Executive summary of KOF's economic forecast, summer 2022

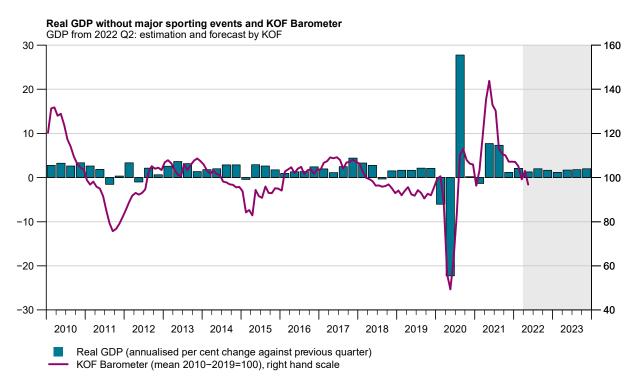
22 June 2022

This is a summary of the 2022 summer forecast for Switzerland, released by the KOF Swiss Economic Institute at ETH Zurich on 22 June 2022, with a forecast horizon up to the end of 2023.

Swiss economy defies crisis on several fronts

The aftermath of the COVID-19 pandemic and the war in Ukraine are creating headwinds in the global economy. Just as the global economy was about to recover from the coronavirus crisis, the next setback came in the form of Russia's invasion of Ukraine. In addition, inflation in many countries has reached worrying levels and will put additional pressure on international demand.

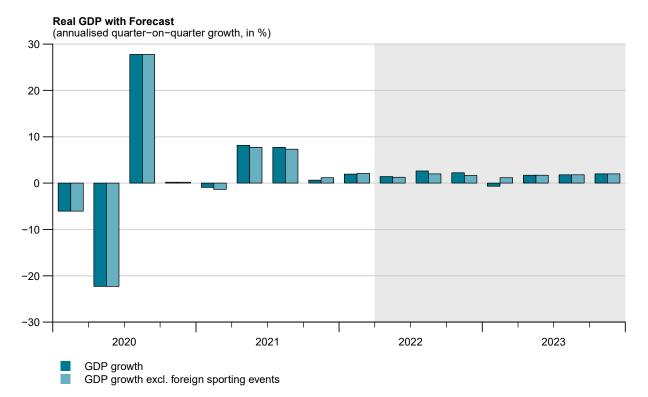
The Swiss economy is currently performing well. Economic output measured in terms of gross domestic product (GDP) adjusted for sporting events rose by an annualised 1.7 per cent in the first quarter of 2022. The value added in industry was particularly strong. For once, growth did not come from the chemical and pharmaceutical sectors but was broadly based across other industries. The hospitality sector suffered from the consequences of the most recent wave of COVID-19 and reported a decline in value added. In addition, hospitality, like other sectors, is having to contend with staff shortages. This is probably due, among other things, to the fact that many individuals who worked in the hospitality industry before the crisis have left this sector as a result of COVID-related closures and have not returned since. KOF expects GDP to grow in the current quarter as well. This is mainly attributable to the service sectors, which suffered greatly from the partially enforced decline in demand during the pandemic. KOF expects to see significant growth in the hospitality, transport and events sectors during the current quarter owing to the lifting of mandatory certification and travel restrictions. Furthermore, the retail sector, which had benefited from additional demand during the pandemic, continues to return to normal. The manufacturing sector will not be able to sustain its high growth rates of recent quarters owing to supply shortages and the deteriorating international economy.



Good prospects for the next few quarters

Economic trends in Switzerland will continue to defy the emerging global economic slowdown in the second half of the year. It is expected that domestic consumption will support the Swiss economy. Firstly, wage growth has been surprisingly strong, which has provided additional incentives for consumption. And, secondly, the COVID-19 pandemic has forced households to save funds which can now be spent. KOF expects real private consumption to grow by 4.3 per cent in 2022 and 2.8 per cent in 2023. In addition, the financial climate for investment is currently favourable.

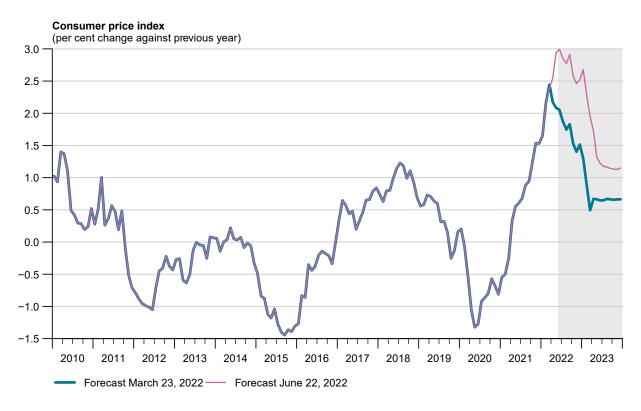
Various indicators suggest that investments will perform well in the near future. KOF expects equipment investment to increase by 1.5 per cent this year and by 3.3 per cent in 2023. GDP adjusted for sporting events is forecast to increase by 2.7 per cent in 2022 and by 1.6 per cent next year. Growth in output is being supported by the normalisation of the service sectors and stable growth in industry. Tourism, in particular, should also see better times ahead. Now that the COVID-19 restrictions have been lifted, the recovery should continue.



