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May 26, 2022

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***Unless an objection from the authorities is received prior to the conclusion of the Board's consideration, the document will be published.**



SWITZERLAND

STAFF REPORT FOR THE 2022 ARTICLE IV CONSULTATION

May 25, 2022

KEY ISSUES

Context. Recovery was strong in 2021, but there are headwinds from the war in Ukraine. 2021 output was 1 percent higher than in 2019, but 2 percent below pre-Covid trends; unemployment is back to pre-crisis levels. Inflation has picked up (2.5 percent in April), but below other advanced economies. Strong exports/merchandise led to a higher current account surplus. Although the energy mix (nuclear, hydro) has limited exposure to Russia, exposures of commodity traders and indirect channels could be important. Growth is likely to slow to 2¼ percent in 2022 (¾ ppt. drag from the war). Risks are to the downside (war escalation, Covid developments, real estate). Covid outlays are lower in 2022, but still large (1.2 percent of GDP). Outlays related to Ukraine are likely to be accommodated as extraordinary. The Swiss National Bank is closely monitoring inflation, seeing it returning to the 0–2 percent range this year. The authorities reactivated the sectoral CCyB for residential real estate. They are pursuing pension and labor reforms, climate initiatives, energy security, and renewed EU engagement.

Recommendations. Policies should remain agile and data-dependent, responding to impacts of the war, while continuing exit from pandemic support and fostering green-digital transformation. On **fiscal policy**, the current fiscal stance is appropriate, given the improving pandemic situation, inflationary pressures, and uncertainty. Over the medium term, small deficits could help meet priority needs and are feasible given ample space and challenges (aging, climate, energy security, defense). But altering the fiscal framework is not easy, and a medium-term plan would help clarify actions to address needs and possible losses from tax reforms. Tax reforms should bolster revenues; spending reviews should identify savings. On **monetary policy**, rate hikes by other central banks should allow the SNB to regain policy space. The SNB should review instruments and its approach to normalizing. Policy rate hikes are likely best, and adjustments of FX operations could also support tightening. On the **financial sector**, the authorities should closely monitor increasing risks (real estate, war) to financial stability. Rising vulnerabilities and the time needed for policy response call for early expansion of the macroprudential toolkit. The authorities should continue to prepare for cyber-attacks, enhance crypto supervision, further strengthen fintech regulation, and advance implementation of 2019 FSAP advice. Enhanced liquidity requirements for SIBs and a proposed public liquidity backstop are welcome. On **structural issues**, pension reforms should continue, along with measures to boost labor participation and skills, and efforts to clarify and enhance climate policies, EU relations, and energy security.

Approved By:
**Laura Papi (EUR) and
 Daria Zakharova
 (SPR)**

Discussions took place during March 23–April 6, 2022, in Zürich and Bern. The staff team comprised Mark A. Horton (chief), Svitlana Maslova, Laura Valderrama, and Li Zeng and was assisted by Rachelle Vega and Gloria Li (all EUR). Marcel Peter and Ronald Gindrat (OED) participated in the mission. The team met with Federal Councilor Ueli Maurer, Swiss National Bank (SNB) Chairman Thomas Jordan, Financial Markets Authority (FINMA) CEO Urban Angehrn, other officials from the federal administration, the SNB, FINMA and the Bern cantonal government, and representatives from public utilities and enterprises, the private sector, and think tanks. A press briefing was held at the end of the mission.

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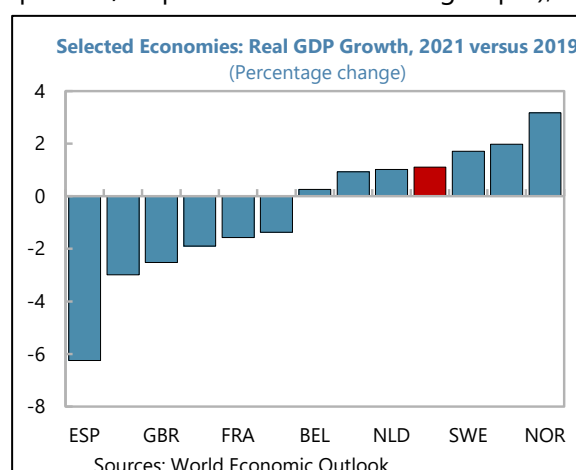
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CONTEXT

- 1. The Swiss economy is diverse and competitive, but faces challenges.** Strong manufacturing and services industries, well-capitalized banks, high household wealth, abundant liquidity, and ample fiscal space have contributed to resilience, along with robust policy frameworks and timely policy response. The Swiss National Bank (SNB) has used negative policy rates and foreign exchange intervention (FXIs) to mitigate downward price pressures, but with side effects (mortgage lending, housing prices, profitability). As inflation increased globally in 2021–22, a favorable energy mix and nominal appreciation kept inflation relatively low, although it has risen above the 0–2 percent stability range. Challenges include spillovers from the war in Ukraine, aging, climate change, and European Union relations.
- 2. Political developments in 2021 continue to reverberate.** EU relations have been more complex since termination of discussions on an institutional agreement in May 2021. Popular rejection of a revised CO₂ law in June complicated decarbonization efforts. Federal parliament elections will take place in 2023.
- 3. Implementation of past advice has been good** (Annex I). The authorities maintained highly-supportive fiscal, monetary, and financial policies during Covid-19, passed first-pillar pension reforms, and closely monitored real-estate risks, reactivating the sectoral buffer (CCyB) in January 2022. They have improved fiscal management under the debt-brake rule (limiting underspending, improving revenue forecasts). Calls to adjust the fiscal framework to permit higher spending/deficits received less consideration, as modification would require constitutional change. Progress on 2019 FSAP recommendations has been mixed (Annex II).

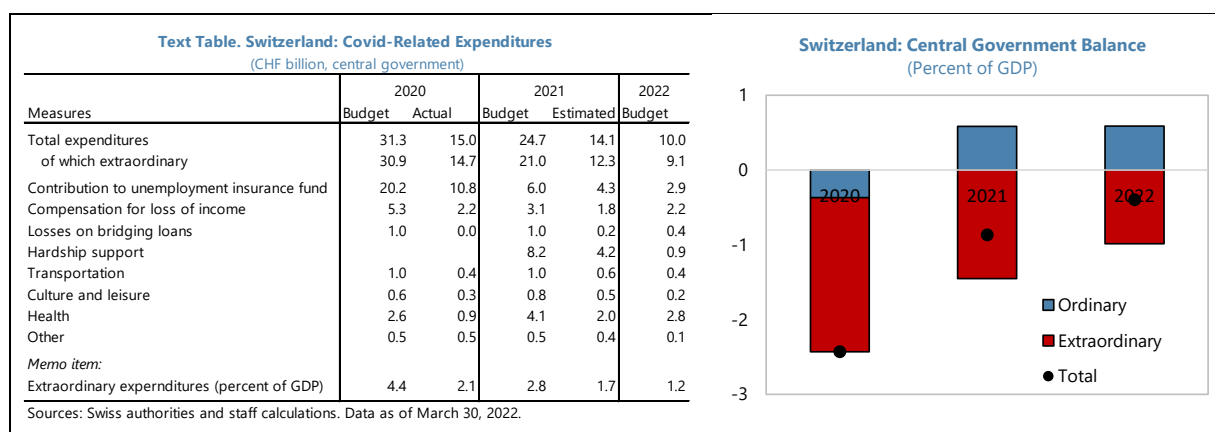
RECENT DEVELOPMENTS

- 4. The economy recovered strongly in 2021/early 2022 but faces headwinds from the war in Ukraine.** Covid-19 eased with wide vaccination (70 percent/43 percent boosted through April), and restrictions were dropped. Growth was 3.7 percent in 2021, with output 1 percent higher than in 2019 but 2 percent below pre-Covid trends and uneven across sectors. Hospitality saw positive growth, but is below full recovery. Strong exports (pharmaceuticals, watches) and merchanting contributed to a higher current account surplus (9.3 percent of GDP in 2021 vs. 2.8 percent in 2020). High-frequency and confidence indicators weakened with war in Ukraine. As of mid-May, nearly fifty-thousand refugees had come from Ukraine.

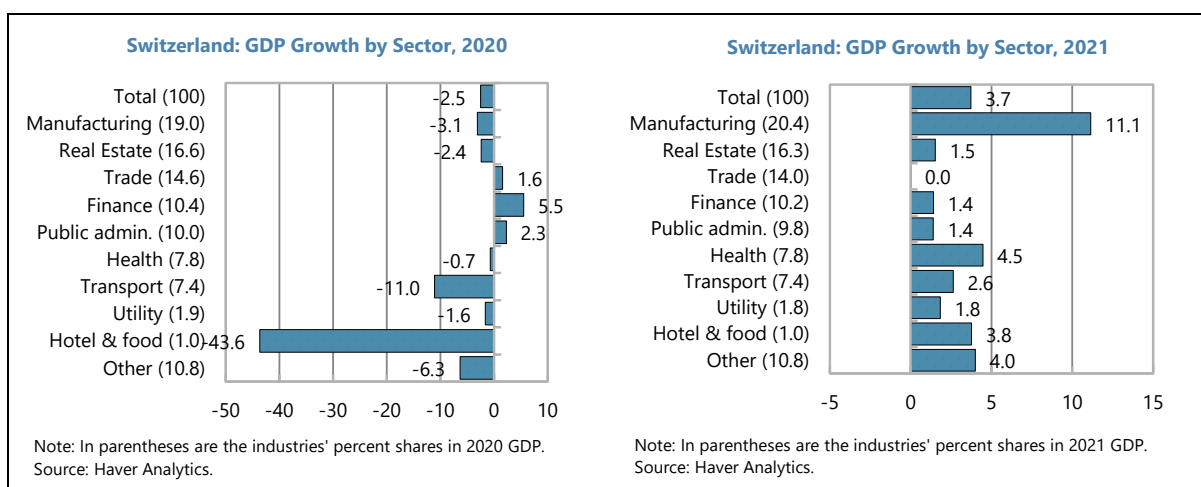


5. Inflation has picked up, breaching the 0–2 percent stability range. Headline inflation averaged 0.6 percent in 2021 (2020: -0.7 percent), and was 2.5 percent in April, highest since 2008, but below the euro area (7.5 percent) or U.S. (8.3 percent). Imported goods and services, especially energy, were drivers (Annex III). Core inflation was 1.5 percent in April, up from -0.8 percent in June 2020 (post-Covid-19 low).

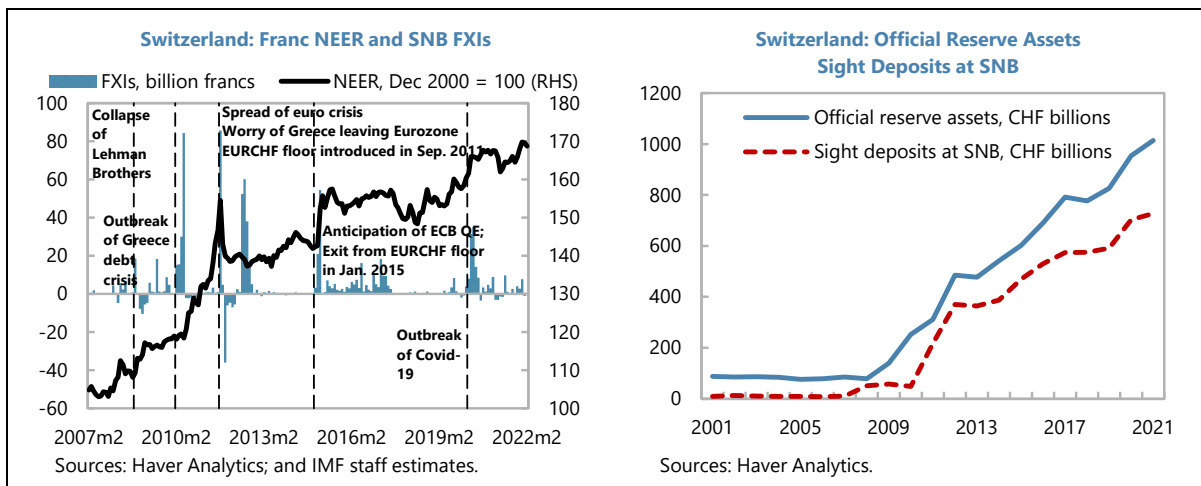
6. The general government deficit narrowed from -3 percent of GDP in 2020 to -0.7 percent last year. Covid-19 spending was broadly unchanged (~2 percent of GDP); the non-Covid position moved from a ½ percent of GDP deficit to a ½ percent surplus, driven by strong revenues (VAT, SNB dividends) and lower spending (welfare, research, security). Job-retention support was lower; support to firms picked up. Public debt declined to 41½ percent of GDP.



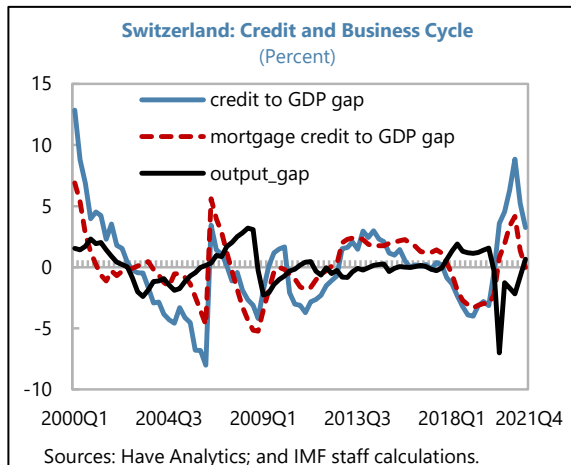
7. Labor indicators have largely recovered to pre-pandemic levels. Seasonally-adjusted unemployment reached 2.2 percent in April, back to pre-crisis lows, from a peak of 3.5 percent in May 2020. Employment has recovered to pre-crisis levels, although contact-intensive sectors remain down. Fifty thousand—1 percent of the active labor force—were on short-time work support in February (April 2020: 1.3 million). Despite the inflation pickup, wage pressures have been muted.



8. Monetary policy has remained highly accommodative; FXIs were lower in 2021. The SNB kept its policy rate at -0.75 percent. The SNB’s Covid-19 refinance facility, introduced in 2020 to refinance Covid-linked loans, declined from CHF 11.2 billion at end-2020 to CHF 8.7 billion at end-March. FX purchases were CHF110 billion in 2020 (15.6 percent of GDP) and CHF 21 billion in 2021 (2.8 percent); official reserves reached \$1,110 billion at end-2021 (137 percent of GDP).¹ Although the average nominal effective exchange rate (NEER) appreciated by 2.6 percent in Q1:2022 compared to 2020 (average), CPI- and PPI-based real EERs depreciated by 2.3 and 17.1 percent, driven by inflation differentials.



9. The financial sector has proved resilient, but risks have increased. Despite negative interest rates and pandemic challenges, capitalization remained at 19 percent (Tier 1) and profitability increased, with ROA edging up to 0.5 percent in December 2021, buoyed by Covid-19 support, cost cutting, increased passthrough of negative interest rates, and sustained lending (mortgages).^{2 3} NPLs have remained low (December: 0.66 percent). With further housing-price increases, the sectoral CCyB was reactivated at the maximum 2.5 percent, effective September 2022.⁴



¹ See Selected Issues Paper.

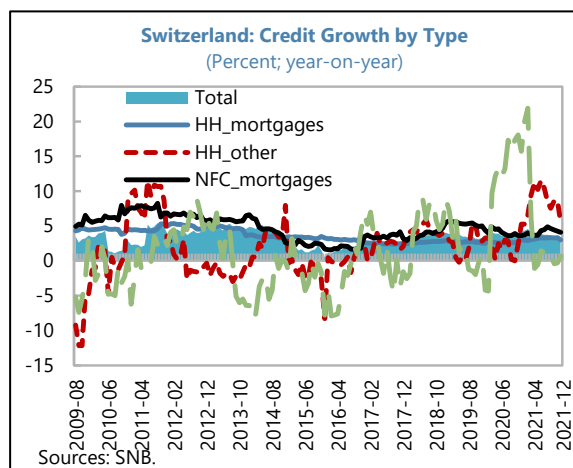
² While sector profitability rose, Credit Suisse posted a CHF 1.7 billion loss, with Archegos-related charges of CHF 4.8 billion. CS’s CET1 ratio improved from 12.9 to 14.4 percent (new capital, de-risking).

³ Pass-through of negative rates to clients alleviated half of expenses from negative rates.

⁴ The CCyB (then 2.0 percent) was de-activated at the beginning of Covid-19.

10. Switzerland's 2021 external position is assessed as broadly in line with the level implied by medium-term fundamentals and desirable policies. The increase of the current

account (CA) surplus reflected reversal of some Covid-related shocks (watches, precious metals), strong pharmaceutical exports, and a surge in the merchanting surplus (higher commodity prices). With a CA norm of +6.7 percent and adjustors for Switzerland-relevant factors and Covid-related transitory impacts, the CA gap is assessed to be -0.9 percent of GDP, with the corresponding REER gap estimated in a range of +0.2 percent (overvalued) and +3.6 percent (overvalued), with a midpoint of +1.9 percent (Annex IV). The CA surplus is expected to moderate to 6.3 percent of GDP in 2022, reflecting higher energy prices and weaker global demand.



Authorities' Views

11. The authorities broadly concurred with the external assessment, although they viewed the franc as highly-valued. They consider that analytical approaches and models underlying the external assessment could be improved. Despite efforts, measuring some items of the CA and international investment position (IIP) remains challenging. They cautioned against direct interpretation of depreciation of the PPI-based REER, noting that PPI differentials were largely driven by energy prices, rather than competitiveness gains. They noted that a significant share of the higher 2021 goods-trade surplus (in particular, merchanting) was driven by global factors (commodity prices) and not Swiss fundamentals/policies.

OUTLOOK AND RISKS

12. Growth is expected to slow to 2¼ percent in 2022—above medium-term potential (1½ percent), but dampened by spillovers from war in Ukraine. The Swiss authorities have adopted nearly all EU sanctions on Russia/Belarus (Annex V). Direct exposures to the war (exports, energy, financial sector, investment) appear limited, but indirect effects, including from sanctions, could be substantial (energy/commodity prices/supplies, financial exposures—commodity trade, wealth management, and lower regional/global growth). Outward spillovers—besides effects on Russia/Belarus and outward spillovers from combined Swiss-EU sanctions (covered in the [April 2022 World Economic Outlook](#))—could occur via effects on prices or supplies of important Swiss goods and services under sanction, with implications for third parties. Fiscal and monetary policies remain supportive, and higher household savings during Covid-19 should buoy consumption/growth. The war in Ukraine is likely to affect activity in 2023, with growth slowing further to 1½ percent. The output gap is projected to be -0.6 percent in 2022, closing by 2024. Unemployment could rise in 2022 as Covid support is withdrawn, but should remain lower on average than in 2021. Driven by

higher prices of imports and Covid-suppressed core components, inflation is expected to average 2½ percent in 2022 and 1.6 percent in 2023 (discussed in Annex III).

13. Risks are tilted to the downside, with high uncertainty. War in Ukraine is a major source of uncertainty: scope, duration, spillovers. Escalation could lead to sharply higher commodity prices, supply disruptions, and lower/negative regional/global growth, with risks to financial markets and additional refugees. In these circumstances, timely, coordinated, and substantial actions would be needed to mitigate impacts on vulnerable households and firms and ensure sufficient energy supplies. This would possibly involve full operation of the debt-brake rule, possibly extraordinary outlays, and FXIs to mitigate safe-haven pressures. Other risks include de-anchoring of inflation expectations in the U.S. or other advanced economies; this could lead to tightening global financing conditions, intensifying flight to the franc and appreciation pressures. Adverse Covid-19 developments and cyberthreats are other risks, along with real estate imbalances—sharp rate rises could trigger price corrections and impacts on households, banks, and activity (Annex VI). Lack of clarity on EU relations is a concern.

Authorities' Views

14. The authorities shared staff's assessment and concerns on uncertainty and risks, although they had more positive views on growth and inflation. In mid-March forecasts, the Federal Expert Group projected growth of 3.0 and 1.7 percent in 2022 and 2023, based in part on still-moderate expected war impacts at that time. Reflecting expectations of a lower energy price spike, SNB projects headline inflation of 2.1 percent in 2022 and 0.9 percent in 2023, although acknowledging risks of higher/more-sustained inflation. The authorities believe that recovery and sustained labor demand will lead to lower unemployment in 2022–23.

POLICY DISCUSSIONS

Discussions focused on transitioning from Covid-19 policies to green-digital transformation, while accounting for challenges from war in Ukraine. There was agreement that Covid-19 support should be reduced, while monitoring stresses, and that the required offsetting period for Covid-19 spending with future surpluses should be extended to limit headwinds. A clear medium-term plan would help clarify how spending needs—aging, climate, energy security, defense—and tax reforms, which may involve revenue losses, would be managed under the debt-brake rule (structural balance over the cycle). Modalities for monetary policy normalization should be assessed, as time for normalization may be approaching. Financial-stability risks are rising (real estate, war), and priorities for financial-sector policies remain to reduce real estate vulnerabilities and contain risks from the war and fintech. Pension and labor reforms should continue to advance. Finally, efforts should also continue to refocus climate policies, ensure energy security, and bring clarity to EU relations.

Fiscal Policy

15. The authorities are phasing out Covid-19 support and providing budgetary outlays in response to the war in Ukraine. The overall deficit should narrow by a further ½ ppt. in 2022

to -0.3 percent of GDP, but with still-sizeable Covid support and no change in the underlying non-Covid surplus, this entails a broadly-supportive stance (see Annex VII, DSA). The authorities have made provisions (0.2 percent of GDP) to support Ukrainian refugees, without offsets in other areas.⁵ The Covid phase-down, underlying stance, and accommodation of Ukraine-related spending are appropriate. Given uncertainties (pandemic, war) and ample space, the authorities should accommodate further adverse spillovers on revenues and spending (automatic stabilizers), and if needed, provide targeted, timebound, non-distortionary support to households (e.g., energy bills) and firms. With lower inflation than elsewhere in Europe, there have been few calls for household support for high energy bills; liquidity support to some electricity companies is under consideration.

16. The fiscal framework requires offsetting of extraordinary spending via future

surpluses; this could create headwinds. Offsetting should ordinarily take place over six years, but this is viewed as too short, given the magnitude of outlays ($\geq 3\frac{1}{2}$ percent of GDP by end-2022).⁶ The Federal Council (FC) has proposed extension of the period and earmarking of expected extra SNB dividends.⁷ Some have called for a write-off or wider netting (past surpluses, additional SNB profits). In staff's view, the FC proposal preserves the thrust of the framework (structural balance over the cycle, emergency provisions), while limiting netting and additional effort/headwinds from higher surpluses (table).⁸ Further improvement of operations under the framework—enhancing revenue forecasts, limiting underspending—would mitigate surplus bias. Finally, while adverse Covid impacts appear limited, some effects are greater (railways, hospitals). Some public enterprises ran large deficits and incurred sizable debt. The authorities should carefully consider the pace/magnitude of cost-cutting/fee hikes at these firms to avoid undermining service provision.

	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Amortization balance	3.7	3.4	...	...	...	...	...	...	...	...	...	...	...	...
<i>Current framework (amortization period=6 years)</i>														
Amortization balance	2.8	2.2	1.6	1.0	0.5	0.0	...	...	...	...	...	...
Fiscal surplus	0.6	0.5	0.5	0.5	0.5	0.5	...	...	...	...	...	...
SNB profit transfer	0.2	0.2	0.2	0.1	0.1	0.1	...	...	...	...	...	...
Additional effort	0.4	0.4	0.4	0.4	0.4	0.3	...	...	...	...	...	...
Public debt	...	38.9	37.3	35.9	34.3	33.0	31.6	30.4	...	...	...	...	...	...
<i>Proposal (no past surpluses, amortization period=12 years)</i>														
Amortization balance	3.0	2.7	2.3	2.0	1.7	1.4	1.2	0.9	0.6	0.4	0.2	0.0
Fiscal surplus	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
SNB profit transfer	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Additional effort	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Public debt	...	38.9	37.5	36.4	35.1	34.0	32.8	31.8	30.6	29.7	28.6	27.8	26.7	26.0

Source: Swiss authorities, and IMF staff calculations.
Notes: Additional SNB profits (about 0.2 percent of GDP) are assumed to be used to reduce the amortization account balance in 2022 and 2023.

⁵ The authorities have raised their forecast of refugee arrivals to 80,000–120,000. The FC will reimburse cantons up to CHF 18,000/person plus CHF 3,000 for language courses.

⁶ A pre-pandemic surplus/buffer of CHF 4.3 billion at end-2019 and extraordinary revenues (including SNB dividends of CHF 1.3 billion in 2021–22) reduce offset requirements.

⁷ The dedicated amount would be federal dividends over CHF 0.6 billion, possibly up to CHF 1.3 billion (0.2 percent of GDP), in line with a government-SNB agreement ([link](#)). SNB profits have been large in recent years, leading to calls for additional dividends/earmarking. The agreement incorporates predictable, scalable dividends, with SNB retaining the bulk of profits, given balance-sheet risks (ER, FX investments, interest rates).

⁸ More aggressive netting could lead to moral hazard (easing emergency declaration, offsets), undermining the framework; earmarking/additional profits could fiscalize SNB operations.

