

COMPANIES 19/02/2024

Commercial real estate: The great emptiness

by CHRISTOF SCHÜRMANN

Summary

Banks are sending crisis signals. The reason is the commercial property sector, which has come under pressure. It is hardly surprising that problems are emerging here. How big they are.

Zusammenfassung

Banken senden Krisensignale. Grund ist der unter Druck geratene Gewerbeimmobiliensektor. Dass hier Probleme zutage treten, ist wenig überraschend. Wie groß sie sind.

0

Deutsche Pfandbriefbank recently spoke of the "biggest property crisis since the financial crisis" for the entire sector. It took only seconds at the end of January after the announcement of a significant dividend cut and an increase in risk provisions for commercial property loans at risk of default for the share price of New York Community Bancorp (NYCB) to plummet by 44 per cent. The crash dragged down the entire index of US regional banks, which had already lost almost 12 per cent by the end of the first five weeks of trading this year, while the world's leading index, the S&P 500, soared to record highs.

NYCB's share price was recently even lower than at the height of the US mortgage market crisis in 2008/2009 (figure 1).

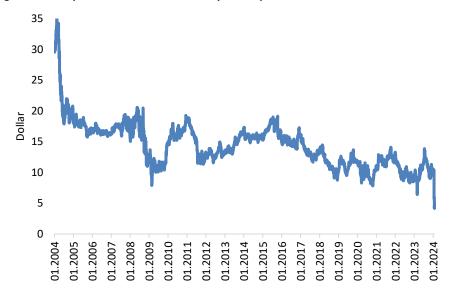


Figure 1: Share price of New York Community Bancorp

Source: Bloomberg, Flossbach von Storch Research Institute, as at February 2024. **Historical performance is not a reliable indicator of future performance.**

On 7 February, the New York Stock Exchange (NYSE) even suspended trading in NYBC shares - a rather rare step. The NYSE cited "increased volatility" as the reason. The rating agency Moody's had just downgraded the bank's bonds to junk status.

1: Turbulence from the USA to Germany and Japan

At almost the same time, the Japanese Aozora Bank had to significantly increase its risk provisions for US commercial property. As a result, it slipped into the red for the first time since the global financial crisis. The share price plummeted by a third.



The American private equity giant KKR also had some bad news for its investors. A real estate finance trust belonging to KKR, which invests in commercial property, cut its dividend significantly in order to prepare for loans at risk of default. The share price fell by a good twelve per cent.

Deutsche Pfandbriefbank (PBB) recently spoke of the "biggest property crisis since the financial crisis" for the entire sector. Its share price fell to an alltime low on the Frankfurt Stock Exchange in February. Due to problems with US office properties, PBB had to significantly increase its risk provisioning and its profit before taxes in 2023 was suddenly 58 per cent below the previous year.

All of this is reminiscent of the major financial crisis that began in 2007, initially spreading to Germany with the bankruptcy of Düsseldorf-based bank IKB in July and materialising 15 months later in autumn 2008 with the fall of Lehman Brothers in a widespread market crash and costly government bailouts.

Could a new property crisis trigger turbulence and bring supervisory authorities or central banks onto the scene?

2: Property problems only postponed

For attentive observers, it could come as no great surprise that the problems experienced by small and medium-sized US banks in spring 2023 would reappear sooner or later.¹ This is because they were not eliminated, but merely postponed.

The significant rise in interest rates already caused problems for US regional banks in particular last year. The 141 institutions represented in the S&P Regional Banking Index had increased the granting of commercial property loans by a full 75 per cent within five years as at 31 December 2023 amid rising prices, according to data from Bloomberg. Lending stagnated over the course of 2023. Commercial property prices had already formed a tableau by then (figure 2).

¹<u>https://www.flossbachvonstorch-researchinstitute.com/de/studien/viel-geraeusch-auf-dem-banken-friedhof/</u>





indexed, July 2023 = 100, source: Federal Reserve Bank of St. Louis, Flossbach von Storch Research Institute, as at February 2024.

As a result of the sharp turnaround in interest rates, sales of US commercial property fell by six per cent in 2022 and by a further 1.9 per cent in 2023. Demand in 2023 was already 10.4 per cent below the record year of 2019.