Impact of global inflation on Swiss prices

There are several reasons for the rise in global inflation. One is excess demand, which can be attributed to the catch-up effects caused by the COVID-19 pandemic. In addition, disruption to supply chains is likely to play a decisive role. Furthermore, the supply insecurity and shortages caused by Russia's invasion of Ukraine have led to sharply rising food and energy prices.

As a small open economy, Switzerland is not immune to these international price trends. Nevertheless, the inflation rate in Switzerland is relatively low compared with other countries. KOF expects inflation in Switzerland to be 2.6 per cent this year and 1.5 per cent next year. The high proportion of hydropower and nuclear energy in its domestic energy mix means that Switzerland is fairly well protected against distortions in international electricity prices. In addition, the appreciation of the Swiss franc is effectively reducing prices. Nevertheless, the high inflation rates worldwide are presenting central banks with a potential dilemma: preventive measures pose the risk of a recession caused by higher interest rates but, if policy is too loose, there is a risk of inflation getting out of control.



SNB presses ahead with rate hike

Like many central banks around the world, the Swiss National Bank (SNB) decided in its latest assessment to tighten its monetary policy in order to combat rising inflation. It raised its key interest rate more than expected, and the Swiss franc appreciated slightly. Its key interest rate rose by 0.5 percentage points to -0.25 per cent. This interest-rate move is likely to be followed by others over the course of the year. In addition, the SNB communicated that it no longer classifies the franc as being 'highly valued'. It also raised the possibility of intervening in the foreign-exchange markets to support the value of the franc. The unusually high inflation differential with other countries at the moment means that a nominally higher appreciation of the franc is to be expected (2 per cent per year).

Booming labour market

The Swiss labour market is undergoing an economic boom. There was a sharp rise in employment during the first quarter of this year. The largest increases were reported in industry and the hospitality sector. KOF expects this positive trend to continue during the current quarter. This growth in employment is not expected to end abruptly in the short term despite the war in Ukraine and heightened fears of inflation. KOF therefore expects total employment to increase significantly during the second half of the year. Overall – according to the forecast for 2022 – this will result in employment growth of 2 per cent year on year. The decline in the unemployment rate is forecast to come to an end in the third quarter of 2022. Unemployment will then stagnate at a low level.

Gradual normalisation of public consumption

The COVID-19 pandemic and the war in Ukraine are also leaving their mark on public consumption. The wave of coronavirus in the winter of 2021/22 again led to additional expenditure on welfare benefits, most of which was financed by the federal government. Additional costs were incurred owing to the influx of refugees from Ukraine. Public consumption increased significantly in the first quarter. In contrast to the additional COVID-related costs, which are gradually petering out, spending on the refugees from Ukraine is expected to last longer.

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The Swiss government's deficit is forecast to decline further owing to the expiry of its coronavirus support measures from the second quarter onwards. Given the funding deficits incurred during the years of the COVID-19 pandemic, a fairly restrictive spending policy is expected to be adopted over the medium term. However, no major spending cuts or tax increases are anticipated.

Negative scenario: hard landing

International inflationary risks are creating a great deal of forecasting uncertainty. The monetary policies required to get high inflation rates under control can vary considerably and lead to different economic scenarios. Against this background, KOF has created a negative scenario that models the risks of excessively high inflation and decisive policy intervention. This negative scenario assumes that inflation in the euro area and the United States in 2022 will reach levels that are unacceptable to the US Federal Reserve (Fed) and the European Central Bank (ECB). Under this scenario, current Fed Chairman Jerome Powell and ECB President Christine Lagarde will pursue an inflation-fighting strategy similar to that of former Fed Chairman Paul Volcker. In the early 1980s the latter implemented his anti-inflationary policies through massive interest-rate hikes. This plunged the US into a deep recession. This negative scenario now assumes that central banks will combat high inflation by implementing further rapid and sharp interest-rate rises during the coming winter. This will then plunge the global economy into a recession that will last for three quarters in the United States and four quarters in the euro area. Consequently – under this negative scenario – Switzerland will also slide into a recession and a prolonged period of stagnation that will last until the end of the forecasting period.

Forecasting risks

Beyond the inflationary risks described in the negative scenario, a further escalation of the war in Ukraine also poses a potential downside risk in this forecast. KOF believes that the war in Ukraine will increasingly develop into a war of attrition and that the existing uncertainties arising from this war will therefore continue to decrease. Nevertheless, the unpredictability of Russia's policies remains a source of unpleasant surprises. This could further curtail gas supplies and thus cause energy shortages in many European countries.

A renewed outbreak of the COVID-19 pandemic, especially in the autumn of this year, poses a further downside risk. The danger here is that new variants of the virus will have better resistance to existing vaccines and, at the same time, be more dangerous, which would require new restrictions on economic activity. An additional forecasting risk is a renewed flare-up of the debt crisis in Europe. The ECB has already convened an extraordinary meeting on this topic, at which it stated that it would prevent any speculative interest-rate differentials that might harm highly indebted countries. A rise in bond yields could inflict serious economic pain on many southern European countries, especially Italy, thereby plunging the euro area into recession.

An upside risk to this forecast is a sharper reduction in personal savings accumulated during the COVID-19 pandemic, which could generate stronger GDP growth than expected by KOF over the coming quarters.

