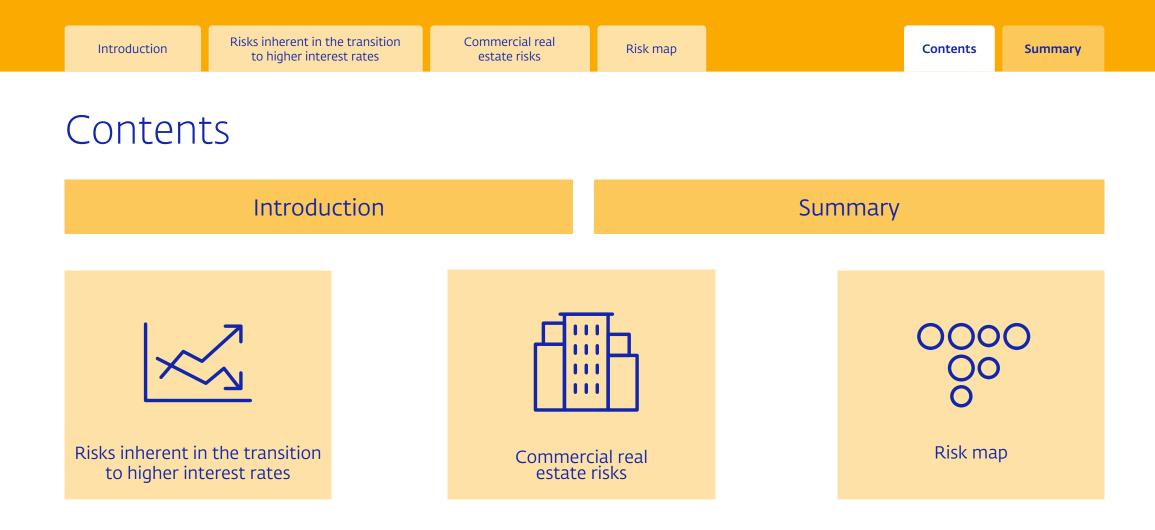
Financial Stability Report Autumn 2023

DeNederlandscheBank

EUROSYSTEEM



Summary

Central banks have continued to tighten their monetary policies to combat high inflation. At 4.5% in September, core inflation in the euro area remains persistently high for now. Although core inflation is expected to fall in the period ahead, it is set to remain above 2% for some time to come. To bring inflation in line with its target, the European Central Bank raised its policy rate to 4% at a historically fast pace. Financial conditions in the Netherlands have tightened further in the past year, partly due to rising interest rates. This makes it more expensive for businesses, households and governments to raise finance. While this tightening of conditions is a deliberate effect of monetary policy, at the same time it affects the financial system. Moreover, if inflation remains elevated for longer than expected, there is a risk that a financial conditions may be tightened even further.

The transition to less accommodative financial conditions has an impact on financial stability risks. Such a transition may entail risks and exposes vulnerabilities in the financial system. Three key risks to financial stability from this transition are liquidity risks in financial markets, interest rate and credit risks among financial institutions and the sustainability of government debt. In the case of the first risk, there is currently reduced liquidity in financial markets, making it more likely that liquidity shocks in individual markets will spread to other parts of the financial system. Liquidity risk is heightened as volatility, especially in bond markets, remains high due to uncertainty surrounding the economic outlook and inflation. This requires more detailed analysis and we therefore continue to monitor liquidity risks actively as part of our supervision.

In view of the increased interest rate and credit risks, it is important that financial institutions remain resilient and

vigilant. Dutch banks enjoy solid financial positions, thanks in part to the measures DNB has recently taken. The banking turmoil seen earlier this year showed that adequate regulation is important to ensure the resilience of banks. In addition, vigilance to increased risks is needed. After all, the effects of tighter financial conditions work their way into businesses' and households' financing costs, and hence credit risks, with a lag.
There is also a time lag before credit risks can be observed in the data. It is therefore important for banks to take the increased risks, but also their own resilience, into account going forward in designing their capital policies. For pension funds and insurers, higher interest rates have a favourable effect on their solvency positions, but it is important that they are alert to possible price corrections in financial markets, given their earlier search for yield.

The higher interest rates impair the sustainability of government debt, making adjustments necessary. This is the third risk mentioned. In order to be able to support the economy in a crisis, it is important that governments – including the Dutch government – keep their fiscal policy under control. Furthermore, some countries are vulnerable to a negative feedback loop between governments and banks. In the transition to tighter financial conditions, the negative feedback loop between banks and governments may return. It is therefore desirable for governments to reduce high debt positions and for standard setters to roll back their preferential treatment of sovereign debt in the banking capital framework.

The Dutch commercial real estate market is also under

pressure. The transaction value of commercial real estate has fallen by 13% since mid-2022. This pressure is evident in all segments of the commercial real estate market, including office space. The higher financing costs resulting from higher interest rates and construction costs lead to lower expected returns on commercial real estate, less investment and lower demand for credit. Structural changes, such as the popularity of e-commerce and the increase in remote working, are adding to the pressure on the commercial real estate market.

Dutch financial institutions must prepare for higher credit risks and further price corrections in the commercial real estate market. Dutch banks, insurers and pension funds have a combined exposure of €360 billion to this market. The negative >

developments in this market increase the probability of default, potentially causing greater losses and further falls in real estate valuations. In the case of Dutch banks, there are currently no visible signs of credit risks materialising in commercial real estate, but this situation may change and banks must be alert to an increase in credit risks. Insurers and pension funds are also exposed to losses due to price corrections in commercial real estate, which have a direct impact on their balance sheets.

Despite the limited risks associated with liquidity and leverage, Dutch real estate investment funds must be alert to an increase in redemption requests. Pension funds and insurers invest to a large extent in commercial real estate through investment funds. A closer examination reveals that risks among Dutch real estate investment funds due to liquidity mismatches appear limited, particularly since the funds' redemption frequency is geared to the illiquid nature of real estate investments. The risk of excessive leverage also seems limited, because its use is concentrated among a small number of closed-ended real estate funds. Their low redemption frequency means that Dutch real estate funds must be alert to the risk of a rise in redemption requests in the near future if the market remains under sustained pressure.

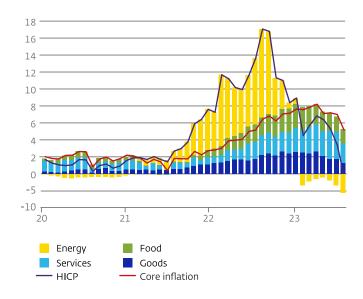
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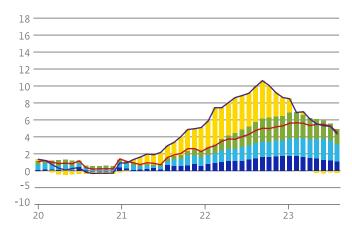
Inflation now appears to have peaked in the Netherlands, although core inflation remains high and persistent. Dutch core inflation (which excludes energy and food) is declining after peaking in May 2023, but has been above 5% for more than a year. In September 2023, Dutch core inflation was 5.1%, compared to European core inflation of 4.5%. The high core inflation is being driven mainly by price rises in the services sector. At the same time, HIPC inflation has fallen sharply, after peaking at 17% in September 2022. Dutch inflation in August stood at -0.3%¹, below the euro area average of 4.3%. This is due in particular to the relatively steep fall in energy costs in the Netherlands. Meanwhile, core inflation has also started a downward movement, but is expected to remain above 2% for some time to come (DNB, 2023).

In order to lower inflation to the target level, central banks have further tightened monetary policy. Since mid-September, the European Central Bank has maintained a key policy rate of 4.0%, which is a high level viewed from a historical perspective. The pace of the recent interest rate hikes, totalling 4.5 percentage points over 14 months, is also historically rapid. In the previous tightening cycle, the ECB raised rates by 2 percentage points over a period of some 2.5 years. Central banks in the United Kingdom (5 percentage points in 18 months) and the United States



Percentages for the Netherlands (left) and euro area (right)





Sources: Statistics Netherlands and Eurostat.

(5.25 percentage points in 16 months), among others, have also raised their monetary policy rates at a historically rapid pace. The monetary policy tightening is aimed at addressing high inflation in the real economy. Rising interest rates also impact the financial system and markets, and this is a key focus of this Financial Stability Report. High interest rates are slowing economic growth, but the labour market remains tight, leading to upward price pressure. Growth in the global economy is expected to be lower in 2023 than in the previous year. Although the IMF (2023) expects the global economy to grow by 3.0% in 2023, it expects lower growth of 0.8% for the Dutch economy. This is in line with our projections for 2023 (DNB, 2023). The outlook for 2023 is therefore ►

¹ The negative HICP inflation of September 2023 can be attributed to a change in the inflation calculation methodology implemented by Statistics Netherlands (CBS). The negative HICP inflation is mainly caused by extremely high gas and electricity prices under its previous methodology in September 2022. From June 2023, CBS has been using a new methodology that better reflects actual price trends.

