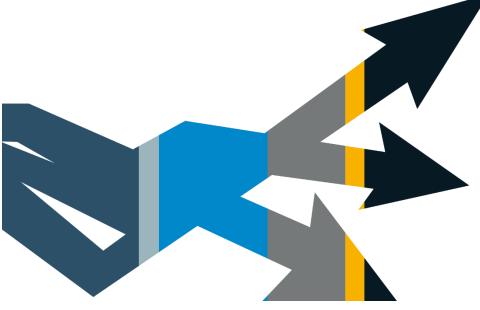
Monthly Pulse Check Economy. FI. FX

March 22nd 2022



mBank Research

For contact details and classification of the report see the last page.

Our view in a nutshell (≥1Y horizon) & major forecasts

Macro

- Global economy is slowing. Interest rate increases, local covid outbursts, still broken supply chains, high prices of oil, food and energy are expected to more and more visibly take their toll in sequential growth rates amidst accelerating inflation.
- Polish economy is exposed to trade, price and uncertainty shocks. However, substantial inflow of refugees arrests major downside risks for 2022. That is why we see 2022 GDP growth close to 4% (risks balanced). Such a structure of growth is unsustainable. Therefore, with further rate hikes, we see a meaningful slowdown in 2023 with risks tilted unanimously to the downside.

Monetary policy: Fed. ECB. NBP

- Fed: Lift-off. Upcoming (high) CPI readings suggest the Fed may turn to 50pb hikes introducing QT at the same time. Risks for higher rates in 2022. Potential for under-delivery in 2023 is substantial though.
- ECB: Another step towards normalization of policy. More complicated macro backdrop (more inflation, less growth) gives the bank more space to wait. First rate hikes at the turn of 2022/2023.
- NBP: Sending hawkish messages in the middle of tightening cycle. We see rates 5-5.5% to be reached within next months. Afterwards the realized and expected GDP slowdown is going to stop further rate increases.

FX Market

Zloty should strengthen in the medium-term due to higher interest rates and lower inflation. In the near-term, though, we shall expect high volatility driven by unstable risk environment and large swings ahead of MPC meetings.

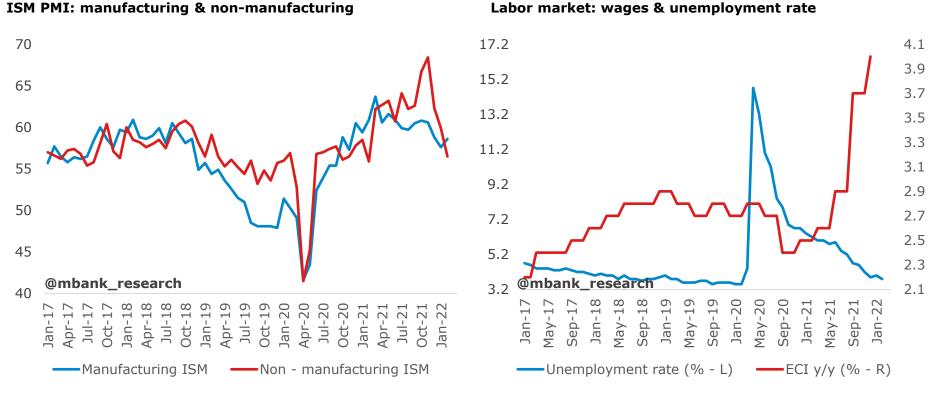
		2021 Q4 F	2022 Q1 F	2022 Q2 F	2022 Q3 F	2022 Q4 F	2023 Q1 F	2023 Q2 F	2023 Q3 F	2023 Q4 F	2021 Q1-Q4	2022 Q1-Q4	2023 Q1-Q4
GDP y/y	%	7,3	7,1	4,9	2,7	1,7	1,1	2,1	2,3	2,8	5,8	4,1	2,1
Individual consumption y/y	%	7,9	6,8	6,9	2,9	2,7	2,1	1,8	1,6	1,7	6,5	4,8	1,8
Investment y/y	%	11,7	9,8	7,0	5,5	1,3	0,9	3,8	3,6	3,3	7,1	5,9	2,9
Inflation rate (eop)	%	8,6	10,7	12,5	11,1	8,5	8,1	4,9	4,3	3,8	8,6	8,5	3,8
Unemployment rate (eop)	%	5,4	5,4	4,9	4,7	4,8	4,9	4,8	4,8	5,2	5,4	4,8	5,2
NBP repo rate (eop)	%	1,8	3,50	5,50	5,50	5,50	5,50	5,50	5,00	4,50	1,75	5,50	4,50
EUR/PLN (eop)	%	4,59	4,75	4,60	4,50	4,40	4,40	4,40	4,40	4,40	4,59	4,40	4,40
USD/PLN (eop)	%	4,04	4,36	4,26	4,09	3,96	3,93	3,86	3,79	3,73	4,0	4,0	3,7

