



SWITZERLAND

FINANCIAL SECTOR ASSESSMENT PROGRAM

TECHNICAL NOTE ON MACROPRUDENTIAL POLICY AND REAL ESTATE RISKS

November 2025

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October 24, 2025

TECHNICAL NOTE

MACROPRUDENTIAL POLICY AND REAL ESTATE RISKS

Prepared By
**Monetary and Capital Markets
Department**

This Technical Note was prepared by IMF staff in the context of the Financial Sector Assessment Program in Switzerland. It contains technical analysis and detailed information underpinning the FSAP's findings and recommendations. Further information on the FSAP can be found at <http://www.imf.org/external/np/fsap/fssa.aspx>

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Glossary

CAO	Capital Adequacy Ordinance
CCyB	Countercyclical Capital Buffer
CCoB	Capital Conservation Buffer
CEO	Chief Executive Officer
CET1	Common Equity Tier 1
CRE	Commercial Real Estate
DTI	Debt to Income Ratio
DSTI	Debt Service to Income Ratio
EA	Euro Area
EBA	European Banking Authority
ECB	European Central Bank
EEA	European Economic Area
ESRB	European Systemic Risk Board
EtP	Exception to Policy
EU	European Union
FINMA	Swiss Financial Market Supervisory Authority
FC	Federal Council
FDF	Federal Department of Finance
FSAP	Financial Sector Assessment Program
FSB	Financial Stability Board
GDP	Gross Domestic Product
IPRE	Income-producing real estate / investment property
IRB	Internal Ratings Based Approach
LGD	Loss Given Default
LTI	Loan to Income Ratio
LTV	Loan to Value Ratio
MoU	Memorandum of Understanding
NFC	Non-Financial Corporates
NIM	Net Interest Margin
PD	Probability of Default
RRE	Residential Real Estate
sCCyB	Sectoral Countercyclical Capital Buffer
SIF	State Secretariat for International Finance
SILC	Statistics on Income and Living Conditions
SNB	Swiss National Bank
SREP	Supervisory Review and Evaluation Process
STA	Standardized Approach
SyRB	Systemic Risk Buffer
TBTF	Too Big To Fail
UK	United Kingdom

EXECUTIVE SUMMARY

The institutional setup for macroprudential policy needs to be improved to support effective responses to systemic risks. Unchanged since the 2019 FSAP, the SNB oversees macroprudential matters and makes Countercyclical Capital Buffer (CCyB) proposals but lacks voting power on CCyB decisions. Neither the SNB nor FINMA, nor any existing inter-agency committee, hold a formal mandate to recommend adjustments to the Swiss macroprudential toolkit when current tools prove inadequate for addressing systemic risks, leading to an inaction bias. Swiss authorities should establish a dedicated macroprudential committee, chaired by the SNB, to discuss and jointly decide on policies. Such committee could improve macroprudential communication, enhance public accountability, mitigate inaction risks, and advise relevant agencies on the toolkit's adequacy and necessary changes.

Although Switzerland has actively utilized the sectoral CCyB, the macroprudential toolkit remains too narrow and has reached its limits. The sectoral CCyB for mortgage loans was set at 2 percent from 2014 until March 2020, released during the Covid-19 pandemic, and raised again to its legal maximum of 2.5 percent in 2022. Therefore, the sectoral CCyB cannot be tightened any further to counter mounting systemic risks as evidenced by stretched housing market valuations, widespread loosening of underwriting standards, and record-high household debt to GDP. Monetary easing and cantons' initiatives aimed at easing affordability criteria for new borrowers will further stimulate the demand for credit and possibly reinforce a negative spiral of unsustainable lending standards, house price increases, and risk build-up.

Rising systemic risks from the real estate market call for new measures to be implemented promptly. Establishing a legal basis for a second time-varying capital-based instrument, similar to the sectoral Systemic Risk Buffer in the EU, would enhance the ability of macroprudential policy to tackle risk build-up effectively. This change would also create space for a more flexible use of both broad-based and sectoral capital tools, potentially with the introduction of a positive cycle-neutral CCyB for the former and without the 2.5 percent limit on either of the two. In addition, legally binding borrower-based measures should be implemented to limit affordability risks, with the authorities currently depending on the self-regulation regime of the Swiss Banking Association, which includes minimum requirements and broad qualitative guidelines.

The FSAP recommends the introduction of a debt-service-to-income (DSTI) cap in addition to the existing LTV caps. While the LTV caps set out in the self-regulation seem to have been effective, the share of loans not meeting FINMA's affordability benchmarks is high and has risen in recent years. The FSAP's analysis shows that in around 50 percent of owner-occupied mortgage lending and around 60 percent of investment-property related lending since 2017, stressed debt service and maintenance costs exceed the income-based affordability threshold. As the deviation from prudent lending practices is widespread across banks, a policy response applied on a system-wide basis is needed to ensure that such risks are adequately covered by capital. This is all the more important as the recently introduced Swiss Basel III final risk weights for mortgage loans were calibrated based on an estimated 15 percent deviation with prudent affordability and valuation in

the mortgage portfolio, which appears well below of the share of new loans not meeting FINMA's affordability criteria.

A counterfactual analysis suggests that introducing a DSTI cap would be a well-suited measure to address the riskiest types of mortgage lending to households. While the existing LTV cap under the self-regulation limits the LGD – which is important considering overvalued house prices – a DSTI cap would be primarily aimed at limiting the borrower PD. Analysis based on the new loans survey shows that the DSTI cap would mainly affect the high- loan-to-income (LTI) part of mortgage lending, restrict investment-property lending more than owner-occupied mortgage lending, and be more binding for variable-rate mortgage loans, which have risen in popularity in recent years and could make borrowers vulnerable to interest rate increases. Using the integrated dynamic household balance sheet model for a representative sample of household micro data by the Swiss Statistical Office, a counterfactual of a 30 percent DSTI cap would reduce the PD for mortgage loans by around one third under the adverse supply-shock inflationary scenario of the FSAP.

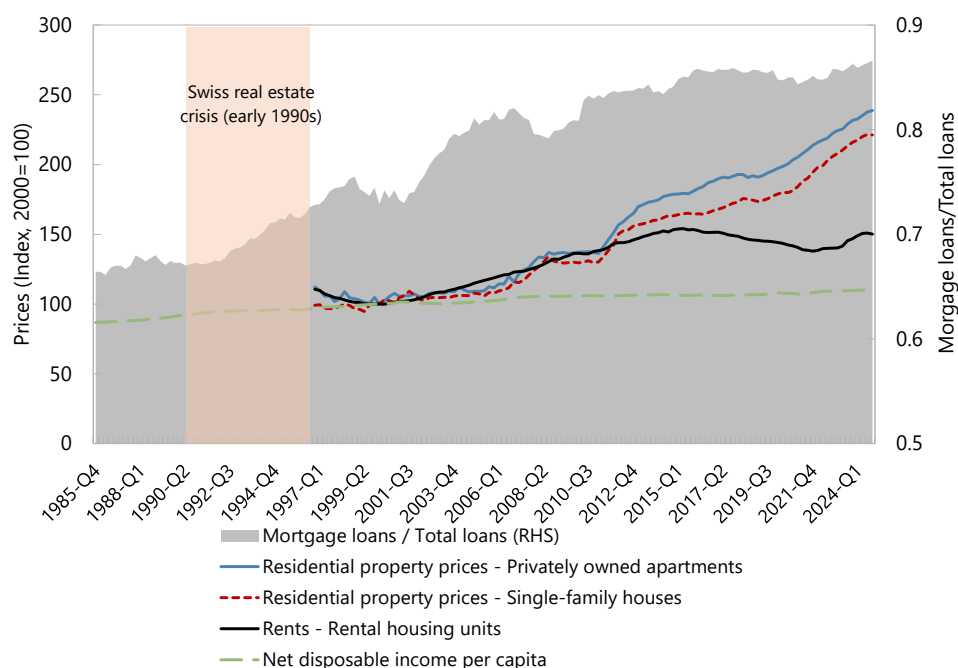
Table 1. Switzerland: Main Recommendations			
No.	Recommendation	*	**
Institutional Framework and Macroprudential Toolkit			
1	Establish a formal Systemic Risk Committee, including the SNB, FINMA, and FDF, chaired by the SNB and with a clear mandate, procedures, and accountability to review and propose measures to mitigate systemic risks. (FDF, FINMA, SNB)	MT	M
2	Introduce the legal basis for a sectoral capital-based instrument, separate from the CCyB. (FDF, FINMA, SNB)	I	H
3	Incorporate a more flexible and proactive approach towards CCyB setting in Switzerland in the form of a positive cycle-neutral CCyB regime, and without the 2.5 percent upper limit. (FDF, SNB)	ST	M
4	Simplify the CCoB framework and separate it from buffers for systemically important banks. (FDF).	MT	L
Systemic Risks and Macroprudential Policy Settings			
5	Ensure that additional affordability-related credit risks in banks' mortgage loan portfolios are adequately covered by capital. (FINMA, SNB)	I	H
6	Introduce a binding debt-service-to-income cap, if needed by establishing a legal basis for borrower-based measures. (FDF, FINMA, SNB)	I	H
7	Tighten the loan-to-value cap in the investment property mortgage loan segment in case of a significant increase in mortgage loans with loan-to-value ratios above 75 percent. (FDF, FINMA, SNB)	ST	M
8	Remove the tax deductibility of mortgage interest payments for households. (FDF)	ST	M
9	Close remaining data gaps on mortgage loan and borrower characteristics and enhance the analysis of commercial real estate risks. (FINMA, SNB)	ST	M
* Timing: C: Continuous; I: Immediate (< 1 year); ST: Short Term (1–2 years); MT: Medium Term (3–5 years)			
** Priority: H: High; M: Medium; L: Low			

INTRODUCTION

1. Switzerland's real estate prices have displayed sustained growth over past decades.

House prices have significantly outpaced income growth, particularly in urban centers and sought-after regions (Figure 1). Historically low interest rates, limited housing supply, immigration-driven demand, and tax incentives favoring mortgage debt retention have all contributed to these dynamics. Given the large exposure of Swiss banks to mortgage loans, the interconnection between property markets, banks, and household balance sheets has placed Switzerland's real estate dynamics at the center of macroprudential policy discussions.

Figure 1. Switzerland: Long-term Evolution of Swiss RRE Prices, Income, and Mortgage Loans



Source: SNB, IMF staff.

2. In the aftermath of the global financial crisis, the Swiss authorities have pioneered the development and implementation of targeted macroprudential measures. They were the first to introduce a sectoral CCyB for residential mortgage loans in 2012 and have progressively tightened restrictions on loan-to-value ratios via a self-regulation by the Swiss Banking Association. However, some of these measures have now reached their legal limits, while vulnerabilities from the real estate market have progressively increased since the 2019 FSAP.

3. This technical note (TN) examines the evolution and impact of Swiss macroprudential policy tools targeting real estate markets.¹ In the first section, we review the institutional aspects of the macroprudential framework. In the second section, we look at the real estate market dynamics since the 2019 FSAP and highlight key financial stability risks. In the third section, we evaluate the effectiveness of current macroprudential instruments in mitigating systemic risks and identify vulnerabilities requiring policy attention. Finally, we apply a counterfactual analysis to assess the introduction of additional borrower-based measures to the existing toolkit.

INSTITUTIONAL FRAMEWORK FOR MACROPRUDENTIAL POLICY

4. A strong institutional framework is essential for effective macroprudential policy. The *Key Aspects of Macroprudential Policy* (IMF 2013a), *Implementing Macroprudential Policy – Selected Legal Issues* (IMF 2013b) and *Staff Guidance Note on Macroprudential Policy* (IMF 2014) set out key principles for IMF staff advice on the institutional framework for macroprudential policy. First, the framework needs to be characterized by the *willingness to act* in a timely manner. Specifically, it should avoid biases for inaction or insufficiently timely action that can arise from difficulties in quantifying the benefits of macroprudential action, political pressures or lobbying from the financial industry. Second, it needs to foster the *ability to act* through appropriate access to information and availability of a sufficiently broad set of macroprudential instruments. Third, the framework needs to promote *effective cooperation* in risk assessment and mitigation between institutions with a financial stability mandate. Fourth, it should establish *strong accountability and communication* to guide the execution of macroprudential powers and to create public awareness of risks and understanding of the need to take macroprudential actions. Finally, the underlying legislation should include adequate provisions pertaining to the objective, functions, and powers of the macroprudential authorities.

A. Ability and Willingness to Act

5. The institutional setting for financial stability and macroprudential policy in Switzerland involves four main stakeholders. Figure 2 provides an overview of the main stakeholders involved, their roles and interaction. The system has remained unchanged since 2012, leaving a strong decision-making role to the Swiss government:²

- The SNB has a financial stability mandate and is the primary institution to monitor and analyze systemic risks in Switzerland.³ As part of its cyclical systemic risk assessment, it determines the appropriate setting of the broad-based and sectoral CCyB in Switzerland, consults with FINMA on proposed changes (i.e. CCyB activation, increase or adjustment) and, following the

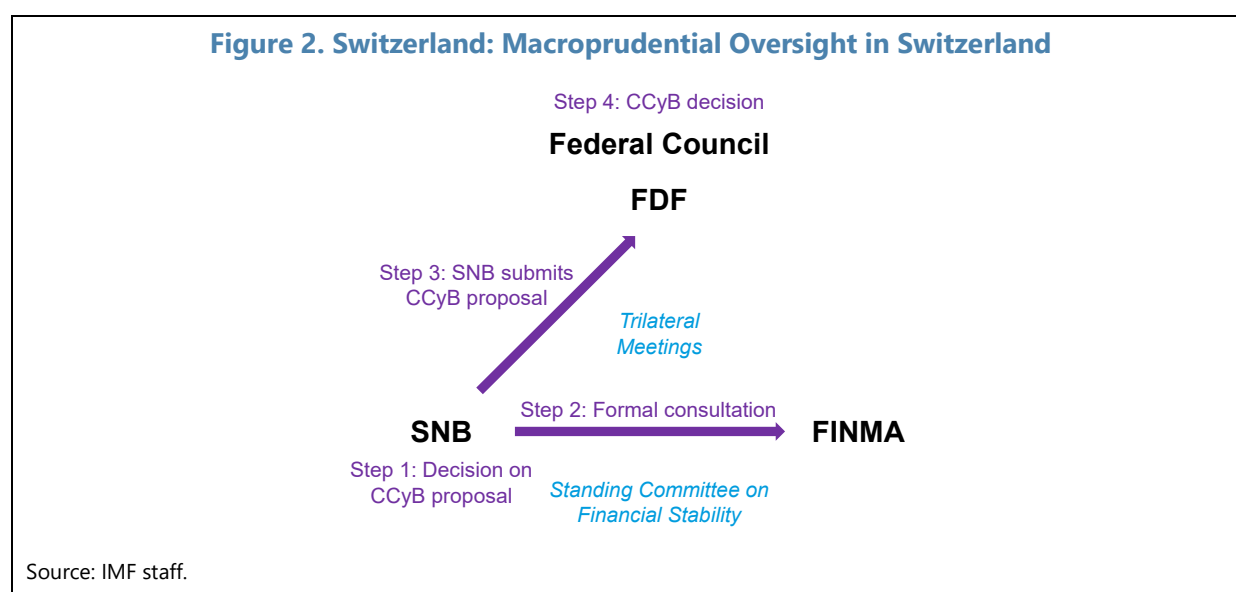
¹ The main authors of this technical note are Salvatore Dell’Erba (IMF) and Maximilian Fandl (external consultant).

² The 2012 macroprudential reform was based on the “Report on Macroprudential Oversight in Switzerland” of the Financial Stability Working Group, which was comprised of representatives of FDF, FINMA and SNB.

³ According to Art. 5 para. 2e of the National Bank Act, one of the six main tasks of the SNB lies in contributing to the stability of the financial system.

consultation, submits the CCyB proposal to the Federal Department of Finance (FDF) for decision by the Federal Council (FC). Moreover, the SNB designates systemically important banks, which are subject to higher capital buffer requirements.⁴

- As integrated supervisory authority, FINMA aims to ensure a proper functioning of the Swiss financial market.⁵ It prepares and issues circulars, guidance and ordinances that have been explicitly delegated to FINMA by national law. Furthermore, it supervises the compliance of banks with macroprudential measures and other requirements in place and reports the main findings to the SNB.
- The FDF and the FC have legislative and regulatory powers in the field of macroprudential policy. The FDF prepares legislation and ordinances that are not delegated to other agencies, while the FC takes decisions on CCyB changes, based on an SNB proposal, yet it is not legally bound to follow it.⁶



6. The exclusion of the central bank from macroprudential policy decisions sets Switzerland apart from European peers. Figure 3 compares the Swiss macroprudential setup to the assignment of the *macroprudential authority* in European peer countries.⁷ Unlike Switzerland, all

⁴ Capital Adequacy Ordinance Art. 124a.