Commercial real estate risks

Risk map

Contents Summary

substantially lower than the actual economic growth recorded in the past two years, which was exceptionally high. The main causes of the lower growth are declining exports and consumption. Actual economic growth for 2023 is likely to fall below these projections, given that the Dutch economy contracted slightly in the first half of the year. At the same time, both DNB and CPB (2023) expect the labour market to continue to perform well in the years ahead, keeping unemployment below 4%. This persistent labour market tightness is contributing to higher wage growth. In order to prevent second-round effects, it is important that businesses and workers keep wage and profit growth under control. The current easing of fiscal policy adds to the upward pressure on prices, as it amounts to further government stimulus for the economy. The output gap, which is the difference between growth and potential growth, is still positive. With a view to lowering inflation and improving long-term debt sustainability, the Dutch government should change the course of its fiscal policy (see 'Sustainability of government debt: risks may resurface').

Calm has returned to financial markets, but sensitivity to bad news remains

At the beginning of this year, the rapid transition to high interest rates exposed problems in a number of banks and temporarily led to a loss of confidence. Partly due to insufficient preparation for the sudden change in the interest rate environment, two US regional banks got into financial difficulty and failed in March 2023. This triggered a loss of confidence in the US regional banking sector. Likewise in Europe, Swiss systemic bank Credit Suisse, long plagued by problems, was taken over by UBS under the direction of the Swiss authorities. Also in the United States, the regional First Republic Bank had to be acquired by JP Morgan as a result of a loss of confidence, and the regional banks PacWest and Banc of California announced a merger last summer.

DNB and other supervisory authorities have drawn lessons from the turmoil in the banking sector and it is important to incorporate these in our supervision and regulation. The lessons drawn by DNB were discussed in detail in the previous Financial Stability Report (Spring 2023). The experiences earlier this year underline the importance of wider application of global standards, because even problems in small and medium-sized banks can trigger a global chain reaction. Regulations covering interest rate risk would also strengthen banks' resilience, and further steps should be taken towards global harmonisation of regulations. As to liquidity risk, it is important that assumptions in liquidity standards adequately reflect the increased mobility of savings caused by digitalisation. Finally, it is important that resolution authorities are flexible and prepared to adopt alternative options to resolve failing banks. Discussions are currently ongoing at the international level, including within the Basel Committee on Banking Supervision and the Financial Stability Board (FSB), on ways to incorporate these lessons in existing standards. On the regulatory front, a political agreement was recently reached in Europe to introduce the latest reforms

stemming from the financial crisis by 1 January 2025. The reforms will increase the risk sensitivity of the standardised approaches used to calculate banks' capital requirements with regard to credit risk, market risk and operational risk, and at the same time establish a floor for the capital requirements resulting from banks' internal models. Although the reforms are in line with the Basel agreements in many respects, our call for full, consistent and timely implementation has not been heeded (2023). Consequently it is taking longer to ensure that banks are holding sufficient capital to cover the risks across all portfolios and to improve the comparability of capital requirements between banks.

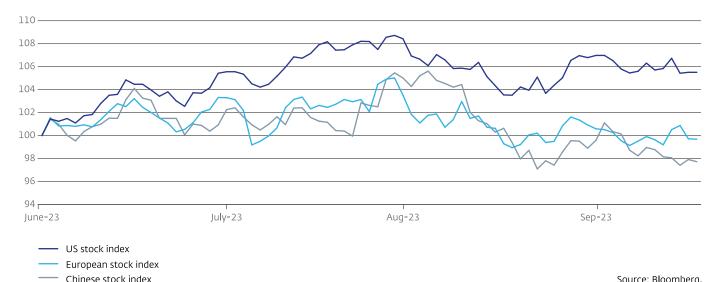
Against this background, the tensions at banks and in financial markets have eased in recent months. The problems in the banking sector initially led to substantial price losses in equity markets. In recent months, the turmoil in the banking sector has faded, however, and equity markets worldwide have risen in value again as recession worries recede in the United States and inflation is expected to fall further. European and American equity indices currently show price gains of 12% and 16% respectively since the beginning of this year. Regional differences have emerged since the spring 2023 FSR, with US equities outperforming European and Chinese equities (see Figure 2). These differences in performance reflect the relatively strong performance of the US economy, whereas investors are concerned about the cooling of the European economy and disappointing economic growth in China. Participants in the US market nevertheless remain concerned about the outlook for the >

regional banking sector. US regional banks are having to replace withdrawn deposits with more expensive funding, partly obtained in the market, putting earnings under pressure. This has not so far happened to any significant degree in Europe, so European banks are performing better. Shares of European banks are currently trading an average of 15% higher than at the beginning of the year (versus -20% for US regional banks). Furthermore, Dutch banks have reported higher profits in the first half of this year than in previous years due to higher net interest income. Net interest income has increased because banks pass on key policy rate hikes to savers only partially and with a time lag (see 'Financial institutions' risks are changing'). Recently adopted plans in some countries, including the Netherlands, to increase bank taxes did put some pressure on bank share prices.

In the meantime, interest rates around the world have

continued to rise. Due to the combination of higher central bank policy rates and an improved growth outlook in the United States, 10-year yields on German Bunds (2.8%) and US Treasuries (4.5%) have risen to their highest levels in the past decade. Markets expect inflation to move back gradually towards the central banks' targets in the year ahead. Against this background, market participants are factoring in interest rate reductions. However, markets have recently become more cautious in expecting falling interest rates, due to persistent inflation. For example, interest rate derivatives in May pointed to a first ECB rate cut in March 2024, but this expectation has recently shifted to July 2024.

Figure 2 Regional equity markets reflect differences in economic outlook Index. 1 June 2023=100



Source: Bloomberg.

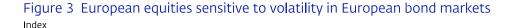
All in all, bond market volatility remains high due to persistent uncertainty about the outlook for economic growth and inflation. Volatility in European and American bond markets remains high in historical terms and is expected to remain so. This means investors are anticipating risks and uncertainty with regard to the economic outlook. This is partly due to the ongoing Russian war against Ukraine and the related tensions in the natural gas market. The inflation outlook also remains uncertain, with wage pressure being one of the upside risk factors. This

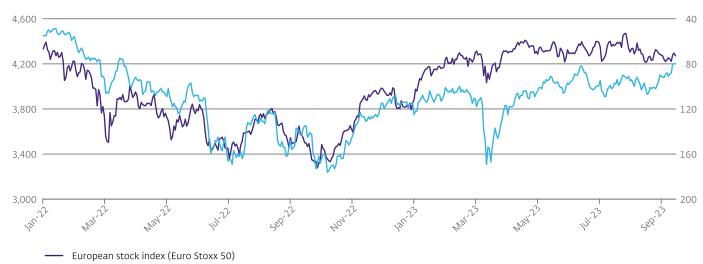
uncertainty is reflected, among other factors, in the increased compensation for taking inflation risks over the medium term. This currently stands at 2.6% (based on five-year inflation swaps), the highest level in the past decade. The market is also factoring in a scenario of persistently high inflation. Option prices, for example, point to a relatively high probability of inflation still being above 3% or 4% in five years' time (38% and 16% respectively). The question therefore remains as to what levels of interest rates will be required, and for how long, to bring inflation back down,

while markets are increasingly anticipating that central banks will maintain current high interest rate levels for longer. As a result of the economic uncertainty, bond markets are reacting strongly to any new data casting light on growth and inflation prospects. Amid growing risks and uncertainties surrounding the economic outlook, volatility in the bond markets may increase further. This uncertainty and greater volatility in the bond markets may curb investors' risk appetite and lead to price losses in equity markets (see Figure 3).

In this FSR: risks inherent in the transition to higher interest rates and commercial real estate risks.

The transition to less accommodative financial conditions has an impact on financial stability. Partly due to rising interest rates, financial conditions are currently tightening. Such a transition may entail risks while also exposing vulnerabilities in the financial system, as seen earlier this year in a number of US banks. The section entitled '<u>Risks inherent in the transition to higher</u> <u>interest rates</u>' explains the main financial stability risks resulting from the transition to less accommodative financial conditions. The focus is on three types of risk, namely liquidity risks in financial markets, interest rate and credit risks for financial institutions and the sustainability of government debt. Policy messages have also been formulated for these risks. A positive point is that Dutch financial institutions have a good starting point due to their solid capital positions. Banks have an average core capital ratio of 17% and the average solvency ratio of Dutch insurers (190% for life and





— Volatility in European bond market (inverted, right axis)

Source: Bloomberg.

180% for non-life) is well above the required levels. For pension funds, funding ratios have improved significantly, with the average nominal policy funding ratio currently standing at around 120%.

