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Czech Economic Outlook

Low inflation despite high wages

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- **Czech economic growth to continue on the back of domestic demand** We keep our 2018 GDP growth forecast unchanged at 3.8%. Household consumption should remain strong on the back of rapid wage growth, while a lack of production capacity will likely propel investment.
- **Inflation unlikely to exceed 2% this year** CZK appreciation has curbed inflation in the beginning of the year, and wage growth has yet to be fully passed through to prices.
- **CNB to hike only once more this year** Slumping inflation and deteriorating economic confidence in the euro area will likely make the CNB board cautious. We expect only one hike this year, in 4Q18.
- **Delay in rate hikes to slow koruna appreciation** We only expect the koruna to breach EUR/CZK25 at the turn of 3Q-4Q18. At year-end, we see expect it to reach 24.70, and we see more strengthening in 1H19.
- **Slower increase in CZGB yields and strong demand to curb chances of eurobond issuance** CZGB yields look set to rise, but slower than in our previous forecast. Combined with resilient demand on the domestic market, we think it is becoming less likely that the Finance Ministry will issue a eurobond this year.


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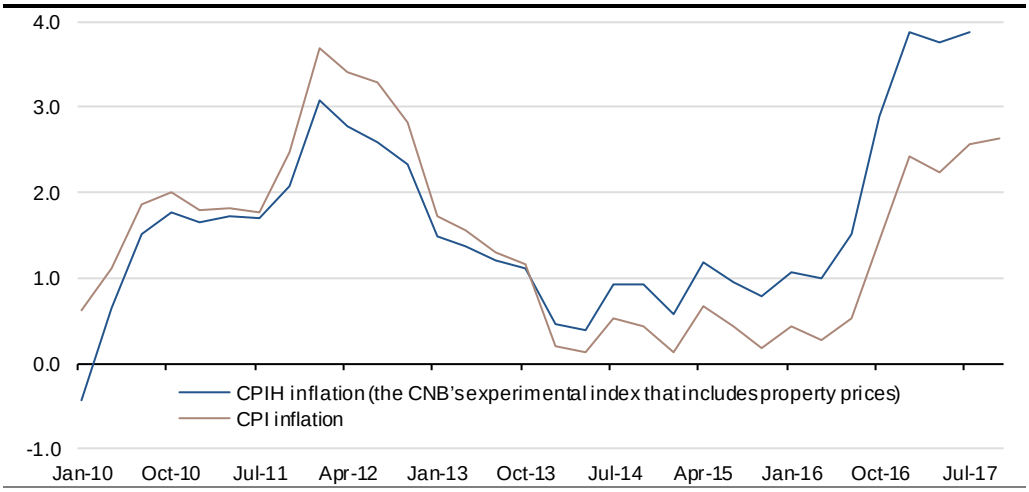
Where on earth is that inflation?

The one thing we have found surprising over the last few months is that consumer prices have been rising much more slowly than we would have expected given the rapid rise in wages. While the real economy's performance has met the forecast we published in the last *Czech Economic Outlook*, actual inflation was much lower in the first quarter than we projected, at just 1.7% in March. This was not just a surprise for us. The central bank itself expected the March inflation rate at 2.3%. The euro area is in a similar situation. Last year, its economy grew at the fastest rate for over a decade, but it was still quite far from the inflation target.

In the Czech Republic, one of the explanations for the current inflation, or rather lack of it, is the exchange-rate trend. In early April 2018, we celebrated the first anniversary of the exit from the FX floor commitment. One year on is a good moment to stop and reflect on the use and efficiency of this non-standard tool of monetary policy. And, we discuss this topic in special boxes in this issue of the *Czech Economic Outlook*. Viktor Zeisel clearly documents that the Czech economy would not be experiencing its current dynamism had it not been for the introduction of the non-standard monetary policy measures. However, as Jana Steckerová illustrates in a comparison with Hungary, this therapy is not suitable for every economy. In any case, the koruna has now been floating again for more than a year and the result has been appreciation: it is up by roughly 6% vs the euro and by almost 20% vs the dollar. **The resulting cheaper imports have lowered inflationary pressures.**

The price index that includes real estate prices is rising faster than consumer inflation



Source: CNB, Inflation Report I/2018

Nevertheless, explaining the low inflation of recent months solely by the stronger koruna does not pass muster, given that wage growth is particularly robust. In our view, the likely cause is that **households are not only consuming but also investing their higher income.** Growth in prices is thus not that visible in the consumer basket but can be felt in the **prices of capital assets, i.e. real estate.** The CNB itself says that when it includes older properties in the price index, inflation so measured immediately climbs to 4%. However, while companies may be able to absorb the higher personnel costs, remaining content with lower profit margins is not a sustainable strategy. **Higher investments resulting in higher productivity is the way out. But we will have to wait a few months for confirmation that higher productivity is indeed the main reason for the lower inflationary pressures.**

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External Environment and Assumptions

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US and euro area to maintain GDP momentum of last year

The expansion continues in the US and is set to go on until at least 2H19. This is supported by household consumption encouraged by tax cuts, as well as the development of investment. The euro area is also doing well. We expect it to maintain the GDP growth momentum of last year (2.5%). Between 2019 and 2020, however, growth should slow as a result of a recession in the US. A similar development is expected in Germany. The main risks are Donald Trump's protectionist policy and the uncertain geopolitical situation. This could lead to a decline in confidence and consequently a fall in consumption and investment, or rising commodity prices.

US: tax reforms are improving household balance sheets

U.S. economic growth is driven by a household consumption.

The US economy added 2.3% over the whole of 2017 and we expect it to maintain similar momentum this year (2.4%). The main driver is household consumption. Real consumer spending grew by 4% in the final quarter of the last year, and, according to our estimate, will not deviate from the long-term trend of 2.5-3.0% this year either. Nevertheless, the first quarter of this year is likely to be an exception, as we expect consumer spending to rise by only 1.0%. Consumer spending is being supported by a declining rate of unemployment, which is currently at its lowest level since 2000. In addition, unemployment rate should fall further, to 3.5% by the end of this year, in our view. Consumption will be strongly supported by approved tax cuts this year, as well. The tax cuts are already being mirrored by the household saving rate, which jumped to 3.4% in February from 2.5% in December. Business investment is set to grow as well. By contrast, net exports look set to hamper economic growth this year, as they will be affected by higher imports on the back of higher household consumption. Nevertheless, according to SG economists, the current expansion phase is entering maturity, which is visible from the development of profit margins and the situation on the labour market. As a result, GDP growth will decelerate to 1.1% in 2019,

The Fed will continue with its rate hikes.

In March, the Fed raised interest rates by another 25bp to 1.50-1.75% and, based on the "dots" (reflecting the forecasts of the presidents of each Federal Reserve Bank), **the Fed will hike rates twice again this year.** This is in line with our prognosis. We expect hikes in June and September. Within the Fed, however, the number of votes calling for interest rates to be raised three times this year is increasing. While the interest rate median is at 2.125%, seven estimates are above it, while eight are below it. According to the Fed, monetary tightening should continue in 2019 and 2020 at a pace of 50bp per year. In this respect, our prognosis is more sceptical. In 2019, we expect a recession and deceleration of inflation, so we do not assume any rate hikes in 2019 or 2020. On the contrary, we expect monetary policy to turn expansionary.

Euro area: GDP growth to follow dynamics of last year

GDP growth in the euro area is broad based.

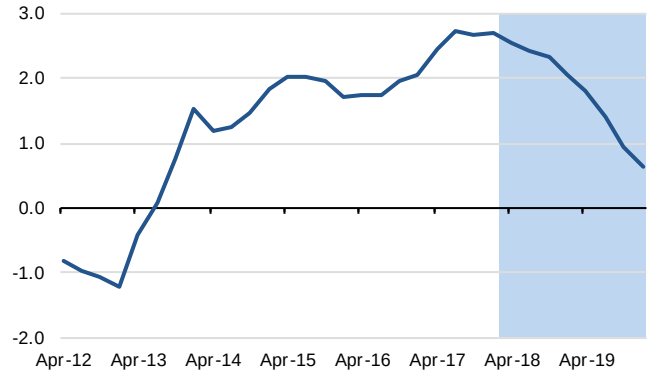
Last year, euro area GDP grew by 2.5%. Growth was broadly spread and driven primarily by domestic demand. **We expect GDP to maintain the same dynamics this year**. **In 2019-2020, the euro area economy will slow down** as recession starts to grip the US (2019 1.5%, 2020 0.6%). Households should continue to benefit from a good job market situation this year. Unemployment rate is likely to drop by another 0.8pp to 8.4%, in our view. Wage growth will reach 2.0% in the euro area in real terms, with real gross disposable income growth remaining at the relatively strong levels of the last year (slightly below 2%). Increasing employment will also raise consumer confidence, which should result in a decline in savings rates. Investment

will remain an important contributor to GDP growth, as well (+0.5 pp in 2017 and 2018). The risk to our forecast is the uncertainty surrounding the extent and impact of Donald Trump's protectionist policies and the tense geopolitical situation, which is already being reflected in the leading indicators.

The prolongation of the QE programme to be announced in June.

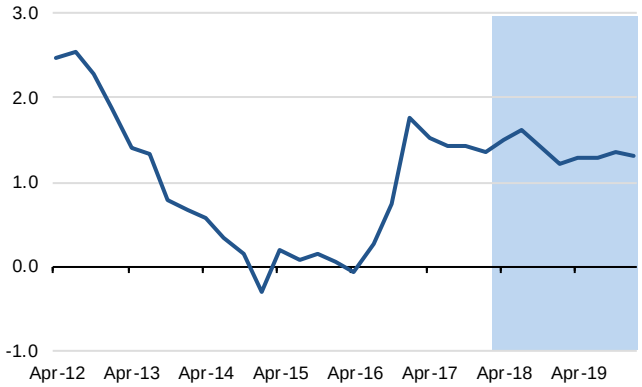
According to current plans, the European Central Bank's quantitative easing programme (QE) should end in September this year. However, the ECB is unlikely to be happy with the inflation situation. Inflation fell to 1.1% in February, then corrected slightly to 1.3% in March, but is expected to decline again in April. According to our forecasts, it should start to gather pace over the summer months, climbing to levels of 1.5-1.6%. We believe it would be difficult to announce the termination of the QE programme under current conditions. **We therefore expect the ECB to prolong the QE programme by at least three months, i.e. until the end of this year.** However, the volume of assets purchased in the last quarter of this year should be only €15bn. In our opinion, the decision will be announced at the June meeting, when the ECB will have new forecasts available. We expect rate hikes to take place in June and September of next year. However, the tightening of monetary policy will end after that. We expect the euro to gradually strengthen to 1.29 vs USD at the end of this year as details of the phasing-out of the QE programme become apparent.

Euro area: GDP growth will decelerate (%, yoy)



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

Euro area: inflation remains low (%, yoy)



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

Germany: tight labour market is forcing companies to raise wages and invest

German economy is driven by domestic demand.

This year, we expect the German economy to maintain the same GDP dynamics as last year (2.4%). The main driver of growth will remain domestic demand. Household consumption is rising thanks to a tight situation on the labour market. The unemployment rate is at its lowest levels since the reunification of Germany (5.3% in March) and will continue to decline, according to SG economists, who project 5.2% for the end of this year and 4.9% for the end of next year, well below NAIRU (6.6%). This is reflected in wage growth, which we expect to be at around 3-3.5% this year in nominal terms. Investment is set to grow as well. Companies are hitting capacity constraints and wage growth is curtailing their margins, so the pressure on productivity and investment growth will strengthen.

The German economy is expected to slow down in 2019 and 2020.

Like the euro area, we expect the German economy to slow down in 2019 and 2020. GDP growth will decelerate to 1.5% and 0.9%, respectively, according to our forecasts. In addition, US protectionist policy represents a risk. These concerns are already reflected in the leading indicators for Germany. In March, the German ZEW index fell to its weakest level since March

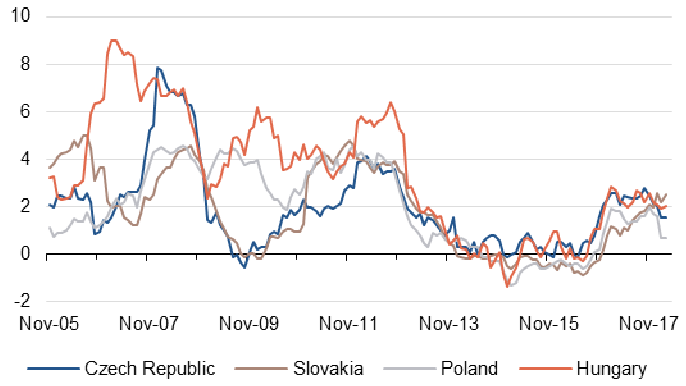
2012. The last time the index was in negative territory was in July 2016 when the UK decided to leave the EU.

CEE region: monetary policy tightening will be more gradual

Solid growth in the Central Europe will continue.