F - forecast

Highlights

- Global economy is still facing numerous adverse shocks: fuel and energy prices, food prices, war-broken supply chains, covidbroken supply chains, high underlying inflation growth, monetary tightening. The only counterbalance is stemming from fiscal policy and past policy actions that enabled consumers and firm to build financial buffers. These are set to peter out over time. Stagflation risk is coming closer.
- EM central banks set the stage for monetary tightening. Now it's time for DM central banks. Fed has just started, and we believe it will deliver much more hikes in 2022 (see <u>here</u>). ECB took a more cautious approach, but the liftoff button is close to being pressed. Due to more complicated nature of war shock in Europe, we will wait for first hikes until the turn of 2022/2023 but the real changes in asset purchases have already been made (see <u>here</u>). Global interest rates indicate growing inflation risks, green light for EBC lift-off and growing doubts the Fed will actually deliver soft landing (see <u>here</u>).
- Polish economy looked very well in the end of 2021 (see <u>here</u>). It is most likely to be looking not much worse in Q1 2022 (see <u>here</u>). We see 2022 GDP growth at ~4% with risks balanced. The structure of risks owes much to the inflow of refugees that are going to support consumption (see <u>here</u>). Otherwise, the structure of growth is weakening. With more rate hikes to come, 2023 is looking increasingly weak (~2% growth) with risks tilted to the downside. The overall not so rosy picture owes much to very high inflation in 2022 with a prospect for moderation in 2023 but not within NBP target (see <u>here</u>). NBP projections are hawkish (see <u>here</u>) but were made with rates at 2.75% half of our forecast of rates in 2022. There will be moving lower in the next months.
- Polish interest rates price in a decent monetary tightening (~6%) with bond curve being additionally exposed to war risk and fragile sentiment amidst almost highest ever inflation to be seen in the next 2-3 months (see <u>here</u>). EURPLN is to stay fragile with decent prospects ahead conditional to delivery of soft landing (see <u>here</u>).

U.S. economy health check

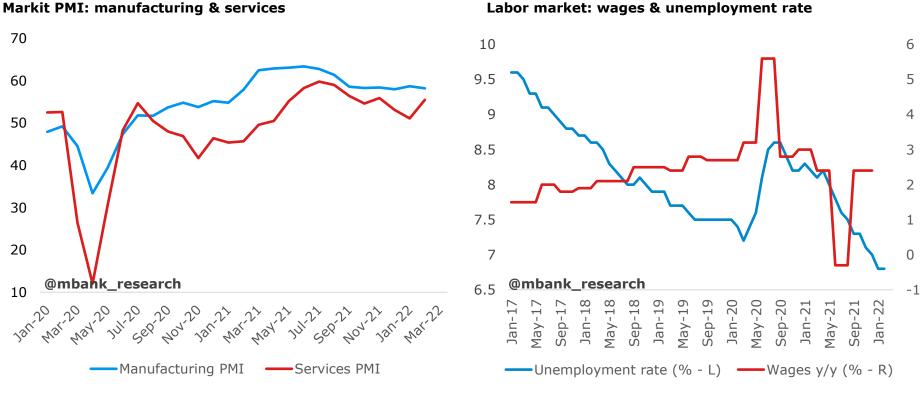


Source: ISM

Source: FRED

- The FOMC decided start the cycle with 25bp hike. Balance sheet reduction (QT) will begin at one of the next meetings; rather sooner than later. The overall tone of Fed communication was and remains hawkish. There is strong determination to bring inflation down to the target, as there are no significant risks for economic activity (FOMC members see war primarily as an inflationary risk rather than the risk for real economy).
- In next months we can even see 50bp hike. Due to the nature of inflationary shocks, this may happen quite quickly, even in April or May. In the short-term interest rates will follow scenario presented by the Fed (or even faster). But later we are more skeptical (acceleration of interest rate hikes will lead to further flattening of the yield curve and its reversal within a few months).
- Labor market data in February were strong again. Employees returned to work after omicron absences. The only negative surprise was average wage probably high supply in the labor market affected it negatively. Sentiment indexes remain high, but data was collected before the war.

Euro area economy health check



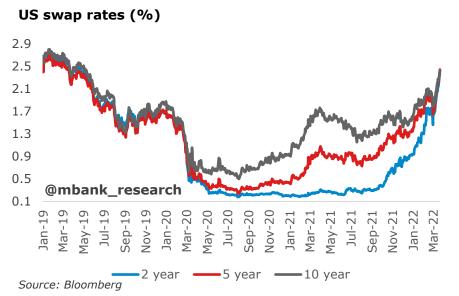
Labor market: wages & unemployment rate

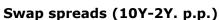
Source: Markit

Source: Eurostat

- ECB wrote in its statement that the Russian invasion on Ukraine is a watershed for Europe. We fully agree also in the ٠ macroeconomic sense (rather concerning fiscal policy and possible supply problems, but some hawkish turn in monetary policy is also seen). Europe will be more affected by war than the US (export to Russia last year was 8x higher in EU vs US).
- During the last meeting ECB decided to limit the regular asset purchase program (APP) in Q2 and considers ending it in Q3 this • year (depending on data). Interest rates (which is no surprise) remained unchanged. Adjustment in rates will take place some time after the end of APP (instead of shortly after previously). It was a hawkish meeting, but C. Lagarde repeated many times that ECB will be data dependent. It seems that ECB sees more risks for inflation than for real growth. Hike in the end of this year is very likely.
- * Much will depend on fiscal policy. It seems that the attitude here changed. We will see: more defense spending, possible changes in the energy transformation programmes (plans for independence from Russia are already published), probably further suspension of the debt/GDP limits, maybe some supporting programmes for firms/countries (rebuilding Ukraine, migrants).

