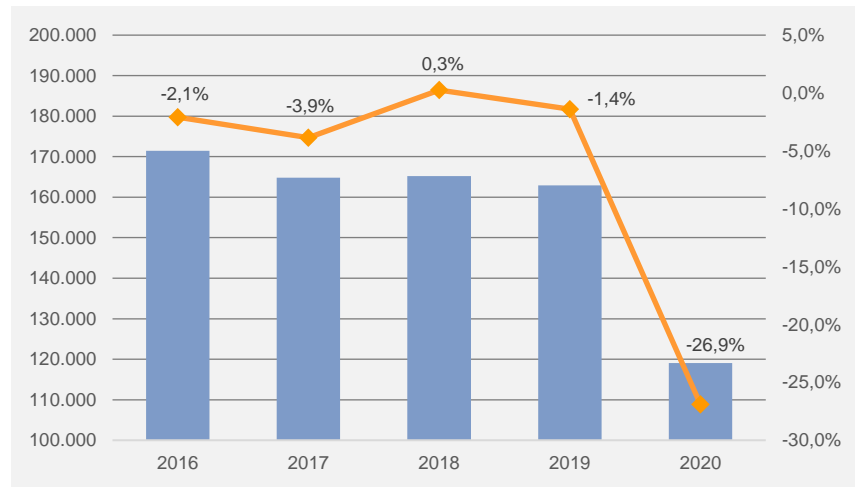
**Covid-19 bailouts have had major impact on emergence of zombie companies**

Due to its significant impact on the economy, the pandemic triggered extensive policy responses worldwide. We believe that Covid-19 bailouts have had a major impact on the emergence of further zombie companies. Bailouts with the greatest impact on the emergence of zombie companies included the suspension of the obligation to file for insolvency, the payment of short-time allowances, the granting of government subsidies, and the granting of government loans and guarantees. Government bailouts intended to support the economy and mitigate the consequences of the pandemic counterbalanced the negative impact of the pandemic.

**Bailouts kept companies alive whose business models are no longer viable**

However, we believe that the bailouts artificially kept alive companies that were already operating unprofitably before the pandemic as well as companies whose business models may no longer be viable after the pandemic ends, for example because the pandemic has led to lasting changes in consumer behaviour.

**Figure 5: Corporate insolvencies in Western Europe**

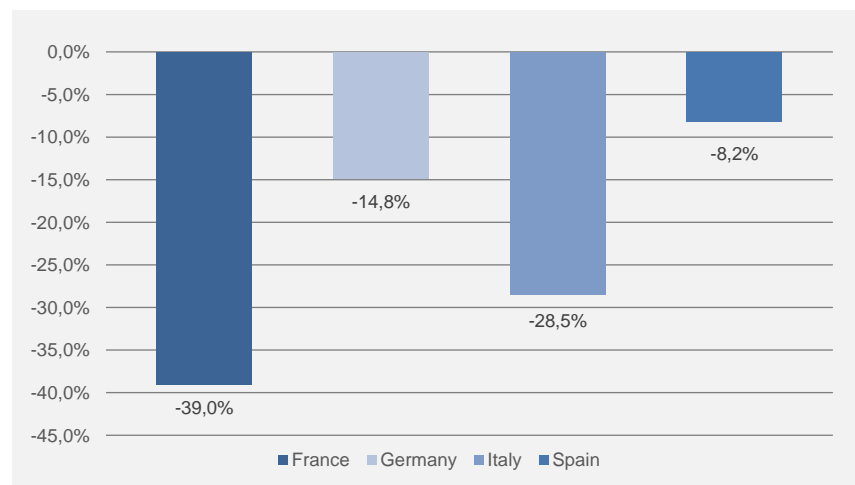


Source: Creditreform, Scope Hamburg; lhs: number of corporate insolvencies, rhs: comparison with previous year

*Corporate insolvencies have completely decoupled from economic developments*

In Figure 5, which includes the EU-15 countries plus Norway and Switzerland, around 119,000 corporate insolvencies were registered in 2020. Due to the extensive bailouts to support the economy and mitigate the consequences of the pandemic, the threatening increase in insolvencies was not only avoided but reduced: insolvencies decreased significantly compared to 2019 (-26.9%), which represented a "normal" insolvency scenario in Europe. Due to good economic data, the number of insolvencies fell to a 10-year low (around 163,000 insolvencies). With regard to the significant decline in corporate insolvencies in 2020, we note that corporate insolvencies have completely decoupled from economic developments.

