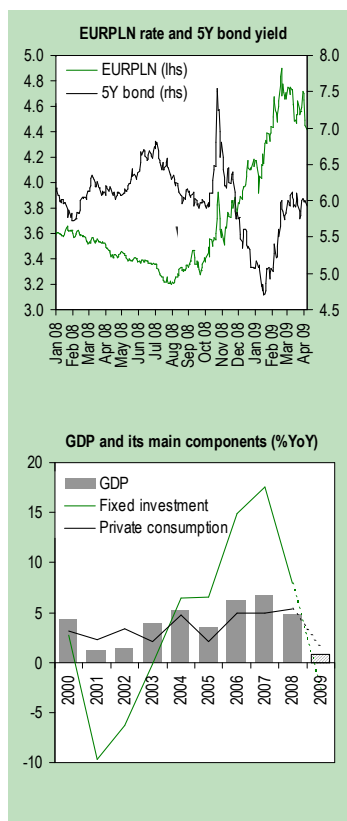


# MACROscope

## Polish Economy and Financial Markets

April 2009



## One swallow does not make spring

▪ A month ago we wrote about Moment of stabilisation on the Polish market, showing the forecast of EURPLN rate going down to the level of 4.40 within a few weeks. This scenario materialised and though today there are even more potential positive factors for the zloty, it is still too early to say the risks for the Polish currency are gone. Arguments mentioned last month (activity of central banks in the region, as well as government's activity on the foreign exchange market) are still valid and the new element supporting currencies in emerging markets is more funds available to support the region by the IMF. What is interesting, comments by government's representatives suggesting that they finally realised that high volatility on the foreign exchange market and no political consensus regarding Constitution's change would make soon ERM2 entry impossible, did not affect the market. This confirms that the Polish market did not believe in optimistic scenario of the government regarding ERM2 and euro zone entry.

▪ Despite some positive news locally and the global economy, after one month of stabilisation in our forecasts, we decided to revise our GDP growth forecast for this year downwards again, from 1.2% to 0.8%. This was brought about mainly by deterioration in our assessment for prospects of private consumption after weaker than expected data on retail sales, wages and unemployment for February (together with higher forecast of the unemployment rate along with expected deeper employment drop) as well as further slump in consumer confidence in March. A risk factor for consumption is whether money from indexation of social security benefits will be entirely spent and whether spending of working population will not fall in real terms despite drop in real wage will (required decrease in net savings). Fixed investment forecast was also lowered, but only slightly, as it supported by high inflow of FDIs at the beginning of this year and chances for increased use of EU funds later in the year. Once again we lowered our assumptions regarding GDP growth in the euro zone, which led to clear downward revision in our forecast for Polish exports. However, taking into account the lowered prediction for domestic demand and deeper slump in imports than exports, our estimate of net exports contribution to GDP growth has improved.

▪ Taking into account worsening economic situation, which improves inflation outlook, the Monetary Policy Council lowered interest rates again. Since November 2008 the reference rate decreased by 225bp and after such a change the differences between Council's member are very clear. The MPC maintains the easing bias and though some "hawkish" opinions about a pause in easing cycle appear, we still expect another move at the next meeting and the reference rate to go down to 3% this year. We agree with Jan Czekaj, the member used to vote exactly as majority within the Council, who said "in practice there are no information from the real sphere of the economy, which would justify the wait-and-see approach" and "all data are in favour of continuation of monetary policy easing".

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Financial market on 31 March 2009:					
NBP deposit rate	2.25	WIBOR 3M	4.17	USDPLN	3.5416
NBP reference rate	3.75	Yield on 2-year T-bonds	5.62	EURPLN	4.7013
NBP lombard rate	5.25	Yield on 5-year T-bonds	6.00	EURUSD	1.3275

This report is based on information available until 06.04.2009

## Special focus

### Overstated exchange rate channel

In view of the recession threat and deterioration in macroeconomic projections witnessed for quite some time, over the time span of the last few quarters, the central banks worldwide have substantially loosened their monetary policy. The interest rates in the US, Japan or Switzerland have been cut almost down to zero. In the Euro zone or in the UK, the interest rates are still slightly higher despite their sizeable reduction. However, further cuts can be expected in the wake of a continually growing scale of problems. The central banks in the Central-Eastern European countries have also decided to decrease their interest rates, though to a lower extent. In January, the National Bank of Hungary cut the main/reference rate down to 9.50%, from 11.50% in October 2008. In a corresponding period, the Czech National Bank reduced the interest rate from 3.50% to 1.75%, while the National Bank of Poland slashed the interest rate from 6.00% (October) to 3.75% (March).

The scale of the monetary policy softening in our region was restricted, primarily, on the back of fears that overly aggressive interest rate cuts would fuel further depreciation of local currencies and adversely impact the inflation level. In this document we will not dwell on the analysis of the extent to which changes in the interest rates determined the scale of PLN depreciation (though, as it has been highlighted on many occasions in our other publications, in our view the interest rate disparity has not been and is not the key factor impacting the f/x rates in the current volatile markets). We would rather like to focus on the analysis of possible consequences of PLN depreciation for inflation going forward.

#### Exchange rates and inflation

The analysis of the relation between exchange rate fluctuations and inflation has been a widely discussed topic in the economic literature, in particular, since the fall of the fixed exchange rate regimes. The strength of the f/x rate impact on inflation is measured by the so called exchange rate pass-through coefficient. Research conducted in the recent years has indicated that the strength of exchange rate pass-through is not constant over time and is subject to variations resulting from adjustments taking place in the economy<sup>1</sup>. Most of developed countries have witnessed a reduction in the pass-through effect in parallel to

decreasing inflation and prolonged period of monetary policy conducted in the direct inflation targeting framework.

