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The commercial real estate - small bank nexus

US special

RaboResearch
Global Economics & Markets
mr.rabobank.com

Philip Marey
Senior US Strategist
+31613892958

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Summary

- The increase in remote work since the COVID-19 pandemic has led to a structural downward shift in demand for office space, which poses a threat to the commercial real estate market.
- Although large banks recently passed the Fed's stress test for a recession with a 40% decline in commercial real estate prices, 80% of commercial real estate loans made by banks are concentrated in smaller banks that fall outside the scope of the Fed's stress tests.
- While commercial real estate lending by large banks has been stable, there has been a credit boom in commercial real estate loans provided by small banks, more than doubling the amount since 2006. The exposure to commercial real estate loans for smaller banks is also much higher than for large banks.
- The commercial real estate-small bank nexus exposes the US economy to a vulnerability that may threaten financial stability and could contribute to a recession.

Introduction

During the COVID-19 pandemic the occurrence of remote work jumped, out of sheer necessity. The technology was already available, but the pandemic accelerated its adoption and bypassed the hesitation of employers to allow people working from home. In many cases, remote work has been successful and therefore seems to have become a permanent feature, often in hybrid form. For employers, it has become an employee benefit to attract people in a tight labor market and it saves on office space costs. The flipside of the latter is that demand for office space has seen a structural downward shift. It is estimated[1] that the underlying value of office space in New York City has permanently declined by 39%. This suggests that at current prices, there is a bubble in commercial real estate. In this special we are particularly interested in the implications for financial stability and the economic outlook. First we take a look at the development of commercial real estate prices and commercial real estate lending. Then we discuss the Fed's recent stress test on large banks that included a large decline in commercial real estate prices. In contrast to the Fed's exercise, we show that distinguishing between large and small banks provides a sharper picture of the vulnerabilities in the US economy. In particular, the connection between commercial real estate and small banks, through commercial real estate lending, could pose a threat to financial stability and make a recession worse.

[1] A. Gupta, V. Mittal & S. Van Nieuwerburgh, Work From Home and the Office Real Estate Apocalypse, NBER Working Paper 30526, 2022

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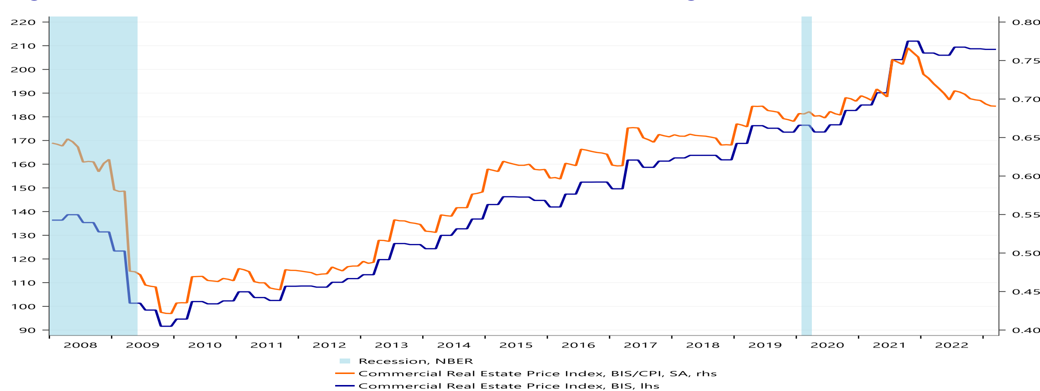
Commercial real estate heading south

If we plot the BIS commercial real estate price index, it is clear that since the Great Recession, commercial real estate (CRE) prices have more than doubled in nominal terms (the blue line in Figure 1), but have moved sideways since 2021. This suggests that prices have reached a plateau. However, in recent years inflation has obscured the movement of CRE prices in real terms (the orange line), which shows a peak in 2021, but since then there has been a decline, almost to the level during the COVID-19 pandemic. In other words, CRE prices are already failing to keep up with inflation. Is this an indication that the CRE bubble is already deflating? With nominal CRE prices remaining elevated, most of the nominal price correction is likely still to come. If the 39% estimate by Gupta et al. for New York City is representative[2] for the entire United States, we are heading for a major decline in CRE prices.

