

Swiss Finance Institute Roundups

Corporate Debt— Too Much of a Good Thing?

Editorial



In late 2021, worldwide corporate debt stood at 100 percent of global GDP. Since then, the world economy has been hit by war and by the resurgence of inflation. In this roundup, academics and industry experts discuss the state of the corporate debt market and its likely direction. How justified are the concerns frequently expressed about the high level of debt held by companies? Debt comes in many shapes and flavors: are some types of corporate debt inefficiently priced, and why? Central bank policies have long distorted the debt market: can such distortions be corrected? Is carbon risk adequately priced? And will financial technology revolutionize corporate borrowing?

We wish you an enjoyable read.

A handwritten signature in blue ink, appearing to read 'F. Degeorge', with a horizontal line underneath.

Prof. François Degeorge
Managing Director

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A Few Specifics of the Corporate Debt Market

What is the purpose of corporate debt, and what do the latest figures tell us?

► **E. Morellec:** Raising capital to finance a specific project, or to refinance an existing set of loans, is the main purpose of corporate debt. But a lengthy period of low interest rates has led many companies away from this traditional mindset, often under pressure from activist investors, and to issue debt to conduct stock buybacks and even to distribute dividends. Corporate debt has grown significantly over the years in both relative and absolute terms, and low interest rates are clearly a big driver of this increase. At the same time, while the distribution in bond ratings has shifted dramatically, spreads have changed only moderately and overall duration has remained stable. The main risk of today's level of corporate debt, in my view, is how the current increases in interest rates, fueled by inflation, will impact firms.

What are the main types of corporate debt?

► **F. Mellors:** The primary distinction is whether the debt is a bond or a loan. Bonds are typically issued, bought, and sold on the financial markets, while loans originate with banks and then may be sold on into the capital markets. The next distinction is whether the debt is secured with collateral or not. A rich jargon—senior, junior, mezzanine, convertible, fixed, floating, and perpetual—further defines the specifics of each and every type of debt that exists. But behind this taxonomy lies the universal rule that riskier debts should pay higher interest.

► **V. Fauveau:** There is a stark contrast between the US and Europe regarding the use of bond and loan financing. The Glass-Steagall Act of 1933 separated the Wall Street investment banks from the Main Street commercial banks and caused a rupture in the continuum of US banking services which the bond market filled. The legacy of this Act is still visible today, as US firms are essentially financed by bonds (approx. 90 percent), while their European counterparts are essentially financed by bank loans (approx. 70 percent).

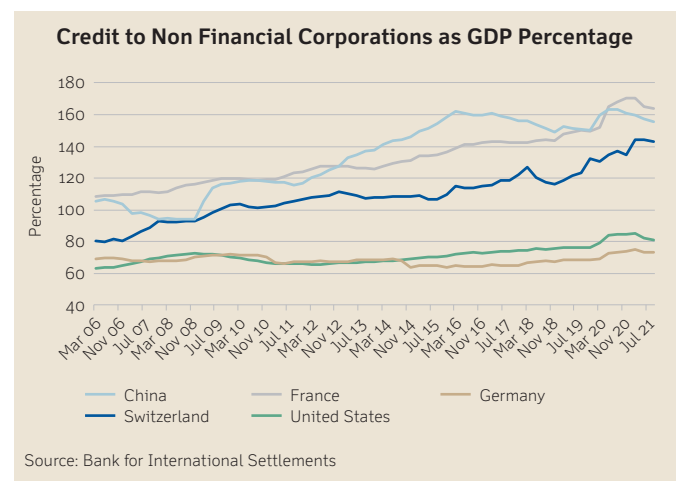
How does Switzerland compare to other countries in terms of corporate debt?

► **F. Mellors:** Recent data from the Bank for International Settlements show that in Q3 of 2021, worldwide non-financial corporate debt peaked at USD 86 trillion, or roughly 100 percent of the world's GDP. The same ratio for Switzerland was nearly 145 percent. This higher-than-average percentage comes down to the fact that three

of Europe's ten largest publicly listed companies are based in Switzerland and that Switzerland is home to a number of large global commodity trading houses, which actively finance their business through the debt capital markets.

► **V. Fauveau:** The level of Swiss corporate debt still lies somewhere in the middle of the international landscape, the figures show, with the US and Germany well below the Swiss level, and France and China somewhat above it. When we crunch the numbers for Switzerland, we see that a significant portion of this debt is related to real estate financing and, in the case of small- and medium-sized enterprises (SMEs), a fair share of their debt is actually financed by the households which own the firm. But debt figures tell only half the story; the second half lies in determining the value and profitability of the assets financed through debt.