Attempts to estimate the pass-through effect for Poland, made in the recent years, have confirmed the occurrence of a few regularities. Firstly, the scale of the f/x rate transmission on inflation is significantly less evident in Poland than, e.g. in the Czech Republic or Hungary, though it is much higher than in the industrialised countries. Apart from that, empirical analyses indicate also in our country the impact of the f/x effect on inflation has weakened in the recent years<sup>2</sup>. The estimations of the pass-through parameter for Poland arising from individual types of research differ one from another (which is partially explained by the above mentioned volatility of the index over time). However, in the recent analyses the index value quite often ranges from 0.1 to 0.2 in the time horizon of 12-24 months. This means that a 10% exchange rate depreciation may (*assuming that other conditions remain unchanged*) trigger a rise in inflation by 1–2 percentage points in the above-mentioned time span.

The scale of Polish currency depreciation seen in the recent months was exceptional – from September 2008 to March 2009, the average EUR/PLN rate increased by ca. 37%, and USD/PLN by ca. 52%; from July 2008, when the zloty hit the record highs, the EUR/PLN rate increased by almost 42%, while USD/PLN rate by as much as 72%! This was the strongest move in the Polish exchange rate market since its emergence.

If you compare the above results, referring to the estimated pass-through of the exchange rate on the price dynamics against the zloty depreciation in the recent months, one may fear that the inflation may soon rise by as much as a few percentage points! However, the assumption that “*other conditions remain unchanged*” needs to be noted. It is obvious that the assumption is not fulfilled in the current situation. Apart from the f/x rate movements, the economy has seen changes of other macroeconomic parameters impacting the dynamics of prices, in particular a decrease in output gap, slump in prices on the commodities markets, or eased tensions in the labour market. In order to assess the inflation prospects, it is not enough to know the strength of the exchange rate pass-through effect, as the impact of all the other changing parameters should be taken into consideration. To that end, we have analysed the mechanism underlying the exchange rate transmission to assess the product of forces impacting inflation in the environment of zloty depreciation and strong economic slowdown.

<sup>1</sup> Taylor (2000), Choudri & Hakura (2001), Campa & Goldberg (2005)

<sup>2</sup> Grabek, Kłos, Kokoszcyński, Łyziak, Przystupa, Wróbel (2008)

### Distribution chain model

Our analysis is based on the methodology developed by McCarthy<sup>3</sup>, which is one of the most frequently applied tools for examining the impact of the f/x channel onto the inflation. The developed model in simplified form reflects the sequence of price decisions at different levels of the so-called distribution chain – starting from import prices, through sold production prices, up to prices of consumer goods and services. The analysis concerns price adjustments as a response to four basic categories of impulses: foreign currency shock (change in the nominal exchange rate), exogenous supply shock (reflected by a change in commodity prices), internal demand shock (measured by the output gap) and the internal supply shock (tensions on the labour market reflected by the rate of wage growth). The methodology is based on estimation of the recursive VAR system. After relevant assumptions concerning the structure of lags in the transmission of shocks in the distribution chain, it is possible to estimate the responses of inflation variables onto individual types of disturbances included in the model. For more information on the structure of the model, source data and estimation outcome – see the *Technical Appendix*.

### Consumer prices resistant to f/x rate

The outcome of this analysis, similar to previous analyses concerning Poland, confirm the theoretical assumptions i.e. that the transmission of the exchange rate impulse is the strongest and the quickest for import prices, weaker and not so quick for production prices, while it is the weakest for consumer prices.

According to our estimations, already after 3 months ca. 65% of an exchange rate change is transferred onto import prices and this effect remains in force for the next quarters. Over two-fold weaker and clearly slower is the response of production prices to exchange rate fluctuations – in this case after 3 months ca. 16% of the f/x rate impulse is transferred, while after 12 months ca. 30% of it<sup>4</sup>. As for consumer prices (in the model, we applied the CPI excluding controlled prices) the exchange rate pass-through effect estimated by us is much weaker than indicated by the majority of earlier empirical analyses, slow and has little statistical significance. During the first six months from the occurrence of f/x rate shock, the pass-through effect for consumer prices is almost unnoticeable,

but it grows gradually and after twelve months, it reaches the level of 0.065 (which means that PLN depreciation by 10% may – provided other terms and conditions remain unchanged – increase the annual inflation rate by 0.65 p.p.).

The pass-through effect lower than in previous analyses may be driven by several factors. First, by the application of the CPI excluding controlled prices, which was supposed to eliminate part of the volatility of the CPI resulting from price fluctuations not caused by the market mechanisms. Second, the estimation is based on a more recent sample of statistical data than the ones used in previous analyses and – as was mentioned before – there has been a drop in the strength of the pass-through effect over time, coupled by extension of the monetary policy history based on the BCI strategy and relatively low inflation.

The values of exchange rate pass-through coefficients estimated by us for inflation variables at different levels of distribution chain are presented in the table below.

**Table 1. Exchange rate pass-through on inflation**

	Import prices	PPI	CPI without controlled prices
3M	0.6519	0.1662	-0.0006
6M	0.6330	0.2182	0.0123
9M	0.6275	0.2476	0.0335
12M	0.6345	0.2952	0.0652

### Domestic shocks more important than external ones

As we have mentioned before, apart from the scale of the exchange rate impact, the influence of other types of macroeconomic turbulences is important for assessing inflation prospects. For individual supply and demand shocks incorporated into the model we estimated equivalents of pass-through effects, using the same formula as for the exchange rate parameter (see the *Technical Appendix*). The estimated direction of impact of individual impulses in the model is in accordance with the theoretical assumptions. Since we are mostly interested in conclusions for consumer prices, in the further part of our document we will focus on the analysis of this particular variable response.

