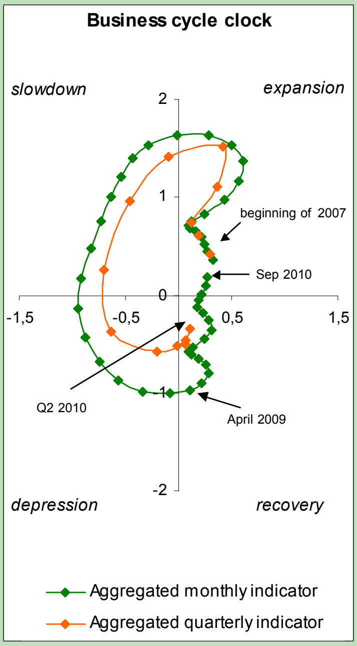
Bank Zachodni WBK

MACROscope

Polish Economy and Financial Markets

November 2010



Note: construction of business cycle clock, including concepts and methodology used for its creation was presented in November's MACROscope
http://english.bzwbk.pl/_items/english/doc/m_eng_2009_11.pdf

Expansion 2.0

- **The title of our previous report *"Expansion continues"* was confirmed by next information from the economy and central banks.**
- **Most of the economic data last month turned out better than expected, both in Poland and abroad.** This has slightly mitigated the concerns about a pronounced slowdown on the global market at the end of this year and in 2011. Poland has been reporting a strong growth in industrial production, largely fuelled by external demand. The domestic demand has also been on the rise, as reflected by acceleration of the construction industry and retail sales. As a result, we have decided to raise GDP growth forecasts for Q3 and Q4 2010 and 2011 (to 3.8%, 4.2% and 3.9%, respectively).
- **The Monetary Policy Council has again decided to keep the interest rates unchanged – this came as no surprise in the context of the Council's previous press release, although might appear a bit puzzling in view of the macroeconomic environment and the inflation risks projected in the mid-term period.** It seems that the MPC's decisions are becoming increasingly difficult to project and the Council's communication certainly does not provide any hints. It is hard to say, which of the following information should be treated as the most important: macroeconomic data (which, in our view, have been suggesting an interest rate hike for some time now), reaction function of the previous Council (which would have raised the interest rates already – see the *Special focus* article for more details), the most recent statements of the Council (suggesting no rate hike rates in the near future), or perhaps the comments of Council members (which hint at an upcoming monetary tightening)? As regards the latter, it is worth noticing the hawkish comments of these two members who opposed an interest rate hike in August (Winiecki, Zielińska-Głębocka). If they now opt for tighter monetary policy, this might mean that majority of the Council members are in favour of higher interest rates, in spite of dovish comments after the last two meetings. This scenario assumes, however, that the four members who voted for the hike in August are still supporting this strategy. All in all, an increase of interest rates in November will mean that the Council's press release might have misled most of the market players. The underlying cause of the rate hike might be much more simple and irrespective of numerous comments on the need for forward-looking monetary policy, the Council will just respond to a more pronounced growth of the current inflation rate. Still, we do not expect that this will happen as early as in November.
- **In October, the Council did not change the interest rates because it was concerned about the prospective inflow of capital after Fed's decision.** Indeed, another round of quantitative easing programme in the US resulted in the appreciation of the Polish zloty. We are not changing our projections of the zloty exchange rate movements for the upcoming months and quarters, although we assume that the dollar may loose in value against the euro. We predict that in November EURPLN rate should remain close to 3.92, with potential temporary declines below 3.90. A possible depreciation of the zloty (e.g. resulting from the market's short-term response to no interest rates hike by the MPC) should be curbed at ca. 3.96.

Financial market on 29 October 2010:

NBP deposit rate	2.00	WIBOR 3M	3,85	USDPLN	2.8873
NBP reference rate	3.50	Yield on 2-year T-bonds	4.78	EURPLN	3.9944
NBP lombard rate	5.00	Yield on 5-year T-bonds	5.17	EURUSD	1.3834

This report is based on information available until 08.11.2010

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Special focus

Behind the curve?

While the first two quarters of the new Monetary Policy Council (MPC) in office hardly brought anything new to the debate on evolution of interest rates, the last few months caused more of a stir. With the Polish economy on the rise amid increasing role of domestic demand sparking recovery in the labour market and an increase in the inflation rate and inflation expectations, there are more and more arguments in favour of a tighter monetary policy. In fact, in the wake of the recent macroeconomic developments, it is no longer a question "if" but rather "when" the interest rate will be raised in Poland.

Ideally, one should know the line of thought of the monetary policymakers to answer the above question correctly. Actually, after three quarters in office, the Monetary Policy Council remains somewhat mysterious. It results both from a striking economy with words demonstrated by the Council (some MPC members hardly ever make any public comments on monetary policy) as well as the fact that actions taken by the Council to date do not suffice to make clear conclusions based on actual decisions and voting. So far, any explicit judgements or rigid rules have seemed futile – it is enough to say that the Council members prove hard to pigeonhole into hawkish or dovish (although we do attempt to do so in the subsequent section "Restrictiveness of the Monetary Policy (Council)", page 10). Recently, MPC communication with financial markets and economic environment has not added to the debate on future interest rate decisions and more difficulties can be expected in this area in the months to come.

Lacking empirical evidence, which would facilitate the analysis of MPC decision model, we anticipate the interest rate path based on a historical decision making mechanism. We do realise the limitation of this assumption: except for the new composition of the Council, the decision-making process could be disturbed by the deepest global recession since the World War Two. All the above makes identification of the rules followed by the Council even more challenging.

What if...?

Nearly two years ago we made an attempt to identify the rule, which shaped the central bank interest rates in Poland at the time of the previous MPC. In the analysis[1], we used a simple linear regression model to set the rule, based on the concept of what has become known as a Taylor rule[2] which would best reflect interest rate decision-making of the MPC in the years 2004-2008, based on the behaviour of key macroeconomic parameters. In effect, we identified the MPC "response function" with a clear link between the NBP reference rate and a combination of the following parameters: CPI departure from the inflation target, index of activity in the manufacturing sector, GDP growth rate, movements in oil prices, wages in the enterprise sector, and NBP projections published in the Inflation reports.

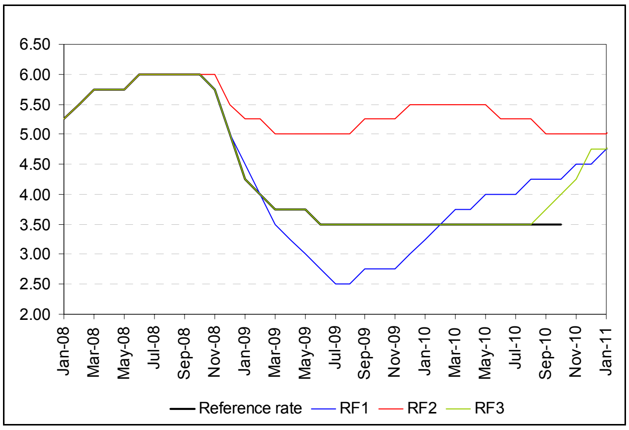
The assessment of the model's predictability from the time perspective seems to be a quite interesting exercise, as shortly after the estimates were made the Lehman Brothers went bust and credit crunch spread around the world, impacting both the macroeconomic processes and decisions made by central banks worldwide (e.g. coordinated actions of major central banks aimed to relax monetary policy and boost liquidity).

A slightly modified pre-crisis MPC response function[3] was used to model a theoretical path of interest rate from the start of the global crisis till today. As indicated by the model, if the Council had worked closely to the rule, NBP rates would have been more severely cut during the height of the economic slowdown, however, they would have rebounded fairly quickly in response to the market turning up (see the figure below). In the above scenario, the reference rate would have shifted from 2.5% in Q3 2009 to 4.25% today and would possibly move upwards in the coming months.

There is a marked difference between the actual and theoretical interest rate paths. Hence, it should be further investigated whether it is attributed to the actual change in MPC response function after the onset of the crisis or – at least to some extent – to the influence of other extraordinary circumstances not reflected in the model. The latter seems likely, given the fact that MPC response function defined two years ago failed to factor in the impact of exchange rate movements on MPC decisions. This could not be confirmed statistically, not because MPC is indifferent to Polish currency fluctuation (MPC communications prove otherwise), but more likely due to its non-linear and time-varying nature. Rapid currency movements during the crisis added to inflation pressures, preventing MPC from further interest rate cuts.

[1] *On the trail of the NBP rates*, MACROscope, October 2008
[2] Taylor, John B. (1993), *Discretion versus policy rules in practice*; Carnegie-Rochester Conference Series on Public Policy, Vol. 39
[3] For detailed estimate results see *Technical Supplement*.

Theoretical paths of the NBP reference rate based on MPC response functions



RF1 – pre-crisis response function;
RF2 – pre-crisis response function factoring in fx movements;
RF3 – post-crisis response function;
Results rounded to 0.25 pp

Interestingly enough, the same exercise repeated using the currently available data confirmed the significance of the FX movements for pre-crisis response function. However, interest rate path modelled by the above equation (RF2) was even more divergent from the actual decisions of MPC – interest rate cut predicted by the model was very small (only 1 pct. point) and short-lived. Clearly, the statistical tool we used failed to correctly determine the complex link between exchange rate movements and MPC interest rate decisions.

We used the similar methodology in a bid to define the post-crisis response function based on MPC decisions from October 2008 to August 2010, aware that insufficient sample and key structural changes in the MPC in early 2010 will threaten reliability of the estimates. The resulting equation is largely simplified (interest rate evolution depends on inflation rate, PMI and salary growth rate; again, the impact of FX movements on MPC decisions proved statistically insignificant).

If the current Monetary Policy Council worked according to the above rule, the first interest rate hike could be expected as early as in September, while the theoretical interest rate path (RF3) based on the above equation and actual and predicted shifts in macroeconomic indicators implies a rise in NBP reference rate in the coming months up to 5.0% at the year end. Please note, however, that if the model does not account for exchange rate movements, then – similarly to the downturn period – the interest rate behaviour predicted by the simplified response function may be distorted, e.g. due to actual or expected appreciation of currency endorsed by the Council.

Taking a different angle [4]

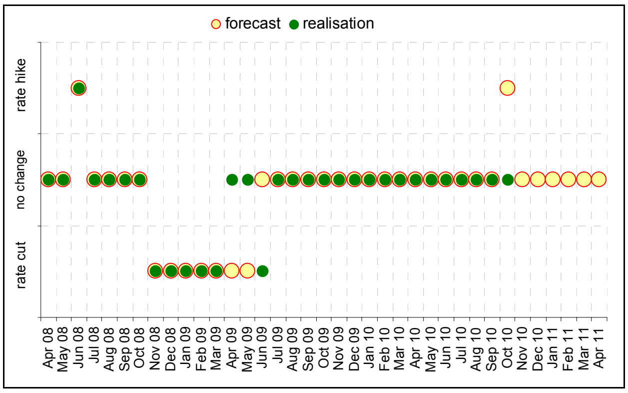
In the analysis of MPC decision-making our objective was to look at the issue from a different angle and use different methodology. To that end, we examined the MPC response function using the logistic regression model and following the general idea of Taylor rule. This time, the analysis did not centre on the nominal level of NBP reference rate but the moment and direction of interest rate changes introduced by the central bank, i.e. MPC's decisions on whether the interest rate should be cut, raised, or left unchanged. Contrary to the previous estimates, the sample covered the longest period possible, not only to increase the number of observations but to include the adequate mix of decisions on interest rate hikes and cuts. The analysis covered all terms of MPC, i.e. the period from March 1998 to July 2010.

Using a general-to-specific approach, we arrived at a decision model consistent with the Taylor rule with the following factors determining the interest rate changes: price movements (both the inflation rate and its change), demand gap (represented by the business cycle clock indicator[5]) and NBP inflation and GDP projections published in the Inflation report.[6] The analysis did not show a statistically significant impact of exchange rate movements.

The predictive power of the model is not extremely high – the percentage of correct estimates was slightly above 70% for the entire sample. Also, the model behaves differently with respect to interest rate cuts or status quo (ca. 80% of correct estimates) compared to interest rate hikes (correct estimates at only 50% on average). Admittedly, it is not the most optimistic conclusion if one wants to anticipate when MPC is to tighten the monetary policy. It may be attributed to the fact that the Council itself has more difficulties in raising interest rates than leaving them flat or cutting them. The figure below demonstrates the evolution of the interest rate predicted by the model and actual MPC decisions over the last three years.

