

| Quarterly report |

Czech Economic Outlook

Omens of strong growth



- **First omen** The Czech Republic's economic momentum picked up in 1Q17, and we believe this was maintained in 2Q. We expect full-year growth of 3.7% in 2017 and 3.1% in 2018.
- **Second omen** Wage growth has accelerated significantly, and we forecast the 2017 average at 6.4%. This would push inflation higher, but price growth will likely be dragged down by external factors. Overall, we expect inflation to print at 2.3% in 2017 and decelerate slightly to 2.2% in 2018.
- **Third omen** Long-term inflationary pressure should allow the CNB to raise rates twice this year. In August, we expect it to become the first central bank in the EU to raise rates in the current cycle, in our view.
- **Fourth omen** The koruna is appreciating. Since the exchange rate floor was scrapped, it has gained 3.5% against the euro. This upward trend should continue. We expect EUR/CZK to hit 25.50-25.70 by autumn.
- **Fifth omen** Interest rate swaps are set to rise faster due to the CNB's hikes. Short-end CZGB yields should remain muted due to strong demand, as markets anticipate the koruna strengthening.

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Signs of growth everywhere

The front page of this edition of *Czech Economic Outlook*, as well as a deeper reading within the publication, will make it clear that the **Czech economy is now in a boom phase**. At the time of writing, our growth forecast of 3.7% is the most optimistic in the market. **The highlight of this year will likely be steep nominal wage growth** in excess of 6%. We cover the labour market and wage developments in special boxes in this edition. The conclusion is crystal clear: **the transition from extensive to intensive use of labour, reflected in higher productivity, is creating room for wage growth and a catching up with living standards in Western European countries.**

We are into the second half of what looks set to be a very successful year economically. Disregarding 2015, when the economy improved by 5.4% due to the need to invest EU funds from the preceding programming period, **the Czech economy will likely this year grow at the fastest pace since 2007.** In our last *Czech Economic Outlook*, we predicted growth of 2.7% in real terms for 2017, but we now expect the result to be a whole percentage point better. **We see signs of higher growth all around.**

The German economy is now seeing one of its most successful periods since reunification. Other large countries that had disappointed in the recent past such as France, Spain and Italy are now in decent condition. **While outlooks are being revised up in Europe**, and there is increasing discussion on the timing of when the ECB will start to phase out its extremely relaxed monetary policy, **the opposite is true for the US.** The expected rate hikes are being deferred there, resulting in a stronger euro and weaker dollar.

External demand will contribute to the Czech economy's performance this year, but it is domestic demand that is playing the key role. The structure of the growth augurs well for the economy again in 2018 despite increasing worries that the labour market has reached its limits. **In short, there are not enough people available for work. We are convinced that a growth model relying on steadily rising numbers of cheap labour is no longer viable. The private sector is gradually becoming aware of the need to invest and to base its business model on innovation and higher productivity.** In this respect, the private sector's stronger investment activity in the early months of 2017 signifies that Czech economy is on the right track. We are still waiting for the public sector to increase investment considerably, but the need to draw on EU funds will trigger better activity in this area in 2018.

The Czech economy is also improving its position vis-à-vis its regional neighbours. It has started to catch up in terms of growth dynamics. A good omen is that although inflation is somewhat higher because of strong internal demand (though disinflationary pressure is being imported), Czech market rates are lower, which reflects investors' confidence given the lower interest premiums required. The Czech koruna is also appreciating in relation to the Polish zloty and Hungarian forint. **The appreciation of the currency is the long-term manifestation of the convergence story.** And the exit from the FX floor commitment at the beginning of last April marks, in our mind, a return to the trend of the Czech currency appreciating on a long-term basis. However, this does not change the fact that it remains quite vulnerable due to accumulated positions.

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External Environment and Assumptions



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Softer inflation again a worry for central banks

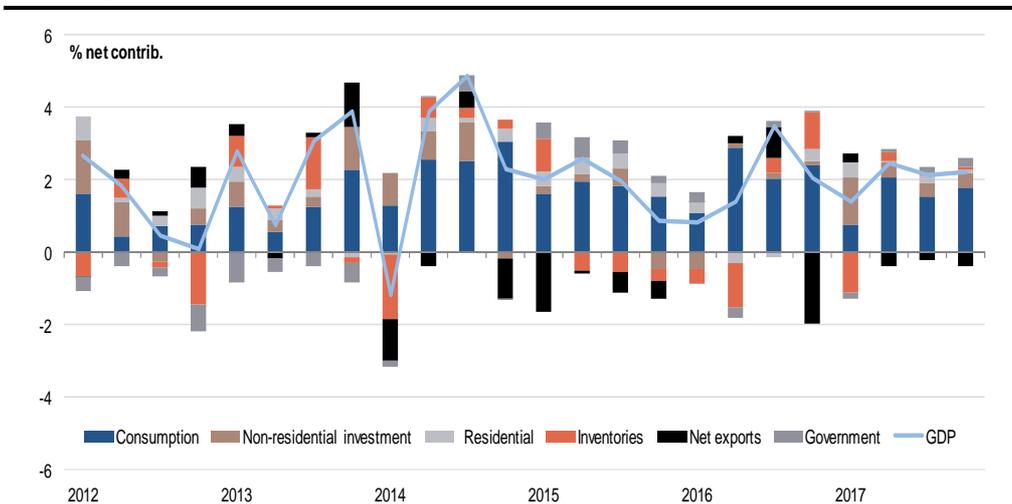
Inflation has decelerated in the United States and in the euro area since our last publication. As a result we have pushed back our call for a rate hike in the US from September till December this year while in the euro area we now expect the first rate hike will be in March 2019 rather than December 2018. We maintain our expectation that the ECB will announce a reduction of its asset purchase programme in September 2017. Meanwhile GDP growth in Germany has been revised up and the CEE region should also continue to perform well.

United States: rate hike now expected in December

The first estimate of US GDP growth for 1Q17, at 0.7% qoq (annualised), disappointed but was later revised to 1.2% qoq (annualised). In 2Q 17 US economy expanded at 2.6% qoq (annualised). Household consumption was the main contributor to growth, and is likely to remain the main engine driving the US economy in the future. Business investment, which is expected to resume in the energy sector, should also contribute more this year. According to SG economists, the US economy will add 2.1% this year, after 1.6% in 2016, and is expected to grow at a similar pace in 2018. These estimates however are based on the assumption that Donald Trump will succeed in pushing through his tax reform. Approval of the reform would extend the current expansion of the US economy by one year, i.e. to mid-2019, making it the longest in the history of the US (it started mid-2009).

Tax reform should prolong the current economic expansion.

US: GDP growth is driven by the household consumption



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

Divisions within the Republican Party and Trump's weak position threatens approval of the tax reform.

A possible rejection of President Trump's tax reform is the main downside risk to our US GDP forecast. The failure to overturn the Obamacare healthcare law has highlighted the divisions within the Republican Party and has weakened Trump's negotiating position. On the other hand, there is widespread consensus among Republicans on individual tax reform. However, the proposed reform of corporate taxes is controversial.

Fed concerned about Inflation deceleration.

In June the Fed hiked rates by 25bp to a 1.0-1.25% range. SG economists have now postponed their call for a 25bp rate hike from September to December 2017, mainly because of the slowing pace of inflation but also because the Fed is unlikely to want to raise rates

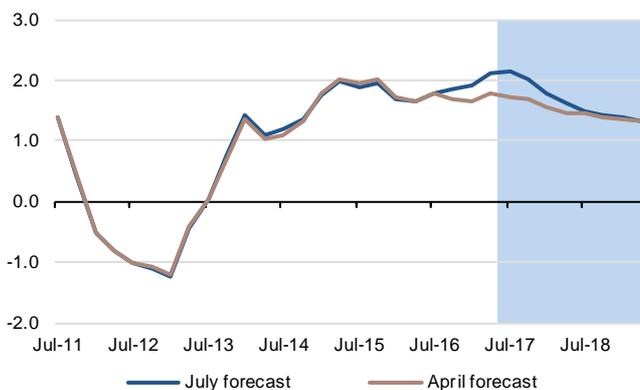
before negotiations on the federal budget and the increase in the debt ceiling. The federal budget should be approved by 1 October. Inflation in the United States peaked in February (at 2.7% yoy) and has slowed down since. The problem is mainly core inflation which stood at 2.3% yoy in January but at only 1.7% yoy in June. The cause is not a one-off swing or a decline concentrated in just a few categories. Indeed, the slowdown in price growth was recorded in 38 of the 62 items surveyed in June. Despite the lower core prices, however, Fed believes the 2% target for the core PCE deflator will be reached next year. However, the last time this happened was in 2004-2008, since when the core PCE deflator has stayed below the 2% target. So the Fed will probably want to wait for new inflationary data to be sure inflation is actually heading towards target. We expect the Fed to hike rates three times next year and just once in 2019.

Euro area: reduction of QE to be announced in September

Wage growth to remain muted in the euro area this year.

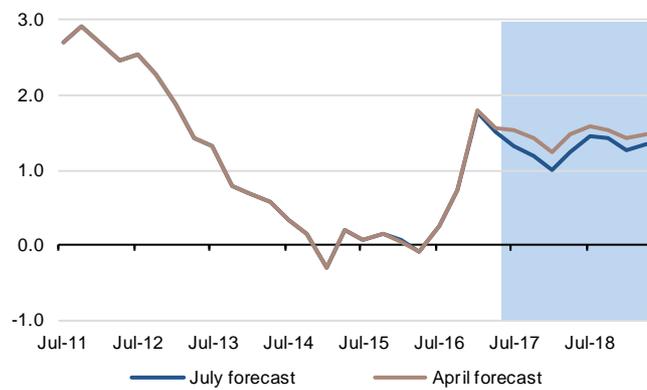
SG economists have revised their forecasts for 2017 GDP growth for the euro area from 1.9% to 2.1%. The main reason was the revision of historical data for 3Q16-1Q17, but also the better-than-expected performance of the German economy in 1Q17. GDP growth in the euro area remains principally driven by domestic demand. Unemployment is gradually declining, which should raise household consumption and gradually lead to a decline of the savings rate. This year, we expect unemployment to decline another 0.8pp to reach 9.2%. However, wage growth will remain muted. In Germany, however, wage agreements in the industrial sector will terminate in December, and in the public sector next February, which could spark marked wage growth in 2018. An important source of GDP growth in the euro area will continue to be investments, which are expected to contribute 0.5pp to the GDP growth, as in 2016. Net exports are likely to contribute negatively (-0.6pp).

Euro area: GDP growth revised up (% , yoy)



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

Euro area: inflation has decelerated (% , yoy)



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

ECB assessed the balance of risks as broadly balanced but is concerned by inflationary development.

In June, the European Central Bank assessed the balance of risks associated with its prognosis as broadly balanced for the first time since August 2011. At the same time, it removed the reference on potentially lower interest rates. The ECB also revised its inflationary outlook downwards at its June meeting. The ECB expects inflation to reach 1.5% in 2017, 1.3% in 2018 and 1.6% in 2019. In addition, at the press conference after the July meeting ECB president Mario Draghi sounded concerned about the inflation outlook again. According to SG economists, inflation should reach 1.6% this year and 1.5% on average over 2018-2021.

The asset purchase programme should end in March 2019.

The future of the QE programme will be discussed in the autumn, as Mario Draghi said on 20 July. SG economists expect that in September the ECB will announce a decision to extend QE by six months (until June 2018) and reduce its volume to €40bn per month (effective from January 2018). In March, it is expected the programme will be extended by another three months (until September 2018), at €30bn per month, and that in June 2018, there will again be a 3-month extension, at €20bn, until December 2018. SG economists expect a final 3-month extension, at €10bn, to be announced in September 2018, which would mean the entire asset purchase programme would end in March 2019. The path would thus be open for a first rate hike in March 2019 followed by another in June 2019, putting an end to the negative deposit rate and resulting in it rising to 0.25%. Given this ECB policy, we expect EUR/USD at EUR/USD1.18 level at the end of this year. In 2018, we expect EUR/USD to trade at 1.16 on average.

Germany: 2018 to see marked wage growth

German economy to grow faster than we previously expected.

SG economists have revised up their forecast for German GDP for this year. The German economy should add 2.0% after the adjustment in the number of working days, the highest pace since 2011. Household consumption will remain the key growth engine. Unemployment is at its lowest level since German unification (5.7%) and remains well below NAIRU. This is putting pressure on wages and increasing household willingness to spend. Wage growth, however, remains muted due to the agreements between employers and labour unions. Nevertheless, with major wage agreements due to end late 2017/beginning of 2018, we believe this situation could change and we expect to see a substantial acceleration in wage growth.

The popularity of Germany's CDU party is growing.

German elections are scheduled for the autumn (24 September). According to the latest polls, the popularity of the CDU is growing while that of the SPD is falling. This could lead to the creation of the new coalition between the CDU, Greens and the FDP. Integrating immigrants into the labour market, labour market reform, as well as measures to increase competition and productivity in the service and energy sector, are the main tasks for the new government.

CEE region: investment will return to the region

Growth is being driven by domestic demand.

The CEE region did well in the first half of this year. In 1Q17, GDP growth exceeded expectations in all countries of the CEE region, reaching 3.0% yoy in the Czech Republic, 3.1% in Slovakia, 3.8% in Hungary and 4.2% in Poland. The common feature driving growth among the CEE countries was household consumption, supported by a historically low unemployment rate and rapid wage growth. The wage growth should even strengthen in 2H17 and in 2018. The other components of GDP development among the CEE countries were more differentiated. Investments are beginning to return cautiously to the region, especially in Hungary. Elsewhere, the flow of money from EU funds, and thus investment, is fairly slow but should gradually rise. Thus the outlook for the CEE countries remain favourable. This year we forecast GDP growth to reach 3.7% in the Czech Republic, 3.1% in Slovakia, 3.4% in Hungary and 3.8% in Poland. Next year it should be 3.1% in the Czech Republic, 3.0% in Slovakia, 3.1% in Hungary and 4.0% in Poland.

Inflation decelerated in the region.

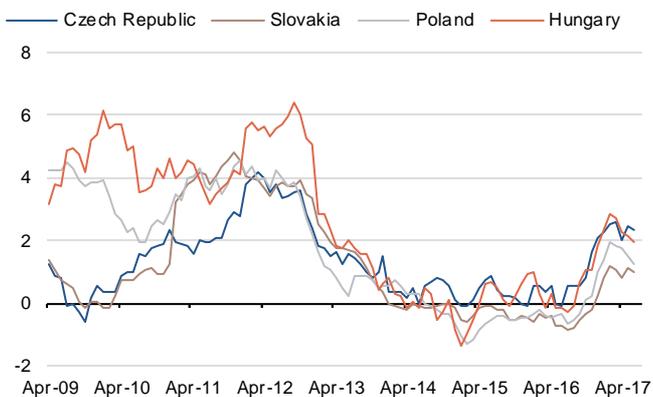
Central bank policy in the region varies depending on the inflation outlook. While in the Czech Republic inflation is already safely above the 2% target and the central bank is about to raise rates (more in the CNB Focus Section), inflation in Poland and Hungary is still lagging behind. In the first months of this year, consumer prices increased because of a statistical base effect and rising food prices. In recent months, however, inflation has decelerated as a

result of falling oil and food prices. In Poland, inflation is now 1.5%, with 1.5%-2.0% expected for the rest of the year, according to our estimates; core prices should stabilise at around 0.8% yoy; and the inflationary target of 2.5% will only be reached in 2H18, in our view. This should be reflected in central bank monetary policy. Although voices exist within the Monetary Policy Council that interest rates should be raised as early this year, the majority of MPC members prefer interest rate stability. The first increase in the key interest rate (currently at 1.5%) will, in our opinion, take place in 2H18.