The calculations indicate that the strongest response of the annual inflation rate is driven by supply and demand shocks in the internal market. According to the model disclosures, the increase (decrease) of the industrial output by 10% above (below) the potential level triggers increase (decrease) of inflation by ca. 1.7 p.p. in the horizon of 6 months and by ca. 3.2 p.p. in the horizon of 12 months. A similar scale of response applies to the impulse on the part of the wage growth.

<sup>3</sup> McCarthy (1999)

<sup>4</sup> It should be pointed out that in our opinion, it would be much more appropriate to use the "PPI on the domestic market" index in the analysis, as the data on headline PPI include, amongst others, prices of exported production (which usually respond automatically to exchange rate changes), while the analysis concerns the behaviour of domestic prices. Unfortunately, insufficient available time series did not allow to use PPI data on the domestic market in the VAR model.

Very low and statistically insignificant impact on inflation (at each stage of the distribution chain) of oil price comes as a surprise. According to our estimates, change in oil prices (in USD) on the global markets by 10% can contribute to changes in the CPI growth by nearly 0.1 p.p. in the 12 months horizon. Hypothetically, this may stem from huge historical volatility of oil prices as a result of which even at exceptionally low pass-through ratio, the impact of oil prices upon the inflation growth may be noticeable (e.g. within the recent 6 months, Brent oil price dropped by over 60% which would drive down the CPI excluding controlled prices by 0.6 p.p.) Yet, this conclusion is not confirmed by the analysis of the variance decomposition (Table 3) which shows that disturbances in oil prices are responsible only for a small part of inflation index volatility.

Table 2 below presents the scale of CPI response to individual types of shocks covered by the model.

**Table 2. Effect of pass-through on the part of individual impulses on CPI without controlled prices**

	oil prices	output gap	wages	exchange rate
3M	0.0074	0.0547	0.0625	-0.0006
6M	0.0047	0.1654	0.1659	0.0123
9M	0.0064	0.2536	0.2799	0.0335
12M	0.0098	0.3245	0.3544	0.0652

The analysis of the variance decomposition (Table 3) mentioned above confirms additionally the conclusions derived earlier on the basis of the estimated values of pass-through ratios: should the exchange rate disturbances be the key factor explaining the volatility of imports prices and producer's inflation, their importance for explaining volatility of consumer prices is low, and comparable to importance of shocks in the crude oil market. In the case of consumer prices, the most significant factors are shocks in the domestic market: output gap and tensions on the labour market which jointly account for ca. 60% of CPI volatility with exclusion of controlled prices (in 12M horizon).

### Demand gap offsets the depreciation effect

Based on the estimation results, we can try to assess the joint impact of changes in the macroeconomic environment that happened recently upon the inflation prospects. Excluding the impact of all other factors, the depreciation of the zloty that took place within the recent three quarters might drive up the inflation by ca. 0.6 percentage points within six months and by as much as 3 p.p. within twelve months. However, it was coupled with a strong fall in industrial output below the potential whose effect impacts the consumer price growth even stronger in the opposite direction. The estimated net effect of both factors translates into inflation fall by ca. 1.4 p.p. in the horizon of 6 months and nearly 1 p.p. in the horizon of 12 months. Adding to

this the effect of fall in the wage growth which in the economic slowdown environment will be probably getting stronger in time, it may be concluded that the joint effect of external and internal shocks that hit the economy recently should decrease inflation in the horizon of next dozen of months. Thus it seems that zloty depreciation, at least of the scale experienced recently, is not a significant threat for inflation outlook in the medium run.

**Table 3. Variance decomposition**

for equation of import prices							
	oil prices	output gap	wages	exchange rate	import prices	PPI	CPI excl. controlled prices
1M	3.3	1.6	0.0	0.7	94.4	0.0	0.0
3M	1.6	0.9	0.4	42.5	48.4	3.1	3.1
6M	3.6	2.4	1.4	42.2	43.5	3.5	3.4
9M	3.9	8.8	2.3	40.3	37.4	3.6	3.8
12M	3.9	16.3	2.2	36.8	33.8	3.3	3.6
for equation of production prices							
	oil prices	output gap	wages	exchange rate	import prices	PPI	CPI excl. controlled prices
1M	3.5	5.7	0.8	41.0	1.7	47.3	0.0
3M	1.0	7.4	0.8	43.9	4.3	42.3	0.3
6M	0.8	20.8	3.9	38.2	9.1	26.2	0.9
9M	0.8	18.7	10.7	40.3	9.8	18.7	1.0
12M	0.7	16.7	14.9	40.6	8.8	15.7	2.5
for equation of consumer prices							
	oil prices	output gap	wages	exchange rate	import prices	PPI	CPI excl. controlled prices
1M	2.7	0.6	0.1	1.9	0.5	0.1	94.2
3M	5.6	5.7	2.5	1.7	0.5	3.6	80.4
6M	2.3	29.2	12.2	1.2	2.5	3.0	49.5
9M	2.3	29.2	26.6	2.6	2.5	4.0	32.9
12M	3.0	24.5	34.0	4.4	2.1	4.0	28.1

### References:

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- Cholewiński (2008), *Wpływ zmian kursu walutowego na dynamikę procesów inflacyjnych*, Materiały i Studia NBP
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- Przystupa (2002), *The exchange rate in the monetary transmission mechanism*, NBP
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## Technical Appendix

We adopted methodology proposed by McCarthy (1999) and widely used in papers surveying exchange rate pass-through mechanism. Hence, we estimated recursive VAR system, in which demand and supply shocks are channelled through particular levels of distribution chain (via import prices and producer prices, finally to consumer inflation). In line with McCarthy's approach, external supply shock is represented by commodity prices (oil prices), and internal demand shock is represented by output gap. We also introduced variable representing domestic supply shock (labour market tensions).