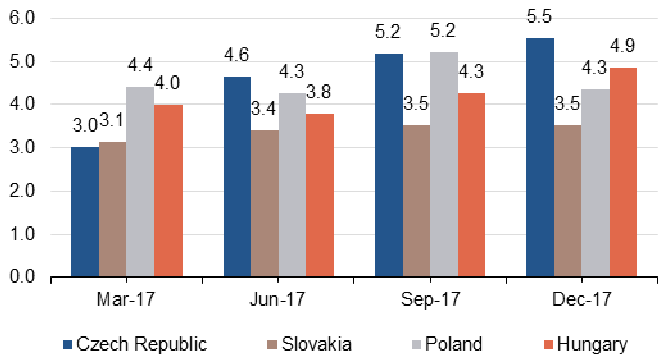
The CEE economies did well last year. Household consumption was greatly supported by a tight labour market and rising wages, while investment renewed. According to our forecasts, solid GDP dynamics will be maintained this year. However, the problem in this region is a shortage of workers, which is pushing wages upwards. Indeed, even higher wages are often not enough to attract the necessary qualified workforce. Also, wage growth is outpacing labour productivity growth. Thus, the CEE countries will have to invest in the modernization of production to raise productivity if they want to meet increasing demand for their products. Investment gathered pace last year and this trend is set to continue, in our view, although in some countries the slow start on infrastructure projects and the inability of governments to draw EU funds are still hampering the investment boom. On the other hand, investment is import-intensive, which combined with rising household consumption, will lead to a negative or neutral net export contribution to GDP growth in most of the region's economies. Overall, we expect GDP growth to reach 3.8% in the Czech Republic this year, 3.7% in Slovakia, 3.8% in Poland, and 3.5% in Hungary.

Inflation in the CEE region (%, yoy)



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

GDP in the region (%, yoy)



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

Rate hikes in Poland no sooner than in 3Q19.

Inflation in the CEE region decelerated in the first quarter. It has also lagged behind financial market and central bank expectations. As a result we have changed our call on Czech and Polish central bank monetary policy. While for the Czech Republic we expect only one rate hike this year (for more information on the CNB policy, see the *CNB Focus* section), for Poland we have shifted our forecast of the monetary policy tightening from November this year to 3Q19. Further tightening of monetary conditions should follow in 4Q19, in our view. The reason is low inflation. In March, it fell to its lowest level in a year (1.3% yoy). It is therefore unlikely to reach the 2.5% inflation target this year. We expect inflation to average at around 2% this year. Inflation is also losing steam in Hungary. In the first quarter, it was hovering around 2%, still substantially below the 3% inflation target. The Hungarian central bank should thus continue to ease monetary conditions through non-standard monetary policy tools, as described in Box 1. Consequently, we expect the Hungarian forint to weaken slightly over the course of the year (to reach EUR/HUF314 by the end of the year). On the other hand, the Polish zloty could reach stronger levels at the end of the year (EUR/PLN4.1).

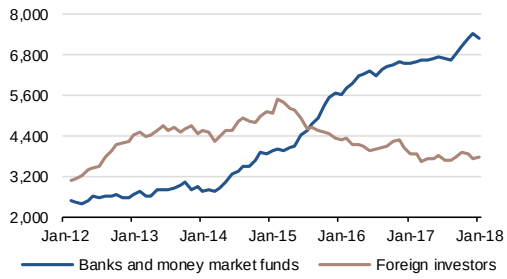
Box 1: Exchange rate commitment not for everyone – a comparison of CNB and MNB monetary policy

The Hungarian Central Bank (MNB) started its last cycle of rate cuts in August 2012. At that time, the key two-week deposit rate was 7.0%, while in the Czech Republic the key repo rate was already at 0.5%. The CNB then depleted the space for rate cuts at the end of 2012 when the repo rate was reduced to technical zero. Worried about a deflation spiral, the CNB launched an FX commitment in November 2013. Hungary also saw a fall in inflation, but unlike in the Czech Republic, consumer prices fell into negative territory for some time. The mix of monetary policy instruments chosen by the MNB differed from those of the CNB – but the environment in which the central banks operated also differed.

While the CNB was particularly worried about low inflation, the MNB also had great difficulty with financial stability. The main problem was the debt of households and small and medium-sized enterprises in foreign currency. In 2011, roughly half of all Hungarian companies were repaying loans in euros or Swiss francs, while almost two-thirds of households were doing so. This became a problem when the Hungarian forint started to devaluate, causing households and companies to struggle to pay off their liabilities.

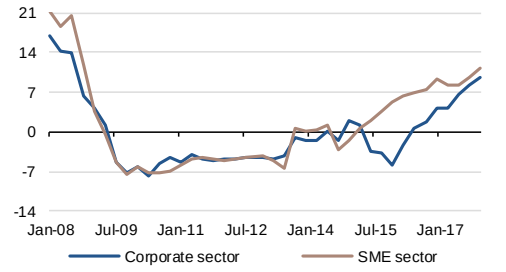
Therefore, the MNB's monetary policy was greatly affected by the effort to reduce the country's indebtedness in foreign currency. Foreign currency loans, both mortgages and consumer, have been gradually converted into domestic currency. The central bank provided foreign currency to financial institutions from its FX reserves to prevent vulnerability in financial markets. At the same time, it tried to support lending to small and medium-sized enterprises by providing non-interest-bearing loans to commercial banks.

Hungary: Ownership of government bonds (HUFbn)



Source: AKK, Economic & Strategy Research, Komerční banka

Loans to non financial corporations (%, yoy)



Source: HNB, Economic & Strategy Research, Komerční banka

Commercial banks also play an important role in this process. The central bank has tried and is still trying to motivate commercial banks to buy domestic government bonds instead of storing liquidity at the central bank and thus reduce the share of foreign sovereign debt holders. For this purpose, in September 2015, it replaced its key two-week deposit rate with a three-month rate. At the same time, the number of tenders announced and the amount of money that commercial banks could store under this instrument were gradually reduced. The central bank has also started to offer swaps with a three-year, five-year and ten-year maturities to commercial banks.

The HNB gradually cut interest rates over the 2012-2016 period. In May 2016, the new key three-month interest rate was cut to 0.9%, where it remains, and the one-day deposit rate was reduced to -0.15%. The aim was to motivate commercial banks to invest in government bonds and treasury bills instead of depositing excess liquidity at the central bank. This year, the MNB launched a program to buy mortgage bonds with a maturity of more than three years and

began offering swaps with five- and ten-year maturities. These steps seek to squeeze down yields at the longer end of the yield curve to bring them closer to levels in Western countries. Hungarian households and firms thus have access to cheaper financing, government debt financing is cheaper, while the forint remains weak, all of which supports the domestic economy.

Compared with the CNB, the MNB path has been more complicated. Through its exchange rate commitment, the CNB could target inflation more directly. On the other hand, with the instruments that it has used, the MNB has significantly reduced its dependence on foreign debt financing, while the volume of bonds held by domestic commercial banks is still rising. Lower yields have also significantly reduced government debt financing. The share of government debt denominated in foreign currencies has also declined significantly, creating greater financial stability in the country. Thanks to the support programs, lending to small and medium-sized enterprises continues to grow. All of this has been rewarded by the rating agencies, which in 2016 returned Hungary's rating to the investment grade category. Inflation in Hungary is still below the 3% inflation target, but the target is likely to be reached in 2019.

Macroeconomic outlook

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Main changes

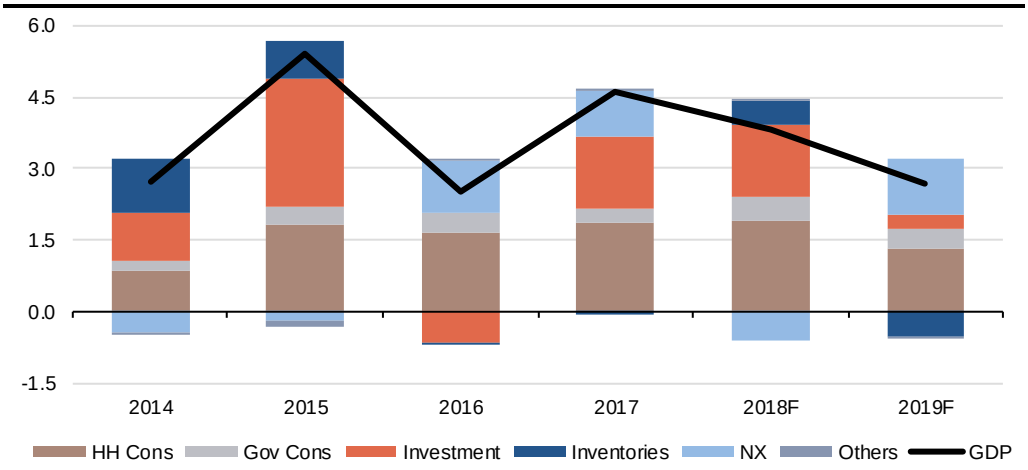
GDP:
We keep our full-year GDP growth forecasts for 2018 and 2019 unchanged at 3.8% and 2.7% respectively.

Inflation:
We revise our inflation forecast down to 1.9% due to much stronger normalisation of food inflation, slightly weaker core inflation in the beginning of the year and milder growth of regulated prices. We expect inflation to accelerate to 2.1% in 2019 on the back of strong wage growth.

Extensive margin depleted; investment needed

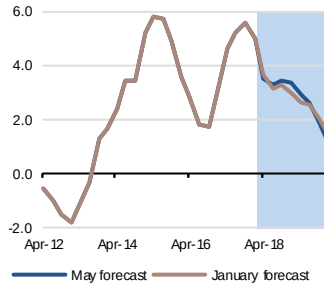
The Czech economy continues in its sound expansion. However, it is encountering capacity limits – especially in the labour market. The growth paradigm has to switch from an extensive to an intensive margin. That change will be accompanied by investment growth and wage increases resulting in sound consumption dynamics. Despite its recent slowdown, inflation should return to 2% during the summer on the back of its core element.

Domestic demand to propel growth in 2018 (% yoy)



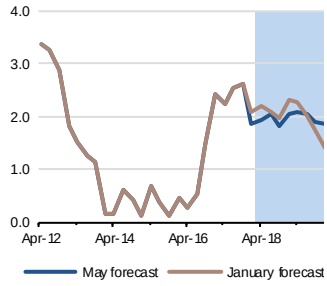
Source: CZSO, Macrobond, Economic & Strategy Research, Komerční banka

Change to our GDP outlook (%)



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

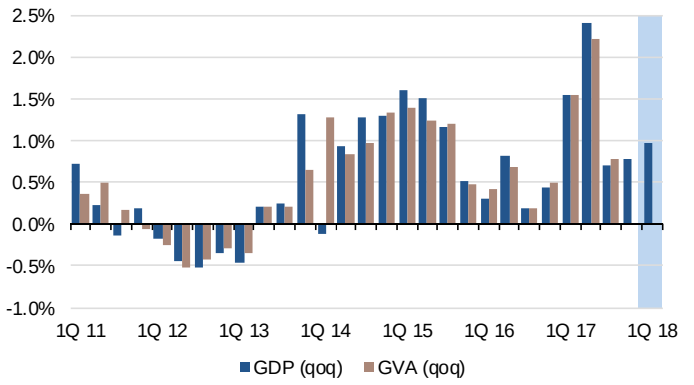
Change in our inflation outlook (%)



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

At the end of 2017, the Czech economy accelerated again when it printed growth of 0.8% qoq and 5.5% yoy. Moreover, we believe that the growth in the second half of last year will be revised upwards while the stunning dynamics seen in the first half of the year so far will be adjusted downwards after the statistical office revises its seasonal factors in June. The revision should not impact the full-year growth figure for 2017 of 4.6%.

GDP growth slightly accelerated in the beginning of the year



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

The Czech economy entered into the first quarter of the year on a high note. Despite very strong retail sales, the external trade surplus remained resilient and the balance was only marginally below last year's excellent results. Industrial production dynamics eased a bit as it hits its capacity constraints. In contrast, the construction sector bloomed with warmer weather at the beginning of the year when at least some of the

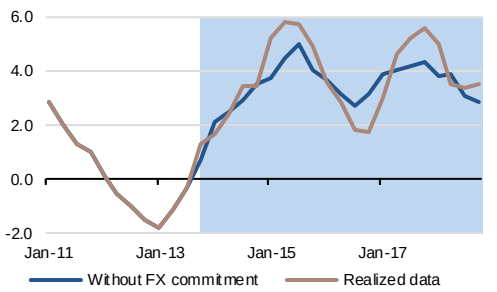
infrastructure spending started. **We believe that the GDP growth in the first quarter is set to print 1% qoq, driven mainly by household consumption which revived on the back of rapid wage growth.** Also government consumption increased as we assume that the effect of the increase in current expenditures in November will also be reflected in the figures for 1Q. Investment also contributed slightly positively while external trade should maintain its neutral contribution. **The yoy growth seen in 1Q18 will thus print a solid 5.0% after an exceptional 5.5% in the last quarter of 2018. The slowdown is due to the very strong statistical base given rapid acceleration of the economy in the first half of 2017.**

The economy should be slowing down during the remainder of the year. On average, growth is set to print at 3.8% as private consumption will remain the main growth driver while external trade will contribute negatively. Investment should remain strong this year as it will be supported by the inflow of EU funds.

