

| Quarterly report |

Czech Economic Outlook

2017: end of FX floor and gradual recovery of investment



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Looking at the current and expected economic developments in the Czech Republic, we have decided to focus in more detail on two critical issues in this issue of the *Czech Economic Outlook*. There is no question that this year has been marked by a slump in investment activity, while the key issue for 2017 will certainly be an exit from the FX floor regime.

Where has all the investment gone?

The end of 2016 is slowly drawing near to its end and our expectations are obviously being borne out. Last year's extraordinary economic growth of 4.6% is now a thing of the past. This year, the economy will grow by 2.5%, which is not too bad either. However, the main difficulty ahead lies in the structure of the economy's dynamics: investment is **not** growing. We have taken a closer look at this in special boxes in this issue of *Czech Economic Outlook*.

This year has been a more sobering time in the wake of last year's rich harvest when money was drawn at the last minute from EU funds allocated to the 2007-2013 programming period. The new, current programming period has been running for three years now, but **the fact that projects have not been prepared is again causing the rise-up curve to rise only slowly.** Jana Steckerová looks at this in more depth in her contribution. Nevertheless, we expect that 2017 will see many more new subsidy schemes, which should encourage investment activity. This year, the shortage of projects is clearly damaging major infrastructure schemes financed from the public purse. In his box, Viktor Zeisel explains how **the problem lies solely with government investment.** This hurts the construction sector primarily, dragging it down into the red and this situation is further complicated by the problems with Environmental Impact Assessments.

However, we should not rely on public resources alone, as they are not inexhaustible either. **Public private partnerships (PPP) have real potential, but are being left untapped in this country, unlike in neighbouring economies.** David Kocourek discusses the experience gained with this type of financing in the Czech Republic and in the wider region to date.

Beware, the exit is approaching. Time to hedge!

There is a real sense of *déjà vu* in the air now. As in August 2015, August 2016 again saw expectations mounting on financial markets of an end to the CNB's FX floor regime. But there is a big difference this year: both the market and ourselves, on the basis of our new macroeconomic forecast, **believe that this time, the central bankers actually will stop this policy within less than a year.**

At first glance, the current situation on the spot market feels something like a lull before the storm. But there is a good deal of turmoil under the surface. The inflow of foreign speculative capital is reflected in the Czech crown growing stronger on the forward market. Due to the euro influx, the prices of short-term bonds are surging – a trend, which is likely to continue, as shown by Marek Dřimal in the section on the bond market. The CNB's Board has indicated that the FX floor regime will not be ended before 2Q 2017. However, according to the CNB Governor, this "hard commitment" will not be moved around anymore. We now **expect the exit during the second quarter of 2017.**

The presence of speculative capital will result in higher exchange rate volatility following the exit. If needed, the CNB will intervene on both sides, against rapid strengthening and rapid weakening, but volatility will nevertheless be much more severe than we have been accustomed to in the past few months. Before the current FX mode was put in place, the daily change in the EUR/CZK rate on the market was typically around 0.5% and frequently up to 1%. This is likely to rise in the wake of the exit.

Hedging against the expected greater volatility should be in both exporters' and importers' best interests. It would be naive to expect the exporter to be faster than the arbitrageur and profit from hedging. Arbitrageurs will always have a head start on exporters in terms of the speed at which they process new reports and their ability to respond to them.

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External environment and assumptions

Domestic demand in individual countries is in good shape



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Domestic demand, especially household demand, is in solid shape in the US and Europe. The labour market generating a sufficient amount of jobs, and we have seen interesting wage dynamics. This development is not causing core inflation to accelerate much. However, overall inflation dynamics are benefitting from the statistical base effect in oil prices, which has led to yoy growth in fuel prices. Higher inflation in the US would lead to a further increase in interest rates in December. In the euro area, undershooting the inflation target would lead to a tempering of the quantitative easing (QE) programme.

External factor assumptions (average values)

	3Q15	4Q15	1Q16	2Q16	3Q16	4Q16	1Q17	2Q17	3Q17	4Q17	1Q18
Brent crude oil prices (\$/bbl)	51.3	44.7	35.2	46.8	47.0	50.0	52.5	55.0	57.5	60.0	62.0
GDP yoy - euro area	1.6	1.7	1.7	1.6	1.6	1.5	1.3	1.4	1.4	1.4	1.4
CPI yoy - euro area	0.2	0.1	0.2	0.1	-0.1	0.4	0.9	1.4	1.5	1.5	1.6
GDP yoy - Germany	1.7	1.3	1.8	1.7	2.0	1.9	1.5	1.4	1.4	1.4	1.5
CPI yoy - Germany	1.0	1.2	1.1	1.0	1.2	1.3	1.2	1.5	1.3	1.3	1.3
EUR/USD	1.11	1.10	1.10	1.13	1.1	1.10	1.10	1.09	1.08	1.08	1.08

Source: Economic & Strategy Research, Komerční banka, SG Cross Asset Research/Economics, Bloomberg

US: labour market tightens as GDP growth accelerates

GDP growth in 2H16 should convincingly outperform 1H16.

GDP growth in the US, at an average pace of 1.1% in 1H16, has been disappointing. SG economists are looking for significant pick-up to 2.0-2.5% in 2H16. As this is unlikely to compensate for the weak 1H16, our economists revised their full-year forecast one tick lower to 1.5%. They also raised their net export estimate, driven largely by a smaller expected decline in exports, though they still expect this to make a negative contribution to GDP growth. Thus, the main source of economic growth is set to remain private consumption, supported by rising wages, low interest rates and a favourable housing market. This is reflected in the development of real consumer spending, which increased by 4.2% yoy in 2Q16. Employment has exhibited stronger trends despite unconvincing payroll numbers for past two months. However, weekly jobless claims are reaching all-time lows. Nonetheless, SG economists have raised their unemployment rate forecast slightly, due to an elevated participation rate.

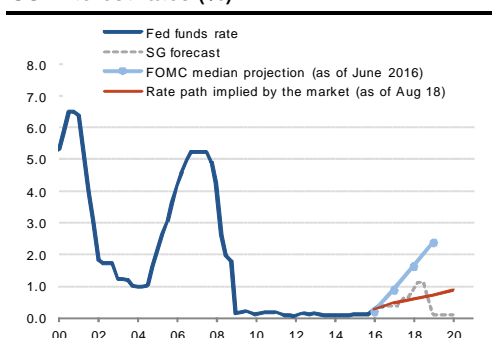
Gasoline base effect positively stimulates headline inflation.

Headline inflation is set to gain pace in the coming quarters due to the favourable base effect of gasoline prices on the back of recent oil price gains. It should gradually rise towards 2% by year-end. Core inflation will likely remain steady at around 1.5%, even though the labour market is tightening. However, rent costs, a large part of CPI and significant in the PCE deflator are rising.

Fed rate hike is expected in December.

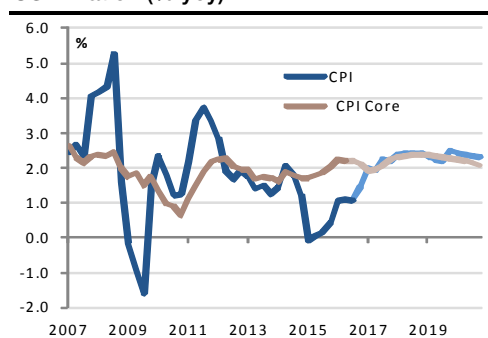
The combination of economic growth, a strong labour market and rising headline inflation should give the US Federal Reserve the green light to hike interest rates in December this year, according to SG economists, and there is scope for another two hikes next year, as inflation is expected to accelerate. The FOMC minutes from September were fairly balanced in this respect, but recent comments from Fed officials have added to the momentum for a quarter-point rate hike in December. If this happens, then the widening gap between Fed and ECB monetary policy (see below for further possible steps from the ECB) is likely to lead to further euro weakness against the US dollar. **USD/EUR is likely to fall slightly by end-2016 and average 1.09 in 2017.**

US: interest rates (%)



Sources: SG Cross Asset Research/Economics, Economic & Strategy Research, Komerční banka,

US: inflation (% yoy)



Sources: SG Cross Asset Research/Economics, Economic & Strategy Research, Komerční banka,

Euro area: solid domestic demand to spur import activity

Brexit will likely shave 0.7pp from euro area output.

GDP growth in the euro area is likely to be hit by Brexit. According to SG economists, Brexit will cost the euro area 0.7pp of GDP growth cumulatively by end-2020. **In 2016-17, they expect GDP growth to average 1.5%, while in 2018-20, it is likely to decelerate to 0.9%.** The positive news for the short-term outlook is that a gradual recovery in investment activity has become visible. Thanks to positive external factors (low oil price, weak euro), low wage growth, low interest rates and tax cuts in some countries, the profitability of corporations is improving, so they are willing to invest more. In addition, it seems the construction sector has already reached its bottom, as suggested by building permits data. Household consumption should remain in good shape. That said, growth in households' real gross disposable income is likely to decelerate due to rising inflation. The political uncertainty associated with Brexit, the political stalemate in Spain, and French and German elections next year will be the main potential drag on growth in the euro area.

Domestic demand drives German GDP growth.

The uncertainty caused by the British referendum is expected by SG economists to cost German economy 0.2pp of GDP growth this year. However, **the German economy performed better than expected in 1H16. Domestic demand showed resilience, and should do so next year as well due to wage acceleration and fiscal easing before next year's elections (autumn 2017).** All in all, we expect GDP to grow 1.9% this year, which would be the strongest growth since 2011. We forecast 1.4% growth next year. However, the output gap looks set to peak next year at 1%. How wage dynamics will react in such an environment is uncertain. However, SG economists see a good chance that wage dynamics could compensate for the expected rise in inflation.

Inflation should peak in early 2017, averaging at 1.5% next year.

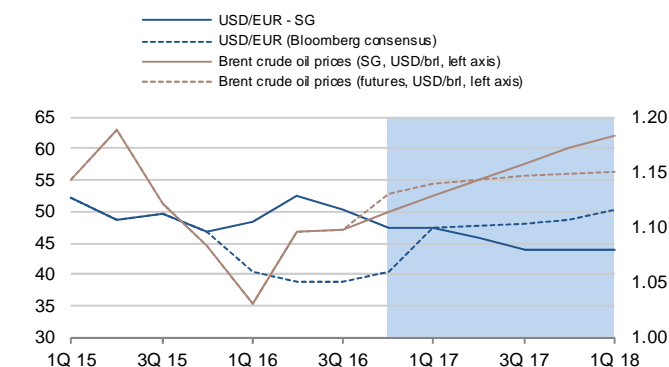
Inflation in euro area is set to reach 0.3% this year and 1.5% in 2017, we estimate. Nevertheless, it looks likely to jump significantly (over 1% yoy) in the 4Q16 owing to energy prices base effects. In early 2017, we think it will hit 1.7% before decelerating. The culprit behind the subsequent slowdown we expect is muted core inflation, which SG economists estimate will average around 1.2% yoy over 2017-20. This estimate is consistent with small US dollar appreciation to EUR/USD 1.08 next year and in 2018.

Increasing inflation should allow the ECB to taper its QE programme next year.

This path of inflation would force the ECB to maintain loose monetary policy, since even in the long term inflation would fail to reach its target of 2%. Hence, SG economists assume that the asset purchase programme will be tapered by €10bn at each meeting from April 2017, which would make it last until January 2018, and that the issuer limit will be increased to 50% (from 33%). Otherwise, the ECB would run the significant risk of not having

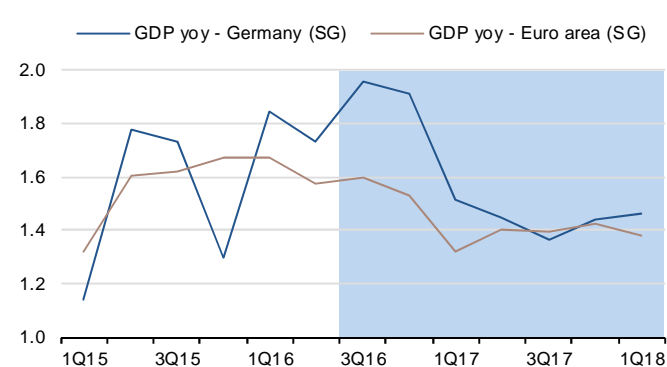
enough available assets. However, the tapering debate will likely come to a head at the December meeting, since the last meeting at end-October did not bring anything new.

Oil prices and EUR/USD



Source: SG Cross Asset Research/Economics, Bloomberg, Economic & Strategy Research, Komerční banka

Euro area and German GDP growth (%)



Source: SG Cross Asset Research/Economics, Datastream, Economic & Strategy Research, Komerční banka

CEE: economies supported by private consumption as investment falters

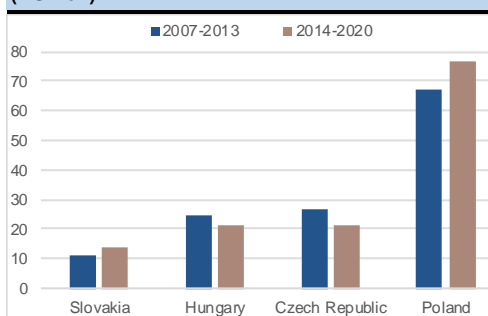
Investments dragged down GDP growth.

Investment activity has still not recovered in the CEE region in yoy terms. However, 2Q16 brought normalisation at least to qoq growth dynamics. The whole region is suffering from low government investment activity as a result of still-lacking EU funds. State administrations in all countries in the region have been unable to start tapping the proportional amount of funds allocated, as the frameworks needed to do so have been delayed due to problems tapping funds from the previous programming period (see Box 1). On top that, each country has its own specific issues. In Poland, the lack of investment is due to changes in management boards of public companies after last's year parliamentary election. Hungary and Slovakia lack a political will to invest more, even if the budgetary situation is favourable.