The less accommodative financial conditions are also putting sustained pressure on the Dutch commercial real estate

market. In real estate, a distinction can be drawn between properties owned by businesses (*commercial real estate*) and properties owned by private individuals (*housing market*).

The transaction value of commercial real estate has fallen by 13% since mid-2022 (Figure 4). The combination of structural changes (such as the popularity of e-commerce and the increase in remote working) and cyclical changes (including less accommodative financial conditions) are putting pressure on all segments of the commercial real estate market. In the housing market, which is larger than the commercial real estate market, the cooling of prices is levelling off. After doubling in the past decade, house prices have fallen by 6% since the interest rate hikes in 2022 (<u>CBS</u>).

The bulk of this fall occurred in the second half of 2022. The decline now seems to be levelling off, however (Figure 4). For example, the nominal house price index in the second quarter of 2023 (month on month) remains unchanged and the transaction volume rose slightly compared to the previous quarter.

Given the sustained pressure on the Dutch commercial real estate market, this FSR examines the consequent risks to **financial institutions.** Such risks are a specific example of the previously mentioned increase in credit risks among financial institutions, as described in the section entitled 'Risks inherent in the transition to higher interest rates'. Dutch financial institutions operate in this market by lending to real estate investors, investing in real estate directly or investing in real estate funds. Dutch banks, insurers and pension funds have a collective exposure of €360 billion to the commercial real estate market. Due to the challenging outlook in various European commercial real estate markets, the European Systemic Risk Board (ESRB) advised Europe's macroprudential authorities at the beginning of this year to monitor commercial real estate risks and take measures where necessary. The section entitled 'Commercial real estate risks' surveys the risks that Dutch financial institutions face in the Dutch real estate market and examines whether policy action is required.

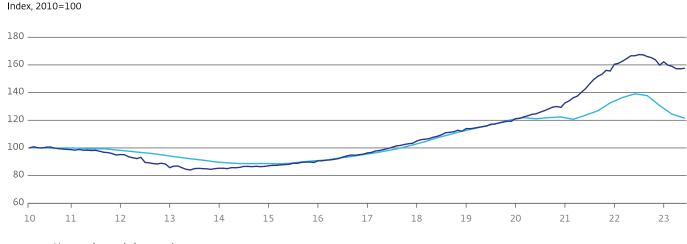


Figure 4 Commercial real estate transaction values continue to fall, but decline in house prices flattens out

---- House prices, existing own homes

---- Transaction values for commercial real estate

Sources: Statistics Netherlands and MSCI.

The risk profile is deteriorating due to structural risks

The effects of climate change and environmental degradation are becoming increasingly visible. Higher temperatures across the globe are accompanied by an increase in extreme weather events, many examples of which can be seen in 2023. The financial loss resulting from this extreme weather could have a significant impact on financial institutions. The increase in extreme weather also testifies to the importance of accelerating the energy transition, bringing with it greater transition risks. Moreover, these climate risks are closely linked to nature-related risks. For instance, climate change is causing environmental degradation, an effect amplified by extreme weather-related events, such as forest fires. At the same time, biodiversity loss in turn amplifies the effects of climate change, for example by releasing carbon dioxide that had been stored in nature. The negative impacts of physical and transition risks on the financial system will increase if financial institutions do not take prompt and adequate control measures. In our study entitled 'Balancing Sustainability', we concluded that financial institutions are still taking insufficient account of **>**

sustainability risks in their core processes, including climate change and nature-related risks (2021). In order to ensure adequate risk management, climate- and nature-related risks will be an integral part of our regular supervision (2023). We will shortly publish an Occasional Study on nature-related risks to financial stability jointly with PBL Netherlands Environmental Assessment Agency.

Dutch financial institutions must also remain alert to various cyberthreats, including DDoS and ransomware attacks. In the past six months, there have been more and more DDoS attacks on websites, including those of Dutch financial institutions. The impact of these attacks has so far remained limited, partly due to the resilience of financial institutions. The quantity of attacks is unpredictable, but appears to be linked to some extent to Dutch statements of support for Ukraine. Financial institutions must also be mindful that these hacktivists may develop and/or deploy other, more advanced cyber weapons – such as ransomware. Although there have been no major ransomware attacks on Dutch financial institutions in the past six months, financial institutions have been victims in other parts of the world. For example, ransomware attacks on the Australian insurer MediBank and the Spanish bank Globalcaja caused a great deal of damage.

Cyber risks also arise in the outsourcing chains of financial institutions. They emerge because financial institutions increasingly engage third parties to administer their business processes. The outsourcing of such processes can increase the efficiency and security of operational management, but it also increases the number of possible entry points for cyberattacks. Moreover, financial institutions are then partly dependent on the security and risk management practices of third parties. The increasing use of outsourcing may also be accompanied by concentration risks, because multiple financial institutions may outsource processes to the same service provider. In such cases, disruption at a single third party may lead to problems in a number of financial institutions. It is therefore important that financial institutions properly assess their supply chains and conduct regular security or crisis management tests on any identified dependencies.

Other current risks to financial stability are shown

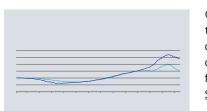
schematically in the risk map. The <u>risk map</u> outlines the risks we see to financial stability and how they have evolved since the previous edition of the FSR. Some risks in the risk map are not addressed in this FSR, for example if they were discussed in previous editions of the FSR or in separate DNB publications.

Introduction	Risks inherent in the transition to higher interest rates	Commercial real estate risks	Risk map		Contents	Summary
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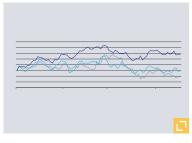
Figures



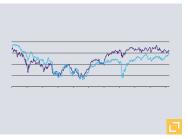
Dutch inflation below euro area; core inflation higher <u>See Figure 1 →</u>



Commercial real estate transaction values continue to fall, but decline in house prices flattens out See Figure $4 \rightarrow$



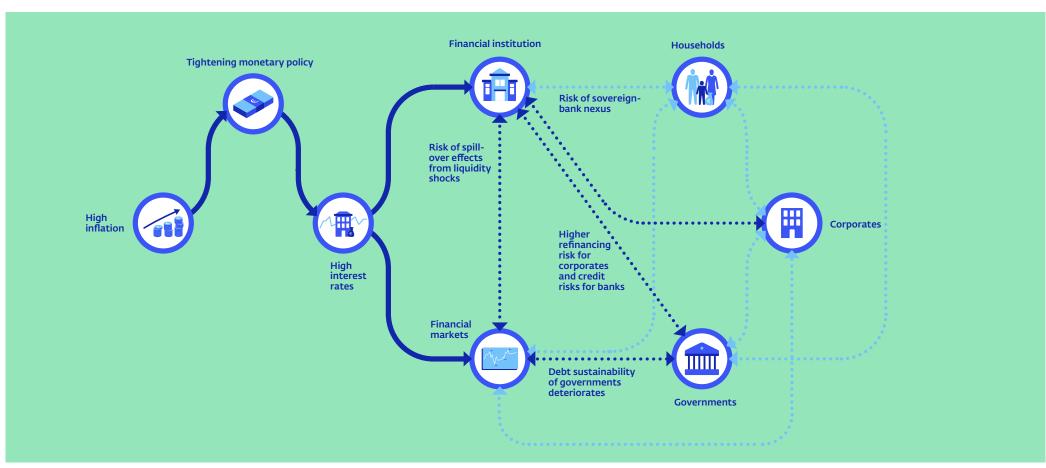
Regional equity markets reflect differences in economic outlook See Figure $2 \rightarrow$



European equities sensitive to volatility in European bond markets <u>See Figure 3 →</u>

7/7

No one is immune to rising interest rates



Risks inherent in the transition to higher interest rates

Central banks are tightening monetary policy to combat high inflation. High inflation means that prices rise sharply, so the costs to households and businesses increase. Without compensation in income and selling prices, households and businesses experience a deterioration of their financial position. Rapid changes in prices lead to uncertainty in the real economy. There is a risk that this uncertainty will slow down the economy, causing greater numbers of bankruptcies and higher unemployment. High inflation also leads to a redistribution of wealth and income in society. This redistribution is not based on government policy and may produce negative socio-economic effects. Due to these undesirable effects of high inflation, central banks are tightening their policies.

After a long period of accommodative financial conditions,

some time before the impact is fully felt in the economy.

banks are currently tightening their conditions, but it will be

Financial conditions are usually measured by means of a financial

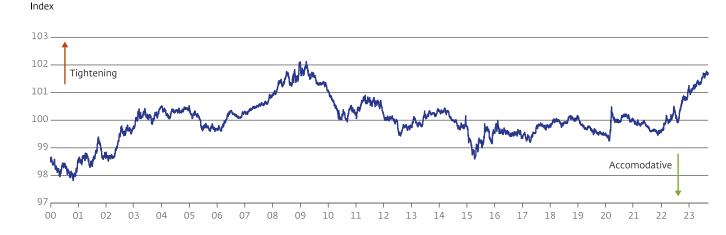


Figure 5 Financial conditions tighten after a long period of accommodative financial conditions in the Netherlands

Source: Goldman Sachs Global Investment Research.

