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Macroprudential policy beyond the pandemic: Taking stock and looking ahead

International Center for Monetary and Banking Studies

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Dear Professor Panizza, Ladies and Gentleman

Thank you, Professor Panizza, for inviting me to participate in the public lecture series organised by the International Center for Monetary and Banking Studies (ICMB) in Geneva. It is a pleasure to be here again, particularly since this is the first lecture after a two-year pandemic-related break.

While the effects of the pandemic appear to have subsided, we are currently experiencing another tragic development. I am deeply troubled by Russia's war on Ukraine and want to express my heartfelt sympathy to the Ukrainian people.

In my remarks this evening, I will be talking about macroprudential policy and rising challenges to financial stability, two topics that remain very relevant today.

In recent months, policymakers in Switzerland and abroad have left the phase of accommodative macroprudential policy behind. Many jurisdictions have rolled back the easing of bank capital requirements that took place during the pandemic. Furthermore, several countries have actually taken steps to tighten macroprudential policy. What is behind this shift? The simple answer is: the economy is in a very different place today than when the pandemic started about two years ago.

Back then, the shock to the global economy was unprecedented, and the uncertainty about its economic ramifications was enormous. Governments and central banks responded to this shock with an unparalleled amount of fiscal and monetary stimulus. This policy support, together with vaccine rollout, was instrumental in setting the global economy on the path to recovery.

Looking back from a financial stability perspective, banks' ability to fulfil their role as credit providers to the real economy without interruption was an additional factor that contributed to the recovery. This was mainly possible thanks to substantial capital buffers built up since the Global Financial Crisis (GFC), which increased banking sector resilience, and to policy support, which helped borrowers bridge their liquidity and income shortfalls. Macroprudential policy provided additional support, by turning expansionary in most countries for the first time since the GFC, easing capital requirements and directly encouraging lending.

Today, the conditions that brought about this macroprudential policy accommodation no longer subsist. According to our monetary policy assessment last week, the global economic recovery is expected to continue, although somewhat subdued by the economic consequences of the war in Ukraine. Growth rates in many advanced economies are projected to remain above average this year, and unemployment rates are falling back to pre-pandemic levels. At the same time, however, financial system vulnerabilities are rising in many countries. There are signs of stretched valuations on stock and real estate markets, and global corporate and sovereign debt levels are high. This makes the banking sector vulnerable to corrections in these markets, triggered for example by a sudden increase in interest rates or a deterioration in economic prospects.

As a central bank with a mandate to contribute to financial stability, the Swiss National Bank monitors these developments closely. In particular, we focus on the Swiss real estate and mortgage markets, given growing signs of vulnerabilities in these markets as well as their relevance for the Swiss banking system.

Before I dig deeper with an assessment of current vulnerabilities both abroad and in Switzerland, let me take stock of our experience with macroprudential policy so far. In order to do so, let me start by recalling the objectives of macroprudential policy, and the instruments policymakers use to achieve them.

Macroprudential policy: objectives and instruments

Objectives

The GFC demonstrated how costly financial crises can be, both in terms of output and from a broader social perspective. This experience is also backed by research, which highlights that recessions associated with a financial crisis tend to be deeper and longer lasting than 'normal' (non-financial) recessions. This is especially the case if the preceding expansion was characterised by stronger-than-average credit and real estate price growth.[1] Thus, a stable financial system – or in other words, a financial system that is able to perform its key functions and is resilient to shocks – is essential to achieving more stable economic growth.

The GFC moreover showed us that there are two important dimensions of risks to financial stability: a 'structural' dimension, related to the size and interconnectedness of individual financial institutions (the 'too big to fail' financial institutions), and a 'cyclical' dimension that arises from the build-up and unwinding of financial vulnerabilities. In this speech, I will focus on these 'cyclical' risks, due to their relevance in the current context. Let me give you a simplified example of these cyclical risks, roughly based on the dynamics observed in many countries in the lead-up to, and during the GFC, which many of you will remember well. Upswings in real estate prices tend to be accompanied by dynamic credit growth and risk-taking by banks. This in turn makes the banking sector more vulnerable to a correction in real estate prices. A shock causing a correction may also trigger mutually reinforcing effects of falling prices, loan defaults, and ensuing losses for banks. If banks are not sufficiently capitalised to absorb these losses, they may have to deleverage, tightening credit to the real economy. This amplifies the initial shock, and can lead to a severe contraction in economic activity.