BOX 1: Investment' growth in the CEE region – just a question of time

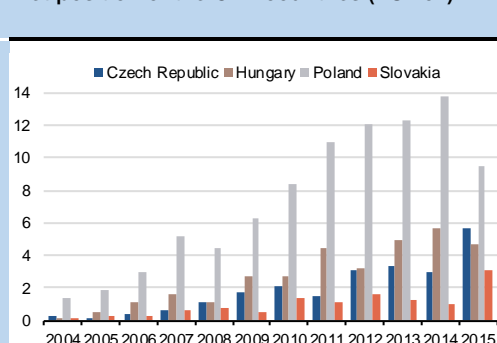
The investment cycle in the CEE countries is strongly tied to withdrawal of money from European Union funds. Pumping of the money is however uneven. In 2015 investments in the CEE region grew significantly (except in Hungary where they reached a peak in 2014). In Slovakia they increased an impressive 14% on average, in the Czech Republic they increased by 9.1% yoy, while in Poland they were up 6% yoy. This year, however, fixed investments have slumped. The drop in investment activity in 1H16 is clearly linked to the low drawing of EU funds. As shown in the graph below, in the initial years of the programming period, withdrawal of money is sluggish. This however does not mean there will be lower available EU budgets for the CEE countries. Indeed, the opposite is true. The available budget for the CEE countries for the years 2007-2013 totaled EUR130.1bn. **For the new programming period 2014-2020 it stands at EUR133.8bn, which is EUR3.7bn more.**

Allocated EU budget for CEE countries (EURbn)



Source: Economic & Strategy Research, Komerční banka, European Commission

Net position of the CEE countries (EURbn)



Source: Economic & Strategy Research, Komerční banka, European Commission

The construction sector has been most seriously affected by the decline in investment, with engineering construction in particular hit by a drop in public infrastructure spending. Nonetheless, the situation in the construction sector should improve gradually, as almost 30% of EU funds allocated for CEE countries in the new programming period are for the transport and energy networks. A substantial part of the money is also targeted for research and innovation, the environment and resource efficiency, and education and training, which could have a positive effect on the potential output of the CEE countries. The objective of moving to a low carbon economy was added to the programming period 2014-2020 and more than 10% of the allocated budget is directed to this area, which could have positive effect on technologic investments.

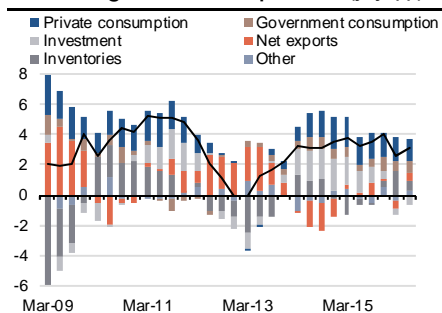
Given the large allocation for CEE countries, EU funds are likely to remain a substantial stimulus for GDP growth in the region. Their biggest impact is however likely to be visible at the end of the programming period, i.e. in the years 2020-2022.

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Strong labour market supports private consumption.

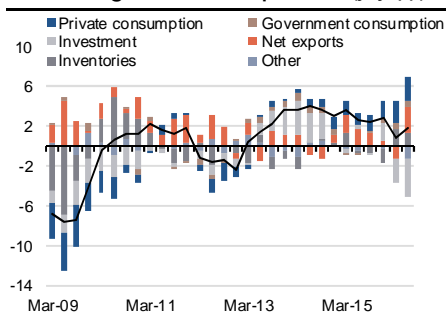
Fortunately, all countries in the region can rely on a strong domestic labour market and, hence, private consumption. Solid real wage growth is a standard. On top of that, the wage bill is being supported by gradually rising employment. Labour markets can accommodate more people from various neglected social groups.

PL: GDP growth decomposition (yoy, pp)



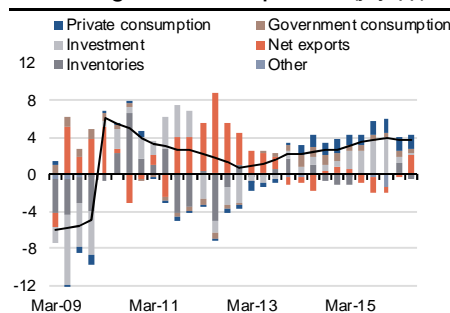
Source: Eurostat, Economic & Strategy Research, Komerční banka

HU: GDP growth decomposition (yoy, pp)



Source: Eurostat, Economic & Strategy Research, Komerční banka

SK: GDP growth decomposition (yoy, pp)



Source: Eurostat, Economic & Strategy Research, Komerční banka

GDP growth will likely recover next year in Hungary and Poland.

The key driver of future GDP growth in the CEE region remains private consumption. We expect labour markets to tighten further in 2017. The first slack will come with the arrival of the downward-sloping phase of the US business cycle, which we expect to hit the CEE region via the euro area in 2019-20. However, before that, the investment activity will likely rebound in all CEE countries, as this year's forecast drop should be a temporary reaction to the muted flow of EU funds. All in all, GDP growth should slow to 2.1% yoy in Hungary, 3% yoy in Slovakia and 3.2% in Poland. Economic activity looks set to accelerate in 2017 to 2.9% yoy in Hungary and 3.5% yoy in Poland, but slow further in Slovakia to 2.3% yoy.

Deflation will likely disappear, due largely to the statistical effect of crude oil prices.

Deflation in the region should gradually disappear. This has already happened in Hungary, where inflation jumped to 0.2% mom in September, and the yoy dynamics moved into positive territory (0.6 % yoy) after seven months of deflation. More profound deflation in Slovakia (-0.3% this year) and Poland (-0.7 % this year) also looks set to ease. The most significant positive factor will likely be the effect of a low statistical base from crude oil prices at end-2016 and more so next year. This trend should keep the central banks in Hungary and Poland in wait-and-see mode. The interest rate in Hungary was lowered to 0.9%, and the central bank has indicated that is not willing to move it any lower. The Polish central bank has been reluctant to lower rates since early 2015. **These countries' currencies should depreciate slightly.** The Polish zloty looks set to move to EUR/PLN 4.4 by September 2017. We expect the Hungarian forint to break the current appreciating trend and weaken to EUR/HUF 317 in 2H17.

BOX 2: PPP investment in CEE countries

The PPP is not an investment method that is really used in CEE countries, which have some issues to overcome regarding PPPs compared with most Western European countries. The basic issues have primarily been inadequate know-how amongst authorities, volatile political situations, and poor social consensus about the use of PPP.

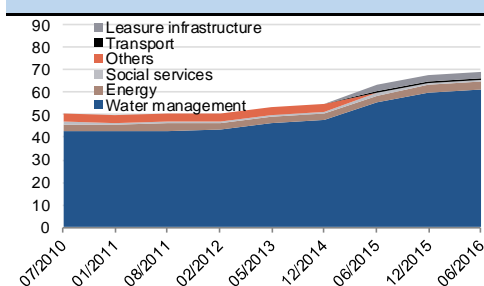
There is a remarkable history of failed PPP project financing in the **Czech Republic** (e.g. the D47 highway, the Rapotice prison, the light rail connection between Prague and its airport, the regional hospital in Pardubice, and the Central military hospital). All of these projects failed and no further PPP projects were started. There were several reasons for these failures. Some of the projects fell victim to political wrangling, thereby weakening the image of PPP projects in general. Moreover, there was no legal framework in place to allow smooth implementation. Authorities lacked the necessary know-how. And on top of that, the priority was shifted to tapping cheap financing from EU funds. Hence, authorities have not been forced to think about alternative financing methods.

These issues have all been at the central government level, and have not discouraged regions and municipalities from pursuing their own PPP projects. According to the Ministry of Finance, which issues concessions for PPP projects, the liabilities of local government and municipalities amount to CZK70bn, which is only almost 7% of annual gross capital formation and 30% of annual government investment. Nevertheless, it is necessary to take into account that vast majority of concessions are in the water management sector. These are predominantly concessions related to operating the water system and do not really contribute to capital formation. The really new investments that have been made amount to almost CZK8bn, and this number has stagnated for the time being.

On the other hand, maybe better times are coming, because in the spring the Czech government approved a PPP project to build the D4 motorway in the southwestern part of the

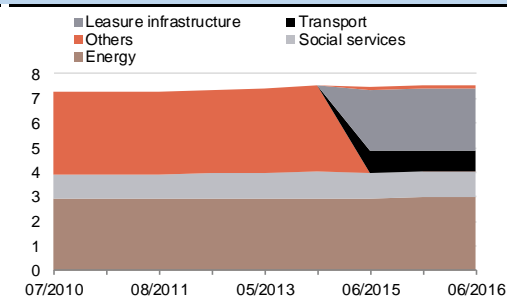
country. Infrastructure projects, and not necessarily just in transport, represent the future for PPP opportunities in the country.

Value of PPP liabilities in the CR (CZKbn)



Source: Ministry of Finance, Economic and Strategy Research Komerční banka

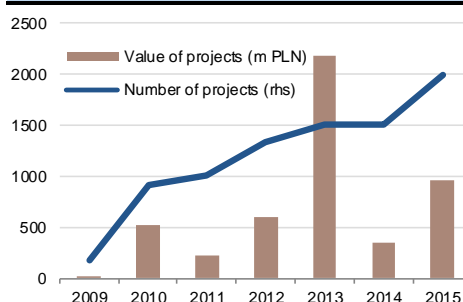
Cumulative value of "pure" PPP projects (CZKbn)



Source: Ministry of Finance, Economic and Strategy Research Komerční banka

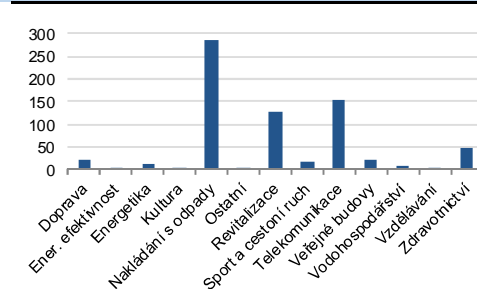
Other CEE countries have much more experience with completed projects. **Poland** has been able to implement projects with a share of private financing greater than €10m, and hence classifies them into its database EPEC (EIB PPP expertise centre). Over the past three years, five such projects have been done, which is an interesting number when compared with the rest of CEE, where the number is zero. Polish national resource centre Public-Private Partnership Platform states, for example, that in 2013 there were 15 PPP projects started worth PLN2bn. In the same year, preparations for 54 projects worth about PLN2bn were announced. In the period 2009-2013, 22% of the projects under consideration led to contract signings. Thus, the number of projects implemented according to the source is about 13 projects per year on average. Their value, however, is very volatile. Even so, the annual value of investments in Poland started with PPP investment represents a negligible percentage. The share of government investments make up less than one percent. The maximum, recorded in 2013, was 3%.

PPP investment in Poland



Source: Public-Private Partnership Platform, Economic and Strategy Research, Komerční banka

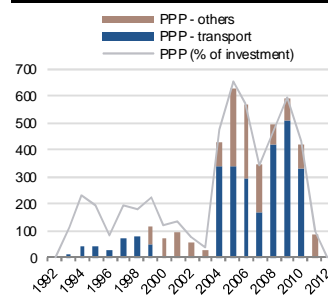
Average size of Polish PPP project by sector (PLNm)



Source: Public-Private Partnership Platform, Economic and Strategy Research, Komerční banka

Hungary's experience is also richer. The development of PPP projects in **Hungary** has historically depended on the government's approach. Some governments have used this option more, and some have used it less. Viktor Orban's government bought back rights for most PPP projects (some transport, education and sports projects are still going) during the years 2012-2013. According to various estimates, the buyouts cost €650m. At the time the Hungarian government carried out these investments, their volume stood at 4% of investment in the Hungarian economy. They amounted to tens per cent of total of government investment.

PPP projects in Hungary



Source: Data provided by Mattias Juhász and Péter Scharle, Economic and Strategy Research, Komerční banka

Slovakia's experience with PPP projects has not been great, but completed projects already exist. The first transport project (in operation from 2011-2012) was the R1 expressway from Nitra to Banská Bystrica (incl. its northern ring road). The second major transportation project was the recently concluded agreement to build, finance and operate a bypass around Bratislava worth €1.89bn. Unfortunately, Slovakia does not track statistics that document the importance of PPP projects to the economy.

Overall, CEE countries' experience with PPP investments has been mixed. With the exception of a few periods in Poland and Hungary, they have not constituted a significant share of investments. The implementation of PPP projects suffers from low public support, poor know-how amongst public institutions, political instability, and a preference in recent times for EU funding. If these problems could be overcome, PPPs would be a potential source of additional investment in the region's ever-neglected infrastructure.

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Macroeconomic outlook

Both domestic and foreign demand fuels Czech growth

The resilient growth in the euro area and Germany has translated into demand for Czech goods. Exports surged in the second quarter, boosting GDP and they continued to perform in the summer also. In addition, domestic consumption remains strong although it does not fully use its potential given increasing employment and accelerating wages. This is also one of the reasons why core inflation remains muted. Rather than consuming all of the growing wages bill, households have instead used the money to invest in housing, which has been apparent in the booming flat prices. Other investment remains muted, which is the reason why we see this year's growth decelerating to 2.5%. Next year, the favourable developments are to continue, while we expect a moderate pick-up in investment, which will drive growth to 2.7%, according to our forecasts.

Main changes

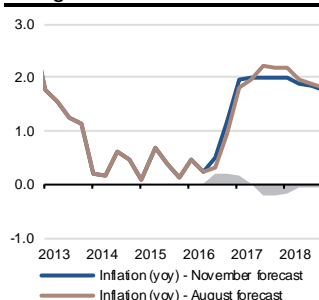
GDP:

The strong performance of external trade in the second quarter of the year led us to revise our 2016 GDP outlook up 0.4pp to 2.5%. We also improved the forecast for 2017 slightly by one tick to 2.7%.

Inflation:

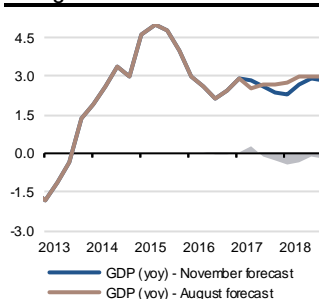
We have made a minor revision to our inflation outlook, from 0.5% to 0.6% in 2016. Next year, average price growth should reach 2% as we expected in our previous projection.