Global rates







Source: Bloomberg

EU swap rates (%)

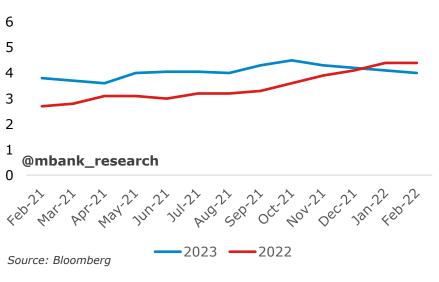


US and EZ inflation expectations (%) 3.1 2.6 2.1 1.6 1.1@mbank_research 0.6 Mar-19 May-19 Sep-19 Nov-19 Jan-20 Mar-20 May-20 Sep-20 Nov-20 Jul-19 Jul-20 Sep-21 Mar-22 Nov-21 Jan-22 Jan-19 Jan-21 Mar-21 May-21 Jul-21 USD 5Y5Y -EUR 5Y5Y

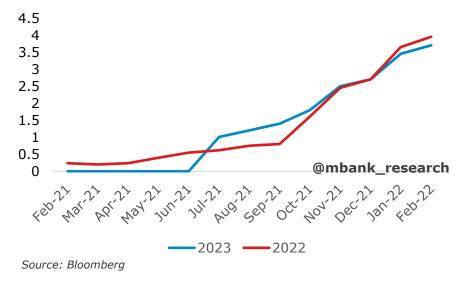
Source: Bloomberg

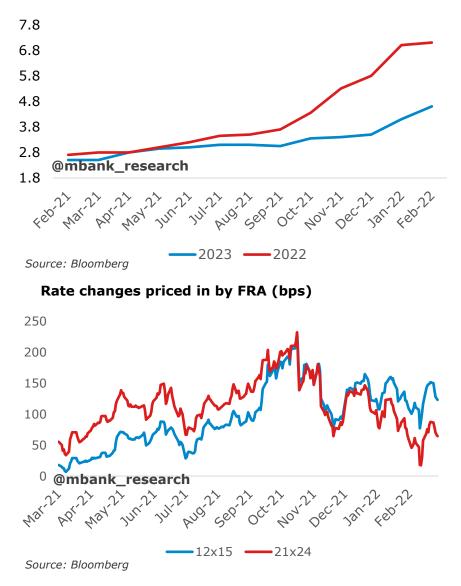
Consensus: what is expected in Poland?

Consensus tracker: GDP growth (% y/y. annual avg)



Consensus tracker: NBP ref. rate (% end of period)





Consensus tracker: CPI inflation (% y/y. annual avg)

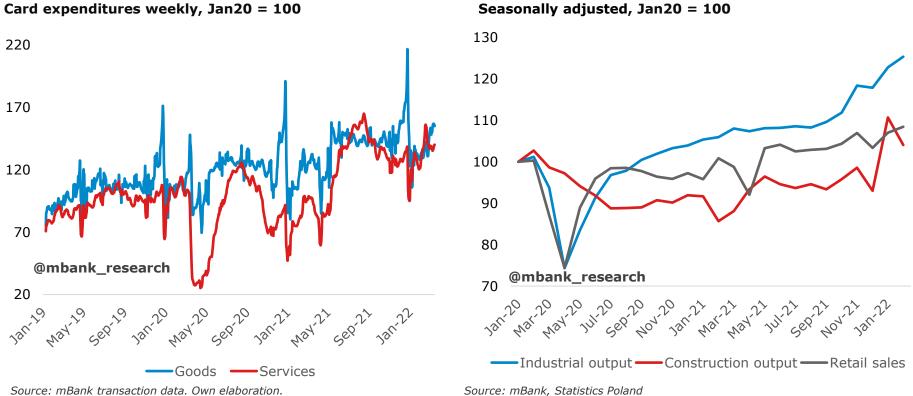
Upcoming (and past) Polish macro releases: March 2021