Among the regional currencies, just the Czech crown has the potential to strengthen.

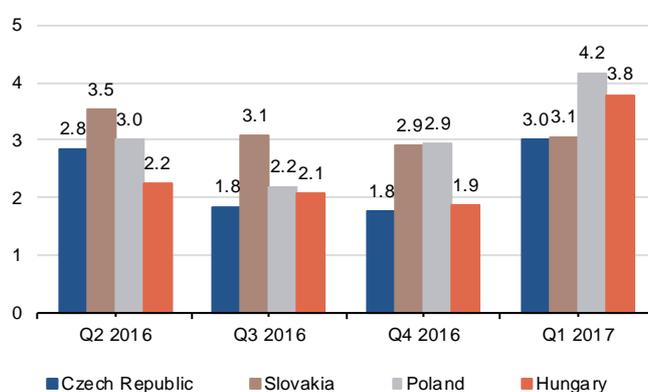
Higher interest rates cannot be expected any time soon even in Hungary. According to the Hungarian central bank, the 3% inflation target will not be achieved before 1H19, with the result that interest rates will probably stay at the current 0.9% level for a relatively long period. The central bank, however, is ready to continue using non-standard monetary policy instruments. These include, for example, lowering the threshold for commercial banks to enter a three-month deposit facility, through which the central bank seeks to increase liquidity in the market, thus pushing interest rates down. Given the monetary policy followed by the CEE central banks, only the Czech koruna has room to strengthen against the euro, in our view. In 2H17, the Hungarian forint stands to weaken slightly against the euro, we estimate, and we expect it to trade at EUR/HUF313 at the end of this year. The situation at the Polish foreign exchange market has calmed down following President Andrzej Duda's veto of the controversial bills on the Supreme Court and the National Judicial Council. The President said he will prepare a new version of these laws within two months, which should give the Polish currency a breather. That said, the political scene will keep the Polish zloty under pressure. On the other hand, the good shape of the economy should prevent any significant weakening of the zloty.

Inflation in the region decelerated (% , yoy)



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

CEE region: GDP growth (% , yoy)



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

Macroeconomic Outlook

Czech economy riding the global recovery wave

Global trade has picked up, and the Czech economy has been benefiting heavily from it. German economic growth has persistently accelerated this year, strengthened the external demand for Czech products. Domestic demand remains sound as well. The entry of the Czech economy into the late expansion phase has been accompanied by very low unemployment and surging wage growth. That said, we see many signs (omens, if you wish) pointing to strong growth in the Czech economy, and we thus raise our growth projections considerably. While the external environment is providing a strong push for GDP growth, it is not exerting much price pressures. Weaker import inflation thus offsets stress induced by rapid wage growth. As such, we leave our inflation outlook little changed.



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Main changes

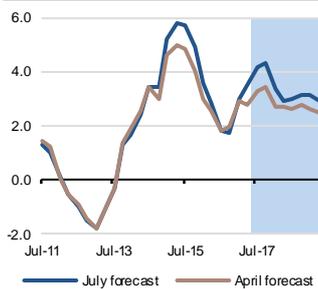
GDP:

We raise our full-year GDP growth forecast for 2017 to 3.7% (prev. 2.7%) on the back of stronger external demand and domestic consumption. For 2018, we expect a slowdown to 3.1% (prev. 2.7%).

Inflation:

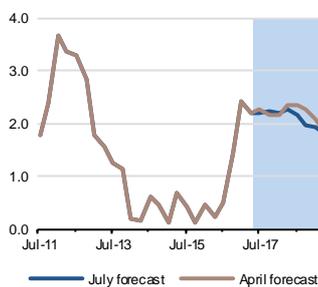
We keep our forecast for this year's average inflation at 2.3%. We lower our 2018 estimate slightly to 2.2% (prev. 2.3%) due to weaker price pressures from abroad.

Change in our GDP outlook (%)



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

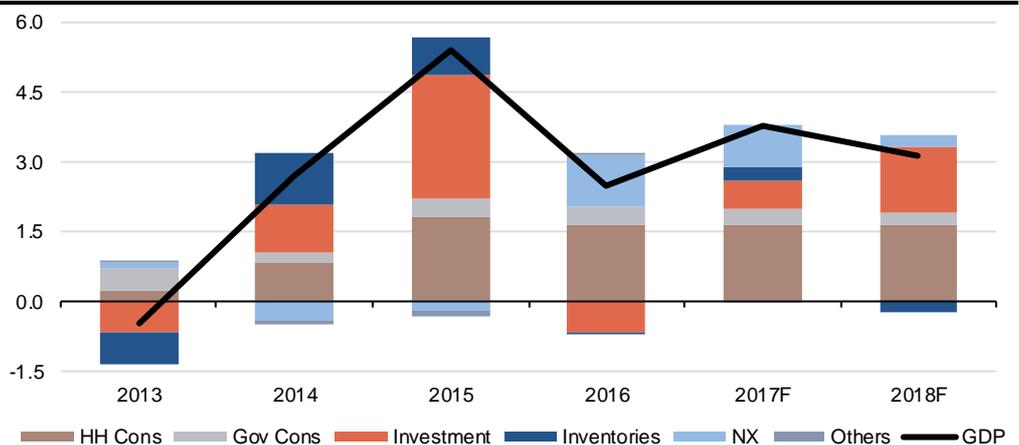
Change in our inflation outlook (%)



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

Revival in global trade was reflected in export/import acceleration.

Economic growth to accelerate this year and remain sound in 2018 (% yoy)



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

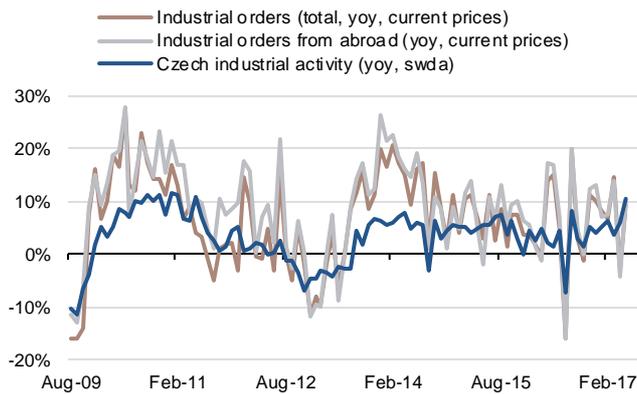
The Czech Statistical Office (CZSO) confirmed that the Czech economy flourished in 1Q17, even revising its GDP growth figure from 1.3% to 1.5% qoq. That was not the only revision. The statisticians significantly altered the entire time series for GDP and its components since 2014. According to the fresh release, the Czech economy advanced 5.4% (prev. 4.6%) in 2015, and 2.5% (prev. 2.3%) in 2016. The change was due mainly to stronger household consumption and even higher investment activity. This significantly changes our view of the Czech economy. **The output gap is now much more positive, showing that the economy has entered late-cycle expansion.** We also had to update our estimates for economic equilibrium. We shifted our NAIRU (non-accelerating inflation rate of unemployment) and equilibrium exchange rate estimates downward. These changes affect our outlook and are one of the reasons for the rather significant revision to our forecasts.

Since our previous *Czech Economic Outlook*, we have raised our 2017 GDP growth projection by 1pp to 3.7%. We expect a slowdown in 2018, but, at 3.1%, our forecast is still higher than what we expected in April.

The revival of global trade and acceleration in the euro area economy has boosted external demand for the Czech products. Export dynamics have gained pace, printing double-digit yoy growth in May. Increasing demand was also visible in industrial production,

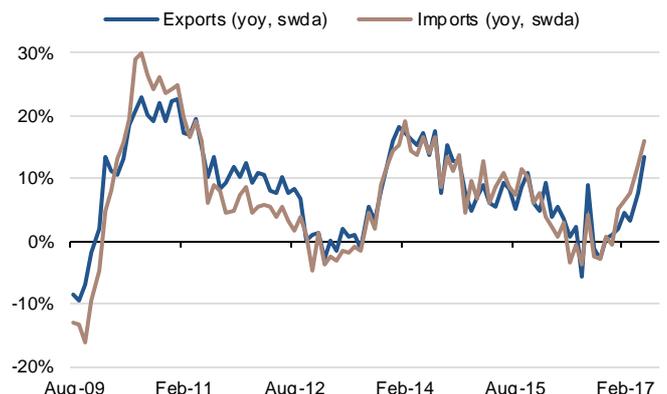
which, according to our calculations, even surpassed its exceptional performance from 1Q. Automotive production was the main driver, but the surge in exports and production was spread across virtually all major categories. In the first five months of the year, industrial production increased a stunning 8.6% (SWDA) in real terms, resulting in a spike in nominal exports of 10.6% (SWDA, national methodology). Thus, we believe that the strong GDP growth of 1.5% qoq in 1Q spilled over into 2Q, and we forecast growth of 1.3% qoq.

Industrial activity surged in the first five months of the year



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

Global trade revival has supported Czech external trade

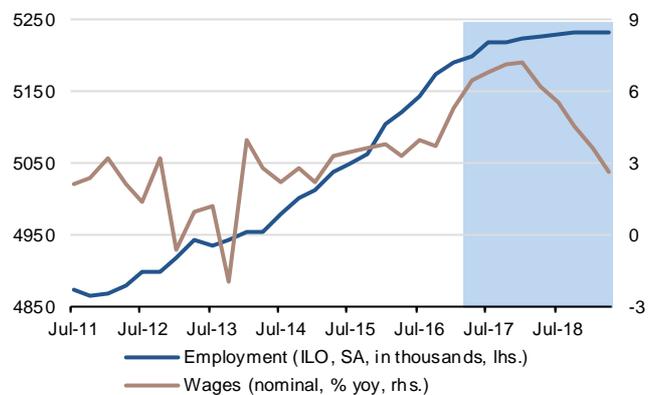


Source: CZSO, Macrobond, Economic & Strategy Research, Komerční banka

The growth in production shifts the source from rising employment into productivity gains.

Forward-looking indicators for both the domestic economy and abroad suggest that the activity should ease marginally in the coming months, but growth should remain positive. **We believe continued growth in foreign and domestic demand will keep exports and industrial activity on upward path.**

Employment growth to ease while wages accelerate



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

Box 1: GDP division between labour and capital

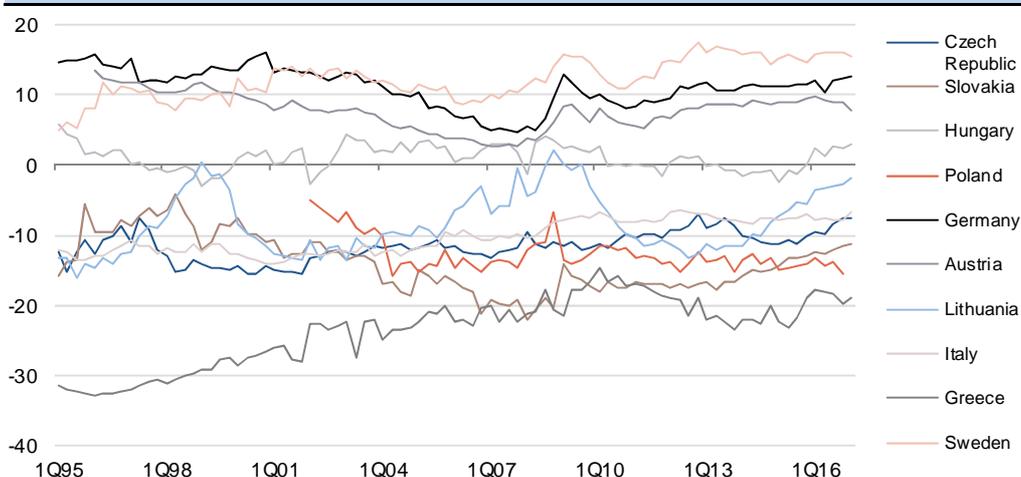
The current economic boom, marked by a historically low unemployment rate and highest employment amplified by the approaching general election in the Czech Republic, provokes the discussion of whether the share of labour on income is appropriate. However, similar discussion is present even on the global level. The most significant contribution to this discussion is Chapter 3 of the IMF's latest World Economic Outlook¹. In comparison with this global coverage, we rather focus our static comparison analysis on European states and their share of compensation of employees in GDP. We present a discussion of possible explanations that might stand behind the differences between countries rather than a sophisticated analysis providing explanations for the whole pallet of cases across Europe. We

¹ <http://www.imf.org/~media/Files/Publications/WEO/2017/April/pdf/c3.ashx>

have to admit right at the beginning that we were not able to find a bulletproof pattern identifying the roots of differences arising between countries.

Compared with the IMF's global analysis, we do not primarily focus on the development in time since the data in most countries are quite stable. In the Czech Republic, the share of labour in GDP (slightly above 40%) lags behind capital gains by around 10pp. Similar results can be seen in Poland and Slovakia. Hungary is the region's only exception where capital and labour both have above 40% of value added. Hence, the explanation cannot be the equally shared story of transitional economies or even the flexibility of labour supply, which the case of Poland but is not present in Slovakia or the Czech Republic. On top of that, the contribution of labour to GDP growth in the Czech Republic is pretty stable.

Difference of labour and capital share on GDP² (pp)



Source: Eurostat, Economic & Strategy Research, Komerční banka

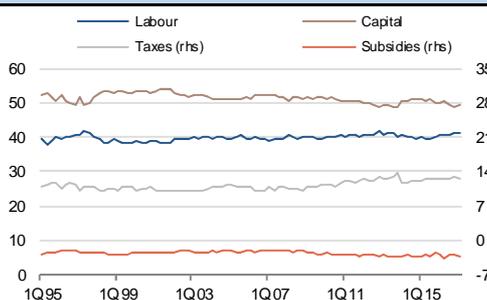
A different structure of economies is the next plausible explanation. Nevertheless, there is an even more extreme counter-example in Germany. The German economy, however, not having such a large manufacturing sector but significantly larger than peer countries in the EU, shows a positive difference between the share of labour and capital on value added created. Strong German labour unions might be another explanation for the negotiating power of workers in order to achieve higher wages. Nevertheless, this does not mirror other countries like Italy and Greece, which are famous for unions' power, but these countries do not print a strong positive difference of labour share over capital.

The previous discussion suggests the possible explanation for differences among countries might be the labour productivity. Surprisingly, we do not find this explanation plausible, at least in the short term (the length of our time span). The increase of labour productivity might help acquire an additional share of labour in GDP but only marginally as even large productivity gains were not mirrored in a significant impact on the labour share of GDP. Similarly, weak labour market productivity growth in original EU member countries does not negatively influence the share difference to the detriment of labour.