► **D. Rupli:** When it comes to bonds, the Swiss financial market is an unusual one. For a bond to be included in the Swiss Bond Index, its issuance size must be CHF 100 million or more, and the bond must be of investment grade level. This makes Switzerland an attractive market in which to issue a relatively small bond for any firm—whether domestic or international. And domestic firms can obtain their rating directly from a Swiss bank, rather than from an international credit rating agency. These factors make the local Swiss market efficient and pragmatic for firms which need to obtain funding, while also allowing investors to invest in a liquid and well-diversified index.



Who are the key players in today's corporate bond market?

► **D. Rupli:** The main owners of corporate bonds are institutional investors, and the main issuers are financial institutions, along with industrial and utility companies. When firms reach the investment grade level, they can become very active in the financial markets, as they are then able to raise vast quantities of capital under attractive conditions. That said, the bond market is typically far less active than the equity market. There are further nuances of activity within the bond market itself, with buy and hold strategies prevailing in the investment grade part of the business, and more active trading in the riskier and more volatile parts.

► **L. Bretscher:** Market data indeed show that the US corporate bond market is dominated by institutional investors such as insurance companies, but they also show that this situation is changing. Insurance companies now represent 40 percent of the corporate bond market, mutual funds a further 20 percent, and households and pension funds another 10 percent each, with the balance being made up of exchange-traded funds (ETFs), central banks, and foreign investors. Notably, mutual funds represented a mere 5 percent of the market before the global financial crisis of 2007-2008. Their increased importance also affects the characteristics of the typical corporate bond sought by investors. That is, while insurance companies typically invest in rather illiquid, long-term investment grade bonds, mutual funds prefer to invest in liquid, short-term high-yield bonds.



How the Debt Market Operates

How does uncertainty impact credit spreads and investments?

► **F. Mellors:** Uncertainty is a broad concept. It typically falls under the umbrella name of risk premiums, which can be divided into liquidity premiums, credit premiums, inflation premiums, or term premiums, to name but a few. When uncertainty increases, so do risk premiums. When uncertainty is high, due to downside macroeconomic risks, there is a higher risk premium. In this scenario, default risks are rising, and investors require more compensation for assuming credit risk.

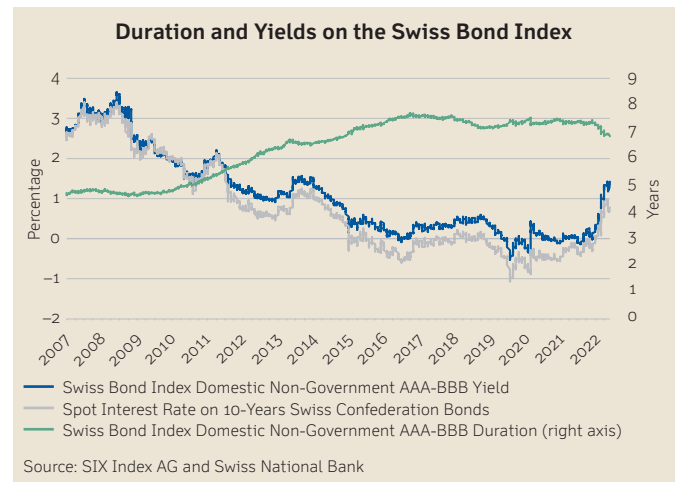
► **L. Bretscher:** Data clearly confirm that uncertainty about interest rates dampens investments and, hence, negatively impacts the real economy. The behind-the-scenes explanation for this effect is that SMEs usually get their financing through loans that are based on floating interest rates, and they typically fail to hedge themselves in full against changes—and particularly against increases—in interest rates. An increase in the interest rate reduces the attractiveness of any investments that have relatively low internal rates of return, with this negative impact being even more pronounced for financially constrained SMEs.

What determines central bank policy rates and credit interest rates?

► **S. Ongena:** Central bank policy rates are a function of the general macroeconomic environment, in terms of the growth in GDP, unemployment, and inflation, and define the general short-term investment setting. But central bank policies related to the excessive quantitative easing which has been taking place for nearly 15 years may have blurred the mechanics at play and widened the gap between reality and the theoretical apparatus being used.

► **V. Fauveau:** When focusing on credit interest rates, we need to account for an additional set of variables on top of the central bank policy rates, such as the risk, liquidity, term, and duration profiles of the borrowing firm. The overall supply and demand of capital within the financial markets, as well as each and every financial institution's refinancing rate, also have an impact.

► **D. Rupli:** Notably, the current interest rate environment has significantly changed the duration within the Swiss Bond Index. Swiss firms have taken advantage of refinancing at a lower rate, while securing longer maturities and providing investors with positive yields.