Publication	Date	Period	mBank	Consensus	Actual	Prior
PMI (pts.)	01.03	Feb	55.3	54.6	54.7	54.5
Unemployment rate (%)	05.12[1] 23.12[2]	Feb	5.4%	5.5%	5.5%	5.5%
СРІ у/у (%)	15.03[3]	Feb	8.0%	8.1%	8.5%	9.4%
Current account (m EUR)	14.12	Jan	-2600	-943	-64	-3957
Employment y/y (%)	17.12	Feb	2.4%	2.2%	2.2%	2.3%
Wages y/y (%)	17.12	Feb	10.2%	9.9%	11.7%	9.5%
Industrial output y/y (%)	20.12	Feb	13.5%	15.2%	17.4%	19.2%
PPI y/y (%)	20.12	Feb	15.0%	15.1%	15.9%	14.8%
Construction output y/y (%)	21.12	Feb	23.1%	23.1%	21.2%	20.8%
Retail sales y/y (%)	21.12	Feb	11.6%	8.1%	8.1%	10.6%
M3 y/y (%)	22.12	Feb	7.3%	7.7%		7.7%

[1] Ministry of Labour and Social Policy estimate[2] Final reading

[2] Statistics Poland final reading

Poland: Optimistic data support strong GDP growth in 102022



Card expenditures weekly, Jan20 = 100

٠. Industrial production has been surprising upwards for months. We still wonder whether it is the actual production, or just the sale of the production (from stocks, produced earlier), and how long will we see it? If supply chains get stuck again (problems with transport and employees), we will see many adjustments: building inventories, stopping production (no components), order cancellations etc. In the short term (March, April), industrial production should decline. Later on, if new orders (and the volume of unrealized orders) do not drop drastically, the perspectives are not so bad.

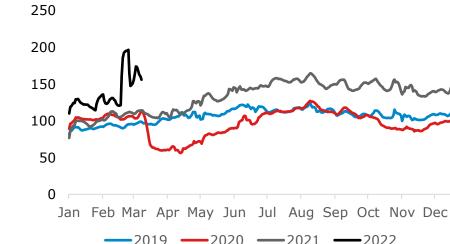
- Consumers, and therefore retail sales, are struggling with high inflation. On the other hand, wages have noted guite high growth ٠. last months (around 10-11% y/y), which can ease this effect (but still real wages dynamics is close to 0 - see labor market section). In March and February there was many additional consumption, because of volunteers helping refugees, some panic (fuels in the first day of the war) and building food inventories (somehow like in the beginning of the pandemic, but on a smaller scale). Without upcoming refugees' consumption (see slides 12 and 13) perspectives would be much worse.
- Last months were quite good in construction, but there will be problems with lack of workers (many Ukrainian workers). *

Poland: Card expenditures, 7-day average

250 200 150 100 50 @mbank_research 0 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec <u>-2019</u> <u>2020</u> <u>2021</u> <u>2022</u>

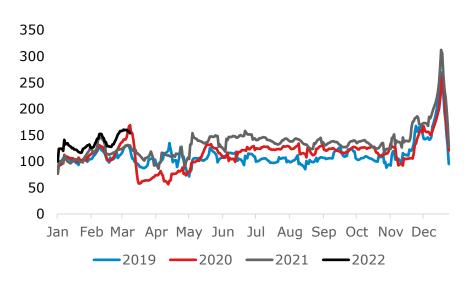
Food, beverages and non-specialized stores, Jan20 = 100 250 200 150 100 50 @mbank_research 0 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

Fuels, Jan20 = 100



Source: mBank transaction data. Own elaboration.