² To keep the graph simple only one representant with lowest difference of labour and capital share of each group of countries is presented, i.e. Lithuania for Baltic countries, Italy for South Europe and Sweden for Scandinavia.

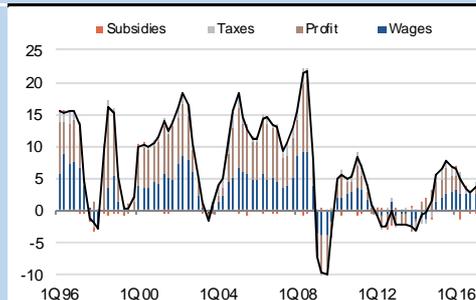
A striking feature of the development of differences between labour and capital shares in the Czech Republic is its stability. This feature is shared with other CEE countries with the exception of Slovakia. Baltic countries print much more flexibility in terms of labour gains. In the 1990s and early 2000s, labour gains peaked before the crisis, followed by strong internal adjustments in wage development after that. For Baltic countries, this was the only way to regain competitiveness as they were following currency boards peg foreign exchange rate regimes. However, no level of similarities can be identified even with the Baltic states.

Shares of factors rewards on the GDP (%)



Source: Eurostat, Economic & Strategy Research, Komerční banka

Contributions to GDP growth (% yoy, pp)



Source: Eurostat, Economic & Strategy Research, Komerční banka

Hence, some other explanation lying in the structure of the economy or even outside the primary scope of economics might be the cause for the differences. We can think of the educational system, which can influence productivity positively. Some other experts note that the authoritarian style of the Czech school system could undermine the willingness of individuals to defend their interests, the consequences of which are visible in the wage bargaining process. Nevertheless, the question that persists in the Czech debate is, if this phenomenon is in the scope of policy, how fast can the results of such a policy change be visible?

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Many Czech industries are struggling to produce goods with higher value-added, and they aim to increase this and their productivity. A good example is the biggest Czech car producer, which introduced two new SUV models. **Increasing productivity is the only way Czech producers might be able to meet growing demand**, as the economy is hitting its capacity constraints in many areas. The supply of workers has been drying out, and employment will virtually come to a halt in the coming quarters, in our view. Thus, **the gains in production will have to be due to increases in intensive margins (increasing productivity), instead of extensive margins (increasing number of workers)**, as has been the case so far. This shift will likely impact most sectors of the economy, and it plays a key role in our outlook.

Box 2: Battle for employees has started; automotive industry raises salaries

The growing demand in Europe for motor vehicles underlines the need for automotive companies to hire more employees in the second half of this year, we expect the **number of employees in automotive industry will grow by 7% in 2017 and 6% in 2018**.

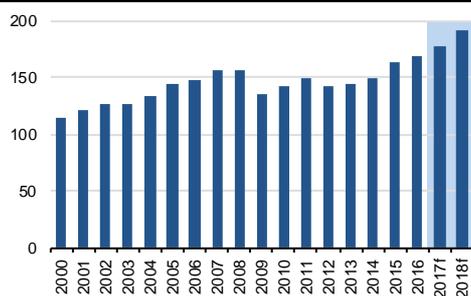
At the end of March 2017, approximately 173,000 people were employed in the motor vehicle manufacturing sector in the Czech Republic, which represents an increase of 3,100 workers compared to the end of the previous year and a 4.8% increase compared to the same quarter

in 2016. **The share of the automotive sector in the Czech Republic's economically active population reached 3.2%, a record high.** Based on our analysis, which has also been confirmed by the press statements of representatives of major companies in the automotive sector, we estimate that **the number of people employed by companies in the automotive industry may reach 182,000 this year and that the automotive industry will add another 10,000 workers in 2018.** The domestic car manufacturers employ approximately 36,500 people, while the remaining 79% of workers in the industry are employed by the suppliers of components and spare parts.

The future development of the Czech automotive industry is hampered by the lack of a free labour force, which is happening not only in the domestic market but throughout the whole of Eastern Europe. The shortage of people is caused by several factors, the main reasons being: **an insufficient number of students in technical schools, the reluctance of people to work in production, and ineffective legislation when recruiting workers from abroad.** For companies in the automotive industry, higher wages and a wide range of benefits is the key to hiring more employees. Based on our estimates, we deduce that with the current situation in the labour market, **this year's average gross wage in the automotive sector will increase by 7% yoy and by 6-7% yoy in 2018.** This growth will be driven mainly by the big players in the automotive sector.

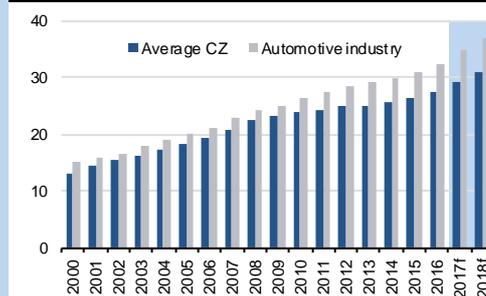
The economic strength of the motor vehicle industry is proven by the fact that carmakers and major automotive component suppliers are increasing their wages and extending employee benefits to cover the insufficient labour force in their operations. Nowadays, when there are record low job offers on the market, **the higher wages in the automotive industry is causing a shift of workers employed in other sectors of the national economy towards the car manufacturing industry. In the case of a continuing labour deficit in the market, the shift of workers to the automotive industry may cause a lack of employees in less profitable industries, including the public sector.**

Number of employees in automotive industry thousands



Source: CZSO, Economic & Strategy Research, Komerční banka

Average monthly gross salary CZK thousand



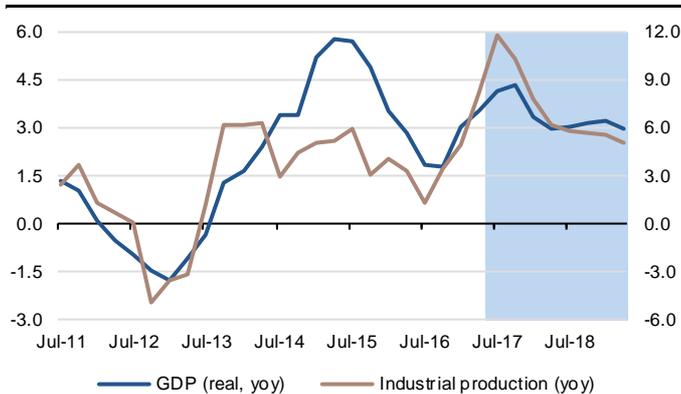
Source: CZSO, Economic & Strategy Research, Komerční banka

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We assume that foreign demand will ease in 2H17, and that industrial activity and exports will slow accordingly. Still, given the strong 1H17, we expect **industrial production to increase 8.8% on average in 2017, and then decelerate to 6.4% in 2018** as external demand growth slows to a steadier but sustainable pace.

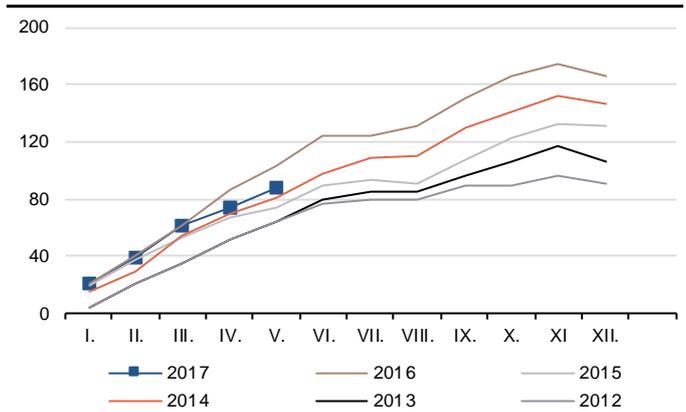
External trade looks set to intensify, in our view. On the export side, we have seen continued growth following a modest rise in demand. Exporters will have to deal with an appreciating koruna. However, we think a significant part of their FX exposure for 2017 is hedged, as well as some of their exposure for 2018. **Given the strength of demand, we do not expect exporters to be seriously harmed by a stronger local currency.** Imports should be mainly affected by rising domestic demand. This year, it will likely be due mostly to consumer goods, as we forecast further growth in domestic consumption while investment growth remains muted. In 2018, we expect investment to pick up, creating even more pressure on import growth. Commodity prices stopped rising in the previous two quarters, as the oil price slumped and metal prices decreased slightly. Oil looks set to rebound from its current lows, and we see it rising steadily in the coming months. The same holds for metal prices. A stronger koruna should offset most of this price increase, so commodity import price inflation will be marginal, in our view. The external trade surplus will likely decline 2017, but we expect it to grow in 2018, albeit remaining below the 2016 level.

Strong industrial production to support GDP acceleration (%)



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

External trade to print slightly lower surplus than in 2016 (CZKbn)



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

Fiscal policy: significant rise in government spending in 2018

Without the massive inflow of EU subsidies, which extraordinarily boosted revenues last year, the 2017 central government budget is set to post a deficit. Like in the previous edition of the *Czech Economic Outlook*, we expect the budget shortfall to reach CZK45bn, vis-a-vis the official plan of CZK60bn. The better result compared with the budget plan is set to be driven mostly by faster growth in GDP and household spending, and by the tighter labour market, resulting in higher tax revenues.

Using the ESA2010 methodology, we expect the Czech Republic's public sector to post a deficit of 0.2% GDP in 2017.

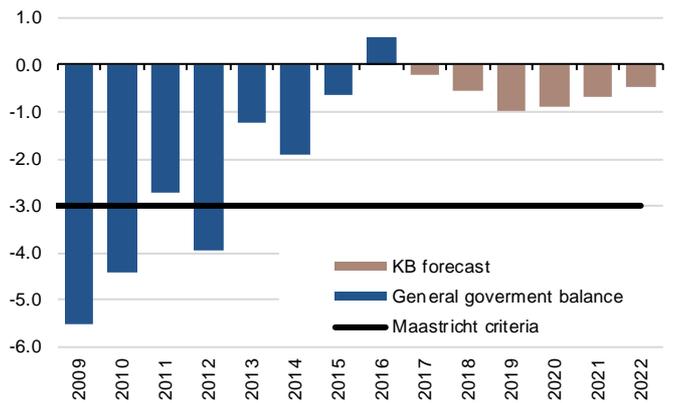
Using the ESA2010 methodology, we expect the Czech Republic's public sector to post a deficit of 0.2% GDP in 2017. The shortfall of the central government is to be mitigated by a surplus in the balances of local governments, which have been doing well thanks to solid revenues and lower expenditures.

Public investment to rise next year, together with government consumption

In 2018, fiscal policy should continue to be expansionary due to the planned increase in expenditures. Government consumption is set to rise mainly due to a massive surge in public sector wages (see the Box 3), growth in pension benefits (+4.2% on average) and healthcare subsidies. Total budget outlays are expected to rise by 2.5% versus the 2017 budget, and revenues should be 3.4% higher. As a result, the deficit is projected at CZK50bn versus the

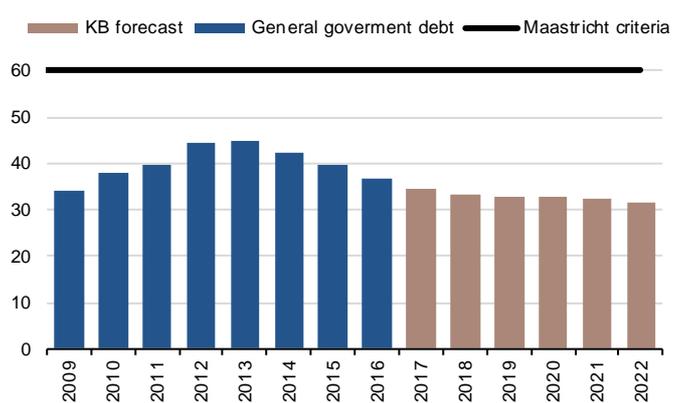
CZK60bn plan of 2017. However, this preliminary budget draft was based on the Finance Ministry' April macroeconomic forecast. The final budget draft will be based on the new July forecast, which contains considerable upside revisions (for instance, the growth of nominal GDP in 2018 is expected at 4.6% in the new ministry's forecast versus +3.6% in the April outlook). As a result, 2018 budget revenues – as well as expenditures (mainly current outlays) – will be subject to change. Therefore, we will revert to the 2018 budget numbers once they are clearer.

Public finance balance (% of GDP)



Source: CZSO, Economic & Strategy Research, Komerční banka

Public debt (% of GDP)



Source: CZSO, Economic & Strategy Research, Komerční banka

We believe the Czech Republic is set to see a major increase in its drawing of EU funds and related spending.

As for public investment, we believe the Czech Republic is set to see a major increase in its drawing of EU funds and related spending. A significant majority of the individual programmes budgeted for 2014-2020 (i.e. support for transportation infrastructure, competitiveness, environmental improvements, etc.) was approved only in 2015, but the tapping of related funds started on a greater scale only in 2017. Importantly, a part of allocated funds in the individual programmes must be drawn until the end of 2018 (year n+3) or the country loses the money.

The 2015 programmes have total allocation of €3.8bn, or some CZK99bn. At the end of March 2017, there was as much as €3.2bn (CZK84bn) left to be tapped for the remainder of 2017 and 2018 (or the allocation would expire). Public investment has seen a mild pick-up already in 2017, but we assume the greatest portion of EU-related spending will take place only in 2018. **In our view, public investment should increase by a sizeable CZK30bn next year, as the country will rush to absorb as much EU money as possible.** Meanwhile, higher investment is a risk toward a deeper budget deficit (and an increase in borrowing needs), if money from the EU arrive with a delay.

Public finance dynamics

	2017f	2018f	2019f	2020f	2021f	2022f
Balance (% GDP)	-0.2	-0.6	-1.0	-0.9	-0.7	-0.5
Fiscal effort (pp GDP growth)	-0.9	-0.6	-	-	-	-
Public debt (CZKbn)	1,735	1,765	1,820	1,870	1,910	1,940
Debt ratio (% GDP)	34.5	33.2	32.7	33.0	32.4	31.4

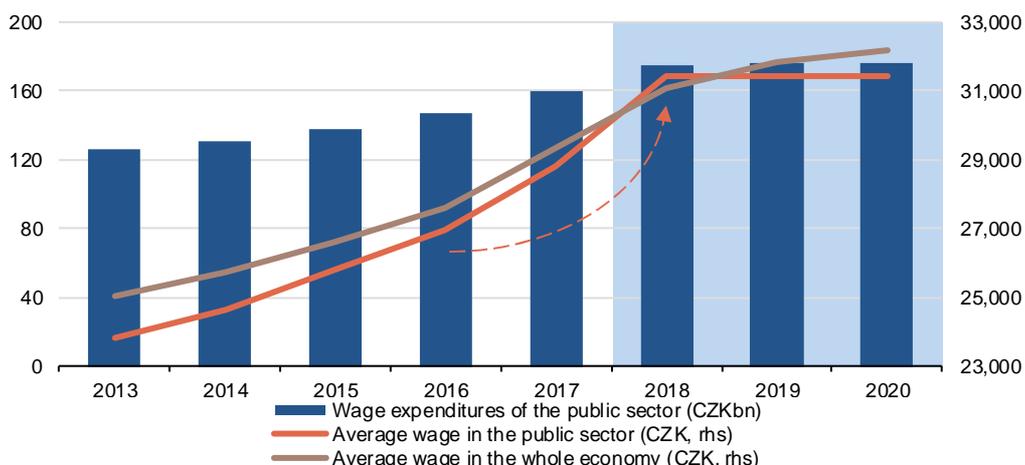
Source: CZSO, Macrobond, Finance Ministry, Economic & Strategy Research, Komerční banka

Box 3: Political cycle accelerates increase in public sector wages

Raising wages in the public sector has been one of the priorities of the current centre-left government, and the 2018 budget draft is no exception in this respect. Moreover, plans for the coming year have even been amplified by the typical political cycle ahead of the October’s general elections. According to the (unfinished) 2018 budget draft, the total volume of public sector expenditures on wages will reach CZK175.5bn, which would mark a sizable increase of CZK16bn (10%) versus the 2017 level (in 2013, the figure was CZK126.7bn). The number of jobs in the public sector is to rise by almost 5,000 to a total of 444,600. As a result, the average wage in the public sector is set to increase by as much as 9% to CZK31,411, and significantly surpass the average wage in the whole of the economy. According to the preliminary plans, it will be civil servants and teachers, who are set to enjoy the biggest increase in wages (10%) in 2018.

