

KOF Bulletin

No. 87, July/August 2015

ECONOMY AND RESEARCH

Exchange Rate Appreciation – Winners and Losers [»](#)

Ask Your Doctor or Pharmacist! On the Effect of Self-Dispensing Physicians
on Pharmaceutical Coverage in Switzerland [»](#)

The Health Sector's Share of Swiss GDP is Set to Increase to 11.9 Per Cent in 2016 [»](#)

Forecasts for Swiss Wines: New Cooperation Between KOF and the Swiss Wine Market Observatory [»](#)

KOF INDICATORS

KOF Business Situation: Little Change [»](#)

KOF Economic Barometer: Falls Back to its April Standing [»](#)

Further KOF Publications [»](#)

AGENDA

KOF Events [»](#)

Conferences/Workshops [»](#)

CUSTOMER SERVICE [»](#)

IMPRINT [»](#)

ECONOMY AND RESEARCH

**EXCHANGE RATE APPRECIATION – WINNERS AND LOSERS**

A new KOF Study investigates the impact of movements in the real exchange rate on employment in the Swiss manufacturing sector. The study concludes that, while exchange rate appreciations do generally result in job losses, some actually make companies create new jobs. Employees with low to medium qualifications suffer more than those with good qualifications.

In a new KOF Working Paper, Boris Kaiser and Michael Siegenthaler investigate the correlation between exchange rate fluctuations and employment in the Swiss manufacturing industry. Their study is based on data collected by the KOF Innovation Surveys from 1998 to 2012. The authors demonstrate that the impact of a real Swiss franc appreciation on staff numbers varies from company to company. Not surprisingly, companies that generate the majority of their turnover abroad shed the highest number of jobs.

It should, however, be remembered, that an exchange rate appreciation also increases competition for companies that sell their products and services exclusively on the Swiss market. A 10-per cent appreciation of the Swiss franc means that the prices of products manufactured by a Swiss company are now 10 per cent higher than those manufactured by a German company – even on the Swiss market. As a consequence, buying products in Germany becomes more attractive for consumers, and procuring products and services abroad becomes more advantageous for Swiss companies. Hence, an appreciation of the Swiss franc is likely to prompt suppliers of products that can be easily sourced abroad to cut staff numbers.

NATURAL HEDGING PROTECTS EMPLOYEES

However, the study results also show that some companies actually benefit from a Swiss franc appreciation – especially those that purchase the majority of their inputs abroad and do not export much. Fluctuations in the real exchange rate have little impact on employment in such companies. This is due to a simple mechanism: When the Swiss franc appreciates, imported goods and services become cheaper, leading to lower production costs. In some companies, the decline in costs resulting from this natural hedging against exchange rate fluctuations is substantial enough to allow them to actually create new jobs after an appreciation. These secret winners of the exchange rate appreciation are (understandably) rarely mentioned in the current debate on the impact of the Swiss franc exchange rate shock.

The study also identifies further factors that cushion the impact of Swiss franc movements on employment in the Swiss manufacturing industry. A key factor among them is profitability. According to the results of the study, Swiss companies prefer absorbing exchange rate appreciations in their profits before letting their staff go.

For all that, the impact of an appreciation on employment is all the more pronounced when profitability was already low before the shock. In this respect, the current appreciation may be different from past exchange rate appreciations as profitability had already suffered severely due to the euro crisis. The resulting lack of a buffer may mean that the current appreciation has a more pronounced impact on the employment situation.

Most empirical studies investigating the advantages of separate and mixed dispensation systems tend to conclude that dispensation by physicians is less advantageous. Healthcare expenses in Switzerland tend to rise under self-dispensation regimes as shown, for instance, by Bern-based healthcare economists Boris Kaiser and Christian Schmidt. The fundamental problem with self-dispensation schemes is the moral hazard, the incentive to concentrate more on the own wallet, which emperor Frederick II sought to avoid with his separation decree. However, some studies, for instance a study carried out on behalf of the Swiss Federal Office of Public Health (BAG) and published in April 2015, also indicate cost neutrality.