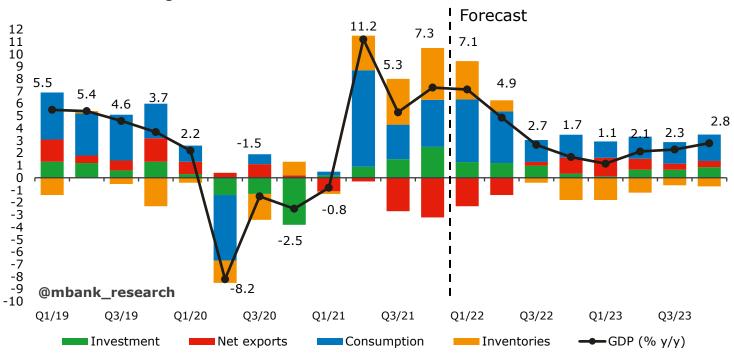
Drugstores, Jan20 = 100



<u>-2019</u> <u>2020</u> <u>2021</u> <u>2022</u>

Restaurants, Jan20 = 100

Poland: GDP in Q4 – (almost) the last such a good quarter

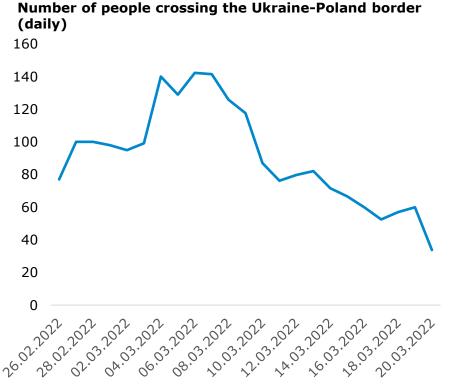


Contributions to GDP growth and our forecast

Source: Statistics Poland

- GDP growth in the last quarter of 2021 was quite high (7.3% y/y) which implied the yearly average of GDP growth at 5.7% y/y in 2021. Consumption increased by 7.9% y/y in Q4, investments by 11.7% y/y, a new normal is high contribution of inventories. Monthly data suggest that also 1Q2022 will be a good one, later on it will be much harder.
- Even before the war in Ukraine we expected lower growth due to high inflation (lower real income, lower sentiment), delayed effects of high commodity prices (especially crude oil), and delayed effects of interest rate hikes. Now these effect will be even stronger. Furthermore, we have to add high firms' uncertainty (and therefore lower investments), high food inflation, lower export to Ukraine, Russia and Belarus, problems with supply chains, and possible global slowdown. But we did not change our overall forecast for 2022, and we still expect growth at 4.1% y/y. We think that refugees' consumption (and government/volunteers, see slide 13) will fill the gaps in domestic consumption and exports. Good first quarter will also help.
- Downside risks mount in 2023. There will be no further dynamic effects of refugee's consumption (or we'll see a turnaround), interest rate hikes will take their toll, together with still high prices (e.g., energy). Fiscal policy may be less expansionary (anti-inflation shields will end). Perspectives of investment are uncertain (likely military spending will not be enough to boost GDP).

Poland: Refugees – implications for consumption #1



Assumptions on the refugee's consumption structure

					-			
Categories of CPI basket	Weights in CPI	What percentage of this weight we assume that refugees will consume?						
	basket	1Q	2Q	3Q	4Q			
Food and non-alcoholic beverages	27.7%	70%	75%	80%	90%			
Alcoholic beverages and tobacco	6.9%	20%	30%	40%	40%			
Clothing and footwear	4.2%	30%	40%	50%	50%			
Housing, water, electricity, gas, etc.	19.1%	20%	40%	50%	60%			
Furnishings, household equipment, etc.	5.8%	5%	15%	30%	40%			
Health	5.4%	30%	30%	50%	50%			
Transport	8.9%	20%	30%	60%	80%			
Communication	5.0%	20%	30%	40%	50%			
Recreation and culture	5.8%	20%	30%	40%	50%			
Education	1.0%	0%	10%	30%	40%			
Hotels and restaurants	4.6%	10%	30%	40%	50%			
Miscellaneous goods and services	5.5%	20%	30%	40%	50%			

- Scale and pace of migration from Ukraine to Poland is unprecedented. Since the war began, more than 2.1mln people have crossed the border (from Ukraine to Poland, data for 21st March). Refugees also moved via Slovakia/Romania/Hungary. In the opposite direction (Poland – Ukraine) 264 thousand people crossed the border (we do not know how many of them stayed there).
- We tried to estimate the scale of possible refugee's consumption, as it will have direct impact on Polish GDP. But because of the uniqueness of this situation, we had to use unusual tools. We decided to start with the CPI basket and consider what the consumption of a typical refugee may look like in the short and medium term. As refugee's consumption we mean both their expenses and additional consumption of government/volunteers (see card expenditures, <u>slide 10</u>).
- We assume/guess how refugee's weights can differ (compared to "typical" Polish consumer), and how they will change over time (gradual convergence to typical Polish consumer). We assume that people who decide to stay in Poland for longer will consume the basket of goods that is more and more similar to the current CPI basket. Our assumptions are set out in the table above.
- Assuming different scenarios of the number of refugees, we can calculate the impact on consumption (next slide). Of course, the entire analysis is very dependent on assumptions.
- m Monthly Pulse Check

Source: Polish border guard, own evaluation

Source: own evaluation

Poland: Refugees – implications for consumption #2

Static analysis

	Number of refugees from Ukraine (in thousands)					% of additional consumption in 2022						
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	yearly average			
scenario I	2 000	2 000	2 000	2 000	0.7%	1.7%	1.7%	1.7%	1.5%			
scenario II	3 000	3 000	3 000	3 000	1.0%	2.6%	2.6%	2.6%	2.2%			
scenario III	4 000	4 000	4 000	4 000	1.4%	3.5%	3.5%	3.5%	3.0%			