Note that the figures could be slightly skewed, as the budget draft contains only the number of positions, not the actual (lower) number of government employees. In contrast, the planned expenditures also contain payments to contract workers, who are not counted as full-time equivalent employees, but this factor is probably less pronounced. As a result, the effective average wage in the public sector could be even slightly higher than the planned number.

Public expenditures on wages to rise considerably in 2018 (budget outlook in the shaded area)



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

Such a rise in wages would result in a 32% cumulated increase in the average public wage since 2013, the final year of the latest recession. This rise has been made possible mainly by the economic expansion of recent years, and the resulting increase in tax collection, be it value added or income taxes. Meanwhile, the average wage in the Czech economy as a whole (public sector and the business sector combined) is set to increase by only 24% between 2013 and 2018.

Interestingly, the budget outlook for 2019 and 2020 sees no rise in public wage expenditure in those years, which is very unlikely to materialise. With the extremely tight labour market, wages in the business sector are expected to continue to increase (see the *Box 5*), which would put pressure on public sector wages, too. If the rise in revenues disappoints, the next government could have to find either new revenues or rearrange expenditures to cover higher public wage costs in 2019 and 2020.

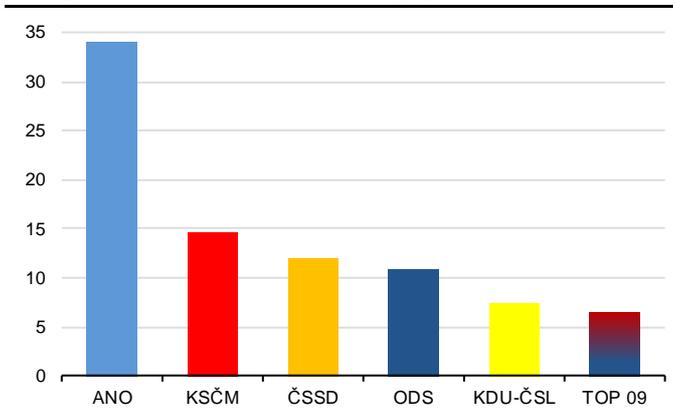
General elections in October to bring few changes to economic policy

The 20-21 October's elections are nearing. The current junior coalition party ANO is still leading in the polls, with the Social Democrats (ČSSD, the strongest government party since 2013) dropping to third place, behind the communists (KSČM). Such an election outcome would allow ANO to form a government with only one partner.

ANO has not published a full-fledged election programme yet. Its chairman Andrej Babiš presented basic ideas in June's press conference. The priorities of the party would be to cut the value-added tax on foodstuffs, moderately lower effective income taxes of mostly low- and mid-earners, keep corporate tax rates in place, and prevent sector taxes in banking.

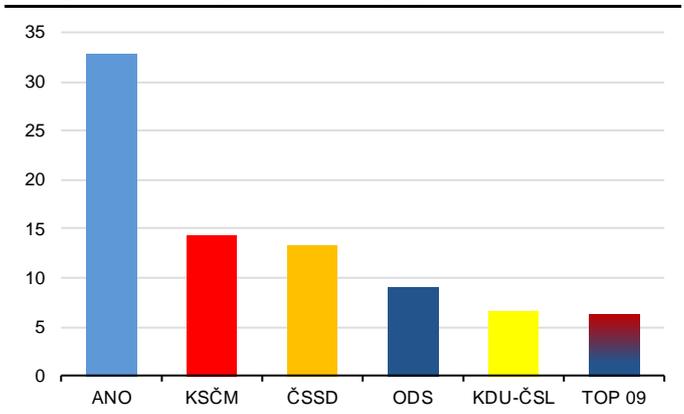
We assume economic policy would see no significant change, with ANO taking power after the elections.

Voting model, 26 June 2017 – CVVM (%)



Source: CVVM, Economic & Strategy Research, Komerční banka

Voting model, 10 July 2017 – STEM (%)



Source: STEM, Economic & Strategy Research, Komerční banka

Public debt: decline expected

While we expect this year's central government to post a budget deficit of CZK45bn, public sector debt is set to decline in both relative and absolute terms, in our view. The 2017 budget deficit is likely to be almost fully covered by a tap of the government's liquidity reserve, and foreign-currency debt is to be revaluated due to the stronger koruna. **As a result, the central government debt is likely to stay flat in 2017 versus 2016**, as indicated by the Finance Ministry in May. Moreover, we expect the local government surplus to translate into a decline in debt for this subsector. Overall, public debt is set to shrink by CZK20bn, and its share of GDP should decline by 2.3pp to 34.5%.

In the next two years, we expect the debt-to-GDP ratio to decline further due to strong growth in GDP.

In the next two years, we expect the debt-to-GDP ratio to decline further due to the strong growth in GDP, but only a muted rise in the absolute volume of public debt. **At the end of 2018 and 2019, we see the figure at 33.2% and 32.7%**, respectively. At the end of our forecast horizon in 2022, indebtedness is set to slip to 31.4%, in our view.

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Investment to surge in 2018 on the back of EU funds

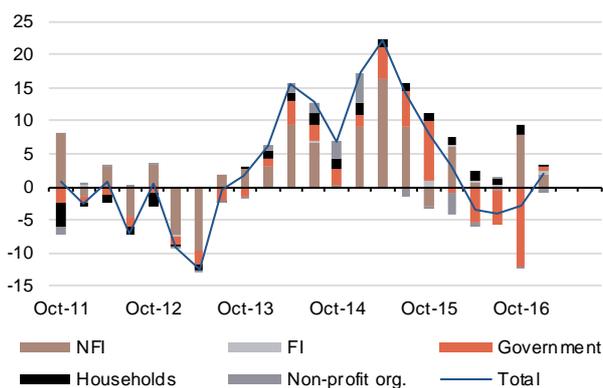
Investment and construction to accelerate in 2018.

Investment dynamics will be once again heavily dependent on the flow of EU funds. Recent revisions to national accounts showed that in 2015, when the Czech Republic made a last-minute effort to tap the remaining EU funds from the 2007-13 programming period, fixed

capital formation surged 10.4% and accounted for half of the 5.4% GDP growth. The construction sector added 7.7% in 2015. The situation is set to repeat on a smaller scale in 2018. As we show in the section on fiscal policy, a portion of the funds that could be absorbed from the 2014-20 programming period must be tapped by 2018. We expect a surge in public investment, but we also think the private sector will be actively tapping some of the programmes for money.

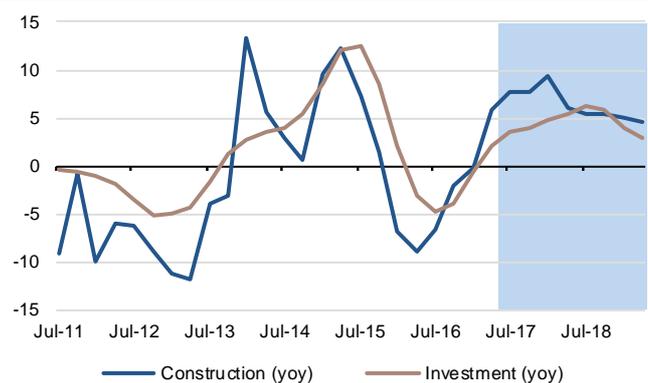
As we described in the beginning of this section, we expect employment growth to ease, meaning companies will have to increase their productivity to boost output. Thus, we assume that **private investment in modernising production facilities will intensify. The conditions for investment remain favourable.** Interest rates are low and, more importantly, growth prospects have improved further, as the revival of growth in the euro area has been stronger than we expected. The recent surge in wages should serve as a wake-up call for Czech businesses that they cannot rely on cheap labour. Though rising wages will eat up some money that could otherwise be used for investment, these forces will act together, the acute shortage in labour requiring a boost in investment activity. **Given the still-negative yoy investment growth in 1Q17, we expect only mild investment growth of 2.3% for the full year. We then forecast an acceleration to 5.5% in 2018.**

Government capital formation back from its dive (% yoy)



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

Construction supported by investment acceleration (% yoy)



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

The construction sector should benefit greatly from the flow of EU funds, as a big chunk of the money will be aimed at infrastructure development. We believe preparation for transport infrastructure projects will be expedited, and the works are set to begin this year. Some projects have already started. Excess demand for housing should only slightly support the construction sector, as the complicated and inflexible rules do not allow developers to react in a timely manner to surging demand. Thus, infrastructure construction will play a key role. After two years of sluggish development, public sector construction should finally kick in. We expect the sector to expand 5.2% this year and 6.6% next.

Surge in wages to keep consumption growth strong

The unemployment rate slid a bit further in 2Q17, we estimate, while employment growth slowed in 1Q. **We expect employment dynamics to continue to moderate in the quarters ahead, as the sources of available labour are drying out.** We also assume that the labour force immigration potential has significantly declined and the number of retired people re-entering the workforce will diminish rapidly. **The unemployment rate does not have not**

Wage growth looks set to accelerate rapidly, providing sound support for household consumption.

much room decline, and we expect it to average 3.1% this year and 2.9% next (ILO methodology). We see employment growth slowing to 1.4% in 2017 and 0.4% in 2018.

Box 4: Why is the number of jobseekers declining?

The number of unemployed in the labour market has declined unceasingly from the end of 2013. While at the beginning of 2015 Labour Offices registered more than 500,000 jobseekers, in June 2017 it was less than 300,000. **There are several reasons as to why the number of job applicants on the labour market is declining.** The first one is that they have found work again. This year, around 32,000 unemployed people have found employment each month on average. The proportion of placed applicants among the total number of job seekers has been growing since 2013. The current ration stands at around 9%. This is happening due to the fact that despite a decline in the total number of unemployed, a roughly similar number of applicants have successfully found a job. On the other hand, the ratio of newly registered unemployed for every newly announced job vacancy is sharply declining. This ratio is now approaching 1:1. In principle this means that for every newly registered job applicant, there is also one newly announced job vacancy. This explains why the share of unemployed persons is declining so quickly.

Proportion of placed applicants in the total number of job seekers (SA)



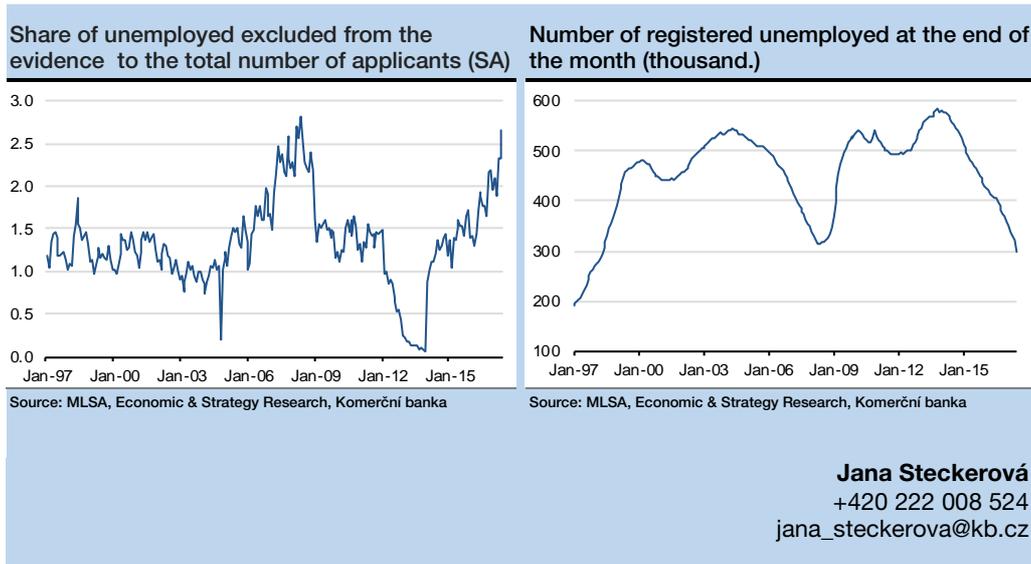
Source: MLSA, Economic & Strategy Research, Komerční banka

Number of newly registered applicants per newly announced vacancy (SA)



Source: MLSA, Economic & Strategy Research, Komerční banka

However, many people without work are ‘sinning’ due to the good situation in the labour market and in the economy as a whole. This is evident from the growing share of job applicants who have been excluded from the Labour Office's records for lack of cooperation or for a breach of the conditions in terms of the evidence they need to provide for them. One of the explanations might be that the Labour Office now has much more jobs to offer to jobseekers. However, if the candidate refuses to accept a suitable job, he/she is excluded from the job applicant register. This is reflected in the declining share of the unemployed. **The number of job seekers will, according to our estimates, also fall this year albeit at a much slower pace than seen in previous years. Therefore, finding a suitable workforce will be an even bigger challenge for businesses than was previously the case.**



As discussed in the preceding paragraphs of this section, business will have to focus on increasing productivity. The boxes in this issue of the *Czech Economic Outlook* focus on the labour market. Their common bottom-line is that **wage growth is set to accelerate rapidly**. Expenditures on wages increased 2.6% qoq in 2Q in the state budget, and the preliminary data from industry point to a 5.6% qoq increase in remuneration in this sector during 2Q, according to our estimates. We thus see many signs that remuneration rose rapidly in 2Q17 – our estimates point to 2.4% qoq and 6.5% yoy. Though the qoq figure is set to ease in 3Q17, **full-year wage growth should be a sound 6.4%**, we believe. As we demonstrated in *Box 3*, salaries in the public sector should rise significantly next year as well. The private sector will have to react to that. **We thus expect steep wage growth to continue, and our forecast a 5.9% increase in 2018.**

Box 5: NAIRU on the move

NAIRU stands for non-accelerating inflation rate of unemployment. It is the level of unemployment that is consistent with stable inflation. NAIRU has been a useful concept for evaluating business cycles and conducting monetary policy, which is why it has been a focal point of economists globally. NAIRU is an unobserved variable that must be either filtered or estimated. We use our in-house model to estimate NAIRU and potential output using an equation based on a stable economic relationship between prices, the output gap and the unemployment gap. The results suggest that the **NAIRU has been steadily decreasing and is very close to 4% now**. The experience in other economies suggests that a downward trend is not an anomaly. Ball and Mankiw (2002)³ have reviewed the research to determine the cause of this shift in the curve.