Note: A value below 100 is indicative of financial conditions that stimulate the economy, while a value above 100 suggests financial conditions that put a drag on the economy.

condition index (FCI). This FCI index summarises the impact of alarge number of financial indicators on future economic growth.Since the third quarter of 2022, financial conditions have tightenedsubstantially in the Netherlands (see Figure 5), mainly as a resultof monetary policy and the resulting rise in interest rates. Thismakes it more expensive for businesses, households andgovernments to raise money to finance their spending. At the

same time, businesses, households and governments generally fix interest rates on loans for several years. It will therefore be some time before the effect of high interest rates is fully felt in the economy. Research shows that a monetary policy shock in the euro area impacts economic growth after around twelve months (Jarocinski and Karadi, 2020), while research by the Fed shows that it takes as much as five quarters for interest rate hikes to impact businesses' interest expenses (Boston Fed, 2023).

The transition to less accommodative financial conditions is expected to impact financial stability in various ways.

The tightening of financial conditions is a deliberate effect of **>**

Commercial real estate risks

Risk map

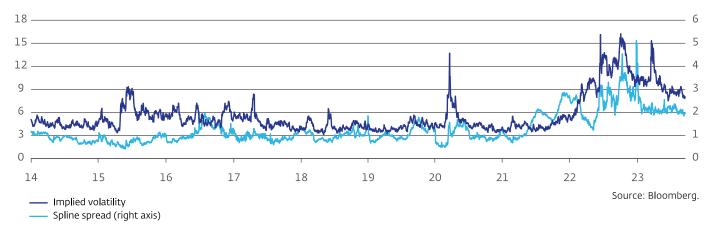
the monetary policy aimed at bringing inflation in line with the target. At the same time, this transition may have side effects on financial stability. These side effects may also be positive. For example, there are indications that investors in financial markets have recently started pricing in more risks again, and higher interest rates mean that governments, businesses and households have less incentive to build up new debt. At the same time, there is a greater likelihood that risks built up previously in the system will materialise and higher interest rates will increase other risks to financial stability. For example, banks will face greater credit risks if businesses cannot meet higher interest payments and their collateral falls in value.

This section examines the main risks to financial stability in the transition to less accommodative financial conditions. The focus is on three types of risk, namely liquidity risks in financial markets, interest rate and credit risks to financial institutions and the sustainability of government debt. Appropriate policy messages have been formulated for these risks.

Liquidity in financial markets: greater risk of volatility and spillover effects

Market liquidity has decreased as a result of the increased volatility in financial markets. The high inflation and uncertainty surrounding the economic outlook have caused an increase in volatility in bond markets, see '<u>Calm has returned to financial</u> <u>markets, but sensitivity to bad news remains</u>'. When volatility increases, traders in financial markets require additional compensation to provide equity, because each transaction carries increased risk. This translates into higher bid-ask spreads and less market depth at a given price level, so market liquidity deteriorates. Market liquidity reflects the extent to which traders are able to sell assets quickly without high transaction costs or wide price fluctuations. In addition to the higher volatility, the falling demand for bonds puts pressure on market liquidity, as central banks continue to scale back their reinvestments in asset purchase programmes and financial markets have to pick up the slack. So far, financial markets have been able to absorb this demand. After a strong rise in volatility and a commensurate fall in market liquidity in 2022, both have stabilised this year. The persistent uncertainty surrounding the economic outlook and higher volatility are keeping market liquidity low, however. This lower market liquidity may in turn contribute to greater volatility, because low liquidity brings a greater likelihood of wide price fluctuations in the market.

Figure 6 Market liquidity decreased in line with increase in bond market volatility Percentages, basis points



Note: The implied volatility is the future price of 10-year German government bonds. The Spline spread measures the market liquidity for these German government bonds as the average deviation in yield relative to the modelled fair value. A higher Spline spread indicates lower market liquidity.

The tighter financing conditions also make it more expensive for financial institutions to raise funding. The continued move away from accommodative monetary policy leads to tighter financing conditions. This naturally also has consequences for the ease with which financial institutions can raise money (known as funding liquidity). The higher interest rates make funding more expensive for financial institutions, because investors demand higher premiums and differentiate more between institutions. Since the banking turmoil in the spring of 2023, greater differentiation has been evident in banks' funding costs, with investors seeing smaller banks as riskier (see Box 2 'Greater cost differentiation between large and small European banks'). Banks' funding costs are also increasing because the ECB's favourable loans to European banks (TLTRO loans) are gradually maturing and banks will have to replace them with more expensive funding, including market finance.

The decrease in market and funding liquidity increases the risk of spillover effects from liquidity shocks. Funding liquidity and market liquidity are interrelated, because financial institutions and other market participants conduct transactions with each other in different markets. In normal times in repo markets, for example, pension funds extend short-term loans to other market participants in exchange for high-quality collateral, enabling the pension fund to earn money. In times of stress, these dynamics can go into reverse, as pension funds may need cash to meet margin calls in derivatives portfolios when interest rates rise suddenly, for example. This may cause liquidity shocks to spread **>**

Box 2 Greater differentiation in funding costs between large and small European banks

The banking turmoil in March has left its mark on a number of banking submarkets. Although the market for subordinated bank debt instruments (the AT1 market) has largely recovered after being shaken up by the Credit Suisse bankruptcy, it still commands higher risk premiums than risky non-bank debt securities (see Figure 7). There is also greater differentiation in funding costs between small and large banks in a climate of rising interest rates. Investors generally see small banks as riskier than their larger counterparts. This form of risk differentiation became less common in the low interest rate environment due to the search for yield among investors, resulting in relatively low funding costs for small banks. The rise in interest rates that began last year reversed this trend. For example, investors in debt markets have recently begun to differentiate more between small (riskier) European banks and larger banks that are deemed to be safer.

Figure 7 Difference in spreads on AT1 debt securities and high-yield non-bank corporate bonds is still higher than before the banking turmoil

Basis points, asset swap spread of euro-denominated debt securities



4/12

Commercial real estate risks

Contents Summary

to other markets or institutions (spillover effects). When liquidity problems arise simultaneously in multiple financial institutions, the liquidity risk in such cases may become systemic (<u>IMF, 2011</u>). The decline in market and funding liquidity increases the likelihood of such liquidity shocks and spillovers. A recent example of spillover effects is the turmoil in the British financial markets in the autumn of 2022. A loss of confidence in the Truss government's fiscal policy caused a sudden rise in yields on British government bonds. British pension funds then had to meet large margin calls, causing spillover effects to repo and money markets due to their need to raise cash.

Due to the increased risk of liquidity shocks, we are monitoring liquidity risks as part of our supervision and believe a closer analysis of spillover effects would be worthwhile. Banks, pension funds, insurers and other financial institutions, such as investment funds, must take account of the increased liquidity risks in their liquidity planning and management. In our supervision, we are therefore devoting particular attention to liquidity risks, partly by means of stress tests. We conduct liquidity stress tests on banks, for example (see FSR spring 2023). In addition, DNB and the AFM, at the request of the Financial Stability Committee (FSC), are currently examining to what extent a combination of interest rate shocks and a temporary drying up of the repo market would lead to liquidity risks among large pension funds. In the case of insurers, the current revision of the Solvency II framework provides opportunities to introduce macroprudential elements, such as measures to address liquidity vulnerabilities. In addition to liquidity risks for individual financial institutions, we believe it is appropriate to examine systemic liquidity risks, exploring the extent to which the current macroprudential toolkit is sufficient to address these risks (for example Article 458 of the CRR or Article 25 of the AIFM Directive for investment firms).

Financial institutions' risks are changing

The increase in bank profits and higher funding ratios at pension funds show that higher interest rates are in principle beneficial for financial institutions. In the case of banks, higher interest rates contribute to a rise in net interest income, because banks can increase their margins between the interest they receive on their assets and the interest they pay on their funding. This net interest income was under pressure for a number of years in the low interest rate environment, because banks were reluctant to pass on the negative key policy rate in the savings interest paid to households. With banks now passing on only part of the rise in the key policy rates to savers, and with a time lag, net interest income is increasing and bank profits are rising. Moreover, the knock-on effect of interest rate hikes on lending rates is by definition gradual, as outstanding bank loans have longer fixed-interest periods and customers pay their previously agreed lower interest rates for longer periods (see Figure 10). This helps explain why, in the first guarter of 2023, Dutch banks' interest income rose by around 30% compared to the previous year. The

financial position of pension funds has also improved, partly because the higher interest rates have a greater impact on the value of the liabilities than on the value of the assets. Pension funds are thus able to index their pensions, either fully or in part. As a rule, a higher interest rate is also favourable for the solvency and profitability of insurers, but the effect depends on the type of insurer and the portfolio.