**Figure 6: Development of corporate insolvencies 2019/2020**

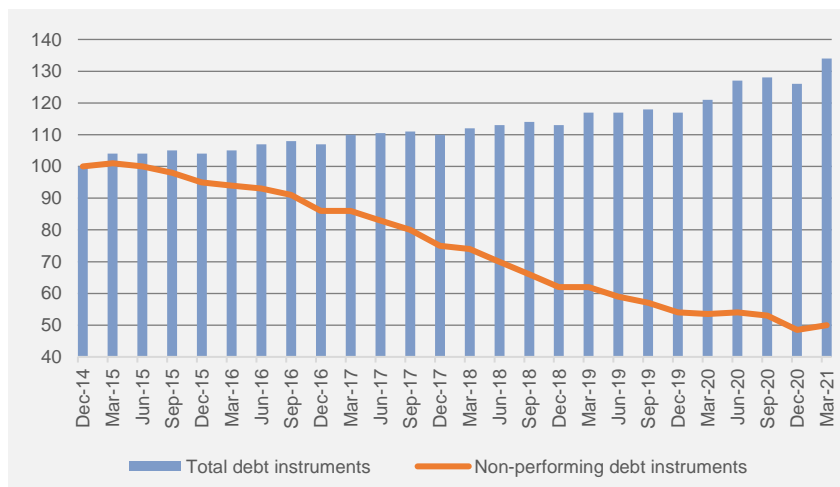


Source: Creditreform, Scope Hamburg

*Corporate insolvencies declined in almost all Western European countries*

The decline in corporate insolvencies was observed in almost all countries of Western Europe. Only Ireland showed a slight increase (+1.2 %). Significantly fewer insolvencies than in the previous year were registered in France (-39.0%) and Italy (-28.5%). Germany also registered a decrease of 14.8% compared to the previous year. With regard to the decrease in corporate insolvencies, it is important to understand how non-performing loans (NPLs) have developed:

**Figure 7: EU: NPL and lending trends**



Source: EBA Risk Dashboard, Scope Hamburg

*Non-performing loans have also declined in recent years*

Having noted that corporate credit risk has increased over the course of the pandemic and that the number of corporate insolvencies has declined, Figure 7 shows that NPLs have also declined in recent years despite an increase in corporate debt. In the first quarter of 2021, we saw a slight increase in NPLs.

### Zombie companies could trigger a wave of insolvencies

The typical course of the crisis from the banks' perspective is as follows:



*Number of NPLs as well as corporate insolvencies will increase*

Given that the number of zombie companies has increased, we assume that the amount of non-performing loans as well as corporate insolvencies will increase in the next stage. We see the slight increase in non-performing debt instruments in the first quarter of 2021 as a first indicator of this.

*Bailouts prevented about 60,000 corporate insolvencies in Western Europe*

As Figure 5 shows, the number of corporate insolvencies in 2019, the year before the pandemic was around 160,000 in Western Europe. We would have expected the number of insolvencies in 2020 to have increased by between 10% and 15% due to pandemic-related declines in national economies i.e. to have been around 180,000. However, the actual number of corporate insolvencies in 2020 was only 120,000, so we assume that the bailouts prevented about 60,000 corporate insolvencies in Western Europe.

*The question is not whether there will be a wave of insolvencies but when and how severe it will be*

We see two possible explanations for the surprisingly low number of insolvencies. Government bailouts could have led to over-compensation, so fewer companies faced the risk of going out of business than in 2019. However, we believe that most of the 60,000 companies that did not file for bankruptcy are zombie companies that are not economically viable. For these zombie companies, only one single negative event, such as rising interest rates, could force them to file for insolvency.

The question is not whether a wave of insolvencies will come but when and how severe it will be.

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