Change in our inflation outlook



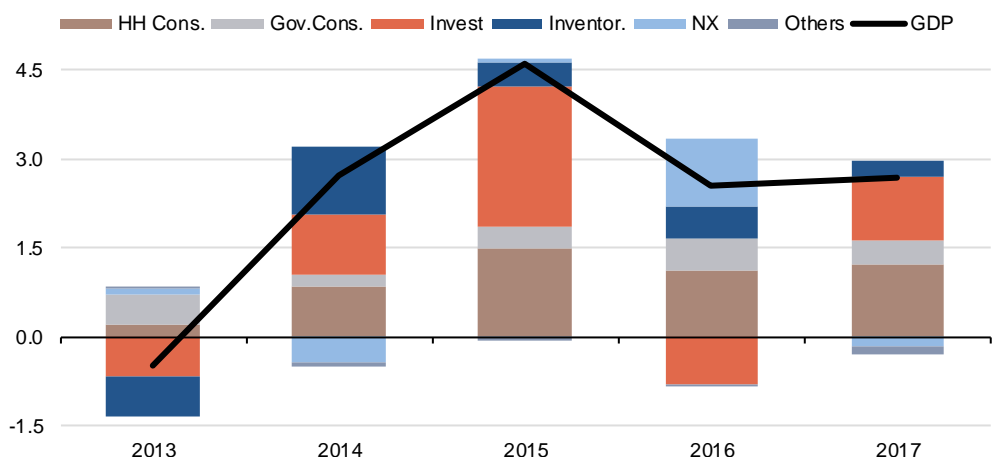
Source: Economic & Strategy Research, Komerční banka, CZSO

Change in our GDP outlook



Source: Economic & Strategy Research, Komerční banka, CZSO

Investment dragging on GDP growth; consumption to pull it up



Source: Economic & Strategy Research, Komerční banka, CZSO

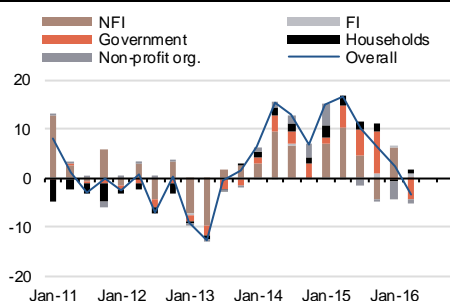
In this release of our *Czech Economic Forecast*, we return our focus to investment. The moves in investment have been affecting the dynamics of other variables in the real economy. On the one hand, the investment slump allowed external trade print its highest surplus ever, but, on the other hand, it impedes the dynamics in industry and plunges the construction sector into a crisis. We provide the reader with several boxes that analyse investment dynamics in CEE region but also a box on domestic investment by category and an in-depth look at government investment. Finally, we also review the experience to date of using PPP as a public investment alternative. **The conclusion from our analysis is that the pick-up in investment activity will only be gradual.** Although market conditions would seem to favour private investment with interest rates still at record lows and the growth outlook remaining favourable for external as well as domestic demand, the decisive factor remains the EU money. The funding has halted this year, but is set to recover over the coming year. Demand growth is strong especially in the automotive sector, while a number of sectors are struggling. Moreover, the current situation on the labour market does not favour more investment for two reasons: 1) the shortage of available workers makes it difficult to ensure there will be enough personnel to operate newly acquired machines and 2) the tightness on the labour market creates wage growth pressures on the existing workforce, which leaves fewer funds for

investment. **For this reason, we expect a drop in investment of 2.9% this year, while the revival in EU funding should push growth to 4.3% in 2017.**

BOX 3: the slump in investment is not consistent across categories

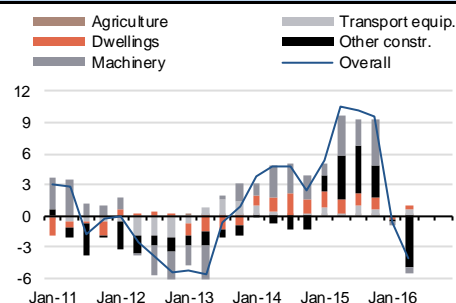
The economic slowdown in the first half of the year was due, by and large, to a significant drop in investment activity. In this Box, we break down investment by category and overall capital formation by investor. The upshot of our analysis is not surprising and corroborates the analysis presented in Box 1. Investment did indeed suffer from low public expenditure into construction. At the same time, even though other sectors did not record any significant declines, they did not see strong growth either. The same is true from an investor point of view. Capital formation has suffered from the lack of public investment, but expenditure in other sectors has not helped offset this very much either.

Government investment created the slump (% yoy)



Source: Economic & Strategy Research, Komerční banka, CZSO

Engineering construction hurt investment (% yoy)



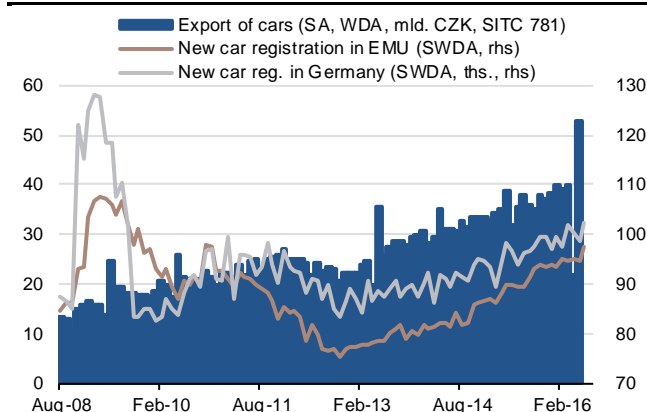
Source: Economic & Strategy Research, Komerční banka, CZSO

Households have mostly invested in dwellings. This investment does not represent a major part of overall capital formation, but it does provide us with an insight into households' behaviour. Households' capital formation has been increasing since 2014, with interest rates declining to record lows, wages starting to grow rapidly and unemployment continuing to drop. In addition, the economic outlook improved and stabilised. A similar development is apparent in investment in dwellings. We believe that this investment would accelerate even more if there was not a problem on the supply side. We discuss these points further in this *Czech Economic Outlook*.

Car exports boosts export growth while investment slump drags imports

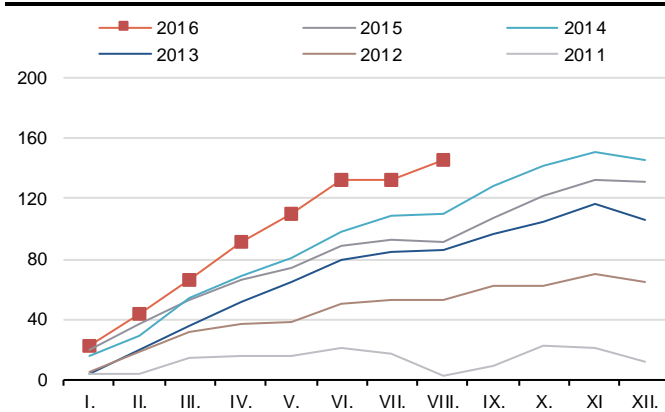
Czech producers have been enjoying growing demand for their products from their main exports markets. Although overall growth in the euro area and Germany remains sluggish, consumer demand remains strong. The demand for cars, in particular, has been flourishing and is clearly visible in the Czech output figures. Car exports rose 13.7% yoy (in nominal terms, cross-border methodology) in the first nine months of the year pushing up the overall export number to 4.3%. Other sectors are clearly not doing so well. However, with export prices decreasing almost 4% so far this year, even modest nominal growth is good news. **Conditions in the euro area are set to remain favourable for the Czech economy and exports are set to continue rising.**

Demand for cars boosting Czech exports...



Source: Macrobond, Economic & Strategy Research, Komerční banka, CZSO

...to a new all-time high



Source: Economic & Strategy Research, Komerční banka, CZSO

Growth in imports remains muted and printed only 0.8% yoy this year. The stagnation here is related to the slump in investment activity, which was only slightly offset by consumer goods imports. The drop in import prices has also played a role. As we expect fixed capital formation to pick up next year, imports will also accelerate and their pace will supersede export growth. **The trade balance will print an all-time-high surplus this year on both a nominal and real basis. The surplus will shrink slightly next year on the back of accelerating imports. The contribution to GDP growth should therefore revert from strongly positive to slightly negative.**

Industry growth is all about cars now

Industrial production has been recording only modest growth figures of late. If we adjust for calendar effects (as this year was generous on the number of working days), average growth is below 3%. Moreover, the growth has been created solely by the automotive industry. If we remove car production and its supply chain, we would see a decline in production. The main reason is a decline in investment activity. Moreover, for a large part of the year, the chemical industry has suffered from the closure of two major Czech refineries. Both refineries should be up and running again in the last quarter of the year providing more support for growth in the industry. **Next year, industrial production will still benefit from growing external demand, but an increase in investment should also act as a support given the pick-up in overall investment activity. On a working-day-adjusted basis, activity in the industrial sector should see its growth accelerate from our projected 3.7% this year to 4.3% next year.**

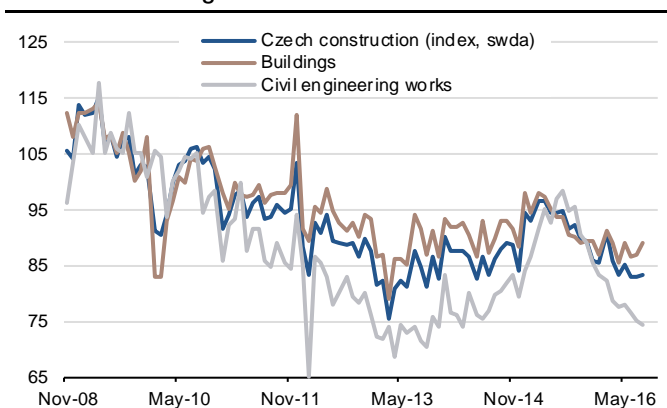
Industrial production growth is driven by the automotive sector. Other segments have been lagging behind.

Construction faces lack of public investment and also suffers from an outdated zoning plan in Prague.

Construction to recover only gradually

The construction sector has seen a 10.0% cut on a calendar-adjusted basis in the first eight months of the year. We would highlight again here that **engineering construction has been hit by the slump in public investment in infrastructure**. The result in the first eight months of the year was a severe 15.1% contraction yoy on average (calendar-adjusted).

Construction facing numerous headwinds



Source: Economic & Strategy Research, Komerční banka, CZSO

Building construction is faring only a little better with a 7.3% decline on its output so far this year. The problem in the building construction is the as-yet-unresolved issue of the Metropolitan plan – a zoning plan for Prague. The Metropolitan plan determines where it is possible to build and under what conditions. These are essential inputs for new development projects and, without the plan, the approval procedures for new construction face significant delays. It seems now that the new plan will not be approved before 2020 as stipulated by the construction legislation. In addition, the city of Prague will have to ask Ministry of Regional Development for a postponement which may give rise to further issues. Another hurdle is the break-up of the Prague Institute of Planning and Development after most of its employees left. **As a result, we don't see the gloomy picture in the construction sector getting brighter any time soon. Our forecasts show an 8.2% drop in construction this year followed by only a minor pick-up of 2% next year.**

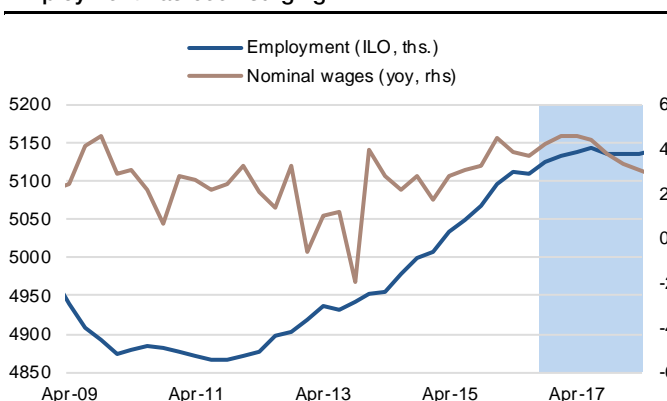
Consumers not using all their spending potential

Household conditions remain exceptional: unemployment has hit new lows and wage growth is accelerating.

Private consumption was expected to be the main driver of the economy, but it has been lagging behind these expectations despite outstanding labour market conditions.

Although the pace of employment growth has decelerated compared to the end of last year, the amount of employed labour force is still seeing very sound yoy growth. If we look at the demographic structure of the Czech Republic, there are not enough people in the productive age bracket to explain such growth. The labour force has been

Employment has been surging



Source: Economic & Strategy Research, Komerční banka, CZSO

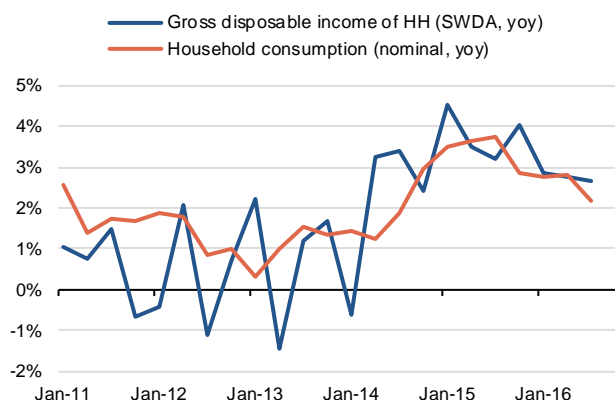
expanded therefore by an increasing number of people entering it from the retirement age group. Another source of labour is migration. The Czech Chamber of Commerce has even persuaded the government to make work permit issuance easier for low-to-mid-skilled

Ukrainians due to the shortage of labour in this category. **It is not only declining unemployment, but also the growing labour force that is supporting the overall wage bill.**

The healthier economy combined with growing employment pushes the unemployment rate down. However, there is little room left to suggest the rate could decline further. **The unemployment rate is well below the NAIRU and we assume that it is very close to its natural floor. We believe therefore that it will only see a two-tick drop next year to 3.7% (ILO methodology).**

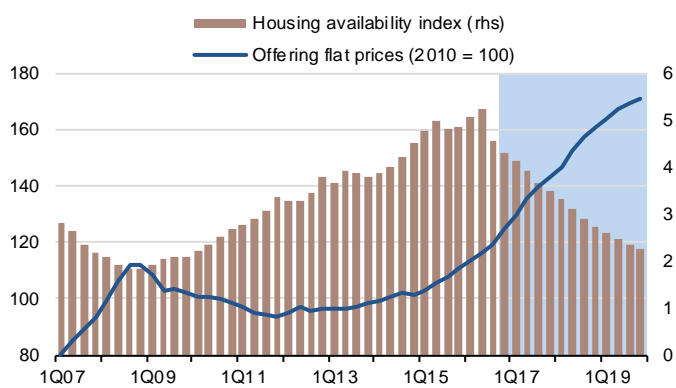
The labour shortage puts pressure on wages. To date, these pressures have not been felt very strongly as there was still a supply of labour force coming from abroad and from retirees. Over time, however, these inflows into the labour force will gradually diminish. According to our forecasts, wages will accelerate in the fourth quarter of this year and will continue to accelerate next year also. Consequently, we see nominal wage growth printing at 4.1% this year, accelerating to 4.3% next year.