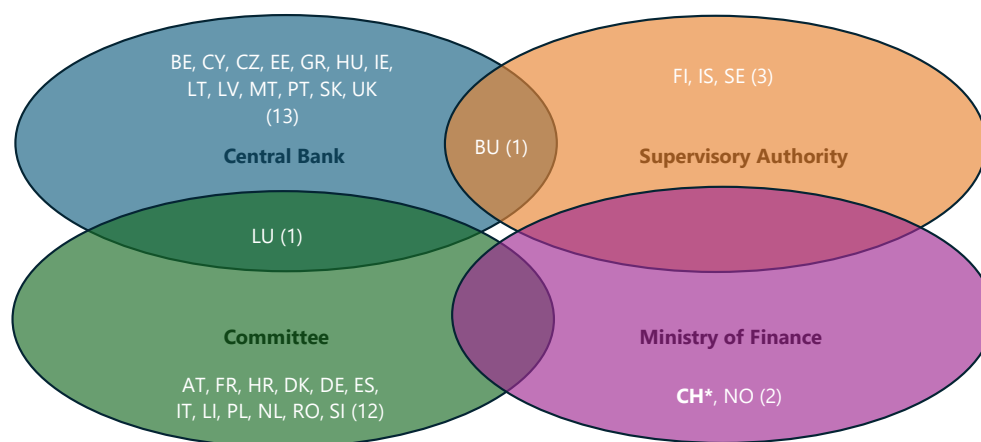
⁵ According to Art. 4 of the FINMA Act, it thereby “contributes to sustaining the reputation, competitiveness and sustainability of Switzerland’s financial centre”.

⁶ The decision of the Federal Council is not binary, i.e. whether to follow the SNB proposal or keep the CCyB unchanged. The Federal Council could also decide to set the CCyB at another level (e.g. between the rate proposed by the SNB and the existing level).

⁷ An additional comparison can be made regarding the assignment of the national *designated authority* that legally enacts the macroprudential measures. The latter is typically performed by central banks or supervisory authorities, where they are in place. In a few European Economic Area countries, the designated authority is a committee (e.g. France) or the Ministry of Finance (e.g. Denmark, see ESRB 2025).

European Economic Area (EEA) countries have formally assigned the macroprudential authority to a specific body or committee.⁸ In most countries, this is the central bank or an inter-agency committee, often involving the central bank, ministry of finance and other relevant stakeholders. For instance, all neighboring countries of Switzerland (Austria, France, Germany, Italy, and Liechtenstein) have established committees with macroprudential decision-making powers. The central bank typically plays a leading role within these committees. In some cases, it provides chair and secretariat functions, and it typically has a voting right in macroprudential decisions.

Figure 3. Switzerland: Macroprudential Authorities in Europe (EU, Iceland, Liechtenstein, Norway, Switzerland, UK)



Source: ESRB, IMF staff. Note: */ Switzerland has not assigned a macroprudential authority. The FC decides on the CCyB.

B. Effective Coordination and Cooperation

7. The collaboration between the SNB, FINMA and FDF in the field of financial stability and macroprudential policy is regulated by laws and memoranda of understanding:⁹

- The cooperation between the SNB and FINMA for financial stability is enshrined in a bilateral Memorandum of Understanding (MoU).¹⁰ The MoU provides the basis for an operational “Standing Committee for Financial Stability,” shown in Figure 2, that meets at least four times per year. The committee discusses topical issues for financial stability in Switzerland and regulatory initiatives and their impact on Swiss banks, such as the recent Basel III finalization or the ongoing Too-Big-to-Fail (TBTF) reforms.¹¹ While the committee might also discuss forthcoming changes to macroprudential measures, it neither has a formal advisory role in this

⁸ In line with a recommendation by the ESRB (2011).

⁹ The memoranda of understanding apply in addition of the legal requirements for collaboration set out in the National Bank Act, Financial Market Supervision Act, and associated ordinance.

¹⁰ Current version as of May 2017.

¹¹ See Switzerland FSSA 2025.

respect nor fulfills this purpose in practice. The meeting agenda for the committee is jointly set by the SNB and FINMA, with the chair and secretariat function rotating on an annual basis between the two institutions. In addition, the bilateral MoU also establishes a high-level “Steering Committee,” which is co-chaired by the SNB Chairman and the FINMA Chairman and meets twice a year.

- A trilateral MoU between SNB, FINMA and FDF¹² aims at supporting the exchange of information and cooperation among the three parties, both in crisis times and on a continuous basis. Based on the trilateral MoU, the FDF (SIF State Secretary), the FINMA CEO and the SNB Vice Chairman responsible for financial stability meet at least twice a year for a “Trilateral Meeting,” also shown in Figure 2. These meetings are opportunities to discuss, among others, the institutions’ assessment of the situation of the Swiss financial system and policy issues in the field of financial stability. The FDF is responsible for organizing the discussion and setting the agenda in consultation with the SNB and FINMA. The forum has no decision-making competence and there is no joint communication after its meetings. Furthermore, the trilateral MoU establishes two committees to facilitate inter-agency cooperation during financial crises.¹³
- The FDF and FINMA meet regularly to discuss FINMA’s strategic goals and regulatory issues, including in the field of financial stability.¹⁴

8. The SNB and FINMA have a well-established framework for information sharing in the field of financial stability and macroprudential policy. In practice, FINMA shares detailed data with the SNB, including with respect to systemic banks and relevant data regarding real estate-related risk exposures. The bilateral MoU in place also requires FINMA to share important supervisory findings with the SNB, including on the banks’ compliance with macroprudential measures in place. Overall, the SNB has sufficient capacity to obtain information from FINMA that enables it to fulfill its financial stability function.

C. Accountability and Communication

9. Accountability arrangements are very limited. Related to the absence of a formerly designated macroprudential authority, there is no requirement for the four key stakeholders in the field of financial stability and macroprudential policy to evaluate on a regular basis whether the macroprudential policy objectives have been met and whether measures taken have been effective.

¹² Last revised in May 2019.

¹³ See the companion FSAP Technical Note on Bank Resolution and Crisis Management Arrangements. The first forum is a high-level “Steering Committee” with a broad mandate for strategic coordination and inter-agency cooperation, including the FDF Head (as chair), the SNB Chairman and the FINMA Chairman. The second forum is a “Committee on Financial Crisis” to support inter-agency collaboration during crises.

¹⁴ High-level meetings include “strategic dialogues” twice a year and “policy dialogues” at least three times a year.

Moreover, while the SNB regularly communicates on the CCyB, for instance in its Annual Report¹⁵, there is no regular dedicated report on macroprudential policy.

10. Communication practices regarding macroprudential policy have remained unchanged since the 2019 FSAP. Whenever the FC decides on CCyB changes based on a SNB proposal, all three institutions (FDF, FINMA, and SNB) separately communicate the decision to the market.¹⁶ No joint communication is made on macroprudential policy decisions. As the SNB is the institution that leads on the macroprudential oversight and CCyB proposals, it communicates the underlying rationale of CCyB changes in a more detailed way than the other institutions. In quarters in which the SNB makes no proposal to change the CCyB, and the FC thus takes no CCyB decision, no public communication takes place. At the minimum, the SNB communicates the stance of the CCyB in Switzerland with a short note on the underlying rationale on an annual basis.¹⁷

D. Assessment and Recommendations

11. The current setup supports political buy-in for macroprudential actions but lacks accountability:

- The CCyB requirements in place have so far always followed the SNB proposals. Specifically, this was the case for the four CCyB proposals that have been made since 2013. It illustrates that the SNB made convincing cases to the FDF on the need to act before and after making the respective proposals.¹⁸
- On the other hand, it remains unclear who is accountable for macroprudential action and non-action in Switzerland. The SNB is accountable for macroprudential oversight and CCyB proposals but has no vote in CCyB decisions. Moreover, neither the SNB nor FINMA, or one of the existing inter-agency committees mentioned above, has a formal mandate to advise on adjustments of the Swiss macroprudential toolkit in the case that existing tools were found to be insufficient or unable to be used for further macroprudential action in the face of prevailing systemic risks. The consequence is strong inaction bias, in particular in situations in which the FDF as the key player for legislative changes, may be reluctant to take measures that would “lean against the wind.”

¹⁵ See e.g. SNB 2025, Chapter 6, Contribution to Financial System Stability in the SNB Annual Report 2024.

¹⁶ Since the establishment of the macroprudential framework in Switzerland, there has only been one case in which a difference of views regarding a CCyB decision was expressed (see FINMA 2013).

¹⁷ The SNB publishes its “Stance on the Basel III countercyclical capital buffer in Switzerland” on an annual basis on its website: <https://www.snb.ch/en/the-snb/mandates-goals/financial-stability>.

¹⁸ Among the four proposals, the reintroduction of the sectoral CCyB in 2022, which was increased from 0 percent to 2.5 percent with approx. 8 months lead time, could even be considered a rather bold policy change under the existing institutional set-up. However, it also needs to be seen in the light of the previously applicable 2 percent sCCyB from 2014 to March 2020. The release in March 2020 was taken against the background of the onset of the Covid-19 pandemic and related elevated uncertainty. However, the released capital buffers remained broadly unused due to limited additional loss materialization in the Swiss banking sector during the Covid-19 pandemic. SNB (2022) accordingly argued in the CCyB proposal in Jan. 2022 that the “reasons that led to the sectoral CCyB being deactivated now no longer exist” while vulnerabilities further increased.

12. The macroprudential framework could be strengthened along several dimensions. The FDF, SNB and FINMA should explore alternative setups that are used in peer countries and identify elements that may alleviate the above concerns and could be introduced in the Swiss setting. A guiding principle for adjustments to the institutional macroprudential setup should be to strengthen the role of the central bank in the field of macroprudential policy.¹⁹

13. Specifically, the Swiss authorities should consider creating a key macroprudential committee (“Systemic Risk Council”) to discuss and decide on macroprudential policy.²⁰

Decision-making by a key macroprudential committee would have several advantages over the status quo:

- First, it would improve transparency and accountability. The committee would issue joint press statements after each meeting and become the Swiss macroprudential authority that is accountable to the Swiss Parliament.
- Second, it would reduce the risk of inaction or too late action compared to the current setup.²¹ It would also strengthen the SNB’s ability to fulfill its financial stability objective through a stronger link between risk assessment and policy action.
- Third, the committee could be given the mandate to advise the executive and legislative branches of government on the adequacy of the macroprudential toolkit and suggest changes it deems warranted.
- Fourth, it could simplify the decision-making process as the authorities may consider the separate formal consultation of FINMA on CCyB proposals to be no longer needed due to FINMA’s participation in the macroprudential committee.
- Lastly, the recommended expansion of the macroprudential toolkit beyond the CCyB, discussed in the next sections, underscores the reform needs for the institutional setup for macroprudential policy decisions in Switzerland.

14. A Systemic Risk Council should be set up in a way that supports the ability and willingness to act in a timely manner, without diffusing existing responsibilities of

¹⁹ IMF (2013) supports central banks’ strong role in macroprudential policy frameworks as means to harness their expertise, incentives to take action, and political independence.

²⁰ Alternatively, Swiss authorities could consider whether assigning the macroprudential authority to the SNB combined with strong collaboration arrangements with FDF and FINMA could achieve similar net benefits. Two advantages of the establishment of a Systemic Risk Council, compared to the assignment of the macroprudential authority to the SNB, relate to the Swiss tradition of close collaboration between the key institutions responsible for financial stability, which could be conducive to a committee structure, and existing complementary responsibilities between SNB and FINMA.

²¹ In addition to the reasons discussed above, the SNB may also face reputational risks under the existing setup in case the Federal Council rejected its CCyB proposal.

participating institutions. Against this background, we recommend the following design characteristics:²²

- The mandate of the committee should be clearly defined with a focus on taking a system-wide perspective on financial stability risks as well as jointly discussing and deciding on macroprudential policy for Switzerland. The scope of macroprudential policy needs to be defined and understood by all involved stakeholders to draw a line to other policy areas, such as monetary policy, microprudential policy or crisis management policies, for which different institutional responsibilities and arrangements are in place.
- It would be useful to assign the committee's secretariat function to the SNB, as well as the responsibility of introducing the respective decision items. The SNB should remain solely responsible for making CCyB proposals. Likewise, its existing powers regarding the designation of systemically important banks should not be altered by the committee structure. As regards additional macroprudential tools to be designed and proposed, such as binding borrower-based measures or recommendations to the Swiss Banking Association regarding self-regulation amendments, the SNB should play a leading role and engage in close collaboration with FINMA to leverage on the joint expertise and risk assessments of both institutions.
- The composition of the committee should involve senior representatives of the SNB, FINMA and the FDF, yet may also include independent external experts as in the case of the Financial Policy Committee in the United Kingdom.²³ The Committee should be chaired by SNB, given its legal mandate for financial stability, but would be organized in a collegial manner, whereby all three represented institutions would have equal weight and influence. Most importantly, all macroprudential decisions should be preceded by a well-informed discussion involving all members. The chair should lead the discussion and subsequent decision phase, with voting preferably based on simple majority. The chair should aim at reaching a broad agreement among the voting members, without the need to reach unanimity.
- Formal meetings should take place at a predefined frequency, preferably on a quarterly basis, followed by joint public communication that the committee agrees on during each meeting. Joint communication should not reduce or alter the existing possibilities and responsibilities of the SNB and FINMA to separately communicate their own risk assessment and policy views, e.g., via the SNB Financial Stability Report or the FINMA Risk Monitor, in line with the current practice.

²² See IMF 2013, IMF 2014 and IMF-FSB-BIS 2016 for further considerations on establishing effective macroprudential committees.

²³ The Financial Policy Committee consists of six Bank of England members (the Governor, four Deputy Governors, and the Executive Director for Financial Stability Strategy and Risk), the Chief Executive Officer of the Financial Conduct Authority, five external members appointed by the Chancellor, and a non-voting member from His Majesty's Treasury. See IMF 2022b for a more detailed description and assessment of the Financial Policy Committee in the context of the 2021 UK FSAP.

- The primary legislation should assign sufficient powers to the committee to ensure its ability to act. This could either take the form of hard powers to issue regulations that are binding on the industry itself, or the ability to make recommendations to other agencies with hard powers.

15. The communication on the macroprudential settings and the underlying rationale should be strengthened, including in the case of unchanged policies. As long as the current institutional setting remains unchanged, the SNB should communicate on macroprudential policy more often than on the current annual basis. A good practice would be to communicate on a quarterly basis, including in quarters where it does not propose a change in the CCyB. Specific attention in public communication is warranted on policy implications from the SNB's systemic risk analysis that may require introducing other macroprudential measures than the CCyB (e.g., targeted borrower-based measures).

MACROPRUDENTIAL TOOLS AND FRAMEWORK FOR SYSTEMIC RISK ANALYSIS

A. Macroprudential Tools

16. The macroprudential toolkit in Switzerland is very narrow. It consists of a CCyB, which can be applied both on a sectoral and broad basis, and higher capital surcharges for systemically important banks. The toolkit neither entails other broad-based or sectoral capital-based measures²⁴ nor a legal basis for the Swiss authorities to enact binding borrower-based measures. Instead, the Swiss Banking Association sets self-regulation rules for mortgage lending, which are recognized by FINMA as binding minimum standards and thereby give rise to the application of preferential risk weights under the Capital Adequacy Ordinance.²⁵ FINMA relies on external auditors to assess compliance with the self-regulation and report their findings in audit reports.²⁶

Countercyclical Capital Buffer

17. A sectoral CCyB requirement has been in place since 2013, while the broad-based CCyB has never been activated. The legal basis for the CCyB in Switzerland sets out a hard maximum of

²⁴ For instance, there is no Swiss equivalent to the broad-based or sectoral Systemic Risk Buffer (SyRB) under the EU Single Rulebook.

²⁵ According to Capital Adequacy Ordinance Art. 72c, preferential risk weights can be applied if the minimum requirements set out in Self-Regulation are met, as well as several less stringent requirements (properties not under construction anymore, legally enforceable claims within a reasonable period, senior creditors cannot liquidate the mortgage at a price that disadvantages subordinate creditors, assessment of loan affordability and borrower repayment capacity has taken place, prudent LTV calculation, proper loan documentation).

²⁶ See Swiss Banking Association (2023a), p. 3.