The US commercial property market alone is currently estimated by data provider Statista to be worth more than 25 trillion dollars in its broadest form. However, this figure is likely to include even the smallest motel in the far west of the USA. Last autumn, the US asset manager Vanguard put the total market volume for commercial property loans in the USA, which is an important market for the financial world, at 5.7 trillion dollars.²

The American Commercial Real Estate Association states that the development of new commercial buildings and the operation of existing ones led to direct expenditure totalling USD 826.9 billion in 2022. The contribution to the gross domestic product of the USA amounted to 2.3 trillion dollars. That would be a share of nine per cent.

One of New York Community Bancorp's problems is that it took over large parts of Signature Bank, which became insolvent in spring 2023. It was forced to do so by the US supervisory authorities and has been one of the top US commercial property financiers ever since (Table 1).

² https://corporate.vanguard.com/content/corporatesite/us/en/corp/articles/commercialreal-estate-weathering-storm.html



	Commercial property loans
Institute	(billion dollars)
Wells Fargo & Co	151
JP Morgan Chase & Co	144
Bank of America	73
U.S. Bancorp	54
New York Community Bancorp	51
The PNC Financial Services Group	35
M&T Bank Corporation	33
Valley National Bancorp	32
First Citizens BancShares	31
Citizens Financial Group	29

Table 1: Largest commercial property financiers from the US banking sector

Figures rounded, source: Bloomberg, Flossbach von Storch Research Institute, as at: February 2024, as at 31 December 2023.

The total of 51 billion dollars includes a good 37 billion in loans for apartment buildings, which are classified as commercial property loans. The problem is that almost half of these loans are to be secured against rent-regulated buildings. While refinancing costs are rising, landlords such as NYBC can only increase their rental income to a very limited extent due to the "rent cap" imposed by the state of New York.

3: Property crisis 2.0, part 2?

The genie has been in the bottle since the first crisis last spring. Now there may be more trouble on the horizon.

In addition to the three US regional banks Silicon Valley Bank, Signature Bank and First Republic Bank, the wave that was building up in the USA in 2023 also hit WeWork in November. The office rental company, which was still worth around USD 47 billion on the stock exchange in autumn 2021, had to slip under a bankruptcy protection umbrella. Last summer, WeWork is said to have been responsible for 906,000 physical workplaces at 777 locations in 39 countries and rental obligations totalling the equivalent of over 14 billion dollars. The bankruptcy threatens a further oversupply of office space.

According to property specialist Jones Lang LaSalle (JLL), office vacancy rates are higher than ever before. In the third quarter of 2023, they rose to 21 per cent in the USA and Canada and to 16 per cent worldwide. This is an increase

0

of 60 per cent compared to the vacancy rates before the coronavirus pandemic. In Europe, the vacancy rate rose from five to eight per cent.

There is hardly any improvement in sight. The trend towards working from home is not reversing. In addition, technology companies are laying off employees en masse. By the end of October 2023, they are expected to have cut a good 240,000 jobs. Google alone had cut 12,000 of these jobs.

The effect is an emptiness in the offices of the world's capital and major cities (figure 3).

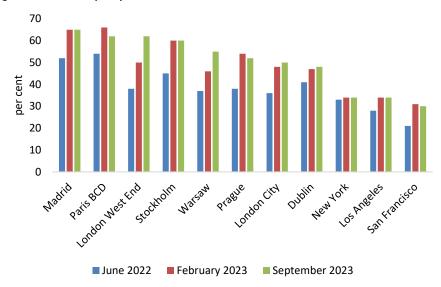


Figure 3: Office occupancy rates in selected cities

Source: Savills Research, Flossbach von Storch Research Institute, as at February 2024.

With a recent occupancy rate of just 30 per cent, San Francisco is at the bottom of the list. At the start of the coronavirus pandemic in March 2020, there were no empty offices at all in the Californian metropolis or in nine other major US cities, according to a survey by Kastle Systems.

The current, sometimes very high vacancy rates are a problem, as the commercial property market, like the housing market in general, plays an important role in the stability of banks and thus in the global financial system.