17. Looking ahead, fiscal policy is encountering key challenges. Outlays on aging, climate, energy security, digital transformation, and defense are expected to increase.⁹ Tax reforms focus on implementation of global CIT reforms and capital-market deepening. Some—notably, partial abolition of financial-withholding taxes and elimination of industrial tariffs—may lower revenues.¹⁰ The debt-brake rule mandates budget balance over the cycle—higher expenditures/lower revenues must be compensated elsewhere. Large legally-mandated expenditures and planned use of future surpluses and SNB dividends to offset Covid-19 outlays limit room. While there is space to run deficits, the framework is difficult to modify, requiring constitutional change. Accordingly, a medium-term plan is needed to show how needs will be addressed, alongside possible revenue losses. In staff's view, tax reforms should bolster revenues to ensure that aging does not crowd out other areas. Spending reviews would help identify savings. Joint federal-cantonal efforts are needed on CIT reforms; compensatory measures to maintain business-location attractiveness should be limited in scope.

Authorities' Views

18. The authorities agreed with the assessment and underscored uncertainties. They stressed that the debt-brake rule has performed well during Covid-19, keeping underlying finances on track, while facilitating extraordinary outlays. The proposal to lengthen the offset period should limit drag and adjustments to the rule. They agreed that outlays related to the war in Ukraine should be accommodated. The authorities agreed that tax reforms should not lead to revenue losses and that a plan to explain how medium-term expenditure and revenue pressures would be addressed would be helpful.

Monetary and Exchange Policy

19. The SNB appropriately maintained an accommodative stance in 2021-early 2022, with fine-tuning. The stance reflected inflation returning to the 0–2 percent stability range from below, but still-uncertain pandemic and recovery prospects. Fine-tuning was reflected in allowing Covid-refinancing and U.S.-dollar facilities to diminish, while reducing FXIs, as safe-haven pressures eased, low-inflation pressures subsided, and inflation differentials contributed to REER depreciation. Safe haven pressures resumed with the outbreak of the war in Ukraine, along with small FX purchases in early March.

20. Although inflation is expected to return below 2 percent in early 2023, there are risks that it may remain elevated or increase. The current stance (–0.75 percent policy rate and FXIs as needed) has been in place since 2015.¹¹ This has alleviated downward inflation pressures, but

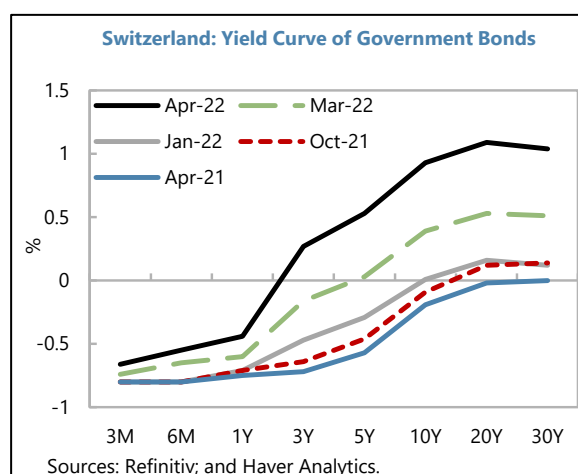
⁹ November 2021 projections by the authorities suggest that aging could require adjustment of 0.8–1.1 percent of GDP to stabilize debt ratios at 2019 levels by 2050. The National Council recently voted to increase defense spending from 2023.

¹⁰ Revenue losses may total CHF 0.7 billion (0.1 percent of GDP). A popular vote on the partial abolition of withholding tax appears likely.

¹¹ Use of FXIs for QE is linked to limited CHF-denominated assets.

brought side-effects (balance-sheet expansion, profitability pressures, higher housing prices).¹² Policy space for rate cuts has been limited. The SNB should consider adjusting this mix, as factors such as the impact from the war in Ukraine, still ongoing Covid battles in China, and rising inflation expectations (both domestic and abroad) suggest increased risks of higher/more persistent inflation.

21. Whether policy should be normalized depends on several factors: domestic inflation and growth prospects, actions by other central banks, market responses, and fiscal policy. In the event of continued robust recovery and signs of sustained higher demand-side inflation, the SNB should consider tightening, including to reclaim policy space.¹³ Fed/ECB rate hikes would present an opportunity for action; market rates have risen in recent months (chart). Inflation differentials are important in assessing developments and prospects; these suggest room for appreciation to ease inflation pressures. Also, medium-term inflation expectations appear well anchored, while the war in Ukraine has dampened the growth outlook and introduced uncertainties. While the SNB should refrain from FXIs to curb appreciation pressures in normal times, it may need FXIs if safe-haven inflows surge, with more limited scope for policy-rate normalization. Normalization by other major central banks could lead to higher financial market volatility and fluctuations; this could impact SNB finances, given its large balance sheet and exposures.¹⁴



22. To prepare for possible normalization, the SNB should review its tools, their effectiveness, sequencing, and challenges. The SNB has a range of tools for tightening: policy-rate changes, FXIs, repos/bills, and communications. It may work with the FC and the Financial Markets Authority (FINMA) on complementary macro/microprudential measures. The large stock of liquidity/SNB sight deposits suggests challenges to generating significant tightening through sales of FX/SNB bills. Large FX sales may also be complicated, unless they are linked to changes in global interest rates or other exogenous changes in the desirability of the franc as a safe haven. Policy-rate

¹² Negative-interest-rate exemption thresholds were introduced to ease profitability pressures. Initial thresholds were set at 20x November 2014 required reserves; the base was changed to a 36-month average of required reserves and multipliers increased to 25x in 2019 and 30x in 2020. As the initial threshold was static, deposits subject to negative rates increased, stabilizing at 47 percent. 2019–20 adjustments brought this to 28 percent. Threshold changes have led to temporary divergence of overnight and policy rates, with follow-up SNB operations. Sight deposits at end-2021 were CHF727 billion (~100 percent of GDP); ~CHF200 million drew interest of -0.75 percent, the rest zero.

¹³ Normalization might help address negative side effects of extra-accommodative policies (e.g., real estate prices), complementing other prudential measures.

¹⁴ SNB reported a CHF 32.8 billion loss in Q1:2022 (4.4 percent of GDP), driven by losses on interest-bearing paper, equities, and ER changes. SNB total equity was CHF 171.4 billion (23 percent of GDP) at end-March, including distribution reserves of CHF 90.9 billion. According to the profit-transfer agreement (footnote 8), net profits must be recorded for distributions; in case of net losses, no distributions are made.

changes are likely to be the most effective tool; they may need to be accompanied by FX purchases, if hikes attract excessive inflows or if there is volatility. Considerations should be explained to the markets and the public.

Authorities' Views

23. The authorities broadly agreed with staff's assessment and recommendations. They noted that the situation is complex, given uncertainties and risks, and emphasized that their framework is robust and flexible to address challenges. SNB sees the inflation pickup as mostly supply driven and temporary, although acknowledging risks (higher sustained demand-side pressures). The SNB has been monitoring inflation prospects, including internationally, and stands ready to act. Inflation differentials are large, allowing room for nominal appreciation to limit price pressures. The authorities agreed that communications are important, especially as a potential tightening of policy would take place after a long period of accommodation; however, they observed that clear communication does not mean forward guidance. While acknowledging that interest-rate hikes would help regain policy space, they viewed this, at most, as a secondary consideration. Actions of other central banks and fiscal policy should be assessed, but not seen as guideposts or triggers; they are important in how they affect price stability and economic developments in Switzerland. Finally, the SNB noted that the size of its balance sheet is not material: adequate capital buffers and sensible profit distributions are key.

Macprudential and Financial Policies

24. The authorities are rightly monitoring a range of risks. Credit growth has been strong, and NPLs are low. While asset quality could deteriorate as Covid support is reduced, bank exposure to the most-affected sectors is limited. Profitability has been resilient, even if compressed by negative interest rates. Housing prices have risen relative to fundamentals (overvaluation estimates are 5–30 percent), with search-for-yield and robust mortgage lending. A sharp tightening of conditions could trigger sell-offs in the investment-led segment and increase affordability concerns in general. Price corrections could lead to defaults and pressures on capital buffers. Domestically-focused banks are vulnerable to interest-rate shocks, given duration gaps; the largest banks are exposed to international clients via leveraged and Lombard loans, to counterparty credit risk in derivative and trading activities, to market and basis risk (under volatile conditions), and to business risk from lower asset management flows, including linked to the war in Ukraine. Risks related to cryptoassets and cyberattacks have increased with the war, although incidents have remained contained; sanctions have increased compliance and financial-integrity risks.

25. The authorities have progressed in implementing prudential and risk-based supervision and are planning to provide funding-under-resolution, but more is needed. Capital rules are being amended to implement the Basel III finalization package expected in 2024 (including an output floor for IRB models and RE exposures). FINMA has established a cross-sectoral governance barometer, advanced recovery-and-resolution planning for too-big-to-fail institutions, set up dedicated onsite teams, and is providing licenses to individual asset managers. Parliament

approved revisions of the AML Act.¹⁵ The FC announced intentions to introduce a public liquidity-backstop to bolster liquidity under resolution, linked to enhanced special liquidity requirements for systemically-important banks (SIBs) from July. Looking forward, FINMA should have power to require *ex ante* restrictions for banks, driven by supervisory risk-management and governance assessments.¹⁶ Also, while discussions on monitoring tools for asset managers (AMs) are ongoing, FINMA should heighten monitoring of concentration risk, enhance data collection, and consider administrative fines.

26. Banks are resilient, even under exceptional stress, but system-wide materialization of real estate risks could have a significant macrofinancial stability impacts. Tighter rules since 2020 under Switzerland's self-regulation approach have helped rein in high-risk investment-property mortgages; recent reactivation of the sectoral CCyB at 2.5 percent will strengthen resilience. But borrowers are still taking bigger loans, and affordability risks are increasing.¹⁷ The mortgage market is large at 150 percent of GDP, with AMs, pension funds, and insurers also exposed (Annex VIII). Materialization of RE risks would be significant for the financial system and the real economy given the size of the banking sector (500 percent of GDP). A house-price correction could trigger adverse feedback loops of falling prices, loan defaults, and bank losses. If banks do not have sufficient buffers, they could curtail credit. Consumption could be affected by higher debt-servicing costs and lower household wealth, amplifying the initial shock. Staff stress tests show that losses could reach CHF 27.6 billion over 3 years (15 percent of CET1 capital), with the aggregate CET1 ratio declining by 230 basis points to 14 percent. The sectoral CCyB would absorb 25 percent of losses, but some banks would breach capital buffers.¹⁸ The need to support financial stability through the cycle and enhance resilience warrant early consideration of expanding the legally-mandated macroprudential toolkit. Limiting the number of mortgages at high LTV-DSTI ratios or requiring more substantial mortgage repayment would reduce potential losses and enhance stability.¹⁹ Also, in light of growing concerns with high home prices and rents, supply-side actions should be considered, together with adjustments to taxation (e.g., abolition of imputed-rent taxation, phasing out mortgage-interest relief). These could include targeted subsidies, more social housing, and addressing constraints (zoning flexibility, infrastructure investment).

27. The authorities should continue their conservative approach to fintech regulation and accelerate FSAP implementation. Contagion, legal, and reputational risks in fintech and cryptoassets are important, along with vulnerabilities to cyberattacks and money laundering

¹⁵ These include detailed provisions on beneficial-owner identity and obligations for updating client data.

¹⁶ In the wake of CS losses (Greensill, Archegos), FINMA has focused on enhanced supervisory intensity, derisking, strengthened risk controls, and governance assessments. Enforcement proceedings are underway. The authorities are reviewing "Suisse Secrets" leaks for improprieties.

¹⁷ Staff estimates that a quarter (half) of mortgage loans could become unaffordable if rates increase to 3 percent (5 percent).

¹⁸ The low level of diversification and geographical concentration of some domestically-focused banks could amplify pressures in some cantons.

¹⁹ See Selected Issues Paper.

(Annex IX).²⁰ Banks and AMs could experience direct losses from digital assets or legal or reputational hits from client losses. Cyber/cryptoasset risks have increased with war in Ukraine, along with risks of sanctions evasion, placing a premium on monitoring.²¹ The authorities should ensure robust margining by banks, AMs, and financial-market infrastructures (FMIs), continue enhancing VASP supervision, advance resolution plans for systemic FMIs, proactively implement global prudential standards for cryptoassets (BIS, 2021),²² and conduct a thorough cost-benefit analysis of transitioning to a tokenized financial ecosystem. They have conducted successful pilots on digital-asset trading/settlement on new platforms and will prepare a White Paper on next steps. These may involve issuance of a wholesale CBDC to facilitate efficiency/robustness. Finally, the authorities should implement outstanding 2019 FSAP advice, particularly on data/resource gaps, FINMA autonomy/supervision intensity, macroprudential framework, fintech oversight, and FMIs.²³

Authorities' Views

28. The authorities share concerns over rising real estate risks and are monitoring these and other areas. SNB/FINMA share the view that mortgage and real-estate market vulnerabilities have been developing, constituting a risk for financial stability due to materiality of exposures. They noted that sectoral CCyB reactivation in January will maintain and strengthen the sector's resilience. They noted that further tightening via self-regulation may be called for and agreed that rising vulnerabilities warrant early consideration of expansion of the legally-mandated macroprudential toolkit. The authorities flagged efforts to strengthen the regulatory framework, enhance supervisory intensity, take remedial action to address risk control failures, advance resolution plans and liquidity arrangements for systemic institutions, monitor AML/CFT risks in fintech, and continue efforts to deepen their understanding of CBDC benefits/risks.

Climate Change and Energy

29. The authorities are advancing alternative climate approaches after last year's referendum defeat. They extended pre-vote measures/targets through 2024 (annual 1.5 percent emissions reduction, CO₂ tax exemptions for companies committed to emissions reduction, requirement for fuel importers to offset emissions from transport), while initiating work on revised 2025–30 proposals and 2030–50 plans. The focus is on regulation, incentives, and investment (e.g., heating systems, charging infrastructure). No new/additional taxes or carbon-pricing mechanisms are being contemplated, a departure from the previous proposal.²⁴ Fuel importers will bear an

²⁰ Fintech is monitored via high-level round-tables, consultations, on-site supervision, and enforcement procedures using risk-oriented and principle-based approaches.

²¹ FDF operates a national contact-point that publishes threat warnings and prevention guidelines and reports cyber incidents. There are proposals to introduce cyberattack reporting obligations.

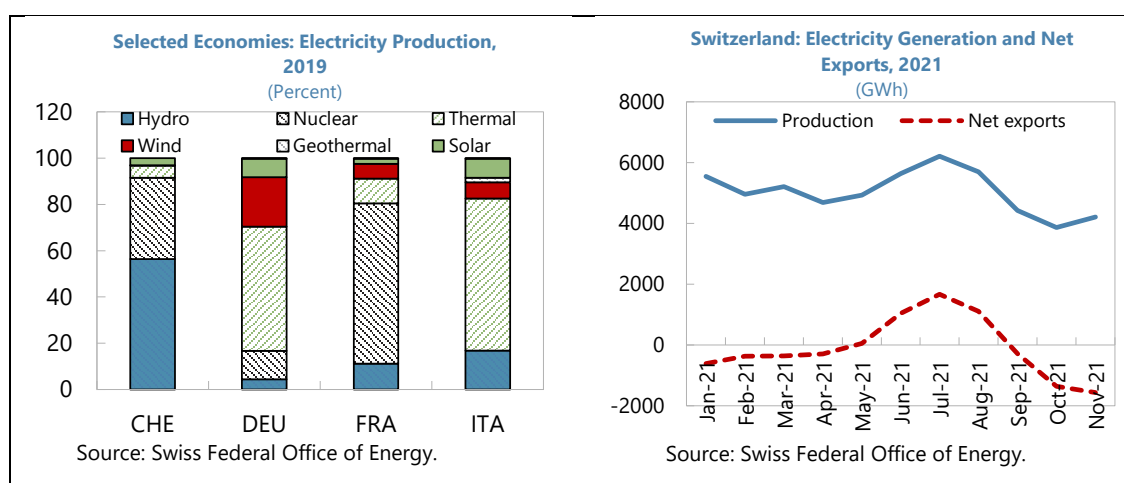
²² Banks may have direct exposures to cryptoassets with a risk weight of 800 percent and strict concentration rules.

²³ Progress has been made on recovery and resolution plans (RRPs) for SIBs and FMIs, but gaps remain. There are plans to introduce RRP for insurers, and possibly, non-SIBs. While there is a proposed framework to advance funding-in-resolution for SIBs, there are no plans to overhaul deposit insurance.

²⁴ Carbon taxes are among the highest globally (CHF 120/T). CO₂ Law revisions would have set a ceiling of CHF 210/T.

increased offset burden via purchase of certificates for demonstrated emissions reductions, with costs passed to consumers. Canton-level measures are being enhanced.²⁵

30. Sustainable finance is a growth opportunity. In 2024, the authorities will establish binding large-company implementation of the Task Force on Climate-related Financial Disclosures (TCFD), exceeding TCFD via a dual-materiality principle.²⁶ Last July, FINMA amended circulars on disclosures, requiring large banks and insurers to describe climate risks, business impacts, risk-management processes, and governance arrangements. SNB/FINMA are assessing transition risk of G-SIBs (UBS, CS). The authorities will develop a green-bond issuance framework in 2022. Looking forward, they should introduce a sustainable-finance taxonomy, strengthen guidance to prevent greenwashing, adopt a standardized disclosure framework for in-scope firms, broaden mandatory disclosure to additional firms,²⁷ and extend climate stress-tests to D-SIBs.



31. Promoting green transition/energy security will require review of energy strategies, collaboration with neighbors, and public support. War in Ukraine and supply risks have focused attention on energy security.²⁸ Major energy-mix contributions from hydro and nuclear power and timing for electricity-price adjustments have so far shielded consumers from price spikes. Denuclearization will gradually change the mix, along with a shift to renewables under the 2050 Energy Strategy. Switzerland's denuclearization is flexible—it provides for continued operation of reactors, rather than mandated closure dates. Changes to EU cross-border electricity regulations are a risk to winter imports; the changes will require EU neighbors to reserve 70 percent of cross-border capacity for other EU members from 2025. Finally, complex/lengthy approval procedures and NIMBY concerns may affect expansion of renewables. The authorities are rightly working to

²⁵ E.g., in 2021, Zurich voters approved a 95-percent reduction of heating-system emissions (vs. 1990) by 2040.

²⁶ Disclosures would include financial risk from climate-related activities and business-activity impacts on the climate/environment (EU approach).

²⁷ Under current proposals, binding climate reporting will apply for large firms (> 500 employees) from 2023; SMEs (< 250 employees) account for 99 percent of firms and 60 percent of turnover.

²⁸ See Selected Issues Paper.

strengthen resilience, including securing short-term supplies/storage, revisiting pooling, transmission, and storage arrangements, creating hydropower reserves and improving reservoir management, building reserve dual-fuel (gas-diesel) plants, speeding regulatory processes, encouraging building refurbishment, and tightening electrical-device standards.

Authorities' Views

32. The authorities assign high priority to reducing emissions, supporting green transition, and energy security. In view of the 2021 referendum result, they are developing short- and medium-term climate measures acceptable to voters. They hope that the new framework for government green bonds will set standards for other borrowers (cantons, private sector). They are advancing work on disclosures and comparable transparency in support of a market-based approach to sustainable finance. Finally, they share concerns on energy security and place high importance on near- and medium-term measures to alleviate risks.

Labor Market, Pensions, Inclusion

33. Facilitating reallocation of workers from Covid-19-affected sectors is the near-term focus. While Covid-19 support should continue where needed, prolonged assistance might delay restructuring/mobility. Supporting reallocation/reemployment calls for well-targeted labor policies (ALMPs), focused on upskilling for jobs with high future demand. Expanded training, counseling, and mentorship will smooth transitions.

34. Increasing participation, closing skill gaps, and reducing inequality are additional priorities. Promoting broader/longer participation is key, given the rapidly-aging population. There is room to improve equality for women and lower-skilled workers. Lowering early-retirement incentives, removing disincentives for hiring/retaining older workers, further improving childcare support, and easing tax disincentives for dual-earner families would help. Solutions to skill gaps involve raising participation of older workers, ALMPs targeting skill acquisition, and immigration policies focused on skilled workers.

35. Some pension reforms have been implemented, but more will be needed for long-term sustainability. Reforms in 2021/early-2022 considered gradual male-female retirement age harmonization (passed), additional first-pillar VAT funding (passed), cuts in second-pillar annuity-conversion rates, post-retirement-age employment incentives, and lower pension-system entry age, wage thresholds, and coordination deduction to shore up pension fund (PF) finances and/or pension adequacy for lower-income and multi-job workers. The reforms may be subject to referendum, and even if they pass, financing gaps will reemerge around 2030. Further retirement age increases are needed, linked to life expectancy, along with actions to extend 65+ employment through training/upskilling and wage flexibility. Further second-pillar conversion-rate cuts and flexibility are needed (beyond proposals to date). Measures to improve PF efficiency, governance, and investment performance are also needed.²⁹

²⁹ See [IMF Country Report No. 2021/131](#) for further discussion.

Authorities' Views

36. The authorities agreed that efforts to improve labor-market resilience, pension-system sustainability, equality, and the business environment should continue. Switzerland performs well in labor and business-environment areas, but they emphasized intentions to sustain competitiveness and dynamism. They highlighted recent reforms, including tax adjustments and additional childcare support to encourage participation and Pillar 1 and 2 pension reforms to improve sustainability and equality. Consensus-building is often challenging, especially on pensions, but critical, given prospects for referenda. Accordingly, some reforms advance gradually.

EU Relations

37. Swiss-EU relations are wide-ranging and complex, with the way forward unclear. Over the past decade, the EU called for replacement of 100+ bilateral agreements with an overarching institutional agreement. Agreement was reached in 2018, but Swiss stakeholder consultations identified outstanding issues: application of the EU Citizens' Rights Directive, preservation of working conditions/wages, and state aid. Pushing ahead risked referendum defeat. Negotiations resumed, but were terminated by the Swiss side in May 2021.³⁰ Since then, the EU has not updated agreements and indicated that it will not sign new accords (except where it has specific interests). This is leading to progressive erosion of EU-market access as agreements expire (e.g., medical-device mutual recognition) and lower involvement in EU programs (e.g., Horizon research). It is difficult to assess impacts, given multiple factors, including possible Swiss mitigation measures. But uncertainty is likely to affect investment and location decisions over time. It would be beneficial to establish arrangements that give stability and predictability to relations. Compensatory measures should be limited (targeted, timebound).

Authorities' Views

38. The authorities have restarted engagement with the EU. They stressed that Switzerland and the EU share common interests and objectives in wide-ranging areas and place high value on strong, stable, and mutually-beneficial relations. The authorities have developed a new "vertical" approach that would embed institutional issues in individual bilateral agreements. They are also working to identify and address existing regulatory differences with the EU.

Governance

39. The authorities place high priority on ensuring efficiency, transparency, and accountability in Covid-19 response. In addition to providing information on support measures and auditing use, the government (Federal Office for Public Health, Federal Chancellery, SECO) and SNB have completed and are conducting crisis-management reviews. The Federal Audit Office and

³⁰ On May 15, 71.5 percent of voters approved additional material, financial and human resources to Frontex, the European border protection agency, an important read-out of Swiss voters' views of participation in EU mechanisms.

Parliament have completed and are conducting evaluations on how the pandemic was handled, including procurement (which should include publication of beneficial-ownership information).

40. Efforts to strengthen the AML/CFT framework continue. After a 2020 FATF report, three packages were adopted in 2021 by parliament: (i) revision of the AML/CFT Act and other acts in March; (ii) other measures to strengthen the fight against terrorism and organized crime in July; and (iii) changes in the AML/CFT ordinance on crypto assets in August. Since a 2015 national assessment report, the authorities have published sectoral risk assessments for non-profits, legal persons, cryptoassets, crowdfunding, cash-usage, corruption, fraud, and phishing. An update of the national report was issued last October. FINMA's AML/CFT supervision (on-site and off-site) should be reinforced, and further efforts are needed to strengthen the role of financial intermediaries, in line with a risk-based approach.

41. While Switzerland is an active enforcer of the OECD Anti-Bribery Convention, further efforts are needed. A 2020 OECD Working Group report noted a high number of discontinued cases and a decrease in newly-investigated and ongoing cases in 2018–20. Progress has been made in other areas, including resources for the Money-Laundering Reporting Office (MROS), revision of the Law on Public Procurement, and efforts to raise awareness of bribery issues. The authorities should further strengthen the framework, including on maximum fines, whistleblower protection, conditions governing appeals, and extension of the AML law to lawyers, notaries, and fiduciaries providing non-financial services (see Annex X).

Authorities' Views

42. The authorities stressed that they are committed to ensuring sound Covid-19-related spending and further improving other governance areas, including AML/CFT. They highlighted continuing efforts in two Covid crisis-management areas: ensuring appropriate use of support; and drawing lessons for future crises. In addition to emphasizing on-going efforts, including in international fora, the authorities stressed that strengthening governance, including AML/CFT, continues to be a constant endeavor.

STAFF APPRAISAL

43. While recovery is expected to continue, new challenges have emerged, especially from the war in Ukraine; uncertainty and risks are high. While direct links to Russia and Ukraine are limited, indirect exposures may be substantial, including through commodity prices/supplies, financial exposures (via commodity traders, wealth management), and lower regional/global growth. Escalation of the war is a major risk and uncertainty. Adverse developments could reignite safe-haven flows. Other important risks are Covid-19 and real-estate imbalances.