2.5 percent, which can be broad-based or applied to a subset of exposures.^{27,28} A sectoral CCyB on mortgage-backed positions secured by residential property in Switzerland was activated in 2013 at 1 percent of the respective exposures. Following an increase to 2 percent in 2014, the sCCyB was fully released with immediate effect in March 2020 at the onset of the Covid-19 pandemic.²⁹ The sCCyB was re-activated in January 2022 and raised to its legal maximum of 2.5 percent, effective September 2022, due to the build-up of vulnerabilities in the Swiss mortgage and real estate markets. At the same time, the broad-based CCyB on all domestic exposures has remained zero ever since its establishment.

18. The SNB performs a quarterly assessment of cyclical systemic risk and the CCyB stance.

The cyclical risk assessment of the SNB is separated into the analysis for residential real estate related exposures, mainly in the form of mortgage loans which cover approx. 90 percent of total loans in domestically oriented banks, and all domestic exposures, which also includes commercial real estate related exposures and other loans. Guided discretion is applied in both parts:

- The proposal on the sCCyB is informed by a reference guide that uses the mortgage-credit-to-GDP gap, similar to the credit-to-GDP gap indicator (BCBS 2010), and price-to-rent ratios (deviation from long-term average) for different real estate segments (owner-occupied, investment property) as primary inputs. In addition, the SNB considers additional indicators, such as LTI distributions, the debt service ratio, real estate market overvaluation estimates, and investment property yields.
- The proposal on the CCyB is based on the bank-credit-to-GDP gap,³⁰ which also includes corporate and consumer loans. Moreover, it takes into account price-to-rent ratios in the commercial real estate market (focusing on deviations from long-term average). No composite indicator of systemic risk is in place and the interpretation of credit-to-GDP gaps closely follows the BCBS 2010 guidance as regards activation signals in case of a positive credit-to-GDP gap above 2 percent.

19. Actual CCyB decisions are taken infrequently. As mentioned above, the Federal Council only took four CCyB decisions since 2013. The decision-making process involves three steps:

- First, the SNB Governing Board takes a decision on whether to make a proposal for a change to the CCyB (broad-based or sectoral) to the FC. Ever since the Covid-19 pandemic-related release,

²⁷ Capital Adequacy Ordinance Art. 44 para. 1.

²⁸ Small banks that fall under the so-called “Small Bank Regime” are not subject to the CCyB or any other risk-based capital requirements. To qualify for the regime, small banks must comply, among others, with a simplified leverage ratio of at least 8 percent and average liquidity coverage ratio above 110 percent. As of early 2025, 64 institutions are in the small bank regime, of which 49 banks are in category 5. Their market share in the Swiss mortgage market is around 2.3 percent (approx. CHF 1.2 billion) as of end-2024.

²⁹ Swiss authorities referred to a “deactivation” of the sectoral CCyB in March 2020 (<https://www.finma.ch/en/news/2022/01/20220126-mm-azp/>), which corresponds to a release.

³⁰ Based on quarterly data since 1965.

the SNB only submitted one proposal to the FC to reactivate and increase the CCyB (to 2.5 percent).

- Whenever the SNB Governing Board takes a decision on proposing a CCyB change, the next step is the formal consultation with FINMA. Thereafter, SNB submits the proposal to the FC.³¹
- The third step is the FC's decision on the CCyB. So far, the FC has followed the SNB proposals.

20. As the sectoral CCyB is currently set at its legal maximum, it could not be increased further if the SNB considered it being warranted. The only possibility the CCyB could be further tightened within the limits of the current Swiss regulation lies in broadening its application beyond mortgage positions secured by residential property.³²

Capital Buffer Requirements for Systemically Important Banks (SIBs)

21. SNB designates systemically important banks that are subject to Swiss G-SIB or D-SIB buffer requirements (going concern requirements) in consultation with FINMA.³³ As of early 2025, the SNB classifies four Swiss banks as systemically important: UBS, PostFinance, Raiffeisen Group and ZKB. UBS has been classified as a global systemically important bank (G-SIB) by the Financial Stability Board (FSB) ever since the classification was introduced in 2011. Following the state-assisted merger of Credit Suisse in 2023, it is the only remaining G-SIB in Switzerland.

22. The most important criterion for systemic relevance is the bank's market share in systemically important functions, which include domestic credit, deposits, and payments. In addition, the SNB also applies criteria related to the size, risk profile, and interconnectedness of banks with the Swiss financial system to inform the classification.³⁴

23. The capital surcharge for SIBs is partly set on criteria in the regulation and partly determined on an institution-specific level.

- The capital surcharges for SIBs in Switzerland apply in addition to the capital buffer requirements according to banking category according to Banking Ordinance Appendix 3, which

³¹ The SNB may also proceed with its proposal to the Federal Council in case FINMA objects in the consultation. In the first-time activation of the sCCyB in 2013, FINMA communicated its preference for a wait-and-see approach, which it has signaled to SNB in the consultation, after the Federal Council took the activation decision (FINMA 2013).

³² For Swiss banks with risk weight density below 35 percent, the leverage ratio requirement is more binding than risk-based capital requirements, including buffer requirements. This applies to approx. one third of the banking sector, including all four systemically important banks.

³³ The designation of banks as systemically important as well as the designation of their systemically important functions falls within the competency of the SNB. The designation is based on the criteria set out in Art. 8 para. 1 and 2 of the Swiss Banking Act. FINMA must be consulted in the designation process. The process and respective responsibilities of SNB and FINMA is Art. 8 para. 3 of the Swiss Banking Act.

³⁴ Specifically, size is measured in terms of total assets and covered deposits. Risk profile is based on foreign claims and liabilities, as well as the replacement values of derivatives. Interconnectedness refers to claims to and liabilities from domestic banks.

conceptually correspond to the Basel III capital conservation buffer, yet go beyond the Basel III requirement for medium-sized and large banks. Appendix 8 of the Capital Adequacy Ordinance specifies the capital buffer requirements by banking category, which start at 2.5 percent for small banks (category 5), increase to 3.2 percent for medium-sized banks (category 4), and reach 4.0 percent for large complex banks (category 3). For very important complex market participants (category 2), which include the three D-SIBs, and extremely large, important, and complex market participants (category 1), which includes UBS, capital buffer requirements are 4.8 percent. Should a bank be designated as systemically important (SIB), the Swiss TBTF framework includes a capital buffer requirement of 4.86% of RWA.³⁵

- On top of the above capital buffer requirement, additional capital surcharges that apply to the four systemic banks due to their systemic relevance on a going concern basis are, in percent of RWA, 1.44 percent for UBS, 0.36 percent for Raiffeisen Group and 0 percent for ZKB and PostFinance. These surcharges include additional capital buffer requirements for UBS and Raiffeisen Group that exceed certain thresholds for market size or total exposure as set out in Appendix 9 of the Capital Adequacy Ordinance.³⁶

Self-Regulation for Mortgage Lending

24. The self-regulation on mortgage loans by the Swiss Banking Association has been partly in place since 1994.^{37,38} It addresses mortgage lending to all domestic counterparties (private borrowers and companies) and does not only cover residential real estate (RRE) related mortgage loans in the owner-occupied or investment-property segments but also mortgage loans to SMEs as well as CRE. Any changes to the self-regulation are discussed by a working group led by the Swiss Banking Association and involve the FDF, SNB and FINMA, with the aim to reach a consensus that is acceptable to the four stakeholders. Consequently, the process is rather lengthy as evidenced by the 2019 revision of the self-regulation that took around two years.

25. The self-regulation for mortgage lending has two parts:

- The *Guidelines on minimum requirements for mortgage loans (minimum requirements)* provide quantitative transaction-based limits that banks need to follow in new mortgage lending. Specifically, they include (i) a minimum downpayment of 10 percent, which corresponds to a

³⁵ Based on Art. 129 para. 2 CAO

³⁶ In the context of ongoing TBTF reform, the calculation of the capital surcharge linked to a systemically important bank's size will be changed. The authorities intend to raise the bucket thresholds of total exposure to take account of GDP growth in recent years.

³⁷ A first version of the self-regulation was put in place in 1994, drawing on lessons learned from the Swiss real estate crisis of the early 1990s. It took the form of guidelines on assessing, valuing and processing loans secured by property, which after several revisions formed the basis of today's Qualitative Guidelines as described below.

³⁸ In recent years, it has been revised in 2014 (tightened for real estate related lending in general), 2019 (tightening of minimum standards for investment property related lending) and 2024 (loosening of minimum standards for investment property related lending, effective as of Jan. 2025).

uniform 90 percent LTV cap, for most mortgage loans³⁹ as of early 2025, and (ii) a linear amortization requirement of the loan amount exceeding 66 percent LTV over a period of 15 years.

- The *Guidelines on assessing, valuing, and processing loans secured by property (qualitative guidelines)* are principle-based and relate to lending policies, including affordability assessment and valuation, as well as loan monitoring. As regards affordability, the guidelines require banks to define an ‘affordability threshold’ in relation to the borrower’s income and expenses (for owner-occupied RRE) or investment income (for income-producing real estate). In addition, they require individual banks to define an appropriate ‘imputed mortgage interest rate’ for each segment, without giving an indication of appropriate levels or ranges.⁴⁰ Box 1 describes unwritten Swiss industry standards regarding affordability, which FINMA uses as best practices as described below.

26. Stricter minimum requirements were put in place for investment property-related lending at end-2019 and lifted at end-2024. The tighter requirements involved a minimum 25 percent downpayment and 10-year linear amortization of the loan amount exceeding 66 percent LTV. The SBA adopted the tightening in 2019, following a discussion on risk-weight add-ons for mortgage loans. The FDF had proposed the latter against the background of elevated risks in the investment property segment and in an effort to frontload the Basel III final standards but it was strongly opposed by the SBA.⁴¹ The compromise involved the commitment for the stricter self-regulation to be lifted upon the introduction of Basel III final standards in Switzerland. Hence, with the revised Capital Adequacy Ordinance (CAO), in force from January 2025, the same minimum requirements apply again to new mortgages in all segments. In view of persistent risks in the investment property segment, FINMA still recommends that banks continue to maintain the 25 percent minimum down payment going forward.⁴²

27. At the time of the FSAP, FINMA considered issuing guidance related to real estate and mortgage risks. It could be based on supervisory findings of weaknesses in the application of the self-regulation and focus on clarifying supervisory expectations regarding affordability assessment and valuation (see Box 1).

³⁹ Some mortgage segments are excluded from the scope, e.g. mortgage loans to community housing projects or mortgage loans related to properties located outside of Switzerland.

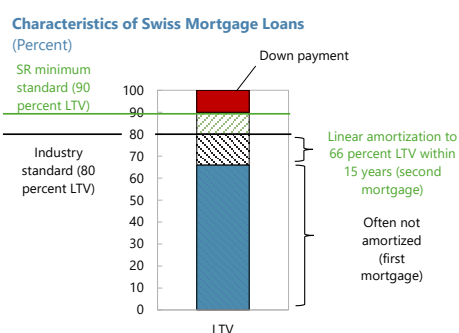
⁴⁰ The FSB Principles for Residential Mortgage Underwriting Practices (FSB 2012) require lenders to “include risk limits in their internal loan policies, such as specifying minimum levels of residual net income after meeting obligations or fixed ratios of repayment to some measure of gross or net income (e.g. debt-to-income ratio, loan-to-income ratio)”.

⁴¹ See SBA 2019.

⁴² See FINMA 2024.

Box 1. Switzerland: Industry Standards in the Swiss Mortgage Market

In addition to the self-regulation (SR) by the Swiss Banking Association, several non-binding “industry standards” are in place regarding mortgage lending in Switzerland. They relate to LTV ratios, amortization, and affordability, and are relevant background information for analyzing real estate-related risks for Swiss households and banks. The figure below compares the main “industry standards” in the former two categories with the self-regulation.



Loan to value and down payments. The industry standards for maximum LTV ratios are 80 percent for the owner-occupied RRE segment and 75 percent for the investment-property RRE segment. Maximum LTV ratios for commercial real estate (CRE) range between 50 – 70%, depending on property type. The down payments need to be made in hard equity for the portion required by the SR minimum standard (90 percent LTV), while for owner-occupied first homes the remainder could be covered by withdrawing or pledging pension fund savings or third pillar.

Amortization. The Swiss mortgage market is characterized by widespread non-amortization of the first mortgage. While no available data on amortization for new or existing loans, the “industry standard” is that (i) the part of the loan below 66 percent LTV is often not amortized (first mortgage) and thus constitutes an interest-only loan,¹ and (ii) the part above 66 percent LTV is amortized (second mortgage) as set out by the minimum requirements (linearly over 15 years).² This practice is part of the explanation for the strong rise in mortgage debt in Switzerland in recent decades. Instead of repaying first mortgages, households tend to roll over debt, make interest payments and use disposable income or accumulated wealth for investments with higher expected returns. At the same time, average LTV ratios in the owner-occupied segment show that mortgage loans below 66 percent LTV, which is also the median for owner-occupied mortgage loans since 2017, are common as well.

Another feature of Swiss mortgage loans is the possibility for indirect amortization. Anecdotal evidence suggests this is common practice for second mortgages, which are subject to the linear amortization requirement of the self-regulation. Indirect amortization involves making payments to a Pillar 3 pension scheme, with the scheme itself pledged against the mortgage loan. The loan only needs to be repaid at the maturity of the pension plan, which is typically the retirement date, either by using the pension plan or by other means. Two reasons for the popularity of indirect amortization are the tax treatment³ and higher return potential, especially if mortgages are granted in a low-interest rate environment.

Affordability. For the owner-occupied RRE segment, the industry standard – which FINMA considers sustainable in the context of its supervisory activities based on FINMA Guidance 2/2025 – is an affordability threshold of 33 percent of the gross income (or 38 percent of the net income), which should cover (ii) stressed costs calculated by a 5 percent imputed mortgage rate and 1 percent amortization,⁴ as well as build-related maintenance costs of 0.8 percent of the house value. For the investment-property real estate segment, 100 percent of the net rental income (from the property investment) is used as the affordability threshold. If income-based affordability is calculated in line with the above mentioned criteria, it corresponds to a LTI multiple of 4.8 in the owner-occupied RRE segment⁵ and 14.2 for the investment-property real estate segment.⁶

Box 1. Switzerland: Industry Standards in the Swiss Mortgage Market (Concluded)

¹ While the industry standard as e.g. reported by UBS (2024) is no amortization of the first mortgage, the amortization practice might differ across banks and customers. Some banks may require some amortization, e.g. depending on property type or counterparty rating. Moreover, some borrowers may prefer a partial amortization of the first mortgage.

² See UBS (2024).

³ Payments into the pre-defined pension scheme can be deducted from taxable income. Moreover, pension assets, capital gains and income are exempt from any taxation until they are paid out at retirement (at the latest). In addition, they are not subject to wealth taxes. Interest income is exempt from income and withholding tax. When assets are paid out, they are separated from other income and taxed at a lower rate.

⁴ On average, these payments amount to around 1 percent. Effectively, they depend on the LTV. For instance, a standard owner-occupied RRE mortgage loan with an LTV of 80% at origination requires amortization payments of 1.1% to be in line with the self-regulation, which requires yearly amortization payments to reach two thirds of the lending value within 15 years.

⁵ Solving the equation $GROSS\ INCOME * 0.33 \geq LOAN * (0.05 + 0.01) + VALUE * 0.008$ for an 80 percent LTV loan (industry standard for the owner-occupied RRE segment). The same calculation done for 38% of the net income, rather than 33% of gross income, would yield a slightly higher LTI multiple of 5.4.

⁶ Same calculation with 100 percent of the net income and LTV 75% to determine the affordability threshold.

Additional Pillar 2 Requirement Related to Mortgage Risk

28. FINMA also imposes Pillar 2 measures for selected banks with elevated risk in mortgage lending.

⁴³ While not constituting a macroprudential tool, this *microprudential* measure is directly related to mortgage lending risks and thus mentioned for completeness. It is applied based on findings from FINMA stress tests, specifically in cases where available capital buffers for the mortgage book are not sufficient to absorb stress losses⁴⁴ or based on findings from on-site inspections where banks strongly grow their mortgage loan books in unsustainable ways or do not have adequate controls in place. As of end-2024, FINMA imposed 15 such Pillar 2 add-ons to Swiss banks in relation to mortgage market risks.

Comparison of the Swiss Macroprudential Toolkit with European Peers

29. There are two main differences in the macroprudential toolkit between Switzerland and most EEA countries:

- Firstly, most EEA countries (27 out of 30) have borrower-based measures in place⁴⁵ and no other country follows a self-regulation approach for mortgage lending set by a banking association.