In a new KOF Study, the authors Matthias Bannert and David Iselin focus less on expenses and rather on the question of self-dispensation or no self-dispensation as a factor in regime decision-making. The question of healthcare coverage is one that does not get sufficient attention if the focus is exclusively on cost considerations. Self-dispensation has previously hardly known effects on healthcare coverage and commercial considerations. The authors' analysis is based on the concept that optimum coverage from the patients' perspective means that both pharmaceutical and medical know-how should be accessible locally, i.e. that no long distances are involved.

The authors have processed the data of a survey among pharmacists stretching over the period 2008–2012 and collected by KOF on behalf of pharmaSuisse, the Swiss Association of Pharmacists. 77 per cent of all pharmacies in Switzerland are pharmaSuisse members. Thanks to a response rate of 72 per cent, the survey data thus cover 57 per cent of all pharmacies in Switzerland. Google's Geocoding API was used to reflect geographical distribution in Switzerland, identifying the locations of the individual pharmacies based on their address and calculating the distance between all pharmacies included in the study. Subsequently, the authors matched the locations with a municipal classification system published by the Swiss Federal Statistical Office (BFS) and added the attractiveness of the location via the median taxable income in the location as a further variable.

Regression analysis shows that self-dispensation increases the probability of pharmacies moving to densely populated areas for purely economic reasons. Peripheral regions that may be borderline attractive for pharmacies may thus become unattractive. At the same time, pharmacies begin to adjust their business strategies and focus increasingly on non-pharmaceutical products, i.e. they tend to become chemist's shops.

Finally, the authors advocate a system that determines on a more fine-grained level who may dispense drugs when and under which conditions. Particular interests should play a secondary role in order to achieve the best solution for the patients. Ideally, physicians and pharmacists should work together given the fact that declining numbers of doctors are prepared to open surgeries in remote areas.

Find more informations about the KOF Working Paper "Ask Your Doctor or Pharmacist! On the Effect of Self-Dispensing Physicians on Pharmaceutical Coverage" on our website:

<http://kof.ethz.ch/de/publikationen/p/kof-working-papers/387/> >>

THE HEALTH SECTOR'S SHARE OF SWISS GDP IS SET TO INCREASE TO 11.9 PER CENT IN 2016

Health care expenditure in Switzerland will continue to grow faster than the economy as a whole this and next year. This is the result of the half-yearly KOF Forecast for Health Care Expenditure, which is carried out thanks to a research contribution from TopPharm. KOF is expecting overall health care expenditure to grow by 2.8 per cent (2015), 3.2 per cent (2016) and 3.8 per cent in 2013 and 2014, which have also been recalculated. The economic impact of the health sector is continuing to grow.

Forecasts for health care expenditure in Switzerland are always retrospective since the data only become available after a long time lag. The KOF has reviewed downwards the 2013 forecast compared to the last publication in autumn 2014, as it is now assuming that the changes to hospital financing will have a more restrained effect on cost growth for hospitals. Although it was announced that the changes to hospital financing should be cost-neutral, in actual fact, 2012 already saw a rise in the costs of providers of "hospital" services of just under 10 per cent.

The data relating to the "Monitoring of trends in health insurance costs" provided by the Federal Office of Public Health (FOPH) point to another strong increase in costs for hospitals. This meant that last autumn the KOF again forecast high growth in spending for providers of "hospital" services of 6.3 per cent. However, according to the most recent information and our own internal research, this figure has probably been set too high. The KOF has accordingly reduced the rate of growth in this forecast to 3.6 per cent and is projecting a continuation of the reduced rate of spending growth in the hospital sector for the following years. In view of the impact of this area of expenditure, this has also resulted in a flattening of growth rates for overall expenditure compared to the autumn 2014 Forecast for Health Care Expenditure.

Following the strong increase in overall health care expenditure of 5.3 per cent in 2012 and the more moderate, yet still relatively high growth of 3.8 per cent forecast for 2013, the rises for 2014 and 2015 will level out. This has also been affected by the reintroduction of the moratorium on new doctors. In addition, lower prices for pharmaceuticals took effect in June 2013, which, according to the FOPH, should result in savings of 720 million Swiss francs by 2015. This means that 2015 spending growth of 2.8 per cent will still be moderate, and will only pick up somewhat to 3.2 per cent in 2016, following the expected end of the pharmaceuticals sector savings (see table).