[4] Based on the results of the analysis by Paweł Zięba, a student at SGH and apprentice in BZ WBK.
[5] The demand gap is not directly observable. We decided that the business cycle clock index, estimated by us, reflecting the departure of the current economic conditions from a long-term trend, was a good equivalent. The indicator itself was not readily available to the MPC when making decisions (in fact, we started estimating it only a year ago), however, it was factored in the model making assumption that it adequately reflects the Council's view of the current business cycle. For details on the methodology behind the index see: MACROscope, November 2009.
[6] For detailed estimation results see *Technical appendix*.

Model estimates and MPC decisions in the period between April 2008 and April 2011



Please note that the model successfully identified the macroeconomic environment at the turn of 2008 and 2009 as in favour of monetary policy relaxation. The sequence of interest rate cuts generated by the logistic regression was slightly longer than actually delivered by MPC. Most likely, it resulted from the fact that the model did not factor in FX movements, as in the case of the analysis of MPC response function based on the linear regression.

Remarkably, the response function estimated in the logistic regression model prompted interest rate rise in October. The model indicated two determinant factors: inflation rate surge in September and projections published by NBP (the results suggest that in months when the new projections are published MPC takes more hawkish stance; in practice, the effect should be even stronger this time, as the latest projections assumed an increasing risk of inflation rate rising above NBP target, which was not incorporated in the model). As regards the next months (until April 2011 inclusive), the model suggests that interest rates will level off (based on the projected inflation rate and business indicator). It should be noted, however, that in February 2011 (when the next Inflation Report is published) the odds in favour of a tighter monetary policy are rising again. The results of our simulation show that the model would predict another interest rate rise in that month if – other things unchanged – the price rises at the beginning of the year pushed the January inflation rate up to 3.5%.

No rules followed

The trend of balance of macroeconomic factors shifting towards favouring tighter monetary policy seems to us fairly clear now, which we have been mentioning for some time now. The estimates from the regressions let us conclude that if the central bank's decisions had been based on MPC responses in the past, the interest rates would have already been higher. Nevertheless, we do realise that the past behaviour of central bankers will not allow us to anticipate the future decisions of the current MPC. The rules that govern the present MPC decision-making (if any) remain unclear. Especially that the Council's communication policy which has recently caused a stir in market expectations about future interest rate movements (e.g. by dropping the unofficial monetary policy bias) is not helpful either. Despite declarations that the monetary policy should be forward-looking, some statements made by MPC members suggest that the key factor for the timing of the interest rate hike may be the observed inflation rate, and only after a critical level of CPI is exceeded (e.g. 3.0% or 3.5%) will the Council respond. Unfortunately, it will be far from forward looking then…

Technical appendix

1. Linear regression

MPC reaction functions estimated by simple regression analysis were specified as follows:

RF1 – reaction function in pre-crisis period (January 2004 – September 2008), no exchange rate included:

$$r_t = 0{,}92 \cdot r_{t-1} - 2{,}17 - 0{,}25 \cdot dum_t + 0{,}10 \cdot (cpi_{t-1} - 2{,}25) +$$
$$+ 0{,}04 \cdot rap_t \cdot (cpi_{t-1} - 2{,}25)^1 + 0{,}02 \cdot pmi_t + 0{,}02 \cdot pmi_{t-3} +$$
$$+ 0{,}01 \cdot doil_{t-4} + 0{,}11 \cdot dpkb_t - 0{,}09 \cdot place^1_{t-2} + 0{,}15 \cdot place^1_{t-5} + \varepsilon_t$$

RF2 – reaction function in pre-crisis period (January 2004 – September 2008), including exchange rate variable:

$$r_t = 0{,}82 \cdot r_{t-1} - 1{,}06 - 0{,}23 \cdot dum_t + 0{,}14 \cdot (cpi_{t-1} - 2{,}25) +$$
$$+ 0{,}05 \cdot rap_t \cdot (cpi_{t-1} - 2{,}25)^1 + 0{,}02 \cdot pmi_{t-1} + 0{,}01 \cdot doil_{t-4} +$$
$$+ 0{,}08 \cdot dpkb_t - 0{,}09 \cdot place^1_{t-2} + 0{,}19 \cdot place^1_{t-5} + 0{,}17 \cdot eur_t + \varepsilon_t$$

RF3 – reaction function after the crisis broke up (October 2008 – August 2010), no exchange rate included:

$$r_t = 0{,}87 \cdot r_{t-1} - 4{,}73 + 0{,}25 \cdot cpi_t + 0{,}09 \cdot pmi_t - 0{,}01 \cdot d(pmi_t) +$$
$$+ 0{,}03 \cdot place_t + \varepsilon_t$$

where: r_t - NBP reference rate; dum_t - dummy variable equal to 1 in March and April 2005 and zero elsewhere; cpi_t - inflation rate; $(cpi_t - 2{,}25)^1$ - difference between inflation rate and 2.25, assuming it is non-negative, otherwise zero; rap_t - variable equal 1 in months of publication of the *Inflation report*, otherwise zero; pmi_t - index of activity in Polish manufacturing sector; $doil_t$ - monthly change in world crude oil prices; $dpkb_t$ - difference between the latest and previous reading of GDP growth in months of GDP data publication, otherwise zero; $place^1_t$ - variable equal to 1 when wage growth in corporate sector exceeds 6,5%, otherwise zero; eur_t - monthly average EURPLN exchange rate, ε_t - random residual.

Estimation results of the above models by ordinary least squares are given in tables on the right.

2. Logistic regression

Analysis of MPC decisions based on multinomial logistic regression was using monthly data from the period March 1998 – July 2010. Dependent variable SR_or was defined in such way that it could have following values:

0 – in months when a rate cut decision was made by the MPC;
1 – in case of keeping interest rates on hold;
2 – in case of interest rate hike.

Verification of the proportional odds assumption (i.e. assumption that ratio of odds is constant among all analysed decisions) has shown that it is not valid, which implied that the standard ordered logit model could not be used. Thus, we implemented multinomial logit model that did not require such assumption.

The estimation produced the following equations:

(1) concerning probability of 0 versus 1:

$$SR\_or_t = -0{,}13 \cdot r_{t-1} + 0{,}03 \cdot cpi_{t-1} + 0{,}93 \cdot d(cpi_{t-1}) +$$
$$2{,}22 \cdot zk_{t-1} + 7{,}06 \cdot d(zk_{t-1}) + 1{,}37 \cdot rap_t + \varepsilon_t$$

(2) concerning probability of 0 versus 2:

$$SR\_or_t = -0{,}17 \cdot r_{t-1} - 0{,}004 \cdot cpi_{t-1} + 4{,}20 \cdot d(cpi_{t-1}) +$$
$$+ 3{,}99 \cdot zk_{t-1} + 9{,}07 \cdot d(zk_{t-1}) + 2{,}32 \cdot rap_t + \varepsilon_t$$

where: r_t - value of NBP reference rate in the period t; cpi_t - inflation rate; zk_t - index of "business cycle clock"; rap_t - variable equal 1 in months of publication of the NBP projections of inflation and GDP, otherwise zero; $d()$ – first difference operator.

Table 1. Pre-crisis reaction function (no exchange rate)

Dependent Variable: R — Method: Least Squares
Sample: 2004M01 2008M09 — Included observations: 57

Variable	Coefficient	Std. Error	t-Statistic	Prob.
R(-1)	0.924898	0.028059	32.96286	0.0000
C	-2.116098	0.402532	-5.256973	0.0000
DUMM	-0.246898	0.063936	-3.861621	0.0004
CPI_225(-1)	0.100218	0.018521	5.411084	0.0000
RAP*CPI_225_1(-1)	0.042763	0.019669	2.174073	0.0349
PMI	0.022834	0.006443	3.543922	0.0009
PMI(-3)	0.023995	0.006553	3.661422	0.0006
DOIL(-4)	0.006657	0.002386	2.790171	0.0076
DPKB	0.109744	0.020455	5.365243	0.0000
PLACE_650_1(-2)	-0.094285	0.032190	-2.929054	0.0053
PLACE_650_1(-5)	0.150024	0.035012	4.284878	0.0001

R-squared	0.993902	Mean dependent var	5.030702
Adjusted R-squared	0.992577	S.D. dependent var	0.873813
S.E. of regression	0.075286	Akaike info criterion	-2.163496
Sum squared resid	0.260726	Schwarz criterion	-1.769223
Log likelihood	72.65964	F-statistic	749.7962
Durbin-Watson stat	2.185761	Prob(F-statistic)	0.000000

Table 2. Pre-crisis reaction function (exchange rate included)

Dependent Variable: R — Method: Least Squares
Sample: 2004M01 2008M09 — Included observations: 57

Variable	Coefficient	Std. Error	t-Statistic	Prob.
R(-1)	0.824199	0.034486	23.89952	0.0000
C	-1.058934	0.374794	-2.825378	0.0070
DUMM	-0.230066	0.066155	-3.477687	0.0011
CPI_225(-1)	0.139139	0.018960	7.338760	0.0000
RAP*CPI_225_1(-1)	0.049237	0.019882	2.476437	0.0170
PMI(-1)	0.022578	0.006883	3.280198	0.0020
DOIL(-4)	0.006458	0.002368	2.727064	0.0090
DPKB	0.084513	0.021437	3.942468	0.0003
PLACE_650_1(-2)	-0.086025	0.033971	-2.532291	0.0148
PLACE_650_1(-5)	0.187722	0.036280	5.174223	0.0000
EURPLN	0.174210	0.049068	3.550389	0.0009

R-squared	0.993713	Mean dependent var	5.030702
Adjusted R-squared	0.992346	S.D. dependent var	0.873813
S.E. of regression	0.076446	Akaike info criterion	-2.132922
Sum squared resid	0.268820	Schwarz criterion	-1.738649
Log likelihood	71.78828	F-statistic	727.0801
Durbin-Watson stat	2.219195	Prob(F-statistic)	0.000000

Table 3. Post-crisis reaction function

Dependent Variable: R — Method: Least Squares
Sample: 2008M10 2010M08 — Included observations: 23

Variable	Coefficient	Std. Error	t-Statistic	Prob.
R(-1)	0.867297	0.048518	17.87570	0.0000
C	-4.730593	0.963443	-4.910089	0.0001
CPI	0.246511	0.047742	5.163380	0.0001
PMI	0.090648	0.017445	5.196133	0.0001
D(PMI)	-0.012760	0.003911	-3.262706	0.0046
PLACE(-1)	0.027649	0.014821	1.865574	0.0795

R-squared	0.986219	Mean dependent var	3.858696
Adjusted R-squared	0.982166	S.D. dependent var	0.726238
S.E. of regression	0.096985	Akaike info criterion	-1.609057
Sum squared resid	0.159904	Schwarz criterion	-1.312841
Log likelihood	24.50415	F-statistic	243.3166
Durbin-Watson stat	2.170292	Prob(F-statistic)	0.000000

Table 4. Logistic regression

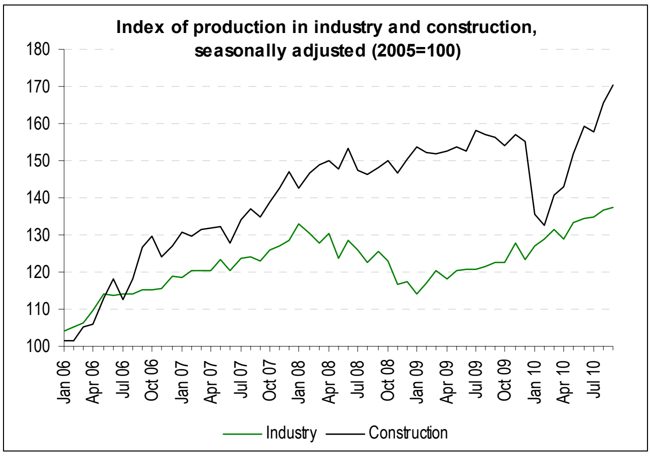
Dependent Variable: SR_or — Method: Multinomial Logit
Sample: 1998M03 2010M07 — Included observations: 149