Quasi-dynamic analysis

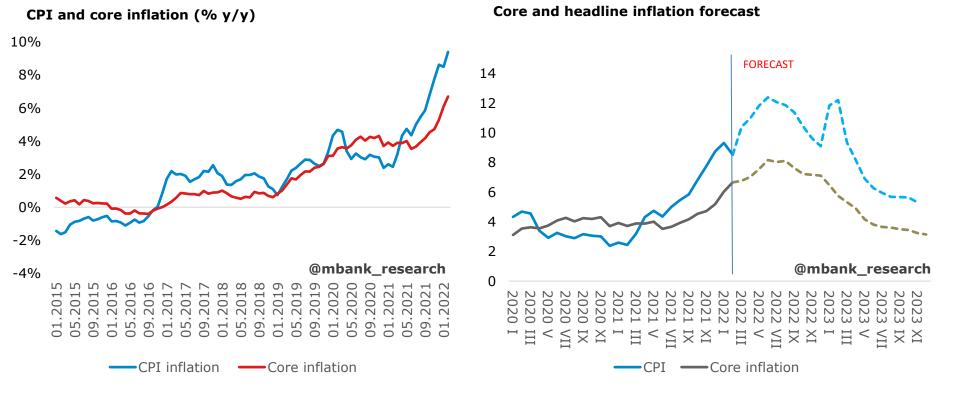
	Number of refugees from Ukraine (in thousands)					% of additional consumption in 2022						
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	yearly average			
scenario I	2 000	1 500	1 300	1 000	0.7%	1.3%	1.1%	0.9%	1.0%			
scenario II	3 000	2 300	1 700	1 500	1.0%	2.0%	1.5%	1.3%	1.5%			
scenario III	3 500	4 000	3 700	3 500	1.2%	3.5%	3.2%	3.1%	2.8%			

Fully dynamic analysis

	Number of refugees from Ukraine (in thousands)					% of additional consumption in 2022						
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	yearly average			
scenario I	2 000	1 500	1 300	1 000	0.7%	1.7%	1.9%	1.7%	1.5%			
scenario II	3 000	2 300	1 700	1 500	1.0%	2.6%	2.5%	2.5%	2.2%			
scenario III	3 500	4 000	3 700	3 500	1.2%	4.6%	5.3%	5.9%	4.3%			

- We analyze 3 variants:
- Static: The number of refugees does not change (3 scenarios: 2mln, 3mln, and 4mln people), and their habits (CPI basket) do not change. It is the simplest analysis and seems to be far from reality. Additional consumption in 2022 would be at 1.5-3% yearly.
- Quasi-dynamic: The number of migrants changes throughout the year, but their habits do not change. First scenario assumes quite low number of migrants, and fast comeback home. Second, high number of migrants, but many of them move, later on, to other countries (part of them comes back home). The third one is a scenario of the highest number of migrants and very little reallocation (3.5mln of 4mln stays in Poland). Additional consumption in 2022 would be at 1-2.8% yearly (depending on scenario).
- Fully dynamic: Number of migrants changes over time (as in quasi-dynamic case), but also their habits change (converge to typical basket, as presented in previous slide). It is most akin to the real world. But there are many possible sources of mistakes: demographic structure of refugees cannot be compared with any population in economy (mostly woman and children, some elders). It will change over time (more men to come). It is also difficult to estimate the size of consumption replaced by volunteers/donors. Additional consumption in 2022 would be at 1.5-4.3% yearly (depending on scenario).

Poland: Inflation tracker #1

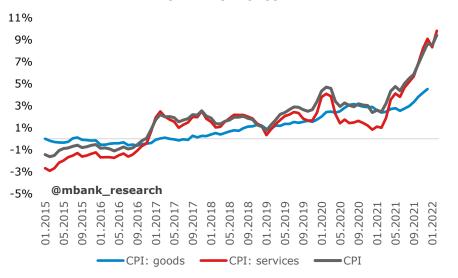


Source: Statistics Poland, NBP, own elaboration

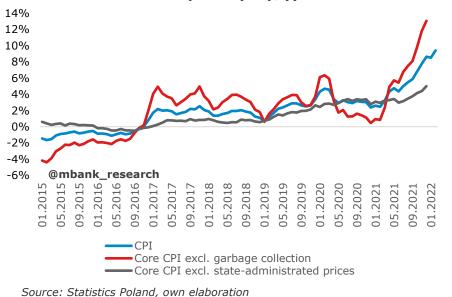
Source: Statistics Poland. own elaboration

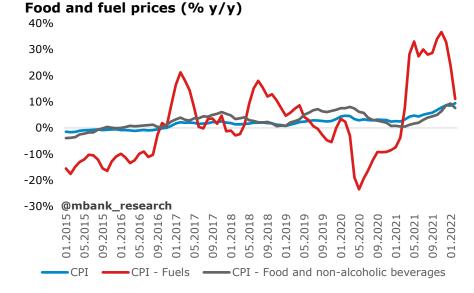
- Inflation in January was at 9.4% y/y and in February it declined to 8.5% y/y. Government anti-inflation shield worked well in energy prices, but in food prices the impact was not 1:1 (net prices were higher). Core inflation increased from around 6% to 6.6% (but in seasonally adjusted monthly dynamics there is no acceleration). It is already a historical reading, far from the ones we will observe in next months. The accumulation of one-off effects in inflation will be huge, pushing inflation to 11%+ in 2022 In March, we will see the double-digit inflation, and we need to get used to it until the turn of 2022 and 2023.
- We will see further adjustments in many categories to higher fuel and food prices (those two shocks are obvious). It will extend the period of return of core inflation to more moderate levels. We also expect that the demand impulse from refugees will be an additional element changing allocation in the economy that operates above the potential (and it will be worse due to supply chains problems). It will result in higher prices. In 2023 we should see effects of interest rate hikes (see <u>slide 16</u>), base effects (they will be significant), less inflationary labor market and unblocked supply chains. But much depends on crude oil and food prices. We expect much lower inflation, though.