44. The authorities' fiscal stance for 2022 is appropriate, although flexibility is needed, given uncertainty/risks. The debt-brake framework delivered robust finances prior to Covid and flexibility in response. The underlying position is expected to remain unchanged, appropriate under

the baseline. Still-sizable Covid outlays provide insurance, and accommodation of refugee support is welcome. The authorities should monitor the situation closely and draw on ample space in response to adverse developments. This could include targeted, timebound, non-distortionary support to households and firms, and operation of stabilizers. The proposed extension of the offset period for extraordinary outlays is welcome; it creates neither headwinds nor departs significantly from established arrangements. Finally, the pace/magnitude of cost-cutting/fee hikes at hard-hit enterprises (e.g., railways) should be reviewed to avoid undermining service provision.

45. A medium-term plan is needed to address fiscal challenges like aging, climate transition, energy security, and tax reforms.

There is ample space to run deficits, but the framework requires constitutional change to be modified. As such, new priorities will need to be offset. Accordingly, articulation of a medium-term plan to facilitate increased priority spending and manage possible revenue losses from tax reforms will be important. Tax changes should make the system less distortive and bolster revenues. Spending reviews will help identify savings.

46. After a long stretch of accommodative monetary policy, the time to start normalization may be approaching.

While the inflation pickup is still relatively benign and may be temporary, there are risks that inflation may rise further and be more persistent. The SNB should closely monitor developments and prospects, including internationally. To prepare for possible normalization, the SNB should review its tools, transmission channels, sequencing of steps, and communications, and adjust when needed. Policy-rate changes are likely the most effective tool. They may need to be accompanied by FX purchases, if there is excessive volatility. Considerations should be explained to the public. Normalization also would help address side effects of extra-accommodative monetary policy. The 2021 external position is assessed as broadly in line with medium-term fundamentals and desirable policies.

47. The financial sector has remained resilient through Covid-19, with strong buffers; still, wide-ranging risks call for continued attention and action.

House prices have risen relative to fundamentals, with search-for-yield and robust mortgage lending. Tighter self-regulation since 2020 and reactivation of the CCyB requirement are helpful, but rising vulnerabilities warrant further action, including early consideration of expanding the legally-mandated macroprudential toolkit. Limits on loans or tighter amortization requirements could be considered, based on an assessment of effectiveness. Taxation adjustments and addressing supply constraints could help affordability. Indirect exposures from the war in Ukraine (counter-party credit and collateral risk; risks from commodity finance, derivatives, wealth-management flows, financial integrity, cyberattacks) should be kept under close watch.

48. The authorities should continue efforts to strengthen supervision, resolution planning, financial integrity, fintech regulation, climate reporting, and green finance.

While remediation efforts in high-profile cases are being taken, the authorities should strengthen *ex ante* evaluation of governance and risk and move proactively. Enhanced liquidity requirements and a public backstop for SIBs will help ensure resolvability. Switzerland's position as a leading global financial center will also be sustained by improved monitoring of concentration risks in asset management, ensuring resolvability of systemic FMI, strengthening fintech regulation (while fostering innovation),

proactively implementing global cryptoasset prudential standards, addressing novel regulatory and risk issues from digital trading/settlement systems, and advances on green finance.

49. Labor and pension reforms are advancing, but more is needed. The tight labor market is facilitating post-Covid-19 reallocation, although some workers will need guidance and training. Closing skills gaps and broader/longer participation of older workers and women will help fill vacancies. Pension reforms, if approved, will close funding gaps through 2030. To ensure sustainability thereafter, further retirement age increases will be needed, linked to life expectancy, along with actions to extend 65+ employment, and further second-pillar conversion-rate cuts. Measures to improve pension fund efficiency, governance, and performance would be helpful.

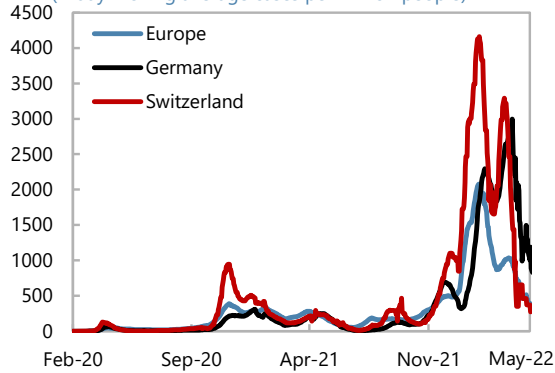
50. The authorities should advance green transition while enhancing energy security. The extension of current CO₂ law measures and targets for 2022–24, revising 2025–30 proposals, and devising policies for 2030–50 are welcome. The authorities are also rightly working on energy security with measures to secure short-term supplies, encourage demand reduction, boost hydro capacity and reservoir management, build back-up stations and fuel reserves, and speed regulatory processes for new projects.

51. It is recommended that the next consultation takes place on the regular 12-month cycle.

Figure 1. Switzerland: COVID-19 Pandemic

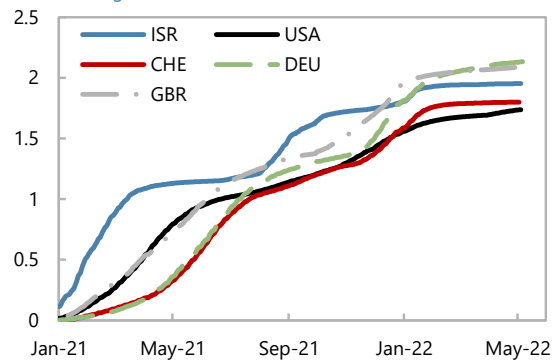
The Omicron wave has peaked...

New Weekly Covid-19 Cases
(7-day moving average cases per million people)



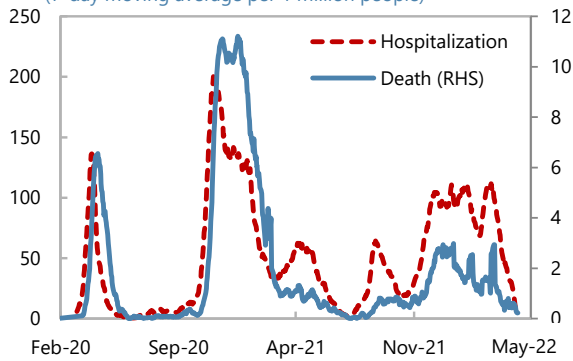
Vaccination has lagged Europe's leaders

Total Covid-19 Vaccine Doses per Person
(Including boosters)



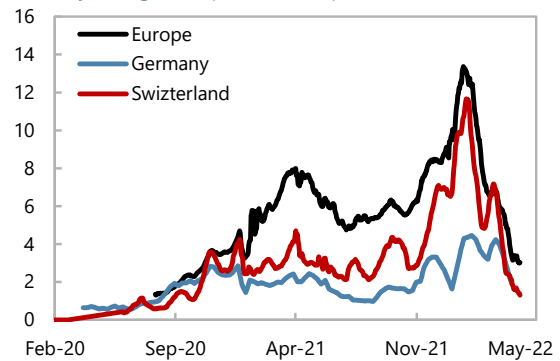
Hospitalization and fatalities have declined

Daily Covid-19 Hospitalization and Deaths
(7-day moving average per 1 million people)



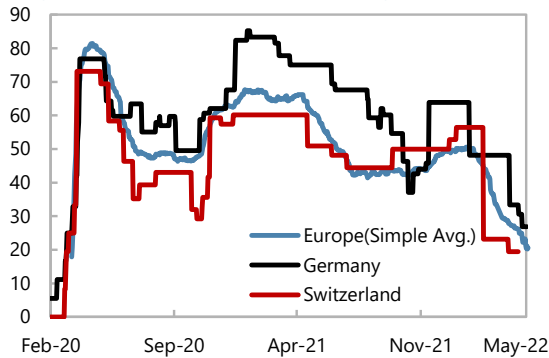
Testing has followed the broad European trend

New Covid-19 Tests
(7-day average tests per thousand persons)



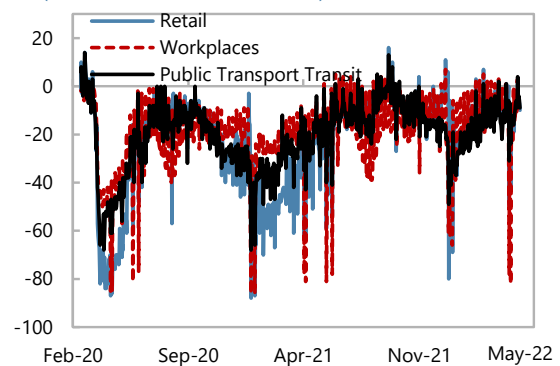
All restrictions were lifted by end-March 2022

Stringency Index
(0 least restrictive to 100 most restrictive)



Omicron has affected mobility, but less than Delta.

Google Mobility Indicators
(Percent deviation from baseline)

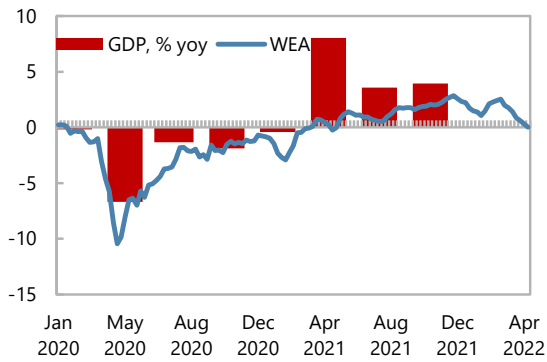


Sources: Haver Analytics; Bloomberg; IMF staff calculations.

Figure 2. Switzerland: High Frequency and Leading Economic Indicators

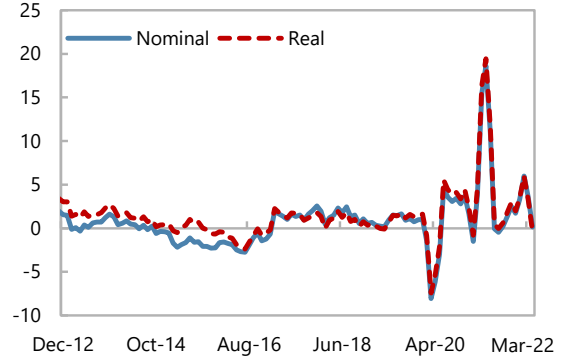
Recovery is continuing with a weakened momentum

Weekly Economic Activity Index



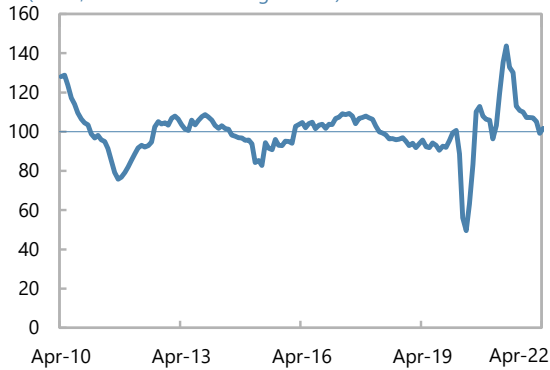
Retail was strong in 2021 holidays, but is moderating

Retail Sales (3mma) Growth
(Annual growth, % yoy)



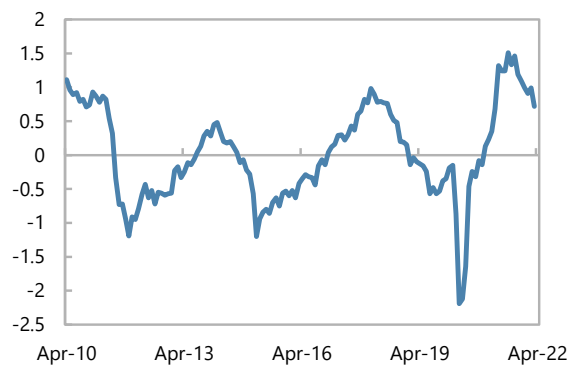
Sentiment receded with Omicron and the war in Ukraine

KOF Economic Barometer
(Index, 2009-2018 LT average = 100)



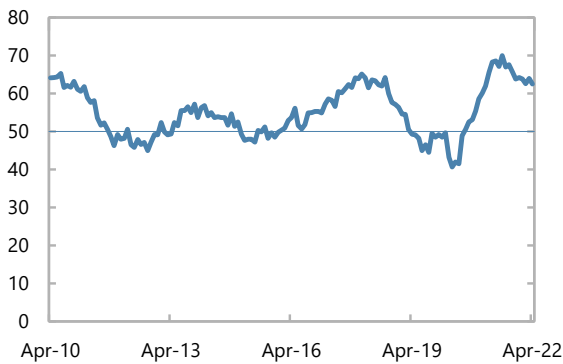
Same for confidence indicators...

Swiss Economic Confidence Indicator (SECO)



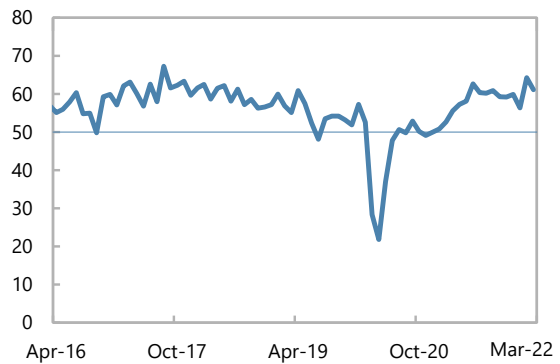
...and purchasing managers indexes...

Procure.ch PMI



...including in services

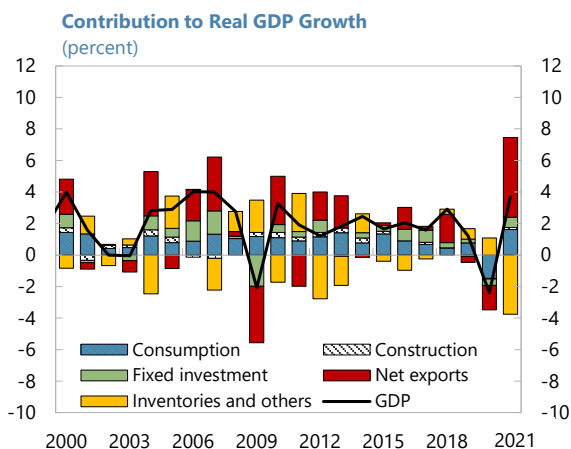
Procure.ch Services PMI



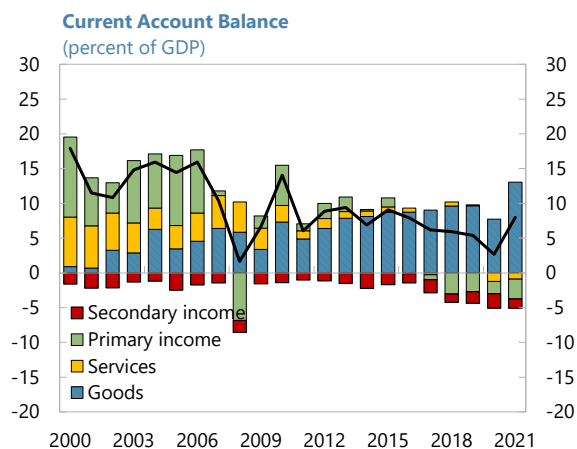
Sources: Haver Analytics; SECO.

Figure 3. Switzerland: Key Macroeconomic Indicators, 2000–21

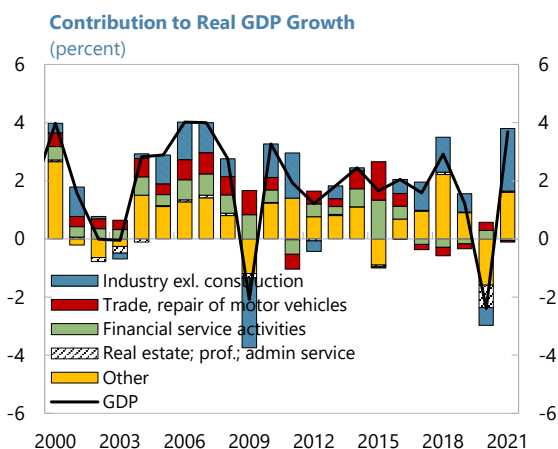
Exports, investment, and consumption boosted growth...



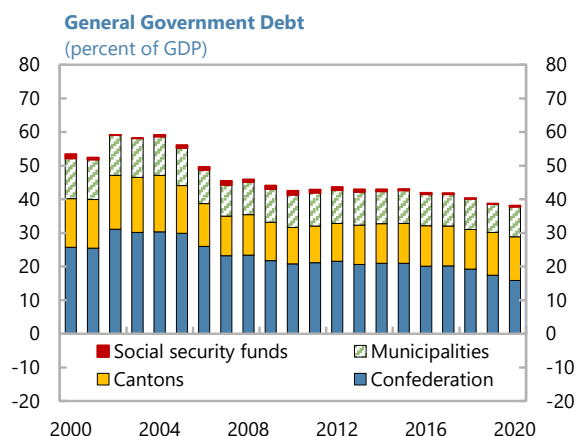
...with higher net exports of goods supporting the BOP.



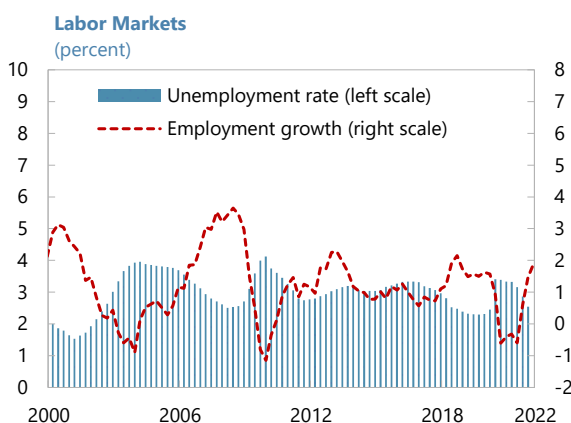
Manufacturing has been a key driver of broad recovery.



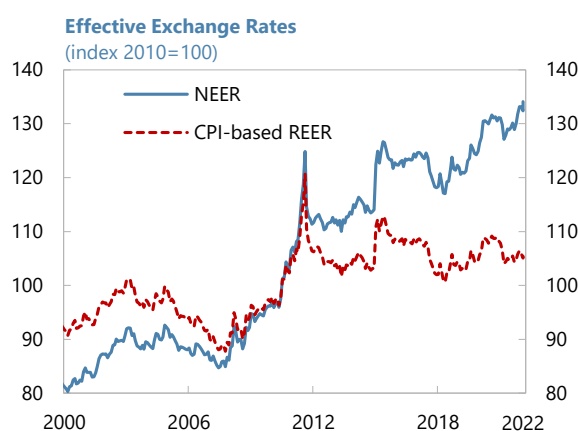
Public debt remains moderate.



Unemployment has trended down after a Covid-19 spike.



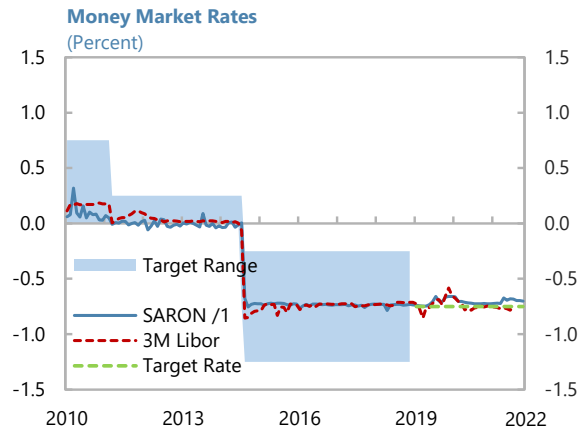
Appreciation pressures have moderated.



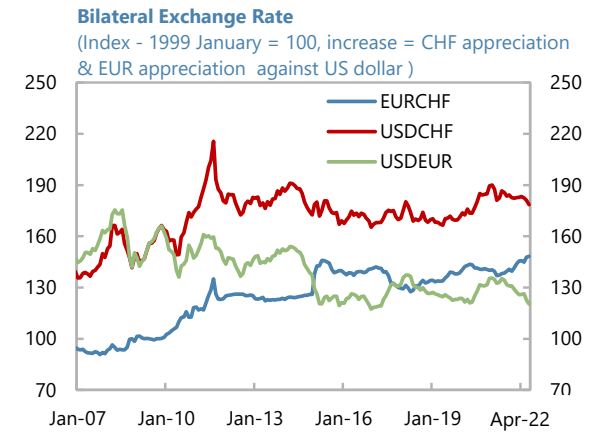
Sources: Haver Analytics; Federal Finance Administration; Information Notice System; State Secretariat for Economic Affairs; and Swiss National Bank.

Figure 4. Switzerland: Monetary Policy, 2000–21

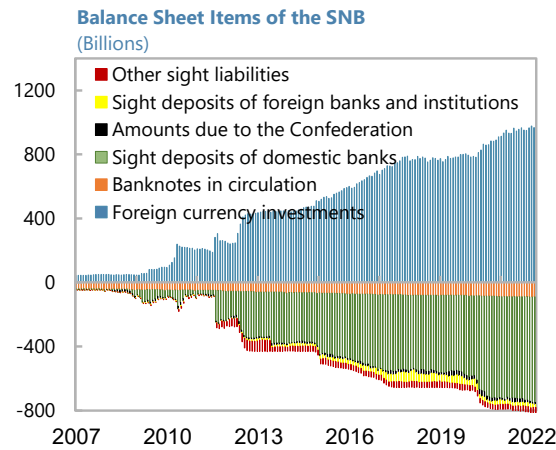
Policy and short-term rates have remained around -0.75



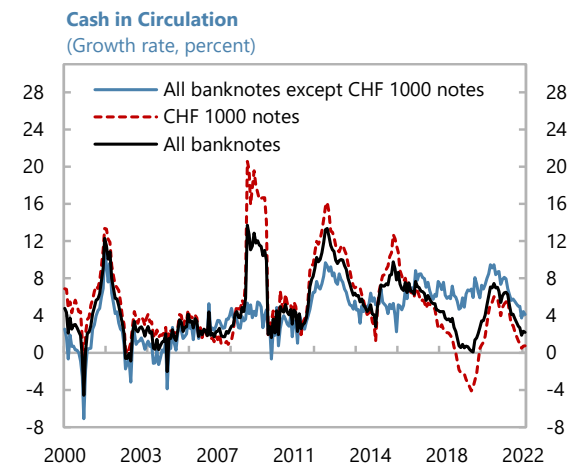
...while exchange rates have been fairly stable.



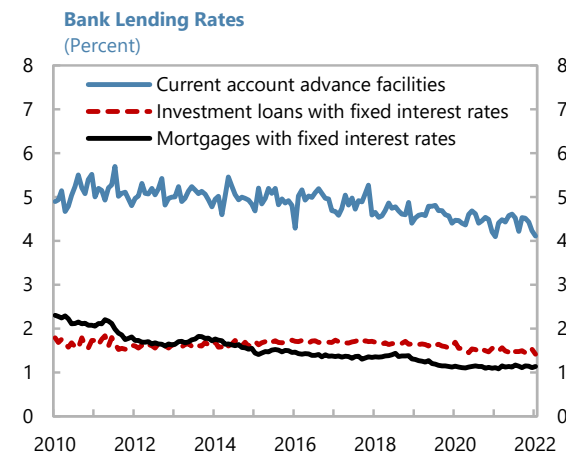
FX reserves increased by less in 2021 than 2020.



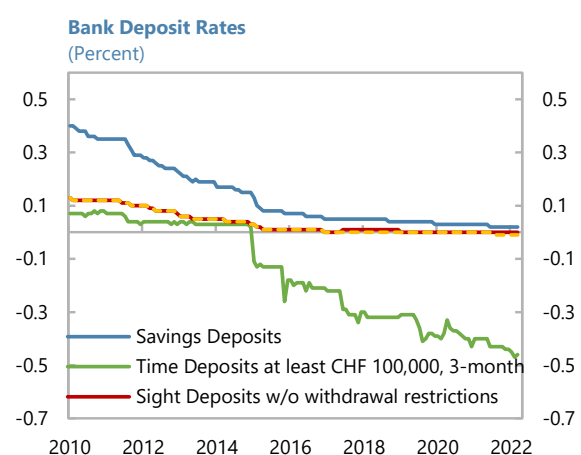
Cash in circulation has recovered from a Covid-19 hit.



Loan rates remain low and stable, especially mortgages...



...banks are gradually passing through negative rates.

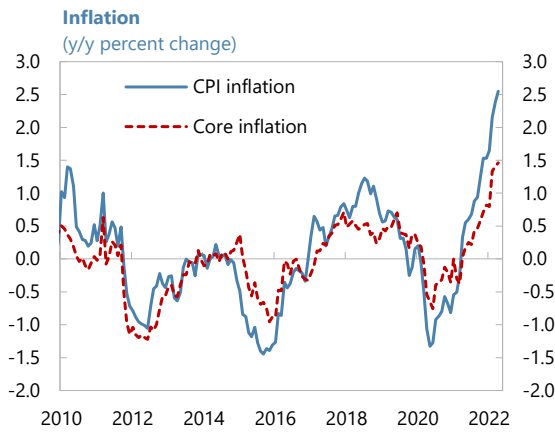


Sources: Swiss National Bank; Bloomberg Finance L.P; Haver Analytics; and IMF staff calculations.