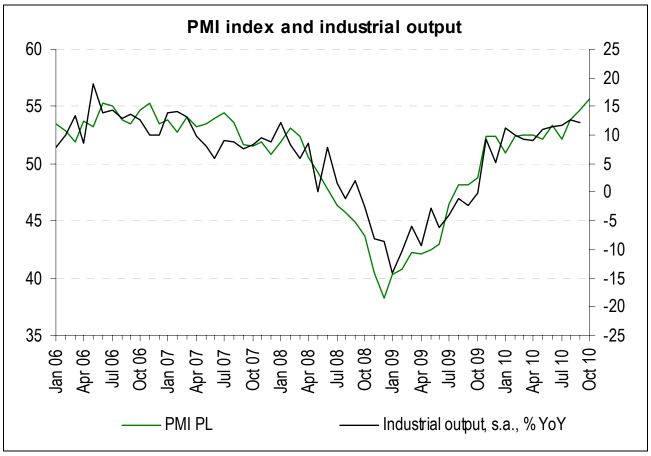
Variable	Coefficient	Std. Error	z-Statistic	Prob.
SR_or = 1				
R_1	-0.125710	0.0632666	-1.987	0.0469
CPI_1	0.0263712	0.00733349	3.596	0.0003
d_CPI_1	0.925517	0.574236	1.612	0.1070
ZK_1	2.21977	0.617467	3.595	0.0003
d_ZK_1	7.06277	2.59666	2.720	0.0065
RAP	1.37081	0.907229	1.511	0.1308
SR_or = 2				
R_1	-0.167010	0.0946633	-1.764	0.0777
CPI_1	-0.00392520	0.0109877	-0.3572	0.7209
d_CPI_1	4.20264	1.11452	3.771	0.0002
ZK_1	3.98703	0.836833	4.764	1.89e-06
d_ZK_1	9.07459	4.32803	2.097	0.0360
RAP	2.31592	1.30388	1.776	0.0757

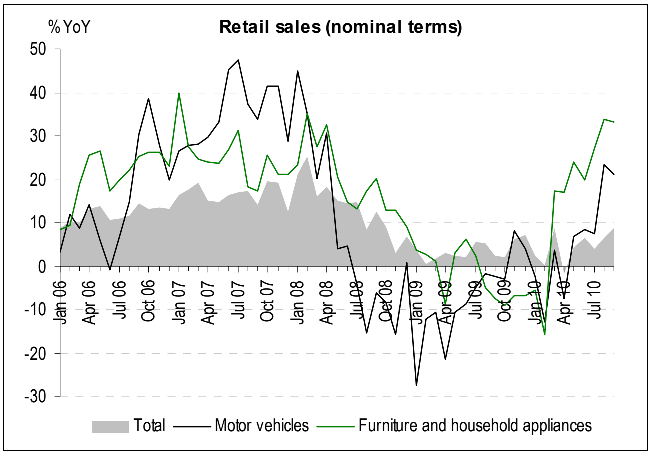
Mean dependent var	0.832215	S.D. dependent var	0.574253
Log-Likelihood	-87.69445	Akaike info criterion	199.3889
Schwarz criterion	235.4363	Hannan-Quinn criterion	214.0344

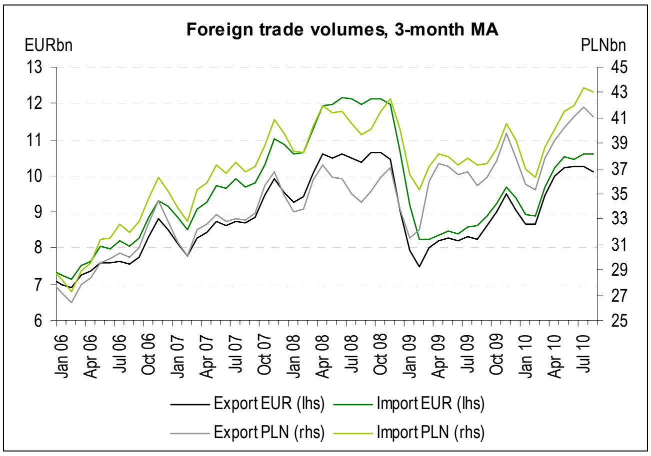
Likelihood Ratio: Chi-squared(12) = 151.998 [0.0000]

Economic update









Source: CSO, Ipsos, Reuters, own calculations

Strong ending of Q3… and good start of Q4

▪ Industrial output growth in September was 11.8%YoY, less than in August (13.6%YoY after slight upward revision), but more than expected. The seasonally adjusted output growth reached 12.1%YoY, that is the second best result since January 2008. The strongest rise was seen in manufacturing (13.3%YoY), mainly in the export-oriented branches.

▪ Positive tendencies in manufacturing were confirmed by PMI for October, which surprisingly increased to 55.6, the highest level in more than 6 years. Companies reported considerable acceleration in growth of output and new orders, including export orders, among others due to expansion to new markets. Output expanded at the pace exceeding capacity of companies. The employment increased again. At the same time, companies reported rising costs of production and higher prices of final goods.

▪ As for now, there are still no signs of weakening in activity of the Polish manufacturing. More importantly, this is coupled with clear recovery in other sectors of the economy – in construction and retail trade. Construction output in September rose 13.4%YoY (stronger than expected) and seasonally adjusted rise was 9.0%YoY. This confirms our expectations for the continuation of the positive tendency in this sector, which seems to be supported not only by the catching up after tough start of the year, but also by expansion in public investments and recovery of private investments.

▪ In September there was also stronger than expected rise in retail sales (by 8.6%YoY), which was the second highest (next to March 2010) and in real terms (6.4%YoY) the highest since September 2008. Robust growth occurred in majority of categories, which confirms that demand is solid and is not a result of one-off factors.

Economy accelerates with larger role of domestic demand

▪ All in all, recent economic activity indicators confirm the scenario expected by us, assuming gradual increase in role of domestic demand in economic growth. What is interesting, with clear acceleration in growth of retail sales and construction output (suggesting solid consumption growth and return of fixed investment growth to positive territory in Q3), contrary to earlier forecasts, growth in industrial output and exports also remains robust.

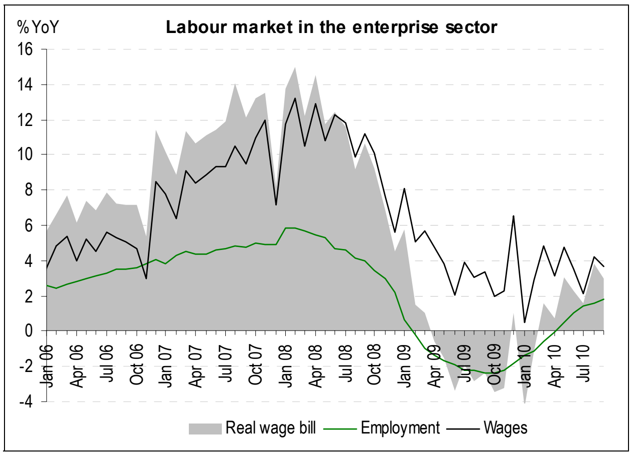
▪ In line with our forecast, foreign trade data for August showed slightly lower value of exports and imports than in July, but their annual growth clearly accelerated (to 23% for exports and to 23.9% for imports).

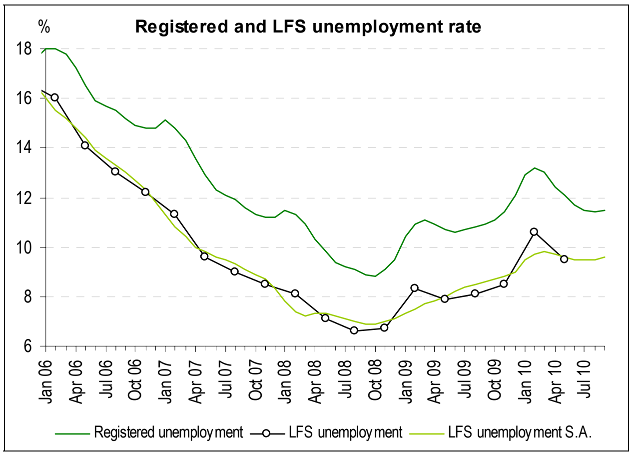
▪ If we look at average growth rate of exports in July-August (20.2%YoY), one can see a slight slowdown as compared to extraordinarily strong growth in Q2 (23-27%YoY). We predict that next months will bring a gradual deceleration in growth of exports (although it will remain at two-digit level), due to weaker pace of economic growth abroad in the second half of this year and the effect of rising base.

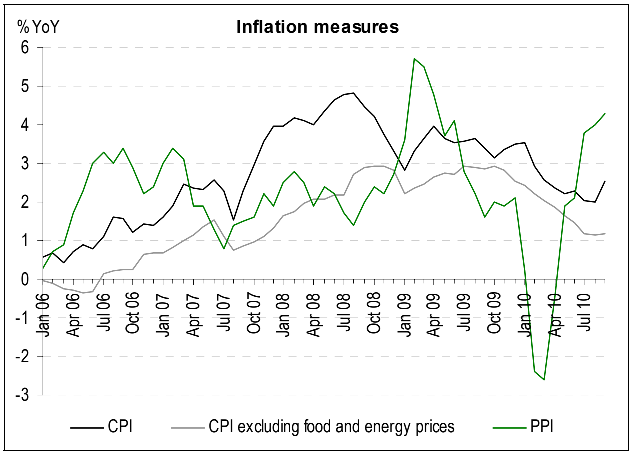
▪ With simultaneous stabilisation of relatively high growth of imports (due to strengthening of domestic demand), foreign trade balance would have increasingly negative contribution to GDP growth in the two last quarters of this year.

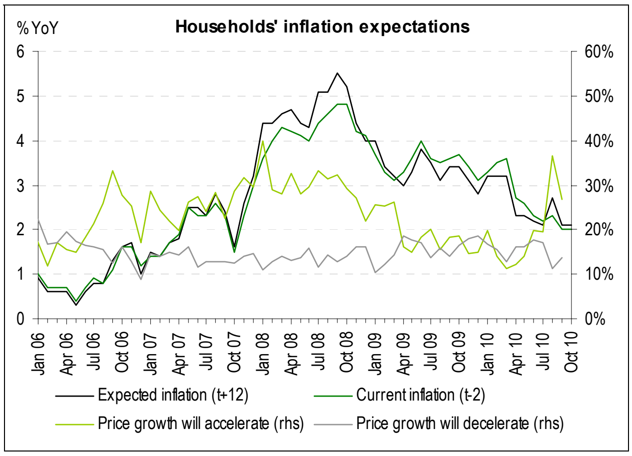
▪ The full set of economic activity indicators for September led to upward revision in our GDP growth forecast for Q3 to nearly 4%YoY. We also now forecast that similar growth rate will be reached in 2011 as a whole. Meanwhile, the final quarter of this year should show expansion of over 4%YoY (details in the table with forecasts on last pages of the MACROscope).

Economic update









Source: CSO, NBP, Eurostat, own calculations

Mixed data from the labour market

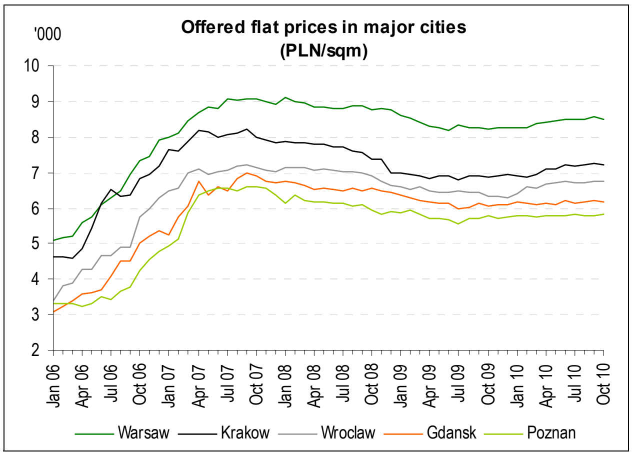
- Domestic labour market data for September were mixed – average wages disappointed while employment were a positive surprise. Annual growth of average wage in the enterprise sector slowed down to 3.7% in September from 4.2% in August, below expectations. On average in Q3 the annual wage growth in companies decelerated to 3.3% from 3.8% in Q2. While wage growth proved disappointing, the figure for employment was a pleasant surprise, showing an increase of 0.2%MoM and acceleration in the annual growth to 1.8%, while our forecast and market consensus pointed to a weaker improvement to 1.7%YoY. While figures for August suggested some slowdown of the positive trend in employment, the September data confirmed a clear upward tendency seen earlier in the year. On average in Q3 employment growth was 1.6%YoY vs. 0.5%YoY in Q2.
- Slowdown in wage growth, but at the same time strengthening of employment growth, translated into a slight deterioration in the annual growth of total wage bill in enterprises in September (in nominal terms to 5.6% from 5.9%, in real terms to 3.0% from 3.8%). However, the average wage bill growth in the third quarter has improved as compared to the second quarter, both in nominal terms (up to 5.0% from 4.4%) and in real terms (to 2.8% from 2.0%). This was positive for consumption demand.
- We expect that in the next months we will see continuation of employment growth. In annual terms it will exceed 2% in Q4 and then stabilise above this level in the course of 2011. Further rise in labour demand, with higher inflation and stronger inflationary expectations, will gradually intensify the wage pressure. We expect that the annual growth of wages will reach ca. 4.5% on average in the Q4 this year and ca. 5.5% on average in 2011. We still expect the registered unemployment rate at ca. 10% at the end of 2011.