4: Problems arrive on the balance sheet with a time delay

As office buildings are often let on long-term leases, the problems are only gradually being reflected in the financial sector. Numerous property owners have unrealised losses on their books. Tom Leahy, Executive Director at MSCI Research, estimated last September that around half of all commercial properties in London are worth less than their last asking and paid price. In New York, a price drop of 13 per cent would push half of commercial properties below their last price paid. ³

At the end of January, US billionaire Barry Sternlicht, founder and head of the investment firm Starwood Capital in Miami, said that American office property alone could suffer losses of over a trillion dollars. The market was worth a good three trillion dollars before the pandemic and is now "still worth a good 1.8 trillion dollars". The office market is "in an existential crisis".

If his forecast proves to be accurate, the question arises as to what extent loans are still sufficiently collateralised. A prominent example shows how high discounts on previous prices can be. The Aon Centre, the third tallest office tower in Los Angeles, was recently sold for 147.8 million dollars. This was a discount of around 45 per cent on the price paid in 2014.

According to a report by MSCI Real Assets, delinquency rates in the US commercial property sector rose by USD 5.6 billion in the third quarter of 2023 to a ten-year high of USD 79.7 billion. Office properties accounted for 41 per cent of this - which is due to home offices and dwindling tenant demand in this sector. MSCI recently identified \$215.7 billion worth of US commercial property that is susceptible to problems such as delinquencies or slow leasing demand.

5: Regional banks more affected

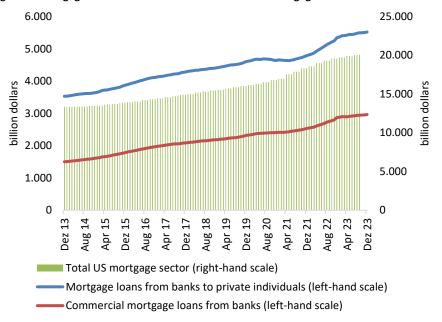
The collateral of regional banks in particular is likely to be affected by price reductions or late payments: Commercial real estate loans account for 28.7 per cent of total assets at smaller banks, compared to just 6.5 per cent at larger institutions, according to a 2023 study by JP Morgan Chase. ⁴

In total, all US banks recently had just under USD 3,000 billion in commercial property loans outstanding. In addition, there is a good 5,500 billion dollars in traditional mortgages to households (figure 4).

³<u>https://www.msci.com/www/blog-posts/loss-aversion-and-property/04076684543</u> ⁴<u>https://www.jpmorgan.com/insights/real-estate/commercial-real-estate/are-banks-vul-nerable-to-a-crisis-in-commercial-real-estate</u>



Figure 4: Mortgage loans of US banks and the entire US mortgage sector



Real Estate Loans, All Commercial Banks, Monthly, Seasonally Adjusted & All Sectors, Total Mortgages, Millions of Dollars, Quarterly, Not Seasonally Adjusted, Source: Federal Reserve Bank of St. Louis, Flossbach von Storch Research Institute, as of February 2024.

In terms of all loans, mortgages play an outstanding role for banks. They account for 49 per cent of all loans and 37 per cent of the aggregate balance sheet total of the US banking sector. And the share of commercial property loans in all mortgage loans has continued to rise over the past ten years (figure 5).

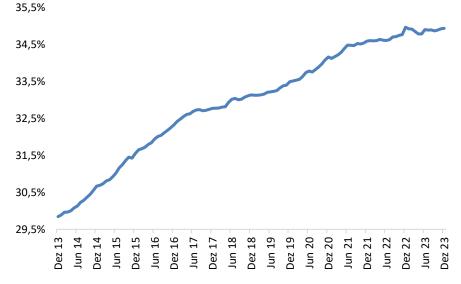


Figure 5: Share of commercial property loans in all mortgage loans from US banks

Source: Federal Reserve Bank of St. Louis, Flossbach von Storch Research Institute, as at February 2024.



The prosperity of many Americans and the stability of regional banks in particular depend on the US mortgage sector. There are also many lenders from the shadow banking sector (private equity, hedge funds, insurance companies). According to the US commercial property specialist Trepp, around half of all commercial mortgage loans are financed outside the banking sector.⁵ According to Trepp, insurance companies, for example, hold a good twelve per cent of all US commercial property mortgages. At a good 20 trillion dollars, the entire mortgage sector in the USA is more than twice as large as the sum attributable to the banks (see also figure 4).