Box 2: FX commitment lifted GDP growth and prevented deflation

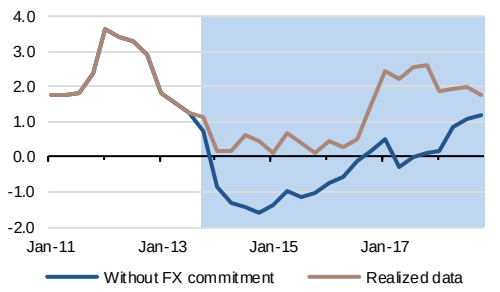
When the CNB introduced its FX commitment at the end of 2013, it hoped it would help to revive the domestic economy and, more importantly, prevent inflation dropping into negative territory again. The economy was set to revive at that point, but the FX commitment provided more support. Deflation was avoided, but it took another three years for inflation to hit the 2% target. In the meantime, the domestic economy saw the best year since the Great Financial Crisis when in 2015 growth exceeded 5%. Although the inflow of EU funds was the biggest driver of this, the FX commitment also played a role. After the initial depreciation shock upon introduction of the commitment, when businesses saw accounting losses from hedging operations, the aversion of entrepreneurs faded. Businesses started liking the FX floor, especially after it was prolonged and its minimum duration set (so-called hard commitment), and they benefited from FX rate stability rather than the CZK's weaker level.

FX commitment helped GDP (%, yoy) …



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

… **and prevented deflation** (%, yoy)



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

The FX commitment also indirectly helped households. The strong economic performance passed through to wages, which in turn boosted private consumption. Higher price growth than would have been the case without the FX commitment curbed consumption to some extent, but we believe that the overall effect was positive. If the CNB had not introduced the FX commitment, it would have had to keep rates extremely low for longer. It would perhaps have considered other non-standard monetary policy measures such as negative rates like the ECB and Hungarian central bank. However as we show in Box 1, the FX commitment is not for every economy. Moreover, there is no free lunch in economics, so even the FX commitment has some costs. We focus on them in Box 4.

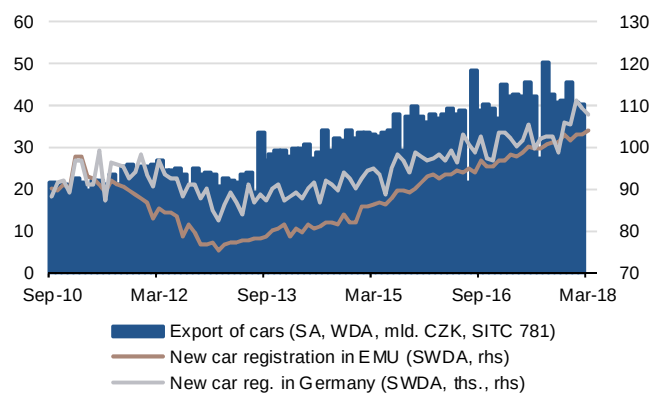
Industry to rely on intensive margin

In order to grow, industry needs to increase its intensive margin, while the extensive margin is virtually depleted.

After notable acceleration in 2017, industrial production slowed down at the beginning of this year. The overall development of industry could be nicely depicted by the automotive sector. Car registrations in the euro area kept growing, especially demand for larger vehicles and SUVs. Skoda, which is manufacturing in this class, has been increasing its production and thus stretching its capacity. It has been struggling to expand its production frontier when negotiating with the labour unions about increasing the number of shifts at Mlada Boleslav. Other car manufacturers have not been doing as well however. Drop in demand in the UK market due to Brexit uncertainty and a plunge in demand for smaller cars (due to cyclical position of the economy) have harmed some Czech car manufacturers.

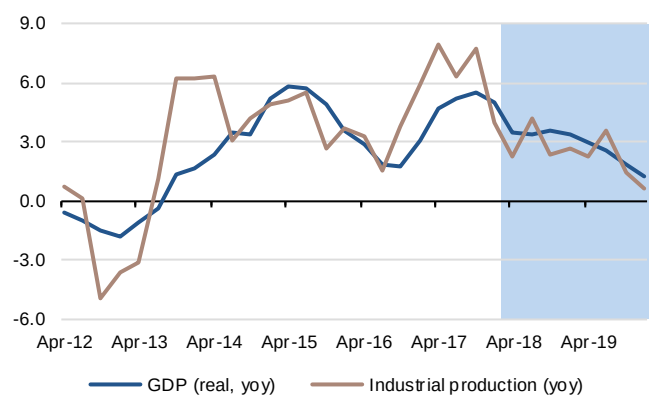
Czech industry will have to search how to increase productivity and move available resources into production of goods with higher added-value. Extensive growth is virtually depleted. Some of the labour force needed may come from abroad, while some will come from other sectors of the economy, but most of the increase in the output will have to be achieved through productivity gains. **Some of the producers which are producing goods with low added-value where their business model is based on cheap labour will be forced out of business in the Czech Republic, while the labour force will be employed more productively.** This change will be accompanied by an increase in investment which is a must to boost productivity. **Despite the lack of a fully available labour force, Czech industry will increase 2.7% this year.**

Consumers in the euro are still demanding cars



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

Industrial production growth easing in line with GDP slowdown (%)



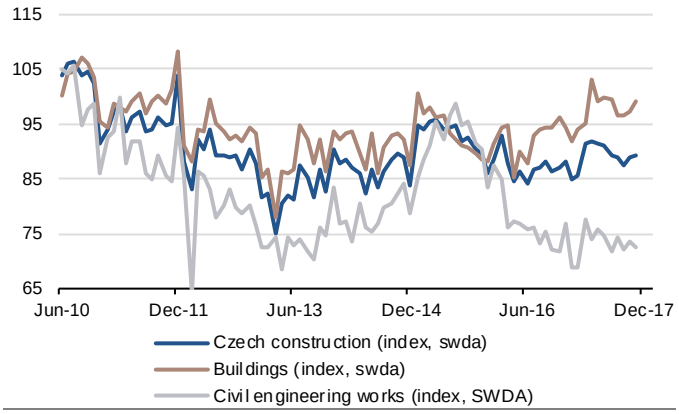
Source: CZSO, Macrobond, Economic & Strategy Research, Komerční banka

Construction started the year on a high note.

The construction sector printed massive growth in the beginning of the year. However, the growth figures must be viewed with pinch of a salt. Construction in the winter months usually remains subdued. January's unusually warm weather enabled the workers to start the construction earlier than expected and the dynamics surged. Throughout the year, the construction sector will be supported by an increase in investment. The private sector will be building new capacity and we still expect more investment from the public sector. Though the construction of key infrastructure has been facing many headwinds as the preparation work for many of the projects remains poor, local and regional governments have been running surpluses and part of their reserves might be dissolved in more investment. Moreover, the public administration will be pushed to tap a significant part of EU funds already this year. Otherwise, the Czech Republic will lose the money. That being said, we expect the building and public works segment to pick up this year. **All in all, we retain a positive outlook on the**

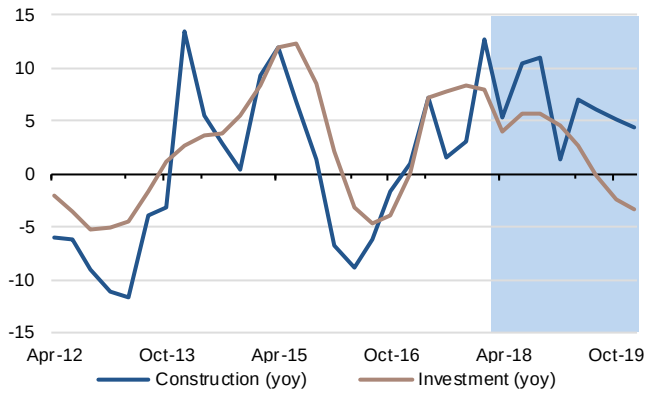
construction sector. Despite delays in key infrastructure construction, the whole sector should grow 9.8% this year.

Building construction reviving, while infrastructure lags way behind



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

Construction to contribute to investment growth



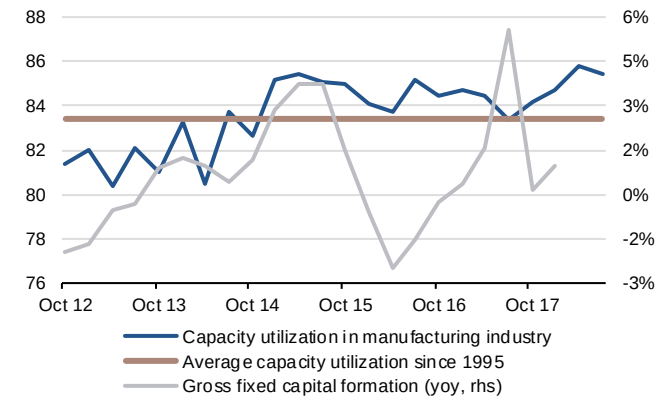
Source: CZSO, Macrobond, Economic & Strategy Research, Komerční banka

Lack of capacity to propel investment

Private investment to continue growing while public investment remains uncertain.

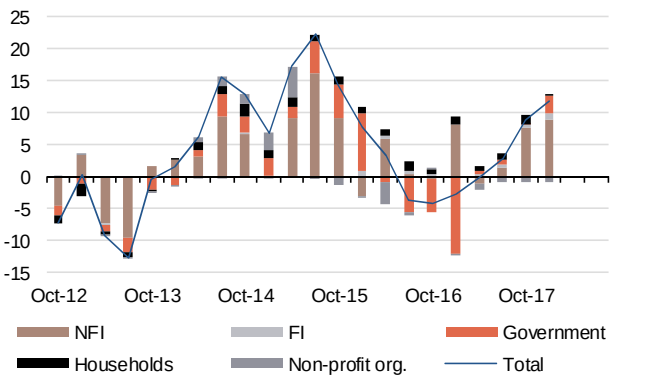
Lack of capacity in industry will be the main driver of investment growth. As we described above, the extensive growth seen in the domestic economy is over, Czech businesses desperately need to expand their capacity and increase productivity. Through this process, investment activity should step up. The fixed capital formation will be also supported by EU funds inflow as a not insignificant part of the programmes opened in 2015 needs to be fully used by the end of 2018. That should propel both private and public investment. But as we indicated earlier, public infrastructure investment is not ready yet, while the preparation phase for these projects seems likely to be further delayed. Thus public investment remains uncertain. **This year, we expect investments to repeat the 2017 dynamics at 5.9%.**

High capacity utilisation suggests need for investment (%)



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

Capital formation driven by NFIs (%, yoy)



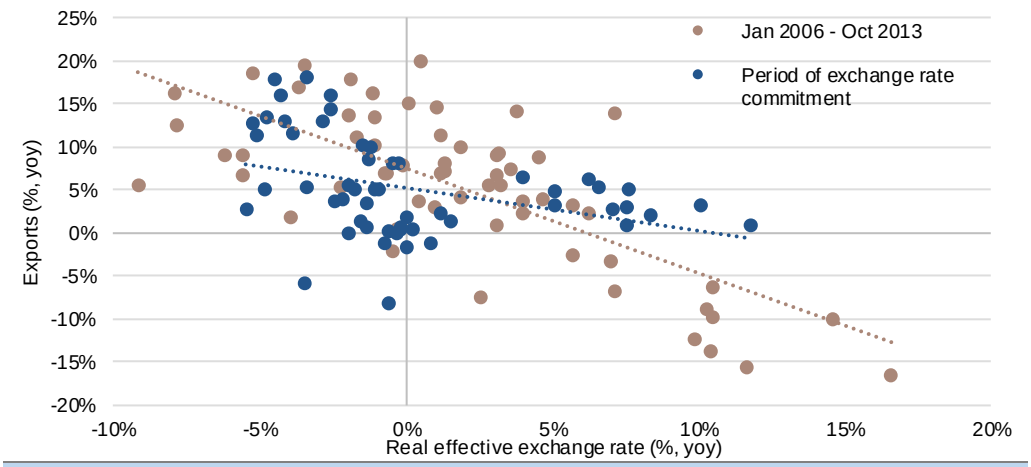
Source: CZSO, Macrobond, Economic & Strategy Research, Komerční banka

Box 3: Impact of the Koruna on export dynamics is lower than previous to interventions

One of the most important questions while ending the exchange rate commitment, remains, to what extent the strengthened koruna influences Czech exports. Thanks to the active public communication of the CNB regarding the end of the commitment, has made exporters as well as a broad audience aware of the problem of an appreciating koruna. Thus, exporters have had enough time to think about how the koruna converging back to its equilibrium value influences their situation. According to the Exporters Association, up to two-thirds of companies hedged their positions before the end of the exchange rate commitment, mainly for up to 12 months ahead. Hedging for a longer period becomes more costly, yet we believe that some companies who could afford to have hedged up to three years while others are still hedging at the moment.

The historical time series shows the sensibility of exports to the real changes in the koruna within the past decade. The impact of the real exchange rate on export dynamics was the weakest during the exchange rate commitment. Export growth was supported by other factors, including increased global demand for Czech products. On the other hand, the exchange rate had a strong impact on exports – mainly in the first decade before the CNB agreed to hold the Czech currency above EURCZK27 per euro. During 2005-2013, the koruna's real appreciation of 1% caused a decrease in exports of half a percent. The sensibility of exports to this lowered by three-fifths during the exchange rate commitment.

Sensibility of the export dynamics to koruna developments decreased significantly during the exchange rate commitment period



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

Currently, the sensibility of exports to the real koruna development remains low not only just because of a big share of hedged exporters. The elasticity is also pushed down by the continued growing share of Czech exporters to global value chains where individual stages of production are split among different suppliers in related economies. Several studies show that this fact influences the level of sensibility of exports to the exchange rate changes not only in the Czech market but also worldwide. Additionally, the sensibility of Czech exports decreases hand-in-hand with the transformation of production from low to high value-added products. Thus, the foreign demand for Czech products is supported by the desire for higher quality goods instead of being simply motivated by lower prices.