Inflation started the upward trend

- Annual CPI inflation in September rose stronger than expected – to 2.5% from 2% in July and August. Our forecast, market consensus, and the FinMin's estimate pointed to 2.3%. The main reason for surprisingly strong rise in CPI inflation was much larger than we assumed increase in foodstuff prices (almost 2%MoM), probably as a delayed effect of unfavourable weather conditions earlier this year and strong upward trend in food prices abroad. In September, the dollar index of world food prices published by the Food and Agriculture Organization of the United Nations (FAO) increased by over 6%MoM for second month in a row (in October by additional 4.5%MoM). Apart from the food prices, there was a visible price increase in 'clothing and footwear' category, which was probably due to introduction of new fashion collections. The prices in remaining categories changed in line with our expectations. Core inflation excluding food and energy prices was 1.2%YoY in September. Other measures of core inflation rose slightly.
- According to the FinMin's estimate, CPI inflation in October accelerated to 2.9%YoY after price rise of 0.6%MoM. Our forecast is at 2.8%YoY (consistent with market consensus). The key factor pushing the CPI inflation up is food prices (the FinMin assumed 1.4%MoM rise in this category, we assume 0.8%MoM rise) and approved rise in natural gas prices (2.5-3.0%MoM). Slight increase probably occurred also in fuel prices. Over time, the consumer prices will be also affected by rising producer prices, that is signalled among others in the recent PMI report. PPI inflation in September rose to 4.3%YoY, as we forecasted.
- In our view, rise in the CPI inflation in September was the beginning of upward trend and in the next months it will approach 3% and in early 2011 will exceed this level, being close to the upper end of allowed fluctuations around the MPC's target.

Housing market update

Upward trend in prices halted

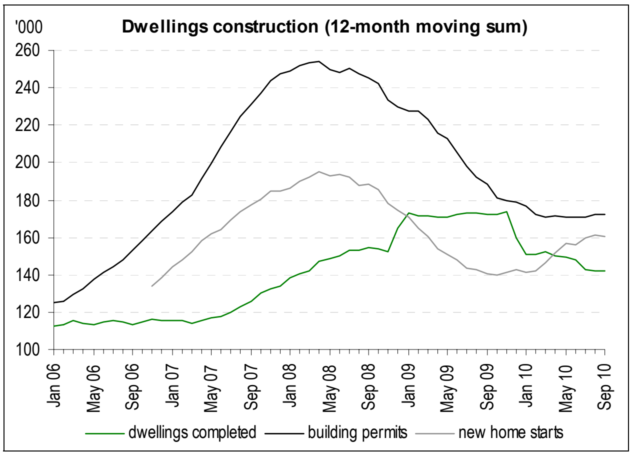


▪ The recent two months brought a halt to the earlier seen upward trend in house prices in the largest cities.

▪ While in September the offered prices in the five major cities rose on a monthly basis, in October majority of major cities experienced a price correction. What is more, in smaller cities there were even stronger price declines. Besides, brokers reported an increase in the scale of discount to the offer prices.

▪ All in all, despite the announcement of hike in VAT tax and the government's plan to constrain the *Family on its own* programme, which altogether should exert upward pressure on prices at least in the short-term, as for now there are no signs of intensified price growth in the market. Possibly, a factor responsible for that is flexible reaction of the supply side of the housing market.

Continued revival on the supply side

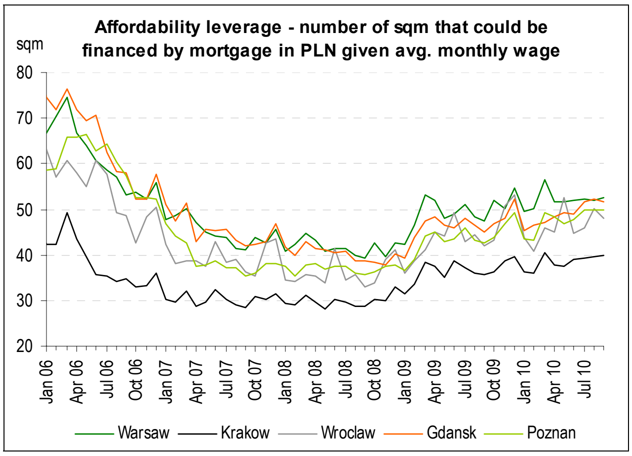


▪ The stats office's data show that revival on the supply side of the housing market has been continued. In September, for the first time in many years there was an annual rise in the number of dwelling completed and increase in the 12-month moving sum of dwellings completed.

▪ What is more, the number of building permits is still on the rise, which bodes well for activity in the sector in the future.

▪ In September the number of house starts rose weaker than in a few previous months, but this was probably a transitory effect. Information from developers indicate that they plan to launch new projects and signals from the credit market indicate that banks begin (although so far only slightly) to increase financing of developers.

Again no major changes in availability of houses

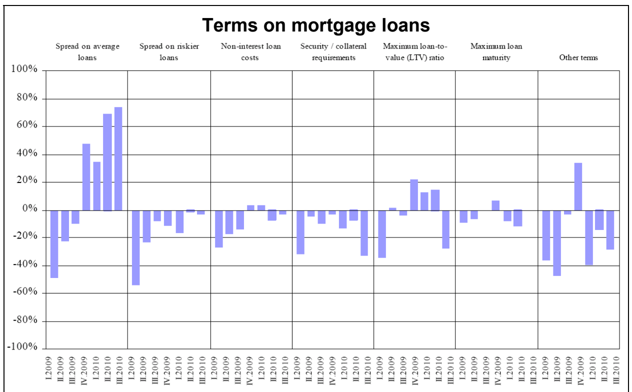


▪ The index of affordability leverage, calculated by us for major cities in Poland was broadly stable during Q3. This was due to drop in interest of mortgage loans denominated in zloty, which more than offset the upward tendency in house prices. The level of wages was quite stable and had neutral impact on the index.

▪ The next months may bring slight increase in the affordability leverage. The upward tendency in house prices weakened, banks are likely to further narrow margins amid intensified competition and level of wages should gradually rise.

▪ However, one should remember that the index of affordability leverage does not encompass all factors influencing availability of houses with use of leverage, e.g. tightening of other terms on mortgage loans that margins.

Banks narrow margins, but tighten other terms on loans



Note: net percent is the difference between assets weighted share of banks easing and tightening policy terms, i.e. positive value means easier policy and negative value means tighter credit policy.

Source: CSO, NBP, szybko.pl, own calculations

▪ In Q3 more than a half of banks tightened terms on mortgage loans and about 10% of banks eased terms of mortgage loans. Amid intensification of competition the vast majority of banks lowered standard margins on loans, but at the same time other terms on mortgage loans were tightened or remained unchanged. The most frequently indicated reason for tightening in credit policy was adjustment to requirements of the recommendation T, but its overall impact was not significant.

▪ In net terms, banks reported a slight rise in demand on mortgage loans, but banks' answers were diversified.

▪ In Q4 banks predict slightly higher demand for mortgage loans and at the same time plan to further tighten credit policy (more than in Q3), in an effort to adjust to the remaining requirements of the recommendation T.

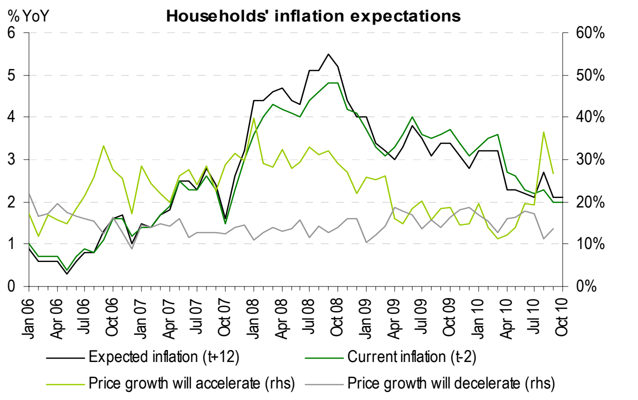
Central bank watch

Selected fragments of the MPC statement in October
Economic growth in the developed countries is curbed by high unemployment and ongoing adjustments in the balance sheets of households, enterprises and financial institutions. The rapid growth in the major emerging economies has been decelerating slightly, which is driven by tightening of the economic policy in some of those countries aimed at limiting the risk of growing macroeconomic imbalance. The effects of high fiscal imbalance and its planned reduction in the developed economies, as well as the effects of monetary expansion, including non-standard measures undertaken and envisaged by major central banks continue to be an important uncertainty factor for the global economic growth.
In the recent period expectations of increased scale of monetary expansion in the United States were accompanied by improved investors' sentiment in the financial markets. Both factors, on the one hand, supported the appreciation of currencies against the US dollar, including that of the zloty as well as of currencies of other emerging economies. On the other hand, they were also conducive to a rise in prices of some commodities in the world markets.
The data on the Polish economy in 2010 Q3 signal slightly higher economic growth as compared to Q2. (…) Production capacity utilization has been steadily rising. Enterprises continue to have very good financial and liquidity situation. At the same time, despite improvement in current activity, in the majority of sectors expectations of enterprises about demand and output have deteriorated. (…) Rise in employment is supported by continued high wage discipline in enterprises. In 2010 Q3 wage growth declined in the corporate sector. Growing number of economically active persons may have a dampening effect on wage growth.
In the Council's assessment, the currently limited inflationary and wage pressure in the Polish economy and – not accounted for in the baseline scenario of the October inflation and GDP projection – the possibility of growing capital inflows to the emerging economies, including to Poland, amidst the extended period of expansionary monetary policy of major central banks, combined with the risk of further weakening of the global economic growth justify keeping the NBP interest rates unchanged.

Inflation and GDP projections in the next Inflation reports

CPI	Oct 09	Feb 10	Jun 10	Oct 10
2010	0.8-2.2	1.3-2.2	2.3-2.9	2.4-2.6
2011	1.1-3.2	1.7-3.1	2.1-3.3	2.5-3.5
2012	-	2.6-4.6	2.2-3.7	2.4-3.7
GDP	**Oct 09**	**Feb 10**	**Jun 10**	**Oct 10**
2010	0.8-2.8	2.1-4.1	2.5-3.9	3.3-3.7
2011	2.2-4.2	1.8-4.0	3.3-5.9	3.3-5.5
2012	-	1.9-4.3	2.2-5.0	2.8-5.5

According to the NBP projections, the GDP and CPI growth will fall in the ranges given above with probability of 50%.



Source: NBP

Hike, but not in interest rates

▪ In October the MPC kept interest rates on hold, but at the same time it decided to raise reserve requirement rate by 50 bp (to 3.5%), effectively since 31 December. According to the NBP governor, the latter was a signal of return to normality after an emergency cut in the reserve requirement ratio in June 2009, and at the same time it was a signal in the direction of monetary policy tightening.

▪ Nevertheless, the tone of the MPC statement (details in the table) is more dovish than a month before, which seems to reduce the likelihood of interest rate hikes this year. Interestingly, comments of some Council members (details on the next page) give different signal than the official statement.