⁴³ Based on Art. 45 Capital Adequacy Ordinance.

⁴⁴ Using an 8 percent hurdle rate in terms of total capital.

⁴⁵ As of April 2025, the only three EEA countries without activated borrower-based measures are Germany, Spain and Croatia.

- Secondly, most EEA countries have at least one additional capital-based tool available, which can be activated jointly with the CCyB, as well as with the G-SIB and D-SIB buffers as standard elements of Basel III. 21 out of 30 EEA countries have activated a broad-based or sectoral Systemic Risk Buffer (SyRB) as of early 2025.⁴⁶ A key trend in macroprudential policy in Europe since 2019 has been the increased use of the sectoral SyRB for different exposure segments.⁴⁷

Table 2. Switzerland: Macroprudential Toolkit in Switzerland and European Peer Countries

		Austria	Belgium	Denmark	Germany	Netherlands	Norway	Switzerland	Sweden
Capital-based measures									
CCyB	Available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	In place	-	1.0% (broad)	2.5% (broad)	0.75% (broad)	2.0% (broad)	2.5% (broad)	2.5% (sectoral)	2.0% (broad)
	Comment			No explicit positive neutral CCyB		Explicit positive neutral CCyB (2%)	No explicit positive neutral CCyB		Explicit positive neutral CCyB (2%)
SyRB (equivalent)	Available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	In place	0.5-1% (broad)	6% (sectoral)	7% (sectoral)	2% (sectoral)	-	4.5% (broad)	<input type="checkbox"/>	3% (broad)
	Comment	13 banks	7 banks	All banks	All banks		All banks		All banks
SIB buffer ^{1/}	Available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	In place	0.45-1.75%	0.75-1.5%	1-3%	0.25-2%	0.25-2%	1-2%	0-1.44%	1%
	Comment	10 banks	8 banks	9 banks	15 banks	6 banks	4 banks	4 banks	4 banks
CCoB (equivalent)	Available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	In place	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.5-4.8%	2.50%
	Comment							Above 2.5% for category 1-4 banks	
Borrower-Based Measures									
	Available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	In place	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Comment	LTV, DSTI and loan maturity caps	LTV cap	LTV and DTI/LTI caps		LTV and loan maturity caps	LTV and DTI/LTI caps, amortization rule	Self-regulation with LTV cap and amortization rule	LTV cap and amortization rule
<i>Ad memorandum</i>									
	Basel III final introduction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Source: ESRB, IMF staff. Note: Table compares the availability and use of macroprudential tools as of early April 2025.

1/ Capital buffers for SIBs in Switzerland are determined under a separate regime from the buffer requirement for banking category, which corresponds to the Basel III CCoB. For comparison purposes, the total capital buffer is distributed between CCoB and SIB buffer.

⁴⁶ Austria, Belgium, Bulgaria, Czech Republic, Germany, Denmark, Finland, France, Croatia, Hungary, Iceland Italy, Lithuania, Liechtenstein, Malta, Netherlands, Norway, Portugal, Romania, Sweden and Slovenia.

⁴⁷ For instance, CRE in Denmark, mortgage lending in Germany, and highly indebted corporates in France.

30. A more detailed comparison of the macroprudential toolkit in Switzerland with selected peers also shows the extent of its use (Table 2). On top of already mentioned differences with respect to an available second capital-based measure and legal basis for borrower-based measures (see orange and green cells), Table 2 also allows a comparison of the size and composition of the combined buffer requirement, consisting of the CCyB, other capital-based measures, buffer requirements for systemically important banks, and the transposition of the Basel III Capital Conservation Buffer in the respective jurisdictions. Banks in some peer countries, such as Denmark, Norway, and Sweden, have combined buffer requirements that are more than double of those applied to Swiss banks as a percent of risk-weighted assets. All peers included in Table 1 are jurisdictions that have adopted the Basel III final standards. Lastly, in all peer countries, except for Germany, the macroprudential authority has also activated borrower-based measures.

B. Systemic Risk Analysis

31. The SNB publishes a financial stability report on an annual basis and communicates risks to key stakeholders and the general public. The FSAP Technical Note on Systemic Risk Analysis provides a detailed assessment of the SNB's operational framework for financial stability risk analysis in the banking sector and non-bank financial institutions.

32. To assess risks regarding mortgage lending by Swiss banks, FINMA and the SNB mainly rely on two data sources:

- **Mortgage lending data (since 2017):** The so-called 'Hypo B' dataset includes the flow of mortgage loans since Q1 2017 for 29 banks (leading mortgage lenders in the country).⁴⁸ It is differentiated by mortgage segment,⁴⁹ lending metrics (such as LTV, LTI, DSTI), whether the loan is considered an "Exception-to-Policy" (EtP loan) from the bank's perspective, and some other characteristics. FINMA uses the dataset, together with other information, to identify outlier banks (e.g., displaying high EtP ratios) and inform supervisory action.
- **Survey data on mortgage lending criteria (biannually):** Every two years, FINMA collects and analyzes quantitative survey data on mortgage lending criteria from 45 banks. The latest analysis was performed in 2024 with a focus on mortgage-related lending criteria and valuation methods.

33. The SNB and FINMA have addressed important data gaps regarding mortgage loans since the 2019 FSAP, which will lead to improvements in the coming years in two steps:

- **Loan portfolio by LTV ratio (from 2025):** More granular data on the stock of mortgage loans, differentiated by LTV and property type (e.g., owner-occupied, investment property), is becoming available from 2025 Q1 onwards due to the introduction of the Basel III final standard.

⁴⁸ Banks with more than CHF 6 billion mortgage stock outstanding.

⁴⁹ Owner-occupied RRE, investment property RRE through lending to households (buy-to-let), investment property RRE through lending to commercial borrowers, commercial real estate, other (not household and firms).

The latter introduces differentiated risk weights for mortgage loans under the standardized approach depending on mortgage segment and LTV ratio. This new database allows portfolio-level analysis for the stock of mortgage loans for all Swiss banks.⁵⁰

- **Loan-by-loan data on the existing mortgage loan stock will become available from 2027.**⁵¹ In response to a 2019 IMF FSAP recommendation, the SNB and FINMA decided in 2022 to introduce a reporting requirement for banks, covering more than 90 percent of the domestic credit market. It will cover both existing and new loans and shed further light on LTV and LTI distributions. In addition, the dataset will also include more granular data on the income of private borrowers, firm characteristics, and outstanding debt of commercial borrowers. However, the introduction has a long lead time, with first data deliveries only expected in 2027.⁵² Moreover, the currently envisaged extent of the dataset does not cover information about all debts and debt service of each respective borrower, which would be necessary to calculate and analyze DTI and DSTI ratios at the single loan level.

34. Existing data gaps hinder a more thorough analysis of the commercial real estate (CRE) market from a financial stability perspective. Based on price developments, the commercial real estate market appears broadly stable, with less dynamic price developments than the investment-property segment in recent years and with signs of recovery in 2024 (see Figure 4).⁵³ New construction activity in the CRE segment has fallen sharply in 2023 and 2024, yet there is no indication of systemwide oversupply. Price indices based on asking rents have both recovered. Despite structural challenges related to the increasing use of e-commerce and working from home, demand indicators suggest a stable market, including in the office and retail segment. While vacancy rates in office space in main cities remain elevated compared to historical averages, they are lower than in other European capitals.⁵⁴ As regards more detailed data on CRE valuations, affordability metrics and firm characteristics, FINMA and the SNB should ensure that the envisaged loan-by-loan data on the existing mortgage stock, starting from 2027, closes relevant current data gaps to support enhanced micro- and macroprudential analyses for the CRE segment of the mortgage loan book. Closer monitoring of real estate investment funds should also be considered.⁵⁵

⁵⁰ Not available at the time of the 2025 FSAP.

⁵¹ Single credit registry (*Einzelkrediterhebung*).

⁵² Loan-to-loan data will also include bank exposures to NBFIs and fintech, thus supporting interconnectedness analysis.

⁵³ Unlike several other advanced economies, such as the euro area, Swiss authorities do not consider the investment-property RRE segment by commercial borrowers as a separate segment and not as part of the CRE segment.

⁵⁴ According to BNP Paribas (2024), vacancy rates for office space in European capitals is close to 8.4 percent as of 2024 Q2.

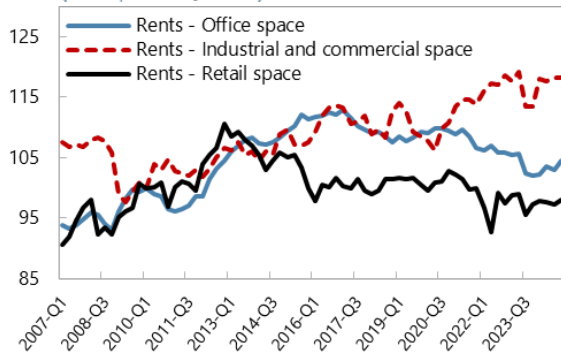
⁵⁵ See the companion FSAP Technical Note on Systemic Risk Analysis for further details.

Figure 4. Switzerland: Commercial Real Estate Market

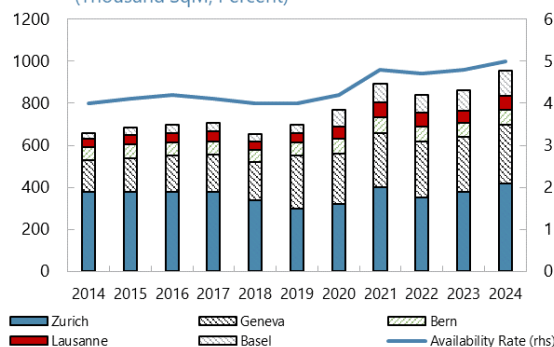
Commercial Real Estate prices are recovering from a low level ...

... while the vacancy rate in office space has increased, partly because of increased supply.

Commercial Real Estate Asking Prices
(Index, 2010 Q1=100)



Available Office Space
(Thousand SqM, Percent)



Source: Wuest Partner; and IAZI.

C. Macroprudential Policy Settings

35. The macroprudential policy settings have evolved in four steps since the 2019 FSAP: It tightened in 2019 (stricter self-regulation for investment properties), loosened in 2020 at the onset of the Covid-19 pandemic (full release of the 2 percent sCCyB), tightened again in 2022 (sCCyB at 2.5 percent as of September 2022) and somewhat loosened again as of January 2025 (lifting stricter self-regulation for investment properties, while introducing final Basel III risk weights).

36. The introduction of final Basel III risk weights exerted an ambiguous impact on capital requirements for mortgage loans. For banks under the standardized approach (STA), it introduced differentiated risk weights for mortgage loans, depending on LTV and the mortgage market segment. As discussed in Box 2, it raised risk weights for high-LTV loans in the RRE investment property segment (above 60 percent LTV). At the same time, it reduced risk weights for owner-occupied RRE mortgage loans below 80 percent LTV (due to the shift from a loan splitting approach to a whole loan approach and application of lower penalty risk weights for loans that do not comply with the minimum standards of the self-regulation). Overall, FINMA estimates, based on the Quantitative Impact Study performed on end-2020 data, that the change in Basel III risk weights for mortgage loans will result in an overall reduction in risk-weighted assets for credit risk by 5-10 percentage points for domestically oriented banks, depending on their portfolio composition.⁵⁶

D. Assessment and Recommendations

37. The sectoral CCyB has played a useful role in supporting the resilience of Swiss banks. The size and complexity of the Swiss financial system as well as its integration in global financial markets make it vulnerable to foreign and local shocks that could be amplified to the domestic economy. Having releasable capital buffers in place in the form of a CCyB gives Swiss authorities the possibility to reduce the amplification of unexpected major shocks. The usefulness of having in place

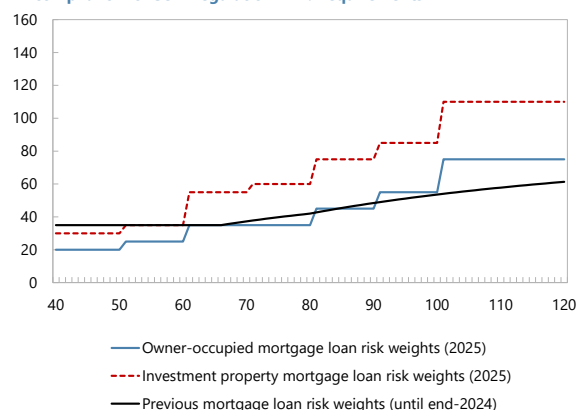
⁵⁶ See FDF (2023b).

a sizable CCyB was demonstrated at the onset of the Covid-19 pandemic as its release supported the ability of Swiss banks to continue lending at a time of elevated uncertainty.

Box 2. Switzerland: Relationship between Self-Regulation and Risk Weights for Mortgage Loans

Applicable risk weights for mortgage loans in Switzerland under the standardized approach (STA) depend on the mortgage segment, the LTV ratio and compliance with the self-regulation. The figure below illustrates the risk weight differentiation between income-producing and owner-occupied segments that was introduced in January 2025. Higher risk weights apply for higher LTV buckets, which is more pronounced than before 2025 (dashed line). According to Capital Adequacy Ordinance Art. 72c, preferential risk weights can be applied if the minimum requirements set out in self-regulation are met, as well as several less stringent requirements (properties not under construction anymore except for the owner-occupied housing segment, legally enforceable claims within a reasonable period, senior creditors cannot liquidate the mortgage at a price that disadvantages subordinate creditors, assessment of loan affordability and borrower repayment capacity has taken place, prudent LTV calculation, and proper loan documentation). If this is not the case, penalty risk weights up to 150 percent (income-producing real estate) or at least 75 percent (for owner-occupied RRE)¹ apply to the mortgage loan depending on the LTV.

Risk Weights for Swiss Mortgage Loans in 2025 vs 2024: Loans compliant with Self-Regulation Min. Requirements



Source: Swiss Capital Adequacy Ordinance, IMF staff.

The preferential risk weights for mortgage loans shown in the Figure are slightly higher in Switzerland than the preferential risk weights under the Basel III final standard. They have been calibrated as a blend of the “pure” Basel III final risk weights (with 85 percent weight) and the above indicated penalty risk weights (with 15 percent weight), based on an estimated 15 percent share of loans with elevated risks with respect to affordability or prudent valuation (see FDF 2023a, p. 58). The resulting risk weights are slightly higher than under the Basel III final standard, as this compensates for the lack of an explicit link between the bank’s internal affordability requirements and capital adequacy, as well as for

individual elements of the Basel minimum standard in the area of prudent valuation that are missing. Swiss banks are not required to assess compliance with the six criteria on a loan-by-loan basis. FINMA monitors the validity of the 15 percent share on an individual bank basis and may impose additional requirements in case of significant deviations. Banks need to apply the respective penalty risk weights to individual loans that do not meet the minimum requirements of the self-regulation (LTV cap, amortization requirement).

¹75% risk weight for natural persons, 85% right weight for SMEs, and counterparty risk weight in other cases.

38. The macroprudential toolkit is too narrow, however, and has reached its limits in terms of further tightening possibility. The CCyB as the only time-varying capital-based measure cannot be practically further increased in its current sectoral application, and there is no legal basis

for borrower-based measures.⁵⁷ Borrower-based measures could, among others, also help to mitigate competition law concerns regarding the exclusion of the riskiest borrowers when done through self-regulation.⁵⁸

39. Introducing an additional capital-based tool would greatly benefit the ability of macroprudential policy to address risk build-up in a timely and targeted manner. Specifically, such tool would be separate from the CCyB, not subject to an upper limit, and could be designed similarly to the sectoral SyRB in the macroprudential toolkit of European peers, which is currently applied to RRE exposures in 7 EEA countries.⁵⁹ Given the similarities with the sCCyB, the same decision-making process could apply. Introducing this new tool would allow the SNB to propose the broad-based CCyB as well as the new sectoral buffer requirement that could apply in parallel. Importantly, neither the CCyB nor the second capital-based measure should be subject to an upper limit. The existing legal maximum of the CCyB at 2.5% should be removed, so that it is possible to set the CCyB in excess of 2.5%, as is also the case in the European Union.⁶⁰

40. In addition, the SNB should review the existing CCyB framework with a view towards making it more flexible and proactive, possibly in the form of a positive cycle-neutral broad-based CCyB. As discussed in Box 3, a positive cycle-neutral CCyB, which has been used by various Swiss peers in recent years, would reduce the potential under-calibration of the CCyB from mismeasurement of cyclical risks. Furthermore, it builds additional resilience against shocks that might not necessarily stem from cyclical domestic imbalances or risk build-up in the residential mortgage segment, yet could for instance also cover exogenous shocks, reducing their amplification effect through the banking system.