6: Rising default rates

According to data from property specialist Knight Frank, institutional investors invested a total of USD 440 billion in commercial property worldwide in 2022, primarily in the USA. According to S&P Global, private equity companies invested USD 150 billion in commercial property worldwide between 2019 and 2022. The private equity firm Blackstone is the largest property investor with a portfolio of USD 586 billion.

If the debtors of such mortgages lack the funds to service the loans, rent increases would be a way out. In view of record high vacancy rates, this is likely to be a futile endeavour in many cases. Lenders are therefore faced with payment defaults.

According to Moody's Analytics, the default rate for loans on commercial mortgage-backed securities in the USA was already at 5.07 per cent in January - and rising.⁶ The expectation is that the default rate will approach the record levels of the financial crisis, when it peaked at 10.51 per cent.

7: Lack of funding

US banks are also facing another problem: financing their own balance sheets. As the US Federal Reserve has raised short-term interest rates sharply, many customers have switched to money market funds, which promise higher interest rates. In contrast, lower-interest deposits at regional banks have been stagnating for two years. They have even been declining for all banks, while US money market funds have seen a good 84 per cent

⁵<u>https://www.trepp.com/trepptalk/cre-mortgage-maturities-debt-oustanding-2.81-trillion-coming-due-by-2028</u>

⁶ <u>https://www.economy.com/economicview/indicator/usa_del/EB962AA3-4BF1-449C-9471-</u> B076640493F2/United-States-Moodys-CMBS-Delinguency-Tracker

\bigcirc

increase in deposits since the start of 2019 with just under 5,900 billion dollars (figure 6).

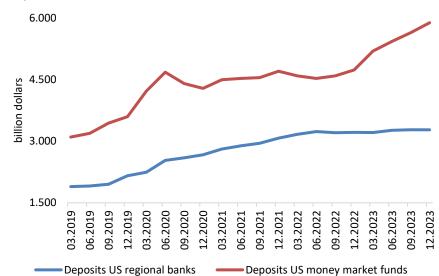


Figure 6: Development of customer deposits at US regional banks and deposits in US money market funds

Source: Federal Reserve Bank of St. Louis, Flossbach von Storch Research Institute, as at February 2024.

This means that banks can rely less on customer deposits to achieve growth. The refinancing of existing business, for example in commercial property, is also likely to be a problem in the event of outflows of customer money. New bank insolvencies could be the result.

In spring 2023, the Federal Deposit Insurance Corporation therefore initially secured customer deposits above the previous limit of 250,000 dollars. The Federal Reserve then flanked this with a Bank Term Funding Program (BTFP) to provide banks with easier and cheaper access to liquidity. Following the introduction of the program just under a year ago, there was a surge in demand with a further boost in the current winter months (figure 7).



Figure 7: Lending via the Federal Reserve's Bank Term Funding Program

Source: Federal Reserve Bank of St. Louis, Flossbach von Storch Research Institute, as at February 2024.

The BTFP will now end on 11 March 2024.⁷ Banks will then have to resort to other, more expensive sources of funding. Possible movements in funding after this date could provide an indication of customer confidence, as a secure bank, the BTFP, will no longer be available.

8: Who could step in?

However, the fact that the financial pain is not only being felt by the banks, but also by other financiers, could be an advantage.

On the other hand, there are also funds available that could be used to cushion the occasional misalignment - if the return prospects and risk match from their perspective. For example, the world's most famous investor Warren Buffett invested five billion dollars in Goldman Sachs during the financial crisis at a preferential price that was significantly below the share price at the time and even sweetened the deal with a ten per cent guaranteed dividend.

Private credit funds (*private debt*), for example, have gained in importance in recent years. Most recently, they were sitting on 496 billion dollars in uninvested capital (figure 8).

⁷<u>https://www.federalreserve.gov/newsevents/pressreleases/monetary20240124a.htm</u>



Figure 8: Private debt funds volume and capital not yet invested

*Most recent figures as at 30 June; source: Preqin Pro, Flossbach von Storch Research Institute, as at February 2024.

Blackrock, the world's largest asset manager, predicts that the current volume of private debt funds will double to 3,500 billion dollars by 2028. The data provider Preqin is still forecasting a volume of 2,800 billion dollars by 2028. The capital for such debt funds usually comes from institutional investors such as insurers, pension funds or family offices.