Table: Comparison Between Forecast Changes in Health Care Expenditure 2013–2016

	2013	2014	2015	2016
KOF Spring Forecast 2015	3.8%	3.3%	2.8%	3.2%
KOF Autumn Forecast 2014	4.9%	2.1%	2.8%	3.7%

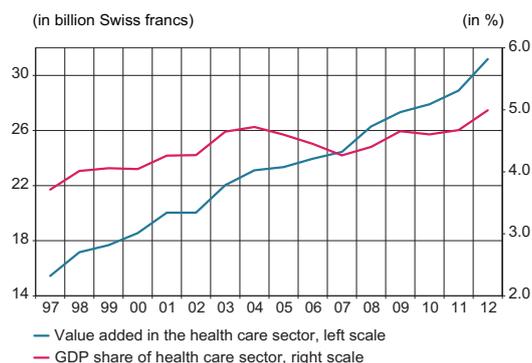
© KOF, ETH Zurich

Last autumn, an increase of 3.7 per cent was still being forecast. The fact that a lower rate is now forecast is due to the deterioration of the economic climate in Switzerland which has occurred following the "franc shock" of 15 February 2015. As a result, the KOF is expecting the unemployment rate to increase in 2015 and 2016. After a lag, due to muted wage growth, this will have the effect of depressing increases in health care expenditure. In addition, the Federal Council is seeking to achieve significant additional medium to long-term savings in its "Health 2020" strategy. Over the forecast horizon until 2016, however, the consequences in terms of costs of the measures planned under this strategy – except in the pharmaceuticals sector – do not as yet appear to be sufficiently concrete in order to be taken into account in the forecast.

INCREASING ECONOMIC SIGNIFICANCE OF THE HEALTH SECTOR

The health sector is developing into an increasingly important branch of the Swiss economy. In 2014, employment in the health care industry reached a figure of 239,800 FTE. Over the long term, the proportion of health industry workers out of overall workers is increasing and, measured in terms of FTE, rose from 4.9 per cent in 1992 to 6.8 per cent in 2014. The contribution of the health industry to overall added value increased from 3.7 per cent (1997) to 5.0 per cent (2012) (see G 2).

G 2: Value Added in the Health Care Sector



The health care expenditure ratio, i.e. the proportion of GDP dedicated to health care expenditure, increased over the 10 years prior to 2012 from 10.1 per cent to 10.9 per cent. During the 2013 to 2016 forecasting period, health care expenditure will increase faster than nominal GDP, with the ratio reaching 11.9 per cent by 2016.

ABOUT THE STUDY

The detailed KOF Study “Spring Forecast for Swiss Health Care Expenditure 2013 – 2016” (in German) by Marko Köthenbürger, Pauliina Sandqvist and Jochen Hartwig, is available on our website:

<http://kof.ethz.ch/de/publikationen/p/kof-studien/> >>

The forecast of ETH Zurich’s KOF Swiss Economic Institute on the development of Swiss health care expenditure is published twice each year. The spring forecast is supported through a research contribution by the company TopPharm, whilst the autumn forecast is supported by the internet comparison service comparis.ch.

FORECASTS FOR SWISS WINES:

NEW COOPERATION BETWEEN KOF AND THE SWISS WINE MARKET OBSERVATORY

Under the direction of the Changins School of Engineering for Viticulture and Oenology, the Swiss Wine Market Observatory (SWMO) has just published its first quarterly report dedicated to the performance of the market for Swiss AOC wines sold by major retailers in 2014. It is thus interesting to note the objectives of this Observatory and to provide an overview of the role of KOF, a scientific partner of the SWMO project on the joint development of questions relating to the modelling of and forecasting concerning the Swiss wine market.

AN OBSERVATORY IN THE SERVICE OF THE WINE-GROWING SECTOR

Swiss wines are being confronted with increasingly stiff competition from abroad following the liberalisation of imports in 2001, and more recently also due to the difficult economic climate and the strong Swiss franc. The figures contained in this 2014 report confirm the continuing downward trend noted over the last few years in the consumption of Swiss wines.