In the GFC's aftermath, as the costs of ignoring the build-up of systemic risks became painfully clear, national regulators and international institutions joined forces to build the foundations of our current macroprudential frameworks. These comprise two types of policy. First, policies that aim to contain the build-up of vulnerabilities, for instance by reducing

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[1] Cf. Jordà, O., M. Schularick, and A. M. Taylor (2015), *Leveraged bubbles*, Journal of Monetary Economics, vol. 76(S): 1-20, and Jordà, O., M. Schularick, and A. M. Taylor (2015), *When Credit Bites Back*, Journal of Money, Credit and Banking, 45: 3-28.

excessive credit growth and bank leverage, or by improving the average quality of bank assets. Second, and absolutely essential in my view, policies designed to strengthen banking sector resilience. By this, I mean ensuring that the banking sector has enough capital to absorb losses that could materialise in a crisis, and is able to continue to provide financial services to the real economy without the need for government intervention.

It is important to remember that macroprudential policy cannot always prevent financial crises. Rather, by pursuing its objectives and in particular by ensuring banking sector resilience, macroprudential policy should reduce the likelihood of financial crises occurring, and limit the extent and duration of recessions if a crisis occurs. Ensuring resilience is particularly important in Switzerland, given the large size of the Swiss banking sector relative to the size of the economy – also by international standards – and the dominant role played by a small number of banks.[2]

Instruments

Macroprudential authorities have a wide range of instruments at their disposal to achieve these objectives.

In order to contain the build-up of vulnerabilities, authorities can rely on instruments that aim to keep borrowing at sustainable levels. Examples of these so-called borrower-based instruments are restrictions on the loan-to-value (LTV) or loan-to-income (LTI) ratios, as well as specific requirements on loan maturity and amortisation. Specifically, these instruments limit borrowing from households who have insufficient personal equity, or whose income would not be able to cover debt payments if interest rates were to rise beyond a certain level. As a result, these instruments should reduce overall credit growth and, indirectly, house price growth, thereby containing the build-up of vulnerabilities.

In order to strengthen banking sector resilience, macroprudential authorities can rely on instruments that directly target bank capital, the so-called capital-based instruments. These instruments increase bank capital above minimum capital requirements. In other words, they create a safety buffer that serves as a shock absorber in times of stress. Important instruments in this category are capital buffers that depend on a bank's size (e.g. buffers for global systemically important banks). In addition to these structural instruments, authorities can rely on an instrument that depends directly on the level of cyclical risks in credit markets, namely the countercyclical capital buffer (CCyB). The idea behind the CCyB is that banks should build up capital gradually as cyclical risks in credit markets increase, thereby strengthening their resilience. In a possible downturn, authorities can release the CCyB, as many did during the pandemic, freeing up capital that banks can use either to absorb losses or to lend to the real economy. This mitigates the likelihood of a downward spiral of emergency credit

[2] At the end of 2020, total banking sector assets stood at roughly CHF 3,800 billion. This is equivalent to around 500% of Swiss GDP – a high ratio by international standards.

tightening. Finally, the activation of a CCyB could increase lending costs and reduce credit growth, thereby dampening the build-up of vulnerabilities.

In theory, the range of feasible instruments is broad. In practice, the design and character of macroprudential instruments are typically adapted to country-specific circumstances in order to increase their acceptance and effectiveness. Let me explain how we have achieved this in Switzerland.