Figure 1: Commercial Real Estate Price Index (BIS): nominal stagnation and real decline



Source: Macrobond

We can also plot the BIS index against CRE lending to show[3] that rising prices for commercial real estate sparked a credit boom in commercial real estate (Figure 2). Given the academic literature[4] linking financial crises to credit booms and busts, this should be cause for concern. Moreover, Minsky (1986)[5] notes that an emphasis by bankers on the collateral value and the expected values of assets (instead of cashflows) is conducive to the emergence of a fragile (as opposed to a robust) financial structure.

If excess demand for office space pushed up commercial real estate prices, and if that increased CRE lending by banks, what does a structural downward shift in demand for office space mean? If CRE prices are deflating, what does that mean for the indebted CRE sector? Is this going to lead to defaults? And what does that mean for the banks that did the CRE lending? Is the deflation of the CRE bubble a threat to financial stability? Also note that due to the steep hiking cycle by the Fed, some companies in the CRE sector may find it difficult to refinance their loans at substantially higher rates.

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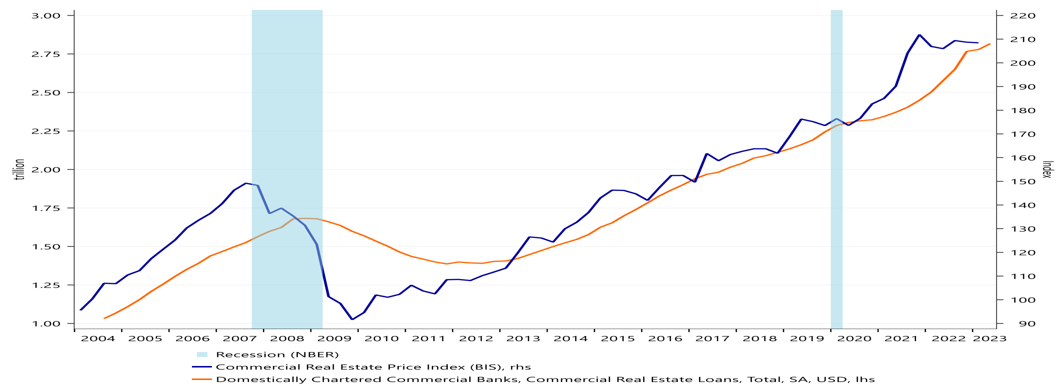
[2] Whether this assumption is appropriate remains to be seen, but the Fed's stress tests assumed a 40% decline in commercial real estate prices for the US.

[3] One could argue that plotting two increasing nominal macroeconomic time series does not prove anything, but we will see later that the upward trend in CRE lending is not self-evident. In fact, it turns out that not all banks participated in the CRE credit boom.

[4] For example: M. Schularick & A.M. Taylor, Credit Booms Gone Bust: Monetary Policy, Leverage Cycles, and Financial Crises, 1870-2008, American Economic Review Vol. 102, No. 2, April 2012, pp. 1029-61

[5] H.P. Minsky, Stabilizing an unstable economy, 1986, McGraw Hill 2008 edition, pp. 261

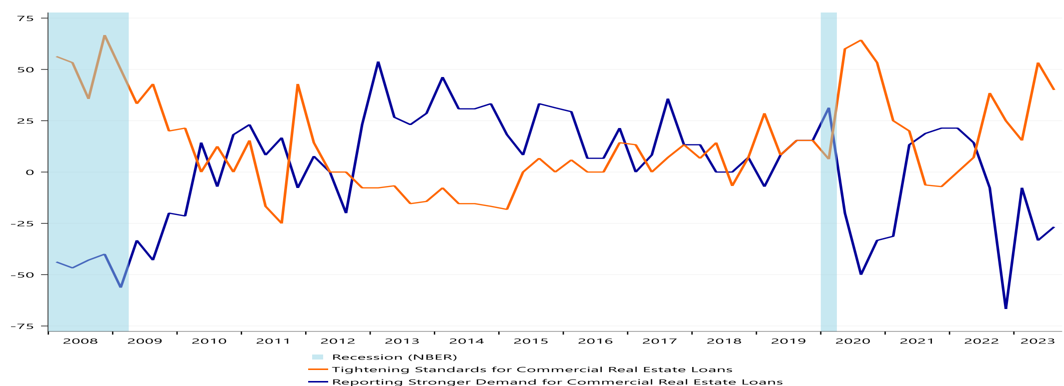
Figure 2: Commercial real estate prices and lending