41. The Capital Conservation Buffer (CCoB) framework should be simplified and more clearly separated from the buffers for SIBs. Specifically, the CCoB requirement should be set to 2.5% for all banks, as prescribed by Basel Risk-Based Capital Requirements (RBC 30 – Buffers above the regulatory minimum). At the same time, the D-SIB framework could be improved by imposing higher buffers to banks commensurate with their size and business model. This change would not alter the capital buffer requirement for individual banks yet support compliance with Basel RBC 30 as well as international comparability and transparency of the going-concern SIB buffer requirements.

⁵⁷ While failing to constitute a legal basis for borrower-based measures that would be similar to other countries that have this set of macroprudential tools in their toolkit, Art. 72d para 2 CAO gives, FINMA some powers to set requirements for internal directives in more detail, including in the field of affordability and prudent calculation of imputed costs.

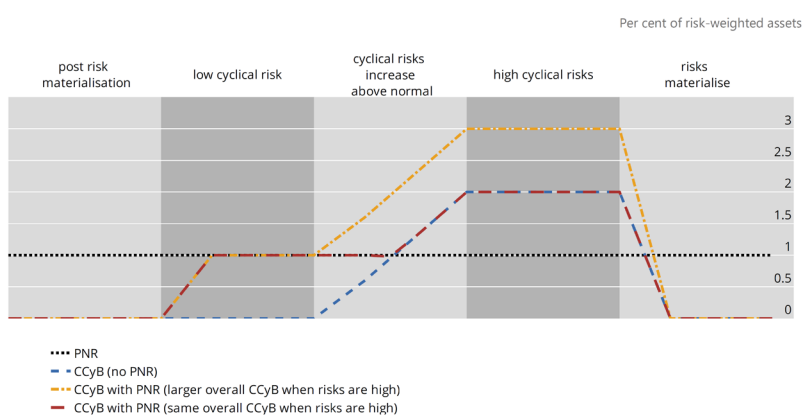
⁵⁸ The Swiss competition authority intervened in the establishment of the self-regulation to prevent the exclusion of the riskiest borrowers from obtaining a mortgage loan. Instead, penalty risk weights apply in case of non-compliance with the self-regulation.

⁵⁹ Belgium (6 percent), Germany (2 percent), Lithuania (2 percent), Liechtenstein (1 percent), Malta (1.5 percent), Portugal (4 percent) and Slovenia (0.5 percent) as of April 2025.

⁶⁰ See Capital Requirements Directive V, Art. 136 para. 4.

Box 3. Switzerland: Experience with Positive Neutral CCyB by Swiss Peers

International Context. CCyB setting in Switzerland could benefit from applying a more flexible and proactive approach, in line with the international momentum towards positive cycle-neutral CCyB rates by Swiss peers and other countries in recent years. Pioneered by the Bank of England in 2016, 22 countries have moved towards regimes with explicit cycle-neutral rates by end-2024, with increased momentum since 2022. From a global perspective, countries that pursue this approach have been mainly located in Europe (16 countries) and include Ireland, Netherlands, Sweden, or the United Kingdom. Several non-European countries with similarly high S&P banking industry rating as Switzerland (bucket 2) have introduced the approach (Australia and Hong Kong), supporting an early build-up. While positive neutral CCyB rates had not been envisaged in the original Basel III approach (BCBS 2010), it has received considerable support in global macroprudential policy circles in recent years, including an endorsement by the BCBS (2022a) and IMF staff recommendations in the context of recent FSAPs (e.g. Finland or Spain). Positive neutral rates are set between 0.5 percent (Greece) and 2 percent (Iceland, Poland, Netherlands, Sweden, the UK), and applied to all domestic exposures (i.e., as a broad-based tool).



Benefits. An earlier and more gradual activation, which characterizes the build-up of a positive neutral CCyB compared to zero neutral regimes (see chart above from BCBS 2024), is found to strongly mitigate costs of activation. Moreover, a positive neutral rate reduces the potential under-calibration of the CCyB from mismeasurement of cyclical

risks and reduces potential concerns of buffer usability by increasing the distance to the combined buffer requirement. Furthermore, it builds additional resilience against shocks, which might not necessarily stem from cyclical domestic imbalances yet could for instance also cover exogenous shocks, and in turn reduces the amplification of shocks through the banking system (Adrian 2024).

Feasibility and exploration. The Swiss authorities may follow the modular template provided by Fandl et al. (forthcoming) to explore preconditions (legal feasibility, macro-financial conditions, and cost-benefit analysis) for a transition to positive neutral CCyB and analyze the potential design and operationalization (incl. integration in the macroprudential framework and communication strategy). Introducing a broad-based positive neutral CCyB in Switzerland in a non-capital neutral way would require prior changes to CAO Art. 44.

42. The self-regulation approach, which is a unique feature of the Swiss framework, has several deficiencies compared to conventional regulatory measures in the field of macroprudential policy:

- First, the downsides of relying on principle-based self-regulation have become evident in recent years. Banks interpret principles in heterogeneous and partly aggressive ways, giving rise to unsustainable lending practices, as described in the next section. It is unclear whether the associated higher expected and unexpected losses are adequately covered by provisions and risk weights. FINMA may provide additional clarifications and guidance on its supervisory expectations to banks, yet the underlying problem remains the limited bank incentives to comply with prudent lending standards. Authorities should address the underlying problem, which is principle-based self-regulation that is vaguely formulated on purpose to provide maximum flexibility to banks. A more effective way from a risk and level-playing field perspective would be to set quantitative affordability criteria by regulation or minimum requirements in self-regulation, which banks should incorporate in their lending policies, with appropriate supervisory follow-up in case of non-prudent lending standards. The next section elaborates on it.
- Secondly, in addition to the qualitative guidelines, the minimum requirements set by the Swiss Banking Association may at times fall short of supervisory expectations, as currently the case of investment-property lending. While FINMA encouraged banks to continue using tighter standards than the minimum requirements, banks have limited incentives to comply, given that FINMA has formally accepted the looser requirements as a binding minimum standard. In such situations, FINMA should have the legal powers to enforce a tighter minimum standard, for instance in the form of a FINMA Ordinance. The preparation of such measures would also benefit from triparty discussions with the SNB and FDF in the context of the recommended Systemic Risk Council.⁶¹
- Thirdly, changes to the self-regulation involve a lengthy process, due to the objective to seek consensus, which may hamper timely action. In this respect, rule-based regulation with industry consultation and decision-making by a public authority has important advantages, also as leverage in the negotiations of self-regulation changes with the Swiss Banking Association.

43. The need for more rule-based regulation is evident, especially regarding the assessment of affordability. On substance, it would be useful to define quantitative limits for affordability in the form of LTI or DSTI caps, or for *each* element of the affordability calculation (affordability threshold, imputed interest rate, maintenance costs, and amortization). These limits should be applied on new and existing loans, in order to identify mortgage loans with the highest affordability risks and thus the highest probabilities of default *in relative terms*. While for new loans, they could also be set as a macroprudential borrower-based measure, for which a legal basis would need to be created, it could be set both for new and existing loans as a *minimum requirement* beyond which loans would be subject to penalty risk weights for loans that are non-compliant with

⁶¹ FINMA Ordinances also require a public consultation before they can be finalized and issued.

the self-regulation.⁶² The next two sections elaborate on the substance of recommended borrower-based measures for mortgage lending.

44. SNB and FINMA’s efforts to collect more granular data on mortgage loans are welcome, yet the extent of the data collection should be extended to cover all relevant borrower and loan characteristics. Data on all debts and all debt service of a single borrower is essential to be in a better position to assess elevated affordability risks and perform counterfactual analyses of alternative macroprudential policies. Moreover, reporting data should include all relevant information on loan amortization modalities, which is currently lacking. Similarly, the SNB and FINMA require more granular data regarding the CRE segment for assessing the build-up of risks for individual banks and the banking sector as a whole, including information on the frequency and mode of appraisals.⁶³

45. The recent relaxation of the macroprudential stance stands in contrast to the currently heightened real estate related risks. Together with the recent reduction of policy rates, it has the potential to further increase mortgage market related vulnerabilities. The following sections shed more light on the respective systemic risks and perform a counterfactual analysis of additional macroprudential measures, based on an assumed broadening of the macroprudential toolkit along the lines above.

REAL ESTATE MARKET IMBALANCES AND EFFECTIVENESS OF SELF REGULATION

A. Vulnerabilities from the Real Estate Market

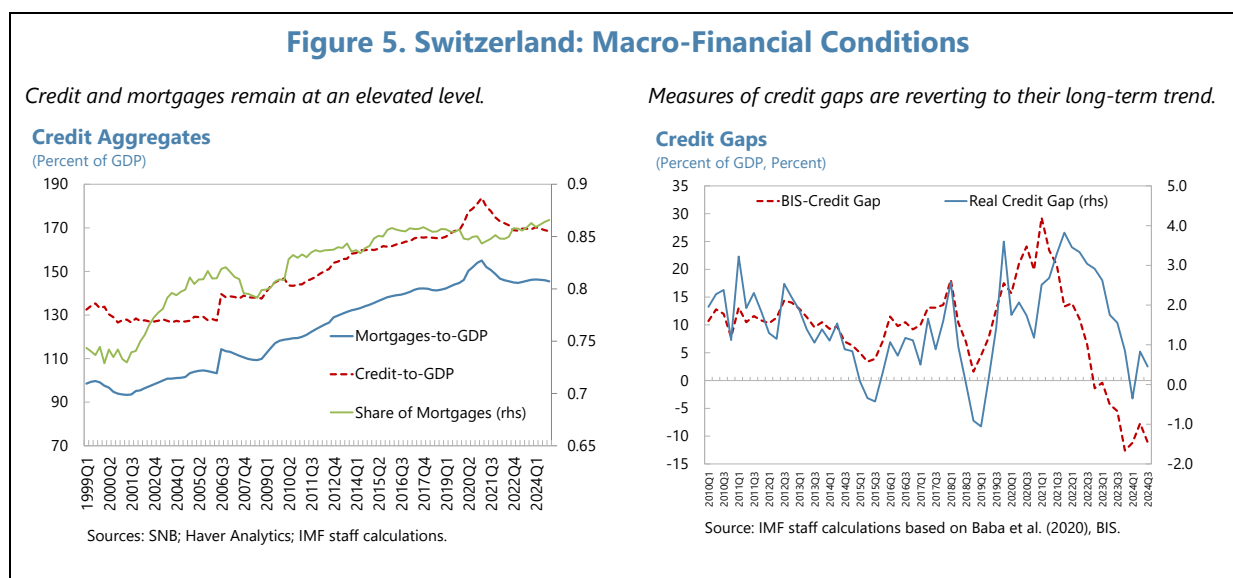
46. Macro-financial vulnerabilities related to the Swiss real estate market have increased since the 2019 FSAP. Non-financial private sector debt has grown rapidly over the past two decades, particularly in the mortgage sector. After its peak in 2021, mortgage volume stands at around 145 percent to GDP, still above pre-pandemic levels (see Figure 5). Credit gap estimates have been positive or close to neutral over the past decade, a period characterized by low and partly negative rates. While the gaps turned negative in the aftermath of monetary policy tightening, they recently reverted amid declining interest rates.

47. Mortgage loans dominate the loan portfolios of domestically oriented Swiss banks. They account for 86 percent of total loans as of end-2024, following a steady rise in importance over the past few decades (see Figure 5). The high share of collateralized lending sets Switzerland apart from European peer countries, such as Germany and Austria, with implications for lower aggregate

⁶² At a minimum, it should be upgraded from qualitative guideline (with no quantitative indication) to a minimum requirement under the Self-Regulation.

⁶³ See the companion FSAP Technical Note on Systemic Risk Analysis for further details.

credit risk and risk weight density of loan portfolios. Moreover, most Swiss banks have an exclusive lending focus on the domestic market.

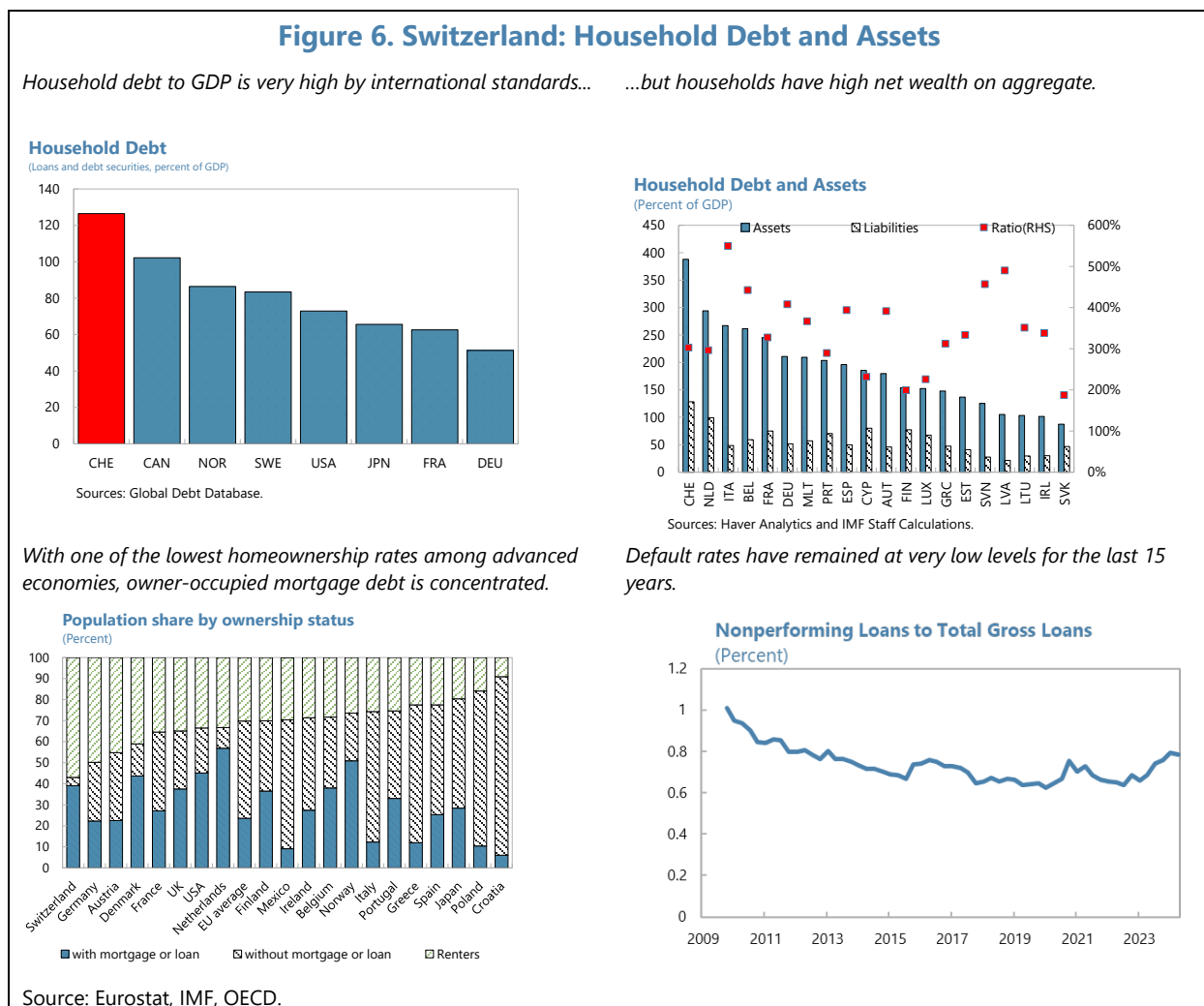


48. The Swiss household debt-to-GDP ratio is among the highest among developed economies. At more than 120 percent of GDP, household gross debt in the form of loans and debt securities is significantly above Swiss peers. It is more than double the level in Germany or France, and remains well above Norway, as shown in Figure 6. The elevated household debt level is structurally driven by tax incentives to amortize mortgages only to 66 percent LTV and roll-over existing mortgages as it allows the deduction of interest from taxable income (see Box 4). A mitigating factor to this high level of debt is that Swiss households have on aggregate high and liquid net worth, which may have contributed to the historically low NPL level in the mortgage loan segment over the past decade. However, the distribution of household wealth is not well known, and experimental statistics based on SILC survey data may provide a clearer picture over time of household wealth, indebtedness, and resilience (see the fourth section of this note and Box 5). Switzerland is also characterized by the lowest home ownership rate in Europe (see Figure 6), below levels in Germany and Austria, which implies that owner-occupied mortgage debt is concentrated in less than 40 percent of Swiss households.