Definition of variables and data sources are presented in the table below:

variable	description	source
<i>OIL</i>	average monthly price of cure oil (Brent) in USD per barrel	Reuters
$\gamma$	demand gap; proxy calculated as difference between seasonally adjusted log-transformed index of industrial production and trend generated by Hodrick-Prescot filter	GUS
<i>XR</i>	average monthly exchange rate of the zloty versus basket of two currencies: dollar (35%) and euro (65%)*	Reuters
<i>W</i>	average monthly wage in enterprises sector	GUS
<i>IMP</i>	index of import prices	GUS
<i>PPI</i>	index of producer prices (PPI)	GUS
<i>CPI-C</i>	index of consumer prices (CPI) after excluding controlled prices	NBP

All variables were log-transformed and seasonally adjusted. Unit root tests showed that all variables, except for demand gap, are integrated of order  $I(1)$ , so the most appropriate approach would be to estimate VECM model. Nevertheless, we decided to run simple VAR analysis, based on differenced series, due to the fact that cointegration tests indicated several cointegrating vectors, and following similar approach of other empirical papers. Except for demand gap, series used in estimation were 12-period seasonal differences ( $x_t = X_t - X_{t-12}$ ). In effect, the results may be interpreted in terms of year-on-year changes in relevant macroeconomic variables.

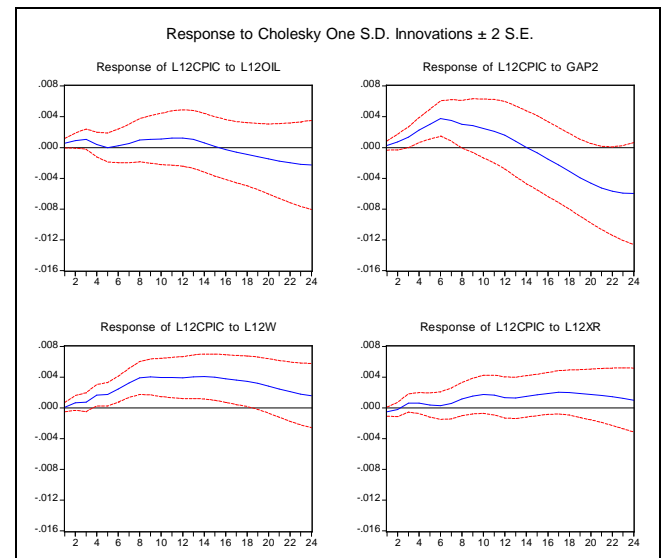
In order to identify structural shocks using Cholesky decomposition of variance-covariance matrix, we adopted following assumptions as regards ordering of variables in the recursive model: shocks to oil prices are exogenous; shocks to wage growth have no contemporaneous effect on demand gap; shocks to exchange rate have no contemporaneous effect on wages nor demand gap; shocks to import prices have no contemporaneous effect on other variables than producer prices and consumer prices; shocks to PPI have only contemporaneous effect on consumer prices; shocks to consumer prices have no contemporaneous effect on any other variable.

Hence, our recursive VAR system can be written as follows:

$$\begin{aligned}
 oil_t &= E_{t-1}oil_t + \varepsilon_t^{oil} \\
 \gamma_t &= E_{t-1}\gamma_t + \alpha_1\varepsilon_t^{oil} + \varepsilon_t^\gamma \\
 w_t &= E_{t-1}w_t + \beta_1\varepsilon_t^{oil} + \beta_2\varepsilon_t^\gamma + \varepsilon_t^w \\
 xr_t &= E_{t-1}xr_t + \gamma_1\varepsilon_t^{oil} + \gamma_2\varepsilon_t^\gamma + \gamma_3\varepsilon_t^w + \varepsilon_t^{xr} \\
 imp_t &= E_{t-1}imp_t + \varphi_1\varepsilon_t^{oil} + \varphi_2\varepsilon_t^\gamma + \varphi_3\varepsilon_t^w + \varphi_4\varepsilon_t^{xr} + \varepsilon_t^{imp} \\
 ppi_t &= E_{t-1}ppi_t + \lambda_1\varepsilon_t^{oil} + \lambda_2\varepsilon_t^\gamma + \lambda_3\varepsilon_t^w + \lambda_4\varepsilon_t^{xr} + \lambda_5\varepsilon_t^{imp} + \varepsilon_t^{ppi} \\
 cpic_t &= E_{t-1}cpic_t + \rho_1\varepsilon_t^{oil} + \rho_2\varepsilon_t^\gamma + \rho_3\varepsilon_t^w + \rho_4\varepsilon_t^{xr} + \rho_5\varepsilon_t^{imp} + \rho_6\varepsilon_t^{ppi} + \varepsilon_t^{cpic}
 \end{aligned}$$

where  $E$  is expectations operator. During estimation, expected values are replaced by lagged endogenous variables. Six lags were included in VAR model, which was sufficient to remove residual autocorrelation. Model was estimated on monthly data sample covering period 1998.08 – 2008.11 (the biggest constrain for data sample was availability of data on import prices).

Charts below present impulse responses functions of consumer prices to one standard deviation shocks of different types.



Using impulse responses, we calculate pass-through coefficients of various shocks on different inflationary variables.

