inštitút finančnej politiky

Policy brief 2015/4 Ministerstvo financií SR / www.finance.gov.sk/ifp

June 19th 2015

Strong growth amid economic tailwinds

Macroeconomic forecast for 2015 - 2018

Lucia Šrámková, Monika Pécsyová

Slovak economy will grow by 3.2% this year, a best performance since 2010. The growth will accelerate further to 3.7% in 2016. Exports will significantly recover after a weak growth last year stemming from external risks. This rebound will support a continuation of robust employment growth. The positive development in the following years will help push the unemployment rate down to a single-digit level. The macroeconomic forecast has a slightly positive impact on the tax bases.

ECB´s QE and FED monetary policy normalisation have been centre- staged

Monetary policy normalization in the US and the ECB´s QE have determined mood on the financial markets. The ECB has launched a long-awaited QE program in mid-March. By the end of May the assets purchased reached €134 bn., which is widely considered as being within the target. The program triggered portfolio rebalancing as investors use the additional liquidity for portfolio reallocation towards more risky assets (foreign assets, stocks). Bond yields bottomed in April, together with new post-crisis highs on the European stock markets. At the same time, QE has been transmitted through the exchange rate channel with EUR/USD plummeting at 1.05. Both equity markets and the exchange rate have witnessed the correction since then. This happened amid the cloudy rhetoric by FED concerning the timing of the interest rate hike in the US, despite solid US (particularly labour market) data. Market observers expect the rate hike by the end of this year.

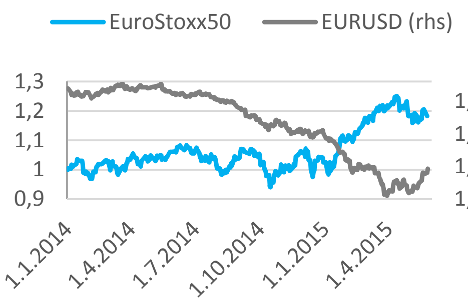
Oil price on a moderate growth trajectory

The oil price has bounced back from the lows in January, therefore we nudge up the forecast for this year to above 60 USD per barrel[1]. Prices of long futures have been gradually rising as well, despite an unchanged decision by OPEC not to decrease production and Iran´s oil supply in the pipelines soon.

Credit financing in the euro area is catching second wind

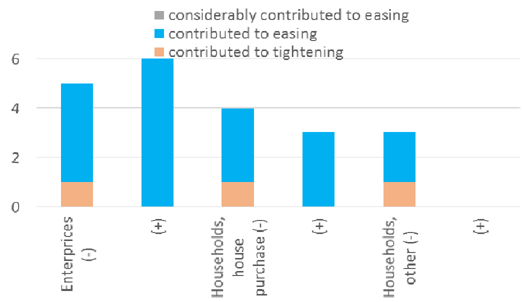
The credit standards in the euro area have improved[2]. QE supports the bank lending as banks have more funds available. This has been already reflected in euro area bank lending survey, reporting improving credit standards both for household and enterprises. QE transmission through bank lending channel may be limited in euro area´s periphery countries, where other factors may still play a key role (e.g. capitalization of banks).

Graf 1: QE resulted in euro depreciation and post-crisis highs of European equity markets



Source: Bloomberg

Credit Standards (- past 6 months, + next 6 months)



Source: ECB euro area bank lending survey

[1] Based on future contracts at the end of May
[2] ECB euro area bank lending survey, 1Q2015

The sentiment in Europe improved on the back of economic tailwinds

European economic sentiment has improved mainly due to temporary factors: low oil price, weaker euro and QE. The collapse of oil prices has resulted in a wealth transfer from the oil exporters to the importers. A significant euro depreciation has provided an additional stimulus for the exporters. QE has stabilized inflation expectations and reduced the likelihood of a prolonged low inflation with a negative impact on the euro area's economic growth. Less restrictive or even neutral fiscal policy is a positive short term factor. However, low potential growth of the euro area economies is a negative factor posing a risk of a growth slowdown once economic tailwinds cease at the end of the medium-term horizon.