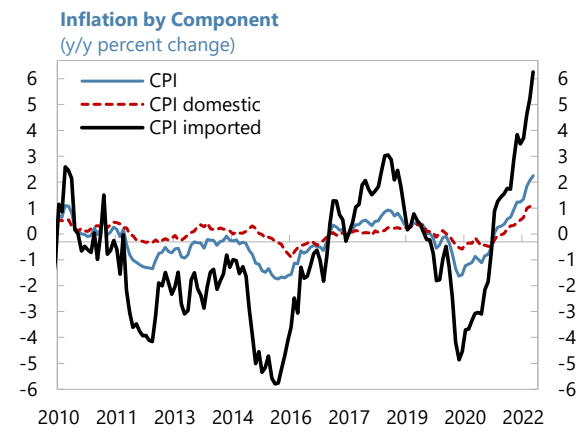
1/ SARON (Swiss Average Rate Overnight) is an overnight average rate referencing the Swiss Franc interbank repo market.

Figure 5. Switzerland: Selected Inflation and Monetary Indicators, 2010–21

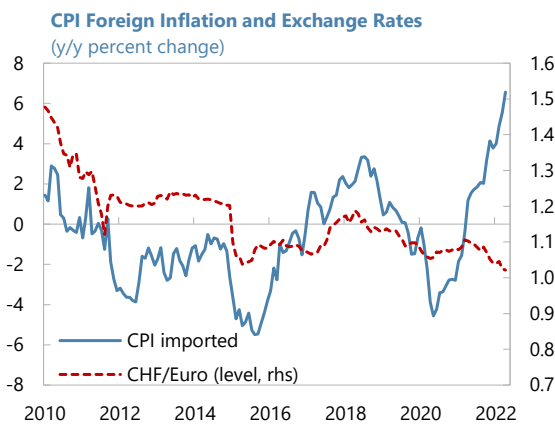
Inflation has picked up, albeit from negative readings...



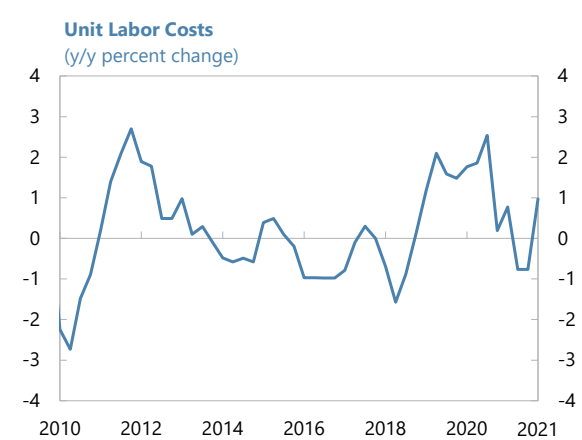
...imports and energy products are leading the way.



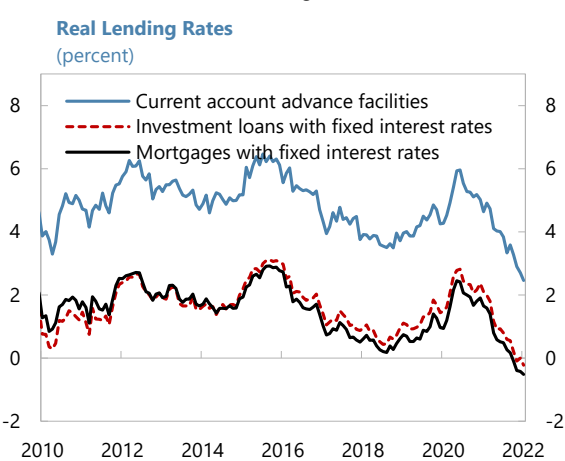
The changes are not coming from the euro exchange rate.



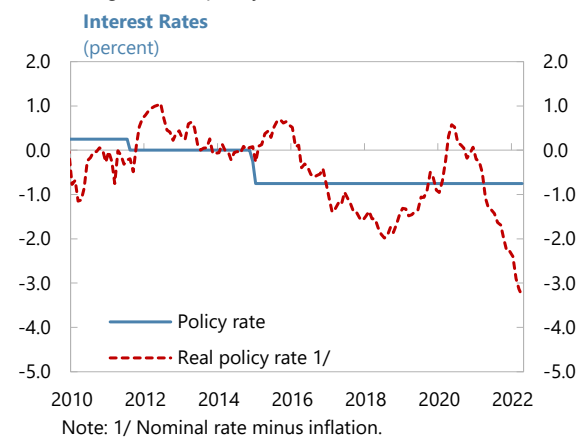
Pressures on labor costs remain relatively muted



Real rates have declined with higher inflation...



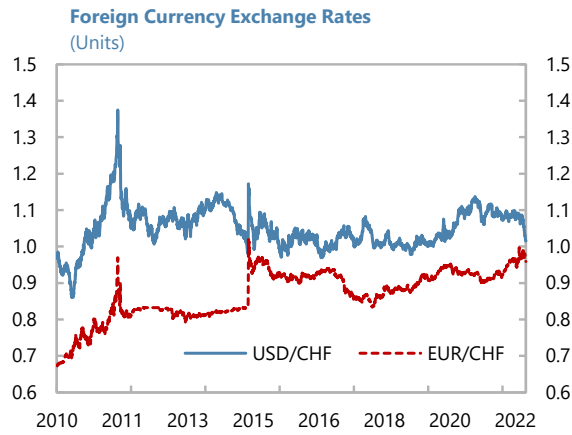
...including the real policy rate.



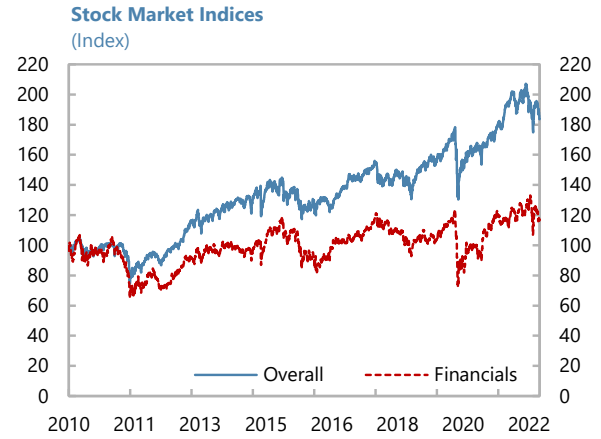
Sources: Haver Analytics; Swiss Federal Statistics Office; and Swiss National Bank.

Figure 6. Switzerland: Selected Financial Indicators, 2007–21

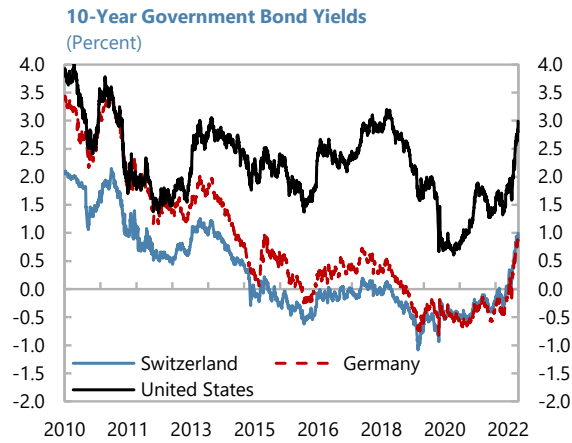
Exchange rates developments have seen limited action...



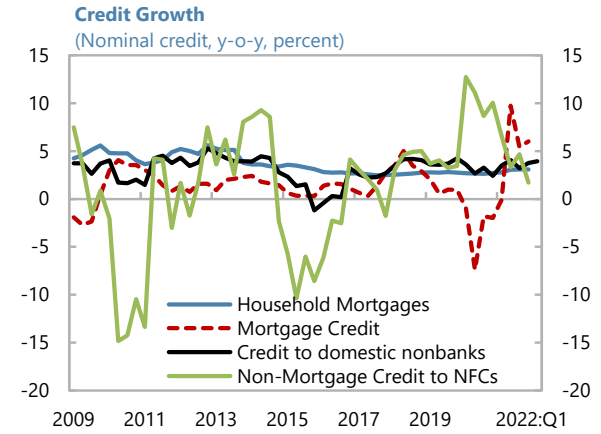
Socks trended up with Covid-19, down with war in Ukraine



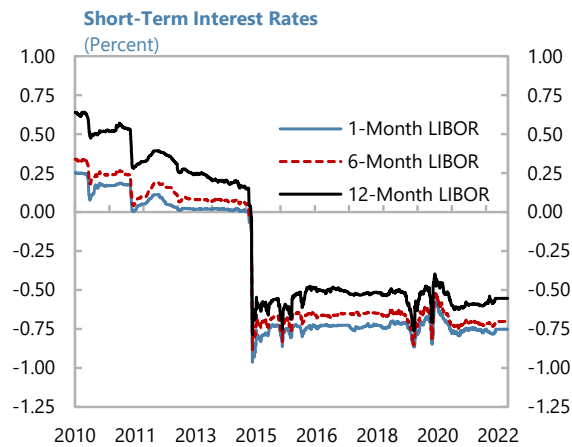
Long-term government bond yields have turned positive



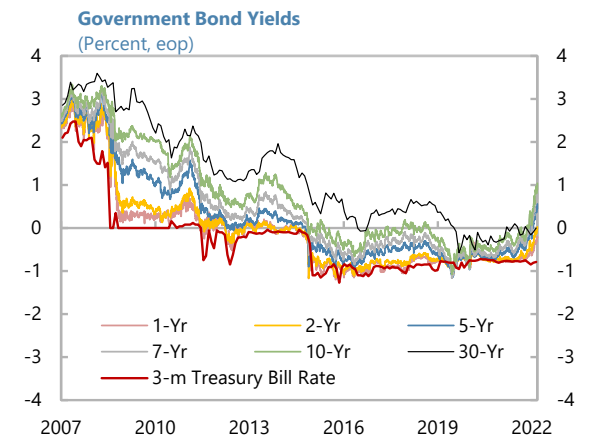
Mortgages have spiked since Covid-19.



Short-term rates have remained near the policy rate...



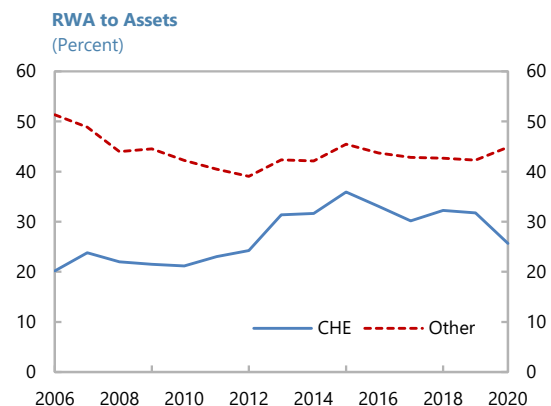
Government bonds yields have risen across maturities



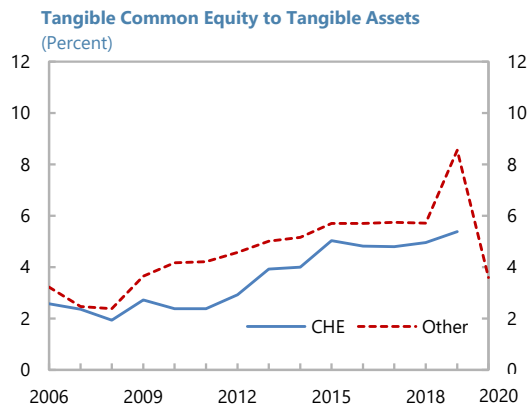
Sources: Thomson Reuters Datastream; Haver; and IMF staff calculations.

Figure 7. Switzerland: Indicators for Global Systemic Banks, 2006–20 1/

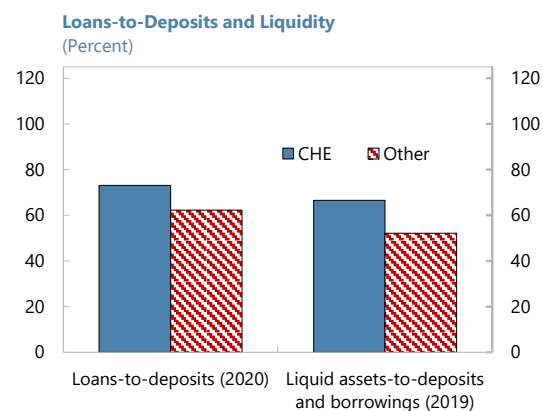
Risk weights of Swiss banks have trended downward...



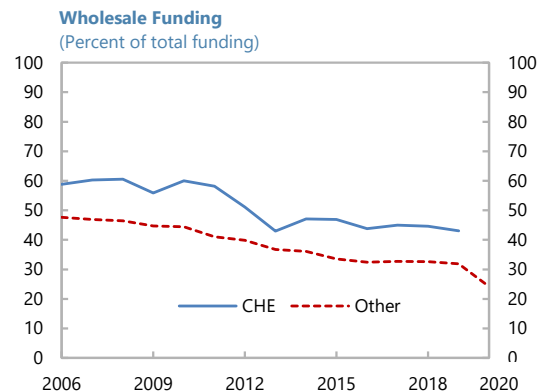
...supported by de-risking and de-leveraging measures.



Swiss banks have strong liquidity buffers...



...but rely a bit more on wholesale funding than peers.

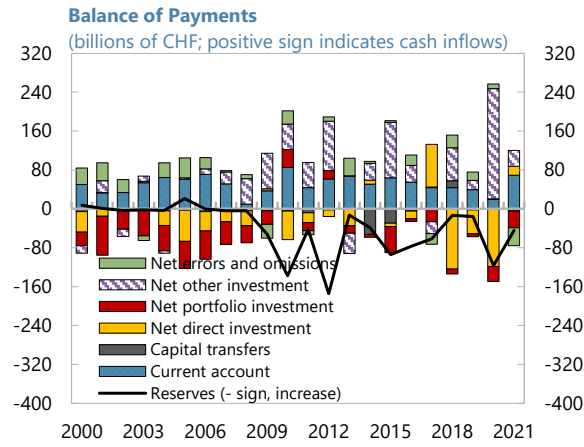


Sources: Thomson Reuters Datastream database; S&P Global Market Intelligence database; and IMF staff calculations.

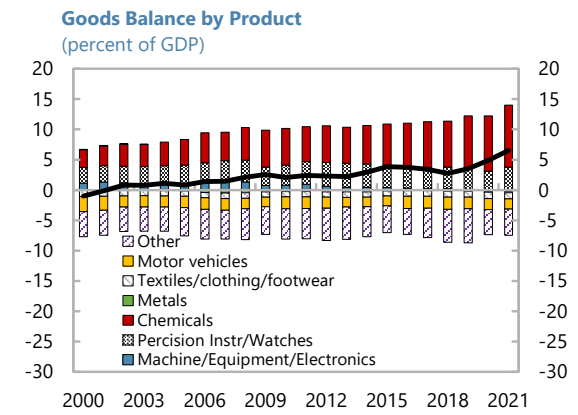
1/ Switzerland numbers are for Credit Suisse and UBS. "Other" includes Citigroup, Deutsche Bank, HSBC, JP Morgan Chase, Barclays, BNP, Bank of America, New York Mellon, Goldman Sachs, Mitsubishi, Morgan Stanley, Royal Bank of Scotland, Bank of China, BBVA, BPCE, Crédit Agricole, ING, Mizuho, Nordea, Santander, Société Générale, Standard Chartered, State Street, Sumitomo, UniCredit, Wells Fargo, Commerzbank, and Lloyds.

Figure 8. Switzerland: External Account, 2000–21

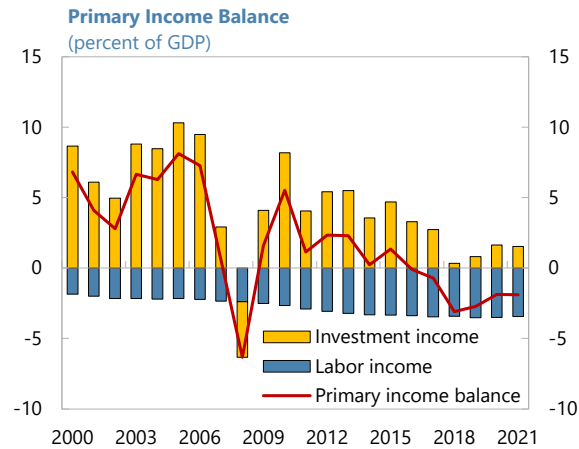
The current account has remained in surplus...



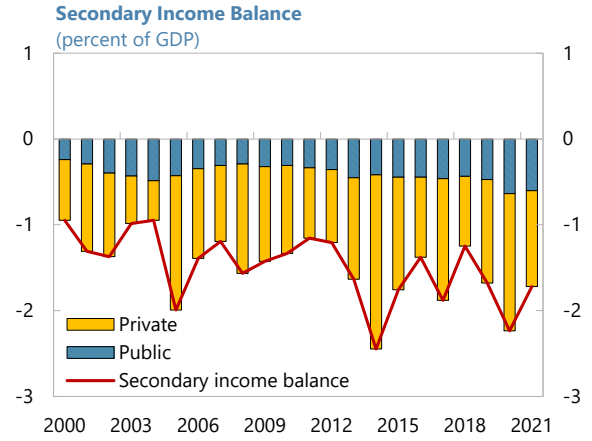
...supported by exports of chemicals and watches.



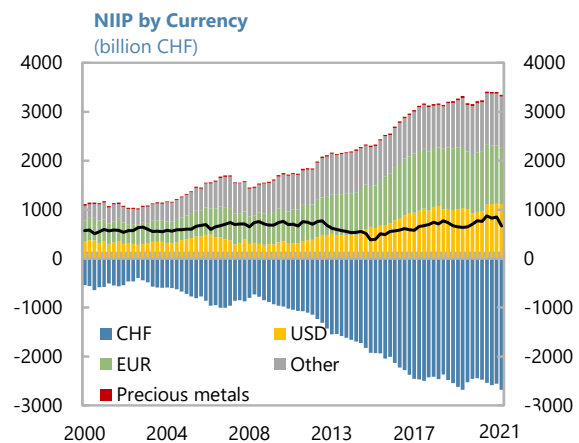
Net investment income has remained low...



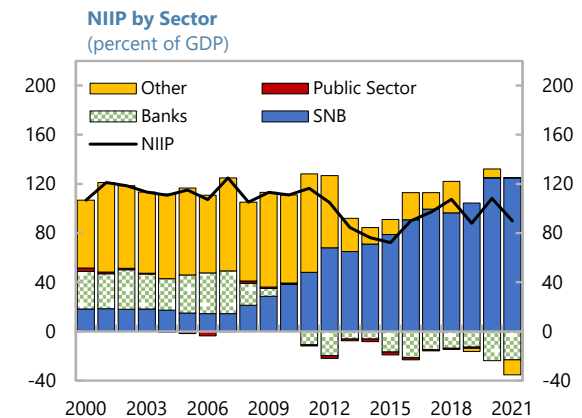
...and the secondary income balance remains negative.



NIIP positions are balanced across USD, euro, and other...



SNB flows remain the key driver of the NIIP.



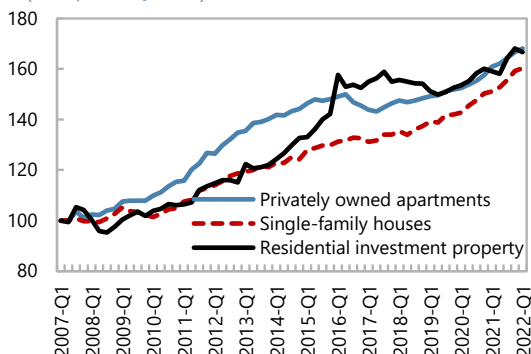
Sources: Swiss National Bank; Federal Customs Administration; and Haver Analytics.

Figure 9. Switzerland: Housing Markets, 1996–21

Prices continue to rise in all segments.

Real Residential Property Transaction Prices

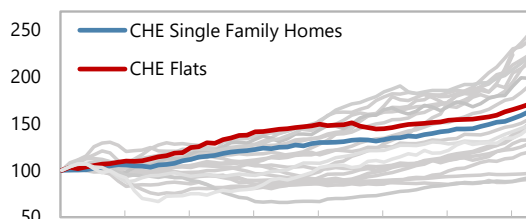
(Index, 2007 Q1=100)



Some locales have stronger growth, others weaker

House Prices In Advanced Economies

(Index, 2007Q1=100)

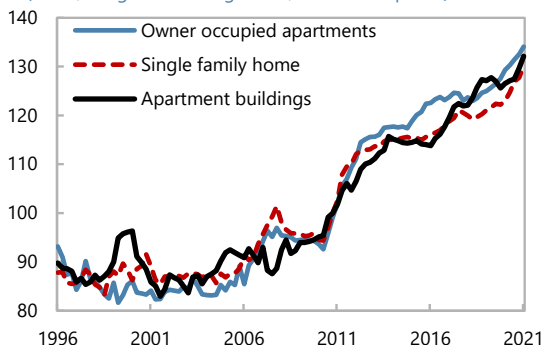


Note: Shown in the chart are selected EU members and other advanced economies, including AUT, AUS, BEL, CAN, CHE, CYP, DEU, DNK, ESP, FRA, GBR, HRV, HUN, ITA, LTU, LUX, NLD, NZL, SWE, SVN, SVK, and USA.

PTI ratios now 30 percent higher than historical averages.

Price-to-Income Ratio

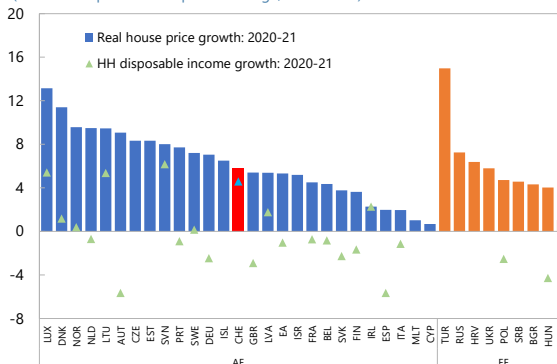
(Index; Long-term average=100; transaction prices)



Switzerland shares RE risks with other European countries

Real House Price and Real HH Income Growth in Europe

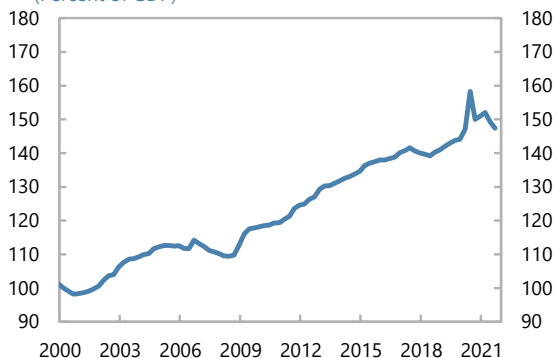
(Cumulative period-over-period change, annualized)



The mortgage-to-GDP has reached very high levels.

Mortgages

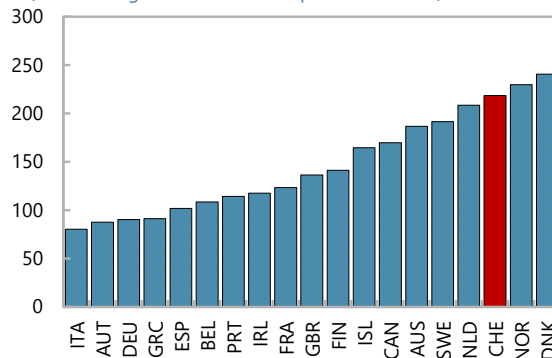
(Percent of GDP)



Household debt is high by international standards¹⁾.

Total Household Debt, 2020

(Percent of gross household disposable income)



Sources: Swiss National Bank; Wuest Partners; IAZI; BIS; OECD; Haver Analytics and IMF staff calculations. 1) While per capita household financial assets in Switzerland are two to three times higher than in neighbouring countries, per capita liabilities are three to four times higher.