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Fiscal policy: Strong rise in non-investment expenditures

Last year, the Czech Republic's public sector posted a massive surplus. We expect another positive reading this year, albeit lower. The central government budget is set to deliver a stimulus via higher public wages and pension benefits. Alongside this, continuing economic growth is resulting in higher revenues, meaning the central budget shortfall should be contained in 2018. Public debt is set to decline further in relative terms.

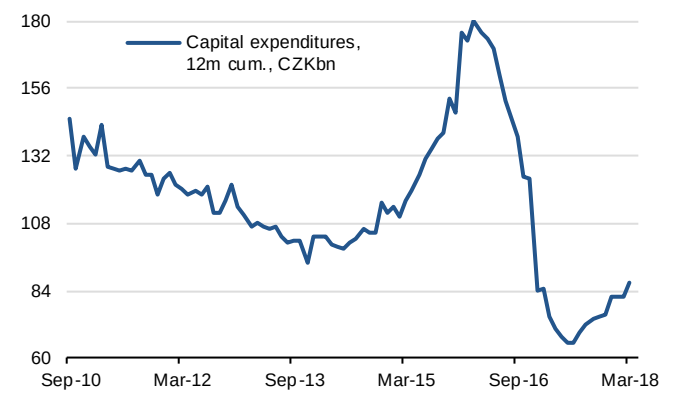
The general government printed a 1.6% surplus relative to GDP in 2018.

April's notification of the 2017 public sector balance came as a major positive surprise to us, as **the general government printed a 1.6% surplus relative to GDP** (our estimate: 0.7%). While the results of local governments and social security funds were in line with our call, the central government posted a solid surplus under the ESA2010 methodology (the first ever) vs the expected minor shortfall. Part of the difference was most likely caused by a mismatch in investment outlays and the related revenues, i.e. transfers from the EU funds. Revenues increased by 6.5% last year, the CZSO said, driven by tax revenues. On the other hand, the growth of total expenditures lagged (+4.2%), while outlays on public wages saw a massive increase, as well as investment (the latter from a relatively small base in 2016, however). General government debt declined in both absolute and relative terms in 2017. The amount of debt fell to 34.6% of GDP, the lowest level since 2009.

In line with the official plan, the 2018 central government budget has seen a considerable increase in expenditures since the beginning of the year. Public sector wages have increased by some 13% on average (the process had begun as early as November 2017), which has resulted in higher transfers to local budgets, too. Pension benefits, the single highest item on the list of government's outlays, have been rising by 5% yoy due to the faster indexation of the benefits. Overall, non-investment spending has increased by 7% year-to-date, and this trend is likely to continue. As a result, the economy is set to see a stimulus via higher government consumption and transfers.

In the previous *Czech Economic Outlook*, we expected the government would raise its investment spending markedly in 2018. In 1Q18, capital expenditures increased 87% yoy, but mostly due to the very low 1Q17 base. **We still see public investment growing in 2018, but anecdotal evidence of delays in some infrastructural projects and defence spending points to the trend being likely more gradual.** As a result, we see a declining probability that the budget deficit will print deeper than planned.

Only a gradual increase in investment expenditures



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

Budget intakes have seen very strong growth year to date.

On the revenue side of the 2018 budget, there have been no major parametric changes. That said, budget intakes have seen very strong growth year to date. Most importantly, tax revenues have expanded by 8% yoy, mostly due to higher VAT, personal tax and social tax

collections fuelled by booming consumption, an extremely tight labour market, and recent measures to combat tax evasion.

We are maintaining our previous forecast that the 2018 central government cash budget will end up with a CZK40bn deficit versus the official plan of CZK50bn – with a wide margin of error, however. The final result will be influenced by the tapping of investment expenditures (for now a major unknown), any new spending measures by the government (either the current or subsequent administrations), and the performance of the economy.

Public finance dynamics

	2017	2018f	2019f	2020f	2021f	2022f
Balance (% GDP)	1.6	0.4	-0.1	-0.7	-0.2	0.2
Fiscal effort (pp GDP)	0.0	-1.0	-	-	-	-
Public debt (CZKbn)	1,749	1,754	1,769	1,814	1,824	1,814
Debt ratio (% GDP)	34.6	32.5	31.3	31.2	30.0	28.5

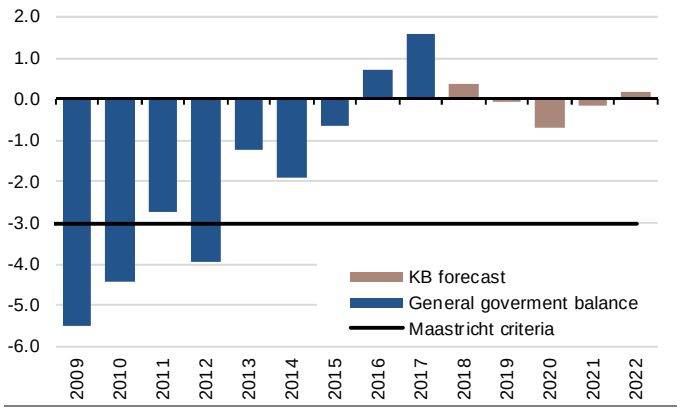
Source: CZSO, Macrobond, Finance Ministry, Economic & Strategy Research, Komerční banka

Six months after the general elections, the country still does not have a government officially supported by a majority in parliament.

Six months after the general elections, the country still does not have a government officially supported by a majority in parliament. In late 2017, a minority government of the ANO party (which won a majority in the elections) was formed, but it lost a vote of confidence in January. Since then, the administration has not been able to form a majority-led coalition. That hasn't prevented the government from making changes to the civil service and put forward new fiscal measures. It has approved a major increase in pension benefits for 2019, cheaper train and bus fares for pensioners and students (to be financed by the state coffers), proposed significant changes in the personal tax code, and promised dozens of billions of spending for the regions. However, so far, only the increase in pensions (due in January), and the fare discounts (postponed to September from June, though) are actually on track.

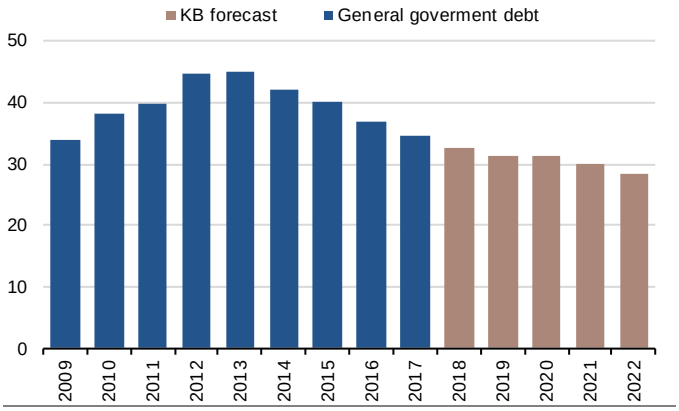
In recent weeks, there has been a breakthrough in negotiations between the ANO party and the Social Democrats about forming a new minority government. This pairing would likely seek the silent support of the Communists. If the administration is formed, there would be less chance of higher discretionary spending, as the probability of early elections would decline.

Public finance balance (% of GDP)



Source: CZSO, Economic & Strategy Research, Komerční banka

Public debt (% of GDP)



Source: CZSO, Economic & Strategy Research, Komerční banka

Despite the expected central cash budget shortfall, **the overall general government balance under the ESA2010 methodology is set to print another surplus: 0.4% of GDP in 2018**. We continue to forecast a positive balance for municipal budgets (although spending will probably

rise this year due to a revival of investment projects and the upcoming municipal elections) and social security funds.

We expect only a negligible increase in public debt in 2018 (by CZK5bn to CZK1,754bn), but its share on GDP is set to decline substantially again due to economic growth (to 32.5% from 34.6% in 2017).

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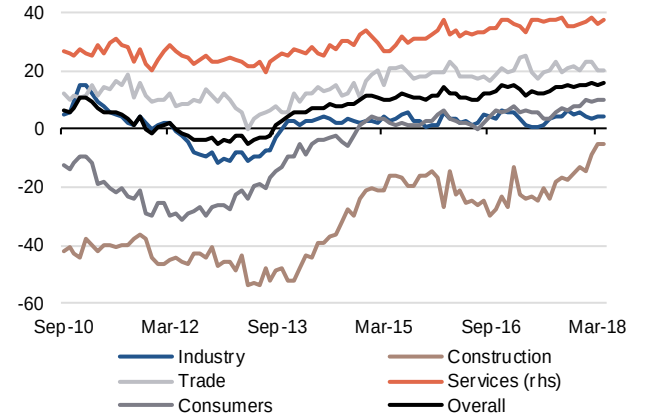
Consumption to retain its momentum

Record-low unemployment to keep wage growth strong.

The Czech labour market keeps breaking historical records. The unemployment rate has found a new low while the number of job vacancies is the highest ever and the participation rate and employment rate gets back to where it was in the 1990s. Real wage growth has returned to levels last seen in 2007 when the economy grew rapidly. The projections for the economy remain bright. All that being said, it is no wonder that consumer confidence reached its highest level ever. The wage deals in many companies show that remuneration growth has not ended yet. Skoda Auto and Lidl serve as an examples, but there are many more.

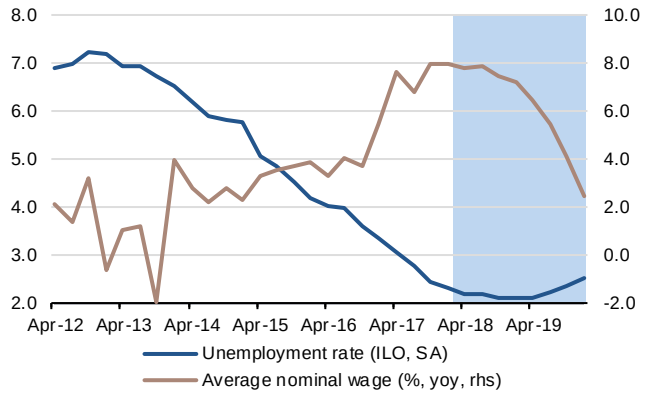
The tight labour market and record high consumer confidence is reflected by private consumption. Since 2015, household expenditure has become a pillar of the GDP growth. The increase in disposable income and strong confidence in the economy is set to keep consumption growth strong this year too**. We expect it to repeat last year's increase of 4%.** Households are spending much more, especially on non-essential goods. Besides sales via the internet, retail sales are led by an increase in the sale of electronics, culture, and household equipment. The latter item is probably connected to the recent housing sales boom. Cooling apartment sales dynamics will further play an important role as households will probably invest less in housing and thus will turn their expenditures towards consumption goods. Thus we see even upside risks to our forecast.

Consumer confidence the highest ever



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

Extremely low unemployment propels wage growth (%)

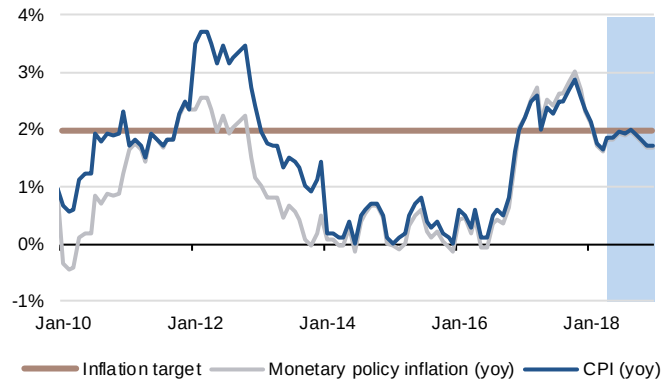


Source: CZSO, Macrobond, Economic & Strategy Research, Komerční banka

Inflation: struggling to get to 2%

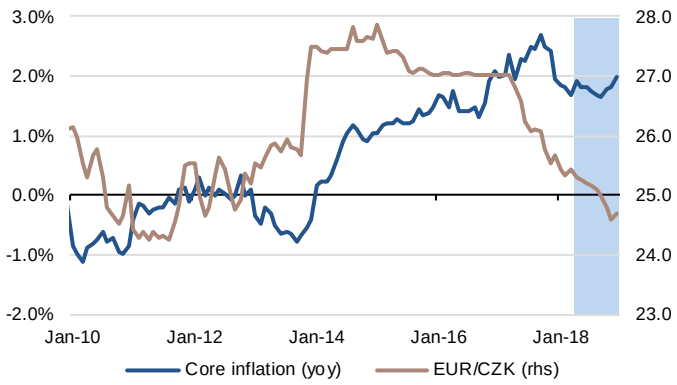
Inflation plunged during the first months of the year despite massive wage growth and an increase in electricity prices at the beginning of the year. The sharp correction of food prices is the main reason, but we have also recorded downside surprises in core inflation or administered prices. Inflation will struggle to climb back to 2%. Core inflation will remain just below 2% while food inflation is set to decrease further toward 2% and fuel and administered price inflation will remain clearly below the mark. We see risks on both sides. The key questions are when and how much the rapid wage growth passes through into core inflation.

Inflation to hover just below 2%



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

Core inflation curbed by koruna appreciation



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

Core inflation has eased, but we do not expect it to drop.