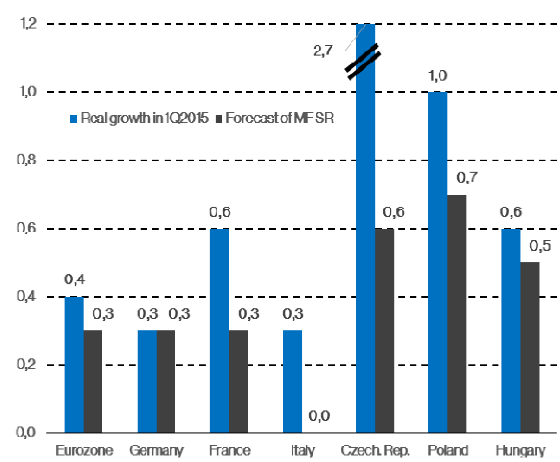
Eurozone accelerates, neighboring countries maintain fast growth

The economic growth of our trading partners will accelerate. The economy of the euro area grew by 0.4% in the first quarter. Weaker growth in Germany was compensated by a robust growth in France and Spain. Growth recovered in Italy after a three-year period of stagnation and slump. Neighboring countries outside eurozone recorded robust growths. Extremely high growth of the Czech economy was partially caused by a one-off factor[3], however, the Czech economy grew by more than 1% QoQ even after adjusting for this factor. Poland and Hungary grew strongly as well, although the structure of Poland´s growth is more balanced and sustainable than that of Hungary.

Eurozone growth will be fastest since 2011

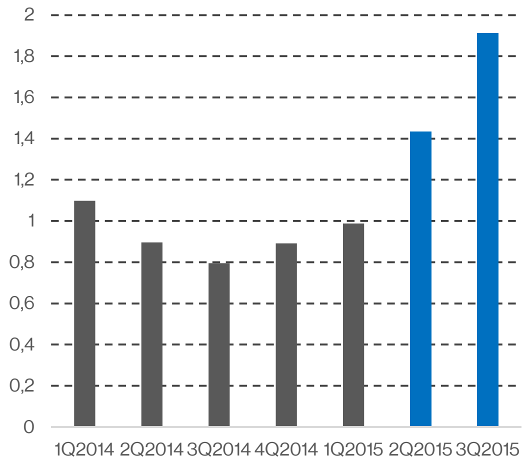
The euro area will grow by 1.5% in 2015 and the growth of V4 countries will stabilize at around 3%. Leading indicators remain high above the long-term average and indicate the acceleration of the economic activity in the short term, though May data suggest that assessment of current situation is marginally better than expected situation.

Chart 3: QoQ GDP growth of Slovakia's main trading partners in 3Q2014



Source: Eurostat, IFP

Chart 4: Rebound of expected growth in Eurozone (YoY in %)



Source: Nowcasting, IFP

Higher forecast of foreign demand in 2015-2016 and worse long-term outlook

We have raised the growth forecast of our main trading partners in both 2015 and 2016. The impact of the short-term pro-growth factors will result in the acceleration of growth with a peak next year. As eurozone´s potential remains below 1% and output gap may close already in 2017, we adjust the estimated growth moderately downwards at the end of the forecast horizon. Identical adjustments have been made to the forecast of the growth of weighted imports of our main trading partners. The forecast of foreign prices has been raised as a reaction to the launch of QE. For the external demand assumption we have used the OECD forecast spring forecast adjusted for the first quarter

[3] Cigarettes stockpiling effect

development[4] and euro area nowcasting. Assumptions about the external environment, interest rates and commodity prices are based on the information available by the end of May 2015.

Table 1: MF SR forecast – main economic indicators (June 2015)