At the same time, financial institutions must remain alert to

the risks of historically rapid interest rate hikes. The risks associated with the interest rate changes can be seen, for example, among Dutch life insurers, which have built up large mortgage portfolios in recent years. The substantial rise in mortgage interest rates has caused the value of these mortgage portfolios to fall sharply. Partly as a result of this, the average solvency ratio of life insurers has fallen compared to last year. Their increased exposure to mortgages is due, among other factors, to their search for greater yield. Like other financial institutions and investors, they have adjusted their investment policies to the low interest rate environment in recent years (see Box 3 'Search for yield persists'). The rapid rate rise also highlights the importance of proper management of interest rate risks by financial institutions. As explained in the introduction, a number of US regional banks got into difficulty in the spring as a result of inadequate interest rate risk management. These banks were not sufficiently prepared for interest rate changes, which are an inherent part of the banking business model (see FSR Spring 2023).

Commercial real estate risks

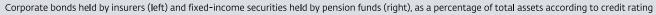
Dutch banks must also continue to monitor interest rate risks closely and make proactive adjustments. The relatively long fixed-interest period on the asset side means it takes some time before higher interest rates are reflected in all income. Since higher interest rates can rapidly impact funding costs, it is important that banks control this interest rate risk. ►

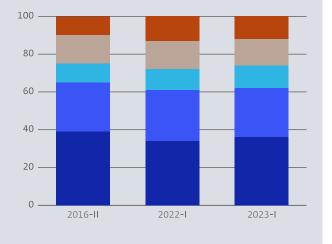
Box 3 Search for yield persists

The change in financial conditions has only curbed the search for yield by investors and financial institutions to a limited extent. In the low interest rate environment, Dutch institutional investors, among others, took greater risks to achieve the desired yield (see <u>FSR autumn 2019</u>). As part of this search for yield, pension funds and insurers moved their investments from safe asset classes to riskier assets, such as mortgages, riskier corporate bonds and equities. The recent interest rate hikes enable investors to generate greater returns

on relatively safe bonds (including sovereign bonds), reducing the incentive to invest in riskier asset classes. This has not so far led to a substantial reduction in the risk in institutional investors' investment portfolios. Insurers and pension funds increased their share of the mortgage market – largely through investment funds – from 12% to 20% between 2016 and 2020. In 2023, pension funds and insurers have so far maintained this market share. Pension funds' share of bonds with a credit rating lower than BBB also rose from 9% in 2016 to 13% at the

Figure 8 High-risk investments of insurers and pension funds have edged down





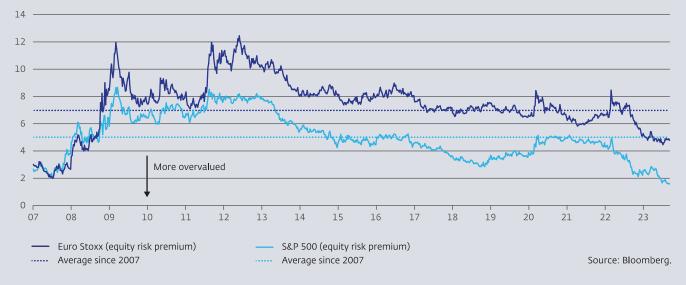
6/12

Source: DNB Supervisory Statistics.

Commercial real estate risks

beginning of 2022 (Figure 8). In the case of insurers, the proportion of risky government bonds increased from 3% to 5% over the same period. Since the interest rate rise, the share of risky bonds held by pension funds has only fallen by one percentage point, whereas the share of risky corporate bonds held by insurers has broadly remained unchanged. Finally, there has been no substantial change in insurers' larger share of corporate bonds and equities, which are known to be more volatile and less safe, in the investment mix. The decline in the search for yield may well take time. For example, pension funds and insurers have a long investment horizon, so the opportunities to adjust their strategic investment policies are less frequent. Sustained exposure to risky assets nevertheless makes pension funds and insurers vulnerable to price corrections in these markets. This vulnerability is further exacerbated by the fact that asset classes have recently moved more in parallel. For instance, since 2022, there has been a positive correlation between equity and bond prices, making it more complex for financial institutions to diversify their investment portfolios.

The relatively high valuations make risky assets vulnerable to a deterioration in the growth outlook or a further rise in interest rates. A breakdown of the drivers behind the strong performance of European equities shows, for example, that high profit expectations and a decrease in the equity risk premium were main contributors to the high share prices. The estimated equity risk premium thus fell well below the long-term average. That applies to both European and American equities (see Figure 9 Equity market investors require relatively little extra return compared to risk-free government bonds Percentages



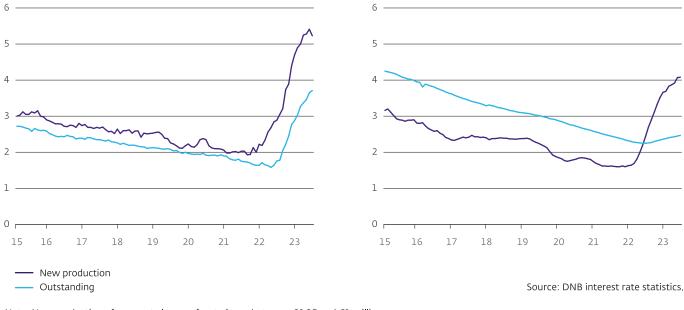
Note: The equity risk premium is calculated as the inverse cyclically adjusted price earnings (CAPE) ratio minus the real risk-free interest rate. CAPE is a valuation measure (price-to-earnings ratio), adjusting for fluctuations in corporate profits over different economic cycles.

Figure 9). A lower equity risk premium means that investors demand relatively little additional return for investing in (possibly risky) equity markets compared to investments in safer government bonds. A low equity risk premium therefore indicates that equity markets are relatively highly valued. The current low equity risk premium shows that investors are positive about the economic outlook, so the current high valuations are vulnerable to any deterioration in the growth outlook. In the United States, the rapid rise in valuations of technology stocks, driven partly by the high expectations for artificial intelligence (Nasdaq +30%, Nvidia +200%), is particularly striking. A further rise in interest rates beyond the level currently anticipated by investors, for example due to persistently high inflation, also poses a risk to equity valuations.

Higher interest rates increase the refinancing risks for Dutch businesses. A significant proportion of Dutch businesses will face higher interest costs in the short term. For example, 56% of total Dutch corporate debt is due to mature or be subject to an interest rate review within the next two years. Refinancing risk arises when businesses are unable to replace their existing financing at a reasonable price at the end of its term or are unable to meet the higher interest costs. The size of the refinancing risk depends on the difference between current and future interest rates. Due to the relatively short terms and short fixed-interest periods of corporate loans (the average horizon until maturity or the next interest rate reset being 2.8 years for the entire outstanding corporate loan portfolio), the interest rate rise feeds through relatively quickly to a large proportion of the outstanding corporate loans. In the case of Dutch corporate loans of between €250,000 and €1 million, for example, the interest rate on new loans rose last year by 2.3 percentage points and the interest rate on the portfolio as a whole rose by 2.0 percentage points (see left-hand panel of Figure 10). On the other hand, households' refinancing risk is substantially lower due to the use of relatively long fixed-interest periods in mortgage loans. Only 13% of mortgage debt is due to mature or be subject to an interest rate review in the next two years. This lower refinancing risk means that interest rate rises feed through more slowly into the mortgage portfolio. Although interest rates on new mortgages rose by 1.7 percentage points over the past year, the average interest rate on all outstanding mortgages has only risen by 0.2 percentage points (see right-hand panel of Figure 10).

Figure 10 Interest rate increase affects banks' outstanding business loans faster than outstanding mortgage loan portfolio

Percentages on corporate loans (left) and mortgage loans (right)



Note: New production of corporate loans refers to loans between €0.25 and €1 million.

The refinancing risks and lower repayment capacity of businesses and households mean greater credit risks for financial institutions. In addition to the higher refinancing risks, high inflation puts pressure on the repayment capacity of businesses and households. It reduces the spending power of businesses and households, particularly when businesses are unable to pass on price rises to customers. In the case of households, high inflation also reduces real incomes – and hence repayment capacity. The higher refinancing risks and lower repayment capacity may lead to greater credit risks for financial >

Commercial real estate risks

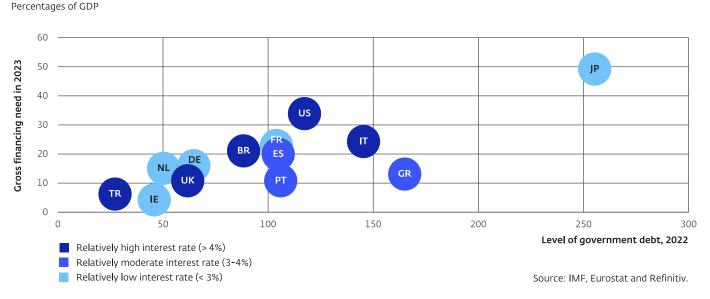
Risk map

institutions. Although the number of bankruptcies among Dutch businesses has increased by 52% in the past year, it is still below the level recorded before the Covid-19 pandemic. It is notable that the number of bankruptcies was exceptionally low during the pandemic. This slight rise in corporate bankruptcies has not so far led to an increase in banks' non-performing corporate loans, which stands at around 3.1% of all outstanding corporate loans. That said, it is important that financial institutions prepare for a potential increase in non-performing loans in the future.