Further information on KOF's economic forecast is available here: https://www.kof.ethz.ch/en/forecasts-and-indicators/forecasts/kof-economic-forecast.html

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APPENDIX

Tables

Table A-1

Detailed historical data and forecasts for Switzerland 2009–2023 a) Real Gross Domestic Product (GDP): Expenditures

(Million Swiss franc; chained volumes (reference year 2018); per cent change against previous year at previous' year's prices and mean per cent change, respectively) 2020 2022 2023 09-18 2019 2021 (1) (3) (1) (2) (3) 1.Consumption 1.5 457'718 1.2 . -2.4 2.9 3.4 1.3 thereof: private housholds and NPISHs 1.6 377'285 1.4 363'380 372'839 2.6 388'918 4.3 399'630 2.8 -3.7 1.2 80'433 0.7 83'219 3.5 86'580 4.0 86'382 -0.2 82'105 -5.0 general government 2. Gross fixed capital formation 185'060 16 06 -18 35 05 16 65'635 66'493 65'987 66'169 thereof: construction 2.1 65'917 -0.9 -0.4 1.3 -0.8 0.3 machinery and equipment 1.4 119'143 1.4 116'146 -2.5 121'614 4.7 123'057 1.2 125'919 2.3 Domestic final demand 1.6 642'778 1.1 -2.2 3.0 2.6 1.4 -5'121 -14'197 --8'743 3. Changes in inventories -878 ----8'873 -Domestic demand (*) 1.7 643'656 1.6 -3.2 0.1 4.5 1.4 --. . 4.Exports of goods and services (*) 3.0 412'717 1.5 -5.6 11.8 6.0 4.4 thereof: goods excl. merchanting 233'127 226'330 -2.9 256'521 272'945 282'527 2.5 4.9 3.5 13.3 6.4 merchanting (net) 71 44'313 -3.6 48'299 90 49'693 29 45'376 -8.7 47'761 5.3 services 2.6 135'277 -2.3 115'611 -14.5 129'629 12.1 145'088 11.9 153'146 5.6 -4.1 4.4 2.8 Total demand (*) 2.1 1'056'373 1.5 5.1 5.Imports of goods and 328'391 23 33 -8.0 59 10.5 59 services (*) 194'065 224'404 thereof: goods (*) 2.4 206'911 2.8 -6.2 203'304 4.8 10.4 236'302 5.3 5.1 121'480 1.4 108'152 -11.0 116'807 8.0 129'176 10.6 138'098 6.9 services 6.Statistical difference 0 thereof: chaining of -392 -1'134 -2'842 -2'781 expenditure components 0 . -inventory valuation -0 --327 --10'476 --4'737 --3'326 -Gross Domestic Product 1.7 727'982 1.2 710'563 -2.4 737'453 757'850 767'876 3.8 2.8 1.3 710'563 without large international sportevents 1.7 727'982 1.5 -2.4 736'027 3.6 755'755 2.7 767'804 1.6

(1) Preliminary calculation from the Federal Statistical Office (FSO)

(3) KOF forecast 22 June 2022

(2) KOF estimation 22 June 2022

(*) Adjusted by the non-cyclical exports and imports of vauables, i.e. precious metals incl. non-monetary gold and stones, gems as well as objects of art and antiquities. This adjustment has no influence on the GDP.

(+) FSO publish the national account data without those adjustments. For comparison reasons we list the non-adjusted figures in the lines below. In the forecast period the growth rates of the trade in valuables are the same as the predicted ones for the goods without valuables, causing fluctuations in the net acquisitions of valuables.

| 3.Net acquisitions of valuables (+) | - | -1'534 | - | 6'860 | - | 2'788 | - | 8'852 | - | 10'065 | - |
|-------------------------------------|-----|-----------|------|---------|------|---------|------|---------|------|---------|-----|
| Domestic demand (+) | 1.3 | 642'122 | 1.8 | - | -1.7 | | -0.6 | - | 5.7 | - | 1.6 |
| 4.Exports of goods and | | | | | | | | | | | |
| services (+) | 2.8 | 472'118 | -0.8 | - | -6.0 | - | 13.0 | - | 6.4 | - | 4.2 |
| thereof: goods (+) | 2.8 | 336'841 | -0.1 | 328'177 | -2.6 | 371'898 | 13.3 | 388'953 | 4.6 | 403'592 | 3.8 |
| Total demand (+) | 2.0 | 1'114'240 | 0.7 | - | -3.1 | | 4.5 | - | 5.5 | - | 2.8 |
| 5.Imports of goods and | | | | | | | | | | | |
| services (+) | 2.5 | 386'258 | -0.2 | - | -4.5 | - | 5.9 | - | 10.4 | - | 5.7 |
| thereof: goods (+) | 1.5 | 264'778 | -1.0 | 260'386 | -1.7 | 273'517 | 5.0 | 301'771 | 10.3 | 317'771 | 5.3 |

Detailed historical data and forecasts for Switzerland 2009–2023

b) Nominal Gross Domestic Product (GDP) and Gross National Income (GNI): Expenditures

