Czech Economic Quarterly

March 21, 2023

Spring is slow to come

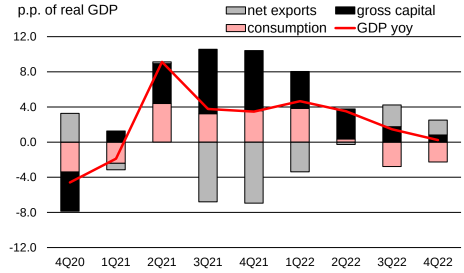
- In 4Q22, real GDP contracted by (SA) 0.4% qoq, slowing the yoy growth to mere 0.2%. Household consumption fell by 5.5% yoy, while government spending was up 0.9%. Fixed capital formation showed more resilience, expanding by 4.6% yoy. An inventory change contributed to nominal GDP a huge 6.0pp, even though in real terms the change subtracted 0.4pp from GDP. Net exports delivered a positive contribution worth 1.7pp of GDP.

- January high-frequency figures were neither positive nor catastrophe-like. Retail sales posted -7.7% yoy WDA, the pace of decline comparable with December. We set in our GDP forecasts to -1.0% qoq and -1.4% yoy for 1Q23, which is hoped to be the last recessionary quarter.

- For full-2023 GDP we predict a contraction of 0.4%. The inventory cycle is dampening our outlook. For private consumption, things do not look much better in 1H23 than they did in 2022, but we expect spending on durable goods to revive in 2H23. We are becoming a little more upbeat about fixed investment in 2023.

- Inflation is set to start losing steam from March onwards and we expect its further sharp drop in January 2024, but probably not to the ČNB's 1%-3% target range. Disinflation may allow the ČNB to start cutting rates cautiously from 4Q23. In terms of the FX, we maintain our view that EUR-CZK will stay predominantly above 24.0 this year.

Breakdown of GDP growth by demand*



*/ Contributions to real GDP growth in percentage points
Sources: CZSO, UniCredit Research.

A yoy slump in consumption dragged on GDP in 4Q22 for the second period running. With the other GDP components - gross capital and net exports - having their growth contributions reduced versus 3Q22, the overall GDP was on the brink of stagnation.

REAL GDP (CONSTANT PRICES OF 2010, ADJUSTED)

	4Q22		3Q22 revised	
	YoY change	% of change in GDP*	YoY change	% of change in GDP*
GDP total	**0.2**	**0.2**	**1.5**	**1.5**
Household consumption (%)	-5.5	-2.4	-5.2	-2.4
Government consumption (%)	0.9	0.2	-1.9	-0.4
Fixed capital formation (%)	4.6	1.2	7.2	1.9
Change in inventories	-	-0.4	-	-0.1
Net exports	-	1.7	-	2.5

Source: Czech Statistical Office. Calculations: UCB CZ.
**/ Real GDP in the same period of previous year*
Remark: The national accounts are based on chain-linked data, which introduces a discrepancy between GDP and real demand components.

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4Q22: INVENTORY-DRIVEN ECONOMICS

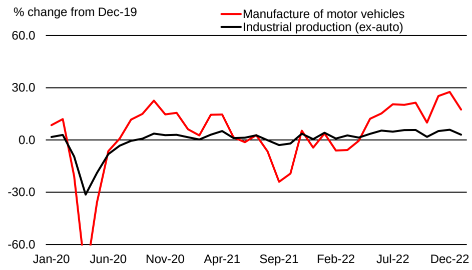
In 4Q22, real GDP contracted by (SA) 0.4% qoq, slowing the yoy growth to mere 0.2%. Since sequential GDP had already been down in 3Q22, the definition of a technical recession was met. In a yoy comparison, household consumption fell by 5.5% yoy, while government spending was up 0.9%. Fixed capital formation showed more resilience, expanding by 4.6% yoy on a rise, similarly to 3Q22, in all types of investment except for dwellings. An inventory change contributed to nominal GDP a huge 6.0pp, even though in real terms the change subtracted 0.4pp from GDP due to considerable accummulation already in the base period. Net exports delivered a positive contribution worth 1.7pp of GDP, as real exports grew faster (9.7% yoy) than real imports (7.6% yoy). Nominal GDP added 11.1% yoy, thus maintaining double-digit growth through all quarters of 2022. GDP deflator inched further up to 10.8% yoy, with comparably high data to be found last time in 1998. From the production side, manufacturing stood out on the upside (6.0% yoy), while 7 out of 11 major sectors saw their yoy momentum deteriorating from the previous period. As a notable point, the energy crisis substantially lifted the subsidies on products, leaving the GDP dynamic (0.2% yoy) well below GVA's (1.0% yoy). Total employment grew by 1.3% yoy but further retreated in absolute terms from the all-time high reached in 2Q22. Hours worked added 1.9% yoy, leaving 4Q22 productivity in a yoy loss in both the per-worker and the per-hour metrics. With compensation of employees growing 6.2% yoy, well below nominal GDP, gross operating surplus expanded by 18.8% yoy, the highest increment since 1998.