Within this challenging context, there is a good reason for the Swiss wine-growing sector to “have access to a neutral and reliable Swiss wine market observatory in order to better forecast the factors which will impact upon supply and demand along with their development, and to gain a better understanding of consumer needs and expectations, thereby reinforcing the marketing and sales strategy for Swiss wines” (SWMO website).

The SWMO has set itself the mission of providing the Swiss wine-growing sector as a whole with the tools to interpret the markets, along with professional forecasts assessing the market's risks and opportunities, with the long-term aim of establishing itself as a major centre for strategic reflection for the industry as a whole.

FIRST SWISS REPORT: TAKING STOCK OF THE SITUATION

The report is based on the data provided by Nielsen, a company that specialises in consumer behaviour analysis. "They include the major Swiss distributors such as Coop, Denner, Manor, Globus and Volg, with the exception of Landi, Lidl and Aldi, which are gradually becoming more significant" (SWMO, 2015, report no.1, page 5).

This report announced a figure of 24.3 million litres of Swiss AOC wines sold in supermarkets in 2014, according to the data on which this study was based, involving an estimated turnover of 290 million Swiss francs. In geographical terms, the Cantons of Valais and Vaud alone account for around 85 per cent of sales volumes. In terms of colour, 51.1 per cent of Swiss wine sold in supermarkets was white wine.

The 2014 viticultural year saw a fall in income from the sale of Swiss wine through major retailers of 1.6 per cent compared to 2013. A general decline in sales of 2.7 per cent may be noted across the board, irrespective of colour, which has not been offset by the increase in the average price per litre of 1.1 per cent. However, this fall in sales should not be attributed exclusively to changes in consumer preferences, taking account of successive low-yield harvests and a fall in supply, which has inevitably led to a decline in supermarket sales (SWMO, 2015, press release).

COOPERATION BETWEEN THE SWMO AND THE KOF

One of the objectives of the Swiss Wine Market Observatory is to establish a modelling and forecasting mechanism for the Swiss wine market. In particular, the KOF intends to contribute its resources and scientific expertise to the project: a professor and a doctoral student working in the area of wine economics are members of the Steering Committee and respectively of the core team working on the SWMO project.

The modelling aspect of the project will use the raw Nielsen data provided by the Observatory along with other data provided by Swiss Federal Office for Agriculture or the Swiss Federal Statistical Office aggregated in a panel. The two main variables of interest are the volume sold and the average price per litre, broken down according to type of wine (Chasselas, Gamay, Merlot...) and production region (Swiss wine-growing regions: Valais, Vaud, Geneva, Ticino, the Lucerne area and German-speaking Switzerland). The aim will be to bring together within one single model a technical analysis of historical data with an analysis of the factors influencing supply of and demand for wine such as macroeconomic variables, external shocks and positive/negative externalities in order to infer forecast trends for the Swiss wine market.

For further information, please refer to the SWMO website:

<http://www.osmv.ch> >>

KOF INDICATORS



KOF BUSINESS SITUATION: LITTLE CHANGE

In June, the KOF Business Situation Indicator for private companies in Switzerland hardly changed compared to the previous month (see G 3). Following a sometimes significant decline over the last five months, the indicator hardly moved from the May figure. The situation of the Swiss companies remains tense.

As regards the sectors with monthly surveys, the business situation changed little in June (see G 4). While the assessment of the retail trade was slightly less positive, the evaluation of the project engineering sector was slightly more positive. The business situation in the construction industry, financial services and processing industry is more or less unchanged compared to May. The whole-sale trade, the hotel and catering sector and the other service providers were last surveyed in April. All three sectors were significantly affected by the new exchange rate situation and had revised their assessments downward.

The Business Situation Indicator followed different trends in different regions (see G 5). In Central Switzerland, the indicator rose for the first time in six months while remaining stable in Eastern Switzerland. The situation in the Lake Geneva region has stabilised for the time being and Ticino also reported no further decline. In contrast, the business situation in the Zurich region and in North-West Switzerland is less positive than before.