Despite strong wage pressures, core inflation is not seeing acceleration. According to our calculation, core inflation eased to 1.7% in March. Though inflation of non-tradeable goods eased, it still remains solid. In contrast, the prices of tradeable goods have not been increasing at all. We blame the sharp appreciation of the koruna. In the first quarter, the koruna was 6% stronger against the euro and 18.5% against the dollar. That caused a notable drop in import prices which curbed the inflation of tradeable goods. Such an appreciation will not be repeated and the wage pressures should thus prevail. **We expect core inflation to stop decreasing and it should stabilise slightly below 2%.** The wage pressures will push it up, while continuous CZK appreciation will curb its upward move

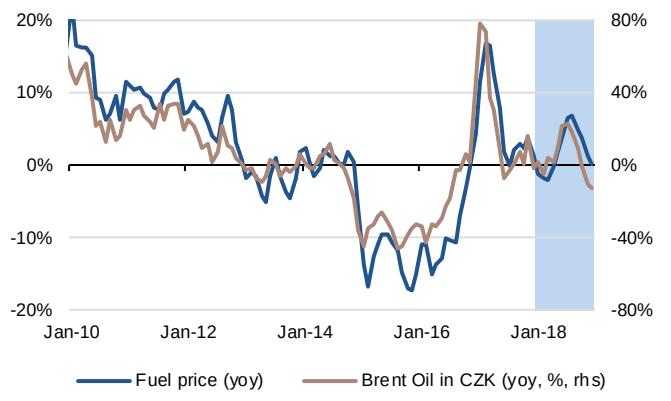
Food price inflation to keep easing.

After last year's surge in **food prices**, we saw their rapid correction at the beginning of this year. The sharp movement is also partially linked to the FX developments as the food import prices dropped 7.4% yoy in February. We do not see much reason for food prices to increase at the moment. We expect the easing of food price inflation to continue in the coming months. That said, after last year's increase of 5.1%, food price inflation should ease to 2.3% this year.

Higher oil prices should be mitigated by a stronger koruna.

Despite significantly higher oil prices on the global markets, **fuel price inflation** prints negative figures. Once again, the strengthening currency is to blame. For the remainder of the year, fuel price inflation should pick up due to base effects while the oil price on the global market should slightly correct its recent increase. The koruna is set to appreciate further against the USD, which will curb the excessive increase in fuel prices.

Koruna appreciation curbs fuel price growth



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

Electricity price to increase once more in June, but the effect will be erased by discounts in transportation.

The increase in **administered prices** was also smaller than we expected. Not all electricity distributors increased their prices in January already, with the biggest distributor planning a 4% price increase for June. That should push the administered price inflation up. However, this move will be offset by the introduction of a discount on bus and train transport for students and seniors starting in September. Thus, the administered prices should grow 1.6% this year after they remained virtually unchanged in 2017.

Risks: wage pass-through to inflation is the biggest risk

We see the overall risks to our forecast for the real economy as balanced and relatively small. Inflationary risks are tilted slightly to the downside. The main risks include:

Pass-through of wages into inflation is the biggest risk on both sides.

- **Weaker demand for cars in Europe** would be a significant hit for Czech producers in the automotive industry, which is one of the main drivers of the current economic boom.
- **Koruna volatility remains a risk for the Czech economy, as there continues to be too much liquidity in the financial system.** The closing of positions by foreign investors might trigger sharp koruna weakening and a surge in inflation. On the other hand, wide interest rate differentials might attract more investors and the koruna could strengthen sharply. That would curb the country's competitiveness and impede the rate hike cycle.
- **The pass-through of wage dynamics into inflation remains a puzzle and a risk.** Rapid wage growth has not been reflected into core inflation as strongly as we would expect. The risks for our inflation forecast are on both sides. Core inflation may catch up to wage growth with some lag, or it will have become a longer-term phenomenon that the pass-through to inflation is weak.
- **The lack of an available labour force** might curb investment as some businesses will be afraid that there would be no one to operate their new machines.
- There is a risk that **the government will not be able to tap EU funds,** which must be drawn by the end of 2018 given the *n*+3 rule. In this event, investment growth would be weaker than we assume in our forecast.

Key economic indicators

	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	2017	2018	2019	2020	2021	2021
GDP and its breakdown														
GDP (real, yoy)	5.0	3.5	3.3	3.5	3.4	2.9	2.6	1.8	4.6	3.8	2.7	1.5	2.5	2.6
Household consumption (real, yoy)	4.5	3.8	3.8	4.0	3.6	3.1	2.6	2.0	4.0	4.0	2.8	0.8	1.4	2.3
Government consumption (real, yoy)	2.7	2.9	3.4	2.3	2.5	2.2	2.2	2.4	1.5	2.8	2.3	2.9	2.0	1.7
Fixed investments (real, yoy)	7.9	4.1	5.8	5.8	4.6	2.7	-0.2	-2.4	5.9	5.9	1.2	-2.8	2.1	3.4
Net exports (contribution to yoy)	-0.8	-0.9	-0.6	-0.1	0.2	0.8	1.6	2.1	0.9	-0.6	1.2	2.4	0.9	0.8
Inventories (contribution to yoy)	1.1	1.1	0.0	-0.3	-0.3	-0.2	-0.6	-1.0	-0.1	0.5	-0.5	-1.6	-0.3	-0.3
Monthly data from the real economy														
Foreign trade (CZK bn) (*) (***)	104	105	98	110	116	119	125	135	427	406	494	624	676	713
Exports (nominal, yoy) (*)	-1.9	-0.1	2.1	2.3	7.1	3.0	5.0	3.9	5.9	0.6	4.7	2.3	5.4	5.9
Imports (nominal, yoy) (*)	-0.1	0.3	1.8	2.6	5.7	2.0	2.6	1.9	8.2	1.2	3.0	-0.7	5.0	6.0
Industrial production (real, yoy)	1.8	2.5	4.2	2.2	2.7	2.3	3.7	1.6	6.5	2.7	2.6	1.3	4.9	4.2
Construction output (real, yoy)	12.7	5.3	10.4	11.0	1.4	7.0	6.1	5.1	3.2	9.8	4.9	2.9	2.5	5.9
Retail sales (real, yoy)	6.0	7.0	7.8	8.3	8.0	6.3	4.7	3.0	5.4	7.3	5.5	0.4	0.8	2.0
Labour market														
Wages (nominal, yoy)	7.9	7.8	7.9	7.5	7.2	6.5	5.5	4.1	7.0	7.8	5.8	1.6	2.7	4.1
Wages (real, yoy)	5.9	5.7	5.8	5.6	5.0	4.2	3.2	2.0	4.4	5.8	3.6	0.0	1.0	2.0
Unemployment rate (MLSA)	3.5	3.0	3.0	3.1	3.1	2.8	3.0	3.4	4.1	3.1	3.1	3.6	3.7	3.7
Unemployment rate (ILO 15+)	2.4	2.1	2.2	2.1	2.2	2.0	2.2	2.3	2.9	2.2	2.2	2.7	2.8	2.8
Employment (ILO 15+, yoy)	1.2	1.5	0.7	0.9	0.6	0.1	-0.1	-0.4	1.7	1.1	0.1	-0.6	-0.1	0.1
Consumer and producer prices														
CPI Inflation (yoy)	1.9	1.9	2.0	1.8	2.1	2.1	2.2	2.0	2.5	1.9	2.1	1.6	1.8	2.0
Taxes (contribution to yoy inflation)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	1.8	2.0
Core inflation (yoy) (**)	1.8	1.8	1.7	1.9	2.2	2.1	2.0	1.6	2.3	1.8	2.0	1.3	2.0	2.2
Food prices (yoy) (**)	2.9	2.4	2.4	1.4	2.3	2.6	2.8	2.0	5.1	2.3	2.4	1.4	0.9	1.3
Fuel prices (yoy) (**)	-1.6	1.3	5.6	1.4	-0.2	-0.3	0.7	2.4	6.6	1.7	0.6	-2.7	-1.9	-0.1
Regulated prices (yoy) (**)	1.4	1.5	1.7	1.8	1.5	2.2	2.7	3.6	0.0	1.6	2.5	3.5	2.2	2.6
Producer prices (yoy)	-0.1	0.4	-1.4	6.0	**6.6**	6.8	10.0	2.6	1.8	1.2	6.5	1.0	1.4	1.8
Financial variables														
2W Repo (%, average)	0.66	0.75	0.75	1.00	1.25	1.50	1.50	1.50	0.17	0.79	1.44	1.72	2.5	2.4
3M PRIBOR (%, average)	0.86	0.90	0.90	1.15	1.40	1.65	1.65	1.65	0.41	0.95	1.59	1.85	2.6	2.5
EUR/CZK (average)	25.40	25.25	25.08	24.70	24.26	24.54	25.25	25.27	26.3	25.1	24.8	24.0	23.1	22.6
USD/CZK (average)	20.66	20.20	19.75	19.15	18.52	18.59	18.98	18.72	23.4	19.9	18.7	17.8	17.4	17.0
External environment														
GDP in EMU (real, yoy)	2.7	2.6	2.4	2.3	2.1	1.8	1.4	0.9	2.5	2.5	1.6	0.6	1.3	1.5
GDP in Germany (real, yoy)	2.7	2.6	2.4	2.3	2.0	1.8	1.4	0.8	2.5	2.5	1.5	0.7	1.8	1.6
CPI in EMU (real, yoy)	1.4	1.5	1.6	1.4	1.2	1.3	1.3	1.4	1.5	1.5	1.3	1.3	1.4	1.5
Brent oil price (USD/brl, average)	67.4	67.0	68.0	64.0	64.0	64.7	65.3	66.0	55.1	66.6	65.0	65.0	65.0	65.0
EURIBOR 1Y (%, average)	-0.19	-0.16	-0.11	-0.03	0.04	0.07	0.07	0.04	-0.15	-0.12	0.05	0.17	1.0	1.9
EUR/USD (average)	1.23	1.25	1.27	1.29	1.31	1.32	1.33	1.35	1.13	1.26	1.33	1.34	1.3	1.3

Source: CZSO, MLSA, Bloomberg, Macrobond, 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

CNB to take a pause from rate hikes amid slump in inflation and deterioration of global confidence

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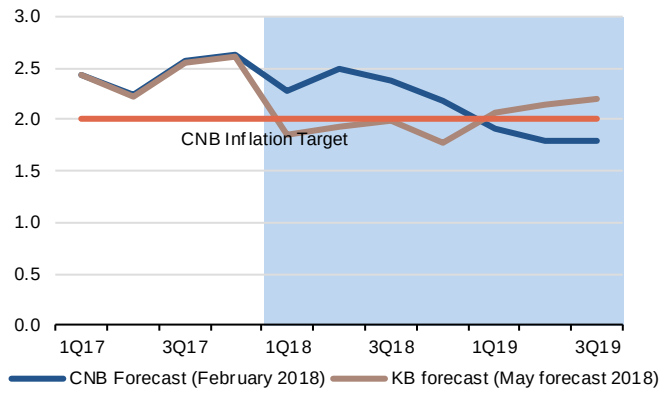
February's CNB meeting brought a change of tone to the CNB's communication, which was also reflected in market expectations. The CNB sees only one more hike this year – and only at the very end. The current inflation slump and drop in global economic confidence corroborate the view that the CNB will take pause in its hiking cycle despite the strong performance of the domestic economy. There are hawks in the bank board, but they are still a minority and they are much less vocal than before. That said, we change our call and now see only one more hike this year – in the fourth quarter.

Koruna's inability to strengthen offset by slump in inflation

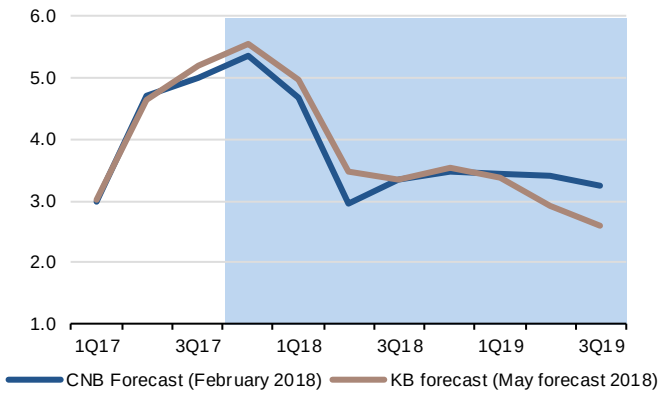
In February, the CNB presented an optimistic prediction for the real economy that was accompanied by a projection for continuously easing inflation and a very cautious rate hike path. In contrast, the CNB staff forecast assumed rapid currency appreciation. **The real economy has performed really well since February, virtually in line with the forecast, but inflation fell significantly below the CNB target.** In March, it printed only 1.7% and delivering an anti-inflationary blow to the CNB forecast. This was partly offset by the CZK development in which it has been unable to appreciate and it seems improbable that it would print EUR/CZK24.9 in 2Q (on average), as assumed by the central bank's projection. **The exchange rate development thus represents a pro-inflationary risk, yet it is also the only upside risk for inflation the domestic economy can provide for.**

Inflation not to exceed 2% (%)



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

GDP growth to remain strong (%)

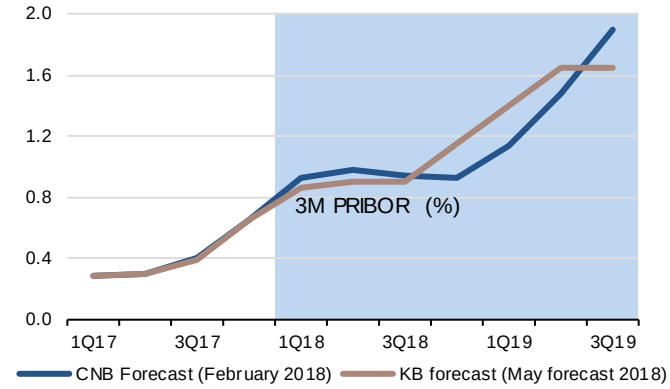


Source: CNB, CZSO, Macrobond, Economic & Strategy Research, Komerční banka

The external environment does not bring much pro-inflationary news either. The developments are very similar to the domestic case. Though the performance of the real economy has been solid, inflation remains subdued. While at the beginning of the year we saw a decent chance that the ECB will end its asset purchase programme earlier than at the end of 2018, the risks are now tilted towards a longer duration of the ECB's quantitative easing. Moreover, economic confidence in the euro area has decreased rapidly in recent months as the outlook has deteriorated due to elevating geo-political tensions and due to talk about establishing trade barriers which would impede global trade and thus curbed the economic growth. **The external environment thus now provides more downside risk and uncertainties than at the beginning of the year.** It will thus make the CNB board more cautious about rate hikes.