Three years after the start of the pandemic, Czechia remains one of a few European countries whose GDP has not exceeded the level of 4Q19. After two quarters of GDP marginally contracting, the gap widened to 1.0% in 4Q22. We see at least one positive outcome of this failure. Structural changes have been underway in the economy. The sectors in which gross value added (GVA) has been declining since 2019 include industry, construction, and trade and transportation, whereas ITC and business services have kept expanding. This is viewed as a welcome shift away from energy-intensive sectors towards resource-lighter services. However, it seems too early to judge whether these changes will be permanent.

1Q23:RECESSION TO SHOW OFF FOR THE LAST TIME

January figures were neither positive nor catastrophe-like. The best of them, the weather-related construction output (+5.4% yoy WDA), is the least significant for the whole economy. The industrial output's drop (-1.4% yoy WDA) was composed of a 12.7% increase in car manufacturing and over a 5% decrease in the rest of industry. In next two months, the automotive will further benefit from a low base, unlike other sectors. Manufacturing PMI still points to an output contraction, with the new orders component looking particularly poor. January retail sales posted -7.7% yoy WDA, the pace of decline comparable with December. In January-February, new car sales increased by 10% yoy while used cars recorded a 10% decline. All of that brings our GDP forecasts to -1.0% qoq and -1.4% yoy in 1Q23, which is hoped to be the last recessionary quarter.

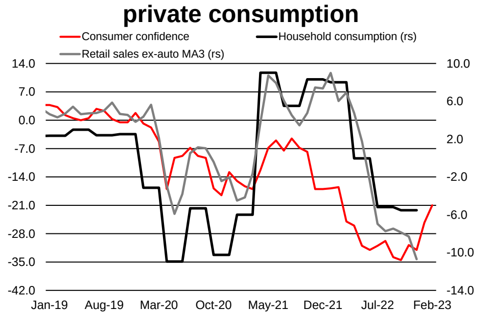
Car manufacturing versus rest of industrial output



Sources: CZSO, UniCredit Research.

In 2H22, the car manufacturing output was up by a quarter from its December 2019 level, which might look surprising given a decline in the number of cars produced. In two explanations that may not be mutually exclusive, either the sector was not in the best shape already in 2019, or it has managed in the meantime to boost per-unit value added. Anyway, first months of 2023 look challenging for the overall industry.

Consumer confidence, retail sales and private consumption



Sources: CZSO, UniCredit Research.

Consumer confidence has bottomed out from its December's all-time low, spreading signals that retail sales and the overall private consumption may start easing their contraction soon. However, further strengthening in consumer confidence is probably needed to make the signals strong enough.

THE REST OF 2023: SLOW NORMALIZATION

In terms of business conditions, the situation has normalized somewhat compared to 2H22, which we do not expect to be reversed by the recent problems of Credit Suisse or several US banks. Supply-chain disruptions have eased, while energy prices are well below the government's thresholds for extraordinary action. Manufacturers have returned to reporting insufficient demand as the key barrier for boosting output. That said, optimism remains in short supply. First, January PPI included monthly price increases of 19% for electricity and 115% for natural gas, despite spot prices on the European market declining. This confirms that many companies were enjoying fixed-term energy contracts that ended in 2022 and are yet to feel the pinch of the energy crisis, especially if spot prices rise again in 2H23, as predicted by forwards. Second, automotive is the notable exception to the decline in supply disruptions. The shortage of chips halted Toyota's output for the whole of February, affecting also some Škoda Auto plants.

The inventory cycle is dampening our outlook for 2023. In 2022, new inventories amounted to a whopping CZK 392bn at current prices (5.8% of GDP), a substantial share of which is expected to be run down in 2023 at the expense of new production, as large inventories will prove not only unnecessary but costly to boot due to rising euro interest rates.