In view of the increased interest rate and credit risks, it is important that banks remain resilient and vigilant. Dutch banks enjoy solid financial positions, thanks in part to the measures DNB has recently taken. In 2022 and 2023, for example, we raised the countercyclical capital buffer for banks, so that banks would have additional headroom to absorb losses in times of financial stress or in response to economic shocks, while maintaining the level of lending (FSR Spring 2023). The banking turmoil seen earlier this year showed that adequate regulation and supervision are important to safeguard the resilience of banks. Unfortunately, at the European level, a political decision was taken to not fully implement the latest set of reforms to the banking capital framework in line with global agreements. Otherwise, banks would have to hold higher buffers, and start holding them earlier than currently envisaged in European legislation. This would therefore also restrict the banks' scope for profit distribution. In addition, vigilance to increased risks is needed. After all, the effects of tighter financial conditions work their way into businesses' and

households' financing costs, and hence credit risks, with a lag. This makes banks vulnerable to potential losses in the future. There is also a time lag before credit risks can be observed. It is therefore important for banks to take the increased risks, but also their own resilience, into account going forward when designing their capital policies. For the large Dutch banks, this is ultimately assessed from a micro-prudential perspective by the ECB's Supervisory Board, which is responsible for European banking supervision. Against this background, the recent proposal by the House of Representatives to increase taxation of Dutch banks, with a view to their increased profits, is relevant. The decision to levy additional tax on banks is up to politicians. From a prudential perspective, it is desirable that the design of an additional bank tax does not undermine the banks' resilience and is consistent with its objective, which is to subject banking profits earned in the Netherlands to additional tax. This consistency is lacking if the **>**

Figure 11 Japan, US and Italy have relatively high debt levels and financing needs



Note: Interest rate refers to the yield on 10-year government securities as at end-August 2023.

Commercial real estate risks

Risk map

current bank tax is permanently increased. The current bank tax aims to address the implicit subsidy for the so-called too-big-tofail risk and depends on the extent to which a bank funds itself with debt. Also, a permanent tax increase like the current one may impact banks' future ability to build further buffers.

Sustainability of government debt: risks may resurface

The higher interest rates impair the sustainability of

government debt. The sustainability of government debt is determined by a combination of interrelated factors, including the level of interest rates, the financing requirement, the level of government debt, the economic outlook and the fiscal policy. Over the past decade, government debt has increased relative to economic growth worldwide, including in Europe. Governments of countries such as Japan, the United States, Italy and Spain have government debt exceeding their GDP (see Figure 11). Although high inflation has had a positive impact on debt-to-GDP ratios due to higher GDP figures, the debt levels remain high relative to economic activity. The rise in yields on government bonds now makes financing more expensive for governments. Yields on government bonds have risen across the board in comparison with 2021, although yield levels differ depending on the government. Governments in the United States, Italy and Spain, for example, have a less favourable debt sustainability position due to a combination of high debts, a high financing requirement and relatively high interest rates. An unfavourable economic outlook and a procyclical fiscal policy also have a negative impact on the

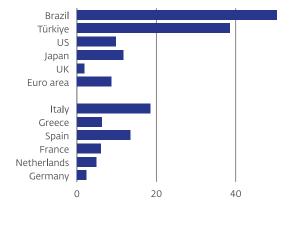
sustainability of debt. The credit rating agency Fitch, for example, recently downgraded the United States, partly due to its rising budget deficit, and political turmoil about raising the debt ceiling continues.

It is important, also for the Netherlands, to pursue a controlled fiscal policy. Despite the Netherlands' relatively low debt-to-GDP ratio, the budget deficit, if left unadjusted, is expected to exceed 3% of GDP in the years ahead, contravening European budget rules (<u>CPB</u>). Such a deficit would be unsustainable over the long term and would likely cause government debt to exceed the Brussels 60% limit around 2030. Therefore, the next cabinet should adjust the course (see the <u>report of the 17th Working Group</u> <u>on Fiscal Space</u>, available in Dutch). Sustainable government debt in good economic times also enables governments to pursue a stabilising fiscal policy in a period of crisis. It is therefore important to maintain a sufficient gap between the actual deficit and the European 3% limit in normal times. Generous government support during the Covid-19 pandemic, for example, played a part in limiting the contraction and promoting a rapid recovery of the **>**

Figure 12 Interdependence between national governments and banks varies between countries

Government debt on bank balance sheet as percentage of total assets in own currency (left) and total government debt (right)





Sources: IMF and ECB.

60

Commercial real estate risks

Risk map

Contents Summary

Dutch economy. The government was also able to provide support to households in the face of energy price hikes in 2022 to mitigate the loss of purchasing power. If the government maintains an excessively loose fiscal policy in normal times, this may ultimately jeopardise the sustainability of its debt. Moreover, such policies reduce the scope to pursue a stabilising fiscal policy in a subsequent crisis. After all, the buffers required to pursue a stabilising policy must be built up in good times.

In some countries, however, the sustainability of government debt is closely associated with the financial position of national **banks.** Banks and governments are by their nature interrelated, because banks hold government bonds as part of their regular activities and liquidity management. Banks can also lend to governments. Banks and governments are deemed to be highly interdependent if a significant part of the bank balance sheet comprises exposures to the national government and banks thus hold a significant proportion of government debt. Favourable treatment of a country's own government bonds in prudential regulation gives banks an incentive to build up high exposures to the national government. Almost 15% of Italian banks' balance sheets, for example, comprise claims on the Italian government (left-hand panel of Figure 12), while Italian banks hold around 20% of Italian government bonds (right-hand panel of Figure 12). There is less such interdependence in the Netherlands, Germany and

France, for example. This interdependence between governments and the national banking sector is also seen outside Europe, including in Brazil and Türkiye. Brazilian government debt, for example, makes up almost 25% of the balance sheets of Brazilian banks, so these banks hold almost half of the national government debt.

In the transition to tighter financial conditions, the negative feedback loop between banks and governments may return. As stated above, some countries are characterised by a strong interdependence between the government and the national banking sector, which led to a negative feedback loop in the wake of the 2008 financial crisis. The latter can occur in two ways. First, banks are vulnerable to a deterioration in the sustainability of government debt, because an interest rate rise can trigger a fall in the market value of government bonds and losses on banks' bond positions.² Second, the national government is sensitive to banks' financial difficulties because public resources may be used if large banks that play a key role in economy get into difficulty. The transition to tighter financial conditions increases the risk of this negative feedback loop, because it may expose banks' vulnerabilities and impairs the sustainability of government debt. Interest rate changes may also cause greater volatility in government bond markets.

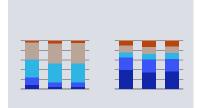
Governments should reduce their debt and standard setters should review their preferential treatment of such exposures to reduce the risk of a sovereign-bank nexus. A lower debt level has a positive effect on debt sustainability and thus reduces the dormant risk of close interdependence between banks and their home governments. In Europe, the current review of the Stability and Growth Pact could set out a realistic path giving governments an incentive to reduce their debt further. In addition, at the global level, there is a need to revise the preferential treatment of (national) sovereign debt as part of the prudential regulation of banks in terms of capital, liquidity and large exposures. This could be done, for example, by prescribing capital add-ons for sovereign bonds above a certain risk concentration. Revising preferential treatment ensures that banks take better account of the risks inherent in sovereign debt and incentivises banks to reduce interconnectedness with their home governments. A first step in breaking this interconnectedness is to better identify and regularly monitor risks at the global level. In doing so, it is important that more countries request voluntary global reporting from banks in their jurisdiction.

² This loss arises immediately if government bonds are held on the balance sheet at market value. Otherwise the loss arises when the bonds are sold.