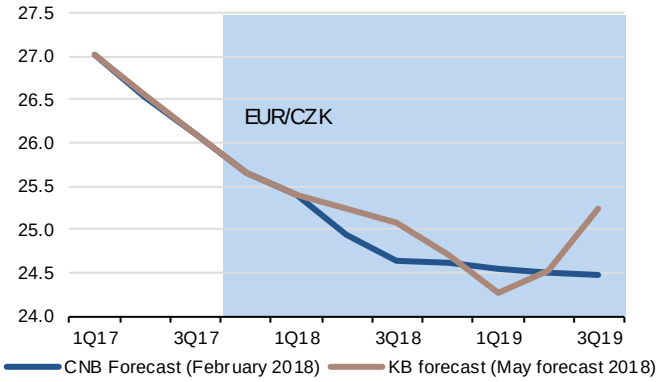
As the risks are tilted clearly in anti-inflationary direction, we do not believe that the CNB forecast will present a more aggressive rate hike path for either the remainder of this year or the beginning of the next. It is more likely that the CNB will delay rapid CZK appreciation into the third quarter while the rates forecast will remain virtually unchanged. We also cannot rule out that the forecast will show no hike at all for the remainder of this year.

CNB to take a pause from rate hikes for two quarters …



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

… curbing CZK appreciation

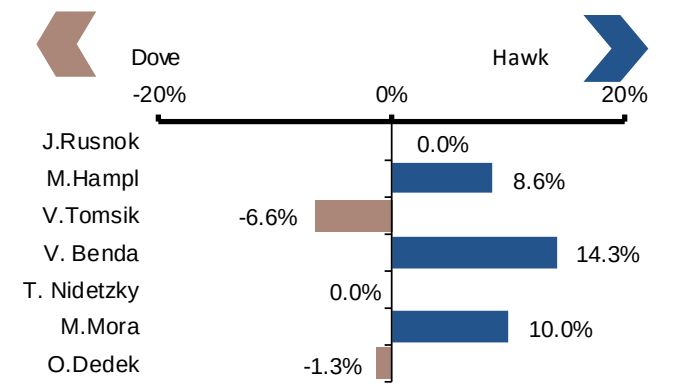


Source: CNB, Economic & Strategy Research, Komerční banka

The board still include hawks, but they do not have a majority

The minutes from the March meeting confirmed that some board members would like to see a steeper rate trajectory in 2018 and at the beginning of 2019. At the March meeting, some board member expressed their opinion "*that it was justified to continue – albeit with breaks – the process of returning interest rates to their equilibrium*". We believe that those board members were M. Hampl and V. Benda, who are concerned about imbalances in some markets, particularly the labour and housing markets. They might vote for a hike – even against the forecast. It would be no surprise if they raise their hands for a rate increase as soon as the August meeting. **Yet, we assume that most board members are more cautious and will follow the staff forecast which suggest only one more hike in 2018 at the end of the year. We thus change our call on the CNB rate hikes. We believe that the CNB will raise the rates only once more this year at the November meeting. It should hike twice more in the first half of 2019 after the ECB abandons its extraordinary measures and starts its rate hike cycle as well.** We see moderate risk of a rate hike in August if inflation surprises significantly on the upside.

Hampl and Benda might raise their hands for a rate hike in a dissent vote[1]



Source: CNB, Economic & Strategy Research, Komerční banka

[1] A dovish/hawkish stance reflects voting deviations between the CNB's board members and the board's final decision. The results are adjusted for the number of meetings each member attended.

Czech FX Market

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Breaching of the EUR/CZK25 level delayed

In line with our previous forecast, we continue to expect the koruna to appreciate and breach EUR/CZK25 over the rest of 2018. However, the strengthening is set to be delayed somewhat as the CNB is unlikely to hike rates in 2Q and 3Q. We continue to expect the koruna to close at EUR/CZK24.70 by the end of the year.

The koruna maintained its 2017 performance at the very start of the year. The EUR/CZK slid throughout January, falling to 25.19 on 1 February, a new low since the end of the FX floor. The koruna was supported mostly by market expectations of CNB monetary policy tightening and the strong fundamentals of the Czech and EMU economies. **However, the dovish message at the CNB meeting in early February, and the sharp deterioration in global market sentiment since then have halted koruna gains**. Since mid-February, the EUR/CZK has been moving in a tight 25.30-25.50 range amid relatively little activity.

EUR/CZK developments

Source: Bloomberg, Economic & Strategy Research, Komerční banka

USD/CZK developments

Source: Bloomberg, Economic & Strategy Research, Komerční banka

The sharp decline in the dollar's value in the global markets has been reflected in its rapid fall against the koruna. In January alone, the USD/CZK fell by 5% to the strongest koruna levels since mid-2014. Despite the Czech currency's losses over February and March, the koruna was still 1.5% stronger than the dollar versus our January call at the end of the first quarter.

A pause in rate hikes to delay koruna gains

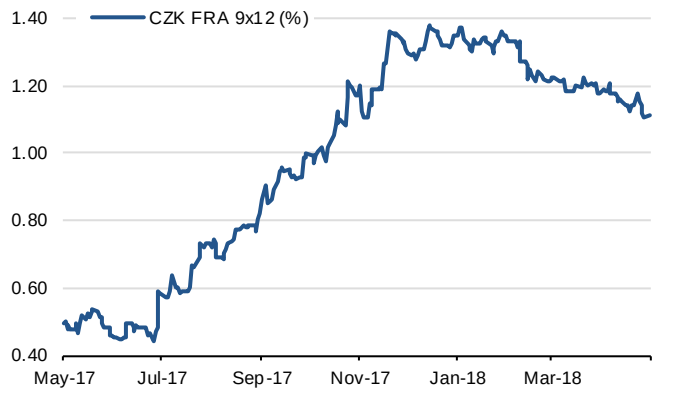
Koruna liquidity has remained elevated since the CNB's heavy interventions, leaving the currency exposed to swings in market sentiment due to both global and local factors.

Koruna liquidity has remained elevated since the CNB's heavy interventions, leaving the currency exposed – at least to some extent – to swings in market sentiment due to both global and local factors. Therefore, in the short term, the exchange rate will be heavily impacted by foreign investor flows. As for the external environment, we expect the risk of trade wars and geopolitics to diminish, while foreign inflation is set to recover. While the ECB is ready to extend QE until the end of the year, purchases will likely be lower, and the markets are preparing for the gradual removal of accommodation. **Thus, the external environment should not hamper prospects for koruna gains over the rest of 2018** (unlike February and March), in our view.

Conversely, domestic developments look significantly less supportive for the koruna in the near term than we had projected in our January forecast. Disappointing inflation prints and – most importantly – the likely delay in CNB rate hikes prompted us to revise the expected path

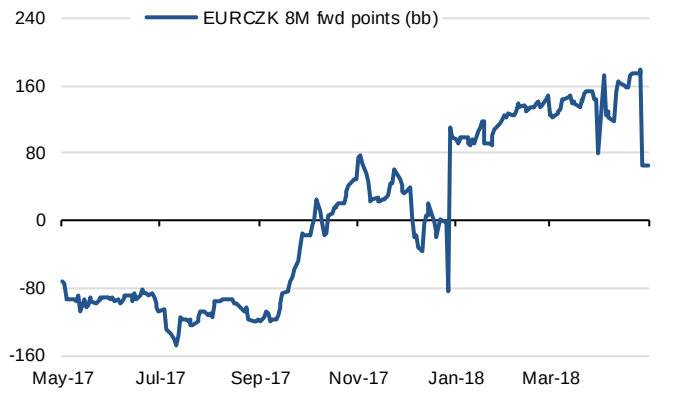
of the EUR/CZK. **In 2Q18 and 3Q18, we see the EUR/CZK only gradually approaching 25.00 with the risk of upside corrections due to dividend outflows**. Such a situation would contrast with the CNB's aggressive EUR/CZK projections. However, we believe it is very unlikely the koruna would print at EUR/CZK24.90 on average in 2Q18, for instance. The CNB's forecast is driven by the accumulation of uncovered interest rate parity effects (e.g. interest rate differential in 2018 and economic participant expectations regarding CZK rate hikes in 2019), which are far from materialising, in our view.

The sharp repricing of CNB's monetary policy since February



Source: Bloomberg, Economic & Strategy Research, Komerční banka

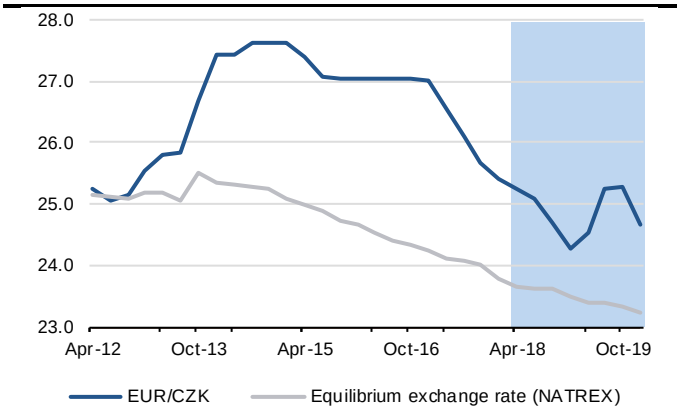
The negative effect of the Resolution fund already visible in the market (EUR/CZK 8m fwd pricing-in the liquidity constraints)



Source: Bloomberg, Economic & Strategy Research, Komerční banka

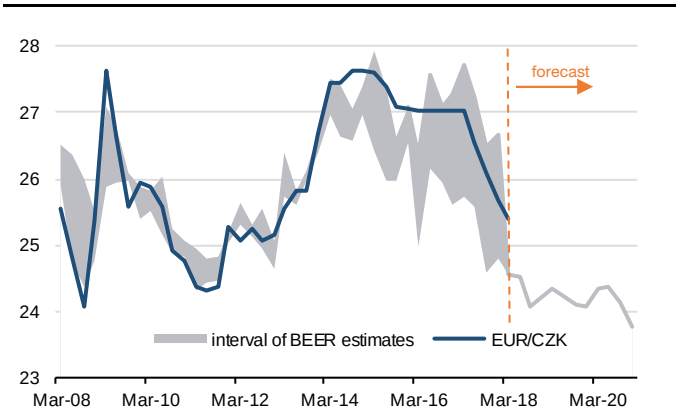
We see the koruna breaching EUR/CZK25 only at the turn of 3Q-4Q18 as the market prepares for a November interest rate hike (and more tightening in 1H19). We then expect the currency to reach this year's low at 24.60 in November. However, December will probably bring the negative seasonality due to payments into the Resolution fund again. The negative effect is already visible in koruna forwards, which price in bank balance sheets constraints and thus the difficulty of parking cash over the turn of the year. **At the end of 2018, we thus see the EUR/CZK at 24.70**. Indeed, the same value as in our January outlook.

Long-term equilibrium EUR/CZK exchange rate, based on NATREX



Source: Bloomberg, Economic & Strategy Research, Komerční banka

Medium-term equilibrium EUR/CZK exchange rate, based on BEER



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

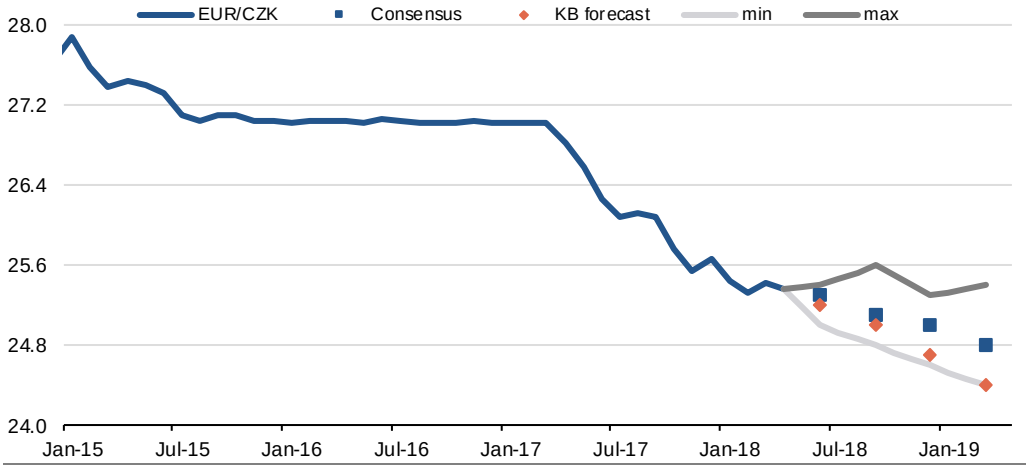
Despite the faster appreciation expected in 4Q18, the koruna should remain above its equilibrium, on our calculations. The medium-term BEER model shows a neutral level at

EUR/CZK24.20 at the end of this year. The long-term NATREX approach puts the equilibrium even lower, at EUR/CZK23.60 in 4Q18.