Source: Macrobond

We can dig deeper by looking at the demand and supply developments in CRE lending. If we look at the Fed's SLOOS[6] data (figure 3), it is clear that demand for CRE loans strengthened especially between 2012 and 2017. Lending standards loosened between 2012 and 2015. This era coincides with a strong rise in the CRE price index, which may have motivated banks to expand CRE lending. Demand for CRE loans weakened during the pandemic, then bounced back as the economy reopened, but headed south again in 2022. Loan standards tightened during the pandemic, then loosened again when the economy rebounded, but have tightened since 2021. In other words, there seems to be a correlation between CRE prices and demand and supply developments in CRE lending. Currently, both are heading south, if we look at CRE prices in real terms and CRE lending in terms of net demand. It seems that rising CRE prices sparked a credit boom in CRE and now that the CRE price bubble is deflating, the CRE sector has less appetite to borrow and banks are tightening their lending standards.

Figure 3: Weaker demand and tighter standards for CRE loans



Source: Macrobond

The Fed's incomplete stress test

CRE prices are falling in real terms and credit for the CRE loans is tightening. Does this pose a problem to the economy? Not if we believe the Fed's June 28 press release that accompanied the annual bank stress test. The stress test looked at "a severe global recession with a 40 percent

[6] Senior Loan Officer Opinion Survey on Bank Lending Practices

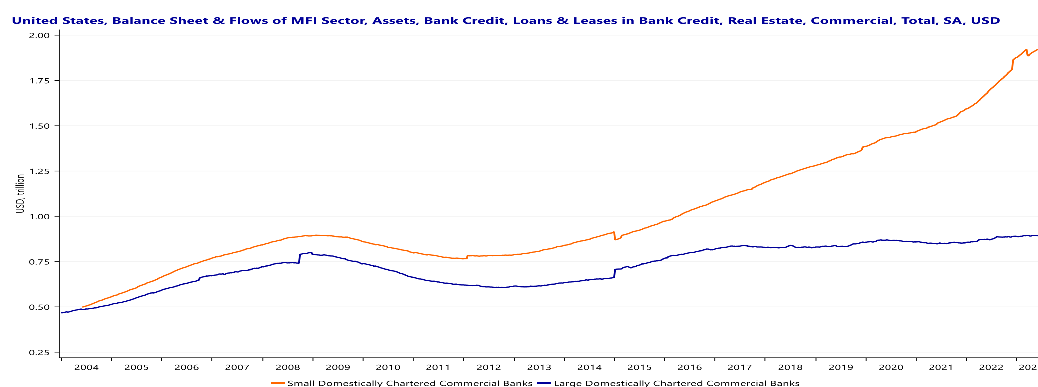
decline in commercial real estate prices[7], a substantial increase in office vacancies, and a 38 percent decline in house prices. The unemployment rate rises by 6.4 percentage points to a peak of 10 percent and economic output declines commensurately." However, according to the Fed "all 23 banks tested[8] remained above their minimum capital requirements during the hypothetical recession." Therefore, the central bank concluded that "large banks are well positioned to weather a severe recession and continue to lend to households and businesses even during a severe recession." However, one line in the press release reveals the main problem with the Fed's stress test: "The banks in this year's test hold roughly 20 percent of the office and downtown commercial real estate loans held by banks." So where is the remaining 80%? If the stress test considers a huge decline in commercial real estate prices, it might be relevant to know how this affects the banks that hold 80% of the CRE loans[9] made by banks. Therefore we take a closer look at CRE lending by large *and small* banks in the next section.