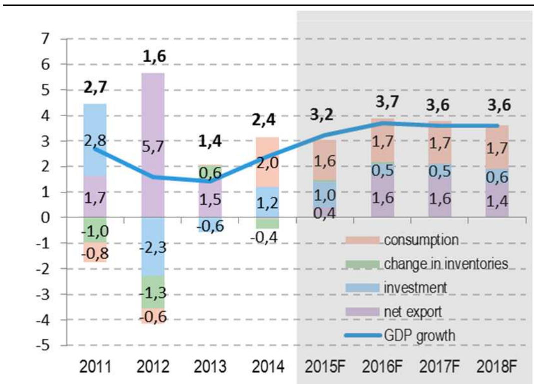
	GDP (% growth)					Diff. from Jan. 2015					Import (% growth)					Diff. from Jan. 2015				
	2014	2015	2016	2017	2018	2014	2015	2016	2017	2018	2014	2015	2016	2017	2018	2014	2015	2016	2017	2018
Main trading partners	2.2	2.1	2.3	2.2	2.0	0.1	0.3	0.2	0.0	-0.3	7.1	5.2	5.6	4.9	4.6	0.7	0.7	0.5	0.1	-0.3
of that ***Eurozone***	0.9	1.5	2.1	-	-	0.1	0.3	0.3	-	-	2.8	4.0	4.5	-	-	-0.2	0.5	0.5	-	-
Germany	1.6	1.5	2.0	-	-	0.2	0.3	0.4	-	-	3.3	4.5	5.8	-	-	-0.2	0.3	0.1	-	-
Czech Rep.	2.0	3.1	2.8	-	-	-0.4	0.5	0.2	-	-	9.6	7.0	6.5	-	-	1.5	0.5	0.3	-	-
Poland	3.3	3.3	3.4	-	-	0.1	0.1	0.4	-	-	8.7	7.6	7.2	-	-	1.4	2.6	0.7	-	-
Hungary	3.6	2.8	2.2	-	-	0.6	0.5	0.1	-	-	10.0	5.6	5.2	-	-	2.2	0.3	0.4	-	-

Source: OECD , Bloomberg, IFP

Raised GDP growth in 2015

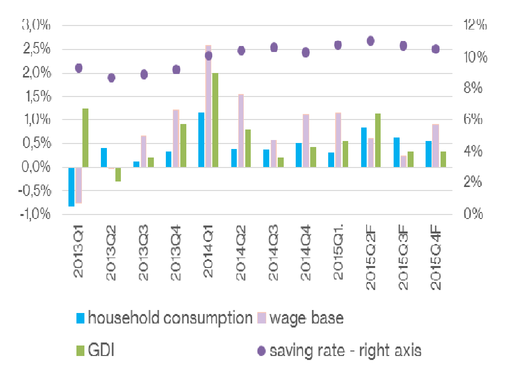
Slovak economy will grow by 3.2% this year, the best performance since 2010. Higher forecast reflects mainly the strong first quarter driven by net exports, especially by a significant contribution of the automotive industry. Throughout 2015 we expect a gradual acceleration of quarterly growth rates, stemming from an improving external environment supported by low oil prices, weaker euro and QE. However, **the domestic demand remains a main driver of growth in 2015.** The continued growing trend of corporate loans together with renewed growth in the construction sector and a new body plant in the Bratislava auto manufacturing plant signify a brisk investment growth. Investment will be supported by the public sector as well – public investment have surprisingly increased by double digits in the first quarter. Household consumption growth will be slightly slower compared to 2014. Development in recent quarters lagged behind the fundamentals (favorable labor market, strong consumer confidence and moderate credit growth). Although we still assume a gradual decrease of the saving rate from the second half of the year onwards, the households will save the largest share of their income in the last fifteen years.

Chart 5: Contributions of GDP components to growth (in ppt.)



Source: SÚ SR, IFP

Chart 6: Household consumption and its determinants (constant prices, s.a., QoQ)



Source ŠÚSR, IFP

[4] Particularly Germany and the Czech Republic.

Balanced structure of growth in 2016 - 2018

In the following years the growth will accelerate to 3.7% in 2016 and 3.6% in 2017 and 2018. We still assume a moderate gain of export market shares. The pace of investment will decelerate, mainly due to the phasing out of the one-off factors in the automotive industry, as well as the slight drop of public investment next year. On the other hand, QE will support credit financing particularly in 2016, leading to higher growth of so-called core investments[5] getting back to ´standard´times. The growth of households' consumption will mirror household disposable income, hence consumption expenditures will accelerate significantly as of next year. The government's social package will contribute to the growth as well in the amount of 0.1 pp[6] in 2016.