In 1H19, we expect more CZK strengthening due to CNB hikes and continuing strong fundamentals.

In 1H19, we expect more CZK strengthening due to CNB hikes and continuing strong fundamentals (convergence, current account surplus). However, the onset of a US recession is then expected to decisively change the development of the currency. In our view, market stress due to a global economic slowdown and a pause in CNB rate hikes will result in an outflow of investors from the koruna market and the depreciation of the currency.

Expected EUR/CZK exchange rate – Market consensus, Bloomberg (1 May 2018)



Source: Bloomberg, Economic & Strategy Research, Komerční banka

Risks: a koruna sell-off is possible if severe stress arises

We see a risk of faster and/or sharper koruna gains if market participants take the CNB's FX forecast more seriously as guidance for the spot. However, the lack of rate hikes in the CNB's projections makes this scenario rather improbable.

The koruna could see a sharp sell-off, if a major risk event hits global markets.

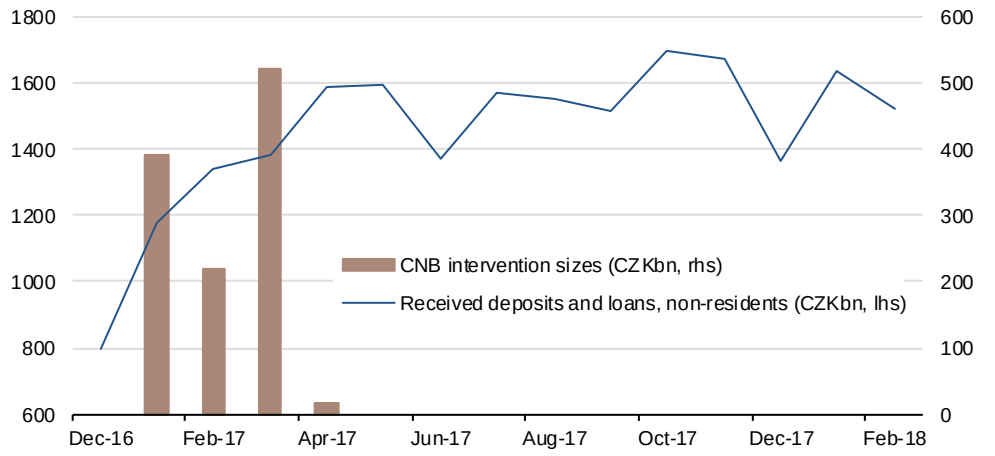
Conversely, the koruna could see a sharp sell-off, if a major risk event hits global markets. As stated above, the koruna has remained exposed to such swings due to elevated liquidity. If investors are forced to close their positions, the koruna is unlikely to be spared. If the EUR/CZK approaches 27 or higher, we assume the CNB will step in and sell part of its massive EUR reserves to limit the koruna's losses. The central bank would thus limit its losses and fight pro-inflationary pressure arising from the higher cost of imports, and try to mitigate the currency's volatility, in our view.

Box 4: Estimating intervention-related koruna positioning

Measuring investors' positioning in the koruna market as a result of the CNB's intervention policy is a difficult task, given the lack of official data. We thus examine the development of non-resident deposits in local banks and foreign holdings of CZK-denominated government debt, and compare these with the size of CNB interventions.

In 4M17, the CNB purchased €42.5bn to defend the koruna floor. As the exchange rate was almost exclusively at the floor level before the regulator ended this policy, we can take this amount as a rough estimate of the total activity on the market during that time. Part of the turnover was related to real flows, as Czech companies were massively pre-hedging their exports. Another part likely stemmed from the CZGBs' inclusion in the GBI-EM index, we assume.

CNB interventions boosted non-resident deposits at Czech banks



Source: CNB, Economic & Strategy Research, Komerční banka

Thus, we prefer to focus on non-resident deposits with local banks. Those increased by an equivalent of some €30bn in 4M17, which is our estimate of the "speculative" position. Since end-April 2017, domestic banks' liabilities to non-residents have seen major swings, probably due to redemptions of bonds/T-bills and, most importantly, the resolution fund-related balance sheet constraints. However, at end-February 2018, non-resident deposits were only €2.6bn lower than in April 2017. This supports our view that non-resident positioning remains elevated, which is intuitive due to the inflated balance sheet of the CNB and local banks.

This is money that can be relatively quickly withdrawn from the Czech Republic – at least partly. In times of major market stress, we assume billions of euros can be purchased within days, potentially resulting in sharp koruna depreciation.

EUR/CZK Technical Analysis *(updated on April 27 at 1:12pm)*

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Rebound still in force, could stretch towards the 200 day MA at 25.60/65.

EUR/CZK has been showing signs of stabilization after hitting the pivotal levels of 25.10/25.00, which represents the 76.4% retracement of the 2011-2015 up move and also the lower bound of 1-year down sloping channel, Divergence in weekly indicator combined with bullish engulfing in previous week illustrates 25.10/25.00 as a key level.

Shorter term, the pair pierced above a daily down sloping channel and is testing last month highs of 25.50. With daily indicators still away from a significant hurdle, the ongoing recovery could prolong eventually towards 25.60/25.65, projections and the 200 day MA. This will decide about a larger recovery in EUR/CZK. Multiyear trend at 26/26.20 remains a crucial resistance.

EUR/CZK, weekly chart.

EUR/CZK, daily 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 part s of this documents or of other documents of KB (or SG).

Czech Government Bonds and the IRS Market

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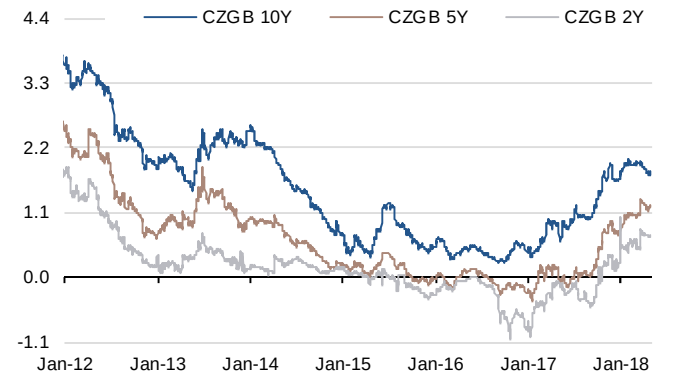
2018: slower increase in yields

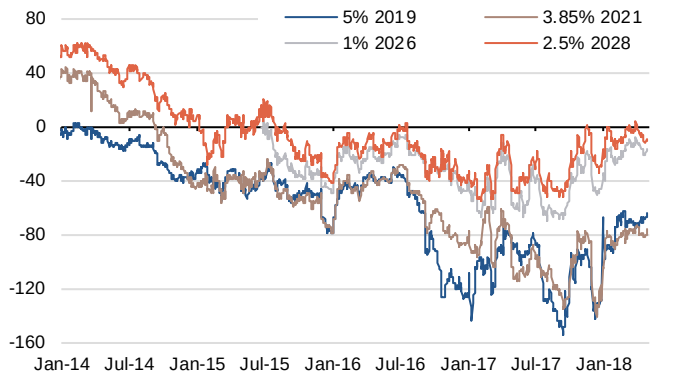
Our forecast for the supply of CZGBs in 2018 remains unchanged, but we have revised lower the estimated path of bond yields, mostly due to slower CNB tightening. Similarly, we have cut the outlook for the rise of CZK interest rate swaps.

CZGB yields, Bloomberg generic (%)



Source: Bloomberg, Economic & Strategy Research, Komerční banka

ASW spreads (bp)



Source: Bloomberg, Economic & Strategy Research, Komerční banka

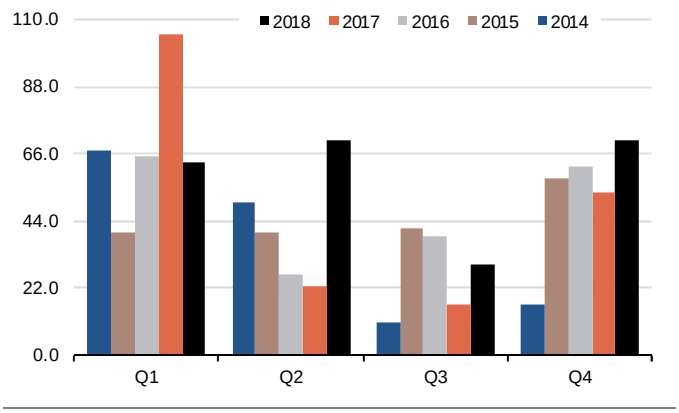
At the beginning of the year, Czech government bond yields started to rise, driven by the fading year-end effect, CNB rate hike expectations, elevated inflation, increased supply in the long end and bearish trends in global bond markets. In late January, the 10y yield reached 2% for the first time in four years. **However, the decisive change in market sentiment at the turn of February and dovish CNB rate forecast have capped CZGB losses**. In April, the 10y yield dropped to as low as 1.70% and has since only partially recovered. Demand for bonds has been surprisingly resilient in recent auctions.

2018 supply: no change in our expectations

In our view, the ministry will sell as much as CZK240bn of CZGBs this year.

We continue to expect gross borrowing needs of CZK340.7bn this year, some CZK10bn below the Finance Ministry's expectation. The difference is due to the lower budget deficit incorporated into our call. We also maintain our forecast for the breakdown of the financing side. In our view, the ministry will sell as much as CZK240bn of CZGBs this year, of which CZK230bn will be via primary market auctions. Net issuance of T-bills is set to reach CZK36bn (bringing

Quarterly CZGB issuance on the primary market (CZKbn)



Source: Finance Ministry, Economic & Strategy Research, Komerční banka * 2Q-4Q18 is KB forecast

gross sales to CZK80bn), and we assume that the ministry will tap CZK21bn from its liquidity reserve.

Time-wise, we expect CZGB sales to reach CZK70bn in both 2Q and 4Q and CZK30bn in 3Q.

2018 gross borrowing needs and financing, CZKbn

	MinFin Dec-17	KB May-18
Borrowing needs		
Budget deficit	50.0	40.0
Buybacks of CZGBs		0.0
Redemption of CZGBs	236.4	184.4
Redemption of eurobonds		51.1
Redemption of retail bonds	16.4	16.4
Redemption of T-bills	44.0	44.0
Redemption of other money market instruments	0.0	0.0
Redemption of EIB loans	4.8	4.8
Total	**351.6**	**240.7**
Financing		
Gross T-bill issuance		80.0
Other money market instruments		0.0
Gross CZGB issuance (in auctions)	min 150.0	230.0
Tap sales		10.0
Gross issuance of eurobonds		0.0
Gross issuance of retail bonds		0.0
Tapping of financial reserve		20.7
Net effect of CZGB switches		0.0
Total financing		**340.7**
Net CZGB issuance		*45.6*

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

We see a declining probability that the Finance Ministry will come up with a eurobond this year.

Due to muted market interest rates, elevated demand for CZGBs in primary market auctions and signs of solid supply in the domestic market in 2Q18 (CZK35.8bn sold in April, CZK27bn to be offered in May), **we see a declining probability that the Finance Ministry will come up with a eurobond this year** (in our January outlook, we assigned a 40% probability to this scenario).

As of the end of April, the ministry has secured 41.3% of CZGB issuance and 31.2% of gross borrowing needs, excluding the tap of the financial reserve (CZK320bn), as per our call.

2018 bond yields: downward revision

We have revised lower our expected path of CZGB yields.

Due to developments on global markets since end-January and the change in our CNB call, **we have revised lower our expected path of CZGB yields**. We still expect Czech bonds to cheapen, but at a slower pace, as we expect only one more hike in 2018. We have also moderated our outlook for the 10y Bund yield.