Figures



Financial conditions tighten after a long period of accommodative financial conditions in the Netherlands <u>See Figure 5</u> →



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Market liquidity decreased in line with increase in bond market volatility <u>See Figure 6 →</u>

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High-risk investments of insurers and pension funds have edged down <u>See Figure 8 →</u>

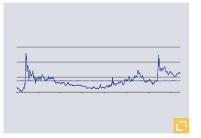


Japan, US and Italy have relatively high debt levels and financing needs See Figure $n \rightarrow$

Equity market investors require relatively little extra return compared to risk-free government bonds See Figure $9 \rightarrow$

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Interdependence between national governments and banks varies between countries <u>See Figure 12 →</u>



Difference in spreads on AT1 debt securities and high-yield non-bank corporate bonds is still higher than before the banking turmoil See Figure $7 \rightarrow$

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Interest rate increase affects banks' outstanding business loans faster than outstanding mortgage loan portfolio <u>See Figure 10 →</u>

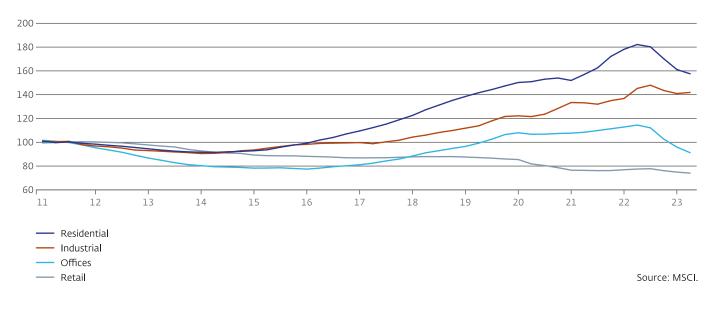
12/12

Commercial real estate risks

The Dutch commercial real estate market² is currently under pressure. After almost a decade of stable growth, valuations in the Dutch commercial real estate market have fallen by 13% in the past year. This fall is evident in all segments of commercial real estate, from retail premises, residential property and industrial premises to office space (see Figure 13). Furthermore, in a survey of Dutch institutional real estate investors, 90% of respondents said the market was declining, while half described current real estate valuations as relatively high. The price falls in the Dutch commercial real estate market are not isolated. Transaction prices are also falling in many other European countries (including Belgium, Germany and Sweden).

Dutch financial institutions have a substantial exposure to commercial real estate. Banks, insurers and pension funds collectively have around €360 billion invested in commercial real estate, both in and outside the Netherlands. In the case of banks, commercial real estate loans make up 7% of the balance sheet (compared to the housing market exposure that accounts for 28% of the balance sheet). Real estate loans are loans backed by property generating rental income and are largely provided by ►





³ The real estate market can broadly be divided into the commercial real estate market and the housing market. Commercial real estate consists of property owned by businesses and can be divided into five segments: residential, retail, office space, industrial premises and other real estate (including hotels). The residential segment comprises homes let by businesses and homes under construction. By contrast, the housing market includes properties owned by private individuals, such as owner-occupied homes, second homes and rental homes owned by private landlords (buy-to-let homes).

large Dutch banks. In the case of pension funds and insurers, investments in commercial real estate account for 7% and 8% of the balance sheet respectively (compared to housing market exposures of 7% and 13% respectively). These investments include holdings in Dutch and foreign real estate investment funds (referred to below as real estate funds). In terms of location, around one-third of the commercial real estate exposures of banks, pension funds and insurers are outside the Netherlands (<u>DNB, 2022</u>). We are unaware of the location of some of the real estate owing to data deficiencies.

Dutch real estate funds, in which pension funds in particular invest, have quadrupled in size over the past 15 years. The combined size of Dutch real estate funds in 2023 was €136 billion, equivalent to 16% of the total assets of Dutch investment funds. In recent years – partly due to the search for yield among institutional investors in the low interest rate environment – real estate funds have quadrupled in size. Pension funds, for example, hold 78% of the net asset value of Dutch real estate funds. The direct holdings of these real estate funds consist mainly of residential properties. Over one-third of the investments are in real estate outside Europe.

This section surveys the risks of the commercial real estate market for Dutch financial institutions. Due to the negative market developments, this section focuses on developments in the Dutch commercial real estate market and the associated risks for different types of Dutch financial institutions. It devotes particular attention to risks in Dutch real estate funds with regard to liquidity mismatches and the use of leverage.

Cyclical and structural changes lead to falling prices

The recent price falls in the Dutch commercial real estate market have been driven in part by higher interest rates and increased construction costs. The main (cyclical) change for real estate loans is the rise in interest rates due to the tightening of monetary policy. The average interest rate on new real estate loans in the second guarter of 2023 was around 4.7%, almost a doubling compared to three years earlier. Since commercial real estate is generally financed by debt, interest expenses make up an important part of the financing costs. High inflation also feeds through into real estate construction costs. As a result of more expensive construction materials and bottlenecks in the supply chain, construction costs have risen by 12.5% in the past 18 months. The combination of higher financing costs and construction costs leads to lower expected returns on commercial real estate, less investment and lower demand for credit. At the same time, the falling real estate valuations automatically mean that less credit can be granted under the same conditions. Lenders may also tighten their conditions for new loans as a result of the deteriorating economic outlook. For example, the volume of new real estate loans from Dutch banks in the second guarter of 2023 decreased by 16% compared to a year earlier. Tighter lending conditions for new real estate loans may further exacerbate the downward price pressure in the real estate market.

Structural changes are also putting pressure on the commercial real estate market. Societal changes, such as the popularity of e-commerce and the increase in remote working, lead to lower demand for commercial real estate. Fewer retailers need physical premises, for example, while demand from employers for office space falls. This has a negative impact on the retail and office segments of the commercial real estate market. Nevertheless, in the case of retail premises the vacancy level in mid-2022 fell back again to the 2019 level (CBS). The government has also announced legislation to tighten the regulation of residential rental properties in the mid-segment in order to improve the affordability and accessibility of the housing market. In addition, the transfer tax on rental homes has been raised. However, these structural changes also reduce future returns on commercial real estate and thus slow down investments in commercial real estate. Investments in Dutch commercial real estate fell by around 60% in the first half of 2023 compared to a year earlier (CBRE, 2023). This fall in investment is evident in all segments of the commercial real estate market.

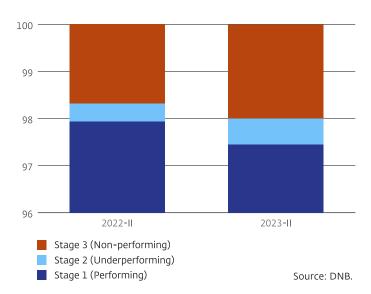
Risks are growing, but the effect on the financial sector remains limited

The higher financing costs increase the probability of default. Loans for commercial real estate are mainly repaid with rental income. This rental income generally changes more slowly than the financing conditions, so in the current environment of rapid rate rises there is a greater probability of default. This is evident in the proportion of non-performing bank loans, which have **>**

increased slightly by 0.4 percentage points in the past year. Higher interest rates appear to be a factor in this rise. Banks are seeing rises in the proportion of loans in arrears (stage 2) and nonperforming loans (stage 3) among real estate loans where the interest rate has recently been reviewed (Figure 14). In addition to higher financing costs, lower rental income – for example as a result of higher vacancies due to higher corporate bankruptcies

Figure 14 Interest rate changes causes underperformi and non-performing loans at banks

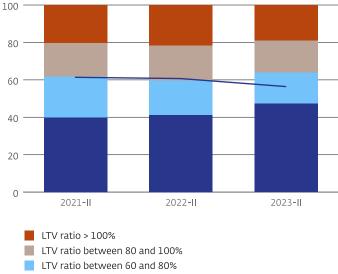
Percentage of loan portfolio with interest rate changes between the second quarter of 2022 and the second quarter of 2023



 may also increase the probability of default. This does not appear to be happening at present, as the level of vacancies in the Netherlands remains low.

Dutch banks currently show no visible signs of credit risks materialising in commercial real estate, but this situation may change. In the second guarter of 2023, the proportion of nonperforming real estate loans at Dutch banks was 3.3%, well below the average of recent years (i.e. average of 5.5% between 2016 and 2022). This indicates that banks are not yet seeing any materialisation of credit risks due to real estate loans. Looking forward, it is important to note that a further fall in real estate prices may lead to an increase in non-performing bank loans. The relationship between the loan and the value of the collateral plays an important role in this risk assessment. The average loan-tovalue ratio of Dutch real estate loans has fallen to below 60% in recent years (see Figure 15). The recovery rate on foreclosed commercial real estate in the Netherlands has historically been above 70%. Since the recovery rate is higher than the average loan-to-value ratio, banks are likely to be able to absorb the potential losses in the event of default on the average commercial real estate loan by selling the collateral. This is not the case with all loans, however. Around 20% of Dutch real estate loans have collateral worth less than the loan, which means that the relevant bank would face loan losses in the event of default. This portion of loans in which the collateral does not cover the losses would rise in the event of a further fall in real estate prices.

Figure 15 Average LTV ratio of loans secured by commercial real estate has edged down Percentages



LTV ratio between 0 and 60%

— Average LTV ratio

Source: DNB calculations.