Poland: Inflation tracker #2 (unorthodox, additional measures)

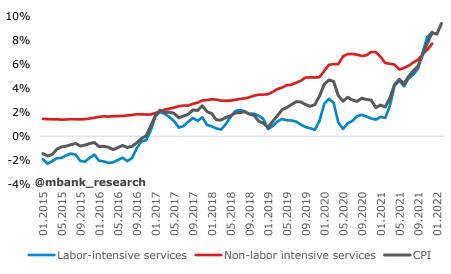


Core inflation without garbage collection fees and without administrated prices $(\% y/y)^*$





Services (% y/y)*

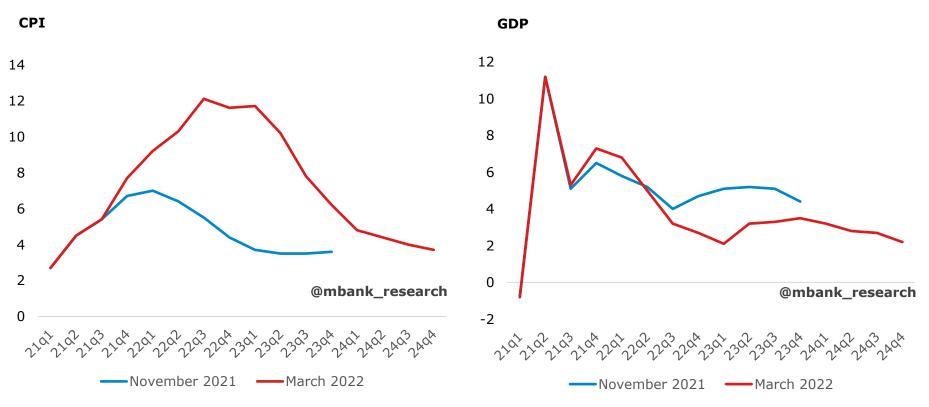


* Data until December 2021

Goods and services prices (% y/y)

m Monthly Pulse Check

Poland: Hawkish NBP projection



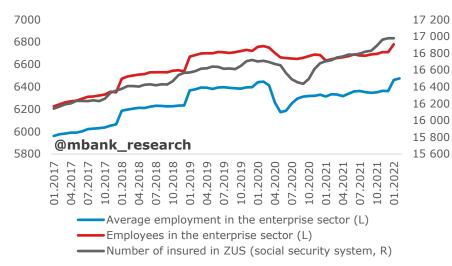
Source: NBP projection, own evaluation

Source: NBP projection, own evaluation

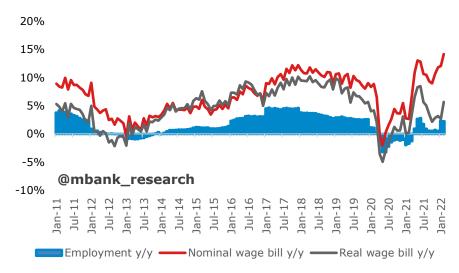
- NBP projection implies that this year GDP growth will slow down to 4.4% y/y, and in the following years we will see even weaker growth (3.0% y/y in 2023 and 2.7% y/y in 2022). It is quite high forecast for 2022, but it is worth to remember that projection was constructed with the assumption of reference rate at 2.75% (now 3.50%). Compared to the previous one (from November, with rates at 0.50%) both consumption and investment paths moved downward (investment much more). Main reasons are oil and natural gas prices shocks, supply chain disruptions, and lower real incomes (due to inflation)
- The NBP projects that yearly average inflation will be close to 10.8% y/y this year (the peak in Q3). In the next years, it is expected to decline to 9% y/y in 2023 and 4.2% y/y in 2024. Inflation does not return to the NBP target or even to its upper band in the projection horizon (3.7% y/y in Q4 2024). The key assumption is government anti-inflation shield. If it is extended till the end of this year, then CPI in 2022 will be close to 9.1%, but will be also higher in 2023 (10.6% y/y according to NBP). Elevated inflation is projected almost everywhere: energy prices, food prices, and in core categories.
- MPC will, in our opinion, finish hikes at 5-5.50% (and will reach this level quite fast). It may not bring inflation down to the target (it would require much more hikes), but MPC does not want a recession or GDP slowdown (the risk here is high).