Bank lending: large vs small banks

We already saw in figure 2 that the rise in CRE prices until 2022 was accompanied by an increase in CRE lending. However, there is more to this story of we take a closer look at who has been doing the lending. So far we looked at aggregate bank lending to the CRE sector, without distinguishing between different types of banks. However, a closer look at the banking sector reveals a disturbing vulnerability that could be a threat to financial stability.

The Fed data on commercial banks distinguish between large and small banks. Large domestically chartered commercial banks are defined[10] as the top 25 domestically chartered commercial banks ranked by size. Small domestically chartered commercial banks are defined as all domestically chartered banks outside of the top 25. Note that according to this definition a bank of say $80 billion would still be considered 'small.' In figure 4 we show how CRE lending has evolved, distinguishing between large and small banks.

Figure 4: CRE loans by large and small banks



Source: Macrobond

[7] This is in line with the estimates by Gupta et al., 2022

[8] The Fed's 2023 stress test was performed on 23 banks. According to the website, the Fed's Board of Governors conducts stress tests of bank holding companies it supervises on an annual or two-year cycle. In 2023, only the banks subject to annual testing participated. These banks consist of three categories: U.S. global systemically important bank holding companies (Category I), Domestic and foreign bank holding companies with $700 billion or more in total assets or $75 billion or more in cross-jurisdictional activity (Category II), and Domestic and foreign bank holding companies with $250 billion or more in total assets or $75 billion or more in weighted short-term wholesale funding, nonbank assets, or off-balance-sheet exposure (Category III). Source: Figure 3 from 2023 Federal Reserve Stress Test Results

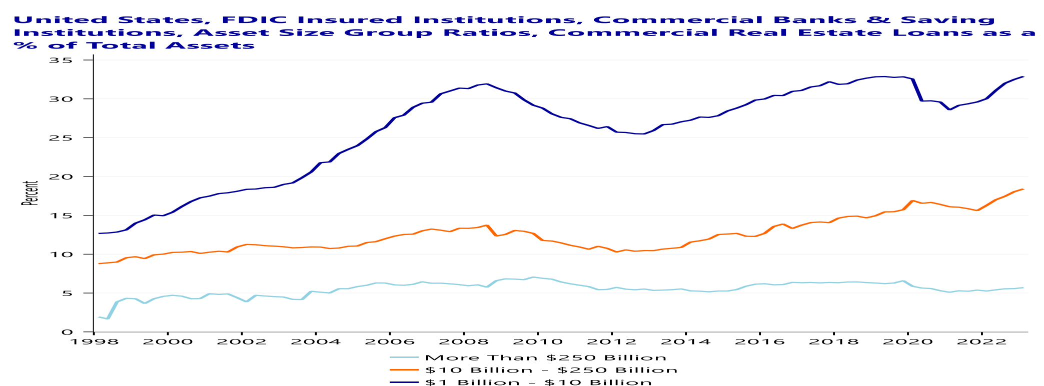
[9] Note that CRE loans are also made by insurance companies, pension funds and (other) CMBS-investors.

[10] As of December 2013, the asset size threshold for inclusion in the large-bank panel was approximately $85 billion.

It turns out that CRE lending by large banks has hardly increased in the last 15 years, while at the same time CRE lending by small banks has more than doubled. In other words, the growth in loans to commercial real estate has come from small banks. In fact, small banks have taken over the role of main provider of commercial real estate loans. Therefore, **the Fed's stress test omits the most relevant part of the banking sector for commercial real estate**. While commercial real estate lending by large banks has remained stable since 2006, commercial real estate lending by small banks has increased rapidly. We could even talk of a credit boom in commercial real estate loans provided by small banks.