A lot of capital is needed. According to the bond specialist Pimco, around USD 2.4 trillion in US commercial property loans will mature up to and including 2027, including a good USD 500 billion this year and next year. Banks would hold 176 (2023) and 185 (2024) billion dollars of these loans, with a further 169 billion dollars of such bank loans due for refinancing in 2025.

9: There are also problems in Germany

The German financial sector has also expanded property financing again following the financial crisis. According to the German Bundesbank, the portfolio of commercial property loans at German banks stood at 854 billion euros at the end of September or, according to a "new operationalisation", even at 1,002 billion euros. Measured against the German banking sector's total



assets of 10,800 billion euros, this represents a share of 7.9 and 9.3 per cent respectively. ⁸

In addition, there are almost 1,800 billion euros in traditional mortgages for private home purchases or construction, which are likely to be well collateralised, at least as long as strict regulation, such as the EU's Buildings Directive, does not threaten their value.

There are also risks associated with commercial property loans in Germany. The rating agency Fitch already pointed out in spring 2023 that German banks had significantly increased their lending for commercial property since 2015 in order to compensate for falling net interest margins. ⁹

The European Central Bank's ongoing policy of low, zero and negative interest rates had steadily reduced the difference between lending and deposit interest rates as a traditional source of income for banks. The yield curve flattened and depressed returns on safe investments. In contrast, comparatively high interest rates could still be achieved in riskier sectors such as the commercial property market.

According to the Fitch study, 17 per cent of German banks' commercial property loans are granted internationally, the majority of them to the USA. In some cases, commercial property loans dominate the business of individual banks. At Aareal Bank, for example, they accounted for 93 per cent of all loans.

According to a current Moody's ranking, Aareal Bank also has the largest exposure in the USA, according to Handelsblatt.¹⁰ The bank's exposure amounts to 8.6 billion euros, around half of which consists of US office property. A good 26 per cent of all loans are in the USA. According to Bloomberg, Aareal Bank had Common Equity Tier 1 capital of just under 2.6 billion euros at the end of June 2023, well below its US exposure.

According to Moody's, in addition to Aareal Bank, other banks with a high exposure are specialised property banks such as Deutsche Pfandbriefbank (PBB) and some Landesbanken. At Deutsche Pfandbriefbank, the exposure to US office properties alone accounts for 150 per cent of common equity tier

⁸ According to the Bundesbank, no time series are currently available to the public. However, the Bundesbank's statistics department is planning to make time series available to all interested parties in the future.

⁹ https://www.fitchratings.com/research/banks/german-banks-resilient-to-falling-commercial-real-estate-values-18-04-2023

¹⁰<u>https://www.handelsblatt.com/finanzen/banken-versicherungen/banken/us-gewer-</u> beimmobilien-deutsche-banken-aus-sicht-von-moodys-stark-engagiert/100015010.html

1 capital. PBB most recently reported Tier 1 capital of just under 3.1 billion euros, which indicates loans for US office properties totalling a good 4.5 billion euros.

In Germany itself, prices for commercial property have been falling across the board since mid-2022. Since their record high in the second quarter, they have slumped by 16.5 per cent (figure 9).

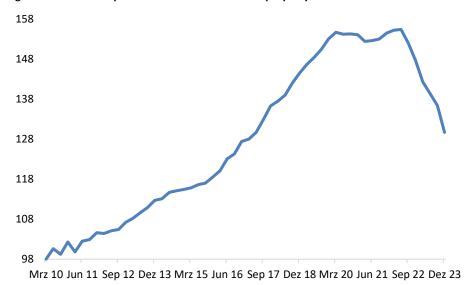


Figure 9: Price development of German commercial property

2010 = 100, Source: vdp, Flossbach von Storch Research Institute As at: February 2024. Historical

performance is not a reliable indicator of future performance.

10: Everything well collateralised?

Collateralisation is questionable in individual cases. This is demonstrated by the Signa holding company. The Austrian René Benko, who is often referred to as a "dazzling property investor", managed to accumulate debts of "at least 13 billion euros" over the years with his convoluted group, according to reports.