Gross income has been lagging behind spending recently



Source: Economic & Strategy Research, Komerční banka, CZSO

House prices surging due to high demand



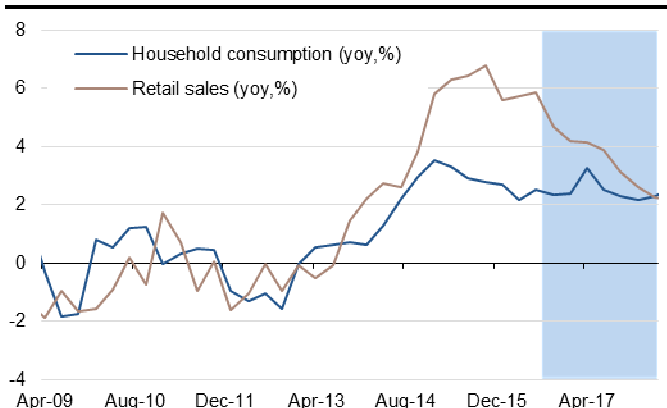
Source: Economic & Strategy Research, Komerční banka, CZSO

All the factors outlined above feed favourably into private consumption. However, private consumption is not growing as quickly these factors might suggest. Czech households usually behave conservatively, so now that their situation has improved after a long recession, they are keen to build up a savings buffer. Secondly, households invest in housing, which we can see on housing prices, which have increased at a 10% yoy pace this year, and on the volume of mortgages (see the section on banking for more details on mortgages). This fact is corroborated by the findings we present in Box 3 which shows that households' fixed capital formation has been increasing continuously. Against that, this trend is nonetheless impeded by the lack of housing supply we described in the section on construction.

Given the lack of new housing supply, we expect prices to grow further, making an investment in housing less attractive, as shown in the chart with our estimated housing affordability index. Households should then switch focus more to consumption. For this reason, even though we do not expect employment to continue to grow at the

current rate, private consumption growth should accelerate nonetheless. Household expenditure should therefore increase 2.4% this year, while adding 2.6% in 2017.

Household consumption to accelerate slightly next year



Source: Economic & Strategy Research, Komerční banka, CZSO

Fiscal policy

We have revised our call on the 2016 budget performance, as the significant (year-on-year) increase in revenues and a decline in expenditures have led to a massive surplus year-to-date.

As a result, we now expect the 2016 central government budget to post a balance, or a minor positive reading, as spending is set to increase in the last months of the year in the usual seasonal manner.

In the election year ahead, the economy will see a major fiscal stimulus driven by the planned increase in spending.

The 2017 government budget is set to be approved by the Parliament in the coming weeks. We examined the budget draft in the latest edition of the Czech Economic Outlook, and the main points still hold. **In the election year ahead, the economy will see a major fiscal stimulus driven by the planned increase in spending.**

Current expenditure will rise due to higher public sector wages, social benefits (mainly pension benefits), and contributions into the healthcare system (items totalling CZK23.5bn). Also, importantly, we assume government investment will pick up (see the Box 4). On the revenue side, tax intakes should continue to grow on the back of solid economic performance both this year and in 2017. Moreover, the Finance Ministry is launching a new anti-fraud system on value-added tax, and with other measures, this might raise several extra CZK billion, according to the ministry.

Public finance dynamics

	2015	2016f	2017f	2018f	2019f	2020f
Balance (% GDP)	-0.6	0.5	-0.5	-0.3	-0.6	-0.5
Fiscal effort (pp GDP growth)	0.3	0.9	-1.2	-	-	-
Public debt (CZKbn)	1,836	1,826	1,861	1,876	1,906	1,931
Debt ratio (% GDP)	40.3	38.6	37.6	36.2	35.6	34.9

Source: CZSO, MoF, Economic & Strategy Research, Komerční banka

We continue to expect faster nominal GDP growth (4.0%) than the official figure (3.5%) the budgetary plan is based on. As the greater economic activity should result in better tax revenues compared with the government's plans, **the 2017 budget is set to print a narrower deficit of CZK45bn (versus the planned CZK60bn), in our view.**

BOX 4: Capital expenditure to rise in 2017

The drop-off in 2016 investment has been caused mainly by significantly lower central-government capital expenditure. The difficult transition between the old and the new programming periods of EU funds is the main culprit. Adding to the problem were outdated environmental-impact assessments (EIA), which have prevented work on multiple infrastructural projects.

In the January-September period, the central government's capital spending reached just CZK51.5bn, and was therefore down CZK34bn, or 42% yoy. While we do expect an acceleration in investment expenditure in the remainder of the year (the same happened on a massive scale last year), their volume will at best reach the planned level of CZK86bn, or less than a half of the 2015 amount, in our view.

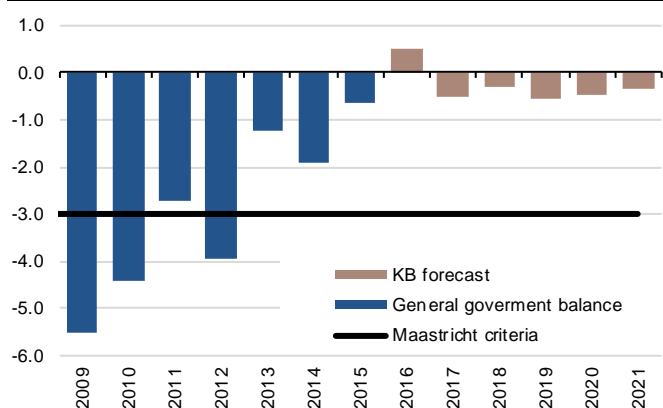
Next year, however, we expect capital expenditure to pick up again. Investors and the public administration are set to fully focus on projects from the new EU-funds programming period. Several constructions with the outdated EIAs (mostly highways) have obtained an exception, and works can start next year, if there are no further complications. And finally, the government has targeted another increase in national-funded investment – the increase in tax revenues has allowed a rise in national-funded spending as well.

In fact, the government targets an increase in capital spending of CZK17.5bn in 2017 versus the planned 2016 amount (after a revision), mostly driven by higher EU funds expenditure. If the government spends less this year, compared with the plan, the remaining amount will be transferred into 2017 and will further boost spending next year.

Public finance – a surplus expected in 2016, a deficit again next year

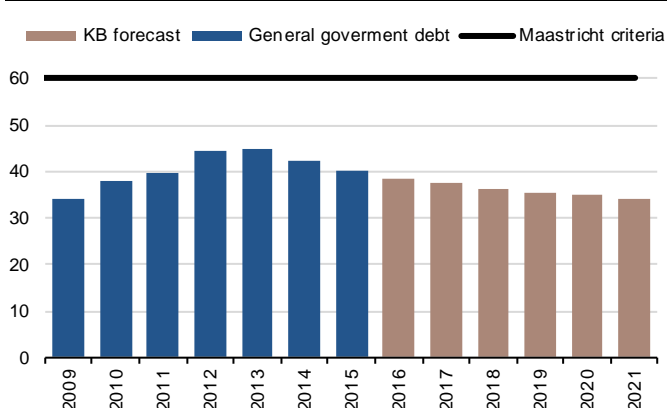
The 2016 ESA2010 public finance sector is set to post a surplus, in our view, for the first time in its history. We expect a reading of +0.5% of GDP, as the central government budget will likely be balanced or positive (we assume no effect from accrualisation), and regional budgets will likely post a surplus due to the muted spending. Next year, however, we forecast a deficit of 0.5% on the back of the expected increase in expenditure, resulting in a shortfall in the central government budget and a smaller surplus in municipal budgets.

Public finance deficits (% of GDP)



Source: CZSO, Economic & Strategy Research, Komerční banka

Public debt (% of GDP)



Source: CZSO, Economic & Strategy Research, Komerční banka

This year, public debt-to-GDP ratio is to drop to 38.6%, or below 40% for the first time since 2012.

Debt to drop below 40% of GDP

The draft of the 2017 budget showed that the Finance Ministry expects a minor decline in government debt in 2016. As the ministry can manage the debt level (to some extent) via its

liquidity reserve, we assume this scenario will materialise. **Together with rising GDP, this is set to result in a public debt-to-GDP ratio of 38.6%, or below 40% for the first time since 2012.** Next year, the relatively low budget deficit (or net borrowing needs) amid another increase in GDP should result in a decline in the debt-to-GDP ratio again to 37.6%.

Debt brake

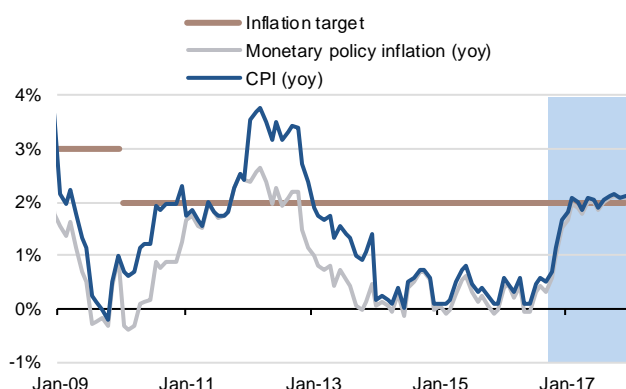
In October, the lower house of Parliament discussed a new law on “fiscal responsibility” aimed at creating a debt brake. Should the debt-to-GDP ratio (adjusted for government’s cash reserve) hit the 55% level, the government would be obliged to propose a budgetary outlook leading to a “sustainable” state of public finances. If the 60% limit is reached, the government would need to present tangible measures to cut the debt. Before taking effect, the law must be approved by the Senate and signed by the President. However, we view the legislation as rather toothless. First, it lacks the status of a constitutional law (unlike the original plans), and can therefore be overridden easily. Second, the proposed limits are too high vis-a-vis the current debt-to-GDP ratio of c.40%. And third, the bill contains few real procedures to deliver the desired fiscal sustainability in case the debt limits are breached.

Inflation to hit target as early as beginning of 2017

Inflation increased in the third quarter by more than we expected in our last *Czech Economic Outlook*. The recent recovery in food prices is the main driver, but we had also expected slightly slower growth in fuel prices. Inflation will quickly accelerate over the coming months and during 2017 due to base effects. This should allow inflation to have already reached its target by February 2017. From then on, it is likely to hover around 2%, which is the CNB target. The risks are on both sides. While there is a risk of steeper growth on energy costs, there is a risk of lower core inflation.

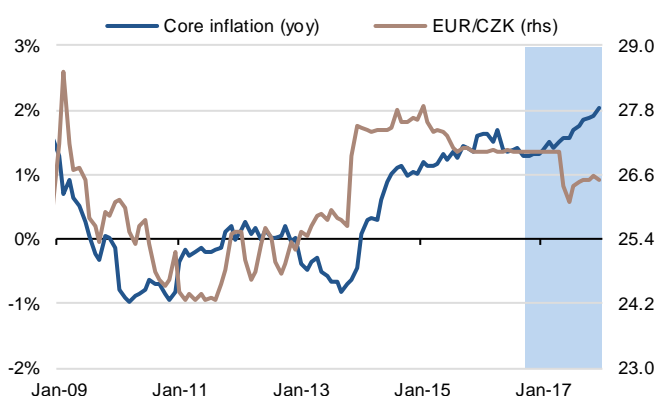
The growth of core prices remains sluggish. Import prices play an important role as prices in the euro area are very low and inflation in Slovakia and Poland has still been recording negative figures. The dynamics of core prices have also been affected by the change in food and fuel prices. The long-term deflation in food and fuel prices has filtered through into core prices. As a result, core inflation has not increased since April. That said, the factors impeding core prices should start fading out in the last quarter of the year. Import prices are set to act positively from the beginning of the year onwards and food and fuel prices are set to increase continuously. The expected change in the EUR/USD will also be pro-inflationary and the anti-inflationary effect of the CZK appreciation will be partly mitigated by a rapid increase in exchange rate volatility. The most important factor for core inflation growth is the acceleration of household consumption. **Overall, we expect core inflation to accelerate continuously and reach 2% at the end of next year.**

Headline inflation to accelerate rapidly...



Source: Economic & Strategy Research, Komerční banka, Bloomberg, CZSO, CNB

...while core inflation is set to lag behind



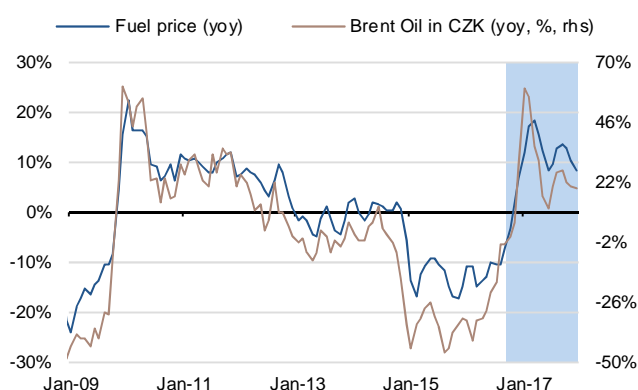
Source: Economic & Strategy Research, Komerční banka, Bloomberg, CZSO, CNB

Fuel prices are set to continue growing. If OPEC fails to agree on the details of production cuts, this might send fuel prices back down.