Whether the increased share of CRE lending by small banks is a problem also depends on the relative importance of CRE loans for small banks (Figure 5). FDIC data (Quarterly Banking Profile) distinguish at least three classes of asset size: more than $250 billion, $10-250 billion, and $1-10 billion. The first class contains only large banks as defined by the Fed stress test, the second class is a mix of large and small banks, the third class only contains small banks. While for the largest banks, CRE loans were only 5.7% of total assets in the first quarter of 2023, for the smallest banks this is 32.9%! For the intermediate-size banks the CRE loans are 18.4% of assets. **So not only is 80% of the CRE bank loans made by small banks, these loans also make up a much larger fraction of the balance sheet of small banks**.

Figure 5: CRE loans as % of total assets, by bank size



Source: Macrobond

Finally, it is important to note that **small banks are regional banks**. In fact, the US has so many[11] small banks because for much of its history it was difficult for banks to open a branch in another state. This legislation has been abolished, and the amount of banks in the US has fallen, but there are still many small banks with predominantly regional clients. This means that CRE risk in small banks is also regionally concentrated. Instead of a diversified nationwide CRE loan portfolio, a small bank tends to make loans to local borrowers. Consequently, if commercial real estate in a region turns sour, the small banks in the area will be highly exposed. Bubble or not, any adverse development in the CRE sector is going to hit small banks harder than large banks.

The commercial real estate-small bank nexus brings together two vulnerable sectors that could rapidly deteriorate in a self-reinforcing loop. Small banks have already shown vulnerable to higher interest rates and deposit outflows in March and commercial real estate is high on the list of financial stability concerns of US regulators. We have shown that the two sectors are critically connected and in the next section we speculate on the feedback mechanisms that could arise and make things worse.

[11] According to FDIC data, as of 2023Q1, there were 4672 FDIC-insured institutions, with 13 larger than $250 billion in assets and 145 between $10 billion and $250 billion in assets.

Roads to ruin: feedback mechanisms

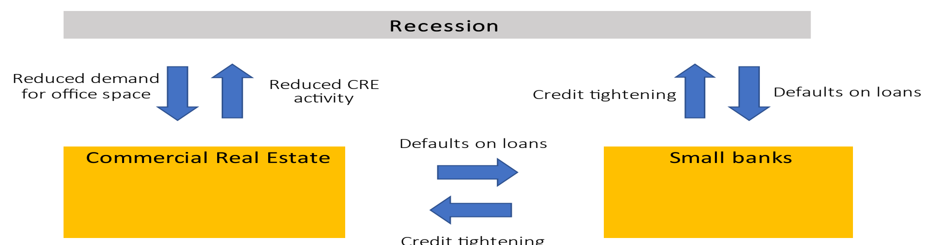
The commercial real estate-small bank nexus allows for several scenarios in which both sectors could be destabilized. In the first two scenarios, a crisis occurs in one sector, causing problems in the other sector. Tighter credit and reduced activity in the CRE sector could push the economy into a mild recession. In the third scenario, a mild recession causes problems in both sectors, which could then reinforce each other and make the recession worse.

In scenario 1, **a small banking crisis leads to problems in CRE**. Given that the majority of CRE loans have been made by small banks, continued problems for small banks, caused by or leading to deposit flight, could force them to tighten lending to the CRE sector. This would reduce the supply of credit to CRE, causing additional problems for the CRE sector, on top of office vacancies and stagnating prices.

In scenario 2, **a CRE crisis causes small banks to collapse**. Even if small banks stabilize in the near future from the recent deposit flight problems, they could subsequently be dragged down by a crisis in the CRE sector. Defaults in CRE will asymmetrically hurt small banks rather than large banks, because of the concentration of CRE risks at small banks. This could lead to a new round of deposit flight from small banks to large banks and money market funds. The losses on loans and loss of funding could be lethal to small banks.