▪ In the communiqué, the MPC sees some risks for inflation. The statement maintained the phrase that potential signals of any rise in inflationary pressure will be monitored. At the same time, however, there appeared a number of dovish changes in the statement. What is strange, fragments emphasizing importance of inflation expectations for future MPC decisions have disappeared almost completely. The most important, however, was a direct statement that keeping the NBP interest rates unchanged is justified not only by "the currently limited inflationary and wage pressure in the Polish economy" but also "not accounted for in the baseline scenario of the October inflation and GDP projection – the possibility of growing capital inflows to the emerging economies, including to Poland, amidst the extended period of expansionary monetary policy of major central banks, combined with the risk of further weakening of the global economic growth".

Projection little changed. Important or not?

▪ The new NBP projection for inflation and GDP was probably not a key factor taken into account by the MPC while making decision on interest rates. The Council had reservations concerning projection's assumptions, especially as regards the zloty exchange rate.

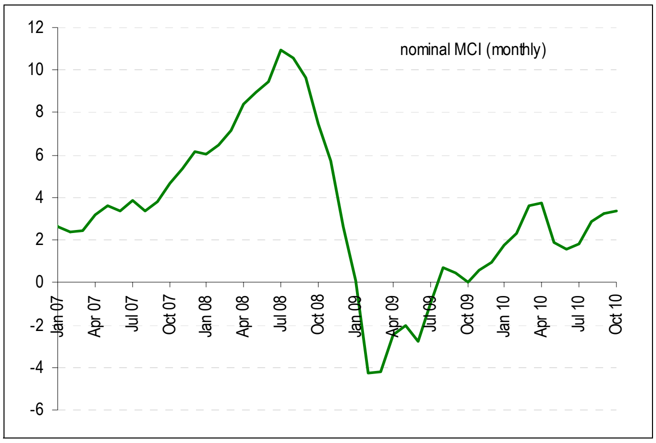
▪ Main results of the new projection have brought no major changes as compared to the June projection. However, taking into account that the central path of inflation projection is above the inflation target in the medium-term, even though it is largely due to exogenous factors (rise in prices of food and fuels, although core inflation is also growing), it seems that a pre-emptive rate hike is justified. Such decision would also help building anti-inflationary credibility of the Council.

Expectations low, because inflation was low

▪ According to the NBP data, average inflation expected in the next 12 months, remained in October at low 2.1%. Please remember that it was at 2.7% in August.

▪ In our view, lowering households' expected inflation should not comfort the MPC, as it resulted from a fall in current inflation (the survey takes into account inflation rate lagged by two months, which in this case means 2%). The structure of answers is still unfavourable – the ratio of people expecting that prices will grow faster reached over 30% in the last two months. Amid such structure of expectations, taking into account a rise in current inflation in the following months will result in a surge in expectations index.

Restrictiveness of the Monetary Policy (Council)



MCI slightly up

▪ October saw a slight increase in monetary policy restrictiveness, as measured by our nominal MCI index.

▪ Towards a rise in restrictiveness index acted both a rise in market interest rates (increase in WIBOR3M and its lower deviation below long-term trend) and a strengthening of the zloty (decrease in EURPLN and its bigger deviation from trend on the appreciation side).

▪ Taking into account our forecasts of zloty exchange rate and interest rates (gradual rise in market rates in expectation for interest rate hikes), one may predict that the monetary policy restrictiveness measured by the MCI will continue rising gradually.

	neutral bias	tightetning bias	new formula in the statement	+50 pb (August)
Belka	-	-	+	-
Bratkowski	-	+	+	+
Chojna-Duch	+	-	-	-
Gilowska	+	-	+	+
Glapiński	+	-	+	+
Hausner	-	+	-	-
Kaźmierczak	+	-	-	-
Rzońca	-	+	-	+
Winiecki	-	-	+	-
Zielińska-Głębocka	-	-	+	-

Interesting voting results, especially in June

▪ The result of voting on the rate hike in August was not a surprise for us. We wrote already in the comment before the last MPC meeting that it was likely that four Council members backed the motion. Unfortunately, we do not know the current state of affairs.

▪ More interesting were the results of voting in June on the change in informal bias. The detailed results are presented in the table on the left, although not all of them, as there was also a strange try of changing the bias to – let's say – "moderately tightening". The conclusion that may be drawn is that three central bankers (including the NBP president) wanted to cancel the informal bias, voting against change to tightening and against keeping neutral stance. Taking into account Council's problems with communication that took place later (and lasting until now), cancelling an informal bias was not a good idea.

Four hawks already in August

After the publication of the first voting results of the new Council, we decided to return to presenting our subjective rank of the MPC members on the axis of restrictiveness. Four members who voted for the rate hike in August make up the most hawkish group. It is worth to note that within this group, two members voted for a change of informal bias to restrictive in June (Bratkowski, Rzońca) and two voted for a hike in the reserve requirement in August (Gilowska, Glapiński).

NBP president among doves

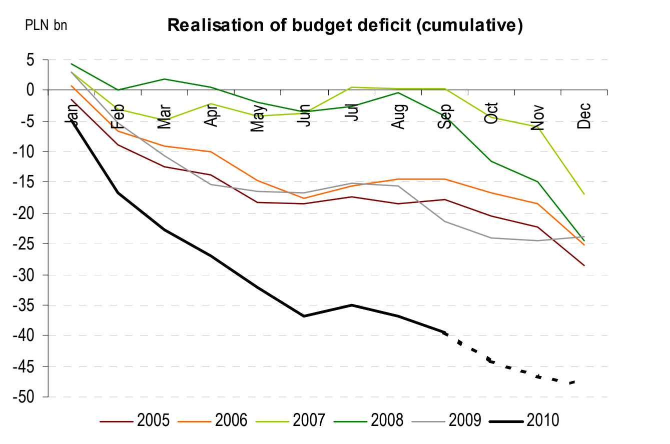
Elżbieta Chojna-Duch and Andrzej Kaźmierczak confirmed in their recent comments their affiliation with the dovish faction. Commenting the FinMin's inflation forecast, they said that the Council will have to make sure the growth and inflation are sustainable, before making a decision on interest. Based on Kaźmierczak's comments we placed him on the bottom of restrictiveness axis, despite the fact that he voted in favour of the reserve requirement hike in August. We assume that the NBP President Marek Belka is also on the doves' side.

Whose votes are crucial for establishing majority for rate hikes?

Votes of Hausner, Winiecki, and Zielińska-Głębocka are important for the fate of rate hike motions. Two latter are higher on the axis of restrictiveness (despite the fact that Hausner voted in favour of restrictive bias in June), due to their recent statements, saying that they need to seriously consider the increase in rates. Winiecki, explaining why he did not support a rate hike at the meeting in August, stated that it was a holiday month. It's hard to say whether it means that in September (and perhaps also in October) he voted to hike rates and maybe there was a draw 5:5, with NBP president's vote deciding about leaving the cost of money unchanged. On the other hand, if Zielińska-Głębocka also joined the hawks, this group should no longer be in minority. Comments of Zielińska-Głębocka and Winiecki do not explain too much, but rather raise more questions. Why didn't they vote for a change in MPC statement's overtone to a more restrictive? Why didn't they vote for the rate hike at the last meeting? But these questions make sense only under the assumption that all four Council members voting for a rate hike in August, were still supporting it. Perhaps someone changed his mind (although it would be difficult to explain), or for someone a rise the reserve requirement ratio was sufficient as a signal of a more restrictive policy?

Source: CSO, NBP, Eurostat, own calculations

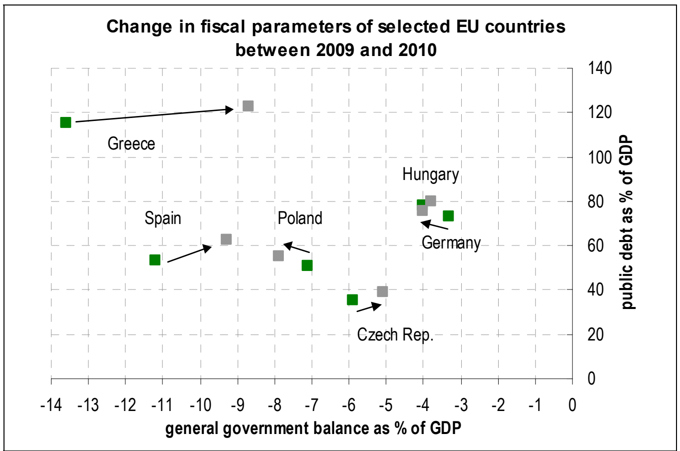
Government and politics



State budget deficit lower than planned ...

▪ The state budget deficit at the end of September reached PLN39.5bn, which represents 75.7% of annual plan, and is well below the PLN47.9bn assumed in the schedule. September's budget result confirms that in the whole year the budget deficit is likely to by several billion zloty lower than the PLN52.2bn originally planned.

▪ From the economic situation's point of view of, it is optimistic that growth of tax revenue keeps improving. Revenue from indirect taxes may be higher than planned, making it easier to achieve ambitious goals for growth of revenue in 2011. Revenue from PIT and CIT also are improving. As regards CIT inflows, actually only March was disappointing this year, when the tax losses from previous years were deducted.



... while general government deficit higher

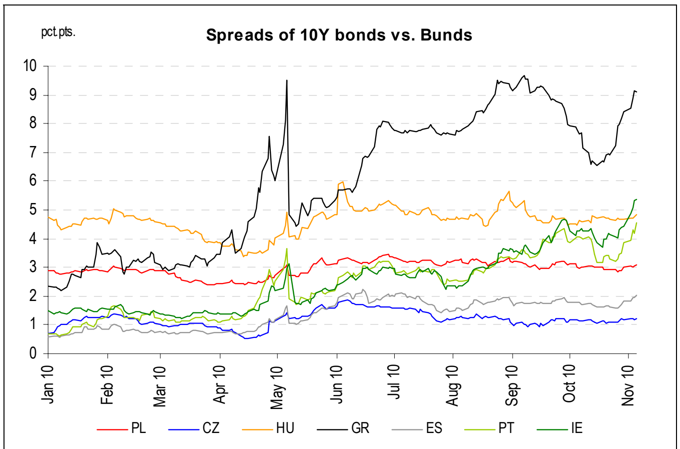
▪ Although the state budget this year will be better than planned, the balance of the entire general government sector will be significantly worse than projected in the Convergence Programme at the beginning of this year (assuming a decline to 6.9% of GDP from 7.1% in 2009).

▪ According to the official Poland's fiscal notification, the general government deficit will rise this year to 7.9% of GDP. Debt to GDP ratio is also expected to be higher and reach 55.4% instead of 53.1%. Thus, the Polish fiscal position is deteriorating, while some countries are improving the state of public finances, moving toward a more secure levels of fiscal deficit and public debt. The year 2011 may further worsen the Poland's rank on the map of fiscal conditions of the European countries.

	Spread vs Bunds (10Y) in bps			CDS (5Y)		
	08.11	change since 01.10	change since 31.12.09	08.11	change since 01.10	change since 31.12.09
Poland	310	1	23	108	-28	-26
Czech Rep.	121	11	59	79	-14	-15
Hungary	482	34	-3	287	-40	43
Greece	909	112	667	887	57	605
Spain	205	25	144	243	19	130
Ireland	563	134	410	432	104	320
Portugal	456	68	387	444	42	354
Italy	162	9	86	189	-6	81
Germany	-	-	-	36	-2	9

After Fed's decision, investors focus on the PIIGS

▪ In early October spreads versus Bunds and CDS rates continued the downward trend. Low yields of German and US bonds and prevailing positive market sentiment pushed investors toward more risky assets. The reason for the sell-off of euro zone's peripheral bonds in mid-October was the German proposition to include the automatic penalties for countries that break the fiscal rules in the EU's 'Stability and Growth Pact. Investors assessed that such an option would be inconvenient for the countries from the PIIGS group, which already now have serious problems with maintaining even fragile balance. Finally, the German suggestion was rejected. In early November, the growing concerns about fiscal sustainability of Ireland increased sovereign risk and put a negative pressure on credit markets.