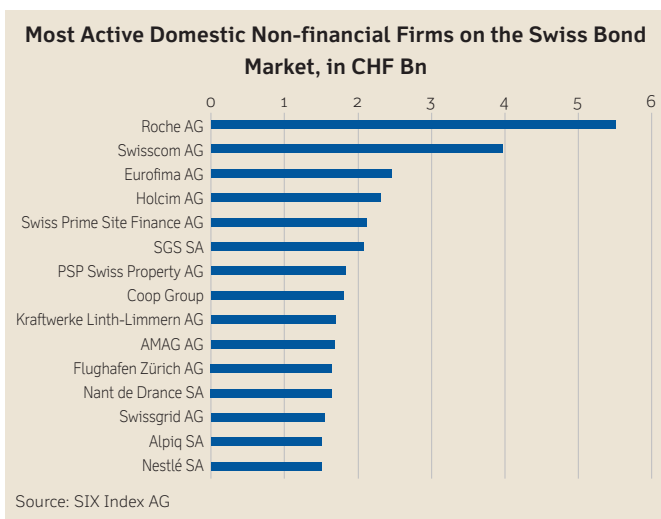
How do changes in interest rates abroad impact domestic interest rates?

► **F. Mellors:** In theory, changes in interest rates abroad should be reflected in domestic interest rates and exchange rates. This is called interest rate parity, and states that the interest rate differential between two countries is equal to the differential between the forward and spot foreign exchange (FX) rates. There should be no arbitrage between earning a higher interest rate abroad relative to domestically, as the currency markets should equalize this difference. In practice, the theory does not always hold, as interest rates and currency markets move constantly based on changing expectations, and the supply and demand for a particular currency create what is called a cross-currency basis reflecting that dynamic.

► **E. Morellec:** If we focus on Switzerland, we can see that the Swiss National Bank's (SNB) policy rate is largely influenced by the European Central Bank's (ECB) rate, and that to reduce the appeal of the CHF relative to the EUR, the SNB has been forced to push its rate deep into negative territory. It will be intriguing to see how inflation within the euro area impacts the ECB rates and these, in turn, impact the SNB rates. There is a conundrum here, as certain European governments—for example, France and Italy—have borrowed heavily, significantly raising their debt-to-GDP ratio. They will probably react unfavorably to large increases in rates and more favorably to keeping some inflation, which will fight their high debt levels. But doing so will create significant distortions between

savers and borrowers, both past and present, as well as reduce the purchasing power of consumers, in particular pensioners and those in the low-income classes. We can expect to hear heated debates around the ECB's policy decisions over the next few months. We can also foresee that increases in interest rates will have an impact on the stock market and on real estate prices.

► **V. Fauveau:** International credit interest rate arbitrages do exist, as large corporations frequently take advantage of their broad network of financing institutions when hunting for low loan rates. But whether this impacts the rates for local firms remains a very open question.



Why would a firm choose to finance itself with debt instead of equity?

▶ **L. Bretscher:** Firms trade off the cost of equity against the cost of debt. While interest payments are considered a cost of doing business and, hence, are tax deductible, dividends are taxable, as they are considered a profit for the business owners. Clearly, taxation is just one of many important dimensions to this trade off. Considerations of corporate control and the concerns of stakeholders, for example, also play important roles.

▶ **D. Rupli:** The recent environment of "free" debt has led to more and more debt and less and less equity being issued, along with a shift within the investment grade part of the debt market. Previously, firms aimed to be AAA-rated; today, they aim to fall within the investment grade range. This new setting creates a win-win situation for investors, as the default rates they face are largely in line, while firms have significantly more balance sheet flexibility when operating within the lower medium-grade ratings, rather than the highest ones. Firms need to be cautious with larger debt-financed acquisitions and with weaker credit ratings, in particular, as challenging economic conditions could put these credit metrics to the test.

▶ **E. Morellec:** Market frictions are omnipresent, and the fact that payments on debt are tax deductible is not the only reason for a firm to borrow. Another is that the cost of issuing debt is but a fraction of the cost of issuing equity. Debt also comes with downsides, however, as it exposes firms to default risks and is often linked to covenants which limit the borrower's freedom. Firms need to assess their cash flow predictability, as well as the tangibility of the assets they purchase, when choosing between equity and debt financing.

Is there a way to determine the optimal level of debt a company should have?

▶ **S. Ongena:** In theory it is possible to determine a company's optimal level of debt, starting from Modigliani and Miller's 1958 corporate capital structure model. But in practice, there is no easy answer when trying to determine the optimal debt and equity mix of a real company. The deviations from the 1958 model relate not only to the fact that interest rates on debt are typically tax deductible, but also to the presence of information asymmetries and the probability of the firm's survival.

Corporate debt can be issued and exchanged in both public and private markets. What are the pros and cons of each?

▶ **E. Morellec:** The bond market gives a company access to a very broad spectrum of investors with deep pockets, which is a practical solution when seeking to raise large sums of money. Loans are by nature smaller than bonds, but as solutions to raising capital, particularly for SMEs, they have the advantage of being quicker and more tailor-made.