In Switzerland, three agencies share a mandate to contribute to financial stability: the SNB, the Swiss Financial Market Supervisory Authority (FINMA), and the Federal Council and administration. These authorities have directly involved banks in the design of macroprudential instruments. In fact, the borrower-based instruments implemented in 2012 build on a pre-existing tradition of *qualitative* self-regulation guidelines of the Swiss Bankers Association concerning mortgage lending. Authorities and banks have worked together to complement these qualitative guidelines with *quantitative* requirements concerning the degree and speed of amortisation and the necessary down payments by borrowers. These quantitative guidelines serve now as minimum standard requirements.[3] These requirements were further tightened in 2014 and 2019, in response to increasing vulnerabilities in the mortgage and residential real estate markets.

Furthermore, Switzerland has a flexible regulatory framework that allows for both a broad and a sectoral application of the CCyB. In 2013, the Federal Council decided to activate a sectoral CCyB (SCCyB), following a proposal by the SNB. We deemed it to be the most cost-effective response, given that vulnerabilities at the time – and even now – were concentrated in the residential real estate and mortgage markets.[4] The SCCyB was increased in 2014, deactivated at the onset of the pandemic, and has just recently been reactivated to a higher level. The SCCyB increases capital requirements associated with domestic residential mortgage loans while leaving those for other exposures unchanged. The sectoral focus therefore helps to minimise potential side effects on other credit segments and at the same time ensures an increase in overall banking sector resilience, since mortgage claims are the largest asset on Swiss banks' balance sheets.[5]

Experience with macroprudential instruments so far

All the instruments we have been discussing have become part of the macroprudential toolkit in many economies since the GFC. Now over ten years on, we can draw first conclusions about their effectiveness, which is a prerequisite for their correct implementation.

Let me note, however, that the assessment is still ongoing. Most countries are still in the expansionary phase of the financial cycle, and a real test in the form of a financial crisis has –

[3] Cf. https://www.finma.ch/en/documentation/self-regulation/ (consulted on 21 March 2022).

[4] Cf. https://www.snb.ch/en/mmr/reference/pre_20130213/source/pre_20130213.en.pdf (consulted on 21 March 2022).

[5] Cf. BCBS (2019), *Guiding principles for the operationalisation of a sectoral countercyclical capital buffer*.

fortunately – not yet occurred. It is therefore essential that we update our assessment as we gain more experience, and as more and better data become available.

Containing the build-up of vulnerabilities

Let me start with an assessment of the instruments that aim to contain the build-up of vulnerabilities. International empirical evidence available so far shows that borrower-based instruments such as caps on LTV and LTI ratios have helped to slow down mortgage lending and real estate price growth.[6] This has contributed to dampening the build-up of vulnerabilities, without being able to prevent them completely. Research also clearly highlights that macroprudential policymakers need to be forward looking, given that there are long lags between policy announcements and policy effects.

A similar conclusion holds also for Switzerland. Unlike many other countries, Switzerland had not seen a housing boom before the GFC, and accordingly no bust thereafter. Instead, residential real estate prices have increased moderately but very persistently since then, prompting responses by macroprudential authorities. As slide 1 suggests, the combination of macroprudential measures taken between 2012 and 2019, in particular the revisions in the self-regulation guidelines, had a dampening effect on both mortgage lending and real estate price growth in this period. The slowdown in mortgage lending growth was particularly strong at banks that were constrained by the SCCyB requirement.[7] Furthermore, macroprudential instruments have contributed to improve the average quality of banks' assets. Both the SCCyB and the increase in capital cost for high-LTV mortgages have in fact led to a reduction in the share of newly granted mortgages characterised by high LTV ratios.[8] In recent years, as we will see later in more detail, growth in residential real estate prices and mortgage lending has however increased once again.

Overall, evidence abroad and in Switzerland suggests that dedicated macroprudential measures, in particular borrower-based instruments, can help to slow down the build-up of vulnerabilities, but cannot fully prevent their increase. This is one of the reasons why it is so important to ensure adequate banking sector resilience. Let me now turn to this important aspect.