(Million Swiss franc at current prices; per cent change against previous year and mean per cent change, respectively) 2019 2022 2023 09-18 2020 2021 (1) (1) (2) (3) (3) 457'157 459'145 484'295 1.Consumption 1.6 1.1 443'862 -2.9 3.4 5.5 496'529 2.5 thereof private housholds and $\ensuremath{\mathsf{NPISHs}}$ 371'465 375'926 1.4 1.0 360'020 -4.2 3.2 395'073 6.4 410'316 3.9 2.1 83'843 3.2 87'680 89'222 1.8 86'214 general government 81'231 1.7 4.6 -3.4 2. Gross fixed capital formation 185'415 181'795 190'991 196'178 2.7 2.1 1.3 0.8 -2.0 5.1 200'299 thereof: construction 2.3 66'303 -0.3 66'073 -0.3 68'445 70'517 3.0 70'943 0.6 3.6 machinery and equipment 0.9 119'112 115'722 -2.8 122'546 125'661 2.5 129'357 1.4 5.9 2.9 Domestic final demand 1.5 642'572 1.0 625'657 -2.6 650'136 3.9 680'473 4.7 696'829 2.4 1'083 -10'605 3.Changes in inventories 4'351 -20'139 -8'427 --Domestic demand (*) 1.5 643'655 1.6 630'008 -2.1 629'997 0.0 671'656 6.6 688'402 2.5 4.Exports of goods and services (*) 1.9 408'723 0.5 367'323 -10.1 434'088 18.2 475'701 9.6 504'790 6.1 thereof goods excl. merchanting 1.1 230'159 3.5 216'006 -6.1 -3.2 249'198 15.4 268'603 7.8 281'110 4.7 40'514 437 65 merchanting (net) 5.5 41'873 -89 58'206 62'006 66'889 79 2.3 110'804 -18.9 145'092 136'691 -13 126'684 14.3 14 5 156'792 81 services 1.7 1'052'378 1.2 997'331 -5.2 1'064'085 6.7 1'145'569 7.7 1'193'192 4.2 Total demand (*) 5.Imports of goods and services (*) 1.9 325'166 1.3 291'089 -10.5 320'523 10.1 366'073 14.2 392'450 7.2 thereof goods (*) 0.8 204'504 1.6 184'862 -9.6 203'026 9.8 237'296 16.9 250'777 5.7 4.2 120'662 0.7 106'227 -12.0 117'497 10.6 130'564 141'673 8.5 services 11.1 Gross Domestic Product 1.5 727'212 1.1 706'242 -2.9 743'561 5.3 779'496 4.8 800'742 2.7 without large international sportevents 1.5 727'212 1.4 706'242 -2.9 742'157 5.1 777'409 4.7 800'742 3.0 -568 -641 3'317 7'576 9'567 6. Balance of property income -7. Balance of labour income -25'708 -24'672 -25'506 -26'646 -28'876 ------8. Balance of production taxes 0 0 0 -0 0 -_ -_ **Gross National Income** 1.8 700'936 1.5 680'929 -2.9 721'373 5.9 760'426 5.4 781'432 2.8

(1) Preliminary calculation from the Federal Statistical Office (FSO) (2) KOF estimation 22 June 2022

(3) KOF forecast 22 June 2022

(*) Adjusted by the non-cyclical exports and imports of vauables, i.e. precious metals incl. non-monetary gold and stones, gems as well as objects of art and antiquities. This adjustment has no influence on the GDP

(+) FSO publish the national account data without those adjustments. For comparison reasons we list the non-adjusted figures in the lines below. In the forecast period the growth rates of the trade in valuables are the same as the predicted ones for the goods without valuables

causing fluctuations in the net acquisitions of valuables.

| 3.Net acquisitions of valuables (+) | - | -2'602 | - | 14'122 | - | 4'204 | - | 9'485 | - | 11'016 | - |
|-------------------------------------|-----|-----------|-----|-----------|------|-----------|------|-----------|------|-----------|-----|
| Domestic demand (+) | 1.3 | 641'053 | 1.7 | 644'130 | 0.5 | 634'200 | -1.5 | 681'140 | 7.4 | 699'417 | 2.7 |
| 4.Exports of goods and | | | | | | | | | | | |
| services (+) | 2.1 | 476'555 | 0.2 | 440'285 | -7.6 | 521'291 | 18.4 | 572'487 | 9.8 | 606'084 | 5.9 |
| thereof 00 | 2.0 | 339'864 | 0.7 | 329'482 | -3.1 | 394'607 | 19.8 | 427'395 | 8.3 | 449'292 | 5.1 |
| Total demand (+) | 1.6 | 1'117'607 | 1.0 | 1'084'416 | -3.0 | 1'155'491 | 6.6 | 1'253'628 | 8.5 | 1'305'501 | 4.1 |
| 5.Imports of goods and | | | | | | | | | | | |
| services (+) | 1.8 | 390'395 | 0.8 | 378'174 | -3.1 | 411'930 | 8.9 | 474'131 | 15.1 | 504'759 | 6.5 |
| thereof goods (+) | 0.9 | 269'734 | 0.9 | 271'947 | 0.8 | 294'432 | 8.3 | 343'568 | 16.7 | 363'086 | 5.7 |
| | | | | | | | | | | | |

Detailed historical data and forecasts for Switzerland 2009-2023 c) Implicit deflators of Gross Domestic Product (GDP): Expenditures