Fuel prices bottomed out in August and have started to pick up in August and September, in line with our forecasts. This followed the surge in oil prices after the OPEC countries reached a preliminary agreement on a production cut. The price increase will only be short-lived if the OPEC countries fail to follow up on the agreement with more details. The agreement on distribution for individual

member states is of utmost importance. The demand/supply rebalancing process on the oil market would advance much more slowly if the agreement were to fail. The result would be another drop in oil prices translating into a decrease in fuel prices on the domestic market. Our forecasts factor in a successful deal. In such a case, oil prices are set to increase continuously towards \$60 per barrel. **This would imply fuel price growth of 10.9% after a likely slump of 8.1% this year.** The yoy growth will be strong especially at the beginning of the year due to the base effects.

Fuel price inflation to surge due to base effect



Source: SG Cross Asset Research/Economics, Economic & Strategy Research, Komerční banka, Bloomberg, CZSO

Food prices have bottomed and they will be supported by strong base effects.

Recent developments suggest that food prices have also troughed after a long series of decreases. The yoy food price deflation eased significantly in the third quarter of the year and, like fuel prices, the base effects will support food price inflation significantly. With a little lag, food prices followed the move in agricultural prices, which surged 4.2% in September. As long as this was not simply a one-off spike, we can expect a strong increase in food prices in the last quarter of the year. The upward trends will be also supported by an increase in transport prices and the prices of chemicals, which track the growth of the global oil price.

Administered prices have been leaning negatively on headline inflation since the notable decline of gas prices for end consumers in May. The recent surge in German electricity prices will eventually filter through into Czech administered prices also. Transport prices will also see

gradual growth. **Overall, therefore, we expect the growth on Czech administered prices to accelerate and print a 1.1% increase in 2017 after they are set to add only 0.2% this year.**

Brexit risk has not disappeared, just postponed for now

Developments around Brexit to remain the largest risk.

The developments around Brexit will remain in the spotlight. The new UK Prime Minister Theresa May wants the UK to stay in the single European market, but she also wants the country to have full control over migration policy. As free movement of labour is one of the pillars of the single European market, May has been constantly reminded by EU officials that she cannot have her cake and eat it. The deal the UK ultimately reaches with the EU and with other countries will determine the economic consequences of Brexit for the UK but also for all other EU states. We still expect the UK to remain a part of the single European market.

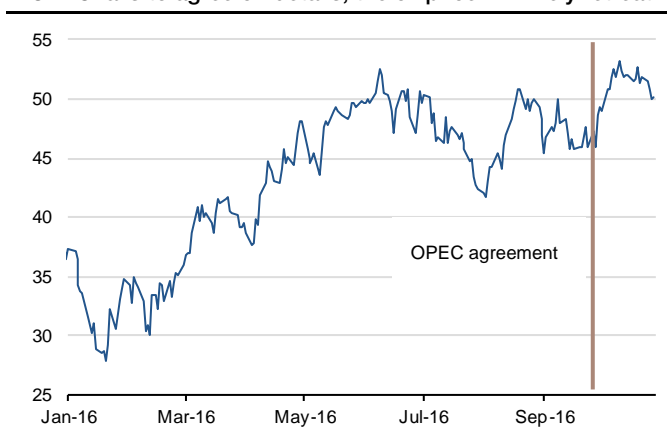
Investment to remain weak point in the long-term growth scenario.

There are also risks for economic progress stemming from the domestic economy. An early start to tapping EU funds from the new programming period would help investment activity and create an upside risk for economic growth. Conversely, problems with EU funds are not rare in the Czech Republic, and EU funding may not get off to a smooth start initially. Our focus on investment in this issue of the *Economic Outlook* revealed that the public administration has not drawn up infrastructure projects. **If the government were able to expedite the preparation phase of such projects, this would clearly provide a boost. Infrastructure construction has been crucial for recent economic growth, and the infrastructure deficit is hindering potential economic growth.**

There are a number downside risks on prices.

There are a number of factors supporting price growth. The many factors also provide many downside risks for the economy. We have already mentioned that an OPEC negotiation failure would mean a retreat of the recent oil price surge. The September spike in agricultural prices could prove to be a blip and fizzle out in October, leaving food price growth slower. **The**

If OPEC fails to agree on details, the oil price will likely retreat



Source: Bloomberg, Economic & Strategy Research, Komerční banka

biggest risk to price growth is its core component: the link between household consumption and core inflation has been a bit loose recently and our forecasts see this link being restored. If this does not transpire, core price growth might remain sluggish, dragging headline inflation trend below the 2% level.

Key economic indicators

	3Q16	4Q16	1Q17	2Q17	3Q17	4Q17	1Q18	2Q18	2015	2016	2017	2018	2019	2020
GDP and its breakdown														
GDP (real, yoy)	2.2	2.4	2.9	2.8	2.6	2.4	2.3	2.7	4.6	2.5	2.7	2.7	1.2	1.0
Household consumption (real, yoy)	2.5	2.3	2.4	3.3	2.5	2.3	2.1	2.3	3.1	2.4	2.6	2.4	0.8	0.1
Government consumption (real, yoy)	2.9	2.8	3.3	2.8	0.8	1.5	0.7	0.8	2.0	2.6	2.1	0.3	0.5	1.7
Fixed investments (real, yoy)	-5.5	-4.3	-0.8	5.4	6.6	5.9	5.1	4.6	9.1	-2.9	4.3	4.4	3.2	2.5
Net exports (contribution to yoy)	1.2	0.4	0.9	-0.7	-0.5	-0.3	-0.3	-0.4	0.1	1.1	-0.1	-0.3	-0.1	0.1
Inventories (contribution to yoy)	0.7	1.7	0.7	0.2	0.2	0.0	0.2	0.2	0.4	0.6	0.3	0.2	-0.2	-0.6
Monthly data from the real economy														
Foreign trade (CZK bn) (*) (***)	121.6	120.5	119.0	115.3	111.6	107.7	107.1	100.4	406.2	508.2	454.8	405.7	391.1	388.8
Exports (nominal, yoy) (*)	1.9	2.6	2.2	7.0	7.3	7.2	8.5	6.4	7.0	3.9	6.0	5.4	0.5	0.7
Imports (nominal, yoy) (*)	-0.4	2.3	4.4	9.7	9.4	9.2	10.9	8.6	8.7	1.3	8.2	7.3	1.0	0.8
Industrial production (real, yoy)	2.5	4.9	3.3	3.3	5.2	5.0	4.7	4.9	4.6	4.0	4.2	3.8	0.3	-0.3
Construction output (real, yoy)	-9.3	-4.3	-2.4	3.6	3.6	3.1	1.8	1.8	7.7	-8.2	2.0	1.7	1.0	-1.4
Retail sales (real, yoy)	5.4	4.7	4.2	4.1	3.9	3.1	2.6	2.3	6.3	5.9	3.8	2.3	0.9	-0.3
Labour market														
Wages (nominal, yoy)	3.7	4.2	4.6	4.6	4.4	3.8	3.3	3.0	2.7	4.1	4.3	2.9	1.9	1.9
Wages (real, yoy)	3.1	3.0	2.5	2.5	2.3	1.7	1.3	1.1	2.4	3.4	2.3	1.0	0.1	-0.3
Unemployment rate (MLSA)	5.2	5.5	5.4	4.7	4.8	5.3	5.4	4.7	6.4	5.5	5.1	4.9	4.9	5.4
Unemployment rate (ILO 15+)	3.9	3.9	4.0	3.7	3.7	3.8	4.0	3.7	5.1	4.0	3.8	3.7	3.7	4.1
Employment (ILO 15+, yoy)	1.1	1.2	0.7	0.5	0.7	0.2	0.0	-0.1	1.4	1.4	0.5	0.0	-0.2	-0.6
Consumer and producer prices														
CPI Inflation (yoy)	0.5	1.2	2.0	2.0	2.0	2.0	2.0	1.9	0.3	0.6	2.0	1.9	1.8	2.2
Taxes (contribution to yoy inflation)	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0
Core inflation (yoy) (**)	1.4	1.3	1.4	1.6	1.8	2.0	2.0	2.0	1.3	1.4	1.7	1.9	1.9	2.2
Food prices (yoy) (**)	-0.8	0.7	2.0	2.2	1.4	1.4	1.4	1.7	-1.1	-1.0	1.8	1.7	2.2	2.2
Fuel prices (yoy) (**)	-9.4	1.5	15.3	11.6	10.2	6.4	1.8	0.5	-13.3	-8.1	10.9	1.2	-1.1	0.6
Regulated prices (yoy) (**)	-0.1	-0.1	0.5	1.1	1.4	1.5	2.4	2.1	0.2	0.2	1.1	2.1	1.9	2.4
Producer prices (yoy)	-3.2	-1.5	2.0	2.4	3.2	3.5	3.3	3.0	-3.2	-3.3	2.8	2.9	2.1	2.7
Financial variables														
2W Repo (average)	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.58
3M PRIBOR (average)	0.29	0.29	0.20	0.14	0.20	0.29	0.29	0.29	0.31	0.29	0.21	0.29	0.29	0.73
EUR/CZK (average)	27.03	27.02	27.02	26.40	26.50	26.50	25.92	25.50	27.3	27.0	26.6	25.5	24.8	24.5
USD/CZK (average)	24.21	24.56	24.56	24.22	24.54	24.54	24.00	23.61	24.6	24.3	24.5	23.4	21.1	20.2
External environment														
GDP in EMU (real, yoy)	1.6	1.5	1.3	1.4	1.4	1.4	1.4	1.3	1.6	1.6	1.4	1.2	0.7	0.8
GDP in Germany (real, yoy)	2.0	1.9	1.5	1.4	1.4	1.4	1.5	1.4	1.5	1.9	1.4	1.3	0.6	0.4
CPI in EMU (real, yoy)	0.4	0.9	1.5	1.5	1.5	1.5	1.5	1.4	0.0	0.3	1.5	1.5	1.5	1.4
Brent oil price (USD/bbl, average)	47.0	50.0	52.5	55.0	57.5	60.0	62.0	64.0	53.4	44.8	56.3	65.0	70.0	75.0
EURIBOR 1Y (average)	-0.05	-0.06	-0.06	-0.06	-0.07	-0.07	-0.07	-0.07	0.17	-0.03	-0.07	-0.07	-0.05	0.14
EUR/USD (average)	1.12	1.10	1.10	1.09	1.08	1.08	1.08	1.08	1.11	1.11	1.09	1.09	1.18	1.21

Source: Economic & Strategy Research, Komerční banka

Note: (*) foreign trade according to cross border statistics;

(**) these parts of inflation are adjusted for the primary effect of indirect tax changes;

(***) the quarterly data are seasonally adjusted.

CNB Focus

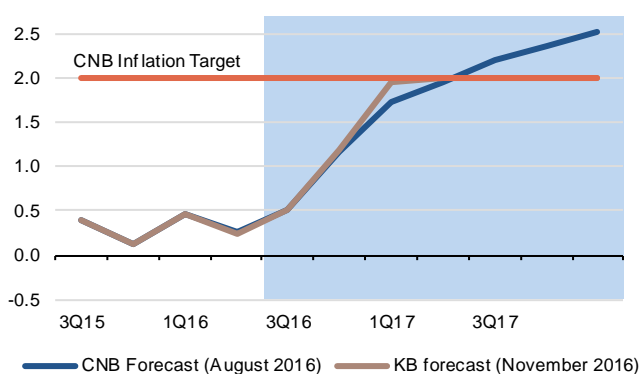


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Transparent exit will be accompanied by negative rates

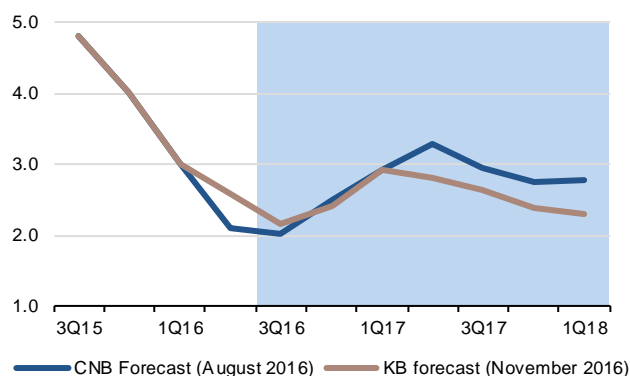
The expected exit from the FX floor is approaching. CNB Governor Rusnok does not want to extend the minimum duration of the commitment anymore, which is a serious indication the central bank board believes the days of the floor are numbered. That said, exactly when and how the exit will happen is still the subject of much debate. We expect a transparent exit in the second quarter of next year. In the next sections, we will take a more in-depth look at what “transparent” means and the potential costs of such an approach.