Strengthening banking sector resilience

Banking sector capitalisation has increased in many countries since the GFC, thanks both to the capital-based instruments put in place after the GFC and to voluntary buffers held by

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[6] Cf., for example, Galati, G. and R. Moessner (2018), *What Do We Know About the Effects of Macroprudential Policy?* Economica, 85: 735-770; B. Richter, M. Schularick and I. Shim (2019), *The costs of macroprudential policy*, Journal of International Economics, 118: 263-282; Ampudia, M., M. Lo Duca, M. Farkas, G. Perez Quiros, M. Pirovano, G Rünstler, and E. Tereanu (2021), *On the Effectiveness of Macroprudential Policy*, ECB Working Paper Series 2559.

[7] Behncke, S. (2022), *Effects of macroprudential policies on bank lending and credit risk*, Journal of Financial Services Research.

[8] Ibidem.

banks (cf. slide 2). As a consequence, banking sector resilience to shocks is now much larger than before the GFC.

Stress tests conducted by many central banks indicate in fact that bank capital is likely to be sufficient to cover potential losses under severe stress scenarios.[9] At the SNB, we also regularly conduct stress tests for the Swiss banking sector. Results, reported in our annual Financial Stability Report, suggest that most banks have adequate capital buffers to absorb losses under adverse scenarios, in particular also in the event of an abrupt and steep interest rate rise combined with declining real estate prices. This implies that banks could withstand the shock, and still fulfil their key role as credit providers to the real economy.

The coronavirus pandemic has highlighted the importance of banking sector resilience. Despite the elevated uncertainty prevailing at the onset of the pandemic, market participants remained confident in the banks' ability to absorb potential losses resulting from the pandemic and to continue at the same time to fulfil their role as credit providers.[10] The pre-existing capital buffers available in the banking system, globally and in Switzerland, played a key role in this regard. The continued credit flow, together with extensive public support measures, helped firms and households bridge their income and liquidity shortfalls. Hence, concerns that the economic shock from the pandemic would be amplified by banks scaling back their lending have not materialised. A qualitative survey launched by the SNB in 2020 shows in fact that loan rejection rates did not increase significantly, even in the most acute phase of the pandemic, and virtually no banks reported their own capital situation as a factor limiting credit supply.[11]

Macroprudential policy beyond the pandemic

We have seen so far that macroprudential policy can help to contain the build-up of vulnerabilities and strengthen banking sector resilience. The pandemic has moreover shown us that a well-capitalised banking sector can dampen the economic impact of shocks, contributing to a faster recovery.

So where do we stand today? According to our monetary policy assessment last week, the global economic recovery is expected to continue, although somewhat subdued by the economic consequences of the war in Ukraine. At the same time however, financial system vulnerabilities are increasing. Several national authorities and international institutions have highlighted stretched valuations, in particular in real estate markets, and are pointing to high levels of corporate and sovereign indebtedness. Let me elaborate further, focusing on real estate markets. As we discussed earlier, these markets are mostly credit financed so that

[9] Cf. for instance 2021 stress tests conducted by the EBA (EBA publishes the results of its 2021 EU-wide stress test | European Banking Authority (europa.eu), consulted on 21 March 2022), and the Fed (Federal Reserve Board - Federal Reserve Board releases results of annual bank stress tests, which show that large banks continue to have strong capital levels and could continue lending to households and businesses during a severe recession, consulted on 21 March 2022).

[10] Cf. IMF, *Global Financial Stability Report*, October 2021.

[11] Cf. SNB, *Financial Stability Report*, 2021, chapter 2.2.

corrections in real estate prices represent a key source of risk from a financial stability perspective.

In several countries, real estate price growth has increased since the start of the pandemic, and has been higher than can be explained by fundamental factors. For instance, the residential price-to-rent ratio, a simple measure of real estate valuation, lies above its long-term average in many countries.[12] This has been accompanied by higher mortgage lending and, in some countries, by an increase in lending risks.[13] Overall, these developments have made real estate and mortgage markets more vulnerable to shocks, such as a sudden increase in interest rates or a deterioration in economic prospects.