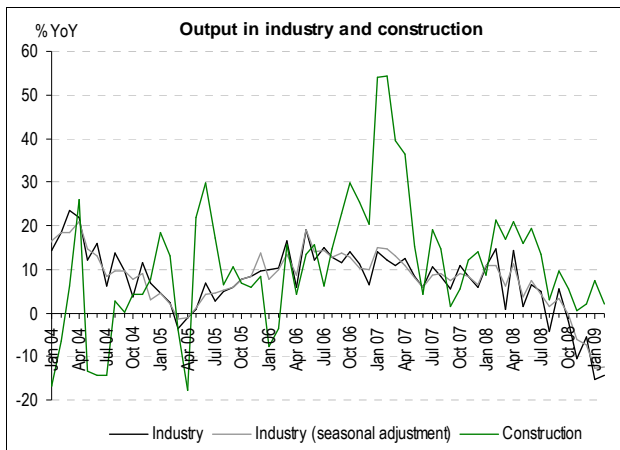
For example, value of exchange rate pass-through on consumer prices in the horizon of  $n$  months may be estimated as cumulative impulse response of inflation to exchange rate shock in a given period divided by cumulative impulse response of exchange rate to exchange rate shock in the same period (the formula takes into account secondary effects of initial exchange rate shock on exchange rate fluctuations in the following periods).

$$PT^{xr}(cpic_t)_n = \frac{\sum_{i=t}^{t+n} IRF_i^{cpic}}{\sum_{i=t}^{t+n} IRF_i^{xr}}$$

Similar algebra is used to calculate pass-through coefficients for other types of shocks (demand gap, wages) and other inflationary variables (PPI, import prices).

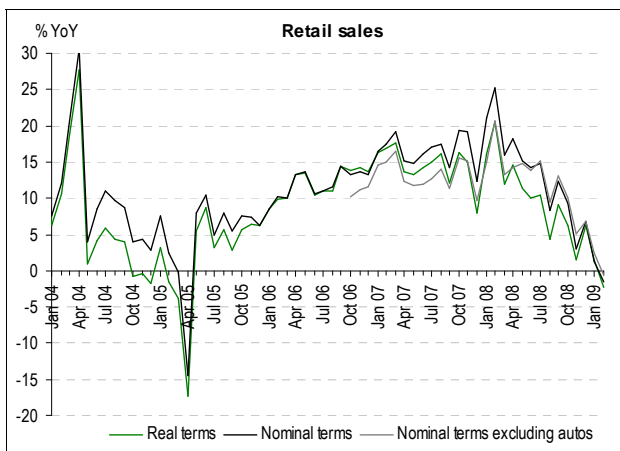
\* Replacing exchange rate variable by index of nominal effective exchange rate against 41 main trade partners (source: Eurostat) did not alter the results significantly.

## Economic update



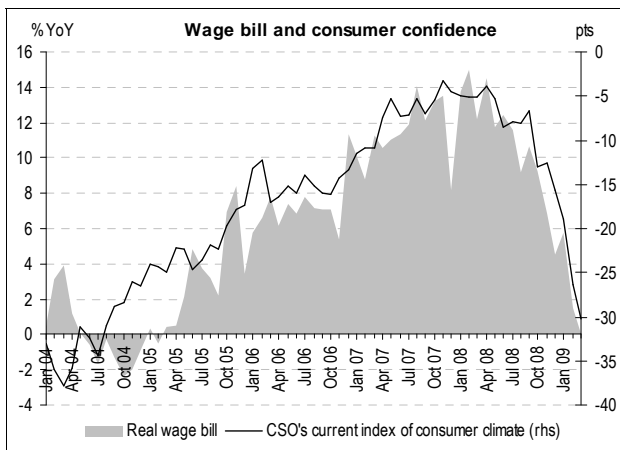
### Weak output figures

- Annual growth rate of industrial output slightly increased in February to  $-14.3\%$  from  $-15.3\%$  in January. We expect that March will bring clearer rebound in the headline figure to  $-4.8\%$ , but this will be related to an effect of higher number of working days (2 more than a year earlier), while seasonally adjusted output growth will fall in March after rebound to  $-12.4\%$ YoY in February from  $-12.7\%$ YoY in January.
- Construction output rose  $1.2\%$ YoY in February (seasonally adjusted growth by  $2.3\%$ YoY) after  $7.4\%$ YoY rise in January. Thus, as expected, there was clear deceleration in construction output growth after earlier relatively good results being an effect of long production cycle in this sector. We expect construction output growth to rebound in March (effect of higher number of working days), but then to lower gradually again.



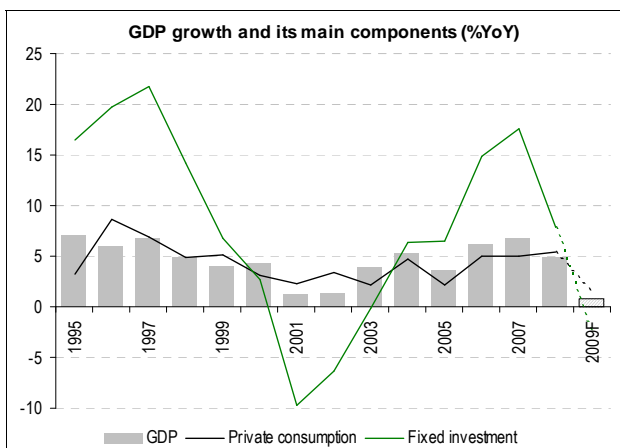
### Annual drop in retail sales for the first time in years

- Retail sales in nominal terms dropped  $1.6\%$ YoY in February after  $1.3\%$ YoY rise in January and average rise of  $13.7\%$ YoY in 2008. In real terms, retail sales fell  $2.3\%$ YoY in February after  $1.4\%$ YoY rise in January and  $10.2\%$  rise on average in 2008.
- Annual drop in retail sales in nominal and real terms took place for the first time since April 2005 (when it was an effect of very high base related to consumption boom before EU entry).
- The overall retail sales figure was again still under negative impact of deep fall in new car sales. However, weakening of consumption demand is becoming evident also in case of other components of retail sales. According to our estimates, growth rate in retail sales excluding autos reached  $-0.6\%$ YoY in February against  $2.4\%$  rise in January and  $1.6\%$ YoY increase on average in 2008.