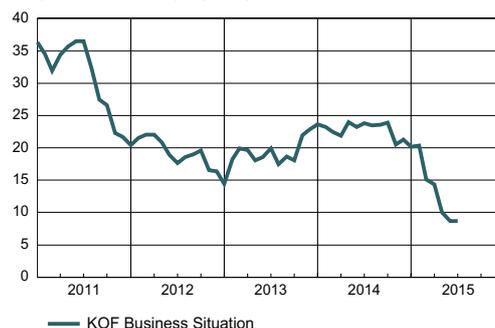
EXPLANATION OF GRAPHS

Graph G 3 shows the KOF business situation for all sectors of the economy covered by the survey. For economic sectors that are only surveyed quarterly, the business situation is kept at the same level during the intervening months.

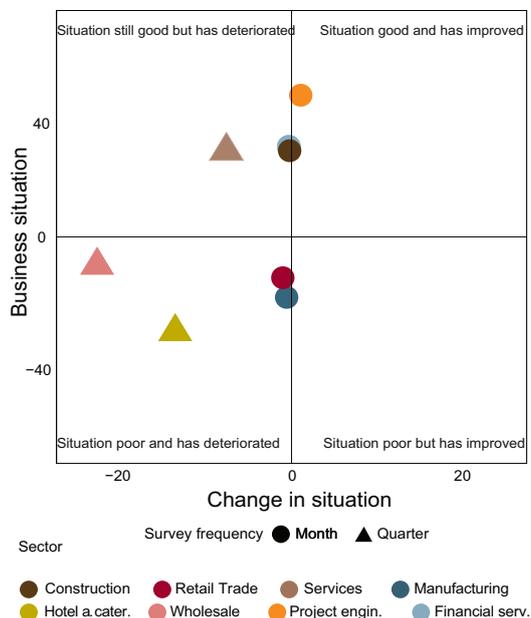
Graph G 4 shows the business situation and the current change in the situation. For monthly surveys the changes compared to the previous month are highlighted. For quarterly services the changes in the most recent quarter compared to the previous quarter are reported. The quarterly values are not changed in the intervening months and are only updated in the first month of each quarter.

G 3: KOF Business Situation Indicator

(balance, seasonally adjusted)



G 4: KOF Business Situation: Change in Different Sectors



Graph G 5 reports the business situation in the major regions according to the Federal Statistics Office. The regions are coloured differently depending on the business situation. The arrows within the regions indicate the change in the business situation compared to the previous month. For example, an upward arrow means that the situation has improved compared to the previous month.

The KOF business situation is based on more than 4,500 reports from businesses in Switzerland. Each month businesses are surveyed in the economic sectors of industry, retail trade, construction, project engineering and financial and insurance services. Businesses in the hotel and catering sector, wholesalers and other service providers are surveyed quarterly in the first month of each quarter. Businesses are requested, amongst other things, to assess their current business situation. They may class their situation as “good”, “satisfactory” or “bad”. The balance of the current business situation is the percentage difference between the answers “good” and “bad”.

You can find more information about the KOF Business Tendency Surveys on our website:

www.kof.ethz.ch/en/surveys/business-tendency-surveys/ >>

KOF ECONOMIC BAROMETER: FALLS BACK TO ITS APRIL STANDING

In June 2015, the KOF Economic Barometer dipped to 89.7 points. This decrease amounted to three points compared to the previous month. The interim rise of the Barometer in May vanished again (see G 6). Hence, the perspectives for the Swiss economy have become more negative for the coming months, according to the Barometer.

In June 2015, the Economic Barometer dropped to its lowest reading since December 2011 when it stood at 87.2 points. After the increase in the last month was largely driven by the improved sentiment in the industry, the renewed decline of the Economic Barometer is now mainly due to a negative development of the indicators in the industrial sector. The negative sentiment runs through virtually all sub-categories. The largest negative contribution came from the metal and wood sector.