There are several reasons behind this marked increase in real estate prices. They include tight housing supply, a probable increase in housing demand due to the pandemic itself, and the historically low interest rates that have prevailed in recent years. In particular, low interest rates push up housing demand but also incentivise risk-taking behaviour by banks, by reducing the cost of leverage and weighing on bank margins and profitability.

A global normalisation of monetary policy rates seems to be underway, most notably in the UK and in the US, against the background of a sharp rise in inflation. This could help slow down the increase in vulnerabilities, if the normalisation takes place gradually and does not trigger an excessive tightening of financial conditions. However, the global level of interest rates is likely to remain low in the medium term, dampened by structural factors such as demographics, inequality and a strong demand for safe assets internationally. Monetary policy has no influence over these factors. Even more importantly, the focus of monetary policy is price stability and economic developments, and not curbing financial system vulnerabilities.

The most suitable way to address these vulnerabilities is therefore through macroprudential policy. Many authorities have in fact already responded to these developments by tightening macroprudential policy. Some countries have tightened borrower-based instruments in an attempt to curb rising vulnerabilities (e.g. Finland, France and Iceland). Others have opted to increase banking sector resilience to ensure that banks have enough capital to withstand a correction. Jurisdictions that released or reduced the CCyB in the acute phase of the pandemic to support bank lending are reactivating or increasing it again, in some cases to a higher level (e.g. Denmark, Germany, Iceland, Norway, Sweden, UK).

In Switzerland too, vulnerabilities in the residential real estate and mortgage markets have increased since the onset of the pandemic. First of all, numerous indicators point towards increasing overvaluations in the residential real estate market. Slide 3 shows, for apartment prices, the simple price-to-rent indicator, as well as valuations based on different models and underlying assumptions, for example regarding future interest rates. Based on this range of assumptions and models, the SNB currently measures the overvaluation in apartment prices to

[12] Cf. ECB, *Financial Stability Review*, May 2021, p. 35; Board of Governors of the Federal Reserve System, *Financial Stability Report*, May 2021, p. 20, Reserve Bank of New Zealand, *Financial Stability Report*, November 2021, p. 14.

[13] Cf. ECB, *Financial Stability Review*, May 2021, p. 35; and Bank of Canada, *Financial System Review*, May 2021.

be between 10% and 35%.[14] This range of overvaluation has increased since the start of the pandemic. Moreover, we have observed an increase in affordability risks over recent years as measured by the rising LTI ratios of new mortgages (cf. slide 4).

To maintain banking sector resilience in the face of these increased vulnerabilities, the Federal Council reactivated the SCCyB in January this year to a level above the pre-pandemic one, following a proposal by the SNB. This has brought the SCCyB to 2.5%, its regulatory maximum. As a complementary measure, the self-regulation guidelines, which were last tightened in 2019, are still in place and should contribute to containing a further increase in vulnerabilities.

The SNB continues to monitor the developments on the real estate and mortgage markets very closely. Our focus is to assess if the banking sector's overall resilience is adequate given the level of risk-taking and the level of vulnerabilities in the macroeconomic environment.

The build-up of regulatory and voluntary buffers in response to the GFC has led to a substantial increase in the overall resilience of the banking sector. Going forward, this resilience must be preserved. As evidenced by the recent reactivation of the SCCyB, this implies adjusting capital buffers in response to the development of vulnerabilities in the mortgage and residential real estate markets.

Let me conclude by underscoring that ensuring banking sector resilience is not a goal in itself. Rather, it is instrumental in achieving more stable economic growth, and ultimately benefits not only the banking sector, but society as a whole.

[14] For a more detailed explanation, cf. Swiss National Bank, *Financial Stability Report*, June 2021, p. 13.