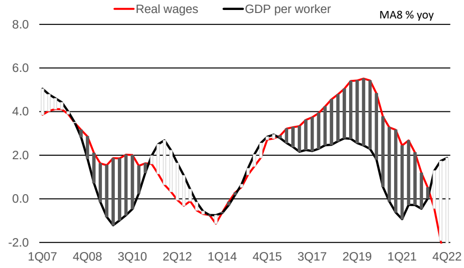
Private consumption was the biggest drag on GDP growth in 2022 and things do not look much better in 1H23. Nominal wage growth was just 7.9% yoy in 4Q22 and 6.5% for the whole of 2022, despite inflation peaking at close to 20%. Companies are selling (so far successfully) the story of protecting employment by keeping wage costs in check. The government is acting in the same vein by limiting pay rises in the public sector. We forecast wages will grow in single digits in 2023 (8.3%), further reducing the real purchasing power of households. This is set to drag on consumption, particularly in 1H23. Thereafter, spending on durable goods may revive if households deploy their abundant cash reserves. Private spending may resume being a driver of GDP growth in 2024.

Compared to the previous forecast, we are becoming a little more upbeat about fixed investment in 2023. First, infrastructure projects are resilient, as their financing is keeping pace with rising costs. Second, corporate financials are expected to remain solid in most cases, allowing enough capex to cover at least environmental and energy-saving projects. That said, productivity-boosting investment could fall and may become a medium-term problem for the competitiveness of the economy. A drop is expected in residential building, a consequence of tighter monetary conditions. On balance, we forecast fixed capital formation will add 1% in 2023, accelerating to 3% in 2024.

MONETARY POLICY: NEXT STEP WILL BE EASING

Inflation is set to start losing steam from March onwards, driven down by weaker demand and last year's higher base. We expect annual headline inflation to return to single digits by 2H23, although there will be a temporary spike in the last three months of 2023. We expect a sharp drop in annual inflation in January 2024, but probably not to the ČNB's 1-3%

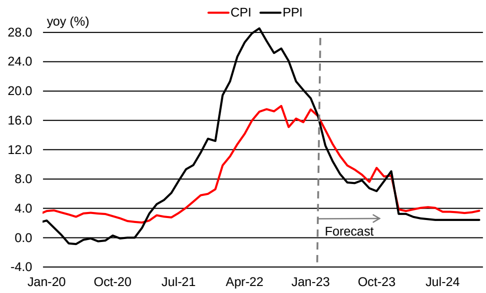
Czech productivity and real wages



Sources: CZSO, UniCredit Research.

A profound fall in real wages since 2H22 has followed their productivity-exceeding rise over the whole of 2015-2021. We believe the swing has come as no coincidence, acting as a tool for businesses to keep their cost competitiveness.

Czech CPI and PPI – history and outlook



Sources: CZSO, UniCredit Research.

The PPI's peaking-off since mid-2022 is set to help CPI inflation to slow markedly by early 2024. However, we see as a challenge to sustain CPI within the ČNB's target corridor of 1% to 3%

target range. Disinflation may allow the ČNB to start cutting rates cautiously from 4Q23. Our year-end repo rate forecasts of 6.5% for 2023 and 4.5% for 2024 are nevertheless higher than previously projected, which reflects the ČNB's anticipated cautiousness in an environment of volatile prices. In terms of the FX, we maintain our view that EUR-CZK will stay predominantly above 24.0 this year.

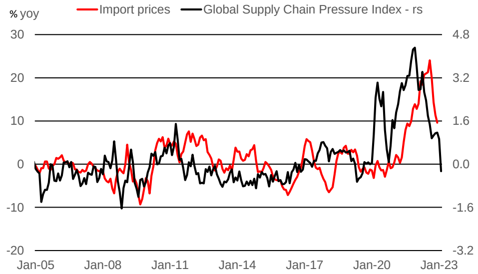
FOCUS: HOW DO GLOBAL SUPPLY CHAINS AFFECT CZECH INFLATION?

Supply-chain problems were a hot topic especially in 2021 and 2022, when large unsatisfied demand and accumulated household savings from the covid era met global production capacities at a weakened state. That resulted in unexpectedly high inflation all over the world, which was further amplified by the Russian war in Ukraine. We focused on a relationship between the Global Supply Chain Pressure Index (GSCPI) constructed by the New York Fed and inflation in Czechia.

Global supply pressures affect Czech inflation via prices of imports, which can be illustrated even by a simple chart showing loose but still notable correlation between GSCPI and yoy changes in import prices. In recent months, we can see a sharp easing of global supply chain pressures, with the February index value falling below zero - the long-term average level. That suggests that the supply chain conditions have returned to normal. The February decline was broad-based, with the component of eurozone delivery times showing the largest contribution to the decline.