The construction industry, however, seems to recover somewhat; in particular indicators related to the architectural business contribute positively to the overall indicator. A negative contribution comes from the indicators of the financial sector. The indicators that cover foreign demand likewise contribute negatively to the Barometer. This holds particularly true for industry sentiment indicators in the European environment. The consumption indicators neither provide significant positive nor significant negative contributions.

It turns out that in June, broken down by business-related categories in the industry sector, the orders have particularly suffered. Their decline is largely responsible for the renewed fall of the Barometer. The indicators that are related to production and pre-production have also deteriorated.

G 5: KOF Business Situation in the Private Sector



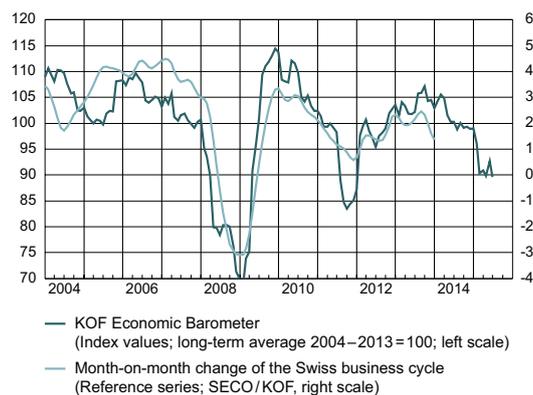
The angle of the arrows reflects the change in the business situation compared to the previous month Source: KOF

Net balances		
55 to 100	30 to under 55	16.5 to under 30
9 to under 16.5	5 to under 9	-5 to under 5
-9 to under -5	-16.5 to under -9	-30 to under -16.5
-55 to under -30	-100 to under -55	

KOF ECONOMIC BAROMETER AND REFERENCE SERIES

The KOF Economic Barometer is a composite leading indicator for the Swiss economy. The latest version comprises 217 indicator variables, which are combined based on statistically determined weights. The indicator variable selection and their weights are updated annually after the release of the previous year's annual Gross Domestic Product (GDP) data by the Swiss Federal Statistical Office. Last year's revision took place in October. Our new reference series is the smoothed continuous growth rate of Swiss GDP according to the new System of National Accounts ESVG 2010, released at the end of September 2014.

G 6: Economic Barometer and Reference Series



More information about the KOF Economic Barometer on our website:

<http://www.kof.ethz.ch/en/indicators/economic-barometer/> >>

FURTHER KOF PUBLICATIONS

You will find a complete list of all KOF publications (KOF Analyses, KOF Working Papers and KOF Studies) on our website.

www.kof.ethz.ch/en/publications/ >>

KOF ECONOMIC FORECAST

How much GDP growth does the KOF expect for this year? How will the labour market develop? You find the latest KOF Economic Forecasts here:

http://kof.ethz.ch/static_media/bulletin/86/forecasts_summer_en.pdf >>

AGENDA

**KOF EVENTS**

KOF Prognosetagung 2015

Schweizer Konjunktur und Geldpolitik unter neuen Vorzeichen?

Referent: Dr. Fritz Zurbrügg, Vizepräsident des Direktoriums, SNB

ETH Zurich *focusTerra*, 1 Oktober 2015

[http://kof.ethz.ch/de/veranstaltungen/k/prognosetagung/](http://kof.ethz.ch/de/veranstaltungen/k/prognosetagung/303/2015/10/kof-prognosetagung-2015/)

[303/2015/10/kof-prognosetagung-2015/](http://kof.ethz.ch/de/veranstaltungen/k/prognosetagung/303/2015/10/kof-prognosetagung-2015/) >>

KOF Research Seminar:

tba

Jens Südekum – University of Düsseldorf

ETH Zurich, 16 September 2015

Matz Dahlberg – Uppsala University

ETH Zurich, 18 November 2015

Claus Thustrup Kreiner – University of Copenhagen

ETH Zurich, 25 November 2015

Stefan Hoderlein – Boston College

ETH Zurich, 9 December 2015

Thorsten Beck – Cass Business School

ETH Zurich, 13 January 2016

Kai Konrad – Max Planck Institute for Tax Law and Public Finance

ETH Zurich, 27 January 2016

www.kof.ethz.ch/en/events/k/kof-research-seminar/ >>

KOF-ETH-UZH International Economic Policy Seminar:

Global Supply Chains and Trade Policy

Chad Bown – World Bank

ETH Zurich, 24 September 2015

www.kof.ethz.ch/en/events/k/kof-eth-uzh-seminar-in-international-economic-policy/ >>

KOF Media Agenda: www.kof.ethz.ch/en/medien/agenda/ >>

CONFERENCES/WORKSHOPS

Silvaplana Workshop in Political Economy

Silvaplana (Switzerland), 25–29 July 2015

www.journals.elsevier.com/european-journal-of-political-economy/call-for-papers/silvaplana-workshop-in-political-economy/ >>

11th World Congress of the Econometric Society

Montreal (Canada), 17–21 August 2015

eswc2015.com/ >>

Jahrestagung 2015 des Vereins für Socialpolitik:

Ökonomische Entwicklung – Theorie und Politik

Münster (Germany), 6–9 September 2015

www.socialpolitik.de/De/jahrestagung-2015 >>

5th IWH/INFER Workshop on Applied Economics and Economic Policy:

Trade and Capital Liberalizations – Boost for Growth or Bane of Spillover?

Halle (Germany), 17–18 September 2015

www.de.amiando.com/AEEP2015.html >>

9th Annual Conference on the Political Economy of International Organizations

(Call for Papers: 30 September 2015)

Salt Lake City (USA), 7–9 January 2016

peio.me/ >>

Add event: www.kof.ethz.ch/publications/bulletin/event/index_en >>

CUSTOMER SERVICE



The KOF Bulletin is a free service by e-mail which informs you about the latest developments relating to the economy, our research and important events on a monthly basis.

Register: www.kof.ethz.ch/publications/bulletin/registration/en >>

For previous KOF Bulletins, visit our archive:

www.kof.ethz.ch/publications/bulletin/archive/en >>

Visit us at: www.kof.ethz.ch >>

You can also extract time series from our extensive database via the KOF data service (in German):

www.kof.ethz.ch/de/ueber-uns/services/datenservice/ >>

The reproduction of this Bulletin (including excerpts thereof) is permitted only with the written permission of the publisher and with the citation of the original source.

ISSN 1662-4289

IMPRINT

**PUBLISHER**

ETH Zurich, KOF Swiss Economic Institute, LEE G 116, Leonhardstrasse 21, 8092 Zurich

Phone +41 44 632 53 44 | Fax +41 44 632 12 18 | kof@kof.ethz.ch

EDITORIAL TEAM

Anne Stücker | David Iselin

bulletin@kof.ethz.ch

NEXT PUBLICATION DATES

4 September | 2 October 2015

TABLES – KOF Summer Forecast 2015

SWITZERLAND

Real Gross Domestic Product by Type of Expenditure																
	2005-2013	Percentage change against												previous year		
		previous quarter (annualized, trend cycle component)												2014	2015	2016
		2014				2015				2016						
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
Private consumption	1.7	0.9	1.4	1.8	1.6	1.9	2.2	2.0	2.1	1.9	1.6	1.5	1.6	1.3	1.9	1.8
Public consumption	1.1	0.0	0.4	2.7	3.8	2.6	0.6	-0.1	0.8	1.8	1.8	1.1	1.5	1.4	1.9	1.2
Gross fixed capital formation	2.0	0.0	1.9	3.1	1.1	-1.2	-0.6	-0.7	1.9	5.0	2.4	-2.4	-2.2	1.5	0.3	1.6
– Construction	1.4	0.9	-0.9	-2.4	-2.0	-0.9	-0.1	-1.4	-0.8	-0.5	-0.7	0.1	1.2	0.9	-1.1	-0.6
– Machinery and equipment	2.3	-0.4	3.9	6.3	2.9	-1.2	-0.7	0.2	3.9	8.0	3.7	-3.9	-4.3	2.0	1.2	2.9
Exports of goods (1) and services	4.0	-0.3	3.7	6.1	3.7	-0.2	-0.4	-0.1	1.8	4.5	3.7	3.4	4.2	3.8	1.5	2.8
– Goods	3.6	5.7	6.4	4.0	0.0	-3.2	-1.8	0.9	2.7	3.6	3.0	4.0	5.2	4.0	-0.5	3.2
– Services	3.7	-0.9	-2.6	0.1	7.2	6.0	1.2	0.1	2.2	3.6	4.8	4.5	2.6	1.9	2.8	2.9
Imports of goods (1) and services	3.6	-0.6	0.7	2.2	2.9	3.7	2.3	1.1	4.9	6.6	4.5	1.5	1.5	1.5	3.0	3.8
– Goods (1)	3.0	3.4	2.1	0.7	-1.7	-1.9	1.2	3.1	6.4	8.3	4.5	0.5	1.1	1.5	0.8	4.8
– Services	5.2	-2.8	-2.1	2.3	12.2	12.4	5.2	1.4	1.6	2.4	3.8	4.3	2.9	1.7	7.6	2.1
Change in stocks (2)	0.2	1.7	-0.3	-2.2	-2.0	-0.1	0.4	0.9	0.1	-1.1	-0.2	0.2	-0.3	-0.1	-0.3	-0.4
Gross Domestic Product (GDP)	2.1	1.9	1.8	1.9	1.5	-0.4	-0.9	0.1	1.2	1.7	1.9	1.7	1.6	2.0	0.4	1.3