Table 2: MF SR forecast – main economic indicators (June 2015)

indicator (growth in % unless otherwise noted)	**actual** 2013	**forecast** 2014	2015	2016	2017	2018	**Diff. from February 2015** 2014	2015	2016	2017	2018
Gross domestic product											
GDP, real	1.4	2.4	3.2	3.7	3.6	3.6	0.0	0.3	0.1	0.0	-0.1
GDP, nominal (bn €)	73.6	75.2	77.7	81.7	86.2	91.1	0.1	0.4	0.4	0.5	0.5
Private consumption, real	-0.8	2.2	2.1	2.8	2.9	2.8	-0.2	-0.7	0.1	0.1	-0.1
Private consumption, nominal	0.6	2.1	2.3	4.2	4.8	5.0	0.2	-0.4	-0.2	0.3	0.1
Public consumption	2.4	4.4	2.5	1.3	0.9	1.4	0.7	0.4	0.2	-0.3	0.1
Fixed investments	-2.7	5.7	4.6	2.3	2.5	2.6	1.1	0.9	0.5	0.8	0.5
Export of goods and services	5.2	4.6	6.5	6.1	6.2	5.6	0.5	5.1	0.2	0.2	-0.5
Import of goods and services	3.8	5.0	6.5	4.8	5.1	4.7	0.3	5.5	0.3	0.2	-0.1
Labor market											
Employment (stat. evidence)	-0.7	1.3	1.2	0.8	0.7	0.7	0.2	0.6	0.1	0.0	-0.1
Wages, nominal	2.4	4.1	2.4	3.6	4.6	4.8	-0.3	-0.2	-0.3	0.2	0.2
Wages, real	0.9	4.2	2.2	2.4	2.6	2.6	-0.2	-0.4	0.1	0.0	0.0
Unemployment rate	14.2	13.2	12.1	11.3	10.5	9.7	-0.2	-0.8	-0.9	-0.9	-0.8
Inflation											
CPI	1.4	-0.1	0.2	1.3	1.9	2.1	0.0	0.2	-0.3	0.1	0.1

Source: ŠÚ SR, IFP

Labor market recovery will continue

The economy will create 27 thousand jobs in 2015. The employment growth according to the ESA methodology will reach 1.2%, only a small deceleration from 2014 dynamics. The bulk of this growth already took place at the end of 2014 and the beginning of 2015, and in the following quarters employment will be growing more slowly. New jobs should be created in the construction sector as well after several years. Going forward, the employment growth should slow down moderately, as we assume the recent growth to be exceptional considering the economic linkage of labor market to the economic growth. **The unemployment rate should fall to 12.1% this year** and by the end of the forecasted period it should reach single-digit level for the first time since the crisis.

The slowdown of real wages will almost close the gap over productivity growth

Real wages will grow more slowly compared to 2014. The absence of inflation has a stronger impact on the wage negotiations in private sector this year. As a result the gap between the growth of real wages and labor productivity will diminish. We expect an

[5] Investment net of public sector, EU funds and one-off factors
[6] Second social package without the impact of minimal wage

uneven wage development between sectors. The wage growth in industry has long been surpassing the wage growth in market services and we expect this trend to continue in 2015 as well. The average nominal wage should reach €879 in 2015. In the following years the growth of real wages should slowly accelerate.

Gradual growth of prices this year

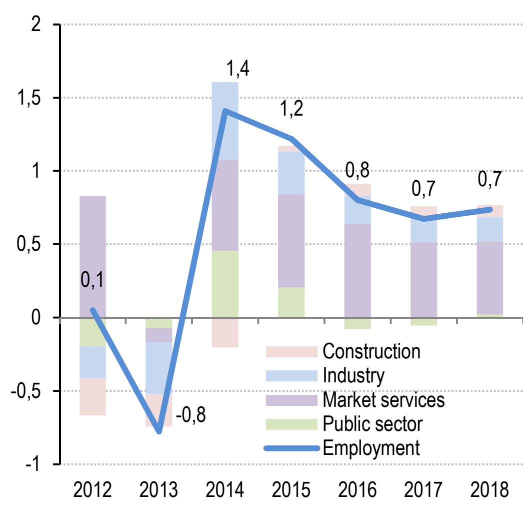
Average inflation will remain close to zero this year, but it will gradually accelerate towards the end of the year. At the end of the year it will approach 1%. The decrease in the price level seen in the first quarter stems mainly from the decrease of gas and electricity prices and lower fuel prices. Food prices and net inflation accelerated in the past few months. This trend will be supported in the following months by the euro depreciation and the delayed transmission of domestic demand pressures into the price level. The QE also had an impact on inflation expectations and higher imported inflation.

Inflation in 2016 will be dampened by a drop of energy prices

Inflation will continue to accelerate in 2016, but it will still remain below levels that would correspond to the forecasted economic growth. Higher net inflation will be partially compensated by the decrease of gas and electricity prices as a reaction to European energy markets in 2015. VAT rate cut on food prices will apply to a small part of the consumer basket. On the aggregate level food prices will accelerate next year. In 2017-2018 we assume further acceleration of inflation as a reaction to the closing of the output gap and higher long-term inflation expectations.