Poland: Labor market tracker

Employment

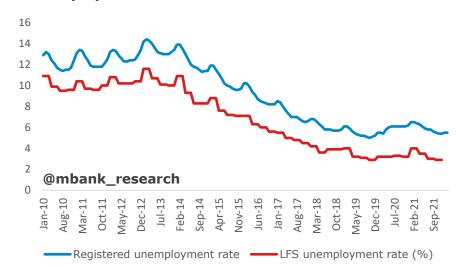


Wage bill

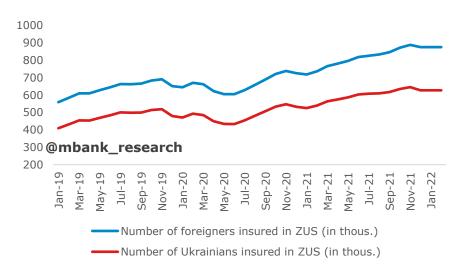


Source: Statistics Poland, ZUS Statistical Portal, own elaboration

Unemployment rate

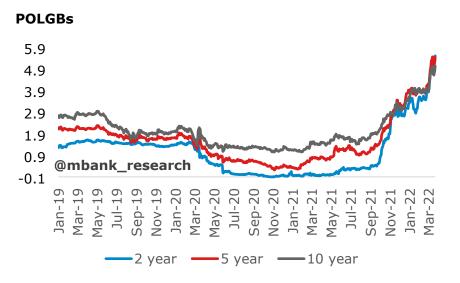


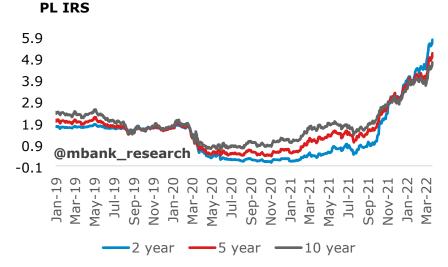
Immigration in the labor force*



* We do not see refugees in these data. Better look at absolute number of people crossing border (<u>slide 12</u>)

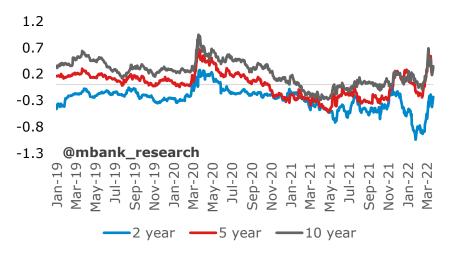
Polish rates, yields and spreads





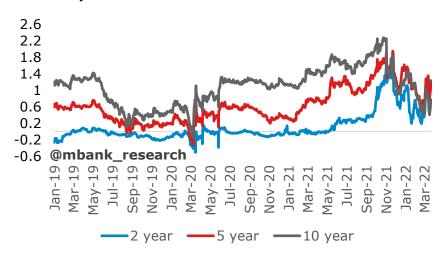
Source: Bloomberg

ASW spread



Source: Bloomberg

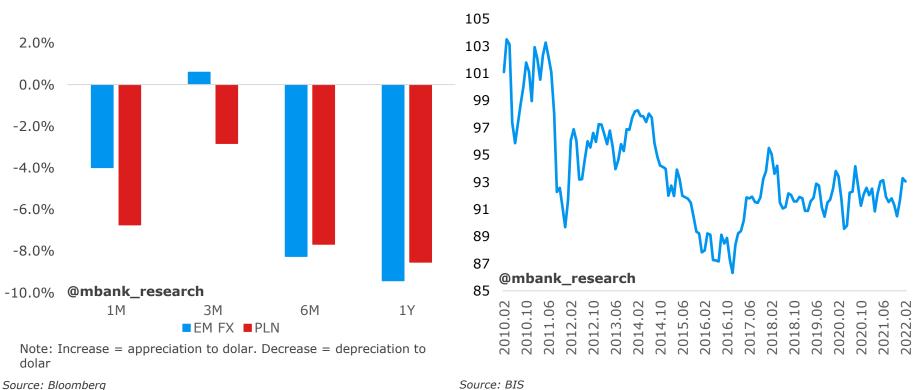
POLGB yield minus 3m WIBOR



Source: Bloomberg

Source: Bloomberg

EURPLN – tough times for the zloty



Real effective exchange rate (mind the dates)

Solid depreciation of zloty

Time of high volatility has come. The fact that zloty behaves like the RUB (in terms of the direction, not the scale of the move) proves that there is a lot of anxiety and speculation (there are no fundamental reasons, given e.g., sanctions on Russia). The entire EM universe is changing in line with global sentiment.

- The determination of the MPC to bring inflation down to the target and focusing on the role of the exchange rate channel (governor Glapiński emphasizes the role of strong zloty) should stabilize zloty. It has already happened in the last few days, but global sentiment helped a lot here. We think that a move with interest rates to 5-5.5% (in the upcoming months) will be enough to stabilize the zloty and will allow for a later appreciation as soon as global sentiment stabilizes.
- In the longer-term EURPLN will stabilize around 4.40. There will be several factors impacting the exchange rate in different ways: war and uncertainty (depreciation), refugees (appreciation, see <u>slide 12</u>), high interest rates (appreciation), risk of stagflation (depreciation), rebuilding Ukraine (depreciation, move of investments there).

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