CZGB yield forecast

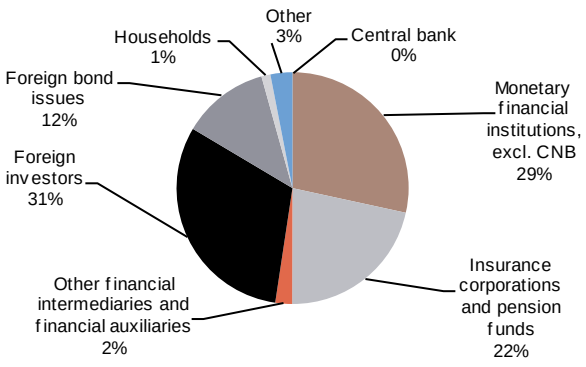
	2Q18f	3Q18f	4Q18f	1Q19f	2Q19f
2y CZGB yield (%)	0.80	0.90	0.90	1.25	1.30
10y CZGB yield (%)	2.00	2.05	2.10	2.25	2.20
10y CZGB ASW (bp)	10	5	-5	0	-5

Source: Economic & Strategy Research, Komerční banka

That said, the CNB will likely continue tightening monetary policy, albeit later than we previously expected. We see inflation returning toward the 2% target, and inflationary

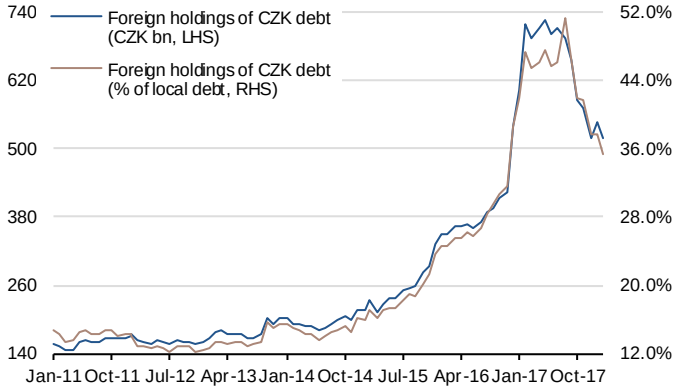
pressures are set to mount. This will likely drive CZGB yields higher. We expect a minor cheapening of CZGBs in relative terms in the coming months due to increased supply, followed by a correction in 2H18. **We forecast the 10y yield to reach 2.10% at the end of this year, while the 2y yield should print at 0.90%**. At the short end, we expect a one-off increase in demand at the end of the year due to liquidity constraints related to the Resolution Fund.

Holdings of CZK government debt, end-March 2018



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

Non-resident holdings declining sharply in 2018

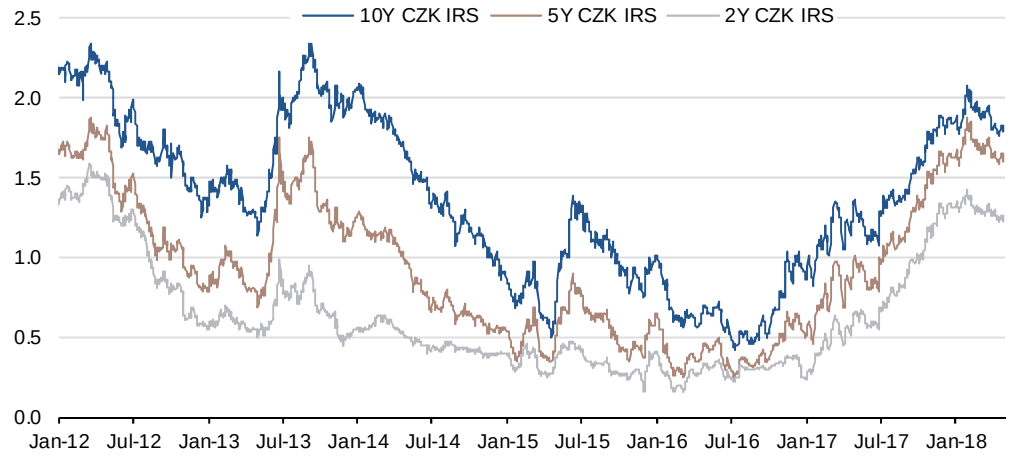


Source: Finance Ministry, Economic & Strategy Research, Komerční banka

CZGB holders: normalisation under way

In line with our expectations, non-resident holdings of CZK-denominated debt have fallen considerably in 2018 on the fading of the Resolution Fund effect (year-end effect). At the end of March, non-residents held 35.5% of CZK debt, the lowest level since December 2016. We assume the decline in foreign holdings will continue this year, as cross-currency arbitrage has become less appealing and the ministry has shifted to issuing longer-term maturities.

Recent developments of CZK IRS (%)



Source: Bloomberg, Economic & Strategy Research, Komerční banka

CZK interest rate swaps: slower increase

The revision of our CNB call has resulted us now expecting a slower rise in CZK IRS.

The revision of our CNB call has resulted us now expecting a slower rise in CZK IRS. We expect 10y IRS to reach 2.15% at the end of this year. The increase should be driven by strong fundamentals (the return of inflation toward 2%, resilient inflationary expectations) and

the increase in EUR IRS, as per SG's view (SG sees 10y EUR IRS at 1.45% at the end of 2018). The short end of the IRS curve is set to increase, too, albeit more slowly vis-à-vis our previous call.

CZK IRS outlook (%)

	2Q18f	3Q18f	4Q18f	1Q19f	2Q19f
2Y	1.30	1.40	1.60	1.80	1.90
5Y	1.70	1.75	1.95	2.10	2.10
10Y	1.90	2.00	2.15	2.25	2.25

Source: Economic & Strategy Research, Komerční banka

We expect a parallel rise along the curve in 2018. Only in 2019 do we call for a flattening of the curve, as the long end will fall faster and the short end will remain anchored by stable CNB policy rates.

Banking Sector

Lending growth set to slow marginally

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Slowing loan and deposit growth is our baseline forecast for the Czech banking sector this year. **The mortgage lending boom should also abate, as real estate prices are still rising**, albeit at a slower pace than they recorded last year. In Prague, the average price of newly developed apartments is close to psychological barrier of CZK100,000/sqm. However, interest rates are still low, the labour market is tight and, most importantly, expectations are positive, further stimulating demand for real estate loans. Tight labour market conditions and record-high household confidence should support consumer lending dynamics.

Corporate lending likely to slow marginally in 2018. Last year's pick-up in euro-denominated loans is unlikely to be repeated in 2018, as it was related to the removal of the CNB's FX floor. Hence, investment lending, stimulated by increasing investment activity and operational financing to meet rising demand, will likely be the main driver of koruna-denominated corporate loans.

Bank loans and deposits (% yoy)

	1Q18	2Q18	3Q18	4Q18	1Q19	2Q19	3Q19	4Q19	2017	2018	2019	2020	2021	2022	2023
Bank loans															
Total	3.8	4.2	3.8	6.8	5.3	5.2	5.4	5.0	**6.3**	**4.6**	**5.2**	**4.4**	**5.2**	**5.4**	**5.0**
Households - real estate loans	8.7	6.3	4.5	2.7	2.2	3.5	5.0	6.3	**9.3**	**5.6**	**4.3**	**6.9**	**7.2**	**6.0**	**5.5**
Households - consumer loans	4.2	5.3	6.8	8.0	8.2	7.0	5.9	4.5	**4.5**	**6.1**	**6.4**	**5.6**	**7.2**	**7.0**	**6.4**
Corporate loans	2.5	3.3	4.4	6.9	6.6	5.4	4.8	3.0	**4.9**	**4.3**	**4.9**	**2.1**	**4.2**	**5.2**	**4.8**
Deposits															
Total	4.7	4.2	3.9	6.9	8.2	7.3	7.1	6.0	**12.0**	**4.9**	**7.2**	**4.6**	**4.0**	**4.0**	**3.9**
Households	6.1	6.5	7.6	9.3	9.9	9.5	8.7	7.2	**8.5**	**7.4**	**8.8**	**4.5**	**3.4**	**3.9**	**4.0**
Non-financial corporations	4.6	6.2	5.9	10.7	7.2	5.6	5.6	5.0	**9.9**	**6.8**	**5.9**	**6.1**	**5.8**	**4.1**	**3.8**
Others	1.9	-1.9	-4.8	-2.4	5.9	4.2	5.0	4.3	**22.1**	**-1.8**	**4.9**	**3.3**	**3.5**	**4.1**	**3.9**
Ratios															
Loans/GDP	61.1	61.2	61.4	61.0	60.7	60.9	61.4	61.2	**62.7**	**61.2**	**61.0**	**61.8**	**62.5**	**62.8**	**63.3**
Deposits/GDP	84.0	83.2	83.3	82.5	85.7	84.5	84.7	83.6	**85.0**	**83.2**	**84.6**	**85.8**	**85.7**	**85.0**	**84.7**
Loans/deposits	72.8	73.5	73.7	74.0	70.8	72.1	72.6	73.2	**73.7**	**73.5**	**72.2**	**72.1**	**73.0**	**73.9**	**74.7**
Interest rates															
Real estate loans	2.5	2.6	2.6	2.7	2.9	3.0	3.0	3.1	**2.3**	**2.6**	**3.0**	**3.2**	**3.5**	**3.5**	**3.6**
Consumer loans	8.8	8.9	8.9	9.0	9.3	9.5	9.8	10.0	**9.2**	**8.9**	**9.6**	**10.6**	**11.6**	**11.7**	**11.7**
Corporate loans	2.5	2.5	2.5	2.8	3.1	3.3	3.3	3.3	**2.0**	**2.6**	**3.2**	**3.6**	**4.4**	**4.3**	**4.1**
Share of NPL															
Real estate loans	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	**1.8**	**1.9**	**1.9**	**2.1**	**2.4**	**2.6**	**2.8**
Consumer loans	6.0	6.0	6.1	6.0	6.0	6.3	6.6	7.0	**6.9**	**6.0**	**6.5**	**7.9**	**9.3**	**10.1**	**10.3**
Corporate loans	3.9	3.8	3.7	3.7	3.8	3.9	4	4.2	**4.6**	**3.8**	**4.0**	**5.0**	**5.8**	**6.0**	**6.1**

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

Decreasing savings rate and stagnating profit margins likely to result in slower deposit growth for both households and corporates. The deposits of financial institutions are set to decline this year due to the high-base effect caused by last year's removal of the FX floor. We expect a mild correction in other deposits due to the repatriation of financial capital from the Czech banking system and reallocation to other financial market instruments.

Key Economic Indicators

Macroeconomic indicators – long-term outlook

		2015	2016	2017	2018	2019	2020	2021	2022
GDP	real, %	5.4	2.5	4.6	3.8	2.7	1.5	2.5	2.6
Inflation	average, %	0.3	0.7	2.5	1.9	2.1	1.6	1.8	2.0
Current account	% of GDP	0.2	1.6	1.1	0.4	1.0	2.1	1.6	1.2
3M PRIBOR	average, %	0.3	0.3	0.4	1.0	1.6	1.9	2.6	2.5
EUR/CZK	average	27.3	27.0	26.3	25.1	24.8	24.0	23.1	22.6
USD/CZK	average	24.6	24.4	23.4	19.9	18.7	17.8	17.4	17.0

Source: CZSO, CNB, Macrobond, Economic & Strategy Research, Komerční banka, SG Economic Research
Note: KB forecasts are in blue

FX & interest-rate outlook

		30-Apr-2018	Jun-18	Sep-18	Dec-18	Mar-19	Jun-19
EUR/CZK	end of period	25.59	25.20	25.00	24.70	24.40	24.90
USD/EUR	end of period	1.21	1.25	1.27	1.29	1.31	1.32
CZK/USD	end of period	21.14	20.16	19.69	19.15	18.63	18.86
3M PRIBOR	end of period	0.90	0.90	0.98	1.15	1.90	1.90
10Y IRS	end of period	1.80	1.90	2.00	2.15	2.25	2.25

Source: CZSO, CNB, Macrobond, Economic & Strategy Research, Komerční banka, SG Economic Research
Note: KB forecasts are in blue

Monthly macroeconomic data

		7-17	8-17	9-17	10-17	11-17	12-17	1-18	2-18	3-18
Inflation (CPI)	%, mom	0.5	-0.1	-0.1	0.5	0.1	0.1	0.6	0.0	-0.1
Inflation (CPI)	%, yoy	2.5	2.5	2.7	2.9	2.6	2.4	2.1	1.8	1.7
Producer prices (PPI)	%, mom	-0.2	0.2	0.4	0.0	-0.1	0.3	0.5	-0.4	0.3
Producer prices (PPI)	%, yoy	1.1	1.4	1.7	1.1	0.9	0.7	0.5	-0.3	0.1
Unemployment rate	% (MLSA)	4.1	4.0	3.8	3.6	3.5	3.8	3.9	3.7	3.5
Industrial sales	%, yoy, c.p.	8.1	6.1	3.7	9.9	5.6	1.0	4.8	1.1	n.a.
Industrial production	%, yoy, c.p.	4.8	6.5	5.2	11.4	8.5	3.3	5.6	2.7	n.a.
Construction output	%, yoy, c.p.	3.1	3.3	-1.4	4.8	4.9	-1.1	33.6	9.4	n.a.
Retail sales	%, yoy, c.p.	2.5	3.9	3.7	6.8	4.7	2.2	5.8	2.3	n.a.
External trade	CZK bn (national met.)	-3.8	3.9	17.9	8.6	10.6	-1.4	15.7	18.0	n.a.
Current account	CZK bn	-25.0	-6.9	-2.6	12.2	-5.4	-7.5	28.9	31.0	n.a.
Financial account	CZK bn	-20.3	14.3	3.4	8.6	-28.7	12.3	2.8	24.5	n.a.
M2 growth	%, yoy	9.9	10.1	9.8	8.6	7.6	8.6	7.0	6.6	n.a.
State budget	CZK bn (YTD cum.)	25.0	15.6	17.4	26.5	-11.6	-6.2	26.5	25.8	16.3
PRIBOR 3M	%, average	0.30	0.43	0.46	0.51	0.71	0.75	0.77	0.90	0.90
EUR/CZK	average	26.09	26.11	26.08	25.77	25.55	25.66	25.44	25.33	25.42
USD/CZK	average	22.64	22.10	21.90	21.92	21.75	21.69	20.85	20.52	20.61

Source: CZSO, CNB, MF, MLSA, Macrobond, Economic & Strategy Research, Komerční banka

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