(Indices, 2018 = 100; per cent change against previous year and mean per cent change, respectively)

| | 09-18 | 2019 | | 2020 |) | 2021 | I | 2022 | | 2023 | |
|---|-------|-------|------|-------|-------|-------|------|-------|------|-------|-----|
| | | (1) | | (1) | | (2) | | (3) | | (3) | |
| 1.Consumption | 0.0 | 99.9 | -0.1 | 99.4 | -0.5 | 99.9 | 0.6 | 101.9 | 2.0 | 103.1 | 1.2 |
| thereof: private housholds and NPISHs | -0.2 | 99.6 | -0.4 | 99.1 | -0.6 | 99.6 | 0.6 | 101.6 | 2.0 | 102.7 | 1.1 |
| general government | 0.9 | 101.0 | 1.0 | 100.7 | -0.2 | 101.3 | 0.5 | 103.3 | 2.0 | 105.0 | 1.7 |
| 2.Gross fixed capital formation | -0.2 | 100.2 | 0.2 | 100.0 | -0.2 | 101.5 | 1.5 | 103.8 | 2.2 | 104.3 | 0.5 |
| thereof: construction | 0.2 | 100.6 | 0.6 | 100.7 | 0.1 | 102.9 | 2.3 | 106.9 | 3.8 | 107.2 | 0.3 |
| machinery and equipment | -0.5 | 100.0 | 0.0 | 99.6 | -0.3 | 100.8 | 1.1 | 102.1 | 1.3 | 102.7 | 0.6 |
| Domestic final demand | -0.1 | 100.0 | 0.0 | 99.6 | -0.4 | 100.4 | 0.8 | 102.4 | 2.0 | 103.4 | 1.0 |
| 3.Changes in inventories | - | - | - | - | - | - | - | - | - | - | - |
| Domestic demand (*) | -0.1 | - | 0.0 | - | 1.1 | - | -0.1 | - | 2.1 | - | 1.1 |
| 4.Exports of goods and | | | | | | | | | | | |
| services (*) | -1.0 | 99.0 | -1.0 | 94.3 | -4.8 | 99.6 | 5.7 | 103.0 | 3.4 | 104.7 | 1.7 |
| thereof: goods excl. merchanting | -1.4 | 98.7 | -1.3 | 95.4 | -3.3 | 97.1 | 1.8 | 98.4 | 1.3 | 99.5 | 1.1 |
| merchanting (net) | -1.5 | 94.5 | -5.5 | 83.9 | -11.2 | 117.1 | 39.6 | 136.6 | 16.7 | 140.1 | 2.5 |
| services | -0.3 | 101.0 | 1.0 | 95.8 | -5.1 | 97.7 | 2.0 | 100.0 | 2.3 | 102.4 | 2.4 |
| Total demand (*) | -0.5 | - | -0.4 | - | -1.2 | - | 2.2 | | 2.5 | - | 1.3 |
| 5.Imports of goods and | | | | | | | | | | | |
| services (*) | -1.3 | 99.0 | -1.0 | 96.3 | -2.7 | 100.1 | 3.9 | 103.5 | 3.4 | 104.8 | 1. |
| thereof: goods (*) | -1.6 | 98.8 | -1.2 | 95.3 | -3.6 | 99.9 | 4.8 | 105.7 | 5.9 | 106.1 | 0.4 |
| services | -0.8 | 99.3 | -0.7 | 98.2 | -1.1 | 100.6 | 2.4 | 101.1 | 0.5 | 102.6 | 1. |
| Gross Domestic Product | -0.1 | 99.9 | -0.1 | 99.4 | -0.5 | 100.8 | 1.4 | 102.9 | 2.0 | 104.3 | 1.4 |
| without large international sportevents | -0.1 | 99.9 | -0.1 | 99.4 | -0.5 | 100.8 | 1.4 | 102.9 | 2.0 | 104.3 | 1.4 |

(1) Preliminary calculation from the Federal Statistical Office (FSO)

(3) KOF forecast 22 June 2022

(2) KOF estimation 22 June 2022

(*) Adjusted by the non-cyclical exports and imports of vauables, i.e. precious metals incl. non-monetary gold and stones, gems as well as objects of art and antiquities. This adjustment has impacts on the deflators.

(+) FSO publish the national account data without those adjustments. For comparison reasons we list the non-adjusted figures in the lines below. In the forecast period the growth rates of the trade in valuables are the same as the predicted ones for the goods without valuables.

| 3.Net acquisitions of valuables (+) | - | - | - | - | - | - | - | - | - | - | - |
|-------------------------------------|------|-------|------|-------|------|-------|------|-------|-----|-------|-----|
| Domestic demand (+) | 0.0 | - | -0.2 | - | 2.2 | - | -0.9 | - | 1.6 | - | 1.1 |
| 4.Exports of goods and | | | | | | | | | | | |
| services (+) | -0.7 | 100.9 | 0.9 | 99.2 | -1.7 | 103.9 | 4.8 | 107.3 | 3.2 | 109.0 | 1.6 |
| thereof: goods (+) | -0.8 | 100.9 | 0.9 | 100.4 | -0.5 | 106.1 | 5.7 | 109.9 | 3.6 | 111.3 | 1.3 |
| Total demand (+) | -0.3 | - | 0.3 | - | 0.2 | - | 2.0 | - | 2.8 | - | 1.3 |
| 5.Imports of goods and | | | | | | | | | | | |
| services (+) | -0.6 | 101.1 | 1.1 | 102.6 | 1.5 | 105.5 | 2.9 | 110.0 | 4.3 | 110.7 | 0.7 |
| thereof: goods (+) | -0.6 | 101.9 | 1.9 | 104.4 | 2.5 | 107.6 | 3.1 | 113.9 | 5.8 | 114.3 | 0.4 |