Table 1. Switzerland: Selected Economic Indicators, 2017–27

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
	Staff projections										
Real GDP (Percent Change) 1/	1.7	2.9	1.2	-2.5	3.7	2.2	1.4	1.8	1.2	1.8	1.2
Total domestic demand	1.5	1.3	1.9	-0.7	-1.4	3.5	1.7	1.2	1.2	1.2	1.2
Private consumption	1.2	0.6	1.4	-3.7	2.7	2.6	1.5	1.1	1.1	1.1	1.1
Public consumption	0.6	1.0	0.7	3.5	2.7	1.5	1.0	1.0	1.0	1.0	1.0
Gross fixed investment	3.6	1.4	0.6	-1.7	3.0	2.5	2.2	1.6	1.5	1.5	1.5
Inventory accumulation 2/	-0.3	0.3	0.7	1.3	-3.4	0.7	0.1	-0.1	-0.1	-0.1	0.0
Foreign balance 2/	0.3	1.8	-0.4	-1.9	4.9	-0.7	-0.1	0.8	0.2	0.8	0.2
Nominal GDP (billions of Swiss francs)	693.9	719.8	727.9	705.9	742.5	773.8	795.2	817.7	836.8	861.5	881.7
Savings and Investment (Percent of GDP)											
Gross national saving	31.3	30.8	30.7	31.3	33.0	30.9	31.7	32.1	31.7	31.9	31.6
Gross domestic investment	25.0	24.8	25.2	28.5	23.8	24.6	24.7	24.6	24.7	24.5	24.6
Household savings	10.4	9.8	10.9	15.4	...	...	...	...	...	...	...
Current account balance	6.3	6.1	5.4	2.8	9.3	6.3	7.0	7.4	7.0	7.4	7.0
Prices and Incomes (Percent Change)											
GDP deflator	-0.4	0.8	-0.1	-0.5	1.4	2.0	1.3	1.0	1.1	1.1	1.1
Consumer price index (period average)	0.5	0.9	0.4	-0.7	0.6	2.5	1.6	1.2	1.0	1.0	1.0
Consumer price index (end of period)	0.9	0.7	0.1	-0.8	1.5	2.4	1.7	1.0	1.0	1.0	1.0
Nominal hourly earnings	0.4	0.5	0.9	0.9	0.3	2.2	1.2	1.0	1.0	1.0	1.0
Unit labor costs (total economy)	-0.1	-0.8	1.6	1.6	-0.4	1.1	0.8	-0.1	0.5	0.0	0.5
Employment and Slack Measures											
Unemployment rate (in percent)	3.1	2.5	2.3	3.1	3.0	2.6	2.7	2.8	2.8	2.8	2.8
Output gap (in percent of potential)	0.0	0.8	0.5	-1.5	-0.9	-0.6	-0.3	0.0	0.0	0.0	0.0
Capacity utilization	74.6	73.8	74.6	71.8	76.6	...	...	...	...	...	...
Potential output growth	1.8	1.8	1.8	-0.5	2.8	1.2	1.3	1.3	1.5	1.5	1.5
General Government Finances (Percent of GDP)											
Revenue	33.1	32.6	32.9	33.5	33.7	32.9	32.4	32.1	32.0	32.0	32.0
Expenditure	32.0	31.3	31.5	36.5	34.5	33.2	32.3	32.1	32.0	32.0	32.0
Balance	1.1	1.3	1.3	-3.0	-0.7	-0.3	0.1	0.0	0.0	0.0	0.0
Cyclically adjusted balance	1.1	1.0	1.1	-2.5	-0.4	-0.1	0.2	0.0	0.0	0.0	0.0
Gross debt 3/	41.2	39.3	39.1	42.6	41.4	40.1	38.9	37.8	36.9	35.8	35.0
Monetary and Credit (Percent Change, Average)											
Broad money (M3)	3.5	3.2	0.8	6.5	1.4	...	...	...	...	...	...
Domestic credit, non-financial	2.7	4.0	4.2	2.4	3.8	...	...	...	...	...	...
Three-month SFr LIBOR	-0.7	-0.7	-0.7	-0.7	-0.8	...	...	...	...	...	...
Yield on government bonds (7-year)	-0.3	-0.2	-0.7	-0.6	-0.4	...	...	...	...	...	...
Exchange Rates (Levels)											
Swiss francs per U.S. dollar (annual average)	1.0	1.0	1.0	0.9	0.9	...	...	...	...	...	...
Swiss francs per euro (annual average)	1.1	1.2	1.1	1.1	1.1	...	...	...	...	...	...
Nominal effective rate (avg., 2000=100)	122.2	120.1	123.1	130.1	129.7	...	...	...	...	...	...
Real effective rate (avg., 2000=100) 4/	106.0	103.1	104.2	108.1	105.3	...	...	...	...	...	...

Sources: Haver Analytics; IMF's Information Notice System; Swiss National Bank; and IMF staff estimates.

1/ The medium-term forecasts reflect the impact on Swiss GDP of major international sporting events, such as the Olympic Games, FIFA World Cup and UEFA European Championship.

2/ Contribution to growth. Inventory accumulation also includes statistical discrepancies and net acquisitions of valuables.

3/ Reflects new GFSM 2001 method, which values debt at market prices. Calculated as the sum of Federal, Cantonal, Municipal and Social security gross debts.

4/ Based on relative consumer prices.

Table 2. Switzerland: Balance of Payments, 2017–27

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
						Staff projections					
(In billions of Swiss francs, unless otherwise indicated)											
Current Account	43	44	40	20	69	49	56	61	58	63	62
Goods balance	63	71	71	58	103	89	89	96	102	109	117
Exports	324	338	340	330	395	442	471	499	529	560	594
Imports	260	267	270	272	292	353	382	403	427	451	477
Service balance	-2	4	1	-9	-7	5	5	4	0	2	-2
Net primary income	-5	-22	-20	-13	-14	-30	-22	-24	-28	-31	-35
Net secondary income	-13	-9	-12	-16	-13	-15	-16	-16	-16	-17	-17
Private Capital and Financial Account	21	70	57	29	32	49	56	61	58	63	62
Capital transfers	1	14	-2	1	-5	-2	-3	-3	-3	-3	-3
Financial account	23	84	54	30	28	47	52	58	55	61	59
Net direct investment	-88	124	49	119	-18	-50	-64	-77	-71	-74	-72
Net portfolio investment	26	10	5	31	34	33	33	33	33	33	33
Net financial derivatives	-1	4	2	-9	0	-5	-2	-3	-3	-3	-3
Net other investment	24	-68	-19	-227	-33	69	85	105	95	104	101
Change in reserves	61	13	16	117	44	0	0	0	0	0	0
Net Errors and Omissions	-22	26	17	10	-37	0	0	0	0	0	0
(In percent of GDP, unless otherwise indicated)											
Current Account	6.3	6.1	5.4	2.8	9.3	6.3	7.0	7.4	7.0	7.4	7.0
Goods balance	9.2	9.8	9.7	8.2	13.8	11.5	11.2	11.7	12.2	12.7	13.3
Exports	46.6	47.0	46.8	46.7	53.2	57.2	59.2	61.0	63.2	65.0	67.3
Imports	37.5	37.2	37.1	38.5	39.4	45.7	48.0	49.3	51.0	52.4	54.1
Service balance	-0.3	0.6	0.1	-1.3	-0.9	0.6	0.6	0.5	0.1	0.2	-0.3
Net primary income	-0.7	-3.1	-2.7	-1.9	-1.9	-3.9	-2.8	-2.9	-3.4	-3.6	-4.0
Net secondary income	-1.9	-1.2	-1.7	-2.2	-1.7	-2.0	-2.1	-1.9	-1.9	-2.0	-2.0
Private Capital and Financial Account	3.1	9.7	7.8	4.2	4.3	6.3	7.0	7.4	7.0	7.4	7.0
Capital transfers	0.2	2.0	-0.3	0.1	-0.6	-0.3	-0.4	-0.3	-0.4	-0.3	-0.3
Financial account	3.3	11.7	7.5	4.3	3.7	6.0	6.6	7.1	6.6	7.0	6.7
Net direct investment	-12.7	17.2	6.8	16.8	-2.5	-6.4	-8.1	-9.4	-8.4	-8.6	-8.2
Net portfolio investment	3.8	1.4	0.8	4.4	4.6	4.2	4.2	4.0	4.0	3.8	3.8
Net financial derivatives	-0.2	0.6	0.3	-1.3	0.0	-0.6	-0.3	-0.4	-0.3	-0.4	-0.3
Net other investment	3.5	-9.4	-2.6	-32.1	-4.4	8.9	10.7	12.9	11.4	12.1	11.4
Change in reserves	8.8	1.9	2.2	16.5	6.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Errors and Omissions	-3.2	3.6	2.4	1.4	-5.0	0.0	0.0	0.0	0.0	0.0	0.0
Memorandum Items:											
Net IIP (in percent of GDP)	97.0	107.4	88.0	108.3	89.8	93.3	92.1	91.2	92.6	93.1	94.9
Official reserves (billions of Francs, end-period)	792.1	776.5	826.4	954.1	1014.1	...	...	...	...	...	...

Sources: Haver Analytics; Swiss National Bank; and IMF staff estimates.

Table 3. Switzerland: SNB Balance Sheet, 2012–21

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
	(Millions of Swiss francs; unless otherwise indicated)									
Assets										
Gold	50,772	35,565	39,630	35,467	39,400	42,494	42,237	49,111	55,747	55,691
Foreign currency reserves	432,209	443,275	510,062	593,234	696,104	790,125	763,728	794,015	910,001	966,202
IMF, international, and monetary assistance loans	7,332	6,834	6,664	6,486	5,903	5,577	5,889	6,026	7,121	14,821
Swiss franc repos	...	...	...	...	...	...	...	6,529	550	3,216
U.S. dollar repos	...	...	...	...	...	...	...	...	8,842	2,147
Swaps against Swiss francs	...	...	...	...	...	...	...	...	...	...
Money market, Swiss franc securities, other	9,121	4,709	4,845	4,965	5,095	5,110	5,214	11,805	26,159	20,062
Total assets	499,434	490,382	561,202	640,152	746,502	843,306	817,069	860,956	999,028	1,056,776
Liabilities										
Currency in circulation (banknotes)	61,801	65,766	67,596	72,882	78,084	81,639	82,239	84,450	89,014	90,685
Sight deposits	369,732	363,910	387,666	469,034	530,049	573,679	574,827	591,454	702,862	727,162
Repo, SNB bills and time liabilities	...	...	...	...	...	...	...	...	9,027	2,174
Foreign currency and other liabilities	9,825	12,682	19,635	37,183	53,841	50,821	39,770	17,970	14,175	32,506
Provisions and equity capital	58,075	48,023	86,305	61,053	84,527	137,168	120,232	167,083	183,951	204,249
Total liabilities	499,434	490,382	561,202	640,152	746,502	843,306	817,069	860,956	999,028	1,056,776
Memorandum Items:										
Nominal GDP (billions of Swiss francs)	649	661	673	676	685	694	719	727	706	743
Balance sheet, percent of GDP	77.0	74.2	83.4	94.7	108.9	121.6	113.6	118.4	141.5	142.3
Banknotes, percent of total liabilities	12.4	13.4	12.0	11.4	10.5	9.7	10.1	9.8	8.9	8.6
Refinancing operations, percent of total assets	...	...	...	...	...	...	...	...	...	...
Provisions and equity capital, percent of total assets	11.6	9.8	15.4	9.5	11.3	16.3	14.7	19.4	18.4	19.3
Monetary base 1/	284,381	360,765	375,305	455,863	504,140	551,849	549,374	564,161	674,297	725,618

Sources: Swiss National Bank; and IMF staff estimates.

1/ Currency in circulation and sight deposits of domestic banks.

Table 4. Switzerland: General Government Finances, 2018–27

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
							Staff projections			
(In billions of Swiss francs, unless otherwise specified)										
General Government										
Revenue	234	239	237	251	255	258	263	267	275	282
Expenditure	225	229	258	256	257	257	262	267	275	282
Net lending/net borrowing	9	10	-21	-5	-3	1	0	0	0	0
Confederation (Federal Government) 1/										
Revenue	78	80	75	86	87	88	90	92	94	97
Expenditure	73	74	92	92	90	86	89	92	94	97
Net lending/net borrowing	5	6	-17	-6	-3	2	1	0	0	0
Cantons										
Revenue	95	97	100	108	110	111	113	115	118	121
Expenditure	93	94	104	106	109	113	114	115	118	121
Net lending/net borrowing	3	3	-4	2	0	-2	-1	0	0	0
Communes/Municipalities										
Revenue	49	49	49	50	51	51	52	53	55	56
Expenditure	49	50	51	51	52	52	52	53	55	56
Net lending/net borrowing	0	-1	-1	-1	-1	-1	0	0	0	0
Social Security 2/										
Revenue	64	65	78	73	69	70	71	72	74	76
Expenditure	63	64	77	73	69	70	73	73	73	73
Net lending / net borrowing	1	1	1	1	1	1	0	0	0	0
General Government Gross Debt 3/	282	284	301	308	310	309	309	309	309	309
Confederation (Federal government) 1/	133	137	145	150	151	149	148	148	148	146
Cantons	85	87	93	93	92	94	95	95	95	95
Communes/municipalities	65	62	63	65	66	66	66	66	66	66
Social security 2/	2	1	3	2	1	0	0	0	0	1
(In percent of GDP)										
General Government Operations										
Revenue	32.6	32.9	33.5	33.7	32.9	32.4	32.1	32.0	32.0	32.0
Expenditure	31.3	31.5	36.5	34.5	33.2	32.3	32.1	32.0	32.0	32.0
Net lending/net borrowing	1.3	1.3	-3.0	-0.7	-0.3	0.1	0.0	0.0	0.0	0.0
Confederation (Federal government) 1/	0.7	0.8	-2.4	-0.9	-0.4	0.3	0.1	0.0	0.0	0.0
Cantons	0.4	0.5	-0.5	0.2	0.1	-0.2	-0.1	0.0	0.0	0.0
Communes/municipalities	0.0	-0.1	-0.2	-0.2	-0.1	-0.1	0.0	0.0	0.0	0.0
Social security	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
General Government Gross Debt 3/	39.3	39.1	42.6	41.4	40.1	38.9	37.8	36.9	35.8	35.0
Confederation (Federal government) 1/	18.5	18.8	20.6	20.2	19.5	18.7	18.1	17.6	17.1	16.6
Cantons	11.8	12.0	13.1	12.5	11.9	11.8	11.6	11.3	11.0	10.8
Communes/municipalities	9.1	8.5	8.9	8.7	8.5	8.4	8.1	7.9	7.7	7.5
Social security 2/	0.2	0.1	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.1
Memorandum Items:										
Nominal GDP (billions of francs)	719	727	706	743	774	795	818	837	862	882
Output gap (percent)	1.6	1.6	-2.3	-0.4	-0.3	-0.2	-0.1	-0.1	-0.1	-0.1
General Government cyclically adjusted balance	1.0	1.1	-2.5	-0.4	-0.1	0.2	0.0	0.0	0.0	0.0

Sources: Federal Ministry of Finance; and IMF staff estimates.

1/ Includes the balance of the Confederation and extrabudgetary funds (Public Transport Fund, ETH, Infrastructure Fund, Federal Pension Fund).

2/ Includes old age, disability, survivors protection scheme as well unemployment and income loss insurance.

3/ Forecasted.

Table 5. Switzerland: General Government Finances, 2011–21

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
(In billions of Swiss francs, unless otherwise specified)											
Revenue	204.2	205.3	210.3	212.6	220.5	221.5	229.9	234.5	238.9	236.5	250.6
Taxes	125.5	126.1	129.1	130.9	135.9	138.0	144.6	146.9	151.2	145.5	153.9
Taxes on income, profits, and capital gains	75.7	76.2	78.3	79.3	83.7	85.0	89.9	91.9	95.5	89.9	93.3
Taxes on goods and services	38.3	38.3	38.6	38.8	39.1	38.9	40.2	39.9	39.9	39.5	46.0
Taxes on property	9.8	9.9	10.4	10.9	11.2	12.0	12.4	12.8	13.5	13.7	12.3
Taxes on international trade and transactions	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.3
Social contributions	41.3	42.3	43.2	43.7	44.5	45.0	45.5	46.3	47.5	49.6	49.8
Grants	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
Other revenue	37.2	36.7	37.8	37.7	39.9	38.2	39.5	41.0	40.0	41.2	46.7
<i>Of which: property income</i>	8.7	7.1	7.5	6.5	8.3	7.3	7.9	8.3	8.2	9.9	8.9
Expenditure	199.9	203.8	213.1	214.2	216.9	219.8	222.2	225.3	229.3	257.5	256.1
Expense	198.5	201.9	211.7	212.8	215.0	218.1	219.6	222.3	225.7	253.1	242.3
Compensation of employees	45.9	47.0	47.9	48.7	49.6	50.2	50.9	51.6	52.7	54.1	54.8
Purchases/use of goods and services	22.1	22.8	23.7	24.1	24.3	24.4	24.6	25.3	25.4	25.8	27.1
Interest expense	4.7	4.4	4.0	3.7	3.6	3.2	2.7	2.3	2.1	2.0	2.9
Social benefits	67.6	69.3	71.5	73.0	74.3	76.4	77.5	78.1	79.5	95.9	88.3
Expense n.e.c.	58.1	58.4	64.7	63.2	63.2	64.0	63.8	65.0	66.1	75.3	69.2
Net acquisition of nonfinancial assets	1.4	1.9	1.4	1.4	1.8	1.7	2.6	3.0	3.6	4.4	13.8
Net Operating Balance	5.7	3.4	-1.4	-0.2	5.5	3.3	10.3	12.1	13.2	-16.5	8.3
Net Lending/Borrowing	4.3	1.5	-2.8	-1.6	3.6	1.6	7.7	9.2	9.6	-21.0	-5.5
Net acquisition of financial assets	12.3	21.6	-5.2	42.0	-23.7	14.1	77.5	-10.8	63.0	12.5	17.9
Net incurrence of liabilities	7.9	20.1	-2.4	43.7	-27.3	12.5	69.8	-20.0	53.4	33.5	23.4
(In percent of GDP)											
Revenue	31.9	31.6	31.8	31.6	32.6	32.3	33.1	32.6	32.9	33.5	33.7
Taxes	19.6	19.4	19.5	19.5	20.1	20.1	20.8	20.4	20.8	20.6	20.7
Taxes on income, profits, and capital gains	11.8	11.7	11.9	11.8	12.4	12.4	13.0	12.8	13.1	12.7	12.6
Taxes on goods and services	6.0	5.9	5.8	5.8	5.8	5.7	5.8	5.6	5.5	5.6	6.2
Taxes on property	1.5	1.5	1.6	1.6	1.7	1.7	1.8	1.8	1.9	1.9	1.7
Taxes on international trade and transactions	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Social contributions	6.4	6.5	6.5	6.5	6.6	6.6	6.6	6.4	6.5	7.0	6.7
Other revenue	5.8	5.6	5.7	5.6	5.9	5.6	5.7	5.7	5.5	5.8	6.3
Expenditure	31.2	31.4	32.3	31.8	32.1	32.1	32.0	31.3	31.5	36.5	34.5
Expense	31.0	31.1	32.0	31.6	31.8	31.8	31.7	30.9	31.0	35.8	32.6
Compensation of employees	7.2	7.2	7.2	7.2	7.3	7.3	7.3	7.2	7.2	7.7	7.4
Purchases/use of goods and services	3.5	3.5	3.6	3.6	3.6	3.6	3.5	3.5	3.5	3.6	3.6
Interest expense	0.7	0.7	0.6	0.5	0.5	0.5	0.4	0.3	0.3	0.3	0.4
Social benefits	10.5	10.7	10.8	10.9	11.0	11.2	11.2	10.9	10.9	13.6	11.9
Expense n.e.c.	9.1	9.0	9.8	9.4	9.4	9.3	9.2	9.0	9.1	10.7	9.3
Net acquisition of nonfinancial assets	0.2	0.3	0.2	0.2	0.3	0.2	0.4	0.4	0.5	0.6	1.9
Net Operating Balance	0.9	0.5	-0.2	0.0	0.8	0.5	1.5	1.7	1.8	-2.3	1.1
Net Lending/Borrowing	0.7	0.2	-0.4	-0.2	0.5	0.2	1.1	1.3	1.3	-3.0	-0.7
Net acquisition of financial assets	1.9	3.3	-0.8	6.2	-3.5	2.1	11.2	-1.5	8.7	1.8	2.4
Net incurrence of liabilities	1.2	3.1	-0.4	6.5	-4.0	1.8	10.1	-2.8	7.3	4.7	3.1

Source: Federal Ministry of Finance.

Table 6. Switzerland: Bank Soundness Indicators, 2011–21

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Capital Adequacy											
Regulatory Tier 1 capital as percent of risk-weighted assets 1/	15.4	15.7	17.8	16.1	16.6	15.7	18.2	18.3	19.0	19.3	19.1
Regulatory Tier 1 capital as percent of assets	5.5	5.5	6.1	6.9	7.3	7.1	8.0	8.3	8.6	8.1	7.9
Non-performing Loans											
Non-performing loans net of provisions as percent of tier 1 capital	5.4	5.0	4.5	3.7	3.8	3.9	3.0	3.2	3.0	3.4	3.1
Non-performing loans as percent of total gross loans	0.8	0.8	0.8	0.7	0.7	0.7	0.6	0.7	0.6	0.8	0.7
Return on Assets											
	...	0.1	0.3	0.1	0.2	0.3	0.3	0.4	-0.1	0.4	0.5
Liquidity Coverage Ratio											
	33.9	35.4	47.4	47.4	140.3	152.7	150.9	158.3	160.6	179.2	177.6
Asset Quality and Exposure											
Non-performing loans as percent of gross loans	0.8	0.8	0.8	0.7	0.7	0.7	0.6	0.7	0.6	0.8	0.7
Sectoral distribution of bank credit to the private sector (percent)											
Households	67.3	66.9	66.2	66.6	67.6	67.4	67.6	67.2	66.9	66.1	66.1
Agriculture and food industry	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.8	0.8
Mining and Quarry	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1
Manufacturing	3.2	3.0	2.6	2.4	2.2	2.1	2.1	2.1	2.0	2.0	1.9
Utilities	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5
Construction	1.6	1.6	1.6	1.5	1.6	1.5	1.6	1.6	1.6	1.7	1.7
Retail	3.1	3.0	2.7	2.8	2.5	2.7	2.5	2.6	2.4	2.6	2.7
Hotels and restaurants / Hospitality sector	1.0	1.0	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.9	0.8
Transportation & Storage	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.8	0.7	0.7	0.7
Info & Comm, Real Estate; Professional, Scientific & Admin. Activities	12.2	12.6	13.0	13.2	13.2	13.4	13.6	13.9	14.2	14.5	14.8
Finance and Insurance	5.0	5.2	5.7	5.3	4.8	4.7	4.7	5.0	5.4	5.7	5.8
Public Administration and Defence	1.7	1.7	2.3	2.3	2.3	2.3	2.0	1.9	1.8	1.7	1.6
Education	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Health & Social services	1.2	1.3	1.3	1.4	1.4	1.5	1.5	1.5	1.4	1.5	1.4
Art and Entertainment	1.0	1.0	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0
Extraterritorial Organization	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: Swiss National Bank.

1/ Based on parent company consolidation. This consolidation basis equals the CBDI approach defined in FSI compilation guide plus foreign bank branches operating in Switzerland, and minus overseas deposit-taking subsidiaries.

Annex I. Status of Previous Article IV Recommendations

2021 Article IV Recommendations	Policy Actions
Fiscal Policy	
<p>Avoid early withdrawal of fiscal support, with adjustments under the fiscal framework (longer offset for COVID-19 spending, limiting spending underruns).</p> <p>Keep fiscal policy accommodative until there are signs of sustained recovery; expand support if needed.</p> <p>Enhance, where possible, fiscal support for green-digital transition, building on existing programs and plans and with attention to low-income earners.</p>	<p>Covid support continued in 2021 (1.9 percent of GDP, compared to 2.1 percent in 2020). It will be scaled back in 2022, but remain sizable (0.9 percent of GDP).</p> <p>The Federal Council (FC) has proposed to use future financial surpluses to amortize Covid-related extraordinary expenditures, extending the deadline to 2035.</p> <p>Fiscal policy has been accommodative since the outbreak of the pandemic. Outlays related to the war in Ukraine (e.g., to support refugees) have been included in 2022.</p> <p>While no provisions were made for additional spending, new measures have been proposed to supplement the existing CO₂ levy with targeted incentives and investment, especially in transport and the building sector. The FC is preparing a framework for green government bonds. A “Framework Conditions for the Digital Economy” report is being updated.</p>
Monetary Policy	
<p>Keep monetary policy accommodative, in light of uncertainties and risks of an extended period of very low or negative inflation.</p> <p>Continually review the monetary framework and tools to consider whether adjusting targets and instruments would help respond to new challenges.</p>	<p>The SNB kept monetary policy accommodative in 2021 (policy rate of -0.75 percent), with some finetuning (allowing the Covid-19 refinance facility and USD liquidity support to diminish, adjusting FX market operations).</p> <p>The SNB has been continually reviewing its monetary policy framework, instruments, and developments and prospects of monetary conditions.</p>
Financial Sector Policy	
<p>Closely monitor financial sector risks (Covid-19 losses, search-for-yield, leveraged exposures, residential and commercial real estate), with new measures as needed.</p>	<p>FINMA and SNB have closely monitored risks. The CCyB for residential mortgages was reactivated and increased. Remedial actions have been taken following recent high-profile cases, and enforcement proceedings are ongoing. Enhanced special liquidity requirements for systemically-important banks (SIBs) were introduced, and a proposal for a public liquidity backstop has been planned.</p>
Structural Reforms	
<p>Protective labor policies in the near term to limit scarring and inequality, with increased focus on mobility and flexibility, in light of ongoing structural changes.</p> <p>More decisive pension reforms (retirement age, conversion rates, pension fund arrangements) to head off emerging financial gaps.</p> <p>Putting in place of a clear, monitorable action plan to support the ambitious new long-term climate strategy.</p>	<p>Covid-related short-time work scheme adjustments and compensation of income losses for self-employed were kept in 2021 and will be phased out in 2022. In addition to continued efforts to strengthen and adapt education, several measures have been proposed or adopted to increase labor force participation, including changes to individual income taxation for married people, a higher limit of the tax deduction for third-party childcare expenses; financial aid for supplementary family childcare; and a vocational consultation program for people over 40.</p> <p>Efforts to reform both Pillar 1 and Pillar 2 have continued (planned or in legislative process). Pillar 1: increase of retirement age for women (64 to 65), additional VAT financing, flexibility in retirement, and incentives to work after 65. Pillar 2: reduction of minimum conversion rate (6.8 to 6), reduction of entry threshold (age, income) and coordination deduction, adjustment of old-age credit rates.</p> <p>The authorities are advancing <i>emission-reduction actions</i> after the revised CO₂ law was rejected in 2021, extending pre-vote measures and targets for 2022–24, revising proposals for 2025–30, and devising plans for 2030–2050. The 2025–30 proposals focus on regulation, incentives, subsidies, and investment.</p>
<p>Source: IMF staff.</p>	

Annex II. Implementation of FSAP (2019) Recommendations

The authorities are continuing to implement 2019 FSAP advice. FINMA should make further progress in ensuring risk-focused, in-depth, forward-looking supervision, filling resource gaps, and stepping up system-wide analysis of fast-moving activities in fintech, AM, and FMIs. The authorities should strengthen the macroprudential framework by broadening the toolkit to address rising vulnerabilities in the real estate and mortgage markets. They should fill gaps in recovery and resolution planning of too-big-to-fail institutions, including FMIs (particularly after the launch of SDX), and better monitor and manage asset management concentration risk and pension fund systemic risks. They should operationalize the public liquidity backstop to ensure funding under resolution for systemically important banks.