49. House prices seem to be overvalued. The dramatic growth in Swiss real estate prices during the first quarter of the 21st century has been driven, on the demand side, by high net immigration, demographic factors (leading to smaller household size) and high average income and wealth. At the same time, policy rates and lending rates have been historically low, and for some time ultra-low, in the aftermath of the Global Financial Crisis. Models of house prices valuations⁶⁴ produce a range of overvaluation between 20 and 35 percent. The highest levels of overvaluation are obtained by using valuation ratios, while regression-based models that take also supply factors

⁶⁴ See the companion FSAP Technical Note on Systemic Risk Analysis for further details and additional model specifications.

into account produce somewhat lower estimates (between 20 and 25 percent). The results are in line with those produced by the SNB, which estimates apartment prices overvaluation in a range between 15–40 percent (see SNB 2024).



50. The housing market remains tight. The rate of vacant dwellings is about 1 percent of the total housing stock. While this low rate also reflects a restrictive definition of vacant dwellings, it is one of the lowest among OECD countries. The total number of dwellings has grown by 10 percent over the last decade, but recently the supply of new housing has stagnated. Building production and building permits have started to decline since 2018. This trend was exacerbated in the post-pandemic period due to a rapid increase in construction and borrowing costs. While building permits are currently projected to increase from their lowest level in a decade, the new housing supply is unlikely to assuage demand pressures.

Box 4. Switzerland: Imputed Rents Taxation and Proposed Reforms

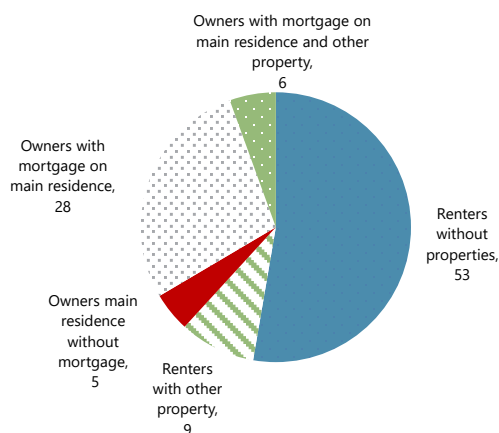
Taxation of Imputed Rents. In Switzerland, property owners pay taxes on imputed rents. Imputed rents are a fictitious income stream the property owner would earn by renting it out and counts as taxable income. The tax on imputed rents aims for tax neutrality, by treating owner-occupiers similarly to landlords and tenants. Owner-occupiers are treated more favorably since the deduction of mortgage interest and other expenses does not correspond to higher (taxable) rentable income. The taxation of imputed rents has, however, raised some challenges (OECD, 2016). Imputed rents are generally lower than market rent. Property values used to calculate imputed rents are subject to infrequent updates. As a result, imputed rents have been found to have little to no impact on net taxes. The system also incentivizes homeowners to roll-over their mortgage, resulting in high aggregated household debt, while investing savings in third pillar pension funds or other assets.

Proposed Reforms. In December 2024, both the National Council and the Council of States approved a legislative proposal aimed at abolishing the taxation of the imputed rental value for owner-occupied properties, including secondary residences. Property owners will lose the ability to deduct various expenses for self-occupied properties; these deductions will still apply to rented properties. Interest deductions will also be restricted. Currently, private interest expenses can be deducted up to a certain limit (taxable investment income, plus an additional CHF 50,000), but future deductions will be based on a quota-restrictive method (i.e. in proportion to all immovable assets located within Switzerland relative to total assets), while allowing deductions only for rented or leased properties. First-time buyers of owner-occupied properties may still benefit from temporary interest deductions, capped at CHF 10,000 for married couples and CHF 5,000 for others, decreasing annually over ten years. A proposed constitutional amendment will permit cantons to levy higher taxes on predominantly owner-occupied second properties.

Box 5. Switzerland: Household Survey on Wealth

Data from the experimental module on Wealth of the Statistics on Income and Living Conditions, collected in 2020 by the Federal Statistics Office, covered a representative sample of 8,900 households in Switzerland. The survey provides information on households' financial and non-financial assets, as well as the level and type of debt.

Population share by ownership status and mortgage debt
(Percent)



The survey shows that 53 percent of households in Switzerland are indebted, including 33 percent holding mortgage loans and 19 percent with other (mainly consumer) debt. Mortgages (on both first and second residence) account for 70 percent of total household debt. The median debt to disposable income (DTI) value is 3.5 across all debt holders. Households who hold only a non-amortizing mortgage have a median DTI of 5. The latter group spends approximately 7 percent of their gross income on debt service. In Switzerland, there are 2.6 percent of indebted households who allocate more than 30 of their disposable income for total debt servicing.

51. Recent monetary easing may support further house price growth going forward. The monetary policy tightening in 2022-2023 slowed down house price growth, particularly in the investment property segment, and reduced new mortgage loan origination. Monetary loosening started in March 2024, in turn, increased the attractiveness of real estate investment and renewed demand for mortgages, thus renewing pressure on house prices. Sustained low or even negative interest rates could put further upward pressures on house prices, while creating incentives for financial institutions to increase lending and risk taking to compensate for lower net interest margins.⁶⁵

52. Housing affordability has become a major economic and political issue in Switzerland. Swiss households allocate 20 percent of their disposable income to housing-related costs (mortgage or rent burden). Housing costs, however, vary significantly by tenure and are higher for renters (20 percent for renter vs 9 percent for homeowners). The burden is higher in the lower quintile of the income distribution (40 percent vs 14 percent for the households in the top quintile) and the housing cost overburden rate is one of the highest among OECD countries. This difference partly reflects the higher incidence of renters in the bottom quintile (70 percent compared to 35 percent in the top quintile). At the same time, low interest rates, tax incentives and the practice of non-amortizing existing mortgages result in lower cost of owning. The lower costs of owning, however, only accrue to a minority of the population, mainly households in the medium to high income segment that already own or can afford to purchase homes at prevailing elevated prices. To illustrate this point, the median net income for new mortgage loans in the owner-occupied segment was CHF 117 thousand as of 2024, based on Hypo B Data, which is above the 90th percentile of the household income distribution. Due to stretched valuations and to ease access to credit for larger parts of the population, some cantons have promoted initiatives to ease affordability for new borrowers through loans or cantonal guarantees.⁶⁶ These efforts may create further upward pressures on prices in presence of a tight housing stock, which may result in lower *overall* housing affordability and increase market imbalances and financial stability risks.

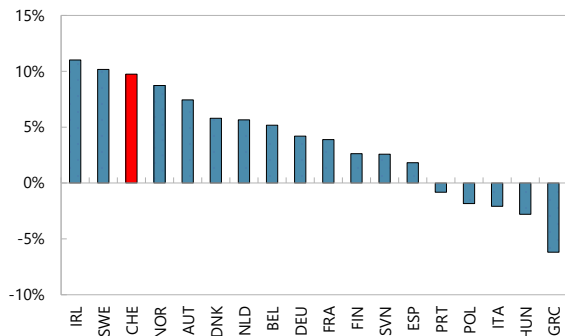
⁶⁵ Danton and Jokipii (2024) investigate the impact of negative interest rates on the profitability of domestically focused Swiss banks and find that the net interest margin (NIM) is directly negatively impacted by the low levels of interest rates and flattening of the yield curve. Banks with initially higher share of mortgages experienced lower pressure on NIMs, while those with elevated customer deposit ratios saw greater pressure. To counter the downward pressures on profitability, banks have lengthened asset durations through increasing mortgage portfolios and contained deposit ratios. These adjustments, however, tend to increase risk-taking of banks through higher exposure to real estate (pushing prices further up) and reducing reliance on customer deposits.

⁶⁶ An initiative adopted by the parliament in the Canton of Geneva enables its administration to grant loans of up to 15 percent of the lending value of the property to be purchased. In the Canton of Zurich, an initiative envisages the issuance of guarantees rather than loans to allow the borrower to purchase a property with only 5 percent of own funds instead of 20. The latter initiative will be subject to a referendum later in the year which the Canton of Zurich nonetheless recommends adopting.

Figure 7. Switzerland: House Prices and Overvaluation Estimates

Population growth has been high....

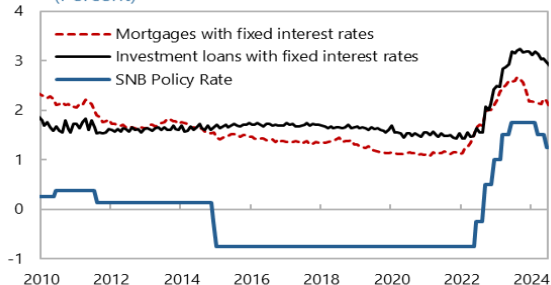
Population Growth
(2012-2022)



Sources: World Bank; and IMF staff calculations.

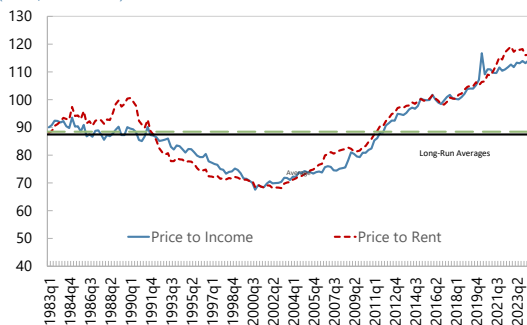
.... amid low interest rates.

Bank Lending Rates
(Percent)



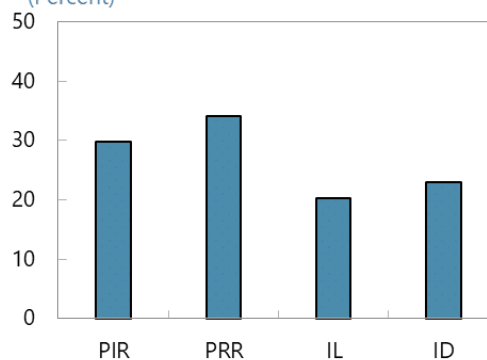
Price to Income and Price to Rent remain elevated...

House Price Valuation
(Index, 2015 = 100)



...and overvaluation measures range between 20 and 35 percent.

House Price Overvaluation Measures
(Percent)



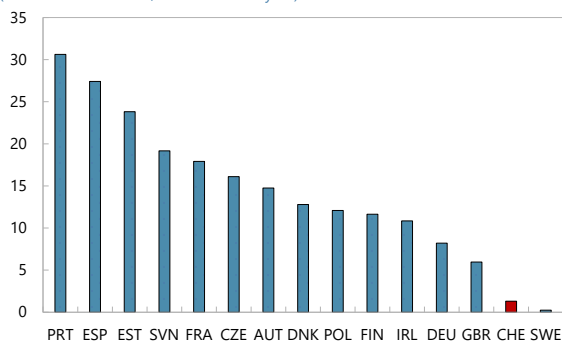
Source: IMF staff calculations. Note: PIR=Price to Income; PRR= Price to Rent; IL= Igan and Loungani; ID=Inverted Demand.

Figure 8. Switzerland: Housing Vacancy and Construction

Low rate of vacancy....

Vacant Dwellings

(Percent of total stock, latest available year)

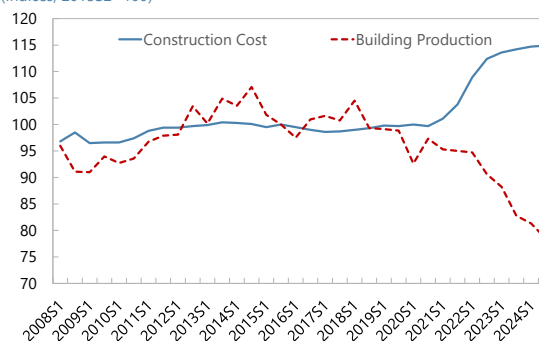


Sources: OECD

.... amid low construction activity.

Construction Activity and Cost

(Indices, 2015S2=100)



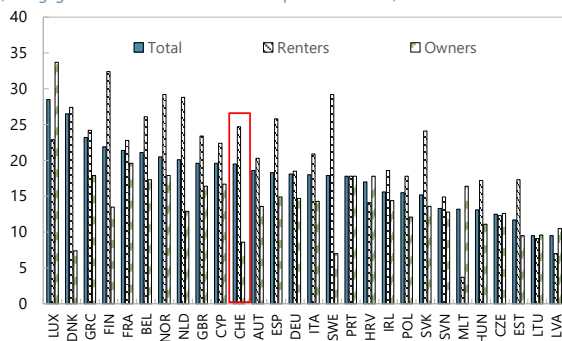
Sources: Haver Analytics, Federal Statistics Office

Figure 9. Switzerland: Housing Affordability

Housing costs vary by tenure....

Households' Housing Cost Burden

(Mortgage and rent cost as a share of disposable income)

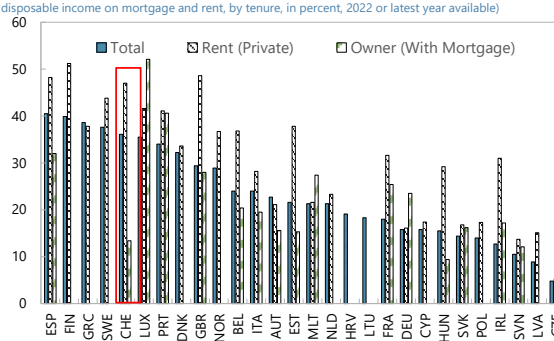


Sources: OECD

.... with heavier burden on low-income households.

Housing Cost Overburden Rate

(Share of population in the bottom quintile of the income distribution spending more than 40% of disposable income on mortgage and rent, by tenure, in percent, 2022 or latest year available)



Sources: OECD

B. Effectiveness of Macroprudential Policies to Contain Mortgage Market Imbalances

53. Mortgage lending data by a representative sample of lenders⁶⁷ indicates a high degree of compliance with the LTV cap. In the owner-occupied segment, only 1.5 percent of mortgage lending was provided with LTV ratios above 90 percent from 2017 and 2024 (see Figure 10).⁶⁸ In the investment-property residential segment, non-compliance was higher at 5.5 percent (households) and 7.3 percent (commercial borrowers). After the self-regulation was tightened on this segment effective Q1 2020, compliance with the lower LTV cap of 75 percent improved over time. Based on

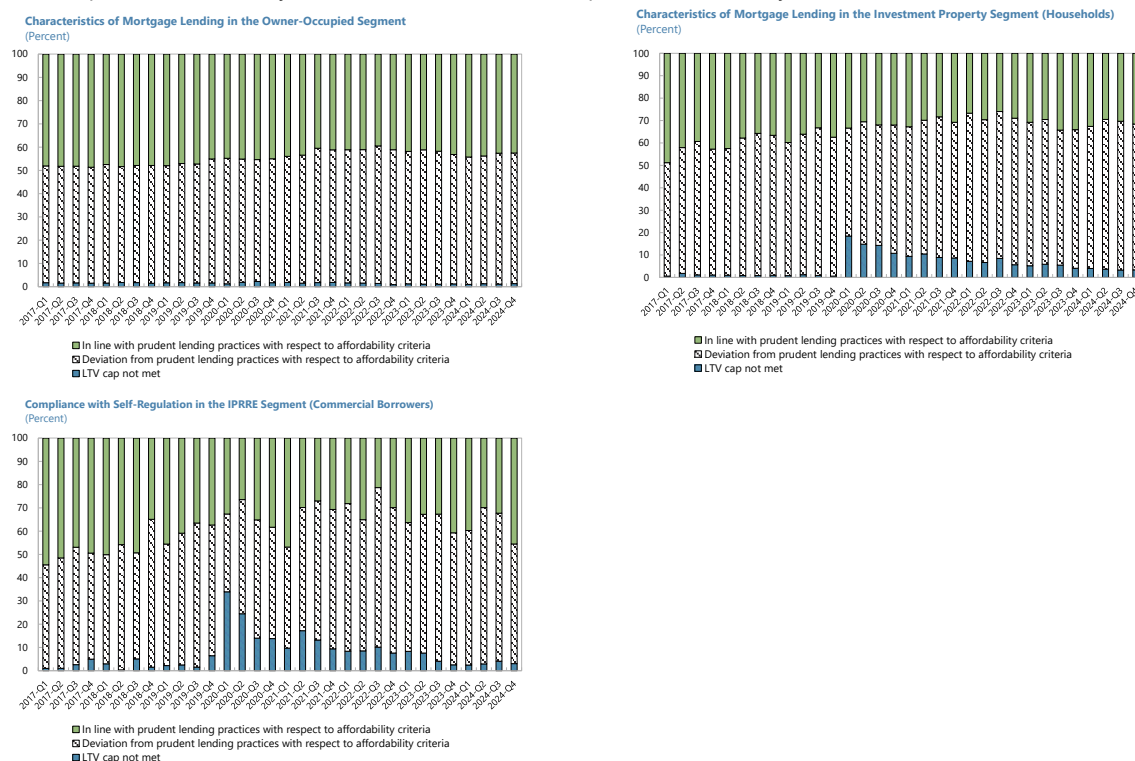
⁶⁷ Based on the 'Hypo B' dataset that covers 29 banks that each have more than CHF 6 billion mortgage stock outstanding.