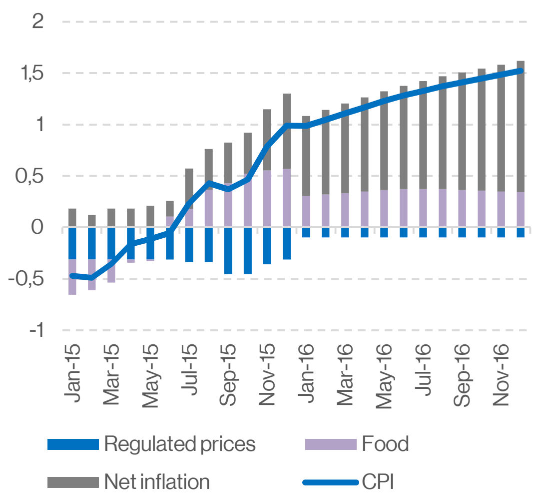
Risks to the macroeconomic forecast are balanced. Intensified geopolitical conflict in Ukraine and unsatisfactory development of the negotiations between Greece and its creditors are among the main **negative risks**. Financial markets may be more deeply affected by an earlier (September) normalization of the FED monetary policy leading to financial shocks in the converging economies. This raises the risk of increased volatility of the neighboring countries' currencies and the long term interest rates. Among **positive risks** are a stronger effect of QE on investment and consumption in the euro area. Juncker´s investment package is not included in the baseline scenario and therefore also represent a positive risk. Another positive could be a return of oil prices to lower levels due to additional increase of global oil supply after the end of geopolitical sanctions.

Chart 7: YoY employment growth and sectoral contributions (in p.p.)



Source: SÚ SR, IFP

Chart 8: YoY growth of CPI and contributions of individual components (p.p.)

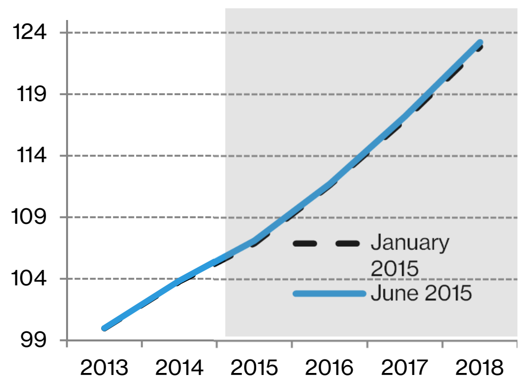


Source: ŠÚSR, IFP

Real GDP growth and employment have a small positive effect on tax bases

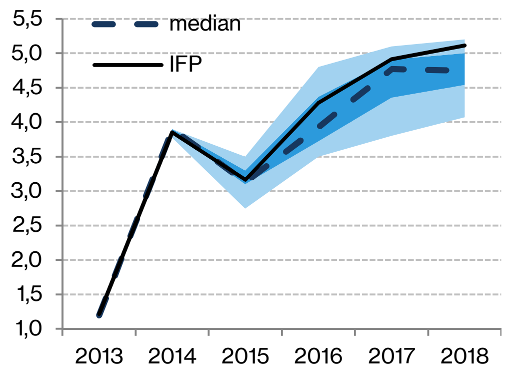
The total impact of the update of the macroeconomic forecast on the tax bases is slightly positive compared to the January release, mostly due to higher real growth and employment outlook. Lower forecast of households' consumption and nominal wages act as a drag on tax revenues this year. Cumulative impact to tax bases by the end of the forecasted period is minimal and is slightly helped by an increase of the forecasted inflation as well. The total impact of the macroeconomic forecast on the estimate of taxes and contributions will be discussed at a session of the Tax Forecast Committee on June 23, 2015.

Chart 7: Macroeconomic tax bases compared to January forecast



Source: IFP

Chart 8: Comparison of forecasts of macroeconomic bases[7] with the members of the Committee



Source: IFP, Eurostat

The medium term macroeconomic forecast of the MoF SR was discussed at a session of the Macroeconomic Forecasts Committee on June 15, 2015. The forecast was evaluated **realistic** by every member of the Committee (NBS, SAV, Infostat, SLSP, Tatrabanka, Unicredit, VUB and Sberbank). The detailed macroeconomic forecast, as well as the minutes from the meeting and supporting materials are available on the IFP website.