Recommendation and Responsible Authority		Timing*	Implementation ¹
1.	Strengthen FINMA's autonomy, governance, and accountability, and preserve the primacy of its prudential mandate. (FDF/FINMA; ¶32–34)	C	Partly taken into account in the 2020 Ordinance to the Financial Market Supervision Act. Steps are needed to lessen the Federal Council's oversight of FINMA and to strengthen FINMA autonomy, governance, and accountability.
2.	Increase resources for high-quality data gathering and analysis of financial system risks, especially for the fast-moving fintech sector, and to advance recovery and resolution planning. (SNB/FINMA/OAK BV; ¶15, ¶29, ¶36 ¶41, ¶51, ¶54, ¶58, ¶63)	MT	Progress has been made in some areas (fintech, asset management, recovery and resolution planning, FMIs), but gaps remain. This recommendation remains a key topic of in the ongoing policy dialogue.
Financial Stability Policy Framework			
<i>Macroprudential</i>			
3.	Expand the macroprudential toolkit with mandated supply- and demand-side tools, and strengthen accountability and expectations to act in decision-making. (SNB/FINMA/FDF; ¶35–36)	ST	New mandated tools have not been introduced in the macroprudential toolkit, but adjustments will be considered in the context of Basel III implementation.
<i>Banking</i>			
4.	Ensure that FINMA—rather than banks—contracts and pays directly for supervisory audits using 'audit-level' practices in critical areas. (FDF/FINMA; ¶38)	ST	FINMA can directly contract for supervisory audits, but the bank pays the bill. On audit depth, for risks rated very high, FINMA performs 'audit level' reviews. No additional progress has been made.
5.	Focus supervisory audits and increase FINMA's risk-based on-site inspections. (FINMA; ¶38)	ST	FINMA has adjusted its supervisory approach by guiding external auditors to follow a more risk-focused approach, working more closely with external auditors, and increasing the number of on-site inspections (supervisory reviews and deep dives).

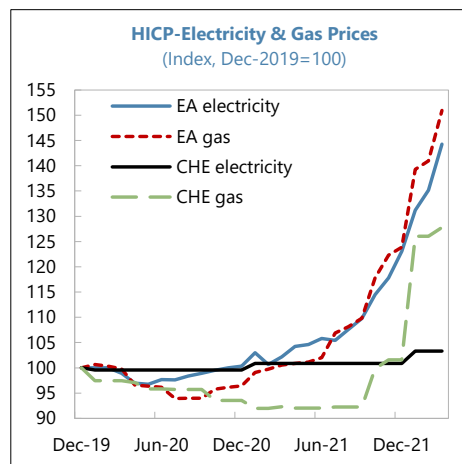
Recommendation and Responsible Authority		Timing*	Implementation ¹
6.	Strengthen assessments of key risk management and control practices. (FINMA; ¶139)	MT	Progress has been made by integrating measures identified in FINMA Risk Barometer into the supervisory planning process, by formalizing the internal risk assessment process through a 'risk inventory', and by influencing bank remediation plans. Additional measures are needed to strengthen <i>ex ante</i> governance assessments and feed them into supervisory action.
<i>Financial Market Infrastructures</i>			
7.	Strengthen recovery and resolution planning for financial market infrastructures (FMIs). (FINMA/SNB/SIX; ¶149)	I	Progress has been made in approving recovery plans for SIX x-clear and SIX SIS for the first time, subject to conditions. The preferred resolution strategy for SIX x-clear has been defined. But final approval of recovery plans and development of resolution strategies is still ongoing.
8.	Improve independence of FMIs governance arrangements. (SNB/SIX; ¶148)	ST	Limited progress has been made in the context of consolidated supervision to ensure FMIs governance and autonomy in risk management in crisis situations. Analysis and discussions are ongoing.
<i>Asset Management</i>			
9.	Better monitor and manage concentration risk of regulated funds, and empower FINMA to impose administrative fines. (FDF/FINMA; ¶152–53)	ST	Legislation with additional requirements for risk monitoring has been approved by Parliament. Discussions on additional monitoring, including of concentration risks, are ongoing. The authorities do not intend to empower FINMA to impose fines.
<i>Fintech and Crypto-Assets</i>			
10.	Enhance the monitoring of activities and address regulatory gaps. (FDF/FINMA; ¶158–59)	ST	The authorities have stepped up supervision and monitoring of fintech and crypto activities. The DLT Act entered into force in 2021 making Switzerland a pioneer in DLT trading by recognizing transfer of ledger-based securities as legally valid without physical transfer or book-entry, and by allowing DLT-based FMIs to admit non-financial intermediaries to trade DLT securities. The law provides legal certainty in insolvency law by regulation the segregation of cryptoassets in the event of bankruptcy.

Recommendation and Responsible Authority		Timing*	Implementation ¹
Financial Safety Net and Crisis Management			
11.	Enhance, expand, and expedite recovery and resolution planning, including resolvability. (FDF/FINMA; ¶63–66)	ST	Partial progress made. FINMA approved GSIB recovery plans, and banks made further progress on their global resolvability. FDF will submit a new incentive setting for GSIBs to become and remain resolvable to public consultation in 2022. Emergency plans to guarantee the resolvability of other systemic banks are not ready. An evaluation to extend the RRP to non-SIBs is being conducted.
12.	Thoroughly reform the DIS with a public DIA that is included in the crisis management framework, ex-ante DIS funding, and the authority to use deposit insurance funds for resolution funding, subject to safeguards. (FDF; ¶67–68)	MT	Current reforms fall short of international norms regarding a public DIA, <i>ex ante</i> DIS funding, and use of deposit insurance funds for resolution funding. The authorities do not intend to overhaul the DIS as recommended. At the same time, the FC is planning to expand its toolkit by establishing a 'public liquidity backstop' to ensure funding under resolution of systemically important banks.
* C = Continuous; I = Immediate (within one year); ST = Short Term (within 1–2 years); MT = Medium Term (within 3–5 years).			
¹ Based on information provided by the Swiss authorities.			

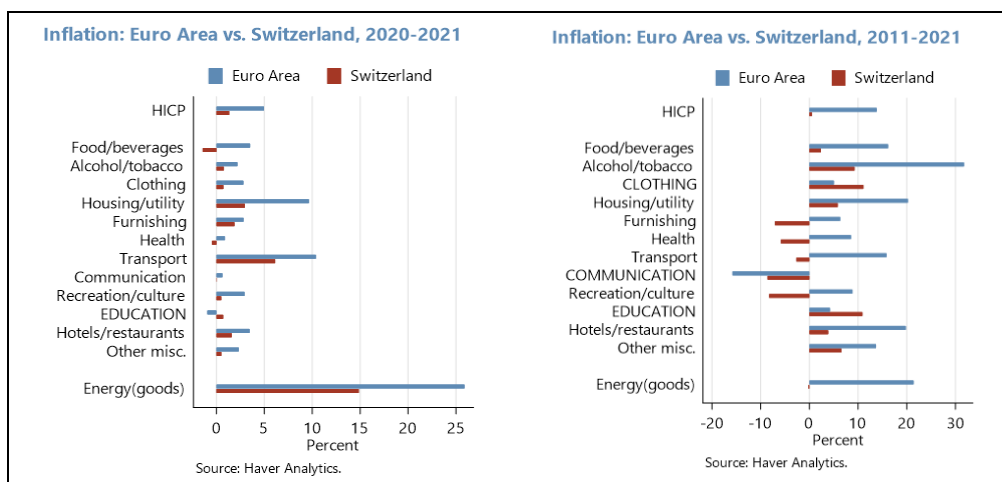
Annex III. Inflation in Switzerland: Why is it Rising, but by Less than in Other Advanced Economies?¹

Inflation has been low or negative for several years; in recent months, the inflation pickup has been less than elsewhere in Europe or the U.S. This reflects several factors. Risks of inflation above the 0–2 percent range have increased.

1. Inflation has risen, although less than in the euro area (EA). Headline inflation through April was 2.5 percent versus 7.5 percent in the EA (8.3 percent in U.S.). The contribution of energy has been smaller, with a lower basket-weight, a larger share of administered energy prices, and electricity more from hydro/nuclear than hydrocarbons. Fuel/lubricant prices have developed similarly to the EA. The 2021 PPI-inflation differential was larger: 1.2 percent in Switzerland; 9.7 percent in the EA.



2. Global drivers have been present: recovery to pre-Covid levels for air travel/hotels; global bottlenecks for computer chips/vehicles; higher costs for commodities and shipping.



3. Administered prices are another factor. A higher share of Swiss non-energy prices are administered (27.6 percent vs. 10.5 percent in the EA). In Switzerland, non-energy administered prices declined by 1.2 percent on average during 2014–21, but increased by 10.2 percent in the EA. The influence of administered prices may be larger than their weight, due to competition and second-round effects.

¹ Prepared by Svitlana Maslova and Li Zeng.

Text Table. Switzerland and Euro Area: A Comparison of Administered Prices

Switzerland				Euro Area			
	Dec. 2014 index level	Dec. 2021 index level	Inflation (%)		Dec. 2014 index level	Dec. 2021 index level	Inflation (%)
Energy (2.7)	99.4	106.2	6.8	Energy (2.8)	101.77	123.64	21.5
Non-energy (27.6)	100	98.8	-1.2	Non-energy (10.5)	98.95	109.01	10.2

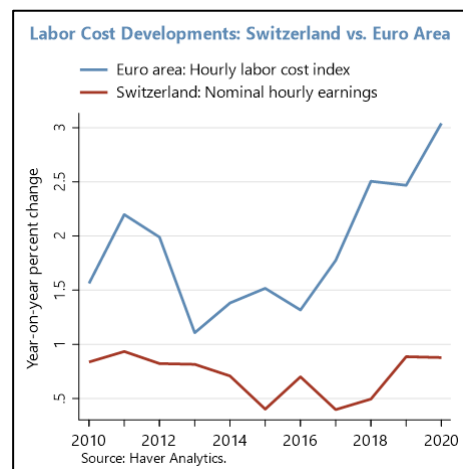
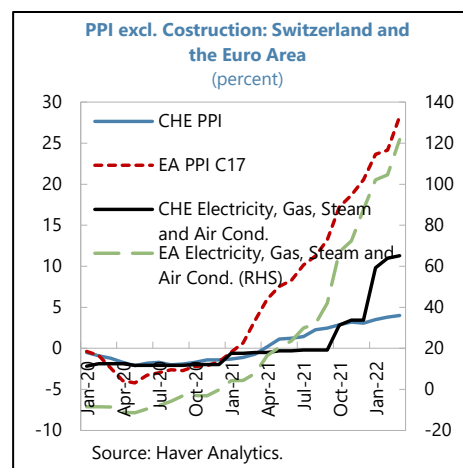
Note: In parentheses are the weights (out of 100) in the HICP basket at the end of 2021.

4. Producer-price inflation, often an early indicator for consumer-price inflation, suggests limited CPI pressures. Producer-price inflation continued to trend up in March, similar to EA developments, although the pickup size differed. Notable differences were in prices of electricity, gas, steam and air-conditioning: EA inflation was 10x higher than in Switzerland. Even for manufacturing, EA prices increased by 4x more than in Switzerland.

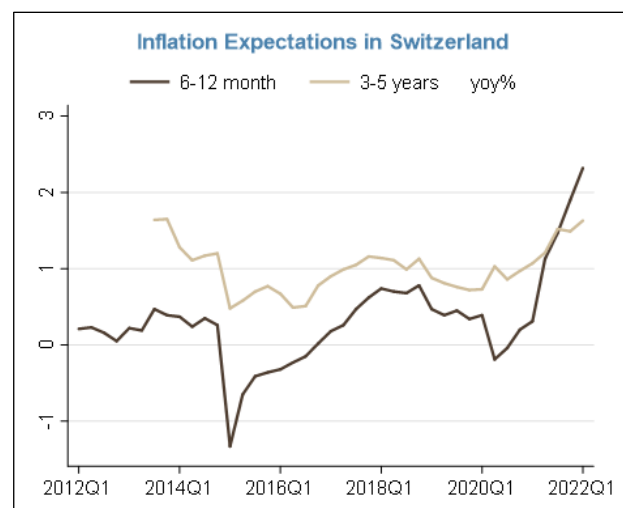
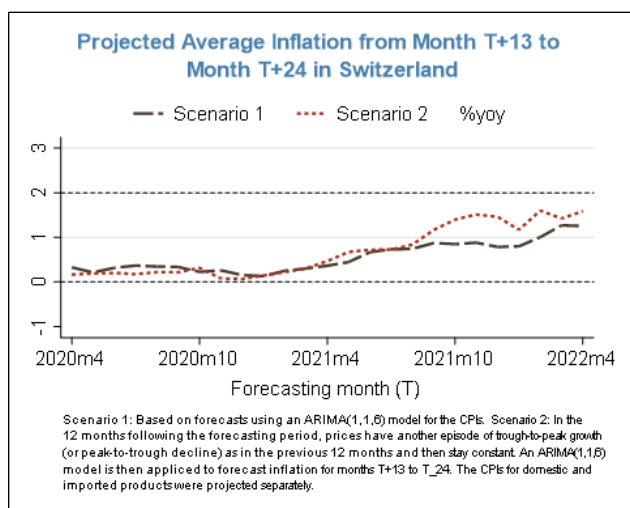
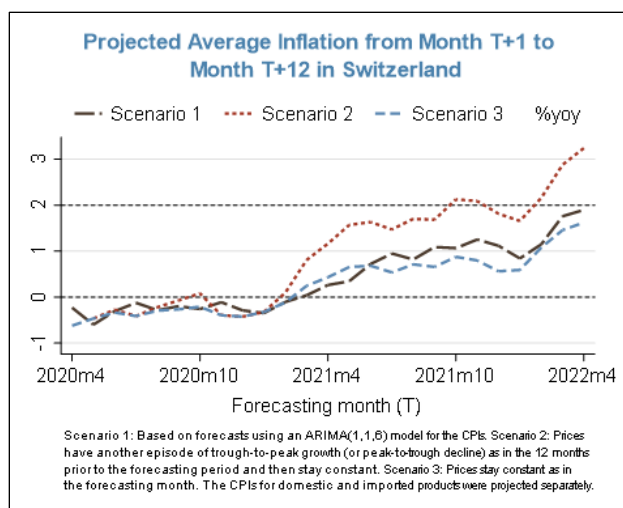
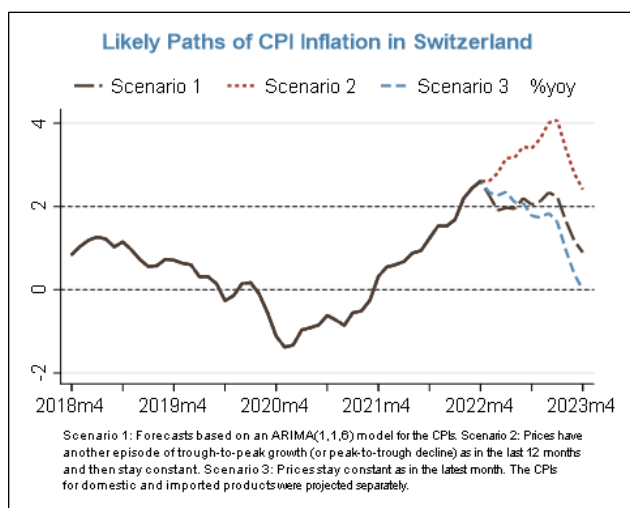
5. The long-term CHF appreciation trend and well-anchored expectations are structural factors that have supported lower inflation. Growth performance and demand pressures have not played a role. In the past decade, Switzerland had better growth performance (17.3 percent actual, vs. 18.4 percent potential) than the EA (9.0 vs. 11.1 percent).

6. Wage pressures are muted. An increase in public salaries by 0.5 percent in 2022 was agreed at the confederation level. Based on the SNB's company survey, a wage increase of 1.6 percent on average is expected in 2022. Still, the labor market has tightened, and firms see recruitment as a key challenge.

7. Updated forecasts suggest that inflation will likely average above 2 percent in 2022. Forecasts based on an ARIMA model or the assumption that prices will stay constant at the latest observed levels both suggest inflation averaging 2.1 percent in 2022 (see Scenarios 1 and 3 in "Likely Paths of CPI Inflation in Switzerland"). If both domestic and import prices experience another trough-to-peak rise as in the previous 12 months, 2022 average inflation will be close to 3 percent (Scenario 2). This outlook reflects a gradual but steady rise since the early stage of Covid-19 (see "Projected Average Inflation from Month T+1 to Month T+2 in Switzerland").



8. While the breach of 2 percent may still be temporary, risks of persistently-higher inflation have increased. Extending the 12-month-ahead forecasts using an ARIMA model shows that, under Scenarios 1 and 2, medium-term inflation will remain within the 0–2 percent band (see “Projected Average Inflation from Month T+13 to Month T+24 in Switzerland”). On the other hand, factors such as the war in Ukraine, Covid developments in China, and rising inflation expectations suggest that prices may continue to face upward pressures, even in the medium term, rather than returning to a steady, moderate trend as implied by the ARIMA model.



Annex IV. External Sector Assessment

<p>Overall Assessment: Switzerland's external position in 2021 was assessed as broadly in line with the level implied by medium-term fundamentals and desirable policies. However, complex measurement issues and data lags complicate the assessment.¹</p> <p>Potential Policy Responses: To maintain a broadly-balanced external position, fiscal policy should remain broadly balanced in structural terms, in line with the authorities' debt-brake rule framework, accommodating additional spending related to the war in Ukraine (e.g., accommodation of refugees) and continuing Covid-19 support to vulnerable households/firms where needed. The required offset of extraordinary Covid-19-related spending via future fiscal surpluses should be extended to avoid excessive headwinds to sustained recovery. With risks rising of persistently higher inflation, the SNB should monitor closely inflation developments and prospects, including at the international level, and stand ready to adjust FX market operations and policy interest rates if needed. Inflation gaps versus the euro area and the U.S. suggest possible room for franc appreciation to ease inflation pressures. If significant downside risks materialize (e.g., large safe-haven inflows, deep and/or sustained downturn), the authorities should consider targeted FXIs to mitigate disruptive volatility, and allow full operation of the structural-balance fiscal rule and/or temporary discretionary fiscal stimulus. Macroprudential policies should focus on containing real estate imbalances and reducing financial sector risks. Medium-term policies should be geared to ensuring balanced domestic and external contributions to growth, while improving the public-private mix in financial outflows, thereby easing pressures on the franc.</p>							
<p>Foreign Asset and Liability Position and Trajectory</p>	<p>Background. Switzerland is a major financial center with a large, positive NIIP of 89.8 percent of GDP and large gross foreign asset and liability positions of 753.1 and 663.3 percent of GDP, respectively, at end-2021. The NIIP reflects both a history of large CA surpluses and valuation changes.² Valuation changes reflect fluctuations of exchange rates (ERs) and prices of securities and precious metals that interact with differences among assets and liabilities in terms of currencies and instruments.³ Compared with 2020, the NIIP declined in 2021 by 18.5 percentage points of GDP, mainly driven by negative valuation effects due to price changes. Projections of the NIIP in 2022 and beyond are complicated by heightened uncertainty: because of the large gross positions and compositional differences among assets and liabilities, even modest changes in ERs, asset prices, and returns may have a material effect on the NIIP.</p> <p>Assessment. Switzerland's large gross liability position and the volatility of financial flows and investment returns present some risk, but this is mitigated by the large gross asset position and the CHF denomination of about two-thirds of external liabilities.</p>						
2021 (% GDP)	NIIP: 89.8	Gross Assets: 753.1	Reserve Assets: 136.5	Gross Liab.: 663.3	Debt Liab.: 205.6		
<p>Current Account</p>	<p>Background. Switzerland's CA surpluses averaged 7.2 percent of GDP during 2011–20.⁴ The CA surplus increased in 2021 to 9.3 percent of GDP, from 2.8 percent in 2020, reflecting reversal of some Covid-linked shocks (e.g., watch exports, precious metals trade), continued strong pharmaceutical sector performance, and a surge in the surplus on merchanting trade, likely related the sharp rise of commodity prices. In 2022, the CA surplus is expected to moderate to 6.3 percent of GDP, slightly below the medium-term average.</p> <p>Assessment. The EBA CA norm of 6.7 percent of GDP is higher than last year's norm. Based on a cyclically-adjusted CA surplus of 9.8 percent and the norm, the overall EBA-estimated CA gap equaled +3.1 percent of GDP in 2021.⁵ Domestic policy gaps account for -1.8 percentage points and include excessive private sector credit -1.7 pp and fiscal overspending -0.2 pp; policy gaps in the rest of the world contribute +1.3 pp. Adjustments for: (i) specific factors relevant for Switzerland that are not treated appropriately in the income account—namely valuation losses on fixed-income securities arising from inflation (-3.3) and retained earnings on portfolio equity investment (-0.1), and (ii) transitory impacts of the COVID-19 pandemic (-0.6), reduced the gap to -0.9 percent of GDP (± 0.8 percentage points).⁶</p>						
2021 (% GDP)	CA: 9.3	Cycl. Adj. CA: 9.8	EBA Norm: 6.7	EBA Gap: 3.1	COVID-19 Adj.: -0.6	Other Adj.: -3.4	Staff Gap: -0.9
<p>Real Exchange Rate</p>	<p>Background. CHF appreciation pressure eased in 2021 with recovery of the global economy and expectation that major central banks including the U.S. Fed might hike policy rates to tackle high inflation. Relative to 2020, the average NEER stayed virtually unchanged, while the CPI- and PPI-based REERs depreciated by 2.4 and 8.9 percent, respectively.⁷ In the first quarter of 2022, while the average NEER and CPI-based REER appreciated by 2.7 and 0.6 percent, respectively, the PPI-based REER depreciated by 9.6 percent. From a long-term perspective, the NEER has appreciated by 38 percent since 2010, while the CPI- and PPI-based REERs have appreciated by 6 percent and depreciated by 9 percent, respectively (reflecting lower domestic inflation).</p> <p>Assessment. The staff CA gap implies REER overvaluation of 1.9 percent in 2021 (applying an elasticity of 0.47). The EBA REER index and level models suggest that the average REER in 2021 was overvalued by 11.6 and 16.3 percent, respectively, with policy gaps accounting for a small amount of the total gap. This finding largely reflects a "reversion to trend" property of the empirical model in the context of prior rapid appreciation episodes. However, due to measurement issues, the results may not fully capture a secular improvement in productivity, especially in knowledge-based sectors. Consistent with the staff CA gap, staff assess the REER gap in 2021 to be in the range of +0.2 percent and +3.6 percent (overvalued), with a midpoint of +1.9 percent.</p>						
<p>Capital and Financial Accounts: Flows and Policy Measures</p>	<p>Background. Net financial outflows totaled 3.7 percent of GDP in 2021, including private inflows of 2.3 percent of GDP and an increase in SNB reserve assets of 6.0 percent of GDP. During 2009–20, net private inflows averaged 2.9 percent of GDP, while the average annual increase in SNB reserves was 10.5 percent of GDP.</p> <p>Assessment. Financial flows are large and volatile, reflecting Switzerland's status as a financial center and safe haven. From a long-term perspective, sizable net private financial outflows prior to the global financial crisis have declined, and on average, turned into net capital inflows, adding to appreciation pressures.</p>						
<p>FX Intervention and Reserves Level</p>	<p>Background. Official reserve assets (including gold) amounted to US\$1,110 billion (137.4 percent of GDP) at end-2021, up US\$26 billion from end-2020 (including valuation changes). The SNB purchased CHF21 billion of FX (net) through FXIs in 2021, down from CHF110 billion in 2020.</p>						

	<p>Assessment. Reserves are large relative to GDP, but more moderate in comparison with short-term foreign liabilities. The high level of reserves also reflects monetary operations aimed at avoiding persistent undershooting of inflation as a result of FX inflow surges and given the limited scope for significant easing via other monetary policy tools. The supply of domestic assets for purchase is limited, and the marginal interest rate on bank deposits at the SNB of -0.75 percent is already the lowest in the world. The SNB's initiation of quarterly publication of (net) FXI information in 2020 was an important step to enhance transparency.</p>
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¹ Due to large revisions to historical BOP and IIP data, particular caution is needed when comparing external sector assessments for different periods. For example, in the December 2021 BOP release (after the publication of the 2021 ESR), net incurrence of direct investment liabilities in 2020 was revised from CHF129 billion in the March 2021 BOP release (prior to the publication of the 2021 ESR) to CHF245 billion, contributing to a large downward adjustment to the end-2020 direct investment foreign liabilities in the IIP. Please also see the 2021 ESR for details on major BOP and IIP revisions in 2020.