They discovered a **mix of reasons** for this in the US economy, some of which we consider relevant for the Czech Republic. One explanation is an improving matching mechanism for labour demand and labour supply. Employees have become more interchangeable in the era of job websites and sophisticated search engines. Another, probably more important, reason is **productivity acceleration**. As the Czech economy converges with the euro area, productivity increases and the NAIRU declines. Ball and Mankiw (2002) assume that “wage

³ Ball, Laurence, and N. Gregory Mankiw. "The NAIRU in theory and practice." *The Journal of Economic Perspectives* 16.4 (2002): 115-136.

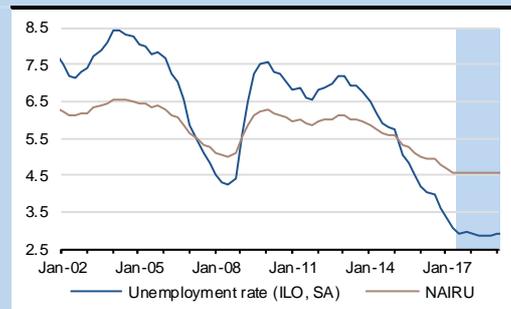
aspiration” lags behind productivity growth. This is especially true for growth after long recessions, as people still clearly remember the bad times. In contrast, there is a lag when productivity gains turn negative and people still demand higher wages. Thus, psychology is a kind of smoothing mechanism.

Czechia has gone through long recession (CZKbn, real terms)



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

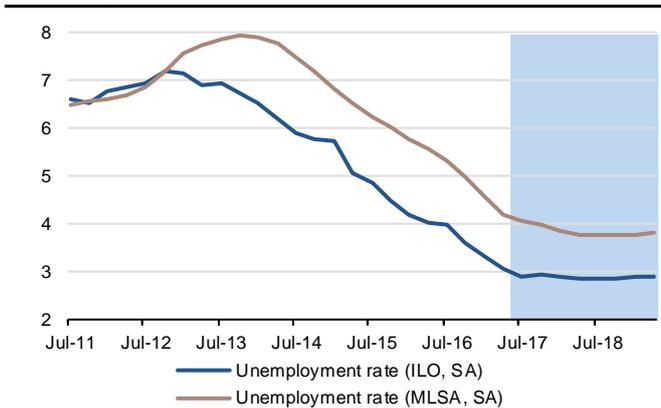
NAIRU has been decreasing



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

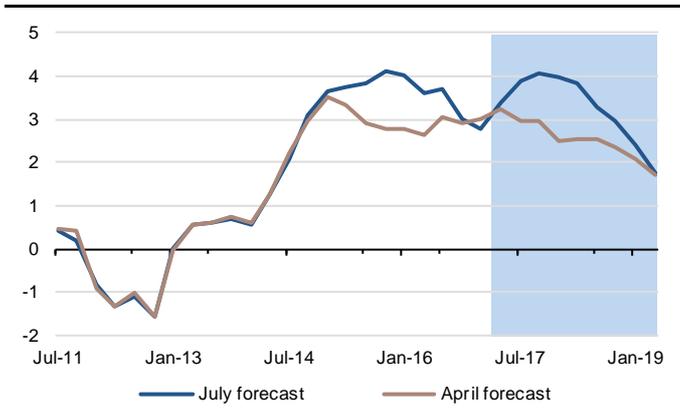
From 2009 to 2013, the Czech economy went through a double-dip recession and wage growth stalled. Even the first two years with above-potential growth did not induce strong wage growth acceleration. This is in line with the declining NAIRU. Last year, wage growth accelerated, and this trend is likely to continue in 2017. **It thus seems that the Czech economy is entering a phase of strong wage growth and flattening NAIRU.** The implication noted in the previous paragraph thus suggests that **wage growth should continue gaining momentum, which supports our view on the labour market.**

Unemployment has no room to decrease further (%)



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

Private consumption revision and forecast (%)



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

Before the recent revision, the national accounts puzzled us, as private consumption growth had been printing relatively weak figures given such low unemployment, elevated confidence and accelerating wage growth. Moreover, private consumption dynamics significantly lagged retail sales. The revision released in June showed that private consumption was higher and thus corresponds more to general economic conditions. Though the revised figure is still not as high as retail sales growth, it is much closer.

Consumption growth to remain strong.

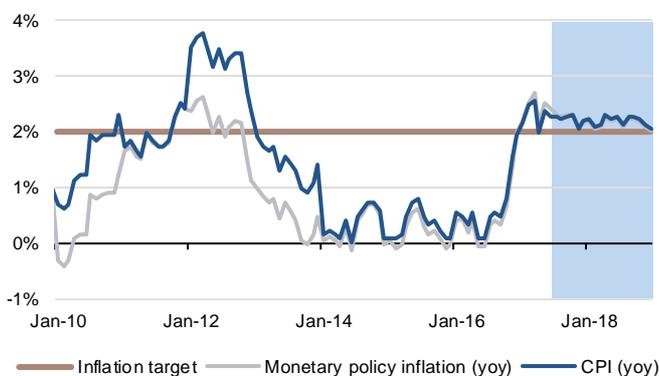
Consumer confidence remains relatively strong, though has come off its historical highs from the beginning of the year. It still indicates that households will be willing to spend their increasing

wages. We thus believe private consumption will continue to rise at the pace of previous years, and we forecast growth of 3.5% in both 2017 and 2018.

Inflation: tug of war between domestic and external forces

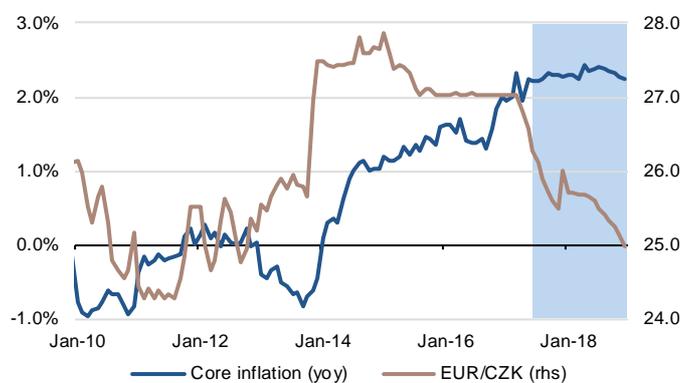
Domestic price pressure should strengthen, as we expect steeper wage growth and stronger private consumption. In contrast, we see less inflationary pressure from abroad, as SG economists have lowered their inflation projections for Germany and the euro area, oil price growth looks set to slow, and we expect the koruna to appreciate against the euro at an accelerating pace. As a result, we keep our forecast for average inflation in 2017 unchanged at 2.3%. For 2018, we see inflation easing modestly to 2.2%.

Inflation to remain just above the target throughout 2017 and 2018



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

Appreciating koruna unlikely to be a drag on core inflation



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

Appreciating koruna to be offset by strong domestic demand.

Since the beginning of the year, core inflation has persistently stayed at or above 2%. It has been supported by accelerating wage growth and rising employment translating into stronger private consumption. So far, it seems that koruna appreciation has had little impact on core price dynamics. However, downward pressures due to appreciation might come with a lag. **Wage growth should intensify in 2017 and 2018, creating notable pro-inflationary pressures. Though koruna should strengthen further, we do not think it will be enough to lower core inflation. Thus, we forecast core price at 2.3% this year and 2.4% next.**

Food price inflation to remain elevated this year.

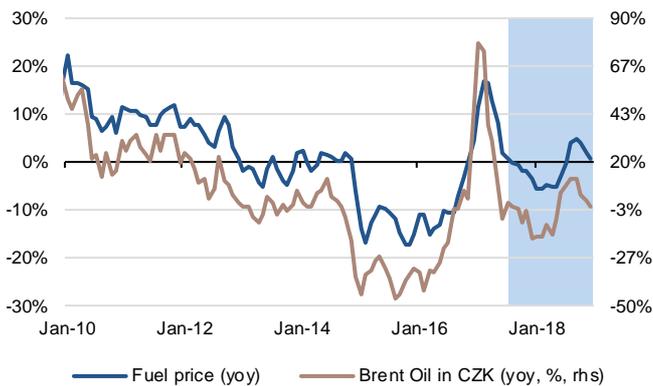
After food prices surged in the beginning of the year, we expected they would decline as the reasons for the rapid increase faded. However, this did not happen, and food prices have remained surprisingly high. It seems that the increase in prices of dairy products was not temporary. This is visible in agricultural prices, which keep showing double-digit yoy growth. Moreover, preliminary estimates suggest that the domestic harvest was poor relative to last year, so we think food price inflation will remain high for the remainder of the year; we expect to average 4% this year. **We assume food prices inflation will ease in 2018 to 1.5%.** However, the figures are highly dependent on weather and the final harvest figures.

Fuel price dynamics to turn negative

Fuel prices to print only modest growth in the rest of 2017.

The recent slump in oil weighed down prices at Czech gas stations. SG analysts believe that oil prices have already hit bottom and that they are set to post modest increases. However, this will likely be impeded by koruna appreciation against the US dollar. We thus expect only a marginal growth in **fuel prices** for the rest of this year. **On average, we**

expect them to grow 7.5% yoy, due largely to very low prices in the beginning of the last year. In 2018, we forecast growth of just 2.6%.



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

Administered prices to increase in the beginning of 2018.

Administered price index has not increased notably for the past three years. We do not expect it to significantly contribute to headline inflation this year, but we forecast growth here in the beginning of 2018. Our very preliminary estimates include rising electricity prices, partly because of a mild increase of commodity prices on the European market, and partly because we expect the regulated price to be raised slightly. Given higher fuel prices, we also assume transportation prices will increase. Other administered prices should edge up marginally. We expect an **average increase in administered prices of 1.8% next year.**

Risks: sudden appreciation might impede competitiveness

Sudden appreciation might jeopardise competitiveness.

Since the FX floor was removed, the EUR/CZK has moved in the expected direction, and volatility has remained low. We think the CNB will be the first central bank in the EU to raise rates. This would increase the rate differential, which might attract capital flows. As many analysts (including us) believe that the long-term equilibrium is at much stronger levels, the change in the EUR/CZK rate could be pronounced. **Such a big move might endanger the competitiveness of Czech exports,** as not all exporters are hedged against this.

We see also a risk of massive EUR/CZK depreciation. In the case of a global economic or financial system shock, investors might unwind their positions in EUR/CZK, and the koruna could weaken significantly. In this scenario, we would see rapid inflation, which might force the CNB to act with either more hikes or outright interventions to support the koruna.

Investment might surprise on the upside.

Given the n+3 rule for EU funds (see more in the section on *fiscal policy*), we see a **risk that investment surpasses our projection** and the overall deceleration we see in 2018 will be less pronounced.

Key economic indicators

	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	1Q19	2016	2017	2018	2019	2020	2021
GDP and its breakdown														
GDP (real, yoy)	3.5	4.1	4.3	3.3	2.9	3.0	3.2	3.2	2.5	3.7	3.1	2.7	1.6	2.1
Household consumption (real, yoy)	3.4	3.9	4.1	4.0	3.8	3.3	3.0	2.4	3.6	3.5	3.5	1.6	0.9	1.7
Government consumption (real, yoy)	2.2	1.6	0.9	1.3	1.2	1.4	1.7	1.5	2.0	1.8	1.4	1.7	2.0	1.9
Fixed investments (real, yoy)	2.2	3.5	4.0	4.7	5.5	6.2	5.9	4.0	-2.4	2.3	5.6	2.7	1.5	3.2
Net exports (contribution to yoy)	0.6	1.1	0.4	0.3	0.3	0.0	0.4	0.8	1.1	0.9	0.3	1.1	1.0	0.6
Inventories (contribution to yoy)	0.4	0.2	0.8	0.1	-0.4	-0.2	-0.4	-0.4	0.0	0.3	-0.2	-0.4	-0.6	-0.2
Monthly data from the real economy														
Foreign trade (CZK bn) (*) (***)	112	118	120	118	116	114	117	123	487	456	475	514	556	590
Exports (nominal, yoy) (*)	5.3	11.8	10.4	8.4	11.2	6.7	7.4	7.2	2.4	8.6	8.5	4.5	0.6	4.6
Imports (nominal, yoy) (*)	9.3	12.4	11.1	8.5	11.0	7.9	8.4	7.6	0.4	10.6	9.0	4.1	-0.3	4.5
Industrial production (real, yoy)	4.6	11.8	10.3	7.8	6.4	5.8	5.6	5.5	3.4	8.5	6.4	4.3	1.4	3.9
Construction output (real, yoy)	5.8	7.7	7.7	9.5	6.0	5.5	5.3	5.0	-6.1	5.2	6.6	4.3	2.0	2.5
Retail sales (real, yoy)	5.2	7.5	7.3	6.6	7.5	5.7	5.0	3.7	5.7	6.4	6.2	1.9	0.0	1.1
Labour market														
Wages (nominal, yoy)	6.5	6.8	7.1	7.2	6.2	5.6	4.6	3.6	3.7	6.4	5.9	2.4	1.2	3.4
Wages (real, yoy)	4.2	4.5	4.8	4.9	3.8	3.3	2.5	1.6	3.0	4.1	3.6	0.7	0.7	1.8
Unemployment rate (MLSA)	4.0	3.9	4.2	4.1	3.5	3.6	4.0	4.0	5.4	4.2	3.8	3.8	4.3	4.6
Unemployment rate (ILO 15+)	3.0	2.9	2.9	3.0	2.8	2.9	2.8	3.0	4.0	3.1	2.9	3.0	3.4	3.8
Employment (ILO 15+, yoy)	1.5	1.5	0.9	0.6	0.5	0.2	0.2	0.2	1.9	1.4	0.4	0.0	-0.6	-0.4
Consumer and producer prices														
CPI Inflation (yoy)	2.2	2.2	2.2	2.2	2.3	2.2	2.0	2.0	0.7	2.3	2.2	1.7	0.5	1.6
Taxes (contribution to yoy inflation)	-0.2	-0.2	-0.1	0.0	0.0	0.0	0.0	0.0	0.1	-0.1	0.0	0.0	0.5	1.6
Core inflation (yoy) (**)	2.1	2.3	2.4	2.4	2.5	2.4	2.2	2.2	1.6	2.3	2.4	2.0	0.6	1.7
Food prices (yoy) (**)	4.4	3.9	3.3	1.8	1.7	1.2	1.3	1.3	-0.9	4.0	1.5	1.3	0.9	1.4
Fuel prices (yoy) (**)	7.3	4.2	3.6	0.5	3.1	4.8	1.9	-0.8	-8.5	7.5	2.6	-2.8	-2.3	0.4
Regulated prices (yoy) (**)	-0.1	0.3	0.5	1.9	2.0	2.2	2.2	2.7	0.2	0.1	2.1	1.8	0.1	1.6
Producer prices (yoy)	2.3	1.2	0.8	0.7	1.4	2.9	2.8	1.9	-3.2	1.8	1.9	1.3	0.8	1.6
Financial variables														
2W Repo (average)	0.05	0.25	0.50	0.50	0.57	0.93	1.10	1.14	0.05	0.21	0.78	1.03	1.0	1.9
3M PRIBOR (average)	0.30	0.47	0.72	0.72	0.90	1.15	1.14	1.35	0.29	0.44	0.98	1.14	1.1	2.0
EUR/CZK (average)	26.55	25.83	25.70	25.70	25.63	25.41	25.12	24.59	27.0	26.3	25.5	24.1	23.0	22.3
USD/CZK (average)	24.12	22.27	21.78	22.15	22.49	21.90	21.47	20.84	24.4	23.4	22.0	19.9	18.4	17.8
External environment														
GDP in EMU (real, yoy)	2.1	2.1	2.0	1.8	1.6	1.5	1.4	1.4	1.7	2.1	1.6	1.2	0.6	1.2
GDP in Germany (real, yoy)	1.9	2.2	2.2	1.9	1.7	1.6	1.5	1.5	1.8	2.0	1.7	1.2	0.7	1.5
CPI in EMU (real, yoy)	1.5	1.3	1.2	1.0	1.2	1.5	1.4	1.3	0.2	1.4	1.3	1.4	1.4	1.4
Brent oil price (USD/brl, average)	51.6	50.0	52.5	54.0	51.5	56.5	54.0	55.0	45.0	52.4	54.0	56.5	61.5	61.6
EURIBOR 1Y (average)	-0.13	-0.11	-0.07	-0.03	0.02	0.09	0.15	0.18	-0.03	-0.10	0.06	0.14	0.1	0.3
EUR/USD (average)	1.10	1.16	1.18	1.16	1.14	1.16	1.17	1.18	1.11	1.13	1.16	1.21	1.25	1.25