▶ **F. Mellors:** There is currently a lot of activity in the private debt market, which is a side effect of the ongoing search for stable high yields. Private debt is typically secured and issued by SMEs. Given the smaller size of these businesses, and the fact that they often operate in cyclical industries, creditors can often negotiate favorable covenants or lending terms, and potentially even affect the company's strategic direction. The downside is that private debt is less liquid than public debt, so investors must calculate the trade-off they are willing to accept between yield and liquidity.

What We Know About Today's Corporate Debt Market

Corporate debt levels are at an all-time high. What is the overall risk to the economy of this huge debt overhang?

► **V. Fauveau:** Low and negative interest rates have clearly led firms to balloon their balance sheets and to borrow considerably. Although this increase in debt causes an increase on the liability side of the firm's balance sheet, it also creates an increase on the asset side. My prime concerns are how a change in interest rates will impact the valuation of assets and whether the stockholders' equity can absorb a potential valuation crunch. Something to watch carefully is how firms' cash flows will evolve when their long-term debt gets refinanced at higher interest rates.

► **S. Ongena:** There are legitimate concerns about the high level of debt currently held by companies, as well as by individual households and sovereign nations. Ongoing inflation and increases in interest rates will create distortions in the corporate debt market; based on various deleveraging possibilities, this situation will likely make borrowing more difficult for those firms barely able to operate under the existing conditions and which have no excess capital available.

► **D. Rupli:** From a general perspective, the debt overhang is not a problem, so long as firms can maintain their credit ratings. My concern is for firms that cannot rapidly adjust their balance sheets; these firms may become too large to be refinanced once they are pushed out of the investment grade universe into the high yield one. Many telecom and utility firms, for example, are on the brink of becoming fallen angels. But such downfalls can also become investment opportunities.

What do credit ratings assess and how reliable are they?

► **V. Fauveau:** Credit ratings are a statistical concept used to estimate the probability that a firm will default on its debt. The issue is that only the largest of all international investment banks, with access to large amounts of debtors, can get close to fulfilling the criterion of operating in an "on-average" environment, which is required to calculate an accurate credit rating. Despite this caveat, the quality of credit ratings has improved considerably over time, and the shift in the distribution of ratings makes the debt environment far more attractive from a return-to-risk perspective.

► **L. Bretscher:** There remains some criticism on how well credit ratings assess the true underlying credit risk. After the global financial crisis of 2007-2008, it seems that the rating agencies have become less willing to extend very high ratings. However, the center of action has shifted from the top end of the rating scale (AAA) to the investment grade threshold. Being just on top of the investment grade cliff renders a bond attractive to various institutional investors. For example, insurance companies can maximize the return per unit of risk-based capital, or pension funds can maximize risk and, hence, expected return, conditional on investing in investment grade bonds. An alternative to today's way of rating companies would perhaps be to rely more on market data, such as prices, which aggregate the views of market participants.

► **D. Rupli:** Criticizing metrics of any sort is always easy, as mistakes naturally tend to occur. Sceptics must nonetheless acknowledge the possibility of reverse causalities—the chicken-and-egg problem—where downgrades in credit ratings are self-confirmed through their market impacts. Investors need to form their own opinions, based on the firms they want to invest in and the risks they are willing to face.

Why should a firm issue bonds instead of taking a bank loan?

► **D. Rupli:** Bonds come with considerably more public scrutiny. First-time issuers typically face a steep learning curve, as they need to make their statements public and to initiate more intense exchanges with their banks. But issuing bonds also makes the firm less dependent on the bank. Swiss real estate firms, for example, get incredibly attractive interest rates—close to zero percent until very recently—for a senior unsecured bond, which is in line with what a bank would request for a secured mortgage.

How efficient is the screening and monitoring of companies by banks?

► **F. Mellors:** Banks are often privy to more corporate information than is publicly available to investors, and therefore they have deeper insights into the firm as a whole. Additionally, a bank's lending activity often spans whole industries, or large parts of the household sector, so it can often see signs of stress or exuberance firsthand. Although these insights may give the bank a first-mover advantage, given the size and concentration of the risks the bank carries on its balance sheets, its flexibility may be somewhat limited. It is often to the bank's advantage to work with its borrowers, rather than to attempt to transfer risks through the capital markets.

► **E. Morellec:** Banks are doing a very good job of screening firms, in particular when we account for the fact that many corporate loans and firms are not externally rated. Yet external information, such as rating services and access to third-party data and networks, can make the difference between financing a good company or a bad one. Overall, banks need to be cautious about market failures related to collective overlending and fire sales.

And how important is collateral in the corporate debt market?

► **S. Ongena:** Research shows that there is an imbalance in the market: Prime clients are typically not asked for substantial collateral and are charged lower interest rates, while risky clients are asked for considerable collateral and are charged higher interest rates. Data also reveal that banks rapidly reduce their collateral requirements as their relationship with a client grows. Such a trend raises questions regarding how banks may mitigate their credit risks between and among their clients.