[7] Macroeconomic basis for the budget revenues (weight of indicators depends on the proportional share of the particular tax on the total tax revenues); Wage base (employment x nominal wage) – 51,1%; Nominal private consumption – 25,7%; Real private consumption – 6.6%; Nominal GDP growth – 9.9%; Real GDP growth – 6.7%.

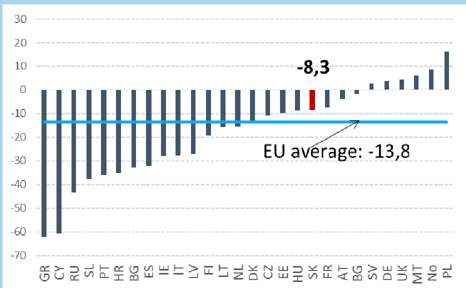
BOX. Identification of post-crisis investment gap in Slovakia

The crisis has lowered investment in Slovakia by more than 8%. The main factor was worsening expectations of future demand. However, the lack of demand cannot well explain the development of investment since the debt crisis explosion in 2010, when credit constraints affected Slovak enterprises as well. We have identified an "investment gap" of 3% in this period. However, without the investment in the automotive industry in 2010-2011, the gap would be more than four times larger.

The crisis has significantly impacted the investment formation not only in Slovakia, but in the entire EU. Despite the fact that more than six years have passed since the crisis, investment in the large majority of EU countries have not reached their pre-crisis levels (Chart A). Besides the fact that the recovery from the last crisis is slower than from previous recessions[8], **financial crises have traditionally a more negative impact on investment than standard recessions[9].** Restrictions on the supply side of loan financing have been accompanied by a significant need for deleveraging among non-financial corporations. Empirically, only every fifth recovery from the crisis was not supported by credit growth[10].

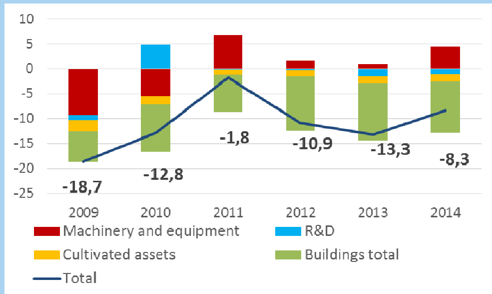
Slovakia is not among the worst performers in the EU in post-crisis period, but this is thanks to a single auto manufacturing plant. The crisis has lowered investment in Slovakia by more than 8%. The entire drop was caused by a fall of investment in buildings (Chart B). The capital expenditures on machinery and equipment developed in the opposite direction, especially in 2010-2011. Those were related to the preparation of new production in the automotive industry. The sectoral structure of investment shows a similar picture. The main contributor to the drop in investment was the private sector, while the decrease was significantly lower in the abovementioned years. In 2011 the public investment related to the motorway construction helped as well.

Chart A: Difference in fixed investment (%) compared to pre-crisis level (2008)



Source EUROSTAT

Chart B: Cumulative contributions to the fall in fixed investment by classification of production



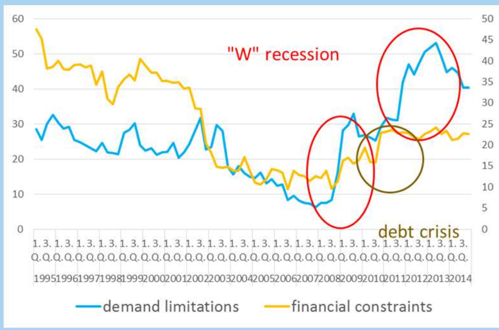
Source ŠÚSR

Demand restrictions played a key role in Slovakia[11], while in the periphery countries experienced also restrictive impact stemmed from supply factors related to the

[8] European Commission (2014): European economic forecast, autumn 2014, IMF (2015): World economic outlook. April 2015
[9] IMF country report no 14/199 (2014): Investment in the euro area: Why has it be so weak?
[10] IMF (2014)
[11] The elasticity of investments to interest rates in Slovakia is persistently low, this problem is pronounced also in the entire Eurozone during the current recovery