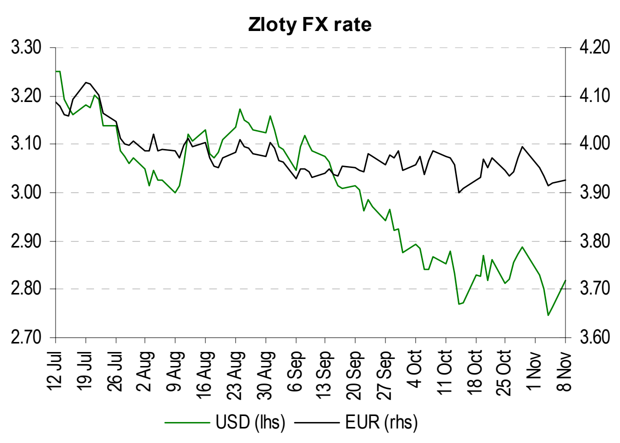


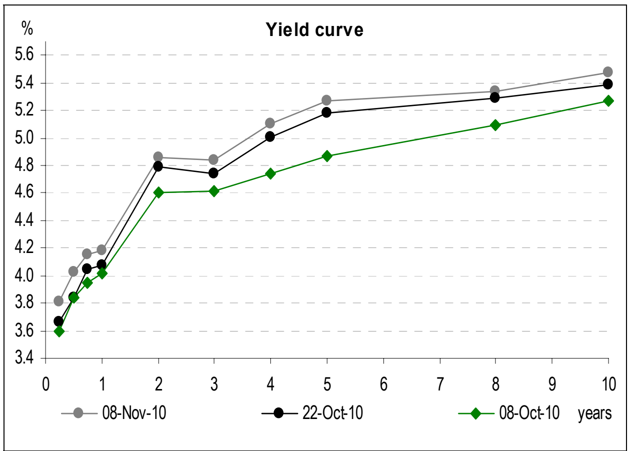
▪ The downgrade of the Irish rating by Fitch Ratings early in October influenced only the country's bonds, but worries that emerged in early November negatively affected also other issuers. After China's declaration of willingness to purchase Greek debt when the country resumes auctions of long term bonds pushed the yields of Greek bonds down, the improvement on the broad market was less visible. Portugal bonds performed pretty poor during the past month, as minority government can have problems to reach an agreement with the opposition on next year's budget plan. Still, recent declaration of demand from China also for Portuguese debt may prove supportive.

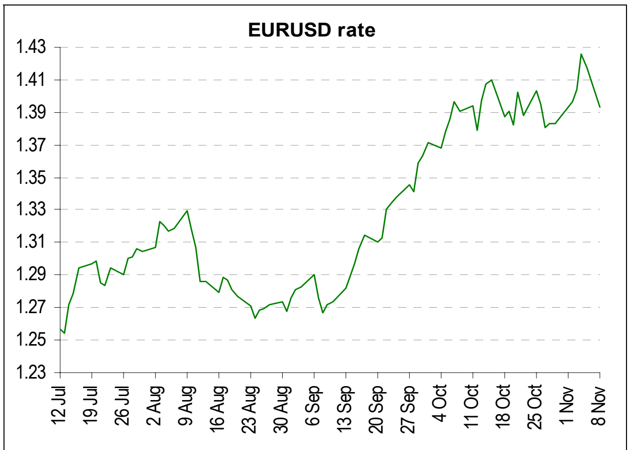
▪ In the CEE region the spread of Hungarian bonds increased the most. That was due to controversial and not credible plan of fiscal reforms prepared by the Hungarian government.

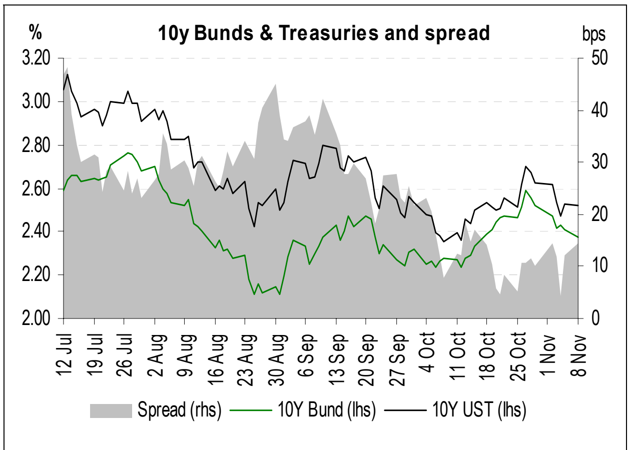
Source: Ministry of Finance, Reuters, own calculations

Market monitor









Source: Reuters, BZ WBK

Zloty under influence of domestic factors

- In October the EURPLN was volatile and for the first time in a long time due to domestic factors. First trigger than pushed the EURPLN down to just below 3.90 was higher than expected CPI in September that fuelled expectations for the swift rate hikes. After the MPC decision on keeping the rates unchanged, a correction took place and the zloty depreciated to ca. 3.98. Latest hawkish comments of the MPC some members, FinMin's forecast of CPI growth in October and Fed's decision on launching second round of quantitative easing dragged the exchange rate down again to 3.90.
- We expect that in November the EURPLN will hover at ca. 3.92 for some time, temporarily drops below 3.90 are likely. A possible zloty's depreciation (i.e. due to short-term market reaction to no interest rate hike) shall be constrained at 3.96-3.98. At the end of the month we see the EURPLN at ca. 3.92-3.94.

Dovish statement, hawkish comments

- In line with our expectations, yields increased slightly at the beginning of the past month and the culmination of that move occurred after publication of the higher than expected data on September's CPI. Market priced in prompt interest rates' hikes, what was particularly visible on the short end of the curve. Later in the month, the upward trend was continued, though at a calmer pace. After the dovish MPC communiqué, the yields declined, but latest hawkish comments of the Council members again fuelled expectations for prompt tightening of the monetary policy. The yields increase on the long end was constrained by falling yields on the core fixed income markets.
- We expect that in November yields will stay at an increased levels at least until the publication of the September's CPI data. Later in the month the MPC decision shall determine the market.

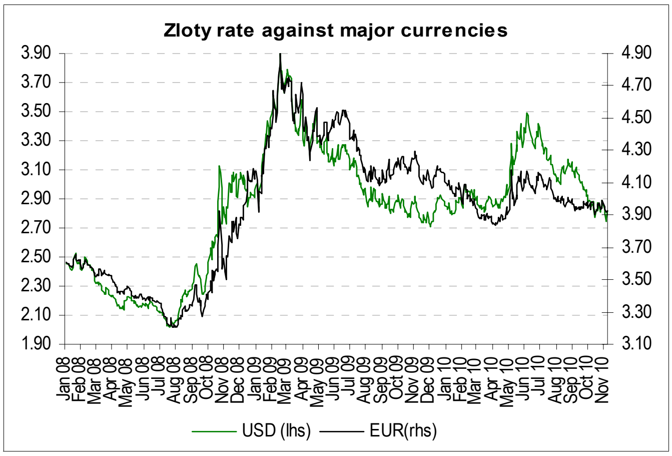
The case of quantitative easing determined the EURUSD

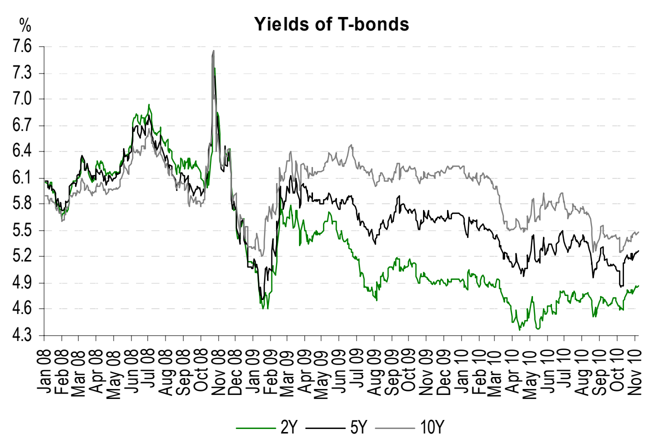
- During the past month the core factor influencing the EURUSD was the case of launching second round of the quantitative easing by the Fed. The macro data published within the month only temporarily and for a limited scale influenced the exchange rate. Short corrections of the upward trend were due to only vague comment of Bernanke in mid-September on planned actions and uncertainty that emerged in few last days of the past month on the scale of next monetary stimulus. After final revealing the details on the second round of QE the greenback depreciated to nearly 1.43 per euro.
- We anticipate, that the downward correction of the EURUSD initiated early this month shall prevail even until mid-November. After reaching 1.37-1.38, the euro may start appreciating and at the end of the month the EURUSD will reach ca. 1.41.

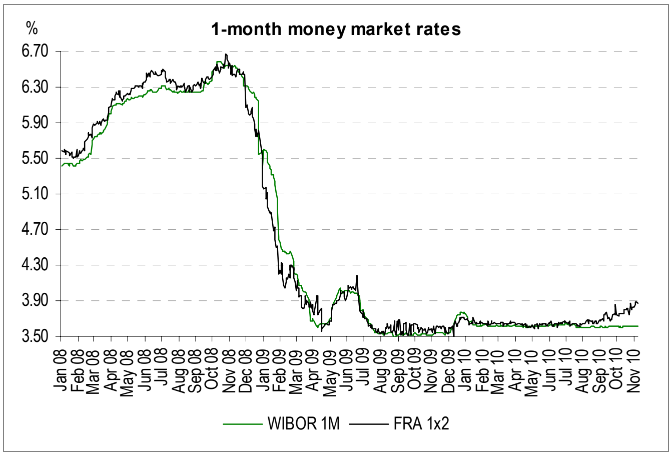
High volatility on the core fixed income markets

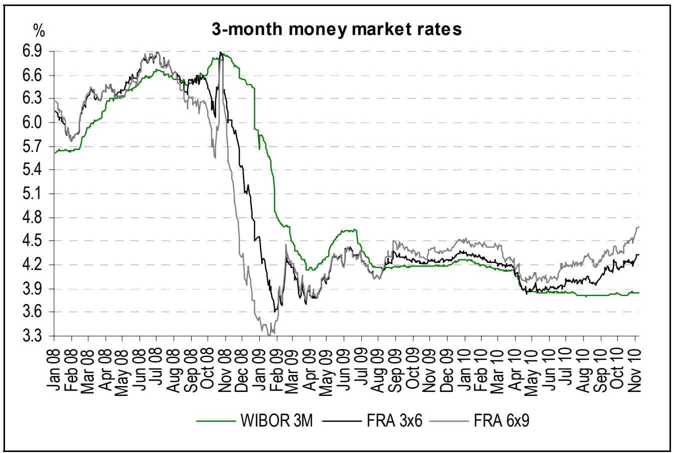
- Since the beginning of October the yields on the core fixed income markets were rising. That was mainly due to comment of the Fed's member, James Bullard, that said that the probability of double-dip scenario declined and perhaps the Fed will refrain from introducing the next round of stimulus. Additionally, considerable declines of yields that occurred in September, constrained demand for securities sold on auctions and pretty good market sentiment pushed investors towards bonds of euro zone's peripheral countries, that fuelled further sell-out of Bunds and Treasuries. Few days before Fed's decision, the yields stated to fall, but announcement that the bank aims to focus on 4-7 year bonds triggered sell-out of 10Y Bunds and Treasuries.
- As the case of quantitative easing in US seems to be closed for the time being, in November other factors shall influence the core fixed income market, i.e. fiscal problems of euro zone peripheral countries.