Detailed historical data and forecasts for Switzerland 2019–2023 d) Current account

(Million Swiss franc at current prices)

| | 2019 | 2020 | 2021 | 2022 | 2023 |
|--|---------|---------|---------|---------|---------|
| | (1) | (1) | (2) | (3) | (3) |
| Goods (balance) (*) | 67 528 | 71 657 | 104 378 | 93 313 | 97 221 |
| Services (balance) | 16 029 | 4 577 | 9 186 | 14 528 | 15 119 |
| Property income (balance) | -568 | -641 | 3 317 | 7 576 | 9 567 |
| Labour income (balance) | -25 708 | -24 672 | -25 506 | -26 646 | -28 876 |
| Goods, servises and primary income (balance) (*) | 57 281 | 50 920 | 91 376 | 88 771 | 93 031 |
| Current transfer (secondary income, balance) | -17 853 | -17 203 | -18 094 | -18 919 | -19 571 |
| Current account balance (*) | 39 428 | 33 718 | 73 282 | 69 852 | 73 460 |
| Current account balance in per cent of GDP (*) | 5.4 | 4.8 | 9.9 | 9.0 | 9.2 |

(1) Preliminary calculation from the Federal Statistical Office (FSO) (2) KOF estimation 22 June 2022

(3) KOF forecast 22 June 2022

(*) Adjusted by the non-cyclical exports and imports of vauables, i.e. precious metals incl. non-monetary gold and stones, gems as well as objects of art and antiquities.

(+) FSO publish the national account data without those adjustments. For comparison reasons we list the non-adjusted figures in the lines below. In the forecast period the growth rates of the trade in valuables are the same as the predicted ones for the goods without valuables.

| Goods (balance) (+) | 70 130 | 57 535 | 100 175 | 83 828 | 86 206 |
|--|--------|--------|---------|--------|--------|
| Goods, servises and primary income (balance) (+) | 59 883 | 36 798 | 87 173 | 79 286 | 82 016 |
| Current account balance (+) | 42 030 | 19 595 | 69 078 | 60 367 | 62 444 |
| Current account balance in per cent of GDP (+) | 5.8 | 2.8 | 9.3 | 7.7 | 7.8 |

Table A-5

Detailed historical data and forecasts for Switzerland 2009-2023

e) Disposable income, consumption and saving of private households and non-profit institutions serving households (NPISH)

(Million Swiss franc at current prices; per cent change against previous year and mean per cent change, respectively)

| | 09-18 | 2019 | | 2020 | | 2021 | | 2022 | | 2023 | |
|--|-------|---------|------|---------|------|---------|------|---------|-------|---------|-------|
| | | (1) | | (1) | | (2) | _ | (3) | | (3) | |
| Disposable income of private households | 1.3 | 433'668 | 0.1 | 460'004 | 6.1 | 477'079 | 3.7 | 489'987 | 2.7 | 495'555 | 1.1 |
| Private consumption | 1.4 | 375'926 | 1.0 | 360'020 | -4.2 | 371'465 | 3.2 | 395'073 | 6.4 | 410'316 | 3.9 |
| Saving (4) | 0.2 | 57'742 | -5.2 | 99'984 | 73.2 | 105'614 | 5.6 | 94'914 | -10.1 | 85'240 | -10.2 |
| Saving (5) | 0.4 | 98'381 | 1.3 | 140'754 | 43.1 | 147'199 | 4.6 | 137'331 | -6.7 | 128'505 | -6.4 |
| Saving rate (4,6) | - | - | 13.3 | - | 21.7 | - | 22.1 | - | 19.4 | - | 17.2 |
| Saving rate (5,6) | - | - | 20.7 | - | 28.1 | - | 28.4 | - | 25.8 | - | 23.8 |

(1) Preliminary calculation from the Federal Statistical Office (FSO), KOF (4) Excluding adjustment for change in pension entitlements (2) KOF estimation 22 June 2022 (5) Including adjustment for change in pension entitlements (3) KOF forecast 22 June 2022 (6) Saving in % of disposable income

Detailed historical data and forecasts for Switzerland 2009-2023 f) Macroeconomic data outside of the

National Accounts

(Per cent change against previous year and mean per cent change, respectively)