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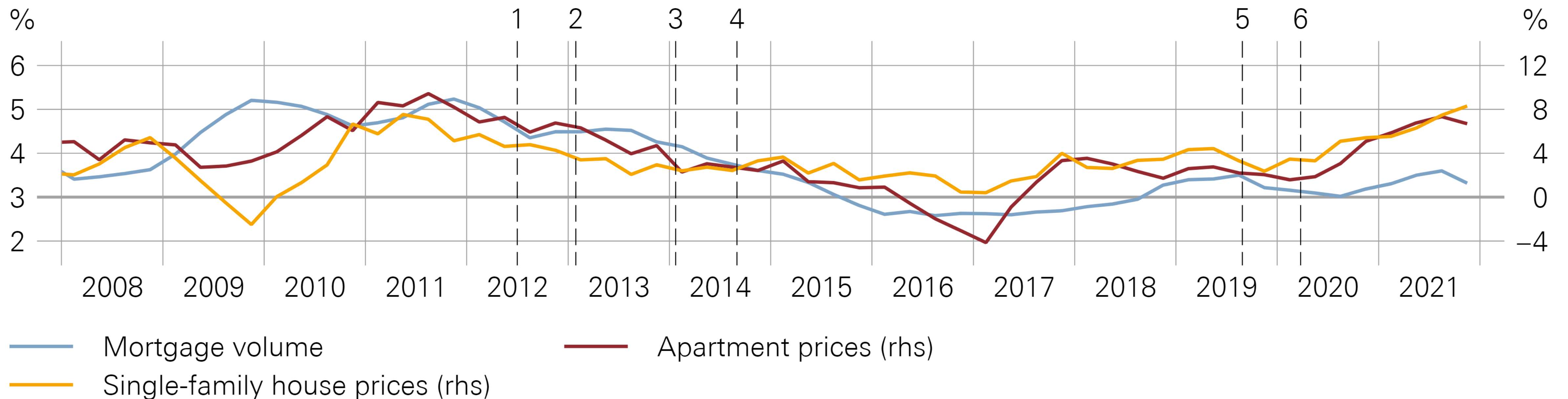
Slide 1



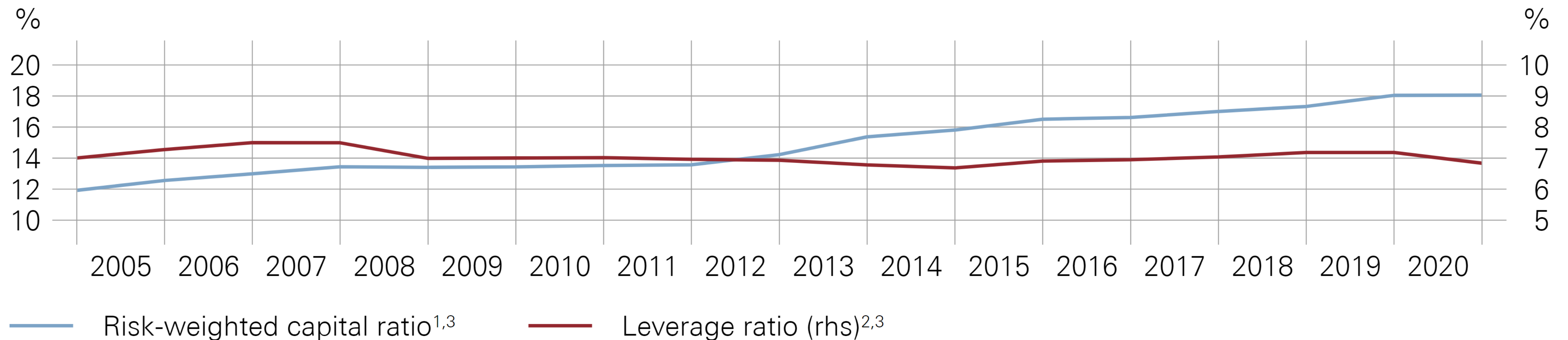
1 Revision of self-regulation guidelines, 2 SCCyB activation, 3 SCCyB increase, 4 & 5 Renewed revision of self-regulation guidelines, 6 SCCyB deactivation