Inflation outlook



Source: Economic & Strategy Research, Komerční banka, CNB, CZSO

GDP outlook



Source: Economic & Strategy Research, Komerční banka, CNB, CZSO

The atmosphere around the FX floor has been changing. Not so long ago, the CNB board members discussed the possibility of moving the floor to weaker levels if they saw disinflationary pressures in the economy. Now, when the CNB board members mention the possibility of extending the FX floor regime, it seems to be more from a desire to deter speculative capital inflow, rather than seeing a viable reason for postponing the exit. As governor Rusnok does not want to move the hard commitment, **the focus has shifted instead to the specific timing of the exit and its technical execution. We describe these in the following points:**

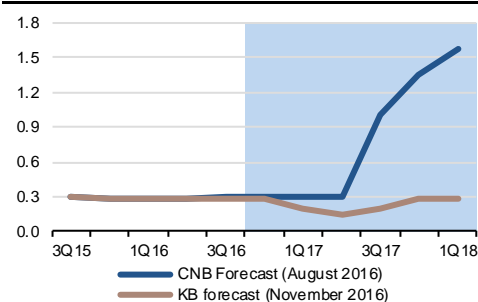
- **Timing:** At its last meeting, the CNB board pushed out the earliest possible date of the end of the FX commitment by one quarter. In the Bank Board's Statement, the so called “hard commitment” was changed to: “...the CNB will not discontinue the use of the exchange rate as a monetary policy instrument before 2017 Q2.” According to governor Rusnok, the hard commitment will not be changed anymore. On the other hand, “the Bank Board still considers it likely that the commitment will be discontinued in mid-2017”. This “soft commitment” might be subject to further changes. **The exact timing of the exit will depend on the inflation forecast.** The prerequisite is that the staff forecast shows inflation consistently on the CNB's target for the whole monetary policy horizon. However, some members of the board (e.g. vice-governor Hampel) do not view this condition as being tough enough. Before they would vote to lift the floor, they would like to see current inflation already at the target level. At the moment, this distinction has no bearing on our call. According to our forecast, inflation will hit the target in the early months of the next year, thereby giving

free hand to the CNB to scrap the floor by the second quarter of 2017. Given the change in atmosphere, no further modification in the hard commitment, and reflationary pressures in the economy, **we believe that the FX floor will indeed be scrapped as early as the second quarter of the next year.** The decision could be taken at the May meeting, although the floor does not have to be lifted immediately but at some subsequent date. Nonetheless, there are significant risks of lower inflation which, if they materialise, could postpone the exit.

- **Transparency:** The bank board claims that the exit will be transparent. Vice-governor Tomšík explained what it means in the presentation at the CNB Colloquium on 18 October. Firstly, **the exit, when conducted, should not surprise markets.** The CNB does not intend to surprise the market with an earlier-than-expected exit. Secondly, **the CNB will announce that the floor is scrapped when they do so.** It will not back out of the market quietly. Thirdly, **the CNB has already announced that it is ready to smooth out any excessive volatility of the exchange rate after the exit.** However, the CNB will not announce the exact date of the exit in advance and will not disclose the levels at which it would intervene against excessive volatility on the FX markets, as the latter would mean introducing a new floor. The CNB has worked hard to build its credibility on the financial markets, so we believe that it would not risk losing it during the exit. Regaining such credibility might be difficult for a central bank in a small country in Central Europe. Moreover, the bank board is undergoing a generation change and we believe that the new central bankers would like to be perceived as credible for the rest of their term(s). **We believe therefore that the exit will be transparent.**

- **Negative rates:** Transparency comes at a price. If the market participants are roughly aware of the exit timing and general expectations are for CZK appreciation, the exit will attract speculative inflows (as has already been the case). Although the CNB says it is not concerned about the volume of its balance sheet, it might be concerned about its dynamics. Moreover, vice-governor Tomšík stated at one of the

PRIBOR rate will decrease due to the facility with negative rates



Source: Economic & Strategy Research, Komerční banka, CNB, CZSO, Bloomberg

meetings with analysts that the CNB is not willing to provide easy profits for speculators. **The CNB will, in our view, punish the incoming speculative flow by creating a new facility for interbank liquidity with a negative rate, while limiting entry into existing facilities (repo and depo) and clearing accounts;** the rates in the existing facilities should remain unchanged. We expect the limits to be set so that new negative-rate facility with would have only a limited impact on the domestic financial sector. **The measure is likely to be applied only temporarily around the time of exit given that its goal is to smooth the exit process.** As the end of the hard commitment approaches, we expect a rapid acceleration of speculative capital inflow. In our view, the new negative-rate facility will be introduced late in the first quarter to deter such speculation. In our projection, we expect the rate to be -0.5%, but it could be deeper in the negative. The period with negative rates should last about two quarters, in our view. There is a risk of a longer duration, which might

cause problems for the domestic financial sector as it would push market rates further down. Introducing negative rates and limiting the entry into current facilities will move the PRIBOR rate down. The realized repo rate would also be squeezed as the domestic banks would tender to put liquidity in repo.



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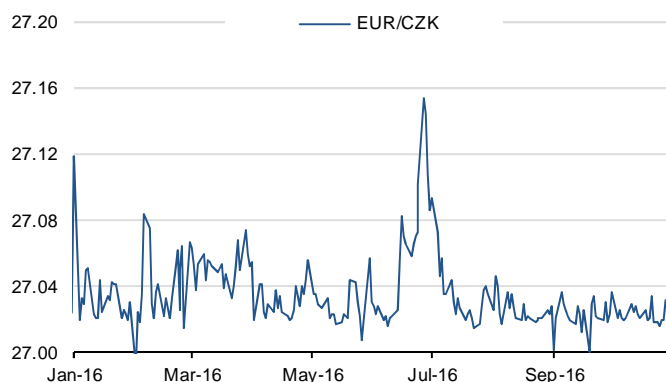
Czech FX Market

Exit will cause rate volatility to increase

This year's exchange rate volatility remains extremely weak.

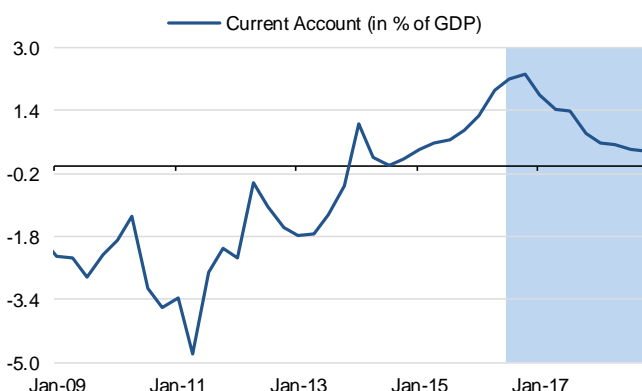
With the exception of late June and early July, this year's EUR/CZK developments have been uninteresting. Following the decision taken by voters in the UK to leave the EU, the situation calmed down very quickly. The favourable balance of external trade is set to reach its highest-ever level and the surplus in the current account of the balance of payments is more than 2% of GDP. The Czech economy is therefore generating large amounts of euros, specifically EUR 5.5bn for 1H16 in the C/A. Under normal circumstances, these euros would have been exchanged for Czech crowns in the forex market, boosting the Czech currency in the process. However, in the FX floor regime the central bank is buying these euros at what is basically a fixed rate. The result is growing forex reserves in the central bank's assets and exchange rate stability.

This year's EUR/CZK exchange rate developments



Source: Bloomberg, Economic & Strategy Research, Komerční banka

C/A balance of payments in a solid surplus situation

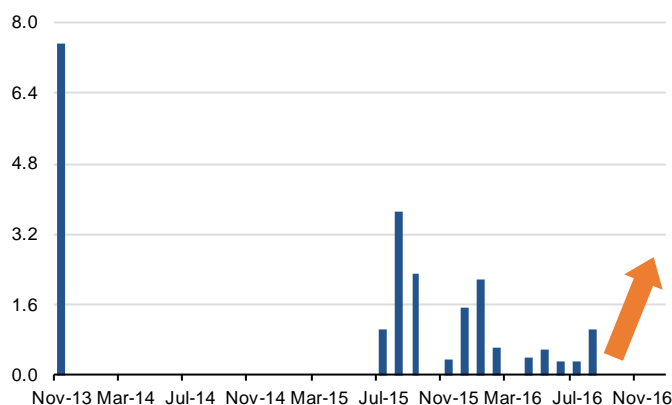


Source: CNB, Economic & Strategy Research, Komerční banka

The amount of forex reserves really has no limit for the CNB.

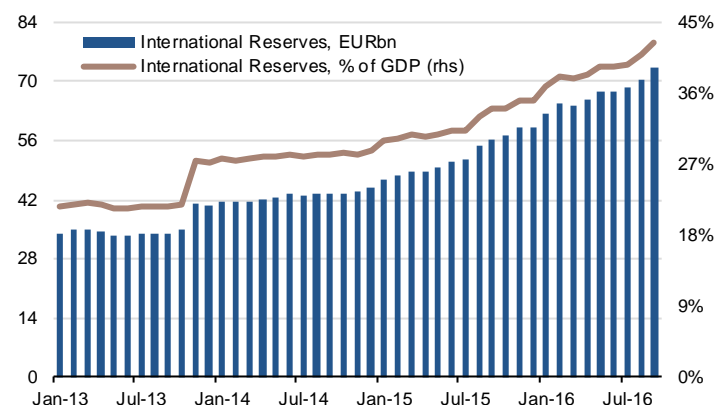
The forex reserves are swelling due to the CNB's interventions to a considerable extent. Since July 2015, when the FX floor experienced heavy pressure, the central bank has been compelled to intervene in the market in defence of the FX floor and withdraw the flood of euros from the market. The interventions amounted to EUR4.1bn for the first half of this year. According to our estimates, these were mostly real flows. The influx of arbitrageurs' euros significantly escalated in summer. The August interventions already amounted to EUR1.1bn and in September the volume was apparently much greater. At the end of 3Q16, forex reserves amounted to 42% GDP. If we expect an average monthly increase of EUR2bn in forex reserves in the coming months, also due to mounting speculative capital, forex reserves would amount to almost 60% of GDP by mid-2017. This level would be far under 90% GDP, a point where the Swiss central bank stopped intervening owing to concerns about its own future financial results. But this does not apply to the Czech central bank. **Thus, the CNB will have enough room for intervention even after exiting the FX floor regime.**

Intervention volumes to jump in months to come (€bn)



Source: Economic & Strategy Research, Komerční banka, CNB

International reserves on the rise

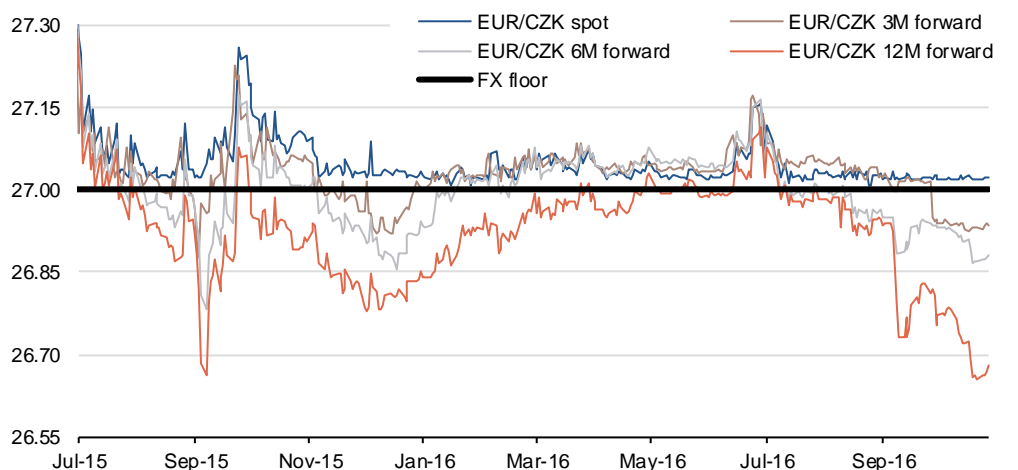


Source: Economic & Strategy Research, Komerční banka, CNB

Arbitrage based on the approaching exit is depressing forward rates.

The speculative capital inflow related to the approaching exit can now be felt in the forward segment of the forex market. In the forward market, the Czech crown began appreciating in August when the markets started to believe that the CNB would abandon its FX floor commitment within a year. In response, arbitrageurs intensified their euro spending on Czech crowns in the expectation that the Czech currency would surge following the exit. The annual forward rate therefore printed EUR/CZK 26.60 at the end of October. For shorter maturities the shift is much smaller, since it is much less certain that these contracts will actually mature already in the post-exit period.

Forward EUR/CZK exchange rates developments

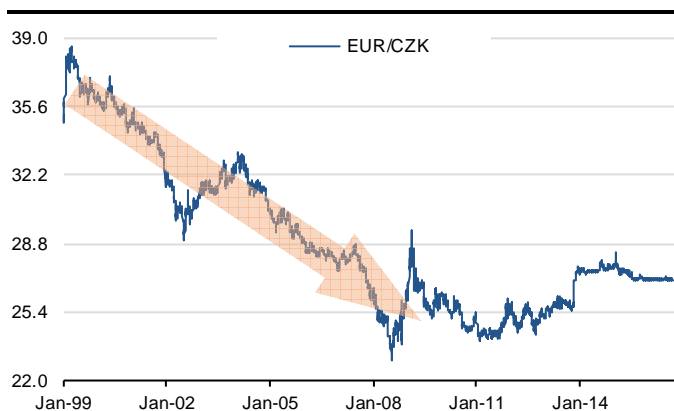


Source: Bloomberg, Economic & Strategy Research, Komerční banka

We see a long-run equilibrium rate at EUR/CZK 24.50.

Post-exit: sharp appreciation is uncertain, high volatility is certain
Arbitrageurs are betting on the rate recovering partly to the pre-intervention level and to the pre-crisis long-term trend of an appreciating Czech crown. The reasons for such expectations include, in particular, the Czech economy's recovered convergence with the euro area in real terms and possibly a positive interest differential. However, a potential factor may also primarily, be any extension of the QE programme by the ECB. Our model for the long-run equilibrium exchange rate using the NATREX approach also indicates a much stronger value in 3Q16 of around EUR/CZK 24.50.

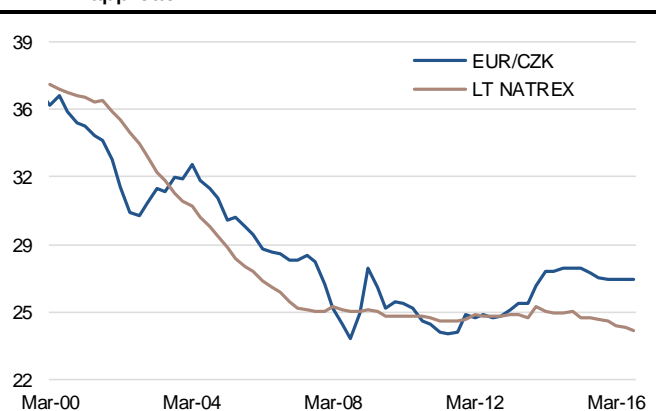
Long-term EUR/CZK development



Source: Bloomberg, Economic & Strategy Research, Komerční banka

Rapid appreciation to less than CZK 25/EUR would shock the economy. The CNB will prevent this.