⁶⁸ Hence, penalty risk weights apply to these loans (see Box 2).

mortgage lending data, the LTV cap appears effective in lowering LTVs when it was introduced or tightened⁶⁹ - with two caveats: first, the data does not provide a full picture in which form the minimum down payments are made; whereas pledged assets or pledged savings from the second or third pillar of the pension scheme⁷⁰ can be observed, the source of cash down payments (hard equity or withdrawal of pension scheme money) is not known. Second, reported property values used to calculate LTVs might be based on optimistic valuations, such as by using low capitalization rates for investment-property lending or upper ends of valuations based on hedonic models.⁷¹

Figure 10. Switzerland: Deviation from Prudent Lending Standards with Respect to Affordability

More than half of mortgages in the owner-occupied segment do not meet prudent affordability criteria. Two thirds of investment property mortgages do not meet prudent affordability criteria.



Source: SNB, FINMA, IMF staff calculations.

Note: The affordability criteria considered are, for the owner-occupied segment, (i) an affordability threshold of 38 percent of the sustainable net income, which should cover (ii) stressed costs calculated by a 5 percent imputed mortgage rate and 1 percent amortization, as well as building-related maintenance costs of 0.8 percent of the house value. For the investment property, the affordability threshold is 100 percent of the net rental income. The criteria are also set out in a recent FINMA Guidance, published in May 2025 after the main FSAP mission and providing guidance to banks on prudent lending practices to be applied in mortgage lending.

⁶⁹ Behncke (2020) also finds a positive impact of the sectoral CCyB on reducing high LTV mortgage loan growth.

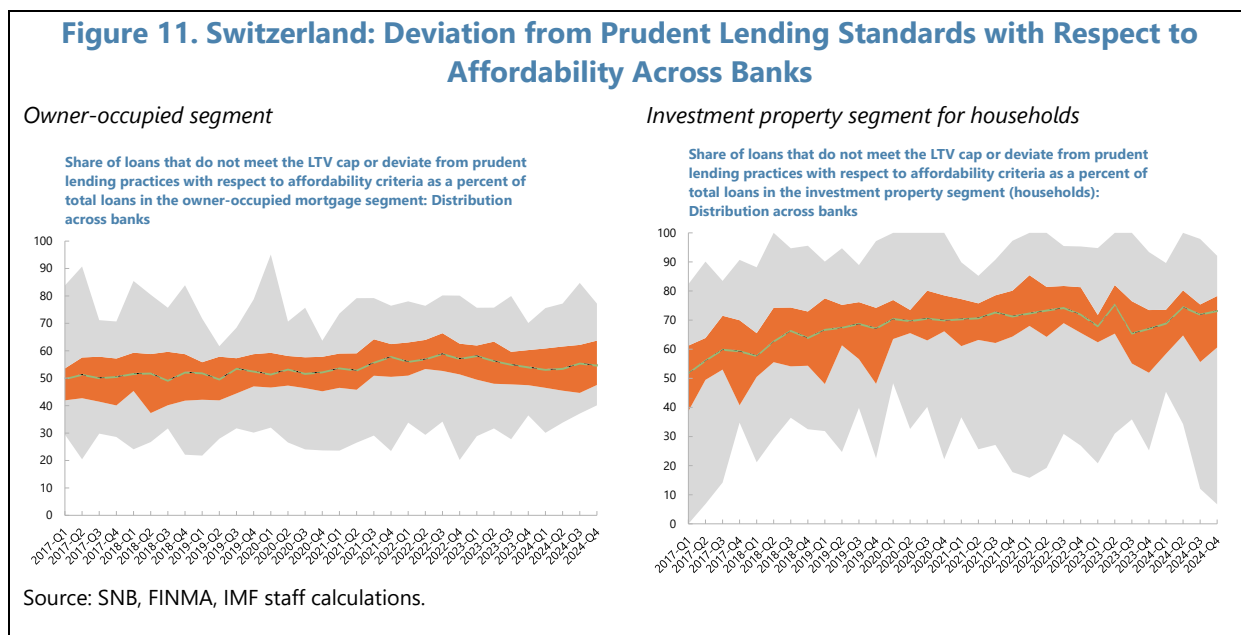
⁷⁰ The latter can be done for excess amount of the down payment over the minimum requirement, which itself must be fulfilled in cash.

⁷¹ The median maturity of an owner-occupied mortgage loan is rather short (6 years) and non-amortization of first mortgages is common. Hence, mortgage loans are frequently rolled over to new mortgage loans. The LTV of the new loan is based on the appraisal value of the property, which may be higher than the original value upon property purchase. A legal requirement to keep the LTV unchanged for 5 years applies.

54. Available data does not allow assessing bank compliance with the linear amortization requirement over 10 and 15 years, respectively. However, evidence from household micro data (discussed in the next section) suggests that all non-amortizing loans in the representative sample have LTV ratios below 66 percent LTV.

55. A worrying finding is that the share of new mortgage loans that deviate from prudent affordability benchmarks remains at high level. About half of new mortgage loans in the owner-occupied segment and around 60 percent in the investment property segment do not meet the respective “industry standards” (see Box 1) that are used by FINMA as supervisory benchmarks. In these cases, stressed debt service as well as building maintenance costs of the borrower exceed the income-based affordability threshold of the respective segment. In addition to the high average level, the share of affected loans has further increased over time.⁷²

56. Looser lending practices with respect to affordability benchmarks are widespread across banks. Figure 11 shows the ratio of loans that deviate from prudent lending practices with respect to affordability criteria⁷³ to total mortgage loans granted in the respective year for the median bank (black line), the 25th and 75th percentiles (orange) and the range (grey). The distribution confirms that the system-wide pattern shown in Figure 10 is not only observed in some banks but widespread. The results point to somewhat looser lending standards that have been applied over time, despite the qualitative guidelines of the self-regulation in place.



⁷² For the owner-occupied segment, variable income components are not included. For the buy-to-let segment, potential additional income of the borrower is not included.

⁷³ The ratio corresponds to the combined relative share of the blue as well as the black and white striped columns in Figure 10 to total mortgage lending of the respective year.

C. Assessment and Recommendations

57. The widespread deviation from the industry standards for affordability and supervisory benchmarks warrants macroprudential action. The authorities responsible for financial stability need to address the deviation from prudent lending standards and ensure that additional affordability-related credit risks incurred by banks are adequately covered by capital. The issue may be compounded by the fact that the Basel III final risk weights for mortgage loans were calibrated based on a 85 percent weight on the preferential risk weights under Basel III and a 15 percent weight on penalty risk weights, assuming an average 15 percent non-compliance at the single loan level regarding affordability and prudent valuation.⁷⁴ Instead of adjusting risk weights, or FINMA applying the *microprudential* instrument of Pillar 2 add-ons to individual banks as described in a previous section, the SNB should explore whether the sectoral CCyB could alternatively be increased to a corresponding extent to ensure risks are adequately covered by capital.

58. The authorities should closely monitor loan-to-value ratios in view of the recent loosening of the LTV cap in the investment-property segment that may undo the progress in recent years. Should the share of mortgage loans with LTV ratios above 75 percent significantly increase, authorities should tighten the LTV cap, either via an amendment of the minimum requirements of the self-regulation or by resorting to binding borrower-based measures.

59. While not a *macroprudential measure* in the strict sense, we reiterate the 2019 FSAP recommendation that the tax deductibility of mortgage interest payments should be abolished. The current tax regime gives strong incentives for households to take on more mortgage debt than they otherwise would. This contributes to a high level of mortgage debt and increases household vulnerability to adverse macroeconomic and interest rate shocks. The tax deductibility of mortgage interest payments for private households should be removed. While reforms in this area are politically sensitive, the renewed low interest environment represents a window of opportunity to eliminate this incentive to accumulate debt.

COUNTERFACTUAL ANALYSIS FOR DIFFERENT MACROPRUDENTIAL TOOLS

60. Borrower-based measures are useful tools to address imbalances in real estate markets. Lo Duca et al. (2023) show how combinations of capital and borrower-based measures can entail important synergies in this respect, given that capital-based measures, even if applied in a sectoral fashion as the Swiss sectoral CCyB, are not well suited to reduce bank incentives to engage in risky mortgage lending practices. Thus, additional tools may be needed to address the respective risks.

61. This section analyzes the estimated impact of the introduction of a DSTI cap in Switzerland. A DSTI cap would primarily be targeted at limiting PDs, while the existing

⁷⁴ See Box 2 for a description of the additional, rather generic criteria.

complementary LTV cap is focused on limiting the LGD. Adding an income-based limit would also directly support *borrower resilience*, compared to the existing LTV cap that primarily supports *lender resilience*. Furthermore, a DSTI cap is conceptually in line with the way affordability is measured in the qualitative guidelines of the self-regulation by the Swiss Banking Association.⁷⁵ We investigate a version of DSTI caps that does not take stressed debt service but only actual debt service into account.

A. Counterfactual Analysis

62. The counterfactual analysis assesses the impact of introducing a DSTI cap on credit restrictiveness and bank capital. The introduction of such borrower-based measure can be assessed using the structural micro-macro model IDHBS+ (Integrated Dynamic Household Balance Sheet+) developed by Gross and Poblacion (2017) and Gross et al. (2022).⁷⁶ The impact of a DSTI cap set at 30 percent of borrower's income is evaluated under both the baseline and adverse scenarios. The model accounts for macro-financial feedback of policies, which results from their negative impact on credit demand. The model generates individual households' simulated PDs, LGDs, and loss rates (LRs), which are then linked to bank mortgage portfolios to assess their impact on bank capital. The counterfactual analysis finally investigates the impact of a DSTI cap on mortgage lending volumes and composition based on Hypo B data.

63. The design of the DSTI cap could, in principle, also incorporate prudent elements of the existing approach towards measuring affordability in Switzerland. While the following counterfactual analysis is based on *actual* rather than *stressed* DSTI ratios and caps given the intention to assess the impact on household PDs and bank capital, the latter approach could have additional merits worth exploring, such as reduced procyclicality compared to a DSTI cap based on actual interest rates. Exploring a stressed DSTI cap may also allow the Swiss authorities to better link this proposed complementary measure with the definition of prudent lending standards with respect to affordability criteria, mindful of the fact that many banks do not consistently or widely follow the latter, whose enforcement by the Swiss authorities responsible for financial stability appears complicated.

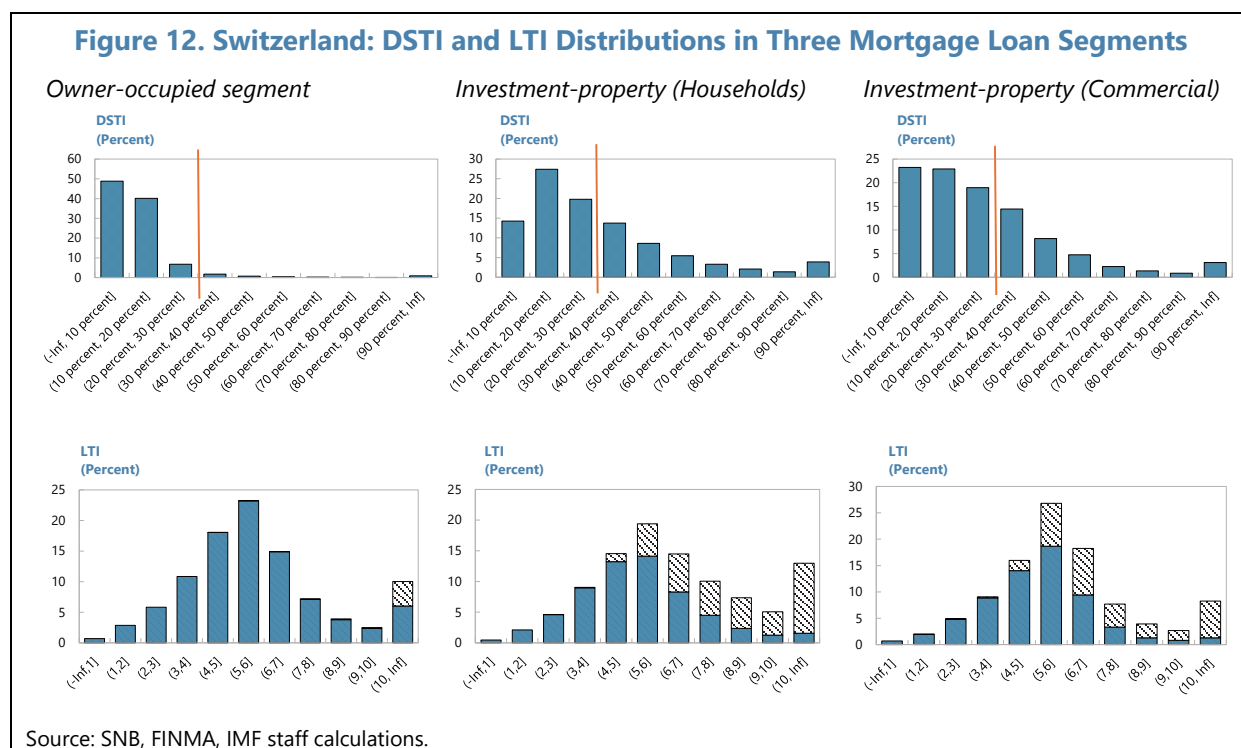
64. In a first step, we investigate which levels of the DSTI cap may achieve the envisaged benefits without overly constraining total credit growth. The upper part of Figure 12 shows the DSTI distribution across the owner-occupied segment and the investment property segment (split into households and commercial borrowers), based on mortgage lending flows from 2017 to 2024. In the top-left panel, 5 percent of the mortgage lending in the owner-occupied segment was characterized by DSTI ratios above 30 percent. The shares are higher for the investment property segment (39 percent for households and 35 percent for commercial borrowers), also because the

⁷⁵ By design, a DSTI does not capture property maintenance costs either, unlike the income-based affordability criteria of the Swiss industry standard (see Box 1).

⁷⁶ See the companion FSAP Technical Note on Systemic Risk Analysis for details.

income definition for this segment includes only the rental income, without taking into account the labor income of households that make such leveraged investments.