Benko's backers include prominent wealthy individuals as well as the Who's Who of the banking and insurance world from Germany, Austria and Switzerland. Almost all financiers refer to the good collateralisation of their loans. But this is not necessarily the case, as Julius Baer shows. The Swiss asset manager has completely written off loans totalling 586 million Swiss francs granted to companies in the Signa Group.



At Signa, much is still in the dark. According to the German financial supervisory authority BaFin, 46 German insurers are "exposed to the Signa Group".¹¹ For nine companies, the exposure amounts to more than one per cent of investments. According to the Financial Times, German insurers are said to have invested three billion euros in the Signa Group.¹²

According to BaFin, commercial real estate accounted for around eight percent of all insurers' investments on 30 September 2023. Due to the still "very high valuation reserves", BaFin considers the "risk from valuation changes to be manageable overall". ¹³

11: Banks more at risk than insurers?

For banks, the negative development in the commercial property sector could initially "weigh heavily on the earnings situation of the institutions". In some cases, "loan defaults could even jeopardise the institutions if they are not sufficiently diversified and have invested in particularly critical segments", according to BaFin.

Does this also mean Signa? In any case, there have been several media reports on the German banks about commitments to the insolvent holding company in the three-digit million range. The reports were either not commented on by the financial institutions or were deemed incomprehensible. What is certain is that the German commercial property sector has not only been good for negative surprises since Signa, also due to a lack of transparency. ¹⁴

Although one or two banks have set aside capital for commercial property loans at risk of default in recent months, this has remained within manageable limits. According to Bloomberg, the German Landesbanken belonging to the Sparkasse Group, for example, recognised around 400 million euros in risk provisions in the first half of 2023.¹⁵

In its half-year report, Helaba reported a total commercial property lending volume of 44.3 billion euros. At BayernLB, the gross loan volume in the

¹¹ This was the answer to a question from State Secretary of Finance Florian Toncar (FDP) ¹² <u>https://www.ft.com/content/cae0ff11-01cb-48e2-badf-e4c192caf6b6</u>

¹³<u>https://www.bafin.de/DE/Aufsicht/Fokusrisiken/Fokusrisiken_2024/RIF_2_Immo-</u> bilienmaerkte/RIF_2_Immobilienmaerkte_node.html

¹⁴<u>https://www.flossbachvonstorch-researchinstitute.com/de/studien/im-bermudadreieck-des-deutschen-immobilienmarktes/</u>

¹⁵ <u>https://www.bloomberg.com/news/articles/2023-11-23/signa-finanzierungen-konnten-</u> <u>die-gro-en-landesbanken-einholen</u>

commercial property sector is said to have totalled 67 billion euros, at LBBW it was 56 billion euros and at NordLB 16.8 billion euros. According to Bloomberg, these figures are not directly comparable, but offer an approximation.

It is possible that in Germany, as in the USA, smaller and medium-sized banks are more at risk. In any case, some of the largest commercial property financiers are not among the 20 largest banks in Germany in terms of total assets.

12: Systemic risks

In its latest stability report, the German Bundesbank concludes that the "systemic risks from developments on the commercial property markets" have "further increased" with the rise in interest rates. Property companies have comparatively low interest coverage ratios, "which makes them more vulnerable to interest rate rises". According to the Bundesbank, around a third of commercial property loans "could be subject to significant adjustments in lending rates over the next three years", i.e. they could rise. "As a result, loan defaults and credit losses could rise more sharply, as the value of loan collateral has been falling for some time"¹⁶ (see also figure 8).

The European Central Bank (ECB) also considers commercial property to be a vulnerable sector and is therefore planning to step up supervision of banks' exposure to this market. A study of 40 banking groups in 2022 revealed that up to 30 per cent of banks' non-performing loans are attributable to commercial property.¹⁷ As recently as this February, the ECB is said to have threatened banks with high-risk commercial property loans with higher capital requirements.¹⁸

13: Sustainability requirements could be too demanding

In Germany and Europe, the European property sector is under additional pressure to reduce its greenhouse gas emissions to net zero by 2050. Those who fail to withstand this pressure and do not invest in refurbishment may be sitting on a *stranded* asset - a commercial property that is unsaleable and defaults as loan collateral.