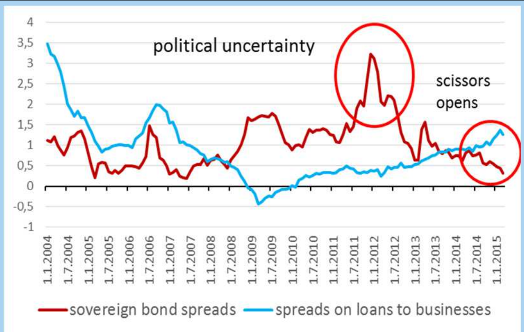
uncapitalised banking sector. In the Slovak surveys the largest amount of firms[12] have mentioned demand as a limiting production factor (Chart C). Their number increased more than fourfold compared to the pre-crisis period, while their trend followed the “W-shaped” European recession. The start of the debt crisis in 2010 has increased the number of firms limited by the financial restrictions. The reason is mostly high interest rates on corporate loans. These have, in contrast to the government bond yields, decreased more slowly than in Germany (Chart D).

Chart C: Number of firms limited by demand and financial constraints



Source ŠÚ SR

Chart D: Spreads on loans unlike government bonds rose[13]



Source ECB, Bloomberg

We tried to estimate the size of the “investment gap” in Slovakia. We have been inspired by the IMF study (2015), where the authors estimated private nonresidential investments with a country-by-country approach for selected Eurozone countries using several models following the basic **acceleration model** in the following form:

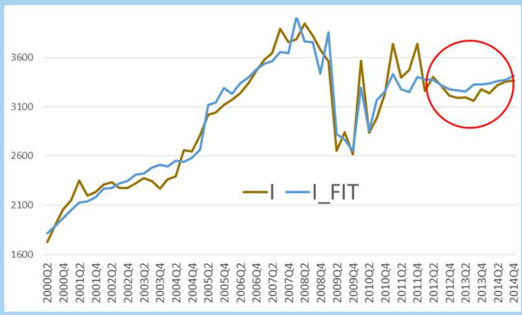
$$\frac{I_t}{K_{t-1}} = \frac{\alpha}{K_{t-1}} + \sum_{i=1}^{N} \beta_i \frac{\Delta Y_{t-1}}{K_{t-1}} + \delta + \varepsilon_t,$$

where I_t, K_t and Y_t are investments, capital stock and GDP[14].

Missing demand cannot satisfactorily explain the performance of investment since the debt crisis (Chart E). In 2010 and 2011 investment have “overshot” the equilibrium thanks the automotive industry. In the period starting with the fourth quarter of 2010 this effect has gradually dissipated. **In this period (2012Q4-2014Q4) we identify “underinvestment” in the amount of 13%**[15]**. Since the debt crisis (2010Q2) we cannot explain by demand only 3% of investment** (Chart F). The deterioration of financing conditions has thus been heavily moderated by the expansion of capacities in the automotive industry in 2010-2011.

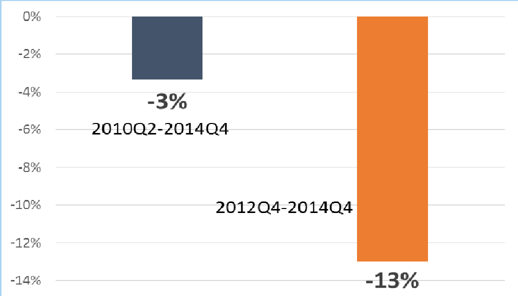
[12] According to the answers of firms in industry, construction, services and retail, while the answers are weighted according to the weights in the economic sentiment indicator.
[13] The chart compares the spreads between 10y Slovak and German government bonds and spreads between long-term corporate loans in Slovakia and Germany
[14] In order to avoid the endogenity problem, we did not include the current value of production Y_t. Signs of coefficients β_i are positive and the constant δ can be interpreted as an indirect estimate of the depreciation rate. The number of lags (N) is 12, by which we avoid the problem with autocorrelation and we report standard errors according to Newey-West. The dependent variable is the gross fixed capital formation in the private sector (85% of total investment) deflated by the fixed investment deflator divided by the private capital stock. In the period since 2005Q2 we used a „level shift“ dummy variable representing massive investment before the launch of KIA and PSA plants
[15] Cumulative sum of residuals.

Chart E: Actual and estimated level of investment, underinvestment since 2012



Source: IFP

Chart F: Cumulative deviation of residuals



Source IFP