² Other stock-flow adjustments include changes in statistical sources, such as changes in the number of entities surveyed and items covered, although their quantitative importance is not known.

³ As a result, an appreciation (depreciation) of the Swiss franc has a negative (positive) effect on the NIIP, whereas a symmetric percentage increase in share prices in Switzerland and abroad would reduce the NIIP.

⁴ At the time of the previous assessment, this average was 8.2 percent of GDP. The change was due to revisions to historical BOP data.

⁵ Part of the positive EBA CA gap may reflect institutional pension features, such as replacement and coverage rates, in Switzerland rather than other economic policy gaps.

⁶ The underlying CA is adjusted for Switzerland-specific factors in the income account : (1) retained earnings on portfolio equity investment that are not recorded in the income balance of the CA (or, the PE RE bias) under the sixth edition of the IMF *Balance of Payments and International Investment Position Manual (BPM6)*, and (2) recording of nominal interest on fixed income securities under the *Balance of Payments Manual* framework, which compensates for expected valuation losses (due to inflation and/or nominal exchange rate movements), even though this stream compensates for the (anticipated) erosion in the real value of debt assets and liabilities. The PE RE bias was estimated using the "stock method" and "flow method" as explained in "*The Measurement of External Accounts*" (IMF Working Paper 19/132), and it is similar in size to estimates based on the SNB's pilot *BPM7* data.

In addition, the CA balance is also adjusted for transitory impacts of the COVID-19 pandemic on trade of goods and services, including adjusters for (i) tourism (0.0 ppts); (ii) transport (-0.1 ppts); (iii) household consumption composition shift (-0.5 ppts); (iv) medical products (0.0 ppts). Adjusting for these COVID-19 related effects, the underlying CA would need to be reduced by about 0.6 percent of GDP.

⁷ Prices of energy products, especially gas prices, were a main driver underlying the PPI inflation differentials between Switzerland and other advanced economies such as the euro area and the U.S. If core PPIs excluding energy products were used, the depreciation of the PPI-based franc REER in 2021 and early 2022 would be smaller.

Annex V. Possible Implications of the War in Ukraine¹

1. Exposures. Direct exposure to Russia and Ukraine is modest, via energy (including through neighboring countries), merchanting, and the financial sector. Trade constitutes a small share of total trade.² Tourists declined sharply during Covid-19. Net remittances (Russia) are small, despite large gross flows. Half of natural gas comes from Russia (via EU countries) and is used mainly in home heating. Natural gas is just 15 percent of the energy mix; 90 percent of electricity comes from nuclear, hydro, and renewables. Some uranium comes from Russia, but there are other suppliers and sizeable stocks. At the outset of the war, banks had exposure to Russia on both sides of the balance sheet; outstanding claims of Swiss banks on Russian borrowers were \$3.9 billion (0.5 percent of GDP; 0.1 percent assets). The size of indirect exposures is uncertain, given prime-brokerage activities, off-balance sheet positions (derivatives, assets under management), connections with commodity-trade finance (Russian commodity trade is conducted via Swiss-based firms), and use of offshore entities for transactions.^{3,4} Some Russian banks have Swiss subsidiaries (Gazprombank, Sberbank).⁵ Before the war, the Bank of Russia reportedly held 2 percent of its balances (~\$10 billion) in Switzerland (outside SNB); the SNB held a very small stake of Russia-connected securities.

Text Table. Switzerland: Exposure to Russia and Ukraine
(percent of GDP)

	Goods Trade		Services Trade		Direct Investments		Portfolio investment		Banks		Remittances		Tourist arrivals
	Exports	Imports	Receipts	Expenses	Inward	Outward	Assets	Liabilities	Assets	Liabilities	To	From	
Russia	0.4	0.0	0.3	0.1	1.7	4.5	0.5	0.1	0.4	2.1	1.1	0.8	0.7
Ukraine	0.1	0.0				0.5	0.0		0.0	0.3	0.0		0.2

Sources: Haver Analytics, central banks, and IMF staff calculations.

Notes: The data presented is mostly for 2020, except for goods trade (2021), and tourist arrivals (2019). Goods' trade data excludes trade in precious metals. Cross-border transfers for individuals are shown as remittance for Russia. Tourist arrivals are in percent of total tourist arrivals.

2. Sanctions. Switzerland has adopted nearly all EU sanctions on Russia/Belarus. In 2014, Switzerland did not adopt EU sanctions, but took steps to prevent circumvention via Switzerland. Among the sanctions are: (i) travel bans, asset freezes, and funding prohibition for designated individuals/entities; (ii) financing restrictions on the Russian government and central bank; (iii) sanctions on Russian banks and SOEs; (iv) prohibition on sale, supply, transfer, or export of certain goods/technologies and services; and (v) airspace closure. Merchanting is excluded. The authorities have introduced a special status for Ukrainian refugees.

¹ Prepared by Svitlana Maslova.

² Based on Swiss data on trade in goods excluding precious metals, imports from Russia were CHF 270 million in 2021; Russian data showed exports to Switzerland of USD 2.8 billion.

³ The Swiss Banking Association has suggested that Swiss financial institutions may hold CHF150–200 billion of Russian-client funds (~2½ percent of AuM).

⁴ Traders finance three-quarters of trades via banks, usually secured by commodity liens, with price volatility a key risk. Overall exposure to traders (Russia/non-Russia) was CHF 3.3 bn at UBS (0.9 percent of loans), and CHF 14.6 bn at CS (5 percent).

⁵ Sberbank's Swiss subsidiary was not part of Sberbank Europe AG (which lost its license in March).

3. Impacts. Direct and indirect exposures are expected to put downward pressures on growth, push inflation higher, and lower the current account surplus. An immediate impact was market volatility, flight to safety, and CHF strengthening. Swiss companies and multi-nationals prominent in Switzerland reduced their presence in Russia. About 50,000 refugees were registered by mid-May.

4. Risks. Risks are to the downside, especially from a protracted/wider conflict. Flight to safety could resume with CHF appreciation pressures. Rising food and energy/commodity prices or supply disruptions could depress activity, although higher commodity prices and increased volatility may benefit traders. Prior to the war, traders based in Switzerland played an important role in the export of hydrocarbons and other commodities from Russia. The largest firms hedged transactions and may refocus operations to other suppliers. All traders may face difficulties if there is a full embargo on commodities from Russia (including trade-related services), with specialty/smaller traders that focused primarily on Russia particularly exposed. As traders and merchanting firms borrow from banks, a decline in activity/profits and outright losses could affect the banking system.⁶ Public and private buffers appear sufficient to mitigate impacts.

⁶ It is difficult to provide concrete estimates, given the closely-held nature of the trade, the extent of hedging and price developments, and coverage of sanctions and the evolving situation. The firms have a relatively small footprint in terms of employment.

Annex VI. Risk Assessment Matrix¹

Source of Risks	Relative Likelihood	Time Horizon	Expected Impact	Policy Response
Global Risks				
Russia's invasion of Ukraine leads to escalation of sanctions and other disruptions. Sanctions on Russia are broadened to include oil, gas, and food sectors. Russia is disconnected almost completely from the global financial system and large parts of the trading system. This, combined with Russian countersanctions and secondary sanctions on countries and companies that continue business with Russia, leads to even higher commodity prices, refugee migration, tighter financial conditions, and other adverse spillovers, which particularly affect LICs and commodity-importing EMs.	High	ST	High Switzerland is a financial center and safe haven. Flight to safety would lead to appreciation pressures. Franc appreciation adds to deflation and affects competitiveness and growth. Vulnerable households and firms may also be affected via energy prices, as well as the financial sector and others (e.g., commodity traders with links to Russia).	For safe-haven flows, use targeted FXIs to moderate market conditions. Provide temporary, discretionary fiscal stimulus if a downturn is deep or sustained. Further enhance the anti-corruption and AML/CFT frameworks to protect the financial sector against inflows from foreign illicit proceeds. Financial sector buffers are strong.
Rising and volatile food and energy prices. Commodity prices are volatile and trend up amid supply constraints, war in Ukraine, export restrictions, and currency depreciations. This leads to short-run disruptions in the green transition, bouts of price and real sector volatility, food insecurity, social unrest, and acute food and energy crises (especially in EMDEs with lack of fiscal space).	High	ST	High Besides direct effects, increasing energy prices would depress profit margins, prompting a transmission to consumer prices and decreasing income of households. Rising energy and food prices would hit poor households hard.	Consider normalization of monetary policy. Provide support to low-income households. Prepare contingency plans in case energy suppliers face in liquidity challenges. Accelerate green energy transition.
Outbreaks of lethal and highly contagious Covid-19 variants. Rapidly increasing hospitalizations and deaths due to low vaccine protection or vaccine-resistant variants force more social distancing and/or new lockdowns. This results in extended supply chain disruptions and a reassessment of growth prospects, triggering capital outflows, financial tightening, currency depreciations, and debt distress in some EMDEs.	Medium	ST	Medium Stricter containment measures in Switzerland and abroad would lead to lower GDP growth, larger sales losses, and higher likelihood of bankruptcy, likely with concentration in contact-intensive sectors and transport.	Allow countercyclical support. Implement targeted measures for the most affected households and companies. Monitor and relieve liquidity stress and solvency risk if they occur.

¹ The Risk Assessment Matrix (RAM) shows events that could materially alter the baseline path (the scenario most likely to materialize in the view of IMF staff). The relative likelihood is the staff's subjective assessment of the risks surrounding the baseline ("low" is meant to indicate a probability below 10 percent, "medium" a probability between 10 and 30 percent, and "high" a probability between 30 and 50 percent). The RAM reflects staff views on the source of risks and overall level of concern as of the time of discussions with the authorities. Non-mutually exclusive risks may interact and materialize jointly. ST is 12–18 months.

Source of Risks	Relative Likelihood	Time Horizon	Expected Impact	Policy Response
De-anchoring of inflation expectations in the U.S. and/or advanced European economies. Worsening supply-demand imbalances, higher commodity prices (in part due to war in Ukraine), and higher nominal wage growth lead to persistently higher inflation and/or inflation expectations, prompting central banks to tighten policies faster than anticipated. The resulting sharp tightening of global financial conditions and spiking risk premia lead to lower global demand, currency depreciations, asset market selloffs, bankruptcies, sovereign defaults, and contagion across EMDEs.	Medium (US) Medium/Low (Euro area)	ST	Low Inflationary pressures are well contained in Switzerland, although de-anchoring in the U.S. or Europe may lead to capital inflows and CHF appreciation pressures.	If de-anchoring in the U.S. and Europe leads to similar developments in Switzerland, tighten monetary policy. Allow the franc to appreciate. If there are sharp/volatile inflows and pressures on the CHF, conduct targeted FXIs.
Geopolitical tensions and de-globalization. Intensified geopolitical tensions, security risks, and wars cause economic and political disruptions, fragmentation of the international monetary system, production reshoring, a decline in global trade, and lower investor confidence.	High	ST, MT	High While direct exposures are relatively limited, the Swiss economy is highly open and integrated in global trade and capital markets. Disruptions to trade and/or capital flows could have an impact on growth and inflation. Developments could trigger flight to safety and CHF appreciation pressures.	Consider options to diversify trade partners. Strengthen monitoring of the bank and nonbank financial sectors to increase resilience. May need to undertake FXIs in case of strong/volatile safe-haven inflows. In case of downturn, consider fiscal loosening.
Cyberthreats. Cyberattacks on critical physical or digital infrastructure (including digital currency platforms) trigger financial instability or widespread disruptions in socio-economic activities.	Medium	ST, MT	High Swiss economy is highly open and integrated in global trade and capital markets. It is a leader in cross-border asset management and fintech, which may be vulnerable to cyber-attacks.	Take steps to ensure that cyber defenses are robust. Stand ready to provide support to critical infrastructure or institutions in case of attacks. If effects are widespread, consider fiscal and liquidity support.
Switzerland-Specific Risks				
Correction in real estate market and other financial risks.	Medium	ST, MT	Medium / High Low interest rates have encouraged search for yield in real estate. Given the economy's very large exposure to the property market, a decline in property prices or abrupt increase of interest rates could create significant stress for players with large balance sheet exposure. A significant event would pose risks to economic and financial sector stability.	Strengthen macroprudential toolkit, consider introducing regulatory limits on mortgages and coordinate with Swiss Banks Association to tighten self-regulation rules and avoid fire sales triggered by the activation of margin calls. Strengthen bank buffers against the property-related exposure. Assess risks to non-banks (pension funds, asset managers, insurers) and in the

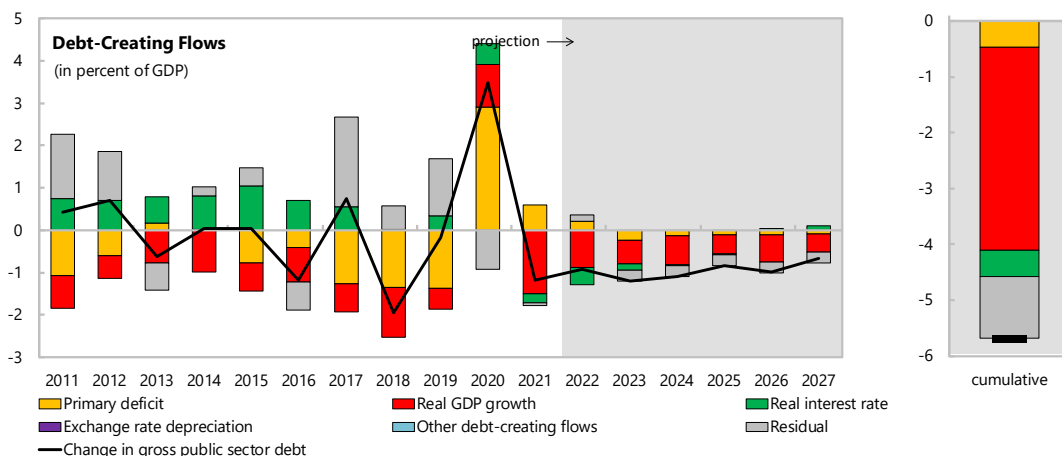
Source of Risks	Relative Likelihood	Time Horizon	Expected Impact	Policy Response
				construction sector. Consider changes to limits on portfolio allocations for pension funds (indicative) and insurance companies. In the event of a sharp downturn, supervisors should ensure that banks use their buffers to absorb losses and keep credit flowing.
Political developments further negatively affect Swiss-EU relations.	Low	ST, MT	Medium Beyond the baseline of disruptions progressively undermining trade, investment, and labor relations with the EU, further negative challenges could emerge.	Seek to limit economic fallout by preserving efficient flows of goods, labor, and financial services with the EU. Continue discussions with the European authorities on a way forward.

Annex VII. Debt Sustainability Analysis

Figure 1. Switzerland: Public Sector Debt Sustainability Analysis—Baseline Scenario
(In percent of GDP, unless otherwise indicated)

	Debt, Economic and Market Indicators ^{1/}										As of May 03, 2022		
	Actual			Projections							Sovereign Spreads		3/
	2011-2019 ^{4/}	2020	2021	2022	2023	2024	2025	2026	2027	EMBIG (bp)	5Y CDS (bp)		
Nominal gross public debt	41.0	42.6	41.4	40.5	39.3	38.2	37.4	36.4	35.7			0	
Public gross financing needs	3.6	7.2	4.9	4.7	4.2	4.5	4.5	4.4	4.3			13	
Net public debt	41.0	42.6	41.4	40.5	39.3	38.2	37.4	36.4	35.7				
Real GDP growth (in percent)	1.9	-2.5	3.7	2.2	1.4	1.8	1.2	1.8	1.2				
Inflation (GDP deflator, in percent)	-0.2	-0.5	1.4	2.0	1.3	1.0	1.1	1.1	1.1				
Nominal GDP growth (in percent)	1.6	-2.9	5.2	4.2	2.8	2.8	2.3	3.0	2.3				
Effective interest rate (in percent) ^{4/}	1.2	0.7	1.0	1.0	0.9	1.0	1.1	1.2	1.4				
										Ratings	Foreign	Local	
										Moody's	Aaa	Aaa	
										S&Ps	AAA	AAA	
										Fitch	AAA	AAA	

	Contribution to Changes in Public Debt										cumulative	debt-stabilizing primary balance ^{9/}
	Actual			Projections								
	2011-2019	2020	2021	2022	2023	2024	2025	2026	2027			
Change in gross public sector debt	-0.2	3.5	-1.2	-0.9	-1.2	-1.1	-0.8	-1.0	-0.7	-5.7		
Identified debt-creating flows	-0.9	4.4	-1.1	-1.1	-0.9	-0.8	-0.6	-0.7	-0.4	-4.6		
Primary deficit	-0.7	2.9	0.6	0.2	-0.2	-0.1	-0.1	-0.1	-0.1	-0.5		
Primary (noninterest) revenue and grant	32.0	33.3	33.5	32.7	32.2	31.9	31.7	31.7	31.7	191.9		
Primary (noninterest) expenditure	31.2	36.2	34.1	32.9	32.0	31.7	31.6	31.6	31.6	191.4		
Automatic debt dynamics ^{5/}	-0.2	1.5	-1.7	-1.3	-0.7	-0.7	-0.5	-0.6	-0.3	-4.1		
Interest rate/growth differential ^{6/}	-0.2	1.5	-1.7	-1.3	-0.7	-0.7	-0.5	-0.6	-0.3	-4.1		
Of which: real interest rate	0.6	0.5	-0.2	-0.4	-0.2	0.0	0.0	0.0	0.1	-0.5		
Of which: real GDP growth	-0.8	1.0	-1.5	-0.9	-0.6	-0.7	-0.4	-0.7	-0.4	-3.6		
Exchange rate depreciation ^{7/}	0.0	0.0	0.0	...	...	...	...	...	...	...
Other identified debt-creating flows	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Residual, including asset changes ^{8/}	0.7	-0.9	-0.1	0.2	-0.3	-0.3	-0.3	-0.3	-0.3	-1.1		



Source: IMF staff.

1/ Public sector is defined as general government.

2/ Based on available data.

3/ Long-term bond spread over German bonds.

4/ Defined as interest payments divided by debt stock (excluding guarantees) at the end of previous year.

5/ Derived as $[(r - \pi(1+g) - g + ae(1+r))/(1+g+\pi+grt)]$ times previous period debt ratio, with r = interest rate; π = growth rate of GDP deflator; g = real GDP growth rate;

a = share of foreign-currency denominated debt; and e = nominal exchange rate depreciation (measured by increase in local currency value of U.S. dollar).

6/ The real interest rate contribution is derived from the numerator in footnote 5 as $r - \pi(1+g)$ and the real growth contribution as $-g$.

7/ The exchange rate contribution is derived from the numerator in footnote 5 as $ae(1+r)$.

8/ Includes asset changes and interest revenues (if any). For projections, includes exchange rate changes during the projection period.

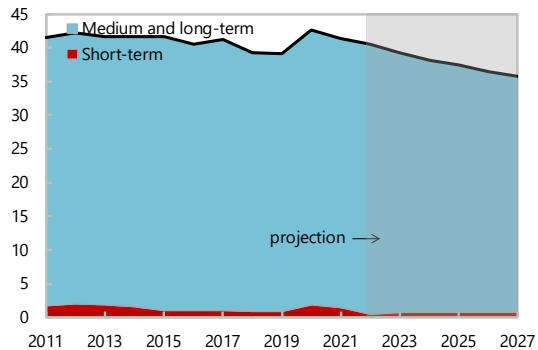
9/ Assumes that key variables (real GDP growth, real interest rate, and other identified debt-creating flows) remain at the level of the last projection year.

Figure 2. Switzerland: Public Debt Sustainability Analysis—Composition of Public Debt and Alternative Scenarios

Composition of Public Debt

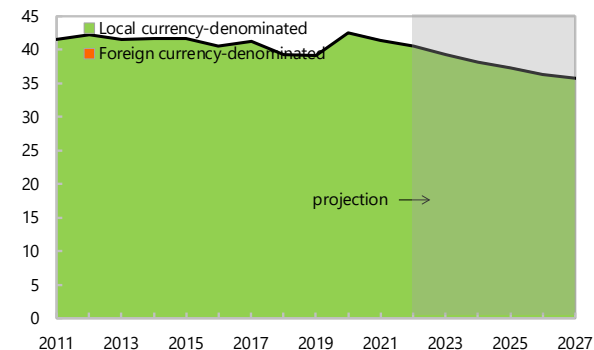
By Maturity

(in percent of GDP)



By Currency

(in percent of GDP)

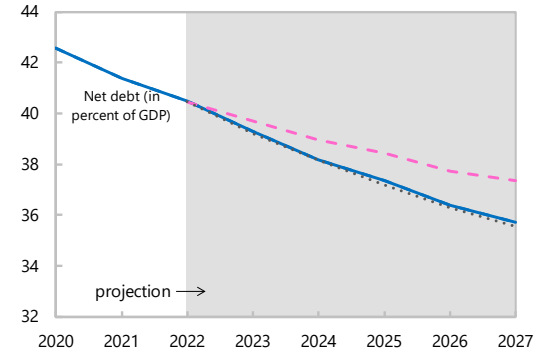


Alternative Scenarios

— Baseline Historical - - - Constant Primary Balance

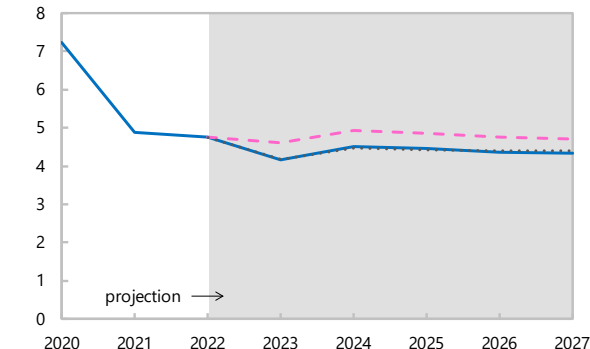
Gross Nominal Public Debt

(in percent of GDP)



Public Gross Financing Needs

(in percent of GDP)



Underlying Assumptions

(in percent)

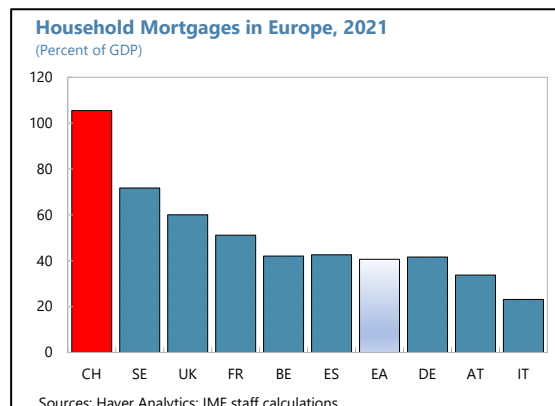
	2022	2023	2024	2025	2026	2027
Baseline Scenario						
Real GDP growth	2.2	1.4	1.8	1.2	1.8	1.2
Inflation	2.0	1.3	1.0	1.1	1.1	1.1
Primary Balance	-0.2	0.2	0.1	0.1	0.1	0.1
Effective interest rate	1.0	0.9	1.0	1.1	1.2	1.4
Constant Primary Balance Scenario						
Real GDP growth	2.2	1.4	1.8	1.2	1.8	1.2
Inflation	2.0	1.3	1.0	1.1	1.1	1.1
Primary Balance	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
Effective interest rate	1.0	0.9	1.0	1.1	1.2	1.4
Historical Scenario						
Real GDP growth	2.2	1.6	1.6	1.6	1.6	1.6
Inflation	2.0	1.3	1.0	1.1	1.1	1.1
Primary Balance	-0.2	0.2	0.2	0.2	0.2	0.2
Effective interest rate	1.0	0.9	1.1	1.4	1.7	2.0

Source: IMF staff.