► **D. Rupli:** Collateral obviously plays an important role when it comes to financing debt. But what the market doesn't always see is the extent to which banks can hedge themselves by repackaging the debt they finance and reselling it to private investors in the form of interest-bearing securities. It isn't always the case, when a given bank supports a firm by providing it with a considerable loan, that the loan remains on the bank's balance sheet. Securitization is, still today, a widespread activity.

► **V. Fauveau:** Collateral ranges from IT material to manufacturing equipment to property. Being so heterogeneous, its fair market value is somewhat arbitrary and is influenced by economic outcomes. A key background variable, when a firm faces a difficult moment, is the firm's track record in holding fast and the relationship the bank has with the firm's owners and managers.

How efficient are capital and liquidity buffers in steering the corporate debt market?

► **S. Ongena:** It's difficult to disentangle all the effects at play here, but my current take is that what was in place prior to the pandemic worked well. And that the various initiatives the central banks undertook in 2020 were more of a signal, to reassure the market, than an intervention per se. What needs to be done now is to quickly replenish those buffers.

How does the bankruptcy of a firm ripple through the economy? Does it affect banks and other companies?

► **V. Fauveau:** In the case of one specific company, the effect of it going bankrupt is largely contained, as banks typically hold a diversified portfolio of loans. But in the case of widespread macroeconomic shocks, the answer to these questions need to be more nuanced. For example, the closing of restaurants during the early phases of the pandemic had virtually no impact on the banks' balance sheets, as restaurants rarely rely on loans. Hotels, on the other hand, are highly leveraged through mortgages; with them, banks must be more cautious.

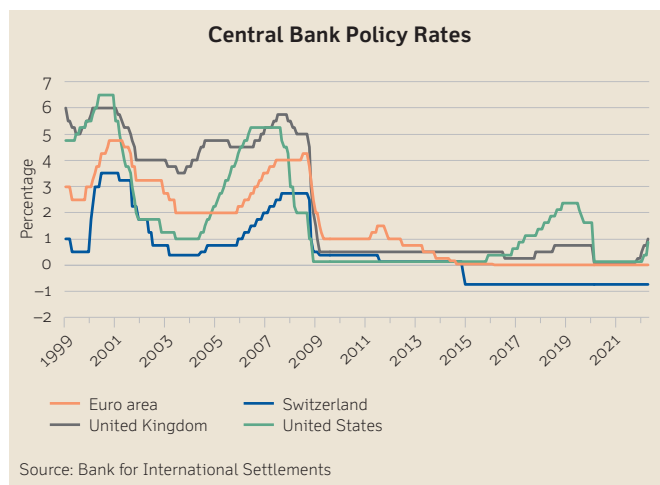
► **E. Morellec:** Corporations and creditors need be well aware of their exposure to their clients and borrowers, as increases in the overall levels of debt make such defaults all the more painful. This trend will increasingly become a source of concern, as debt contracts are expiring and will need to be refinanced at higher market conditions. As loans typically have floating interest rates and bonds are typically fixed-rate contracts, the bankruptcy story will unroll unevenly.

How have the fiscal and monetary policies triggered by the COVID-19 pandemic impacted the financial markets?

▶ **L. Bretscher:** Announcements by the US Federal Reserve, in March 2020, to buy corporate debt, either in the primary or secondary market, have certainly contributed to limiting movement in the yields observed in the corporate debt market. Notably, ex-post numbers reveal that prices reacted mostly due to the announcement of these policies, rather than to the actual quantities of debt bought by the Federal Reserve.

▶ **F. Mellors:** Governments and policymakers today are being criticized for having provided too much in stimulus funding during the pandemic; that funding is now creating significant rates of inflation as demand comes back online and supply chains struggle to meet it. Hindsight is a beautiful thing, and much of this criticism is perhaps unjustified, when we look back at the enormous level of economic uncertainty the pandemic created in 2020. Leaving this aside, policymakers now need to unwind both the monetary and the fiscal support. There is debate on what level of interest rates are required to get inflation back down and on how much of an impact there will be on growth. Financial markets attempt to price this uncertainty and, given the enormous range of options for our eventual post-pandemic landing zone, volatility has subsequently picked up.

▶ **D. Rupli:** The liquidity flood brought on by the central banks, since the financial crisis of 2007-2008, has not only caused interest rates to drop, but also made the central banks prime players in the financial and credit markets, resulting ultimately in a moral hazard situation encouraging investors to take on more risk. I believe the recent announcements of the Fed, the ECB, the SNB, and the Bank of England are just a hint of the challenges the debt market will be facing over the next few months.



How extensive is this moral hazard situation caused by the central banks' interventions?

▶ **E. Morellec:** Although the interventions by the central banks have clearly pushed us into a moral hazard situation, we need to distinguish economy-wide shocks from idiosyncratic shocks. Governments tend to "hedge" investors, for free, against economy-wide crunches, but not against firm- or industry-specific shocks. This new norm has led some investors to place their bets in the riskier segments of the debt market—the size of the BBB segment of the bond market just before the pandemic was as large as the entire investment grade bond market just before the global financial crisis of 2007-2008. The sharp rise in inflation may limit the future ability of central banks to hedge investors. What we see now in the stock market is partly a response to this change.