In scenario 3, **a mild recession could cause a small banking crisis and a CRE crisis. In turn, this could lead to a more severe recession**. A mild recession, for example caused by the Fed's hiking cycle, will hurt the banking sector and the CRE sector at the same time. In particular, a recession would further reduce demand for office space. This will add to the problems in the CRE sector. Increased CRE defaults will hurt banks, especially the smaller ones with relatively more exposure to CRE. Losses on CRE loans will force banks to tighten credit, including for the CRE sector. The self-reinforcing problems in the two sectors could further drag down the overall economy, making the initially mild recession more severe. Specifically, tighter credit and reduced activity in the CRE sector will drag down GDP growth further. We summarize the specific feedback mechanisms in the commercial real estate-small bank nexus in figure 6.

Figure 6: The commercial real estate-small bank nexus



Source: Rabobank

More broadly, we already saw in March how problems at small banks had an immediate adverse impact on financial markets. In combination with a faltering CRE sector this could severely undermine confidence among investors, consumers and businesses. This would have a broad-based negative impact on GDP growth.

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Conclusion

COVID-19 appears to have a lasting negative impact on demand for commercial real estate. The federal regulators are aware of the risks in commercial real estate, but the Fed's stress test provides a false sense of security. The finding that large banks are able to absorb losses on CRE loans in case of a CRE crisis is encouraging, but the bulk of CRE bank loans has been provided by small banks. In fact, while CRE lending by large banks has been stable, there has been a credit boom in CRE loans provided by small banks, more than doubling the amount since 2006. What's more, small banks are more vulnerable to the CRE sector in terms of exposure and have already been hit by deposit outflows earlier this year. The commercial real estate-small bank nexus exposes the US economy to a vulnerability that could threaten financial stability and either cause a recession or make a recession more severe.

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RaboResearch
Global Economics & Markets
mr.rabobank.com

Global Head

Jan Lambregts
+44 20 7664 9669
Jan.Lambregts@Rabobank.com

Macro Strategy

Global

Michael Every
Senior Macro Strategist
Michael.Every@Rabobank.com

Europe

Elwin de Groot
Head Macro Strategy
Eurozone, ECB
+31 30 712 1322
Elwin.de.Groot@Rabobank.com

Bas van Geffen
Senior Macro Strategist
ECB, Eurozone
+31 30 712 1046
Bas.van.Geffen@Rabobank.com

Stefan Koopman
Senior Macro Strategist
UK, Eurozone
+31 30 712 1328
Stefan.Koopman@Rabobank.com

Erik-Jan van Harn
Macro Strategist
Germany, France
+31 6 300 20 936
Erik-Jan.van.Harn@Rabobank.nl

Maartje Wijffelaars
Senior Economist
Italy, Spain, Portugal, Greece
+31 88 721 8329
Maartje.Wijffelaars@Rabobank.nl

Americas

Philip Marey
Senior Macro Strategist
United States, Fed
+31 30 712 1437
Philip.Marey@Rabobank.com

Christian Lawrence
Senior Cross-Asset Strategist
Canada, Mexico
+1 212 808 6923
Christian.Lawrence@Rabobank.com

Mauricio Une
Senior Macro Strategist
Brazil, Chile, Peru
+55 11 5503 7347
Mauricio.Une@Rabobank.com

Renan Alves
Macro Strategist
Brazil
+55 11 5503 7288
Renan.Alves@Rabobank.com

Asia, Australia & New Zealand

Teeuwe Mevissen
Senior Macro Strategist
China
+31 30 712 1509
Teeuwe.Mevissen@Rabobank.com

Benjamin Picton
Senior Macro Strategist
Australia, New Zealand
+61 2 8115 3123
Benjamin.Picton@Rabobank.com

FX Strategy

Jane Foley
Head FX Strategy
G10 FX
+44 20 7809 4776
Jane.Foley@Rabobank.com

Rates Strategy

Richard McGuire
Head Rates Strategy
+44 20 7664 9730
Richard.McGuire@Rabobank.com

Lyn Graham-Taylor
Senior Rates Strategist
+44 20 7664 9732
Lyn.Graham-Taylor@Rabobank.com

Credit Strategy & Regulation

Matt Cairns
Head Credit Strategy & Regulation
Covered Bonds, SSAs
+44 20 7664 9502
Matt.Cairns@Rabobank.com