Annex VIII. Mortgage Risk and Possible Responses¹

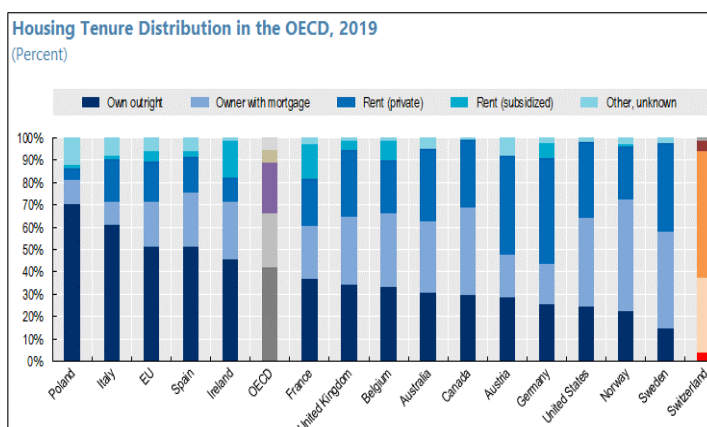
1. The Swiss mortgage market is “too big to fail,” amounting to 150 percent of GDP (2021).²

Household mortgages (110 percent of GDP) are 3 times euro-area levels. Mortgages are 85 percent of total loans, half of bank assets. Most household (95 percent) and corporate loans (65 percent) are mortgages. Markets are thus vulnerable to price corrections. Pension funds and insurers are also increasingly tilted to real estate—23 and 12 percent of assets, respectively.³

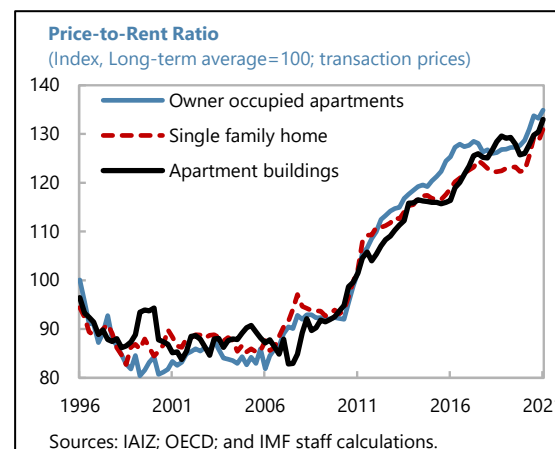


2. The large market is partly driven by non-amortizing loans and tax treatment.

Self-regulation rules introduced in 2012 and adjusted in 2014 and 2020 stipulate mandatory amortization to two-thirds of collateral at origination, over 15 years for owner-occupied mortgages and 10 years for investment mortgages. Mortgages granted before 2012 or with an LTV below two-thirds of collateral value are interest-only, exposing borrowers to rollover risk (on average, mortgages are rolled over 1–5 years after origination) and interest-rate risk.⁴ Homeowners must pay personal income tax on the imputed rental value of property (~70 percent of market value); interest is deductible, providing incentives to hold debt. A tax regime change is under consideration, but unlikely before 2025.⁵



3. Homeownership is relatively low—lowest in the OECD (37 percent), with the highest ratio of



¹ Prepared by Laura Valderrama.

² The ratio has increased from 100 percent in 2003.

³ PFs and insurers are 2 and 4 percent of the mortgage market, respectively.

⁴ One-fifth of mortgages are issued with floating interest rates, mainly in the income-producing segment.

⁵ Abolition of imputed-rent taxation has been discussed since 2017. In 2021, the first parliament chamber adopted a proposal to abolish imputed rent taxation for primary residences and to restrict deductibility of interest expense (with a first-time-buyer phase-out).

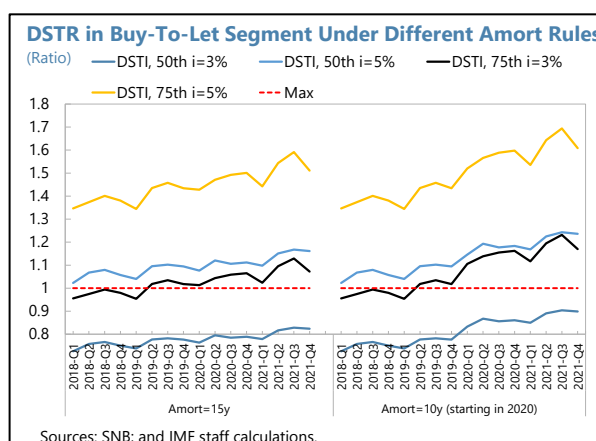
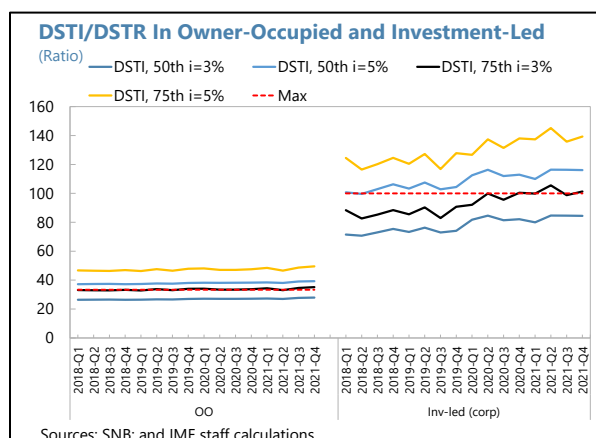
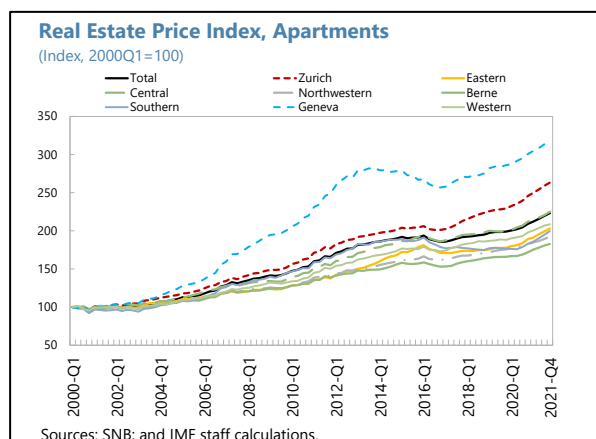
homeowners with outstanding mortgages (90 percent). Ownership increases with income: 28 percent of households in the bottom quintile own a dwelling. Renting at subsidized rates is far less common than in peers (7 percent).

4. There are signs of overheating across all sub-segments.

With negative interest rates since 2015, price growth has resulted in imbalances, and price-rises accelerated during the pandemic. Gains have been particularly strong in Geneva and Zurich. In the owner-occupied segment, strong demand and surging preference for ownership has outpaced supply, as construction remains below pre-Covid levels, Vacancy rates declined, even as investors increasingly turned to residential real estate in search-for-yield.⁶ Residential price-to-income and price-to-rent ratios have increased for privately-owned apartments, single-family homes, and apartment buildings and are 30 percent above long-term averages. SNB estimates of overvaluation range between 5 and 30 percent based on a user-cost model.

5. Despite self-regulation tightening, risk profiles of new mortgages are elevated.

With rising prices and declining rates (by half over ten years), the Swiss Banking Association amended self-regulation rules in 2019 (effective 2020) to require a 25-percent down-payment and shorter mandatory amortization periods of mortgages in excess of 2/3 of property values—from 15 to 10 years—for residential investment properties. Still, as of Q4:2021, 10 percent of new production in the buy-to-let market and 25 percent in commercial investment exceeded 75 percent LTV, high by international standards.⁷ There is no quantitative cap on borrower leverage. The median LTI in the owner-occupied segment,



⁶ The gap between real house price and real household income growth rates rose from 60 bps pre-Covid to 130 bps.

⁷ Some EU countries have set limits on the investment-led segment, including Ireland and Latvia with 70 percent LTV caps, the Czech Republic with a pre-Covid limit of 60 percent (relaxed to 90 percent during the pandemic), and Belgium with an 80 percent threshold (first-time buyers 10 percent exemption).

5.7, is higher than in peers, where the most common LTI threshold is 4.5. High leverage leads to elevated affordability risk.⁸ Staff estimates that a quarter (half) of mortgages could become unaffordable if rates increase to 3 percent (5 percent) across all sub-segments. The average mortgage rate is 1.2 percent, and long-term rates are 4 percent, so prospects of an increase to 3 percent are non-negligible. If tighter amortization rules (from 15 to 10 years) are applied in the buy-to-let segment (as in commercial segment), the implied debt-service-to-rent ratio at the 75th percentile and a 3 percent rate could increase by 10 basis points to 117 percent, above the 100 percent benchmark.

6. To increase resilience, the authorities reactivated the residential CCyB at the maximum 2.5 percent, with effect from September. This calibration is supported by FINMA's stress tests that suggest half of banks would breach capital requirements in a real-estate shock. The 2.5 percent rate will be Europe's highest. FINMA has called for tighter guidelines in the buy-to-let segment, as revised self-regulation rules do not apply explicitly to investment properties of private borrowers (20 percent of new issuances as of Q4: 2021).

7. A real estate crisis would be significant for banks.⁹ Stress tests show that aggregate losses could reach CHF 27.6 billion (15 percent of CET1 capital) over three years, with the banking-system CET1 ratio declining by 230 basis points to 14 percent.¹⁰ The three-year cumulative mortgage portfolio loss rate would increase to 265 bps (185 bps in owner-occupied, 450 bps in income producing). While the stressed-loss rate would be lower than during Switzerland's 1990–93 crisis, household debt (percent of GDP) has risen by a third since 2000 and the 1990's correction was protracted (25 percent peak-to-trough over 8 years). An asset-price fall could trigger margin calls and forced sales, triggering feedbacks and adding to pressures.

8. Policy considerations. Staff stress tests suggest that the CCyB would absorb 25 percent of losses; some banks could breach capital buffers. Introducing legally-mandated tools on new mortgages could mitigate risk and build resilience. Limiting mortgages that can be extended at LTV-DSTI ratios higher than 75–20 percent (75–25 percent) with a 20 percent flow limit, or requiring that the mortgage is paid down to 50 percent of its lending value (rather than two-thirds) could reduce losses by 40 percent (25 percent) in the owner-occupied segment, enhancing stability.¹¹

⁸ Affordability risk is high when imputed costs from mortgage servicing (amortization, interest, maintenance) exceed one-third of income (owner-occupied segment) or rents (investment-led segment). To compute affordability risk, we assume that average LTV is 80 percent and maintenance represents 1 percent of loan value.

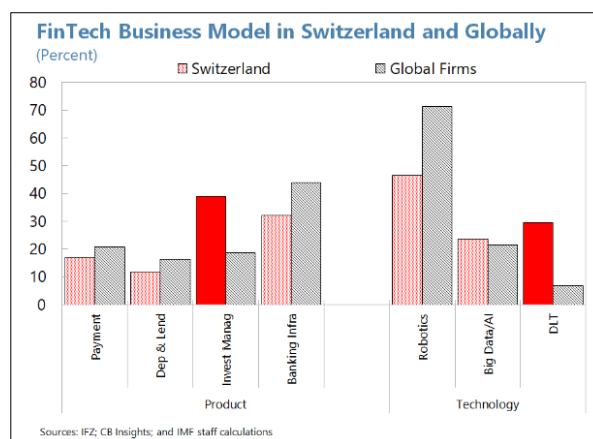
⁹ See Selected Issues Paper.

¹⁰ The 3-year stress test scenario includes a house-price correction of 25 percent with a stochastic shock differentiated across sub-segments, a cumulative decline in household disposable income of 3.6 percent, a reduction in rents of 1.2 percent, an unemployment shift of 170 bps, and an upward interest rate shift of 300 bps.

¹¹ Easing supply-side constraints, tax adjustments, and further rental-market development could support affordable housing.

Annex IX. The Rise of Fintech and Regulatory Action¹

1. Switzerland is a global hotspot for distributed-ledger-technology (DLT)-based fintech and a hub for investment management, with a rapidly-evolving regulatory framework. As of 2020, 405 fintech firms with total funding of CHF 6 billion were registered, centered in Zurich and Zug. Swiss banks manage 27 percent of global cross-border assets under management (AuM) (CHF 8 trillion in 2020, 11x GDP). Fintech companies operating in investment management provide portfolio services through robo-advisors. Since 2018, fintech firms may operate under a regulatory “sandbox” exemption, which enables provision of some services without authorization or supervision, but subject to AML regulation.² A fintech license became effective in 2019, with FINMA authorization/supervision, allowing fintech firms to hold deposits <CHF 100 million with the same restrictions applied to sandbox deposits. In February, the FC set out twelve action areas for efficiency gains while containing risks.³



2. Fintech firms are increasing market share across products and partnering with banks to support cost-cutting. IFZ (2021) estimates that fintech firms have been involved in 3.6 percent of mortgages and 2.6 percent of capital/money-market transactions. They hold 0.7 percent of AuM. Fintech firms provide digital solutions to bank cost-cutting: personnel expenses have declined by one-fifth since 2010, while assets have grown by 30 percent and net interest income has remained flat (partly due to fintech competition). Risks related to vulnerability to cyberattacks, client protection, value-chain fragmentation, dependence on third-party providers, and operational risks are rising and should be monitored.

3. The authorities are at the forefront of promoting development of DLT/blockchain technology and green fintech. A DLT Act (2021) made Switzerland a pioneer in DLT trading by recognizing transfer of ledger-based securities as legally valid without physical transfer or book-entry and by allowing DLT-based financial market infrastructures (FMIs) to admit non-financial intermediaries to trade DLT securities. The law also provides legal certainty in case of insolvency by protecting virtual assets in insolvency proceedings. In September 2021, SIX Digital Exchange (SDX) received FINMA authorization as the world’s first fully-regulated and integrated trading, settlement,

¹ Prepared by Laura Valderrama.

² The Swiss sandbox is different from others, as it is open to all companies without supervisory guidance, authorization, or conditions, with deposits capped at CHF 1 million (provided deposits are not invested, bear interest, and are protected by the deposit-guarantee scheme). Most crowdfunding falls under this category. By contrast, cryptocurrency wallet services, where private token keys lie with custodian-wallet providers, in principle require a banking license. Exceptions apply if the wallet-provider has a system in place to specify/assign cryptocurrencies received to their respective owners (in contrast to pooling).

³ See [Digital Finance: Areas of Action 2022](#).

and custody infrastructure based on DLT for digital securities. In November 2021, SDX successfully issued the world's first digital bond in a fully-regulated environment.⁴ Also in 2021, FINMA licensed the Crypto-Market Index Fund as the first Swiss crypto-asset fund open to institutional investors. The authorities have positioned Switzerland as a green fintech hub by launching a Green Fintech Network in 2020, implementing mandatory climate-reporting by large firms, and combating greenwashing.

4. Switzerland's digital ecosystem includes two "crypto-banks," a growing number of other banks and broker-dealers entering the cryptoasset market, and over 100 Virtual-Asset Service Providers (VASPs). Sygnum and SEBA were licensed as fully-fledged banks in 2019. They specialize in digital assets, tokenization, and decentralized finance (DeFi).⁵ Sygnum issues its own stablecoin pegged at parity to the franc (DCHF); in March 2022, it launched a DCHF 3 million deposit product at 0.75 percent yield. Twenty-three banks and broker dealers are engaged in virtual assets, most in custody (18), client trading (15), and own-trading (10), with virtual assets under custody of CHF 5 billion. 112 VASPs operate, mostly in fiat-to-crypto exchange (68), with some active in crypto-to-crypto exchange, virtual-asset transactions, custody services, and ICO services. AML/CFT is a key risk. The authorities follow a strong supervisory stance to safeguard Switzerland's position as a leading financial center. Under a "same-risk, same-rules" approach, AML/CFT regulations were applied to VASPs at an early stage.⁶ Switzerland has adopted FATF standards on VASPs, including lowering the threshold to CHF 1,000 for due-diligence application and beneficiary-information requirements and applying a "travel rule" for crypto transactions by Swiss VASPs, including a ban on transactions to/from anonymous wallets (exceeding FATF standards).⁷

5. While digital finance offers potential to enhance efficiency, contagion, legal, and reputational risks are important. Innovation could bring benefits, including a diversified, non-correlated asset pool. However, as cryptoassets become more interconnected with the wider financial system, banks could incur losses in the event of price corrections, and face legal and reputational risk from client losses.⁸ Back-of-the-envelope estimates suggest that client losses of Swiss asset managers could reach 1 percent of GDP if recent monthly-price changes are realized. As foreign clients hold 45 percent of AuM, sharp changes could affect BoP flows, ERs, and the NIIP.

⁴ The bond comprised digital (CHF 100 million) and traditional (CHF 50 million) components. It was oversubscribed several times and attracted a broad Swiss institutional-investor base.

⁵ Digital assets include the blockchain-version of company shares and financial instruments; tokenization refers to encoding valuables (e.g., gold, paintings) onto blockchains ('tokens'); DeFi involves digital-asset trading on blockchain-based exchanges.

⁶ Custody of virtual assets with omnibus-wallet structures is considered equivalent to deposit-taking, subject to FINMA-prudential supervision. Other VASPs not prudentially-supervised by FINMA are subject to AML-supervision by self-regulatory bodies supervised by FINMA.

⁷ The 'travel rule' applies requirements for wire transfers to 'virtual asset transfers'—transaction originators and beneficiaries must be identifiable.

⁸ Investor lawsuits can have large impacts, shown by CS's CHF 1.6 billion loss linked to the Greensill default.

6. Increasing interrelations among fintech, banks, and SIX Group could contribute to systemic risk. While interconnectedness may help mitigate market fragmentation, it may fuel shock transmission under stressed conditions from volatile cryptoassets or fintech firms to intermediaries. Use of leverage could amplify risk. Also, new technologies could increase financial-system vulnerability to cyber risk or unanticipated operational risk. The successful launch of SDX has the potential to unlock global liquidity based on DLT, but also presents new risks and regulatory issues, including potential spillovers to SIX Group’s traditional clearing, settlement, and custody platforms.⁹

7. The completion of “Project Jura” in January has laid the foundation for a possible wCBDC. Jura explored direct CHF and euro transfer wCBDC among French and Swiss commercial banks on a single DLT platform operated by SDX. Today, SDX settles transactions of digital assets using tokenized commercial-bank money. Jura demonstrated that a wCBDC could facilitate cross-border payment and settlement of digital assets more efficiently by allowing different wCBDCs to co-exist on a single platform and providing non-resident institutions with access to wCBDC.¹⁰ However, transition to a tokenized ecosystem raises challenges, including: (i) smooth functioning of money markets as instant gross-settlement requires prefunding of asset and cash legs; (ii) design of the cash-leg of tokenized asset transactions (e.g., intraday wCBDC, tokenized commercial-bank money or stablecoins, or an RTGS-link using traditional reserve balances); (iii) increased settlement complexity as platforms multiply; and (iv) operational challenges from integration of trading and settlement.

8. Policy considerations. The authorities should sustain their conservative approach to fintech regulation, including VASP supervision, and to enforcement activities through data collection, inspections, and sanctions. They should safeguard independence of systemic FMI governance arrangements from other business lines (SIX Group), maintain a strong stance regarding observance of regulatory requirements of FMIs, ensure that risk models are robust (including conservative margining practices) and continue advancing recovery plans and resolution strategies to support continuity of critical services, even under extreme scenarios.¹¹ The authorities should be proactive in implementing upcoming global cryptoassets prudential regulations (BIS, 2021)¹² to encourage sustainable innovation while maintaining Switzerland’s attractiveness as a leading global financial center.

⁹ SIX Group operates three systemically-important infrastructures, SIX x-clear (CCP), SIX SIS (an SSS and CSD), and SIX Interbank Clearing (SIC) (an RTGS system), as well as a trade repository, securities exchange, and multilateral trading facilities.

¹⁰ By integrating wCBDC into core central-bank and commercial-bank systems and running transactions end-to-end, the experiment established interoperability between DLT-based and traditional systems. It also tested settlement of monetary-policy transactions through issuance/redemption of wCBDC against tokenized assets.

¹¹ In March 2022 FINMA approved the recovery plans of SIX s-clear and SIX SIS for the first time subject to conditions and is coordinating the resolution strategy of SIX x-clear.

¹² BIS regulatory initiatives to tighten prudential treatment of crypto asset exposures could increase capital requirements for Swiss banks due to the rise in risk weights for group 2 cryptoassets (from 800 to 1,250 percent) and its conservative approach to hedges.

Annex X. Anti-Bribery and Anti-Corruption Efforts¹

1. Although Switzerland remains one of the most active enforcers of the OECD Anti-Bribery Convention, further efforts to increase the enforcement of the foreign bribery offence are called for.

The 2020 follow-up report of the OECD Working Group on Bribery in International Business Transactions (WGB)² noted the high number of discontinued cases as well as the decrease in the number of newly investigated cases and ongoing cases in the Office of the Attorney General (OAG) between 2018 and 2020. The WGB also agreed to follow-up on the management of investigations within the OAG as well as on its internal organization and structural operation. Progress has been made on other fronts. In particular, Switzerland has increased resources allocated to the Money Laundering Reporting Office (MROS), which plays an important role in detecting foreign bribery. It has also revised Federal Law on Public Procurement and efforts have been made by the State Secretariat for Economic Affairs (SECO) in raising awareness among companies on the issue of bribery of foreign public officials.

2. The authorities are encouraged to deploy more efforts to strengthen the framework further. Several important reforms have not been executed and are called for by the OECD Working Group on Bribery, e.g., in relation to the maximum amount of fines for legal persons, whistleblower protection, the conditions governing appeals by interested persons in the framework of mutual legal assistance or accounting standards. The WGB also noted that the Law on Anti-Money Laundering (AMLA) still does not apply to lawyers, notaries, fiduciaries where their roles are restricted to preparing acts that do not involve any financial transactions for their clients (such as acts relating to the creation of companies and legal arrangements).³

¹ Prepared by the IMF Legal Department, in line with the IMF Framework for Enhanced Engagement on Governance and Transparency. Text coordinated with the OECD, and approved by the OECD's Working Group on Bribery in International Business Transactions.

² Information relating to supply-side corruption in this section of the Report draws on the Phase 4 Report of Switzerland (2018) and the Summary and Conclusions on the Phase 4 Written Follow-Up Report of Switzerland (2020). Based on the 2020 Written Follow-up Report, the WGB concluded that Switzerland has fully implemented 11 recommendations, partially implemented 18 recommendations, and not implemented 17 recommendations.

³ A progress report on some of these outstanding issues is expected to be adopted by the WGB in June 2022.



Appendix I. Draft Press Release

IMF Executive Board Concludes 2022 Article IV Consultation with Switzerland

FOR IMMEDIATE RELEASE

Washington, DC – [June 10, 2022]: The Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation¹ with Switzerland.

The Swiss economy recovered strongly in 2021 and early 2022, reflecting agile, supportive policies and a global pickup. Growth was 3.7 percent last year, with output 1 percent higher than 2019 and 2 percent below pre-Covid trends. Employment has surpassed pre-crisis levels. The authorities continually adapted Covid-19 mitigation measures, and pandemic support remained strong and monetary policy accommodative. Bank profitability and capitalization held up well, buoyed by Covid-19 support to firms and households, sustained lending, and fee income, with NPLs at low levels. Strong exports (watches, instruments, pharmaceuticals) and merchanting contributed to a sharply higher current account surplus. The recovery was uneven, however, notably in Covid-hit sectors (hospitality, transport), and inflation has picked up, albeit less than in other advanced economies.

Growth is expected to slow to 2¼ percent in 2022—above medium-term potential, but dampened by spillovers from the war in Ukraine. Direct exposures to the war (exports, energy, financial sector, investment) appear limited, but indirect effects—higher energy and commodity prices, supply disruptions, complex financial exposures (commodity trade, wealth management), and lower regional and global growth—could be substantial. Switzerland is hosting 50,000 refugees. Fiscal and monetary policies remain supportive, and higher household savings during Covid-19 should buoy consumption and growth. The war in Ukraine is also likely to affect activity in 2023 with growth projected at 2¼ percent. Unemployment could rise in 2022 as Covid support is withdrawn, but should remain lower on average than in 2021. Inflation is expected to average 2½ percent this year, before easing to 1.6 percent in 2023.

Risks are tilted to the downside with high uncertainty. The war in Ukraine is a major source of uncertainty (scope, duration). Worsening of the war could lead to sharply higher commodity prices, supply disruptions, and even-lower regional and global growth, with risks to financial markets.

¹ Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. A staff team visits the country, collects economic and financial information, and discusses with officials the country's economic developments and policies. On return to headquarters, the staff prepares a report, which forms the basis for discussion by the Executive Board.

Increased volatility could intensify flight to the franc and appreciation pressures. Besides the war and inflation, other risks include adverse Covid-19 developments, cyberthreats, and real-estate imbalances, where a sharp rate rise could trigger price corrections and impacts on households, banks, and activity. Medium-term challenges include population aging and climate change. Lack of clarity on EU relations is a concern.

Executive Board Assessment²

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² At the conclusion of the discussion, the Managing Director, as Chairman of the Board, summarizes the views of Executive Directors, and this summary is transmitted to the country's authorities. An explanation of any qualifiers used in summings up can be found here: <http://www.IMF.org/external/np/sec/misc/qualifiers.htm>.

Switzerland: Selected Economic Indicators, 2020–23

Population (2021): 8.67 million

Quota (April 3, 2022; millions SDRs / % of total): 5,771.1 / 1.21%

Key export markets in 2021: Euro area (46%), US (18%)

	2020	2021	2022 Proj.	2023 Proj.
Output				
Real GDP growth (%)	-2.5	3.7	2.2	1.4
Unemployment				
Unemployment (%)	3.1	3.0	2.6	2.7
Prices				
Inflation (period average, %)	-0.7	0.6	2.5	1.6
General Government Finances /1				
Revenue (% GDP)	33.5	33.8	32.9	32.4
Expenditure (% GDP)	36.5	34.5	33.2	32.3
Fiscal balance (% GDP)	-3.0	-0.7	-0.3	0.1
Public debt (% GDP)	42.6	41.4	40.1	38.9
Monetary and Credit				
Broad money (% change)	6.5	1.4	...	...
Credit to the private sector (% change)	2.4	3.8	...	...
3-month Treasury bill interest rate (%)	-0.8	-0.8	...	...
Balance of Payments				
Current account (% GDP)	2.8	9.3	6.3	7.0
Net FDI (% GDP)	16.8	-2.5	...	...
Reserves (end-of-period, billions of US dollars)	1085	1111	...	...
External debt (% GDP)	280	287	...	...
Exchange Rates				
CPI-based REER (% change)	3.8	-2.6	...	...

Sources: IMF's Information Notice System; Swiss Institute for Business Cycle Research; Swiss National Bank; and IMF staff estimates.