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



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Recent hawkish twist to bring the first hike in August

The Czech economy has been accelerating and inflation has been persistently overshooting its target. Wages are surging, which implies mid-term inflationary pressures. This environment suits those board members who would like to hike so that the key rate moves away from the zero lower bound. We see the board split between the longer-serving, rather dovish members (Vice-Governors Tomsik and Hampl) and the newer members, who arrived after the appointment of Governor Rusnok. The former members will promote cautiousness and the postponement of the hikes. At the next meeting, however, they are likely to be outvoted by the newer members who will make the CNB the first bank in the EU to raise the rates.

Staff forecast to continue pointing to a hike

The May CNB staff forecast pointed to almost two hikes in 3Q. We believe that the forecast will not be revised down, as we assume that the pro-inflationary factors remain strong. Domestic inflationary pressures are set to intensify. In contrast, external factors have a slightly anti-inflationary effect. We see one other factor which should move the forecast towards a steeper hiking path. Though revisions of past data usually do not play a significant role in monetary-policy decisions, the recent upward revision to GDP was one-sided and substantial. If the CNB does not also fully adjust the path of the equilibrium output of the economy, the output gap will suddenly be much wider. In the Taylor rule base model, the result should be tighter monetary policy conditions. **That said, the new CNB forecast should confirm the expected hike in the third quarter.**

Inflation to keep overshooting the 2% target (%)



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

We expect the CNB to revise its GDP projection up (%)



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

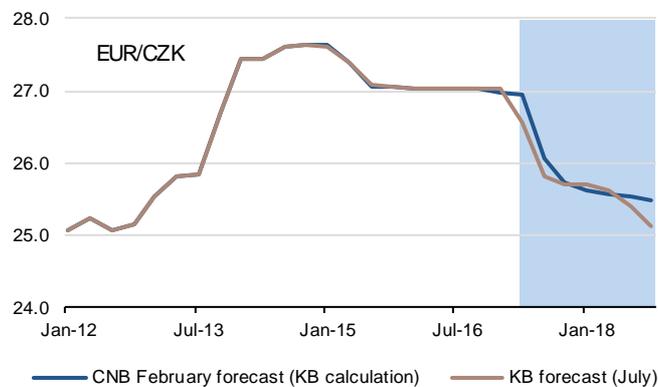
The forecast has gained relevance

Before the June meeting, Governor Rusnok, Vice-governor Tomsik, and Board member Mora had said that the CNB should postpone the hike rather than increase the rates prematurely. For them, the EUR/CZK exchange rate was the crucial indicator. Governor Rusnok even said that a rate hike in the third quarter is more of a modelling assumption, but that from a

monetary policy stance, the hike does not seem likely⁴. The June meeting changed everything. In the press conference after the meeting, the Governor stated “it is likely that the CNB will increase interest rates in line with prediction”. It seems that at the meeting, the Governor saw sufficient grounds to believe that the rate hike would be supported by majority of the board. Since the June meeting, the EUR/CZK has not appreciated notably and the economic data have been printing very strong figures. Even though the CNB does not publish its FX forecast nor does it provide the means to derive it from other figures in its May forecast, we were able to compute CNB’s expected path for EUR/CZK in February. After the May meeting, Chief Economist Holub stated that there was no material change in the expected exchange rate dynamics so we assume that our February derivation is still of relevance. In February, the CNB assumed the EUR/CZK to be around 26.07 in the third quarter according to our calculations, while it expected the floor to be lifted only at the beginning of the quarter. Thus, the current exchange rate (26.10 CZK/EUR at the time of writing this report) is probably not a big concern for the Bank Board. The only concern might be ECB actions and fears of a sudden CZK appreciation. That said, after president Draghi announced that the ECB would discuss tapering in autumn, there seems to be no major risk on this point. **We therefore think that the first hike should arrive in the third quarter.**

Given the CNB will have a new forecast that will, in our view, almost certainly point to (at least one) rate hike in the third quarter, we believe that there is no reason to postpone the hike further than September. The CNB is already set to act at the upcoming meeting on 3 August, in our view.

CNB expected steeper appreciation back in February



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

CNB's rate forecast has reason to get steeper (%)



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

Given the sound domestic developments, we expect the CNB to continue raising the interest rates even this year. We assume that the CNB will add one more hike during 4Q. In 1Q18, the CNB is set to pause the hiking cycle, but in 2Q18, it will likely resume hiking, with one hike per quarter. **All in all, it should deliver three hikes 2018.** May’s CNB forecast assumes a very similar rate trajectory. Yet, there are still downside risks linked to the exchange rate development. If the koruna appreciates quickly, the hiking path would be flatter.

⁴ https://www.cnb.cz/cs/verejnost/pro_media/clanky_rozhovory/media_2017/cl_17_170621_rusnok_ctk.html

Hike would have favourable side effects

Besides the strong economic fundamentals, there are other good reasons why the CNB Board should not be hesitant about hiking. First, shortly after the floor was scrapped, several board members expressed their wish to move the rates further from the zero lower bound as soon as possible, as they see low interest rates as a burden for the financial sector and they would like to create space to cut rates in case economic conditions deteriorate.

The slightly overheated housing market provides another good reason to raise rates. Though for a long time the CNB did not want to link monetary policy and financial stability concerns, it recently admitted that hiking rates might help curb the rising prices of residential housing, which would be a welcome side effect.

Czech FX Market



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On average, the koruna gained 1.8% against the euro in 2Q17.

Koruna appreciation trend to continue, with occasional breaks

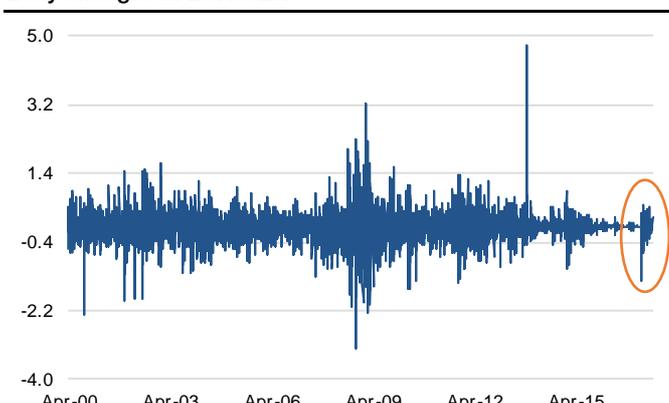
The end of exchange rate commitment at the beginning of April triggered an appreciation trend in the Czech currency. In an immediate response to the relaxation of the exchange rate regime, the koruna strengthened to EUR/CZK26.50, with a wave of profit taking from some speculative positions. Their partial squeezing was also connected to uncertainty surrounding the French presidential election. Since the beginning of May, there has been an almost continuous downward trend in the EUR/CZK exchange rate; in July, it even tested the level of 26. From the start of April through late July, the koruna appreciated around 3.5% against the euro.

EUR/CZK ytd trend



Source: Datastream, Economic & Strategy Research, Komerční banka

Daily changes in EUR/CZK



Source: Bloomberg, Economic & Strategy Research, Komerční banka

Exchange rate volatility remains behind expectations.

While koruna appreciation has been more or less in line with our assumptions, volatility remains surprisingly low. EUR/CZK averaged 26.53 in 2Q17 and stood at 26.15 at end-1H17, vs our forecasts of 26.60 and 26.20, respectively. While the koruna strengthened only slightly faster than we projected, volatility lagged our expectations. Daily exchange rate changes have been far from where they were before the exchange rate floor was introduced in November 2013.

Speculators are not yet leaving the Czech FX market.

Market participants still believe the Czech currency can appreciate further. The first three months of this year, when the inflow of hot money peaked, were marked by a significant distortion on the EUR/CZK forward market, leading to a sharp increase in the forward premium. The markedly lower EUR/CZK exchange rate on the forward market compared

Ytd forward premium trend (EUR/CZK)



Source: Bloomberg, Economic & Strategy Research, Komerční banka

with the spot rate increased costs for speculators expecting a downtrend in EUR/CZK. As soon as the exchange rate floor was removed, conditions on the EUR/CZK forward market improved markedly. Combined with the rising expectation that the CNB will hike interest rates, this has led to further demand for the Czech currency among foreign speculators.

In addition to new speculators, excellent export performance also helped.

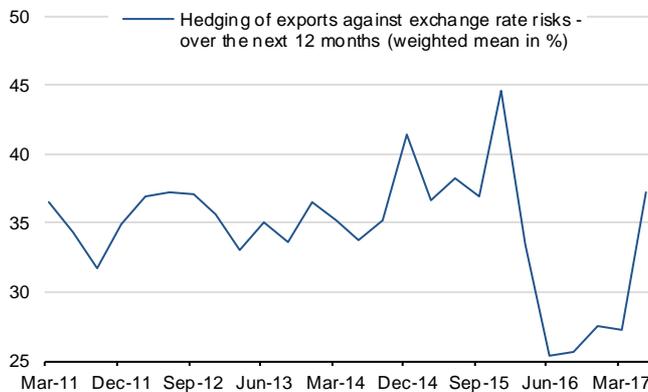
There is still strong demand for the koruna coming not only from new speculators, but also from successful Czech exporters. It is true that the level of currency hedging has increased significantly, and in June it exceeded levels seen before the exchange rate floor was introduced. But the export growth rate surprised us on the upside during 1H17. In addition, the first signs of increased private sector investment activity reflect a tendency for a lower rate of profit repatriation. As a result, the current account surplus increased further in the first few months of this year.

Exports have gained strength this year



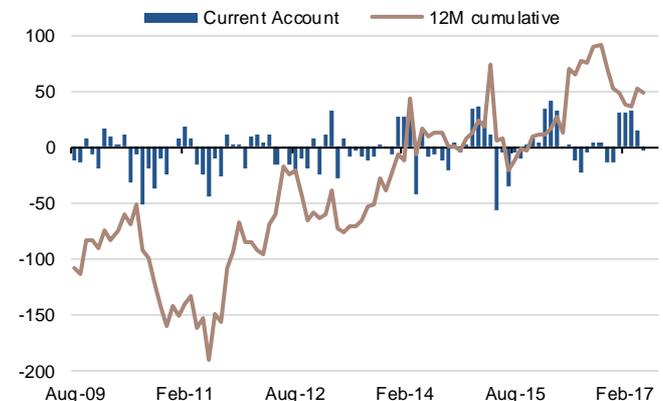
Source: CSO, Macrobond, Economic & Strategy Research, Komerční banka

Hedging ratio of Czech exporters for the next 12 months



Source: CNB, Economic & Strategy Research, Komerční banka

Current account development (CZKbn)



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

Expected development of Czech money market rates

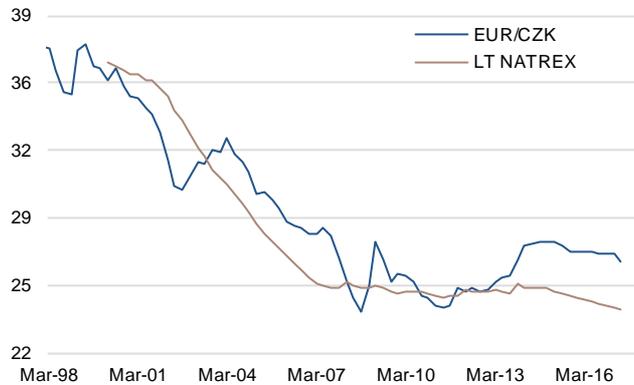


Source: Bloomberg, Economic & Strategy Research, Komerční banka

According to equilibrium exchange models, the koruna has room to appreciate further

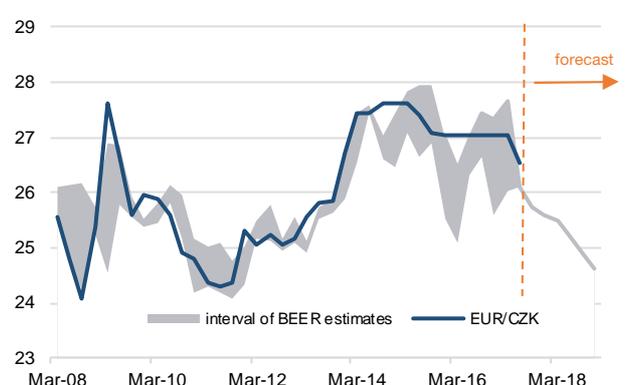
As Czech economic growth and productivity are running ahead of those in the euro area, we are seeing a shift in the long-term equilibrium level of the EUR/CZK exchange rate to stronger koruna values. We calculate the long-term equilibrium exchange rate based on the NATREX approach at EUR/CZK24.20 for 3Q17. Towards this level, the rate should converge gradually over a two-year horizon. The koruna should be pushed to stronger levels thanks to real flows in light of the ongoing current account balance surplus, as well as financial flows due to the expectation of more attractive interest rate differentials. In the medium term, according to the BEER models, the current justifiable exchange rate should stand at 26.10. We see BEER EUR/CZK at 25.60 by year-end.