| | 09-18 | 2019 | 2020 | 2021 | 2022 | 2023 |
|--|-------|------|------|------|------|------|
| Monetary variables | | | | | | |
| Real exchange rate of the Swiss franc | 1.2 | 0.8 | 3.9 | -2.6 | -1.5 | -0.2 |
| Government bonds, 10 years (1) | | | | | | |
| - annual average | 0.9 | -0.5 | -0.5 | -0.2 | 0.6 | 0.8 |
| - end-of-year | 0.8 | -0.5 | -0.5 | -0.1 | 0.6 | 0.8 |
| 3-months-CHF-SARON (1) | | | | | | |
| - annual average | -0.1 | -0.7 | -0.7 | -0.7 | -0.4 | 0.2 |
| - end-of-year | -0.2 | -0.7 | -0.7 | -0.7 | 0.1 | 0.2 |
| Consumer prices | | | | | | |
| - annual average | -0.1 | 0.4 | -0.7 | 0.6 | 2.6 | 1. |
| - end-of-year | 0.0 | 0.2 | -0.8 | 1.5 | 2.5 | 1. |
| Employment and labour market | | | | | | |
| No. of workers | 1.0 | 1.6 | -0.1 | 0.8 | 2.0 | 1.(|
| No. of workers, full time equivalents (FTE) | 0.9 | 1.6 | 0.1 | 0.6 | 2.0 | 0.9 |
| Employment | 1.3 | 0.7 | -0.5 | 0.2 | 1.6 | 1.1 |
| Total hours worked | 0.9 | 0.6 | -3.7 | 2.5 | 2.3 | 0.9 |
| Labour productivity per FTE | 0.8 | -0.1 | -2.5 | 3.0 | 0.7 | 0.7 |
| Labour productivity per hour | 0.8 | 0.9 | 1.4 | 1.0 | 0.4 | 0.7 |
| Nominal wages (wage index) | 0.8 | 0.9 | 0.8 | -0.2 | 2.4 | 1.4 |
| Average wage compensation per FTE (2) | 1.1 | 1.4 | 1.5 | 2.5 | 2.6 | 1.0 |
| Unemployment rate, ILO definition (1) | 4.7 | 4.4 | 4.8 | 5.1 | 4.1 | 4.2 |
| Unemployment rate, registered, Seco definition (1) | 2.9 | 2.3 | 3.1 | 3.0 | 2.1 | 2.2 |
| Population and per capita indicators | | | | | | |
| Population | 1.1 | 0.7 | 0.7 | 0.8 | 0.9 | 1.4 |
| Real Gross Domestic Product per capita | 0.6 | 0.5 | -3.1 | 3.0 | 1.9 | -0. |
| | 0.9 | 1.2 | -3.0 | 4.6 | 2.5 | 0.3 |

(1) Level(2) Wage compensation per employee (full time equivalents)(3) Using deflator of private consumption

Table 1-1

Growth contribution to the Swiss Gross Domestic Product 2009-2023 (1)

(per cent change against previous year's GDP at previous' year's prices and mean per cent change, respectively)

| | 09-18 | 2019 | 2020 | 2021 | 2022 | 2023 |
|--|-------|------|------|------|------|------|
| Private consumption | 0.8 | 0.7 | -1.9 | 1.3 | 2.2 | 1.4 |
| General government consumption | 0.1 | 0.1 | 0.4 | 0.5 | 0.0 | -0.6 |
| Construction investment | 0.2 | -0.1 | 0.0 | 0.1 | -0.1 | 0.0 |
| Machinery and equipment investment | 0.2 | 0.2 | -0.4 | 0.8 | 0.2 | 0.4 |
| Domestic final demand | 1.4 | 0.9 | -2.0 | 2.7 | 2.3 | 1.2 |
| Changes in inventories | - | 0.3 | -0.8 | -1.3 | 0.7 | 0.0 |
| Domestic demand | 1.5 | 1.4 | -2.8 | 0.1 | 3.8 | 1.: |
| Exports | 1.5 | 0.8 | -3.1 | 6.1 | 3.5 | 2.1 |
| Total demand | 3.0 | 2.2 | -6.0 | 6.2 | 7.3 | 4.1 |
| ./. Imports | 1.4 | 1.0 | -3.6 | 2.4 | 4.5 | 2. |
| Gross Domestic Product | 1.7 | 1.2 | -2.4 | 3.8 | 2.8 | 1. |
| thereof: contribution of foreign trade | 0.2 | -0.2 | 0.4 | 3.7 | -1.0 | -0.1 |
| large international sportevents | 0.0 | -0.3 | 0.0 | 0.2 | 0.1 | -0.3 |
| Statistical differences from | | | | | | |
| chaining and inventory valuation | - | 0.2 | 0.0 | -1.3 | 0.8 | 0. |

(1) Unlike the national accounts the figures are adjusted by the non-cyclical exports and imports of vauables,

i.e. precious metals incl. non-monetary gold and stones, gems as well as objects of art and antiquities

(cf. Table A-1 and appendix).

Table 2-1

Balance of accounts: Federal Government, Cantons, Municipalities and National Insurances 2009–2023

(Million Swiss franc at current prices)

| | 09-18 | 2019 | 2020 | 2021 | 2022 | 2023 |
|-----------------------------------|-------|-------|---------|---------|--------|-------|
| | (C) | (C,E) | (C,E) | (E) | (E) | (E) |
| Federal Government | 3 110 | 4 801 | -15 168 | -11 447 | -5 414 | 1 816 |
| Cantons | -379 | 2 617 | -4 888 | 1 037 | 3 348 | 3 660 |
| Municipalities | -530 | -577 | -1 230 | -1 472 | -413 | -266 |
| Total without National Insurances | 2 201 | 6 840 | -21 287 | -11 882 | -2 478 | 5 209 |
| National Insurances | 1 196 | 677 | 2 298 | 2 048 | 3 492 | 3 539 |
| General Government | 3 397 | 7 518 | -18 989 | -9 834 | 1 013 | 8 748 |
| in % of GDP | 0.5 | 1.0 | -2.7 | -1.3 | 0.1 | 1.1 |