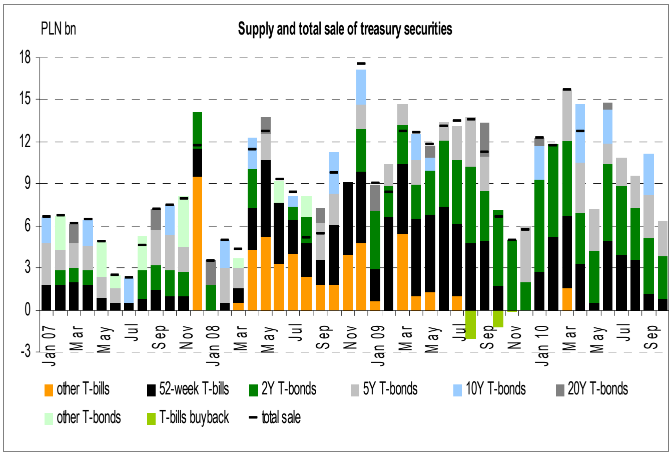
Market monitor











Treasury bills auctions (PLN m)

Auction date	OFFER	DEMAND/SALE
16.08.2010	52 week.: 700-1000	2108/917
23.08.2010	52 week.: 500-800	2680/800
30.08.2010	52 week.: 500-700	2592/551
6.09.2010	Cancelled	-
13.09.2010	Cancelled	-
20.09.2010	52 week.: 500-600	3438/600
27.09.2010	52 week.: 500-600	1150/580
4.10.2010	Cancelled	-
11.10.2010	Cancelled	-
18.10.2010	52 week.: 500-600	977/546
25.10.2010	52 week.: 500-600	861/276
22.11.2010	Cancelled	-
20.12.2010	*Depending on the budget situation*	-

** based on data of the Ministry of Finance*

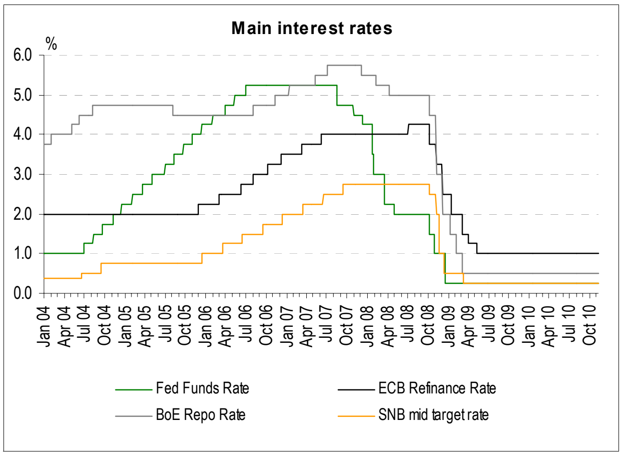
Treasury bond auctions in 2009/2010 (PLNm)

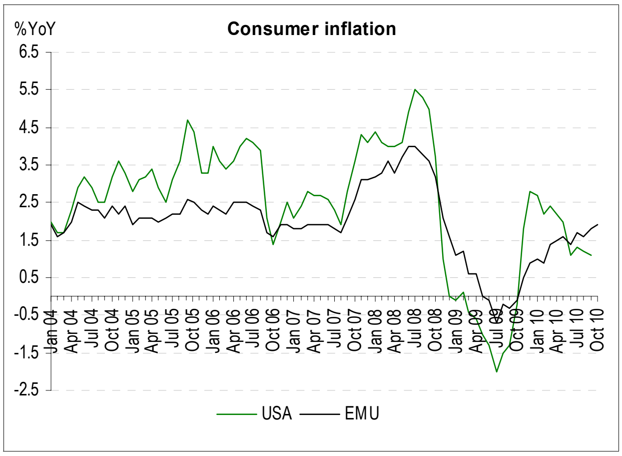
month	First auction				Second auction				Switch auction		
	date	T-bonds	offer	sale	date	T-bonds	Offer	sale	date	T-bonds	sale
December	2.12	OK0712/PS0415	3000-6000	5651	-	-	-	-	16.12	-	-
January	13.01*	OK0712	6600	6600	20.01*	DS1019/WS0429	2400/600	2409/591	6.01	PS0415/WZ0118	2494/2383
February	10.02*	OK/PS	6600	6600	17.02	DS/WS/WZ/IZ	-	-	3.02		-
March	10.03	OK0712	3500-5400	5448	17.03	WZ0121	2000-3600	3600	3.03	PS0415/DS1019/WS0429	1784/2662/315
April	7.04	OK0712	2500-3600	3219	14.04	DS1020	2000-4200	3600	21.04**	PS0415	3600/3000***
May	5.05	OK0712	2500-4500	3700	12.05	PS0415	1500-3000	2989	27.05	WZ0121	422
June	2.06	OK0712	3000-5400	5400	16.06	DS/WS/WZ/IZ	1500-3000	2430	23.06	PS0415/WS0429	1549/54
July	7.07	OK1012	3000-5000	4971	14.06	PS0415	-	-	21.07	DS1110	DS1020
August	4.08	OK1012/PS0415	3000-6000	6000	11.08	-	-	-	25.08	DS1110	PS0415/DS1020
September	1.09	OK1012	2500-4000	4000	8.09	PS0415	1500-3000	3000	15.09**	DS1020	3000/3000***
October	6.10	OK0113	2000-3000	3000	13.10	PS0416	-	-	21.10	-	-
November	17.11	DS1020	1500-3000	-	-	-	-	-	10.11	DS1110/PS0511	-

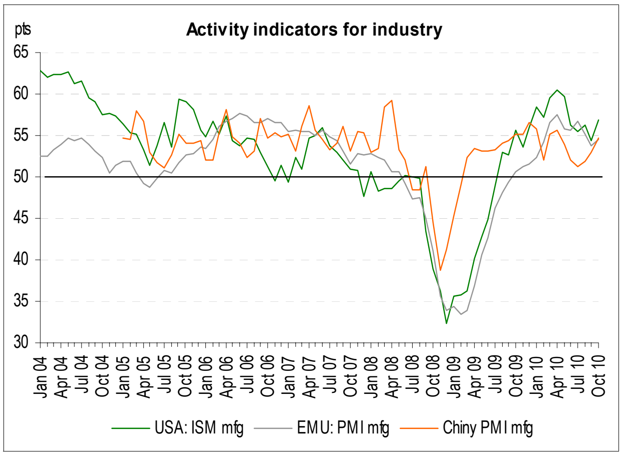
* with supplementary auction, ** primary auction, *** demand/sale

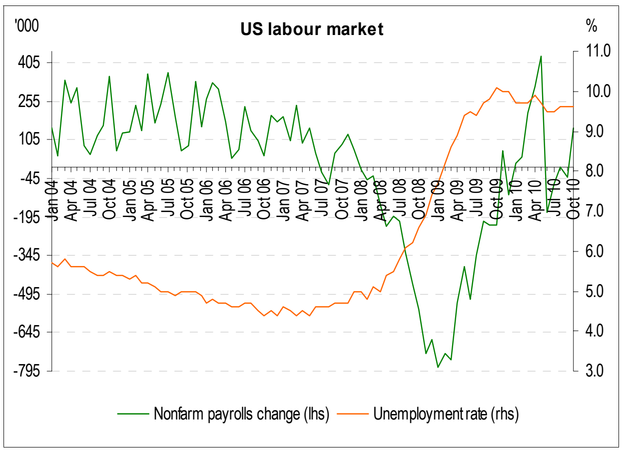
Source: Ministry of Finance, Reuters, BZ WBK

International review









Source: Reuters, ECB, Federal Reserve

QE 2.0 on its way

▪ On its meeting in November, the Fed revealed details awaited by the investors on second round of monetary stimulus of the US economy. The bank decided, that until Q2 2011 he will buy long term Treasuries worth $600bn (ca. $75bn per month) to support the economy. The market expected smaller amount, but on the other hand anticipated that the purchases will be concentrated in a shorter period of time. The Fed announced, that he will be analyzing the situation in the economy and financial markets and will adjust the program if needed. The bank will continue on reinvesting funds obtained from maturing securities ($250-300bn until Q2 2011). Additionally, in the communiqué released after the meeting the sentence that the federal funds will remain on “low levels for an extended period” was maintained.

▪ The ECB left its main interest rate at 1%, considering that this is an appropriate level, taking into account current economic conditions and forecasts for the situation in 2011. The Bank expects that price growth in the medium term will remain moderate, while inflationary pressures will be limited. According to the ECB, the euro area economy will resume positive trends. The Bank underscored the need to implement multi-year credible fiscal consolidation plans in Europe, and has expressed concern that “there would be insufficient automatically in the implementation of fiscal surveillance.”

▪ The US CPI reached 1.1%YoY in September versus 1.2% a month earlier. Low prices growth is a Fed’s serious concern and announced round of monetary policy shall i.e. trigger higher CPI.

▪ Flash estimates of HICP inflation growth in October in the euro zone point to 1.9%YoY versus 1.8% in September. The inflation approached the ECB target (2%) but weak economic growth shall limit the room for interest rate hike by the ECB.

Sustained growth in China, recovery in US and euro zone

▪ In October all covered indices of activity in manufacturing sector increased. As in China the upward momentum of manufacturing seems to be pretty firmed, the latest data from US and euro zone do not guarantee the durability of growth.

▪ The ISM index for the US manufacturing advanced to 56.9pts, that is the highest level since May 2010. The increase was mainly due to new orders, industrial output and exports. Perhaps the dollar’s depreciation stars to produce effects expected by the US administration.

▪ The Chinese PMI-manufacturing increased in October for the third consecutive month to 54.7pts, the highest level since April 2010. The core factor pushing the index up were new orders, that increased at the highest pace for 6 months. Visibly higher increase was observed in domestic orders.

▪ The PMI-manufacturing for the euro zone increased to 54.6pts after two months of decline. The export orders were the core driver of that gain.

▪ The advance data on the US GDP growth in Q3 was slightly lower than expected and reached 2.0%QoQ. Interestingly, the increase was mainly due to considerable smaller negative contribution of net exports (though there was smaller positive input of exports, the negative contribution of imports declined much more). In Q3 growth of investments visibly abated (increase was recorded mainly due to higher inventories). The positive contribution of consumption was only slightly higher than in Q2.

▪ In October the payrolls in the non-farm sector increased by 151.0k, that was the first growth since May 2010. Additionally, the data from previous months was visibly revised up. The unemployment rate remained unchanged at high level of 9.6%.

Economic calendar

Monday	Tuesday	Wednesday	Thursday	Friday
8 November DE: Industrial output (Sep)	**9** US: Wholesale inventories (Sep)	**10** ***PL: Bond switching auction*** ***PL: Balance of payments (Sep)*** US: Import prices (Oct) US: Trade balance (Sep) CN: Trade balance (Oct)	**11** ***PL: The Independence Day*** US: Market holiday CN: CPI (Oct) CN: Industrial output (Oct)	**12** ***PL: Money supply (Oct)*** EZ: Flash GDP (Q3) EZ: Industrial output (Sep) US: Flash Michigan index (Nov)
15 ***PL: CPI (Oct)*** EZ: Trade balance (Sep) US: NY Fed index (Nov) US: Retail sales (Oct)	**16** DE: ZEW index (Nov) EZ: HICP (Oct) US: PPI (Oct) US: Capacity utilization rate (Oct) US: Industrial output (Oct)	**17** US: Building permits (Oct) US: House starts (Oct) US: CPI (Oct)	**18** ***PL: Wages and employment (Oct)*** ***PL: MPC minutes*** EZ: Current account (Sep) US: Leading indicators (Oct) US: Philly Fed index (Nov)	**19** ***PL: Industrial output (Oct)*** ***PL: PPI (Oct)***
22 ***PL: Core inflation (Oct)*** ***PL: Business climate (Nov)*** EZ: Consumer confidence (Nov)	**23** ***PL: MPC decision*** DE: GDP (Q3) DE: Flash PMI – manufacturing (Nov) EZ: Flash PMI – manufacturing (Nov) US: Core PCE (Q3) US: Preliminary GDP (Q3) US: Home sales (Oct)	**24** DE: Ifo index (Nov) EZ: Industrial orders (Sep) US: Consumer spending (Oct) US: Personal income (Oct) US: Core PCE (Oct) US: Industrial orders (Oct) US: Michigan index (Nov) US: New home sales (Oct) US: Fed minutes	**25** ***PL: Retail sales (Oct)*** ***PL: Unemployment rate (Oct)*** DE: GfK index (Dec)	**26** EZ: Money supply (Oct)
29 EZ: Business confidence (Nov)	**30** ***PL: GDP (Q3)*** EZ: Flash HICP (Nov) EZ: Unemployment rate (Oct) US: ISM NY index (Nov) US: S&P/Case-Shiller home price index (Sep) US: Chicago PMI index (Nov) US: Consumer confidence (Nov) US: Fed Beige book	**1 December** ***PL: PMI – manufacturing (Nov)*** EZ: PMI – manufacturing (Nov) CN: PMI – manufacturing (Nov) US: ADP report (Nov) US: ISM – manufacturing (Nov)	**2** EZ: PPI (Oct) EZ: ECB Decision US: Pending home sales (Oct)	**3** EZ: PMI – services (Nov) EZ: Retail sales (Oct) US: Non-farm payrolls (Nov) US: Unemployment rate (Nov) US: Industrial orders (Nov) US: ISM – services (Nov)
6 EZ: Sentix index (Dec)	**7** DE: Industrial orders (Oct)	**8** DE: Industrial output (Oct)	**9** US: Wholesale inventories (Oct) CN: Trade balance (Nov)	**10** US: Import prices (Nov) US: Trade balance (Oct) US: Flash Michigan index (Dec) CN: Industrial output (Nov) CN: CPI (Nov)

Source: CSO, NBP, Ministry of Finance, Reuters.