▶ **F. Mellors:** By intervening as aggressively as they did during the pandemic, the central banks may have created an element of moral hazard. Households, companies, and even governments may have become accustomed to low interest rates, with the assumption that, at the first signs of trouble, the central banks will step in and hold the economy together. Although financial stability is a key objective of the central banks, so too is price stability. With inflation rates as elevated as they now are, the banks are being forced to tighten their financial conditions rapidly. Thus far, financial stability remains intact; however, the risks are building, given the difficult balance of choices the central banks currently have.

Research shows that the bond market is now pricing carbon risk and reducing its exposure to fossil fuel firms, but simultaneously that some banks are not adequately pricing the risk of stranded assets and that the level of fossil fuel financing by the banking sector is at a record high. What can we make of this?

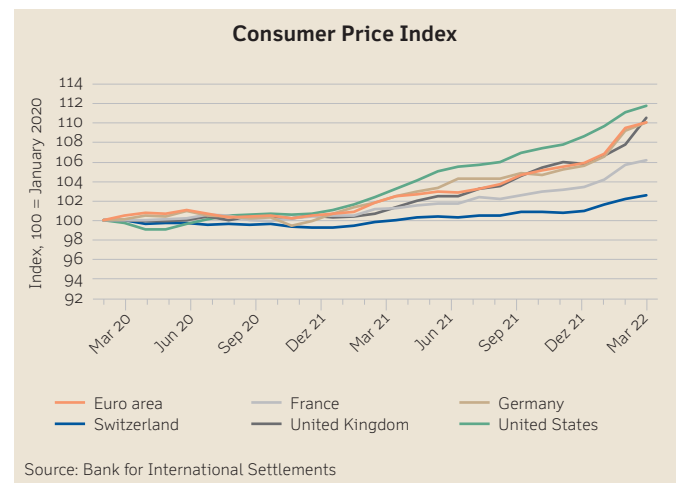
► **L. Bretscher:** The bottom line here is to determine how material the stranded asset risk is—something we currently don't know. Research into the equity market tackles this same question and offers very heterogeneous answers regarding the pricing of carbon risk. In my opinion, banks are again operating in a potentially risky moral hazard environment.

► **S. Ongena:** This research is still work in progress, but I see two options here. On the one hand, the large banks financing carbon-intensive industries may view themselves as too big to fail or may feel confident that, through lobbying, they can delay the carbon stranding threat until their loans expire. On the other hand, these same banks may be getting the story wrong, and the financial markets are getting it right. Estimates show that there is a sizeable pricing difference between the loan and bond markets, meaning that somebody is benefiting from the situation. Time will show us whether it is the banking sector, the financial markets, the energy firms, or someone else.

The US government regularly has to ask Congress to raise its debt ceiling to avoid a partial default on its debt. What are the most visible consequences on the debt market of these not-so-simple increases in the US debt ceiling?

► **F. Mellors:** Although debt-ceiling debates create uncertainty, given the importance of US Treasuries to the entire financial system, I see the debt-ceiling discussion as becoming less and less of a financial concern, as the US Congress has, until now, always managed to avoid a full shutdown of the government and the government has always been able to fulfill its financial obligations. No rational politician wants to be responsible for putting the US government into default and jeopardizing the worldwide financial markets. I view the debt-ceiling discussions as a political bargaining chip for the opposition party, rather than as a legitimate threat to the financial markets.

► **E. Morellec:** Forecasters predict that deficit will be the standard for the US government for the coming decades, and investors will need to decide whether or not T-bills are still a risk-free asset. This situation may also call for a revision to the Fed's mandate, as the trade-off between inflation and interest rate increases will become increasingly acute. In short, we have a ticking time bomb, which will clearly impact the corporate debt market.



How efficiently does corporate debt restructuring function?

► **F. Mellors:** In my view, Chapters 7 and 11 of the US Bankruptcy Code, which cover the liquidation and restructuring processes, are a key strength of the US capital markets: They are efficient mechanisms which allow companies to restructure or to wind up their activities when circumstances change. As this system has been in place for a number of years, there is also often less stigma associated with restructuring in the US as opposed to other jurisdictions. In countries where banks provide the bulk of debt capital to companies, and there is not such an efficient bankruptcy code, unviable companies may be kept alive in hopes that the macroeconomic environment may turn more favorable in the future. Often this never happens, and you end up with an inefficient allocation of capital which can hamper productivity.

▶ **E. Morellec:** The legal environment is indeed key here, and the US framework is clearly superior to the European and Swiss ones. But to put things into perspective, we also need to acknowledge that lending in the US is far more aggressive, which balances out the international disparities.