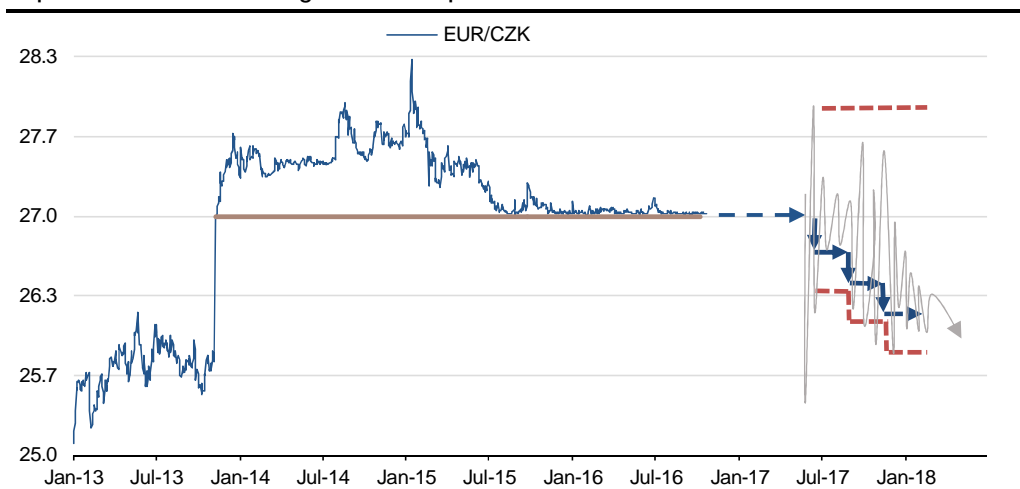
LT equilibrium EUR/CZK exchange rate according to the NATREX approach



Source: Economic & Strategy Research, Komerční banka

A sudden appreciation of the Czech crown towards the long-run equilibrium rate would not result in a return to the equilibrium but in a negative shock for the Czech economy, which is heavily dependent on industry and exports. The appreciating trajectory must therefore be gradual; based on our assumptions, the return to a rate of around CZK 25/EUR should take at least two years. The CNB is aware of the need to prevent a sudden and strong appreciation of the crown, and it is therefore indicating that it will also use interventions during the post-exit period. We expect the CNB to introduce negative interest rates in an effort to support a seamless exit from the FX floor mode; for more details see the *CNB Focus*.

Expected EUR/CZK exchange rate development after the exit



Source: Macrobond, Economic & Strategy Research, Komerční banka

Exit to result in more dynamic exchange rate volatility.

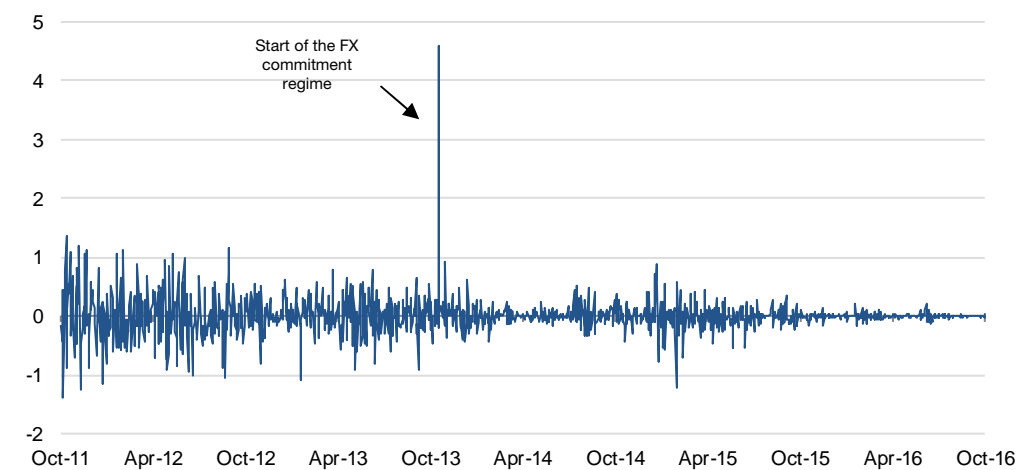
Since speculative capital will play the key role at the time around the exit, the volatility of the EUR/CZK currency pair can be expected to increase significantly. Sooner or later, arbitrageurs will close their long CZK positions, which is associated with the risk of a temporary but potentially significant weakening of the Czech currency. Right after the exit the crown can even strengthen appreciably, with a surge of up to 10% being quite possible. An at least partial correction due to concerns about the CNB's interventions can then be expected relatively quickly. In our view, the central bank will be present in the market in response to various exchange rate levels, moderating volatility through its interventions. The objective will be to keep the market uncertain as to when the CNB can intervene, thereby eroding the

arbitrageurs' role. We also expect the CNB to counter any pressures for a sudden and strong weakening of the crown.

Free hedging to end soon.

The CNB has always presented the FX floor as forex hedging for exporters, which it is providing free of charge. And the central bankers themselves are now warning that the exit will mark the end of such hedging. Since arbitrageurs will always be faster than the other market players, exporters do not have many chances for profiting from the exit. **Hedging is the key. Such hedging should be understood as defence against high volatility** rather than against the potential appreciation of the crown. As discussed above, the crown can even weaken for some time. **The current exchange rate stability will vanish.** Let's recall that before the intervention mode, normal daily changes in the CZK/EUR rate were 0.5%, while 1% changes over a single day were not exceptional. And because of the major speculative positions, the post-exit volatility may be even more dynamic than in the pre-FX floor period.

EUR/CZK daily changes, in %



Source: Bloomberg, Economic & Strategy Research, Komerční banka



EUR/CZK technical analysis

Hovering close to decisive level of 27

EUR/CZK underwent a steady correction after finding resistance at the multiyear upward channel resistance (currently at 28.80/29.00). The pair continues to evolve in a narrow price range and is hovering close to crucial support of 27 which happens to be the 50% retracement from October 2013 lows. Monthly indicator, here MACD is probing the equilibrium level highlighting 27.00 as an important level. In the event of a break below 27.00 next leg of correction will unfold towards graphical levels of 26.63 and even towards 2011 highs of 26.15.

Previous lows of 27.25/27.35, also the 23.6% retracement from 2015 highs have capped the recoveries. Only a definite break above will signal possibility of a sustainable rebound.

EUR/CZK, monthly chart.



Source: SG Cross Asset Research/Technical Analysis

Important Disclaimer: The recommendations in the part Technical analysis is based only on analytical methods of technical analysis and may be different from the fundamental opinion of KB (or SG) presented in other parts of this documents or of other documents of KB (or SG).

EUR/CZK, weekly chart.





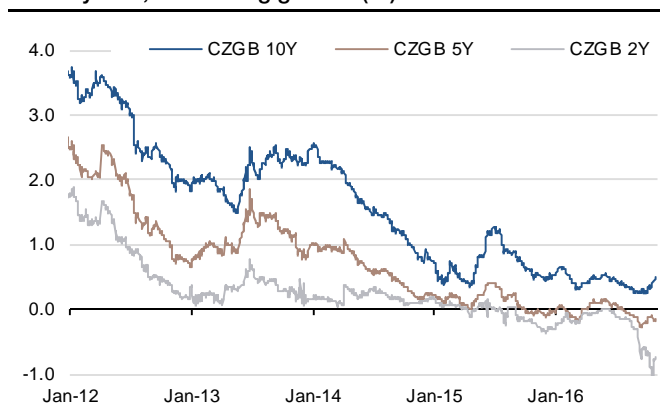
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Czech Government Bond and IRS Markets

Volatility on the short end of the curve to go on

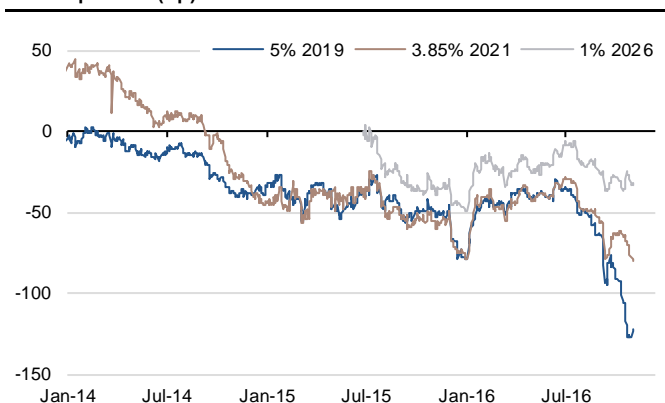
Czech government bonds have had a mixed start to 4Q16. On the one hand, **the short end of the yield curve dropped massively to new historical lows, and even below yields in Switzerland.** On the other hand, long-end yields have been on the rise since early October on the back of accelerating inflation and rising Bund yields in reaction to ECB tapering speculation.

CZGB yields, Bloomberg generic (%)



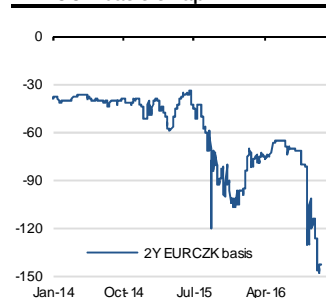
Source: Bloomberg, Economic & Strategy Research, Komerční banka

ASW spreads (bp)



Source: Bloomberg, Economic & Strategy Research, Komerční banka

2Y XCCY basis swap



Source: Bloomberg, Economic & Strategy Research, Komerční banka

The country's short-end bond yields are now the lowest in the world. Speculation about the end of the CNB's FX floor may have boosted demand among investors, who expect the Czech currency to strengthen after the floor is scrapped. **However, we assume a bigger impact was felt from the deeply negative EUR/CZK XCCY basis swaps, which moved sharply to the left due to speculative inflows and CNB intervention.** Short-term CZGBs continue to show a favourable positive yield when swapped into EUR, which makes them a great deal in the world of negative rates (and compared with Germany's 2Y Schatz yields below around -0.60%).

Supply side

The Finance Ministry has benefited from these extraordinary market conditions and stepped up bond sales in 4Q16. The ministry targets up to CZK80bn of CZGB taps in the final quarter of the year (in primary auctions), and the full amount (as we expect) would put the total 2016 domestic bond issuance at c.CZK210-215bn. The latest update of the overall borrowing needs and financing for 2016 is summarised in the following table. In our view, the ministry will offer CZK50-55bn of CZGB and CZK17bn of T-bills (with a maturity in 2017) in the remainder of the year to complete its financing programme.

2016 gross borrowing needs and financing, CZKbn

	MinFin Jun	KB Nov
Borrowing needs		
Budget deficit	70.0	0.0
Buybacks of CZGBs	-	0.0
Redemption of CZGBs		142.5
Redemption of Eurobonds	155.8	12.5
Redemption of retail bonds	30.0	30.1
Redemption of T-bills	84.4	84.4
Redemption of other money market instruments	-	2.2
Redemption of EIB loans	1.7	1.7
Total	342.0	273.4
Financing		
Gross T-bill issuance		20.0
Other money market instruments		0.0
Gross CZGB issuance (in auctions)	min 150.0	215.0
Tap sales		10.0
Gross issuance of eurobonds		0.0
Gross issuance of retail bonds		0.0
Tapping of financial reserve		13.0
Net effect of CZGB switches		15.4
Total financing		273.4
<i>Net CZGB issuance</i>		<i>82.5</i>

Source: Economic & Strategy Research, Komerční banka, Finance Ministry

We maintain our call for next year's gross borrowing needs and financing. Debt issuance is set to rise in 2017 on the back of deterioration in the government budget balance and higher bond redemptions. That said, we assume supply will be concentrated mainly in 1Q and 2Q via short-end bonds, so that the FX-floor-related demand is met. The Finance Ministry will publish its 2017 debt management strategy in mid-December.

2017 gross borrowing needs and financing, CZKbn

	MinFin Jun	KB Nov
Borrowing needs		
Budget deficit	60.0	45.0
Buybacks of CZGBs		0.0
Redemption of CZGBs	208.6	208.6
Redemption of Eurobonds		0.0
Redemption of retail bonds	16.9	16.9
Redemption of T-bills	50.0	20.0
Redemption of other money market instruments	-	0.0
Redemption of EIB loans	1.7	1.7
Total	337.2	292.2
Financing		
Gross T-bill issuance		30.0
Other money market instruments		0.0
Gross CZGB issuance (in auctions)		230.0
Tap sales		10.0
Gross issuance of eurobonds		0.0
Gross issuance of retail bonds		0.0
Tapping of financial reserve		12.2
Net effect of CZGB switches		10.0
Total financing		292.2
<i>Net CZGB issuance</i>		<i>31.4</i>

Source: Economic & Strategy Research, Komerční banka, Finance Ministry

Bond yields

At the long end of the curve, we expect yields to edge higher in 2017 due to the acceleration of inflation and higher Bund yields, as per SG's view. Still, the forecast increase is rather modest, as is the case for German Bunds. Also, we expect the Finance Ministry to again concentrate supply on the short end of the curve (including higher issuance of T-bills), limiting pressures on the long end.

We expect yet another drop in short-end yields in the following two quarters.

Developments at the short end of the curve are set to be very volatile. Market speculation on the end of the CNB's FX floor and central bank intervention have translated into massive demand for short-term bonds. This trend is likely to continue until the CNB's FX floor exit. Moreover, it will be supported by the new central bank's negative rate, as per our forecast. As a result, we expect yet another drop in short-end yields in the following two quarters, although we acknowledge that estimating the actual level of yields is a very difficult task.