Bas van Zanden
Senior Analyst
Pension funds, Regulation
+31 30 712 1869
Bas.van.Zanden@Rabobank.com

Paul van der Westhuizen
Senior Analyst
Financials
+31 88 721 7374
Paul.van.der.Westhuizen@Rabobank.com

Cas Bonsema
Senior Analyst
ABS, Covered Bonds
+31 6 127 66 642
Cas.Bonsema@Rabobank.com

Agri Commodity Markets

Carlos Mera
Head of ACMR
+44 20 7664 9512
Carlos.Mera@Rabobank.com

Michael Magdovitz
Senior Commodity Analyst
+44 20 7664 9969
Michael.Magdovitz@Rabobank.com

Paul Joules
Commodity Analyst
+44 20 7887 824436
Paul.Joules@Rabobank.com

Energy Markets

Joe DeLaura
Senior Energy Strategist
+1 212 916 7874
Joe.DeLaura@Rabobank.com

Client coverage

Wholesale Corporate Clients

Martijn Sorber	Global Head	+31 30 712 3578	Martijn.Sorber@Rabobank.com
Hans Deusing	Europe	+31 30 216 9045	Hans.Deusing@Rabobank.com
Neil Williamson	North America	+1 212 808 6966	Neil.Williamson@Rabobank.com
Adam Vanderstelt	Australia, New Zealand	+61 2 8115 3102	Adam.Vanderstelt@rabobank.com
Ethan Sheng	Asia	+852 2103 2688	Ethan.Sheng@Rabobank.com
Ricardo Rosa	Brazil	+55 11 5503 7150	Ricardo.Rosa@Rabobank.com

Financial Institutions

Short-term Interest Rates

Marcel de Bever	Global Head	+31 30 216 9740	Marcel.de.Bever@Rabobank.com

Bonds & Interest Rate Derivatives

Henk Rozendaal	Global Head Fixed Income	+31 30 216 9423	Henk.Rozendaal@Rabobank.com

Solutions

Sjoerd van Peer	Global Head	+31 30 216 9072	Sjoerd.van.Peer@Rabobank.com

Relationship Management

Rogier Everwijn	Global Head	+31 30 712 2440	Rogier.Everwijn@Rabobank.com
Rob Eilering	Banks	+31 30 712 2162	Rob.Eilering@Rabobank.com
Petra Schuchard	Insurers		Petra.Schuchard@Rabobank.com
Frank Dekkers	Asset Managers		Frank.Dekkers@Rabobank.com
Javier Alvarez de Eerens	MDB	+31 30 712 1015	Javier.Alvarez@Rabobank.com
Christel Kleinhaarhuis	Fintech		Christel.Klein.Haarhuis@Rabobank.com

Capital Markets

Laura Bijl	Global Head	+31 88 726 3254	Laura.Bijl@Rabobank.com
Christopher Hartofilis	Capital Markets USA	+1 212 808 6890	Christopher.Hartofilis@Rabobank.com
Ian Baggott	Capital Markets Asia	+852 2103 2629	Ian.Baggott@Rabobank.com
Willem Kröner	Global Head ECM	+31 30 712 4783	Willem.Kroner@Rabobank.com
Harman Dhami	DCM Syndicate	+44 20 7664 9738	Harman.Dhami@Rabobank.com
Crispijn Kooijmans	DCM FIs & SSAs	+31 30 216 9028	Crispijn.Kooijmans@Rabobank.com
Bjorn Alink	DCM Securitisation & Covered Bonds	+31 30 216 9393	Bjorn.Alink@Rabobank.com
Othmar ter Waarbeek	DCM Corporate Bonds	+31 30 216 9022	Othmar.ter.Waarbeek@Rabobank.com
Joris Reijnders	DCM Corporate Loans	+31 30 216 9510	Joris.Reijnders@Rabobank.com
Brian Percival	DCM Leveraged Finance	+44 20 7809 3156	Brian.Percival@Rabobank.com

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