Source(s): SNB, Wüest Partner

Slide 2

SWITZERLAND: CAPITAL RATIOS OF DOMESTICALLY FOCUSED BANKS

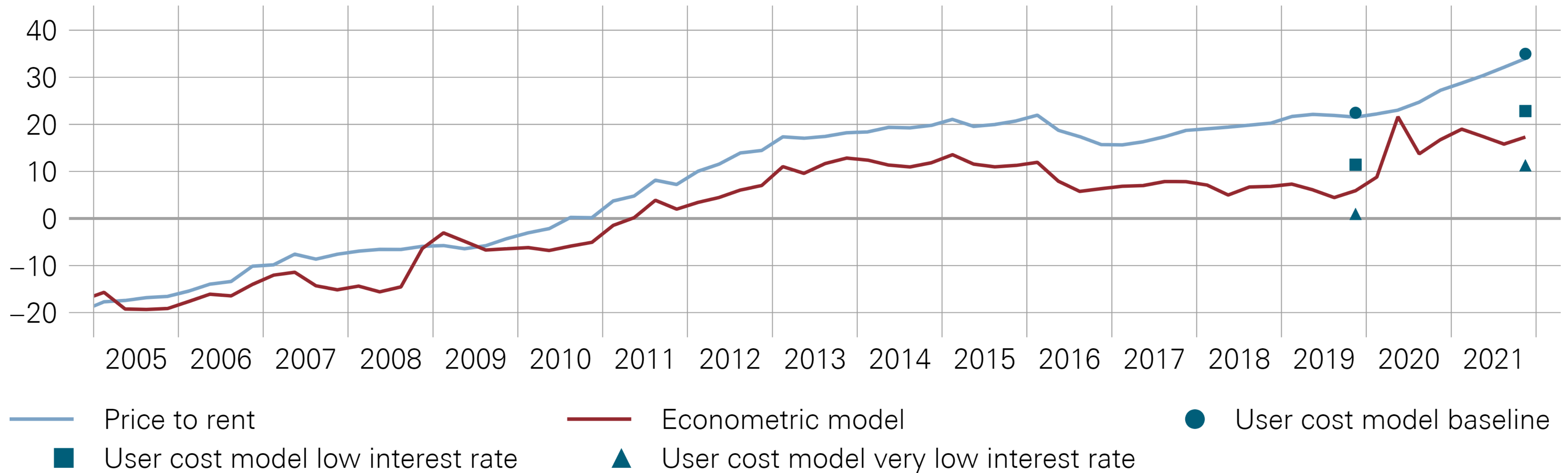
Risk-weighted Tier 1 capital ratio and Tier 1 leverage ratio[1]



1 From 2020, excluding members of small banks regime.
2 Until 2013, Tier 1 divided by total assets. From 2014, Tier 1 divided by Basel III leverage ratio exposure. For 2020, the Basel III leverage ratio exposure includes central bank reserves.
3 A phase-in perspective is used for DF-SIBs' going-concern capital ratios.