How is technology, whether big data, Fintech, or crowdlending, changing the corporate debt business?

▶ **V. Fauveau:** Crowdlending represents a possible solution for start-ups with no tangible collateral, but it remains costly for the borrower and risky for the lender. As start-ups mature, they naturally shift toward traditional bank loans. Banks offer not only funding, but also broad market expertise—a factor Fintechs currently can't rival. Future competition for banks lies not so much on the technology side of the market, but with institutional investors, who may soon decide to enter the corporate loan market on a broad scale. These actors have deep pockets, are not subject to the same funding rules as banks, are increasingly under pressure to achieve positive returns, and have gained considerable expertise with mortgage solutions.

▶ **S. Ongena:** On the one hand, technology gives companies access to better information on the pricing and quality of financial service providers, but on the other, it allows these same financial service providers, in particular banks, to make better use of the information they have on firms and to extract rents when and where possible. It's therefore difficult to know who is winning today's technology race.

▶ **D. Rupli:** Fintech and crowdlending solutions may reach a broader number of investors, but the scale dimension is not there yet. It will take some time before such players are able to commit hundreds of millions of dollars. There is also a generational aspect to keep in mind: Portfolio managers are typically in their 40s and 50s, so it will take another decade or two before millennials take over the large investment decisions. But things are moving in that direction, as SIX launched the world's first digital bond in a fully regulated environment for CHF 150 million back in 2021. It was a choppy start, but it did happen.



Navigating Tomorrow's Corporate Debt Market

Green bonds have become increasingly popular, why is this and how will this trend evolve?

► **D. Rupli:** Two components are at play here. First, there is a huge demand, particularly from institutional investors; these investors are increasingly required to take environmental, social, and corporate governance (ESG) factors into consideration. Second, a significant supply of green bonds exists as well, particularly from utility firms who have their own ESG targets to fulfill. These two components make the green bond market a fascinating one to observe, but also a difficult one to recommend to private clients. Largely driven by the huge demand by institutional investors, which pushes the prices of green bonds upward, the yield is too low for the given risk.

► **L. Bretscher:** The bond market indeed needs to be cautious about excess supply and demand pressures. Ongoing research shows that defining what is green—and what is not green, but brown—is increasingly difficult; it perhaps calls for a new approach based on shades of green and brown. Investors further need to distinguish between a green firm and a green project. These points call for a smooth pricing continuum, not one with a blunt jump.

Will green bonds fulfill their promise of supporting an environmental transition?

► **D. Rupli:** Yes, for sure, although the market is not yet mature and the definition of what is environmentally friendly and what isn't is still being debated. One way to tackle the ESG taxonomy challenge is to leave the process of definition to the market, through an iterative covenant process. My hope is that in ten years' time, the talk about ESG will be over and such criteria will automatically be included in all traded financial products.

► **S. Ongena:** Society's underlying expectation here is that the financial sector, as a whole, needs to grab the bull by the horns and achieve the green transition. But in reality, an offsetting activity is taking place within the financial sector. Some players—namely a few very large international banks—are taking advantage of the fact that the brown segments of the economy are being ditched by the bond market. These banks are making a hefty profit, for the moment.

► **V. Fauveau:** The financial sector has indeed inherited a very large responsibility for the green transition. Because of international banking competition, however, it is very difficult for one country, and even more difficult for a single bank, to act alone. International regulators need to step in to facilitate and expedite the transition of the banking sector as a whole.

Is there a need for further regulation within the debt market?

► **S. Ongena:** A lot has been achieved in terms of financial stability over the past few decades. My concern is that the banking sector may actually be overregulated, and that debt risk has been pushed outside of the banking sector into the non-banking sector. The current war in Ukraine and the overall debt situation in Russia will soon provide us with data on who is best prepared within the financial sector.

► **F. Mellors:** Since the global financial crisis of 2007-2008, regulations requiring that banks maintain higher capital have made the financial system more resilient. Unfortunately, one drawback is that banks' risk-taking activity has become quite cyclical, in the sense that when market volatility increases, banks tend to retrench. This action then reduces the available market liquidity. A number of work groups are looking at the existing regulations and their effects on these market structure issues. In the meantime, the central banks remain the market makers of last resort.

► **E. Morellec:** In my view, there is sufficient regulation. Banks are highly regulated already, and investors should be aware of the risks they take. Many cases show that market-driven initiatives are often better than regulatory measures in improving the general environment. For example, recent ETF developments have considerably improved the trading environment, with investors getting access to higher liquidity and borrowers paying lower rates due to the higher demand for bonds. And if regulators are concerned about the debt market, what should they be saying about the equity market?

► **V. Fauveau:** The banks operating in Switzerland are highly transparent and regulated, resulting in the healthy banking environment we benefit from today. I fear that further Swiss-specific regulation would come with costs that exceed the benefits and would lead to a less efficient credit environment. History shows that regulation is too frequently written by legislators who lack a global perspective.