### Labour market conditions keep deteriorating

- Annual pace of average wage growth in February decelerated to  $5.1\%$ YoY, the lowest level since late 2006, while employment dropped by  $0.2\%$ YoY. As a result, wage bill in enterprises rose in nominal terms by less than  $5\%$  and in real terms by a mere  $1.5\%$  (the weakest result in 4 years). The registered unemployment rate at the end of February rose to  $10.9\%$  from  $10.5\%$  at the end of January.
- March saw further clear fall in consumer confidence indices (according to surveys of the CSO, Ipsos, Pentor and CBOS).
- We expect continuation of the negative tendencies in the labour market in the next months (deeper fall in employment, lower pace of wage growth), which should translate into further deterioration in consumer confidence and lowering of consumption growth during this year.

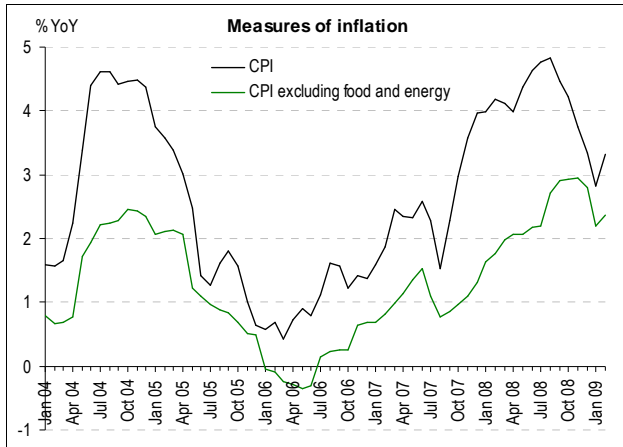


### GDP forecast down again

- Stronger than expected reaction of consumers to deterioration in labour market conditions (weak retail sales and slump in consumer confidence) as well as lower forecast of labour demand inclined us to revise downwards our forecast for private consumption growth in 2009 from  $3\%$  to  $1.6\%$ .
- We also lowered our forecast of fixed investment growth, but only slightly, as January saw very large inflow of FDIs ( $\text{€}1.5\text{bn}$  while we had assumed  $\text{€}5.5\text{bn}$  for the whole year) and there are still chances for increased use of EU funds this year.
- Despite we lowered export forecast (effect of the downward revision in forecast for GDP growth in the euro zone), our estimate for net exports contribution to GDP growth this year rose from  $0.2\text{pp}$  to  $1\text{pp}$ , because we stronger lowered import forecast (January saw stronger slump in imports than exports).

Source: CSO, own calculations

# Economic update



## CPI and core inflation temporary up

▪ The annual CPI inflation rose to 3.3% in February. At the same time, the January figure was revised down to 2.8% from earlier reported 3.1% (due to change in system of weights in CPI basket). This means that monthly price growth in February was much stronger than expected (0.9%MoM versus our forecast at 0.5%MoM).

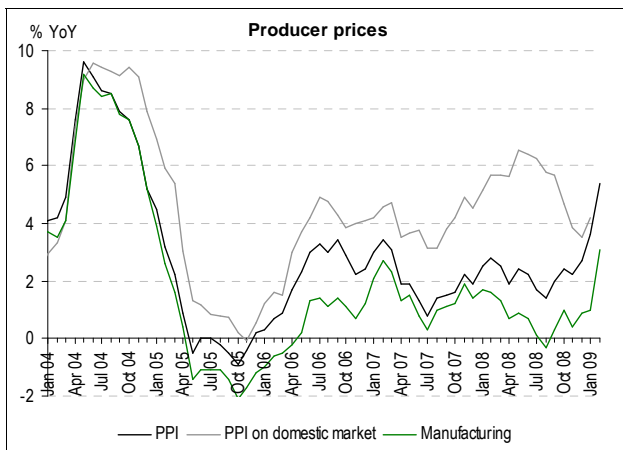
▪ The strongest rise in prices was in case of fuels (7.1%MoM) and energy (2.9%MoM). There was also clear rise in housing costs. Change in prices of other goods and services was moderate. Inflation excluding food and energy prices reached 2.4%YoY in February after 2.2% in January and 2.8% in December 2008.

▪ All in all, the structure of price growth in February suggests that the medium-term inflation prospects remain favourable. Impulse related to higher energy prices and housing costs should fade away in 12 months, while downward pressure on prices connected with weakening demand will be constraining price growth in majority of categories. In next months the core inflation should be falling to below 2%YoY in mid-year. As regards the CPI inflation, we expect it will be gradual falling to slightly above 2%YoY in July and in the second half of the year will moderately rise to below 3%YoY in December.

▪ With respect to changes in weights of consumer basket, it is worthy to note significant decrease in weight of foodstuff and notable rise in weight for 'recreation and culture' and 'restaurants and hotels'. The smaller weights in the two latter categories will be conducive to fall in inflation in circumstances of weakening demand. On the other hand, larger weight of housing acts towards increase in CPI inflation. Besides, recalculation of the CPI index for 2008 according to new weights acts towards lowering of annual inflation this year.