To inspect the relationships between GSCPI, import prices and consumer prices (HICP at constant tax rates, SA), we constructed a simple VAR model. Outcomes suggest that import prices respond to a unit increase in GSCPI with an 8-months lag, with their yoy dynamics accelerating up to the peak of 3.6% after 18 months. The response of consumer prices is more gradual, with the peak occurring after 19 months at around 1.9% yoy. How much of the Czech (post)Covid inflation can be explained by the supply chain pressures? A more complex VECM model may help us, capturing other important exogenous supply factors (besides the supply chain pressure it is oil, food and metal prices, and FX) and endogenous demand factors (CPI, PPI, consumer confidence, unemployment), which was based on panel data for 23 EU countries. The second chart shows an alternative scenario for 2020-2022, where all exogenous explanatory variables are set at their realized values, except for GSCPI which is assumed to remain at its December 2019 zero level. In this scenario, the yoy HICP would have been 4.8pp lower in December 2022, which can be seen as an estimate of isolated GSCPI impact. However, realized HICP was accelerating in 2022 much more compared to what the model can explain. For example, a 15.4% yoy inflation in December 2022 can be decomposed into a 4.8pp contribution of accumulated global supply chain problems already mentioned, a 7.1pp contribution of other factors captured by the model and 3.5pp that have remained unexplained. The last part is largely attributed to the war in Ukraine.

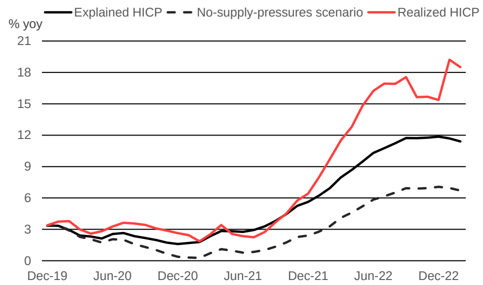
Index of Global Supply Chain Pressure and Czech import prices



Sources: UniCredit Research, Macrobond.

Global supply chain pressure index (GSCPI) fell significantly in recent months, breaking below the long-term average (zero) level in February. The global supply chain problems seem to be over for now. Easing of Czech import-price pressures should follow in the coming months, helping consumer inflation to calm down.

Inflation in Czechia – actual and modelled



Sources: UniCredit Research, Eurostat.

The gap between HICP yoy dynamics explained by the model and the alternative scenario assuming no global supply-chain pressures suggests that supply chains problems were responsible for 4.8pp of total price hike in December 2022. 7.1pp were added by other factors captured by the model, while 3.5pp remained unexplained by the model. In December 2021, the respective contributions were 3.2pp and 2.4pp, with only 0.8pp of HICP yoy dynamics remaining unexplained.

Czechia Macroeconomic Outlook

	2020	2021	2022	2023 forecast	2024 forecast
GDP growth (real yoy change, %)	-6.4	3.5	2.4	-0.4	2.8
Household consumption (real yoy change, %)	-7.2	4.1	-0.9	0.4	2.8
Gross fixed capital formation (real yoy change, %)	-6.0	0.8	6.2	1.3	2.8
Industrial output (real yoy change, %)	-7.2	6.9	2.5	-2.0	4.0
Unemployment rate (average, %)	3.6	3.8	3.4	3.8	3.9
Inflation rate (CPI yoy change, average, %)	3.2	3.8	15.1	11.4	3.7
Average wages (nominal yoy change, %)	4.6	4.8	6.5	8.4	7.5
Interest rates (3-M PRIBOR, end of period, %)	0.35	3.50	7.26	6.60	4.60
Interest rates (3-M PRIBOR, average, %)	0.86	1.13	6.28	7.10	5.60
EUR/CZK exchange rate (end of period)	26.25	24.86	24.12	24.20	24.70
EUR/CZK exchange rate (average)	26.44	25.65	24.57	23.80	24.40
Current account balance (% of GDP)	2.0	-2.8	-6.1	-1.6	-0.5
FDI net inflow (% of GDP)	2.6	0.5	2.5	1.4	1.4
General government balance (% of GDP)*	-5.8	-5.1	-4.5	-5.0	-3.5
Public debt (% of GDP)	37.7	42.0	42.4	44.2	44.4

Remarks:
**/ ESA 2010 definition.*
Sources: Czech National Bank, Czech Statistical Office.
Forecasts: UniCredit Bank CZ.