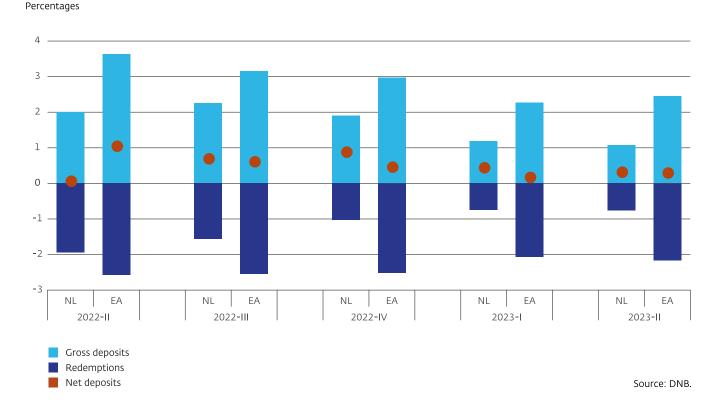
Insurers and pension funds are also exposed to losses due to revaluations of commercial real estate. Price corrections in real estate markets have a direct impact on the balance sheets of insurers and pension funds, since these are based on market value. Although the losses from direct real estate exposures have so far remained limited, insurers and pension funds face falls in the > Figure 16 Redemption requests at Dutch and European real estate funds are limited

value of listed real estate. Pension funds, for example, saw the value of their entire listed real estate portfolio fall by €15 billion in 2022, representing a loss of around 2.5% of the total investment portfolio (although this decline has been partly offset by currency effects). The losses due to revaluations of commercial real estate can lead to vulnerabilities in real estate funds.

Vulnerabilities of Dutch real estate funds are smaller than expected

Dutch real estate funds are generally open-ended, making them vulnerable to a liquidity mismatch. A liquidity mismatch arises when investors are able to retrieve their money from an investment fund more frequently and faster than the fund manager is able to sell the (relatively illiquid) investments in the fund. This liquidity mismatch is only a factor in open-ended investment funds, because investors can retrieve their money at any time (or at a fixed frequency). This makes an open-ended real estate fund vulnerable to a liquidity mismatch, because the fund's investments comprise real estate that is by its nature illiquid. Moreover, this may contribute to a downward spiral in the real estate market. The forced sale of real estate from the portfolio to achieve liquidity may lead to further falls in value and new redemption requests in other real estate funds.

In the case of Dutch real estate funds, the liquidity mismatch appears to be limited because the redemption conditions for investors are closely geared to the liquidity of the investments.



Dutch real estate funds manage the majority of investments through open-ended funds.⁴ Despite the open-ended structure, a majority of the funds (in terms of total assets) only allow investors to request a redemption once a year. This annual redemption frequency is appropriate for the limited liquidity of real estate investments. Furthermore, the largest investors in Dutch real >

⁴ The analyses in this section are based on Dutch real estate funds falling under the scope of the AIFM Directive.

estate funds, namely pension funds and insurers, generally have a long investment horizon, which reduces the risk of large-scale redemption requests.

This limited liquidity mismatch may explain the sustained positive inflow into Dutch real estate funds. The returns on Dutch real estate funds have deteriorated markedly since the second quarter of 2022. Real estate funds have posted a series of negative returns in the past three quarters. At the same time, the inflow of new money into Dutch and European funds exceeded investors' redemption requests during this period (see Figure 16). This suggests that funds have only had to sell a limited amount of real estate in order to meet investors' requests, although a caveat should be entered here. Due to the low redemption frequency in many Dutch real estate funds, they may face more redemption requests in the near future.

Furthermore, the use of excessive leverage is concentrated in a small number of Dutch real estate funds. Leverage is where a real estate fund uses loans and derivatives to increase its exposure to real estate. This may increase the fund's expected returns, but also makes it more sensitive to price movements in the real estate market. This increases the risk that a fund manager will be required to sell real estate assets in the event of falling real estate prices. The use of excessive leverage may therefore increase the vulnerabilities resulting from a liquidity mismatch. Leverage greater than 300% is generally deemed to be excessive, as it would mean that more than two-thirds of the assets are financed by debt. A closer examination shows that at the end of 2022 only 6% of the total assets of Dutch real estate funds were managed through funds with excessive leverage. These funds with excessive leverage also have a closed structure, so an investor can only retrieve the investment at the end of the term and there is no liquidity mismatch. In addition, around 90% of the total assets are managed by Dutch real estate funds with leverage of less than 150%. Due to the limited size of funds with excessive leverage and their closed structure, there is currently only a small risk of these funds causing a negative spiral in the Dutch real estate market.

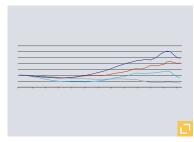
Policy instruments are not yet needed, but vigilance is called for

Due to the negative developments in the commercial real estate market, Dutch banks should remain vigilant against an increase in concomitant credit risks. The outlook for the commercial real estate market remains challenging, if only because financial conditions are expected to remain tight for an extended period or tighten further. Losses may consequently increase and real estate valuations may fall further. Banks must therefore monitor developments in the commercial real estate market closely and be alert to any increase in credit risks. We will also continue to closely monitor the market developments and risks to banks and other financial institutions in the period ahead. Recently, the FSC discussed commercial real estate risks, noting the need to remain alert to risks, because shocks have a delayed impact and data limitations impede adequate monitoring. Existing data sources provide an incomplete picture of the financing flows and the figures are only released after a time lag.

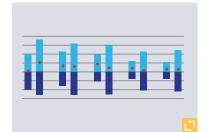
We currently see no grounds to deploy macroprudential policy instruments for risks in Dutch real estate investment funds.

The AIFM Directive enables macroprudential authorities to set limits on the use of leverage by investment funds. We currently see no grounds to deploy this instrument, because the above analysis shows that the risks to Dutch real estate funds as a result of excessive leverage are limited at present. We currently have no macroprudential instruments to address liquidity mismatches, but we endorse the recommendations of the Financial Stability Board and the European Systemic Risk Board to develop such instruments. The above analysis shows that the risks to Dutch real estate funds as a result of liquidity mismatches are limited at present. The low redemption frequency in many Dutch real estate funds nevertheless poses a risk that they will face more redemption requests in the near future. Real estate funds must therefore be alert to such developments.

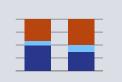
Figures

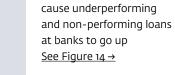


Commercial real estate valuations are declining in all segments See Figure 13 →



Redemption requests at Dutch and European real estate funds are limited See Figure 16 \rightarrow



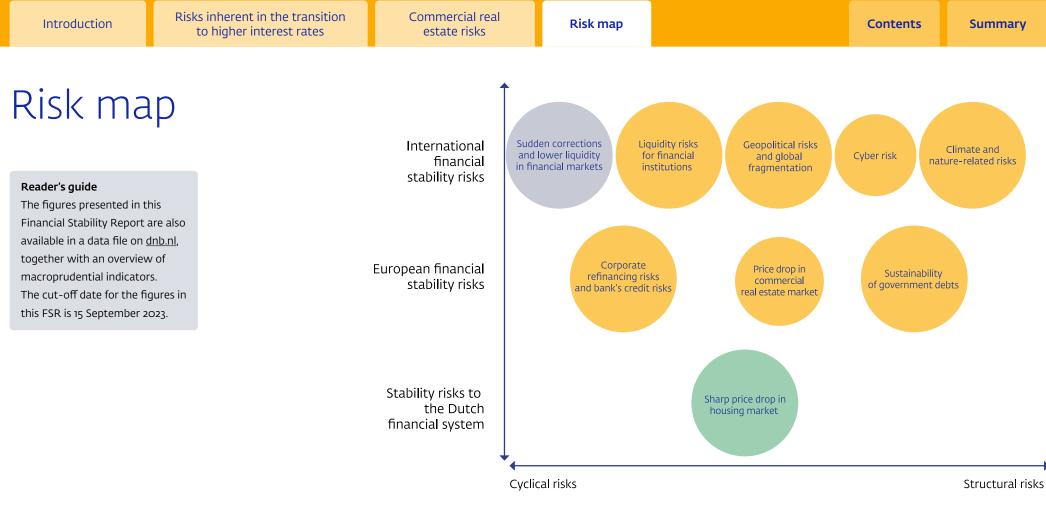




Average LTV ratio of loans secured by commercial real estate has edged down See Figure 15 \rightarrow

Interest rate changes

6/6



Note

The risk map presents a schematic overview of the main risks to financial stability. Not all risks are addressed in this Financial Stability Report. The size of the circles reflects the magnitude of risk. The colour of the circles reflects whether, viewed over the medium term, a risk sharply increases (red), moderately increases (yellow), decreases (green) or remains unchanged (grey) compared to the previous edition of the Financial Stability Report, issued four months ago.

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