## Weights of main CPI components

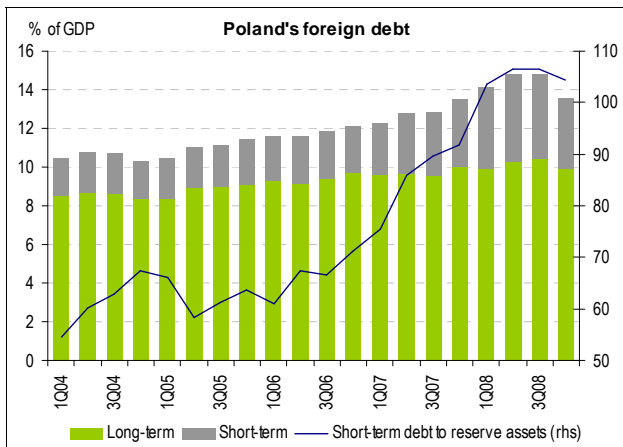
CPI components	2008	2009
Food and non-alcoholic beverages	25.7	24.6
Alcoholic beverages and tobacco	5.7	5.6
Clothing and footwear	5.6	5.4
Housing and energy	19.0	19.4
Furnishings, household equipment and maintenance	5.3	5.3
Health	5.1	4.9
Transport	8.9	9.4
Communication	5.2	4.9
Recreation and culture	7.3	7.7
Education	1.3	1.2
Restaurants and hotels	5.5	6.3
Other goods and services	5.4	5.3



## Surprisingly high PPI

▪ PPI inflation rose to 5.4%YoY in February from 3.6% in January. This was related to rise in commodities prices and also to effects of zloty depreciation seen in manufacturing prices – to a large extent as an effect of increase in zloty value of exports prices, which does not reflect price pressure domestically.

▪ Although the price increase in manufacturing was stronger than it results from export prices' impact (which suggests that price effects of the zloty weakening probably gained strength), in our opinion the influence of zloty depreciation on producer prices on the domestic market will be limited mainly to prices of refinery products. Assuming gradual appreciation of the zloty, average PPI inflation on the domestic market this year will be lower than in 2008 when it reached 5.4%. Moreover, we believe that its pass-through to CPI inflation will be weak.



## Fall in foreign debt

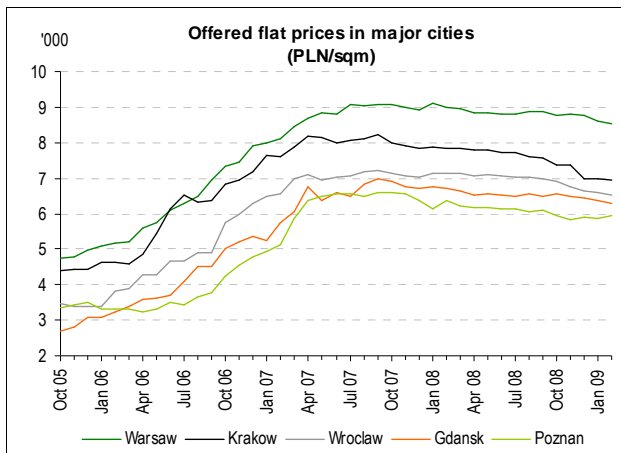
▪ Poland's total foreign debt expressed in euro terms fell in Q4 2008 to €171.8bn from 185.1bn in Q3. The short-term debt fell to €40.1bn from €50bn.

▪ However, one should remember that large part of Poland's foreign debt is denominated in zlotys (e.g. zloty-denominated bonds in portfolios of foreign investors). Thus, fall in debt value in zloty terms is partly a result of zloty depreciation. Foreign debt in zloty terms surged to PLN715.9bn from PLN630.9bn in Q3, but out of this a mere PLN5bn was rise in short-term debt.

▪ Looking at changes in relation of short-term debt in euro terms to reserve assets (fall from 106.6% to 104.4%) and to GDP (fall from 4.4% to 3.6%), the final quarter of last year saw some improvement in Poland's external stability.