(1) Without valuables (i.e. precious metals including non-monetary gold, precious stones and gems as well as objects of art and antiquities)

(2) Percentage contribution to GDP-growth

Other Macroeconomic Indicators																
	2005-2013	Percentage change against												previous year		
		previous quarter												2014	2015	2016
		2014				2015				2016						
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
Real effective exchange rate of Swiss Franc (1)	1.3	2.0	-0.2	-3.6	-1.7	38.5	5.9	-3.5	-1.3	-3.5	-1.8	-4.4	-1.3	0.6	8.2	-2.2
Short term interest rate ((3-month Libor CHF) (2))	0.9	0.0	0.0	0.0	0.0	-0.7	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	0.0	-0.8	-0.8
Yield of 10 years federal bonds (2)	1.9	1.0	0.8	0.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.7	0.0	0.0
Consumer prices (3)	0.5	0.0	0.1	0.0	-0.1	-0.7	-1.2	-1.3	-1.1	-0.6	-0.1	-0.2	-0.1	0.0	-1.1	-0.3
Full-time equivalent employment (4)	1.4	0.6	0.5	1.0	1.3	0.6	-0.1	-0.2	0.0	0.1	0.2	0.2	0.2	0.8	0.5	0.0
Unemployment rate (2,5)	3.0	3.2	3.2	3.2	3.1	3.2	3.3	3.4	3.5	3.5	3.6	3.7	3.7	3.2	3.3	3.6

(1) Annualized

(2) Level

(3) Same quarter of previous year

(4) Smooth components annualized

(5) Unemployed as percentage of labour force according to census of 2010

GLOBAL ECONOMY

Percentage change against																
	2005-2013	previous quarter (annualized, seasonal adjusted)												previous year		
		previous quarter												2014	2015	2016
		2014				2015				2016						
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
Real Gross Domestic Product (GDP)																
– OECD total	1.4	0.9	1.7	2.4	1.8	1.0	1.6	2.0	2.1	2.1	2.1	2.1	2.1	1.8	1.7	2.1
– European Union (EU-28)	0.9	1.5	0.8	1.3	1.6	1.6	1.8	1.7	1.8	1.9	1.9	1.9	1.9	1.3	1.6	1.9
– USA	1.5	-2.1	4.6	5.0	2.2	-0.7	1.6	2.6	2.8	2.6	2.6	2.6	2.6	2.4	1.9	2.6
– Japan	0.7	4.4	-6.8	-2.0	1.2	3.9	1.1	1.2	1.2	1.2	1.2	1.2	1.2	-0.1	0.9	1.2
Oil price (\$ per barrel) (1)	84.8	107.9	109.8	102.1	76.0	54.1	63.7	65.0	65.5	65.8	66.1	66.5	66.8	98.9	62.0	66.3

(1) Level

© KOF, ETH Zürich