Due to high debt levels, non-financial firms are becoming increasingly exposed to an interest rate increase. What could be the short-term and long-term consequences of this increase on the credit market?

► **F. Mellors:** A delicate balancing act is at play here between growth, inflation, and financial conditions. If interest rates are rising because of strong growth, and if the increases are happening in an orderly, predictable fashion, then companies can comfortably navigate through them without much disruption. In practice, however, markets rarely move in a straight line and there are often unexpected surprises along the way. The war in Ukraine is a perfect example of this. Credit markets are quick to price new eventualities. An environment of high inflation, declining growth, and tightening monetary policy is not a great backdrop for risk or for credit markets. This situation brings us back to the objectives of the central banks, and how much they are willing to sacrifice financial stability and market liquidity in pursuit of their inflation targets.

► **L. Bretscher:** The nature of the debt—fixed versus floating—is critical here. Companies need to be cautious about having an appropriate mix of maturities in their debt portfolios to avoid being washed away in a refinancing cascade.

How much of an impact are demographics having on interest rates?

► **V. Fauveau:** The increasing inversion of the demographic pyramid, which is happening throughout the developed world, has led to a considerable imbalance between savings and investments. In the case of Switzerland, estimates suggest that this imbalance is in the hundreds of billions of Swiss francs and that it is responsible for lowering interest rates by more than 100 basis points. This is a significant figure, with no easy way to fix it.

► **E. Morellec:** Demographics may have a role to play in the long run, but the bulk of what we've observed up to today has been caused by the central banks' policies and their impact on asset prices. Things are starting to change now.



The share of so-called "zombie firms"—firms unable to pay off their debt—has been increasing steadily over the past 30 years and likely even more so over the past two years. What does their existence mean for the future of the financial markets and of the economy as a whole?

► **D. Rupli:** Such firms represent a market anomaly, from a debt perspective, and investors who have done their homework should be getting adequately rewarded for funding them. In the case of Switzerland, the high yield market doesn't truly exist, in a broad sense, so I don't see a reason for much concern in the public debt market.

► **V. Fauveau:** The existence of zombie firms is a consequence of the excessive quantity of liquidity available within the financial markets. My instinct tells me that this issue is more of a concern for the international private debt market and not so much for banks.

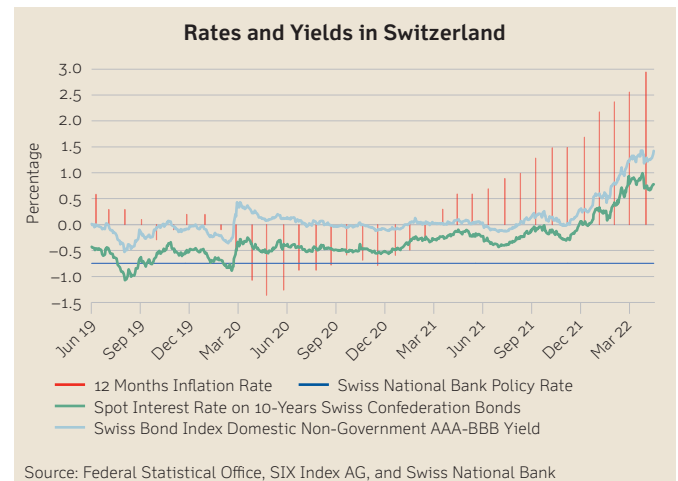
Finally, what would be your word of caution regarding the future of corporate debt?

► **S. Ongena:** Taxation is clearly on its way. Last year's OECD initiative, regarding international collaboration to end tax avoidance, is only one example of what companies can expect. The COVID pandemic and the instability caused by the war in Ukraine will call for ongoing government expenses, and therefore ongoing government financing.

► **D. Rupli:** The high inflation rates we're observing internationally are gradually leading to higher interest rates. My expectation for the Swiss market is that an increase in interest rates should be viewed as positive news for both banks and firms, as it will lead to higher earnings. From a stakeholder management perspective, today's environment is helping to place debtholders back on par with shareholders, which is also good news for pension funds and institutional investors.

► **V. Fauveau:** The main challenge is whether the current volume of corporate debt was indeed committed toward investments which can provide a regular return able to cover the likely increase in interest rates. This brings us back to the very basics of the asset pricing literature, in which the expected growth rate plays a key role.

► **E. Morellec:** The main risk is inflation. And it needs to be tackled. One way to achieve this is through innovation and economic growth. Another is through interest rate hikes, which will impact not only the financial markets, but also the overall economy. Given public debt levels, it is not clear that the central banks will raise interest rates enough to fight inflation. Investors will then probably have to tilt their portfolios more toward stocks to earn positive real returns in the long run. In the short run, however, these interest rate hikes will have a big negative impact on stock prices and also, potentially, on real estate prices.



Swiss Finance Institute

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