MPC meetings and data release calendar for 2010

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
MPC meeting	25-26	23-24	30-31	27-28	24-25	29-30	6	23-24	28-29	26-27	22-23	21-22
MPC minutes	21	19	18	22	20	24	15	-	23	21	18	16
GDP*	-	-	2	-	31	-	-	30	-	-	30	-
CPI	14	15[a]	15[b]	15	14	15	13	13	14	13	15	14
Core inflation	21	-	22	22	21	22	20	20	21	20	22	21
PPI	21	18	17	20	20	18	19	18	17	19	19	17
Industrial output	21	18	17	20	20	18	19	18	17	19	19	17
Retail sales	28	23	24	23	26	24	23	24	24	26	-	-
Gross wages, employment	19	16	16	19	19	17	16	17	16	18	18	16
Foreign trade	about 50 working days after reported period											
Balance of payments*	-	-	31	-	-	29	-	-	28	-	-	30
Balance of payments	15	12	12	13	17	16	13	11	10	12	10	13
Money supply	14	12	12	14	14	14	14	13	14	14	12	14
Business climate indices	22	23	22	23	21	22	23	20	22	22	22	22

* quarterly data, [a] preliminary data for January, [b] January and February
Source: CSO, NBP

Economic data and forecasts

Monthly economic indicators

		Sep 09	Oct 09	Nov 09	Dec 09	Jan 10	Feb 10	Mar 10	Apr 10	May 10	Jun 10	Jul 10	Aug 10	Sep 10	Oct 10
PMI	pts	48.2	48.8	52.4	52.4	51.0	52.4	52.5	52.5	52.2	53.3	52.1	53.8	54.7	53.5
Industrial production	%YoY	-1.3	-1.3	9.9	7.4	8.5	9.2	12.5	9.7	13.5	14.3	10.5	13.5	11.2	6.0
Construction production	%YoY	5.7	2.7	9.9	3.2	-15.3	-24.7	-10.9	-6.3	2.3	9.6	0.8	8.5	12.3	6.5
Retail sales [a]	%YoY	2.5	2.1	6.3	7.2	2.5	0.1	8.7	-1.6	4.3	6.4	3.9	6.6	7.2	7.3
Unemployment rate	%	10.9	11.1	11.4	11.9	12.7	13.0	12.9	12.3	11.9	11.6	11.4	11.3	11.4	11.4
Gross wages in enterprises sector [a]	%YoY	3.3	2.0	2.3	6.5	0.5	2.9	4.8	3.2	4.8	3.5	2.1	4.2	4.2	4.4
Employment in enterprises sector	%YoY	-2.4	-2.4	-2.2	-1.8	-1.4	-1.1	-0.6	0.0	0.5	1.1	1.5	1.6	1.7	1.9
Export (€)	%YoY	-17.0	-10.9	1.0	12.6	14.0	20.5	21.5	22.9	24.7	28.6	16.0	25.4	20.5	19.6
Import (€)	%YoY	-26.8	-20.8	-11.0	-3.3	8.3	21.7	24.6	23.0	29.9	27.8	20.0	27.0	25.5	20.4
Trade balance	EURm	59	-200	-291	-627	-104	-177	-526	-262	-450	-287	-865	-657	-393	-314
Current account balance	EURm	-250	-330	-1 376	-1 070	-672	67	-458	-336	-889	-1 004	-1 539	-1107	-993	-564
Current account balance	% GDP	-2.3	-1.9	-1.8	-1.6	-1.6	-1.8	-1.9	-1.9	-2.1	-2.3	-2.6	-2.9	-3.1	-3.2
Budget deficit (cumulative)	PLNbn	-21.5	-24.0	-24.4	-23.8	-4.8	-16.7	-22.7	-27.0	-32.1	-36.8	-34.9	-36.9	-39.5	-44.1
Budget deficit (cumulative)	% of FY plan	90.3	101.1	102.6	100.0	9.3	32.1	43.5	51.8	61.6	70.5	66.9	70.7	75.7	84.5
CPI	%YoY	3.4	3.1	3.3	3.5	3.5	2.9	2.6	2.4	2.2	2.3	2.0	2.0	2.3	2.5
CPI excluding prices of food and energy	%YoY	2.9	2.9	2.8	2.6	2.4	2.2	2.0	1.9	1.6	1.5	1.2	1.2	1.1	1.1
PPI	%YoY	1.6	2.0	1.9	2.1	0.2	-2.4	-2.6	-0.4	1.9	2.1	3.8	4.1	4.3	3.5
Broad money (M3)	%YoY	9.6	11.9	8.0	8.1	6.3	5.1	5.5	6.1	7.7	7.1	7.8	9.3	8.5	6.0
Deposits	%YoY	10.9	13.5	10.3	9.8	7.5	6.8	6.2	7.0	8.5	8.1	8.5	9.9	8.9	7.0
Loans	%YoY	18.6	14.9	13.4	8.6	5.4	3.0	2.2	3.8	5.1	8.0	8.6	10.0	9.3	8.4
USD/PLN	PLN	2.86	2.85	2.79	2.83	2.85	2.93	2.87	2.89	3.24	3.36	3.20	3.09	3.03	2.89
EUR/PLN	PLN	4.16	4.21	4.17	4.14	4.07	4.01	3.89	3.87	4.06	4.10	4.08	3.99	3.96	3.90
Reference rate [b]	%	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
Lombard rate [b]	%	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
WIBOR 3M	%	4.18	4.18	4.19	4.23	4.24	4.17	4.13	3.92	3.85	3.86	3.84	3.81	3.82	3.85
Yield on 52-week T-bills	%	4.33	4.35	4.26	4.25	4.01	3.90	3.92	3.84	3.71	3.93	4.08	3.97	4.02	4.00
Yield on 2-year T-bonds	%	5.10	5.03	4.92	4.92	4.95	4.90	4.76	4.47	4.52	4.66	4.73	4.68	4.69	4.65
Yield on 5-year T-bonds	%	5.74	5.65	5.64	5.67	5.58	5.51	5.27	5.10	5.26	5.35	5.35	5.23	5.15	4.90
Yield on 10-year T-bonds	%	6.18	6.15	6.14	6.21	6.12	6.09	5.71	5.56	5.74	5.83	5.73	5.54	5.45	5.30

Source: CSO, NBP, Finance Ministry, BZ WBK own estimates; [a] in nominal terms, [b] at the end of period

Quarterly and annual economic indicators

		2008	2009	2010	2011	1Q10	2Q10	3Q10	4Q10	1Q11	2Q11	3Q11	4Q11
GDP	PLNbn	1 272.8	1 342.6	1 418.7	1 508.8	327.4	345.1	349.5	396.6	349.1	366.9	369.1	423.6
GDP	%YoY	5.1	1.8	3.5	3.5	3.0	3.5	3.7	3.8	3.8	3.5	3.3	3.5
Domestic demand	%YoY	5.6	-1.0	3.9	4.4	2.2	3.9	4.3	4.9	4.9	4.5	3.9	4.2
Private consumption	%YoY	5.7	2.3	2.8	3.0	2.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Fixed investments	%YoY	9.6	-0.8	1.4	10.1	-12.4	-1.7	6.0	6.5	16.5	12.5	8.0	8.0
Industrial production	%YoY	3.6	-3.5	10.8	7.1	9.5	11.7	11.7	8.7	7.5	7.4	8.0	5.4
Construction production	%YoY	10.0	4.6	3.3	7.2	-16.7	2.5	7.3	10.7	23.8	3.5	2.5	7.4
Retail sales [a]	%YoY	13.1	3.5	5.6	7.9	4.0	3.1	6.0	8.8	5.5	7.7	8.1	9.8
Unemployment rate [b]	%	9.5	11.9	11.5	10.1	12.9	11.6	11.4	11.5	12.3	10.8	10.2	10.1
Gross wages in enterprise sector [a]	%YoY	10.3	4.4	3.7	5.6	2.8	3.8	3.1	4.8	4.8	5.2	5.9	5.9
Employment in enterprise sector	%YoY	4.8	-1.2	0.7	2.1	-1.3	0.4	1.6	2.0	2.2	2.1	2.1	2.2
Export (€)	%YoY	14.2	-15.8	20.3	11.6	18.0	24.9	18.7	19.6	17.0	12.0	10.0	8.0
Import (€)	%YoY	17.2	-24.3	21.7	15.0	17.2	24.9	22.2	22.5	21.0	16.0	14.0	9.8
Trade balance	EURm	-17 724	-3 102	-5 270	-10 164	-676	-653	-1 915	-2 026	-1 954	-1 988	-3 413	-2 809
Current account balance	EURm	-17 384	-6 749	-9 333	-9 764	-1 134	-1 534	-3 639	-3 026	-1 904	-1 788	-3 513	-2 559
Current account balance	% GDP	-4.8	-2.2	-2.6	-2.5	-2.2	-2.1	-2.7	-2.6	-2.7	-2.8	-2.7	-2.5
General government balance	% GDP	-3.7	-7.1	-7.9	-6.5	-	-	-	-	-	-	-	-
CPI	%YoY	4.2	3.5	2.5	3.0	3.0	2.3	2.1	2.5	3.1	3.0	3.0	3.0
CPI [b]	%YoY	3.3	3.5	2.7	2.9	2.6	2.3	2.3	2.7	3.1	2.9	3.0	2.9
CPI excluding food and energy prices	%YoY	2.3	2.7	1.6	2.3	2.2	1.7	1.1	1.3	2.0	2.2	2.4	2.5
PPI	%YoY	2.2	3.3	1.8	3.5	-1.6	1.2	4.1	3.6	4.0	3.3	2.9	3.7
Broad money (M3) [b]	%YoY	18.6	8.1	7.2	7.1	5.5	7.1	8.5	7.2	7.4	6.3	6.9	7.1
Deposits [b]	%YoY	20.6	9.8	7.7	6.9	6.2	8.1	8.9	7.7	7.7	6.4	7.3	6.9
Loans [b]	%YoY	36.0	8.6	9.8	10.0	2.2	8.0	9.3	9.8	13.4	10.1	10.7	10.0
USD/PLN	PLN	2.41	3.12	3.00	2.89	2.88	3.15	3.10	2.89	2.89	2.97	2.88	2.82
EUR/PLN	PLN	3.52	4.33	3.97	3.81	3.99	4.01	4.01	3.86	3.82	3.92	3.80	3.72
Reference rate [b]	%	5.00	3.50	3.75	4.50	3.50	3.50	3.50	3.75	4.00	4.50	4.50	4.50
Lombard rate [b]	%	6.50	5.00	5.25	6.00	5.00	5.00	5.00	5.25	5.50	6.00	6.00	6.00
WIBOR 3M	%	6.36	4.42	3.96	4.61	4.18	3.88	3.82	3.95	4.20	4.54	4.85	4.85
Yield on 52-week T-bills	%	6.26	4.54	3.96	4.61	3.94	3.83	4.02	4.05	4.30	4.55	4.80	4.80
Yield on 2-year T-bonds	%	6.22	5.17	4.72	5.10	4.87	4.55	4.70	4.75	4.95	5.10	5.15	5.20
Yield on 5-year T-bonds	%	6.15	5.65	5.26	5.60	5.46	5.24	5.24	5.10	5.45	5.60	5.65	5.70
Yield on 10-year T-bonds	%	6.06	6.11	5.69	5.96	5.97	5.71	5.57	5.50	5.80	5.95	6.00	6.10

Source: CSO, NBP, Finance Ministry, BZ WBK own estimates; [a] in nominal terms, [b] at the end of period

Bank Zachodni WBK

This analysis is based on information available until 08.11.2010 has been prepared by:

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