(E) KOF estimation and forecast 22 June 2022

| (in trillion US-Dollar; change against previous year | 20 nominal | | 09-18 | 2019 | 2020 | 2021 | 2022 | 2023 |
|--|---------------|--------|-------------------|-------------------|-------------------|-------------------|-------------------|-----------------|
| Gross Domestic Product | | | | | | | | |
| World (total) | | | | | | | | |
| Weighted by Nominal GDP Shares | 82.8 | 100 | | 2.6 | -3.5 | 6.2 | 3.2 | 2.7 |
| Weighted by Shares in Swiss Exports | 02.0 | 100 | | 1.9 | -4.8 | 5.5 | 3.1 | 2.3 |
| Weighted by PPP-Adjusted GDP Shares | | | | 2.9 | -3.4 | 6.4 | 3.4 | 3.0 |
| Important Country Aggregates (2) | | | | 2.5 | -0.4 | 0.4 | 0.4 | 0.0 |
| Euro Area | 12.9 | 16 | 0.8 | 1.6 | -6.5 | 5.3 | 3.2 | 2.1 |
| European Union | 15.1 | 18 | 1.0 | 1.8 | -6.0 | 5.3 | 3.4 | 2. |
| G20 | 76.7 | 93 | 2.6 | 2.6 | -3.5 | 6.3 | 3.1 | 2. |
| OECD | 52.9 | 64 | 1.6 | 1.7 | -4.6 | 5.5 | 3.0 | 1.9 |
| Europe | 19.6 | 24 | 1.1 | 1.8 | -6.3 | 5.6 | 3.3 | 1. |
| Germany | 3.7 | 5 | 1.3 | 1.1 | -4.9 | 2.9 | 2.1 | 2.4 |
| France | 2.6 | 3 | 0.9 | 1.9 | -7.9 | 6.8 | 2.3 | 0. |
| Italy | 2.0 | 2 | -0.3 | 0.5 | -9.1 | 6.6 | 2.9 | 1. |
| United Kingdom | 3.3 | 4 | 1.4 | 1.7 | -9.3 | 7.4 | 3.5 | 0. |
| Central and Eastern Europe | 1.3 | 2 | 2.4 | 4.2 | -3.7 | 5.6 | 6.1 | 3. |
| North America | 22.3 | 27 | 1.8 | 2.3 | -3.5 | 5.6 | 2.4 | 1. |
| United States of America | 20.5 | 25 | 1.8 | 2.3 | -3.4 | 5.7 | 2.3 | 1. |
| East Asia | 25.0 | 30 | 5.0 | 4.2 | -0.3 | 6.5 | 3.5 | 4. |
| China | 14.8 | 18 | 8.0 | 5.9 | 1.7 | 8.5 | 3.8 | 6. |
| Japan | 4.6 | 6 | 0.6 | -0.2 | -4.6 | 1.7 | 1.1 | 0. |
| Southeast Asia | 5.7 | 7 | 4.0 | 3.2 | -2.4 | 4.4 | 4.2 | 3. |
| South Asia (incl. India) | 2.9 | 4 | 7.3 | 4.5 | -6.8 | 8.3 | 7.6 | 5. |
| Central Asia and Russia | 1.8 | 2 | 0.6 | 2.3 | -2.7 | 4.7 | -10.1 | -6. |
| Latin America | 6.2 | 7 | 1.9 | 0.1 | -7.5 | 7.8 | 4.0 | 2. |
| Africa und Middle East | 3.3 | 4 2 | 3.7 | 1.1 | -1.3 | 7.8 | 5.4 | 3. |
| Oceania (incl. Australia) | 1.7 | 2 | 2.6 | 2.2 | -2.0 | 4.8 | 5.8 | 3. |
| Consumer Prices | | | | | | • • | | • |
| Euro Area | | | 1.3 1.3 | 1.2 1.4 | 0.3 0.4 | 2.6 3.2 | 7.2 7.6 | 2. 3. |
| Germany France | | | 1.3 | 1.4 | 0.4 | 3.z 2.1 | 5.3 | 2. |
| Italy | | | 1.2 | 0.7 | -0.1 | 1.9 | 6.4 | 2. |
| Further countries | | | 1.0 | 0.1 | -0.1 | 1.0 | 0.4 | ۷. |
| United States of America | | | 1.6 | 1.8 | 1.2 | 4.7 | 7.4 | 3. |
| United Kingdom | | | 2.3 | 1.8 | 0.9 | 2.6 | 8.8 | 5. |
| China | | | 2.2 | 2.9 | 2.4 | 1.0 | 2.2 | 2. |
| Japan | | | 0.6 | 0.5 | 0.0 | -0.2 | 2.3 | 1. |
| Globally Relevant Variables | | | | | | | | |
| World Trade (3) | | | 2.2 | -0.4 | -5.2 | 10.3 | 4.2 | 3. |
| Brent Crude Oil (US-Dollar per Barrel) | | | 80.9 | 64.3 | 41.8 | 70.7 | 109.7 | 115. |
| Euro/US Dollar Exchange Rate | | | 1.28 | 1.12 | 1.14 | 1.18 | 1.08 | 1.0 |
| €STR | | | 0.7 | -0.4 | -0.4 | -0.6 | -0.2 | 1. |
| US SOFR | | | 0.8 | 2.1 | 0.3 | 0.0 | 1.6 | 3. |
| 10-Year German Bund Yield | | | 1.8 | -0.2 | -0.5 | -0.3 | 0.8 | 1. |
| 10 Year US Treasury Bond Yield | | | 2.6 | 2.1 | 0.9 | 1.4 | 2.9 | 3. |

The KOF provides a comprehensive report on its international projections in the publication «KOF International Forecasts».