¹⁶<u>https://www.bundesbank.de/de/publikationen/berichte/finanzstabilitaetsberichte/finanzstabilitaetsbericht-2023-918766</u>

 ¹⁷ <u>https://www.handelsblatt.com/finanzen/geldpolitik/kontrolle-bankenaufsicht-warnt-30-prozent-aller-notleidenden-kredite-entfallen-auf-gewerbe-immobilien/28606194.html</u>
¹⁸ <u>https://www.bloomberg.com/news/articles/2024-02-09/ezb-droht-banken-mit-harterergangart-zu-gewerbeimmo-risiken</u>



One example is said to be the Commerzbank Tower in Frankfurt, which is owned by a subsidiary of the South Korean Samsung Group. According to the Financial Times, it is on a "death list" of Californian property analysts from Green Street.¹⁹ This list shows European office buildings worth more than 3.3 billion euros, the sale of which has not yet been finalised as no buyers have been found. This list is "probably just the tip of the iceberg of failed sales".

14: Central banks trapped

Neither the banks themselves nor the central banks can have any interest in a so-called balance sheet recession, an economic downturn following the bursting of an asset bubble such as in property: The risks of contagion within the financial sector are too great. This is because banks also grant loans to shadow banks. The shadow banking sector is involved in the banking sector - through the purchase of shares, bonds or subordinated capital.

The increasingly apparent problems with commercial property are putting central banks in a difficult position. Inflation has not yet reached the target values, meaning that premature interest rate cuts could sow the seeds for a renewed price surge. On the other hand, both the short-term financing of commercial property and the funding of banks are expensive, which is putting pressure on property prices.

It is impossible to predict whether there will be contagion within the financial sector. The cocktail of falling commercial property prices and hidden book losses, rising default rates on mortgage loans and significantly more expensive interest rates is certainly toxic. Banks could be forced to restrict their lending.

It doesn't take too much pessimism to predict further problems. Only the severity of the impacts is still unknown.

¹⁹ https://www.ft.com/content/13e17879-eb58-46ba-b202-4e77e69d82ee

LEGAL INFORMATION

The information contained and opinions expressed in this document reflect the author's judgement at the date of publication and are subject to change without notice. Forward-looking statements reflect the views and expectations of the author. The opinions and expectations may differ from estimates presented in other documents of Flossbach von Storch AG. The articles are provided for information purposes only and without any contractual or other obligation. (This document does not constitute an offer to sell, buy or subscribe to securities or other instruments). The information and assessments contained herein do not constitute investment advice or any other recommendation. No liability is accepted for the completeness, timeliness and accuracy of the information and assessments provided. **Historical performance is not a reliable indicator of future performance.** All copyrights and other rights, titles and claims (including copyrights, trademarks, patents and other intellectual property rights as well as other rights) to, for and from all information in this publication are subject without restriction to the respective valid provisions and ownership rights of the respective registered owners. You do not acquire any rights to the content. The copyright for published content created by Flossbach von Storch AG itself remains solely with Flossbach von Storch AG. Reproduction or use of such content, in whole or in part, is not permitted without the written consent of Flossbach von Storch AG.

Reprints of this publication as well as making it publicly accessible - in particular by inclusion in third-party websites - and reproduction on data carriers of any kind require the prior written consent of Flossbach von Storch AG

© 2024 Flossbach von Storch. All rights reserved.

IMPRINT

Publisher Flossbach von Storch AG, Research Institute, Ottoplatz 1, 50679 Cologne, Telephone +49. 221. 33 88-291, research@fvsag.com; *Management Board* Dr Bert Flossbach, Dr Tobias Schafföner, Dr Till Schmidt, Marcus Stollenwerk, Kurt von Storch; VAT ID DE 200 075 205; Commercial Register HRB 30 768 (Cologne Local Court); Responsible supervisory authority Till Schmidt, Marcus Stollenwerk, Kurt von Storch; VAT ID DE 200 075 205; Commercial Register HRB 30 768 (Cologne Local Court); Responsible supervisory authority Federal Financial Supervisory Authority, Marie-Curie-Straße 24 - 28, 60439 Frankfurt / Graurheindorfer Str. 108, 53117 Bonn, *www.bafin.de; Author* Christof Schürmann; *Editorial deadline* 19 February 2024