CZGB yield forecast

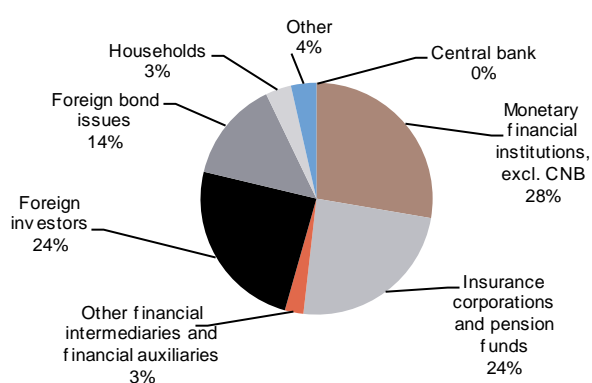
	4Q16f	1Q17f	2Q17f	3Q17f	4Q17f
2y CZGB yield (%)	-0.75	-0.90	-0.30	-0.10	0.00
10y CZGB yield (%)	0.40	0.55	0.60	0.75	0.85
10y CZGB ASW (bp)	-30	-30	-35	-30	-30

Source: Economic & Strategy Research, Komerční banka

Cross-currency basis swaps in 1-3y tenors are likely to decline further in the coming months, in our view, due to the continuing market speculation and CNB intervention. With the removal of the FX floor during 2Q17, however, we assume the situation will start normalising. The CZK should regain its managed free-floating status (although the CNB will remain present in the market and limit any excessive volatility), and will likely strengthen, which should alleviate the pressures in the market caused by the drop in the XCCY basis.

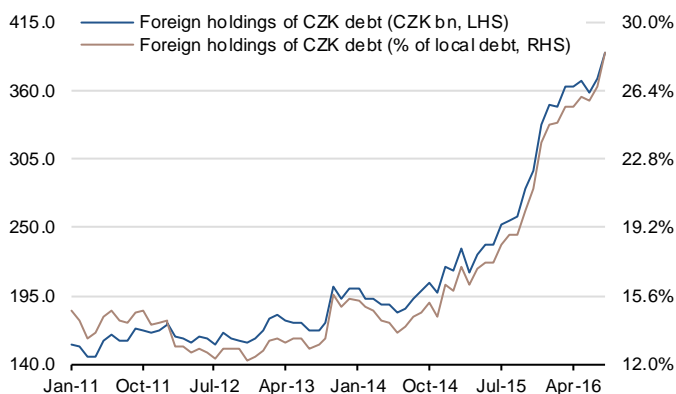
Due to the expected reverse in the XCCY basis and the consequent sharp drop in demand post-exit, short-end CZGB yields should start to normalise around mid-2017, in our view. By end-2017, we expect the 2y yield to return to zero.

Holdings of Czech Republic's debt securities, end-Sep 2016



Source: Finance Ministry, Economic & Strategy Research, Komerční banka

Foreign holdings continue to grow



Source: Finance Ministry, Economic & Strategy Research, Komerční banka

CZGB holdings

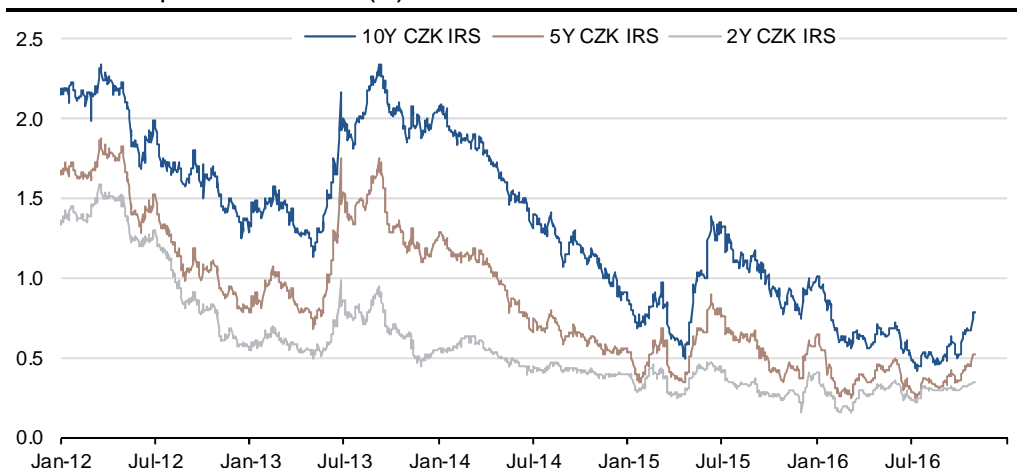
Foreign holdings of CZGBs increased further during 3Q16, according to the latest data from the ministry. **Due to the expected strong interest via cheap XCCY financing and FX**

speculation, we expect this trend to continue, as the ministry is likely to satisfy demand at the short end.

Normalisation of the XCCY basis will mean significantly lower demand from foreign investors.

As we noted in previous editions of the *Czech Economic Outlook*, the concentration of supply at the short end might lead to the risk of faster yield growth around end-2017 and early 2018, when at least CZK110bn of short-end bonds (held mostly by non-residents, we assume) will mature. **Normalisation of the XCCY basis will mean significantly lower demand from foreign investors.**

Recent developments of CZK IRS (%)



Source: Bloomberg, Economic & Strategy Research, Komerční banka

CZK interest rate swaps

We have revised our forecast for CZK swap rates to reflect the change in our CNB call and macroeconomic prognosis. The short end of the IRS curve is set to remain unchanged until mid-2017 (the new CNB's negative rate will only have a limited impact, in our view, due to its short-term nature), and we expect a minor increase afterwards on higher inflation and the end of the FX floor. The long end should continue rising due to the acceleration in inflation, and we raise our end-2017 expectation for 10y IRS slightly to 1.15%.

CZK IRS outlook (%)

	4Q16f	1Q17f	2Q17f	3Q17f	4Q17f
2Y	0.35	0.30	0.30	0.40	0.50
10Y	0.70	0.85	0.95	1.05	1.15

Source: Economic & Strategy Research, Komerční banka

Banking sector



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Credit growth to edge lower next year

In line with our previous forecast, we expect credit growth to slow next year despite the faster advance in GDP. The increase in the volume of mortgages is set to moderate due to two interconnected factors: (1) increasing demand over the past quarters, as highlighted by the recent growth in mortgages itself, and (2) lack of supply mainly in Prague. Combined, these issues are making residential housing a less attractive investment due to rising prices. The expected increase in wages (and disposable income in general) has been only partially translating into household consumption, inflating the savings rate. Therefore, consumer lending growth has been rather weak and is set to remain sluggish in 2017. Growth in corporate loans is set to ease due to the high statistical base of 2016, as well as the solid cash balances of corporations in the Czech Republic, resulting from elevated profitability.

Deposits have been greatly affected by volatility in the deposits of financial corporations (due to the calculation of contributions into the national resolution fund and likely on the back of the inflow of speculative liquidity) and of government institutions (a new law is forcing more public institutions to place deposits at the central bank). These two categories account for the vast majority of “Other deposits” in our scenario. **In 2017, we expect a significant slowdown in deposit growth**, mainly due to a drop in “Other deposits” – based on lower government deposits and the likely outflows of capital in 2H17 after the CNB’s FX floor regime comes to an end.

Bank loans and deposits (SA, yoy, %)

	Q3 16	Q4 16	Q1 17	Q2 17	Q3 17	Q4 17	Q1 18	Q2 18	2015	2016	2017	2018	2019	2020
Bank loans														
Total	6.3	7.1	6.1	5.6	5.0	4.8	4.6	4.9	6.0	6.7	5.4	4.9	5.1	4.2
Households - real estate loans	8.0	8.2	7.0	7.0	6.1	5.2	5.5	5.9	7.1	8.0	6.3	6.0	6.1	4.5
Households - consumer loans	2.1	3.5	3.0	3.9	4.5	4.2	4.4	4.6	6.5	4.3	3.9	5.1	6.9	4.6
Corporate loans	5.7	7.0	5.0	4.3	3.4	4.2	3.8	4.3	5.9	7.0	4.2	4.1	4.0	4.1
Deposits														
Total	4.6	5.1	0.8	3.9	2.5	3.7	2.6	2.1	3.2	6.0	2.7	2.9	2.9	2.9
Households	7.8	8.3	8.1	7.6	6.7	5.8	5.1	4.5	5.2	7.4	7.0	4.3	3.2	2.9
Non-financial corporations	4.1	7.3	4.1	4.7	2.7	1.5	1.9	3.3	11.0	6.1	3.3	3.3	2.0	2.3
Others	-1.1	-5.9	-16.4	-4.9	-6.6	0.6	-2.7	-5.3	-7.2	2.6	-6.8	-0.7	3.0	3.5
Ratios														
Loan-to-GDP ratio	62.9	62.9	62.9	63.0	63.2	63.1	62.9	63.1	61.0	62.4	63.0	63.2	63.9	64.6
Deposit-to-GDP ratio	80.4	78.1	79.2	79.4	78.9	77.5	77.7	77.4	78.7	80.0	78.8	77.5	76.7	76.6
Loan-to-deposit ratio	78.2	80.5	79.4	79.3	80.1	81.3	80.9	81.5	77.5	78.0	80.0	81.6	83.3	84.3
Interest rates														
Real estate loans	2.6	2.6	2.6	2.7	2.8	2.9	3.0	3.1	2.6	2.4	2.8	3.2	3.7	4.3
Consumer loans	10.7	10.5	10.4	10.4	10.3	10.3	10.3	10.3	12.4	10.7	10.4	10.3	10.3	10.9
Corporate loans	1.5	1.5	1.4	1.4	1.4	1.5	1.5	1.6	2.0	1.8	1.4	1.5	1.6	2.2
Share of NPL														
Real estate loans	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.2	2.8	2.3	2.1	2.2	2.3	2.5
Consumer loans	9.3	9.0	8.6	8.3	8.3	8.3	8.5	8.4	11.7	9.5	8.4	8.4	8.9	9.4
Corporate loans	5.1	5.0	5.0	4.9	4.8	4.7	4.7	4.6	5.9	5.1	4.8	4.6	4.4	5.1

Source: CNB, Economic & Strategy Research, Komerční banka

Key Economic Indicators

Macroeconomic indicators – long-term outlook

		2014	2015	2016	2017	2018	2019	2020	2021
GDP	real, %	2.7	4.6	2.5	2.7	2.7	1.2	1.0	1.3
Inflation	average, %	0.4	0.3	0.6	2.0	1.9	1.8	2.2	2.2
Current account	% of GDP	0.2	0.9	2.3	0.8	0.4	0.5	0.5	0.2
3M PRIBOR	average, %	0.4	0.3	0.3	0.2	0.3	0.3	0.7	1.9
EUR/CZK	average	27.5	27.3	27.0	26.6	25.5	24.8	24.5	24.2
USD/CZK	average	20.8	24.6	24.3	24.5	23.4	21.1	20.2	19.6

Source: CSO, CNB, Economic & Strategy Research, Komerční banka, SG Economic Research

Note: KB forecasts are in blue

FX & interest-rate outlook

		31-Oct-2016	Dec-16	Mar-17	Jun-17	Sep-17	Dec-17
EUR/CZK	end of period	27.02	27.02	27.02	26.10	26.50	26.52
USD/EUR	end of period	1.098	1.10	1.10	1.09	1.08	1.08
CZK/USD	end of period	24.61	24.56	24.56	23.94	24.54	24.56
3M PRIBOR	end of period	0.29	0.29	0.10	0.10	0.29	0.29
10Y IRS	end of period	0.77	0.70	0.85	0.95	1.05	1.15

Source: CSO, CNB, Economic & Strategy Research, Komerční banka, SG Economic Research

Note: KB forecasts are in blue

Monthly macroeconomic data

		I-16	II-16	III-16	IV-16	V-16	VI-16	VII-16	VIII-16	XI-16
Inflation (CPI)	%, mom	0.6	0.1	-0.1	0.6	-0.2	0.1	0.3	-0.2	-0.2
Inflation (CPI)	%, yoy	0.6	0.5	0.3	0.6	0.1	0.1	0.5	0.6	0.5
Producer prices (PPI)	%, mom	-1.6	-0.6	0.0	0.1	0.4	0.3	0.0	-0.2	0.3
Producer prices (PPI)	%, yoy	-3.4	-4.0	-4.5	-4.7	-4.8	-4.4	-4.0	-3.4	-2.4
Unemployment rate	% (MLSA)	6.4	6.3	6.1	5.7	5.4	5.2	5.4	5.3	5.2
Industrial sales	%, yoy, c.p.	-1.6	3.2	-1.4	0.3	5.3	1.2	-18.9	14.9	n/a
Industrial production	%, yoy, c.p.	1.6	5.9	1.2	4.3	9.1	4.0	-14.0	13.1	n/a
Construction output	%, yoy, c.p.	-10.8	-2.4	-12.4	-13.7	-5.2	-12.4	-16.3	-5.9	n/a
Retail sales	%, yoy, c.p.	5.6	11.5	5.8	8.8	11.3	6.5	-0.4	11.1	n/a
External trade	CZK bn (national met.)	22.6	21.6	22.0	25.6	18.6	21.6	0.7	13.8	n/a
Current account	CZK bn	34.0	42.8	33.0	3.7	-0.1	-3.6	-30.1	-0.7	n/a
Financial account	CZK bn	25.2	62.2	27.4	13.2	-0.5	-22.0	9.4	16.1	n/a
M2 growth	%, yoy	7.9	7.6	7.6	7.4	7.6	7.7	7.1	7.6	n/a
State budget	CZK bn (YTD cum.)	45.9	27.7	43.6	30.5	22.4	40.6	75.6	81.2	82.3
PRIBOR 3M	%, average	0.29	0.28	0.29	0.29	0.29	0.29	0.29	0.29	0.29
EUR/CZK	average	27.03	27.04	27.05	27.03	27.03	27.06	27.04	27.02	27.02
USD/CZK	average	24.88	24.35	24.28	23.84	23.92	24.07	24.44	24.12	24.10

Source: CSO, CNB, MF, MLSA. Economic & Strategy Research, Komerční banka

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