65. A 30 percent DSTI cap would mainly affect mortgage lending to borrowers that are characterized by high LTI multiples. The bottom part of Figure 12 shows LTI buckets that would be mainly affected by the 30 percent DSTI cap.⁷⁷ In the owner-occupied segment, 91 percent of the affected borrowers are households whose debt exceeds 10 times their sustainable net income per year (highest LTI bucket shown). In the investment property segment, the DSTI cap would have broadly similar effects under the shown scaled LTI distribution by 38 percent to make it comparable to the owner-occupied segment, where only 38 percent of the net income is assumed to be available for determining affordability.⁷⁸ It is important to note that this analysis is only partial as it does not consider the borrowers' overall debt situation unlike in the counterfactual analysis based on micro data.⁷⁹

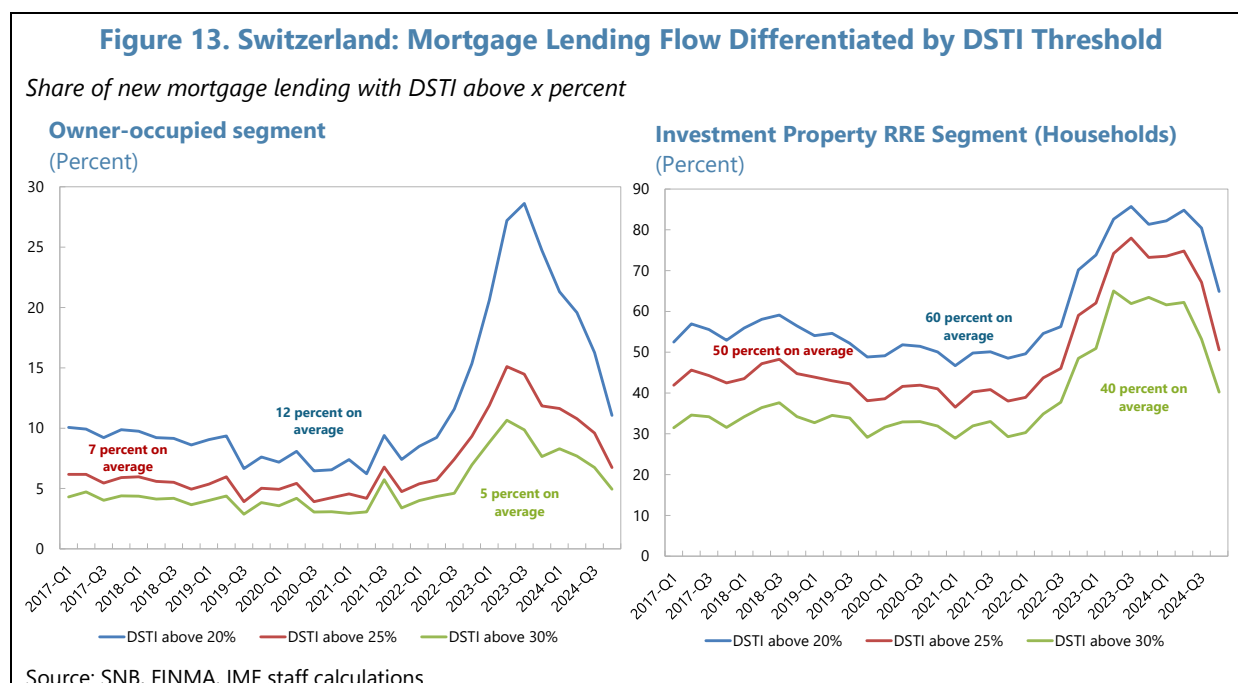


⁷⁷ Given the DSTI distributions for different mortgage loan segments in Figure 12, we considered potential DSTI caps of 30 percent, 25 percent (as suggested in IMF 2022a in addition to a 75 percent LTV cap and a 20 percent speed limit) and 20 percent. The presentation of results focuses on the case of a 30 percent DSTI cap.

⁷⁸ Without the scaling, 86 percent of investment-property mortgage loans would be in the highest LTI bucket (10 or higher), corresponding to affordability criteria that implicitly provide an “LTI cap” of 14.3 (Box 1), which is exceeded by a majority of mortgage lending in these segments (as discussed in the previous section).

⁷⁹ The DSTI cap that the counterfactual analysis explores is based on a holistic debtor view, which is based on all debt (including owner-occupied and investment-property mortgage loans) and all income (incl. labor income) of a debtor, unlike the partial view presented by the LTI distribution in this segment shown in Figure 12.

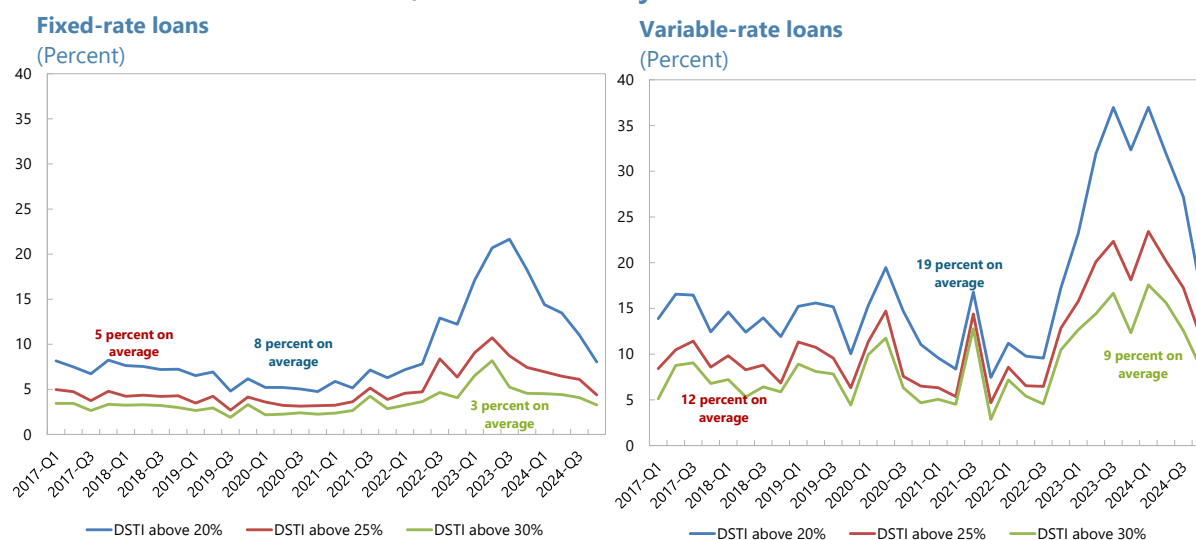
66. The DSTI cap would have been slightly more binding during the monetary tightening episodes in recent years. Figure 13 indicates that the share of affected loans in the owner-occupied segment would have increased from the 5 percent average over 2017-24 to levels close to 10 percent in 2023. In the household investment-property segment, the increase would have been from the 40 percent average over 2017-24 to levels around 60 percent at the time policy rates reached their peak level in 2023. This development was driven by a combination of (i) a greater deviation in new mortgage lending from prudent affordability criteria, as discussed above and exacerbated by the property price surge during the pandemic, (ii) lending rate increases and (iii) a faster pass-through of higher policy rates to lending rates due to the increased popularity of variable-rate loans in new lending since 2022.



67. A DSTI cap of 30 percent would have been more binding for variable-rate loans based on lending flows from 2017 to 2024. Figure 14 illustrates for the owner-occupied segment that only three percent of fixed-rate mortgage loans would have been affected by a 30 percent DSTI cap over this period, while the cap would have been binding for 9 percent of variable-rate loans. For mixed fixed/variable-rate loans, the corresponding share is 6 percent. This feature points to an additional advantage of the DSTI measure in favoring fixed-rate loans, which used to dominate the Swiss mortgage market, thus preventing newly borrowing households from taking excessive interest rate exposures and thereby strengthening their resilience to supply-shock inflationary adverse scenarios.⁸⁰

⁸⁰ See Switzerland FSSA 2025 for a description of the adverse scenarios in the FSAP bank solvency stress test.

Figure 14: Switzerland. Mortgage Lending Flows in the Owner-Occupied Segment by DSTI Threshold, Differentiated by Interest Rate Fixation



Source: SNB, FINMA, IMF staff calculations.

68. The counterfactual analysis benefits from including information on household wealth.

The inclusion of financial wealth is particularly relevant for the analysis of household PDs given the high household wealth in Switzerland. The latter is a possible mitigating factor explaining low default rates in the Swiss mortgages so far. However, we are not aware of any analysis that has been produced so far that includes this information on a representative sample of households.⁸¹

69. The results from the IDHBS+ indicate lower household defaults and thus lower expected losses for banks under the adverse supply-shock scenario. The model assumes that a counterfactual DSTI cap has been already in place in Switzerland for several years and thus affect the entire mortgage loan portfolio of Swiss banks as of end-2024. The model allows households with DSTI ratio above 30 percent⁸² to receive smaller loans to fulfill the DSTI cap of 30 percent. Furthermore, it assumes that these loans would have allowed purchasing less expensive properties, keeping the resulting LTV ratio in the counterfactual setting unchanged compared to the observed LTV ratios. The results are shown in Figure 15 (black lines):

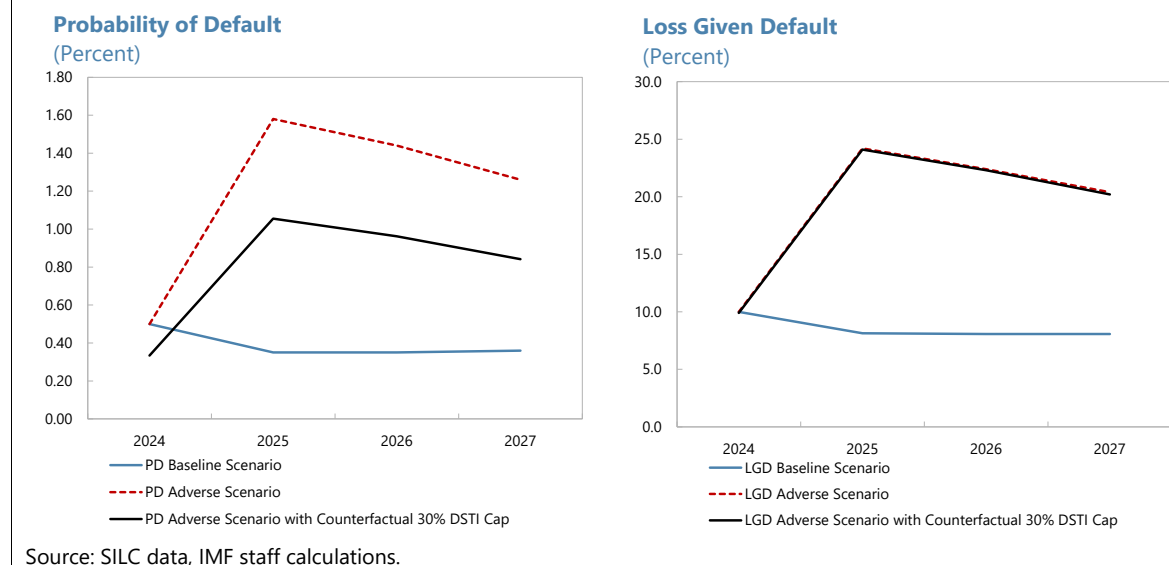
- **Probability of default:** The DSTI cap leads to a lower starting point PD for the mortgage portfolio as well as a lower PD increase during the adverse scenario. Specifically, a DSTI cap at 30 percent reduces the increase in mortgage PDs by about a third under the adverse supply-shock inflationary scenario (left panel in Figure 15).

⁸¹ SNB (2022b) suggests based on an analysis of tax data for two cantons (Berne and Lucerne) that loan-to-income figures overestimate both the level and the dynamics of affordability risks for households.

⁸² For instance, 5 percent in the owner-occupied segment, as discussed above.

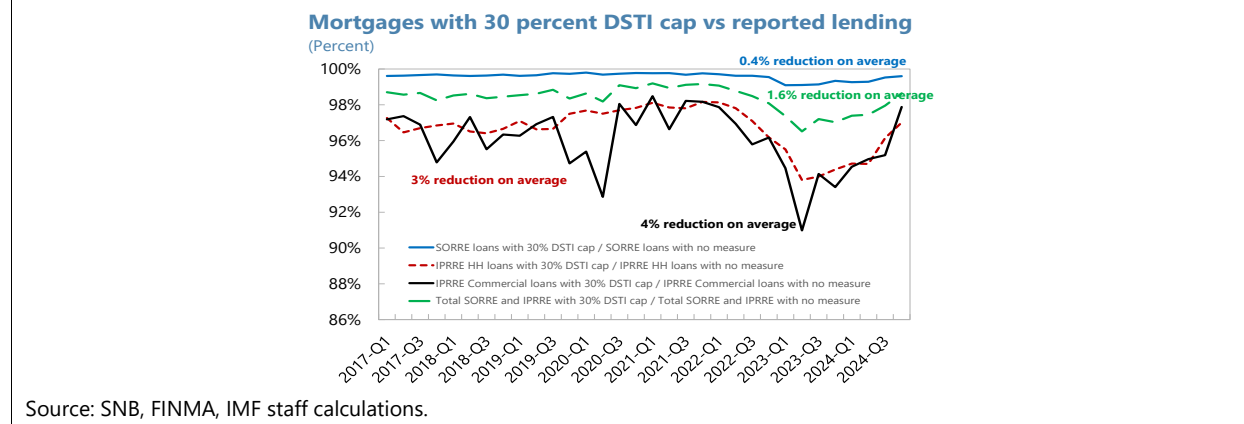
- **Loss given default:** The DSTI cap has a very minor positive impact regarding LGDs, based on the empirical relationship discussed in Gross et al. (2022) (right panel in Figure 15).
- **Expected loss and resulting capital impact:** Capital ratios of Swiss banks gain 37 basis points of risk-weighted assets under the counterfactual setup with 30 percent DSTI in place compared to the capital ratios that result from the supply-shock adverse scenario.⁸³

Figure 15. Switzerland: Impact of a Counterfactual 30 Percent DSTI Cap on the Adverse Supply-shock Inflationary Scenario of the FSAP Stress Test



70. The DSTI cap in addition to the existing LTV caps would only have a very minor impact on credit growth. Based on the above-mentioned assumption, the mortgage lending volume would have been 1.6 percent lower for the entire period 2017 to 2024 (see Figure 16).

Figure 16. Switzerland: Impact of a Counterfactual 30 Percent DSTI Cap on Mortgage Lending



⁸³ Comparison of peak capital reduction under the adverse scenario.

B. Assessment and Recommendations

71. The counterfactual analysis for the potential introduction of a 30 percent DSTI cap in Switzerland illustrates net benefits. The analysis points to the limited costs of the measure in terms of impact on lending and impact on access to lending by different parts of the population, compared to the status quo. At the same time, the measure would strengthen the resilience of banks and households, by reducing expected losses and improving lending composition from an aggregate credit risk perspective.

72. Further work on the specific policy design of the DSTI cap could benefit from the rich international experience with borrower-based measures. The IMF Macprudential Database includes 67 countries with active DSTI measures as of end-2023.⁸⁴ Several European peer countries of Switzerland have DSTI caps in place, often in conjunction with LTV caps and maturity limits,⁸⁵ such as Austria, Estonia, Finland, Latvia, Lithuania, Malta, Slovenia, and Slovakia.⁸⁶ DSTI definitions vary across countries, both regarding the numerator (e.g. some countries add an interest rate shock to compute stressed debt service) and denominator (e.g. some countries deduct minimum living expenses from income). Moreover, experience with DTI or LTI in several other European peers, such as Denmark, Ireland, or the United Kingdom, can provide useful insights.

73. Stressed DSTI caps and DTIs can be seen as close substitutes. International experience suggests that macroprudential authorities typically apply only one income-based measure – either a DSTI cap based on stressed or actual interest rates or a DTI/LTI cap (see CGFS 2023).⁸⁷ Both types of income-based measures strengthen borrower resilience and there may be partly overlapping effects, as pointed out by the Bank of England on the UK experience with LTI and stressed DSTI caps.⁸⁸ Moreover, stressed DSTI or DTI caps could also be designed in a way to take not only income but also financial wealth of borrowers into account in assessing their repayment capacity, as in the case of the DTI/LTI cap in Denmark.⁸⁹ Calibrating the borrower-based measure in this way, however, requires that the respective data is available to banks and supervisors, which is not the case in Switzerland and thus limits this possibility in practice.

⁸⁴ Based on the IMF Macprudential Database Dec. 2024 update, reporting measures in place in 161 member countries as of end-2023: <https://www.elibrary-areaer.imf.org/Macroprudential/Pages/iMaPPDatabase.aspx>.

⁸⁵ DSTI caps are often combined with maturity limits to avoid circumvention via maturity extensions.

⁸⁶ The ESRB website includes a detailed updated overview of national borrower-based measures in place in the countries of the European Economic Area, including on countries with DSTI caps in place: https://www.esrb.europa.eu/national_policy/html/index.en.html

⁸⁷ One exception is Slovakia that has both DSTI and DTI caps in place.

⁸⁸ The United Kingdom had both a LTI cap and an affordability test in the form of a stressed DSTI cap in place. As described in CGFS 2023, the Bank of England decided to withdraw the latter due to the small additional effect of the latter compared to the LTI cap and to simplify the macroprudential framework.

⁸⁹ See ESRB (2025).

74. Potential concerns related to exclusions of suitable borrowers from a DSTI cap could be mitigated. This could be the case for instance for young or low-income borrowers.⁹⁰ For these groups of people, exceptions could be granted by careful designs of speed limits. Conversely, the policy could be tightened for more speculative borrowers, as is the case for the investment property RRE segment, which has been shown in the analysis based on partial Hypo B data to be riskier than the owner-occupied RRE segment in terms of affordability.

75. The current situation in the Swiss real estate and mortgage market calls for adoption of additional measures. Monetary easing and initiatives aimed at easing affordability criteria of new borrowers through cantonal guarantees may further stimulate credit demand and reinforce a spiral of unsustainable lending standards, house price increases, and systemic risk build-up. While housing affordability requires a holistic policy approach, including tax and land reforms, borrower-based measures could be an additional tool to enforce prudent lending practices in Switzerland.

⁹⁰ Cases in which DSTI caps are binding for high-net-worth individuals may be more limited in comparison but could in principle be included within speed limits as well.

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