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



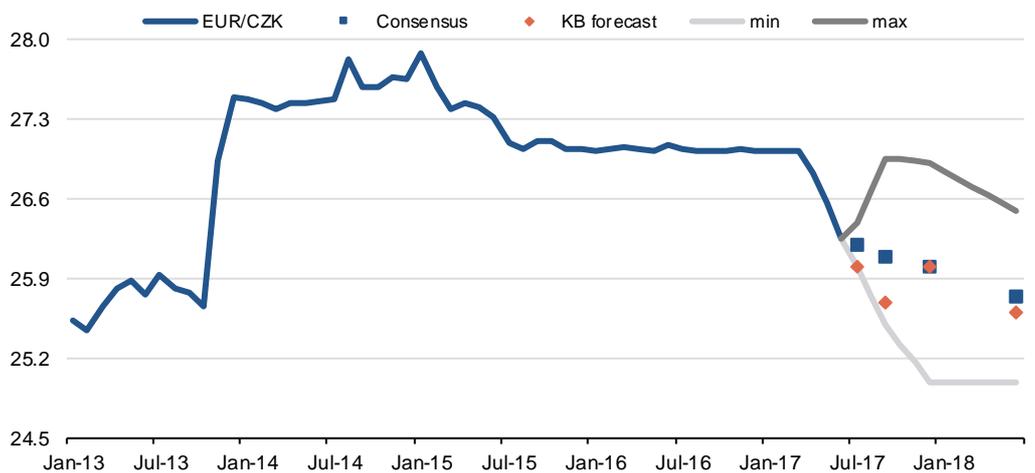
Source: Bloomberg, Economic & Strategy Research, Komerční banka

By end-2018, we see EUR/CZK below 25.

The koruna should be even stronger in our forecast horizon, but beware of year-end effect

The performance of the Czech economy favours further koruna appreciation In the *Macroeconomic Outlook* section of this report, we show that the Czech economy is in a phase of strong expansion, meaning the continuation of both real and nominal convergence. Real GDP has been rising faster in the Czech Republic than in the euro area. As the numerous boxes of this edition of the *Czech Economic Outlook* convey, we also expect convergence in nominal terms when looking at wage developments. After all, Czech inflation is above euro area CPI growth. To a certain extent, this limits room for koruna appreciation.

Expected EUR/CZK exchange rate – Market consensus, July 2017



Source: Reuters, Economic & Strategy Research, Komerční banka

Be aware of the “year-end effect”.

We are more bearish on the EUR/CZK outlook than the market consensus. We see the exchange rate flirting with the 25.50 level within 2H17. The trend of koruna appreciation should continue during 2018, and it could even dip below the 25 mark in 2H18. However, be aware of the “year-end effect”, which, in addition to the local banks’ balance sheet constraints related to the Resolution Fund, should lead to the closing of speculative positions and temporary koruna depreciation. We forecast an end-2017 EUR/CZK rate of 26, and we see it going lower from there.

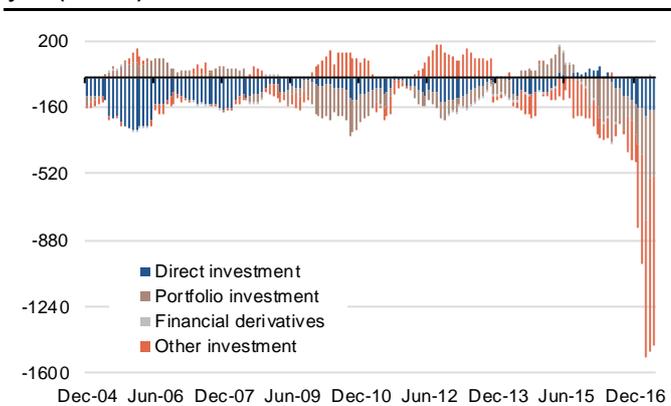
Risks skewed towards weaker levels for the koruna.

The large speculative position that amassed in the first three months of this year ahead of the removal of the FX floor implies a risk of increased volatility over our forecast horizon. We consider this risk symmetric towards a possible noticeable weakening, albeit temporarily, of the koruna.

A koruna sell-off could be triggered by external events. The risk of domestic shock

is low, with the exception of the above-described year-end effect. The same is also true for politics. The koruna is historically insensitive to domestic political events.

Speculative positions increased significantly at the start of the year (CZKbn)



Source: CNB, Economic & Strategy Research, Komerční banka

EUR/CZK Technical Analysis

Downside is likely to remain contained.

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EUR/CZK topped out after hitting the upper bound of a multiyear channel (near 28.50/28.80). A quick retracement was witnessed and then an elongated dormant price action took shape. After the lift of the floor, the pair has started unfolding a steady down move and it is now tentatively piercing below the upward channel in force since 2008. Shorter term, a move towards 25.90, the weekly channel limit is not ruled out with next support at a projection near 25.70, also the 61.8% retracement from 2011 lows. However with monthly RSI probing a multiyear support trend, further downside is likely to remain contained and a pause is likely once these levels are achieved.

Weekly channel upper bound at 26.48, also the 38.2% retracement from March highs caps near term upside. A break above will be essential to denote possibility of a rebound.

EUR/CZK, monthly chart.

EUR/CZK, weekly 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

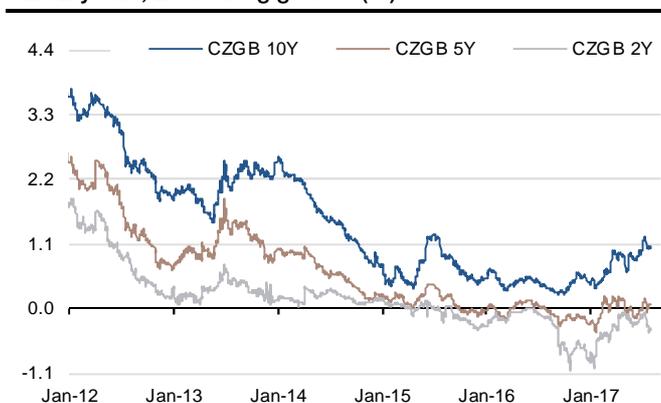


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CZGBs to remain expensive

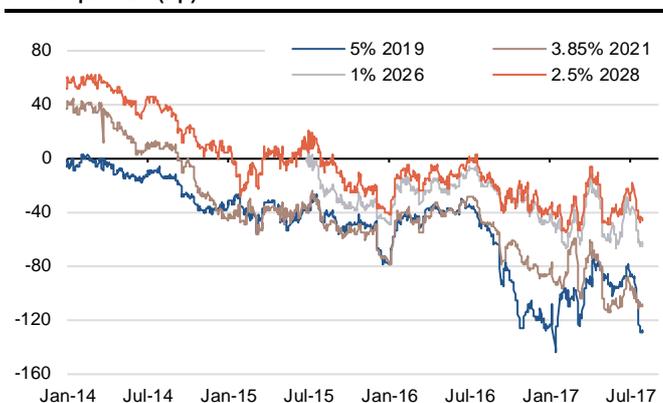
Strong demand has kept short-end CZGB yields from returning to positive territory, and we expect the front end of the curve to remain at or below zero into the end of this year due to cheap CZK financing and the prospects for koruna strengthening. In 2018, however, the short end should reflect the expected CNB hikes. At the long end, we expect yields to edge up during the remainder of 2017 and in 2018, but CZGBs should remain expensive overall. The CZK IRS curve is expected to bear flatten, as the CNB's sharp hiking trajectory should push the front end quickly higher.

CZGB yields, Bloomberg generic (%)



Source: Bloomberg, Economic & Strategy Research, Komerční banka

ASW spreads (bp)



Source: Bloomberg, Economic & Strategy Research, Komerční banka

The CZGB yield curve has steepened since we published our last *Czech Economic Outlook*. We assume that the rise in long-end yields has been driven by elevated inflation, prospects for CNB tightening, and lately by the pickup in Bund yields following Mario Draghi's speech in Sintra. At the short end, yields remained below zero, as excessive liquidity, expectations of koruna strengthening, and the favourable pricing of cross-currency operations for hard-currency investors have maintained demand at an elevated level.

Czech markets have not yet recovered from the CNB's FX floor policy and central bank interventions. Combined with bets on CZK strengthening, implied yields have remained negative, making investment in CZGBs an interesting opportunity.

Supply side in 2H17: issuance to rise in 4Q17

In line with our expectations, the Finance Ministry signals supply will be shallow in 3Q17. The maximum indicative amount of CZGBs on tap is CZK30bn in the quarter, and we expect a lower amount of CZK20bn will be sold. As for T-bills, the ministry will sell only extremely short maturities (up to 30 September) in 3Q17, in our view (and the calendar for August is in line with this opinion). As we have stated in our previous analysis, we assume the ministry's strategy aims to lower the government debt level to or below the end-2016 level as of 3Q17, due to the maturing T-bills.

2017 gross borrowing needs and financing, CZKbn

	MinFin Jun-17	KB Jul-17
Borrowing needs		
Budget deficit	60.0	45.0
Buybacks of CZGBs		0.0
Redemption of CZGBs	208.1	208.1
Redemption of Eurobonds		0.0
Redemption of retail bonds	16.9	16.9
Redemption of T-bills	4.2	4.2
Redemption of other money market instruments	0.0	0.0
Redemption of EIB loans	1.7	1.7
Total	290.9	275.9
Financing		
Gross T-bill issuance		(-25.0) 5.0
Other money market instruments		0.0
Gross CZGB issuance (in auctions)	min 150.0	220.0
Tap sales		(+0.7) 11.9
Gross issuance of eurobonds		0.0
Gross issuance of retail bonds		0.0
Tapping of financial reserve		(+25.0) 15.0
Net effect of CZGB switches		(-1.0) -1.0
Total financing		275.9
<i>Net CZGB issuance</i>		<i>(-0.1) 22.8</i>

Source: Economic & Strategy Research, Komerční banka, Finance Ministry (numbers in brackets mark the changes in the outlook)

In 4Q17, CZGB supply is set to rise sharply, in our view.

In 4Q17, supply is set to rise sharply, in our view.

We expect the ministry will sell CZK72bn of CZGBs in the final three months of 2017, as it will have to cover the maturing zero-coupon November 2017 paper. The budget deficit will be covered mostly by a tap of the liquidity reserve, we assume. With the revaluation of foreign currency debt on the back of a stronger koruna, **the overall debt volume should**

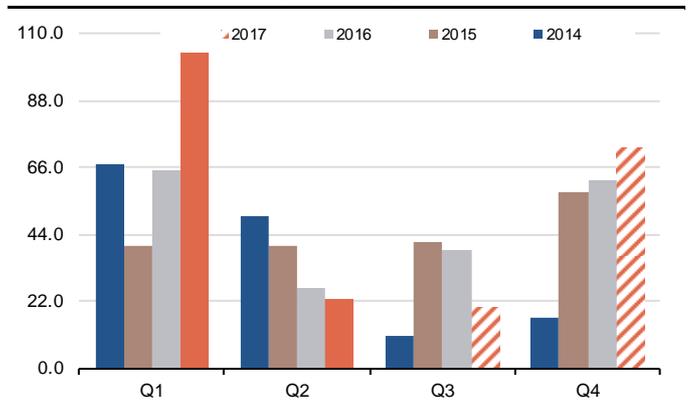
remain at the 2016 level, as the ministry stated in its May presentation. In the update of its 2017 Debt Management Strategy report, the ministry also indicated it would sell only CZK5bn of T-bills with maturities in 2018.

Total state liquidity stood at CZK165bn at the end of 2016, and we expect the ministry to tap some CZK40bn of it in 2017.

We estimate gross borrowing needs to rise by CZK37bn (14%) year-on-year in 2018 mainly due to a redemption of €2bn of eurobonds.

Supply side in 2018: higher issuance due to increase in debt redemptions
We estimate gross borrowing needs to rise by CZK37bn (14%) year-on-year in 2018 mainly due to a redemption of €2bn of eurobonds. Borrowing requirements should thus reach CZK313bn, although the exact figure will depend on this year's buybacks and switches

Quarterly CZGB issuance on the primary market, CZKbn (dashed bars mark our expectations)



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

and on the EUR/CZK level. The figures are in line with the ministry's outlook which was published in the June update of the 2017 Debt Management Strategy report (the only difference is the CZK value of the eurobonds, we use a EUR/CZK26.00 exchange rate).

In our view, the ministry will cover the biggest share of the 2018 borrowing needs via CZGB sales.

In our view, the ministry will cover the biggest share of the borrowing needs via CZGB sales. Also, we expect the ministry to increase the stock of T-bills and will again tap the liquidity reserve in order to curb the increase in indebtedness (see the table below).

2018 gross borrowing needs and financing, CZKbn

	MinFin Jun17	KB Jul17
Borrowing needs		
Budget deficit	50.0	50.0
Buybacks of CZGBs		0.0
Redemption of CZGBs *	*238.8	185.0
Redemption of Eurobonds *		52.0
Redemption of retail bonds	16.4	16.4
Redemption of T-bills	5.0	4.2
Redemption of other money market instruments	0.0	0.0
Redemption of EIB loans	4.8	1.7
Total	315.0	313.2
Financing		
Gross T-bill issuance		35.0
Other money market instruments		0.0
Gross CZGB issuance (in auctions)		250.0
Tap sales		10.0
Gross issuance of eurobonds		0.0
Gross issuance of retail bonds		0.0
Tapping of financial reserve		18.2
Net effect of CZGB switches		0.0
Total financing		313.2
<i>Net CZGB issuance</i>		<i>75.0</i>

Source: Economic & Strategy Research, Komerční banka, Finance Ministry * the difference in bonds' redemption is due to EUR/CZK level

Such a strategy would result in large net CZGB issuance. However, investors are likely to absorb higher supply without any problems, in our view, after years of a stretched market.

We see a risk that the ministry can switch a part of the expected CZGB sales for an offering of a new eurobond benchmark, most likely in a size of €2bn. In such a scenario, net CZGB issuance would be only mild at some CZK25bn.

Bond yields in 2H17 and 2018: only modest rise expected, demand to remain robust

We have revised our CZGB yields forecast to reflect the continuous strong demand. At the short end, yields have continued to be volatile, but the 2Y yield has remained below the zero level.

Financing in korunas has remained cheap for hard-currency investors, as the expected CNB hikes and CZK strengthening has kept cross-currency basis swaps and FX swaps in the left (sharply negative). Volatility in non-resident holdings (see below) suggests that activity is huge in cross-currency operations (either repos or via swaps), supporting demand at the front end of the curve even at negative yields. We assume that majority of T-bill issuance in the market has been purchased by investors utilising the cheap CZK financing via cross-currency swaps, and thus redemption of those T-bills should not have a significant impact on the CZK spot.



Source: Bloomberg, Economic & Strategy Research, Komerční banka

Bets on the CZK strengthening are likely to keep implied yields negative over the remainder of 2017, we assume, but the increase in CZGB/T-bill supply is set to shift cross-currency basis swaps and forward points gradually to the right (less negative) in 4Q17. Together with the coming CNB rate hikes, this is likely **to move nominal yields toward zero over the remainder of 2017**, but we still expect short-end CZGBs to remain expensive versus IRS.

At the long end of the curve, we have revised the expected 10Y yield up by 5bp, accounting for half of the revision of the 10Y IRS.

At the long end of the curve, we have revised the expected 10Y yield up by 5bp, accounting for half of the revision of the 10Y IRS. A massive cheapening of CZGBs should be prevented by strong demand for the overliquid and CZGB-hungry domestic market, relatively low Bund yields (SG strategists expect a 10Y Bund yield at 0.75% in 4Q17), and by foreign demand due to the GBI-EM inclusion.