Source(s): FINMA, SNB

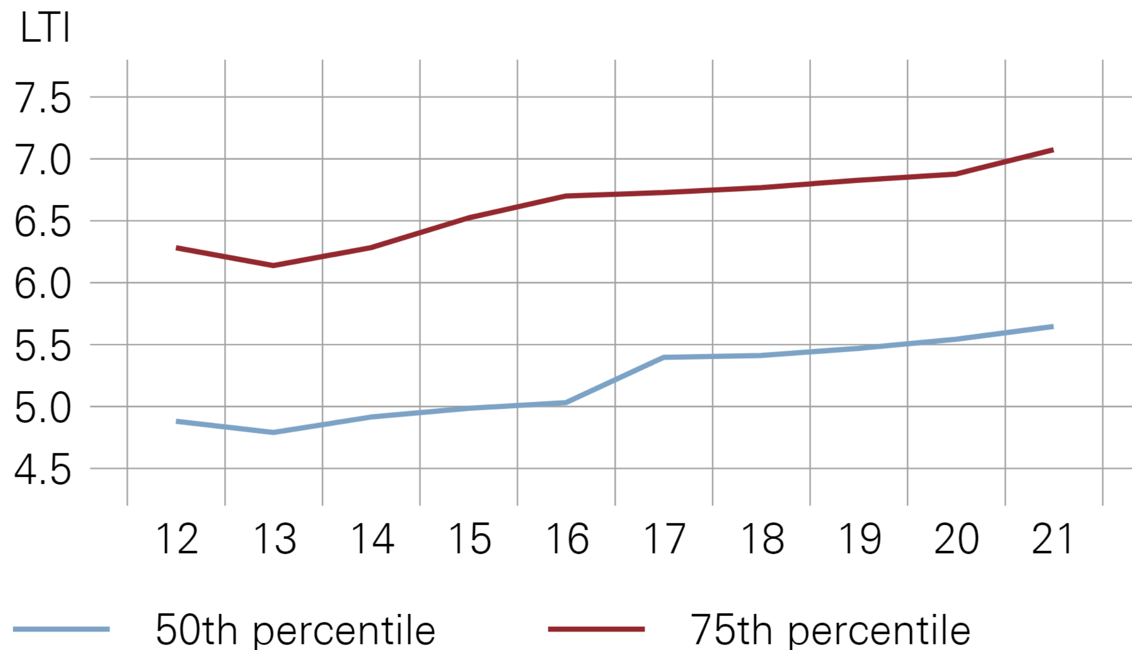
Slide 3



Slide 4

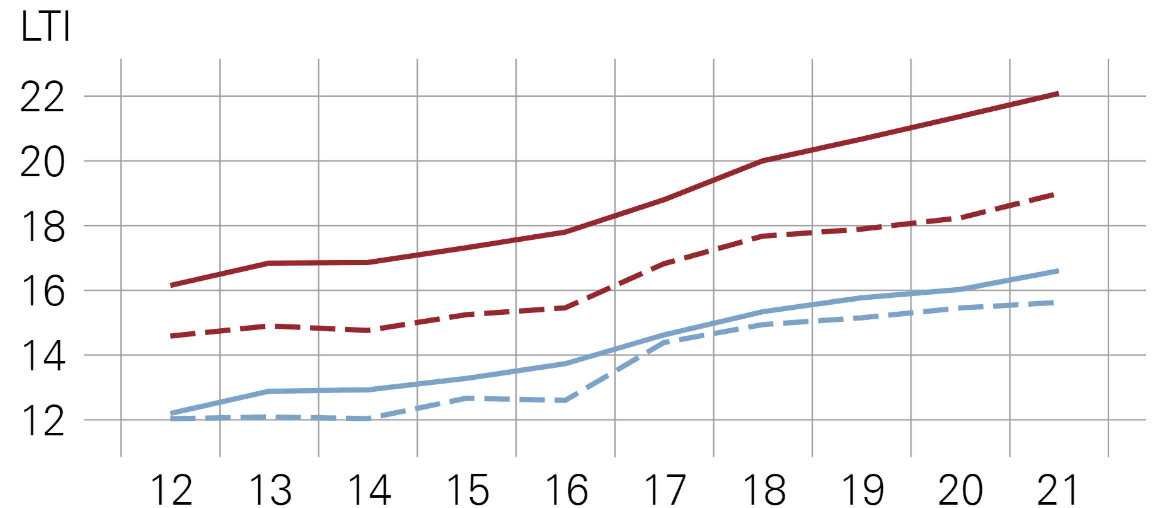
SWITZERLAND: LOAN-TO-INCOME RATIOS

Owner-occupied residential property



SWITZERLAND: LOAN-TO-INCOME RATIOS

Residential investment property: Private individuals (solid); commercial borrowers (dashed)



Notes: Yearly frequency. Survey revision in 2017.

Source(s): SNB (Survey on new mortgages)

Thank you for your attention!

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