Moreover, in the final weeks of 2017, CZGBs should be supported by the effects of the Resolution fund contributions, in our view. At the end of the year, domestic bank balance sheets will be scrutinised, and their sizes will determine how much each bank will pay into the Resolution fund. The fund is being set up to cover potential losses in the event of a banking crisis, which would otherwise mean tapping government money.

CZGB yield forecast

	3Q17f	4Q17f	1Q18f	2Q18f	3Q18f	4Q18f
2y CZGB yield (%)	0.00	-0.05	0.35	0.55	0.95	0.85
10y CZGB yield (%)	1.15	1.15	1.35	1.50	1.55	1.50
10y CZGB ASW (bp)	-30	-50	-45	-45	-45	-55

Source: Economic & Strategy Research, Komerční banka

At the long end of the CZGB curve, we forecast the 10Y yield to peak at 1.55% in 2H18.

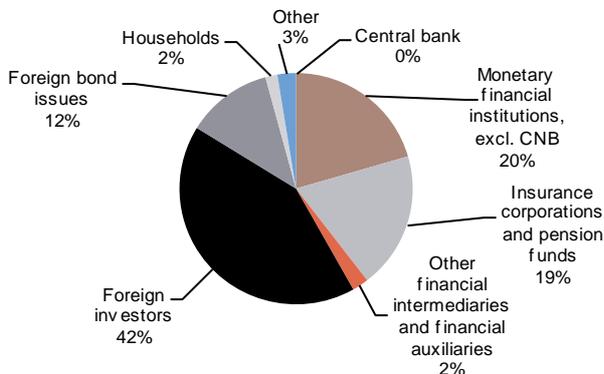
In 2018, we expect the CZGB yield curve to bear flatten, as the short end is set to rise faster due to CNB hikes. At the long end of the curve, we forecast the 10Y yield to peak at 1.55% in 2H18.

Yields are expected to rise on the back of higher IRS rates and Bund yields (SG's target for 10Y Bund yield is 1.00% at the end of 2018) and demand is set to remain strong due to vast liquidity in the domestic banking system, in our view.

CZGB holders: share of non-residents peaked in June

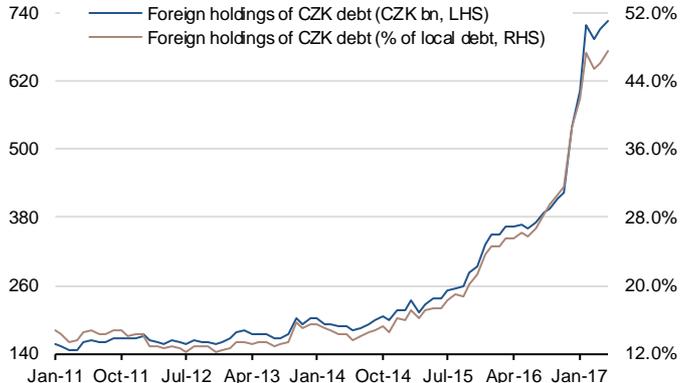
The inflow of foreign investment peaked in June, with non-residents holding 47.6% of CZK-denominated debt at the end of that month. The statistics has been volatile recently: in April, the share of foreign investment fell by 2 percentage points month-on-month, most likely due to the maturity of cross-currency repo operations based on the cheap financing in the koruna (holdings of domestic banks surged in April). The share in foreign holdings partially reverted in May to 46.1%, and further increased in June due to rising bets on CZK strengthening, we assume.

Holdings of Czech Republic's debt securities, end-June 2017



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

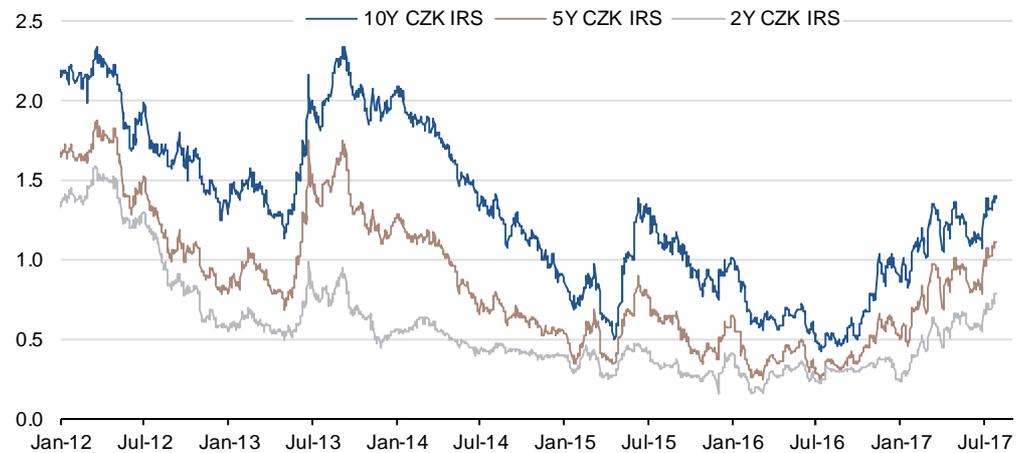
Non-resident holdings peaked in June 2017



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

While the high share of foreign holdings is positive for the Finance Ministry, allowing for heavy issuance at negative yields, it presents a risk if market sentiment significantly worsens, in our view. If the market stops expecting CZK appreciation, investors could suddenly limit their appetite for CZK bonds (and T-bills), as they would be less attractive outright owing to less favourable CZK financing.

Recent developments of CZK IRS (%)



Source: Bloomberg, Economic & Strategy Research, Komerční banka

CZK interest rate swaps: sharp rise at the short end

CZK interest rate swaps have already started to rise, reflecting elevated inflation, an increase in EUR swaps following Draghi's Sintra speech, and part of the expected monetary policy tightening of the CNB.

At the short end of the CZK IRS curve, our forecast for a steep CNB hiking path results in a fast increase.

At the short end of the CZK IRS curve, our forecast for a steep CNB hiking path results in a fast increase. In 4Q17, the 2Y IRS is set to climb above the 1% mark for the first time since 2012. The long end of the curve is expected to rise as well due to the CNB hikes, the higher EUR long-end swaps (10Y year-end target by SG at 1.20%), inflation remaining above the central bank's 2% target and the effect of strong economic growth. The slope of the curve should decline, as we expect a sharper rise at the short end.

In 2018, the increase in CZK IRS is expected to continue, as is bear-flattening. The short end is set to incorporate further CNB rate hikes (a total of three next year), with a peak of the 2Y swap at 1.55%. At the long end, we expect the trend from 2017 to continue, with the 10Y IRS reaching 2.05% in 4Q18, the highest level since January 2014.

CZK IRS outlook (%)

	3Q17f	4Q17f	1Q18f	2Q18f	3Q18f	4Q18f
2Y	0.90	1.15	1.15	1.25	1.55	1.55
10Y	1.45	1.65	1.80	1.95	2.00	2.05

Source: Economic & Strategy Research, Komerční banka

Risks to the CZGB yield curve forecast: balanced on both sides

CZGB yields could increase faster than we expect if the ECB’s tapering of QE prompts a more pronounced cheapening of Bunds. Also, the short end of the CZGB curve could post losses, if CNB hikes and CZK appreciation becomes less likely (for instance, in the event of major global stress). On the other hand, the increase in CZGB yields could be more muted if the ECB extends QE more than expected (so Bunds would not cheapen in line with SG’s view), or the Finance Ministry cuts issuance (for instance, if it decides to tap foreign markets in 2018 instead of heavy supply of CZGBs).

Banking Sector



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Credit growth to decelerate in 2018

We expect credit growth to slow in 2018 for several reasons. First, tighter mortgage rules, higher interest rates and a high statistical base are likely to curb mortgage lending next year. Second, a demanding comparison base is set to hamper the dynamics of lending to non-financial corporations. Ahead of the end of the CNB's FX floor regime, lending in foreign currency increased massively, which is unlikely to continue in late 2017 and 2018. Demand for credit by non-financial corporations will not increase massively, in our view, as firms are cash rich, and they should have enough money to cover at least part of next year's expected increase in investment.

Growth in total deposits is set to decelerate next year. While household deposits are likely to continue increasing (due to a higher wage bill), deposits by non-financial corporations are set to slow due to rising investment and lower profitability (where rising wages will contribute). We expect a drop in other deposits due to assumed position-squaring in the CZK market and thus outflow of financial investor deposits.

Bank loans and deposits (yoy, %)

	1Q17	2Q17	3Q17	4Q17	1Q18	2Q18	3Q18	4Q18	2016	2017	2018	2019	2020	2021	2022
Bank loans															
Total	7.3	8.2	7.0	7.4	5.0	3.8	4.3	4.2	6.5	7.5	4.3	4.1	4.2	5.3	5.5
Households - real estate loans	9.4	9.6	8.3	7.2	5.1	2.8	2.0	1.5	8.1	8.6	2.8	3.4	5.9	7.0	6.0
Households - consumer loans	5.0	5.0	5.4	5.3	5.4	5.5	5.4	5.7	4.7	5.2	5.5	5.6	5.6	6.6	6.6
Corporate loans	4.7	7.9	4.2	4.3	3.1	1.5	4.3	4.5	6.8	5.3	3.3	3.1	2.7	4.2	5.5
Deposits															
Total	10.1	14.0	10.6	7.2	2.9	0.9	3.3	5.9	6.4	10.5	3.3	3.6	2.5	3.6	4.0
Households	9.2	9.4	9.8	10.0	9.4	8.6	7.7	6.9	7.4	9.6	8.2	5.2	2.4	3.5	4.2
Non-financial corporations	11.6	13.0	7.3	11.6	0.4	0.6	2.9	6.3	4.7	10.8	2.6	4.6	2.6	3.8	3.5
Others	10.5	25.4	15.9	-5.0	-7.3	-13.8	-5.7	2.4	6.3	11.7	-6.1	-1.2	2.6	3.8	4.2
Ratios															
Loan-to-GDP ratio	63.2	64.1	63.9	63.0	62.6	62.7	62.8	62.2	61.6	63.6	62.6	61.9	62.7	64.1	64.5
Deposit-to-GDP ratio	86.0	86.5	83.9	80.3	83.5	82.3	81.7	80.5	79.4	84.2	82.0	80.8	80.4	81.0	80.4
Loan-to-deposit ratio	73.4	74.1	76.1	78.5	74.9	76.2	76.9	77.2	77.6	75.5	76.3	76.7	77.9	79.2	80.3
Interest rates															
Real estate loans	2.3	2.3	2.4	2.5	2.5	2.6	2.8	2.8	2.3	2.4	2.7	3.0	3.3	3.7	4.1
Consumer loans	9.4	9.4	9.1	9.1	9.2	9.2	9.3	9.6	10.6	9.3	9.3	9.8	10.1	11.1	11.6
Corporate loans	1.8	1.9	2.0	2.2	2.2	2.1	2.6	2.6	2.0	2.0	2.4	2.6	2.7	3.7	4.1
Share of NPL															
Real estate loans	1.9	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.2	1.8	1.7	1.8	2.0	2.2	2.5
Consumer loans	7.8	7.6	7.5	7.6	7.2	7.2	7.1	7.2	9.4	7.6	7.2	7.8	8.9	9.8	10.7
Corporate loans	5	4.6	4.3	4	3.9	3.8	3.8	3.8	5.2	4.5	3.8	4.0	4.7	5.5	5.9

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

Key Economic Indicators

Macroeconomic indicators – long-term outlook

		2015	2016	2017	2018	2019	2020	2021	2022
GDP	real, %	5.4	2.5	3.7	3.1	2.7	1.6	2.1	2.4
Inflation	average, %	0.3	0.7	2.3	2.2	1.7	0.5	1.6	2.2
Current account	% of GDP	0.2	1.1	0.9	0.3	0.6	1.1	0.7	0.4
3M PRIBOR	average, %	0.3	0.3	0.4	1.0	1.1	1.1	2.0	2.3
EUR/CZK	average	27.3	27.0	26.3	25.5	24.1	23.0	22.3	21.9
USD/CZK	average	24.6	24.4	23.4	22.0	19.8	18.4	17.8	17.2

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

Note: KB forecasts are in blue

FX & interest-rate outlook

		1-Aug-2017	Sep-17	Dec-17	Mar-18	Jun-18	Sep-18
EUR/CZK	end of period	26.11	25.7	26.0	25.7	25.6	25.3
USD/EUR	end of period	1.181	1.16	1.18	1.16	1.14	1.16
CZK/USD	end of period	22.10	22.2	22.0	22.1	22.4	21.8
3M PRIBOR	end of period	0.31	0.37	0.99	1.03	0.88	0.85
10Y IRS	end of period	1.41	1.45	1.65	1.80	1.95	2.00

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

Note: KB forecasts are in blue

Monthly macroeconomic data

		X-16	XI-16	XII-16	I-17	II-17	III-17	IV-17	V-17	VI-17
Inflation (CPI)	%, mom	0.3	0.3	0.3	0.8	0.4	0.0	0.0	0.2	0.0
Inflation (CPI)	%, yoy	0.8	1.5	2.0	2.2	2.5	2.6	2.0	2.4	2.3
Producer prices (PPI)	%, mom	0.5	0.1	0.5	0.7	0.4	-0.1	0.3	-0.5	-0.7
Producer prices (PPI)	%, yoy	-1.7	-1.3	-0.3	2.1	3.1	3.0	3.2	2.3	1.3
Unemployment rate	% (MLSA)	5.0	4.9	5.2	5.3	5.1	4.8	4.4	4.1	4.0
Industrial sales	%, yoy, c.p.	-2.3	7.7	5.3	12.6	4.5	14.2	0.3	12.0	n.a.
Industrial production	%, yoy, c.p.	-1.1	7.5	3.6	10.1	2.0	10.2	-2.5	8.1	n.a.
Construction output	%, yoy, c.p.	-6.4	-1.4	2.6	-2.2	-8.2	7.1	4.0	4.7	n.a.
Retail sales	%, yoy, c.p.	0.8	9.2	3.9	8.3	1.0	10.7	-0.3	5.3	n.a.
External trade	CZK bn (national met.)	15.1	8.6	-7.8	20.5	18.4	23.0	11.5	14.3	n.a.
Current account	CZK bn	3.9	-13.9	-12.8	30.6	31.1	32.8	14.3	-2.9	n.a.
Financial account	CZK bn	23.1	-20.3	8.7	7.9	37.4	-5.5	76.0	-2.6	n.a.
M2 growth	%, yoy	8.0	8.2	6.6	8.1	8.9	10.6	11.5	10.6	n.a.
State budget	CZK bn (YTD cum.)	98.3	55.5	61.8	9.1	3.7	4.7	6.3	-18.7	4.6
PRIBOR 3M	%, average	0.29	0.29	0.29	0.28	0.28	0.28	0.29	0.30	0.30
EUR/CZK	average	27.02	27.03	27.03	27.02	27.02	27.03	26.82	26.57	26.26
USD/CZK	average	24.51	25.07	25.65	25.42	25.40	25.29	25.03	24.04	23.37

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

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