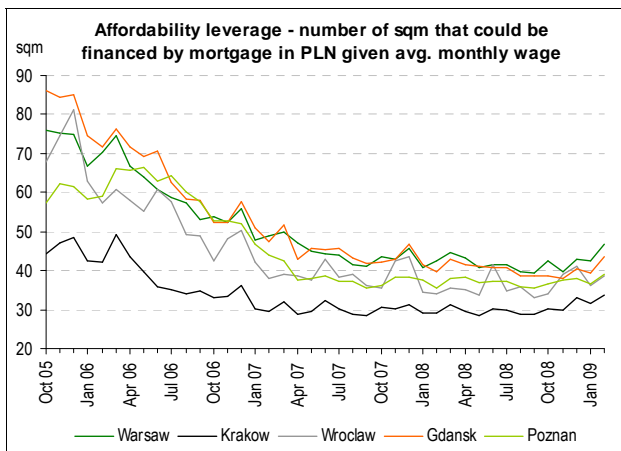
Source: CSO, NBP, own calculations

## Housing market update



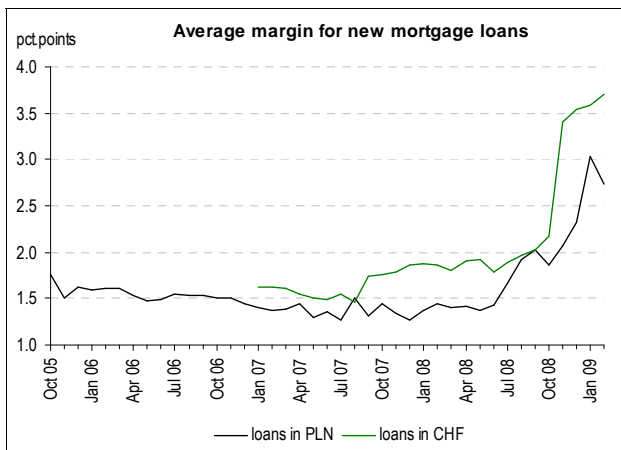
### Prices keep falling

- Apart from Warsaw, the major cities experienced a deepening in annual fall in offered flat prices. However, only in case of Krakow the price drop was double-digit (11.5%YoY). Price drop in the relatively strongest Warsaw market was 5.2%YoY.
- At the same time, different media and market sources reported some revival in flat sales both in the primary and the secondary market in February and March. The rise in sales was coupled with promotion actions of developers (price reductions and supplements to flats) and some lowering of transaction prices as compared to offered prices. As for now, it is hard to state to what extent the rise in sale was related to realisation of the lowered demand that had been withholding for a few months and recently reacted to lower prices, and to what extent we see permanent recovery of demand-side.



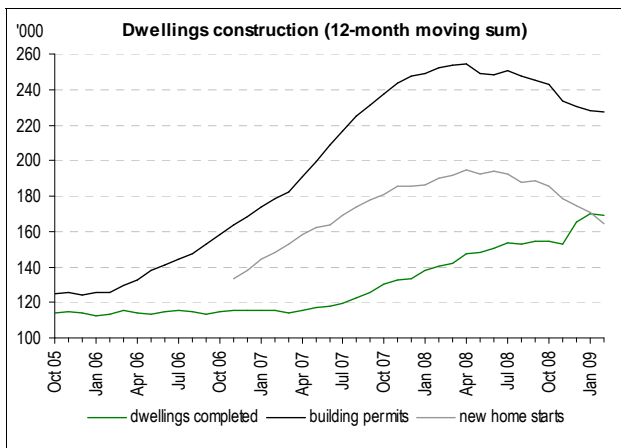
### Higher affordability leverage, but lower availability of credit

- The affordability leverage index increased quite notably in February. This was brought about by the fall in flat prices and simultaneous drop in interest on mortgage in zlotys (by over 100bp). The latter was related both to fall in the reference rates (WIBOR3M down by over 80bp) and to some narrowing of the banks' margins from slightly above 3pp in January to slightly above 2.7pp in February.
- The negative impact of lower average wage growth and increase in living costs was less important.
- Although the affordability leverage index rose quite clearly, one should remember that this does not take into account credit policy and changes in terms of mortgages, i.e. overall loans availability.
- We do not know yet results of the new NBP survey among senior loan officers, but in the previous survey published in January some further, although slight, tightening in credit policy in Q1 2009 was indicated. However, the fall in margin for loans in zlotys observed in February indicate some easing of credit policy. At the same time, widening of margin for loans in Swiss francs shows that availability of foreign currency loans is still very difficult, which is related to persistently tough conditions as regards financing of banks' assets in Swiss francs.
- A factor weakening positive change in the affordability leverage index is also deterioration in labour market conditions (rapid fall in labour demand). This discourage households to take long-term loans amid growing fear of unemployment, even after fall in flat prices and with expected continuation of at least slightly positive growth rate in wages as well as extended possibility to use state's subsidies to loans' repayments.



### Supply keeps constraining

- At the supply-side of the housing market, February saw continuation of the downward adjustment that has been observed already for a few quarters.
- Looking at 12-month cumulated values, February was another month in a row with a fall in the number of building permits. Even stronger drop was seen in the number of new home starts (from 170.5k to 164.7k against nearly 195k in the peak of the housing boom in the first half of 2008). Finally, after temporary rise at the turn of the year (effect of a change in regulations), February saw renewed downward tendency in the number of dwelling completed.
- Moreover, a part of developers is mulling to withdraw some flats from their offer and instead of that to start renting them, but it is dependant on discussed changes in law.



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



## Central bank watch

### Fragments of the MPC statement after its meeting in March (changed font indicates changes as compared to February's)

Data that have been released recently. The decline in GDP growth in 2008 Q4 and fall in industrial output, exports and retail sales in the first months of 2009 confirm that economic growth in Poland has been slowing considerably. Strong economic slowdown, which is mainly driven by recession in Poland's major trading partners, has been spilling over to further sectors of the economy. Similarly to other countries, limited credit availability stemming from increased risk aversion and considerable tightening of banks' lending conditions as well as deteriorating sentiment of economic agents contribute to slowing economic growth. Despite persisting excess liquidity of the banking sector, the cost of credit remains at a relatively high level which results from high risk premium incorporated in market interest rates and from increased margins. At the same time, information on labour market developments points to **declining employment** increasing unemployment and decelerating wage growth in the economy which is conducive to curbing inflationary pressure.

The recent period saw a strong depreciation of Central and Eastern European currencies, including the zloty, which was accompanied by a considerable rise in the exchange rate volatility. In the Council's view, the zloty is currently weaker than the equilibrium exchange rate and does not reflect the relatively favourable condition and outlook for the Polish economy. **The recent period was marked by still heightened exchange rate volatility of currencies of Central and Eastern European countries, as well as currencies of developed economies. This has also affected the zloty exchange rate.**

In the Council's assessment, inflation may temporarily increase slightly in the coming months is likely to temporarily remain at an elevated level, mainly as a result of rising administered prices, primarily electricity and fuel prices.

In the medium term, the recession in the global economy bringing about the decline in the domestic economic growth will contribute to lowering lower the inflationary pressure in Poland. **Deteriorating situation in the labour market and worsening financial condition of enterprises as well as banks' tightening of their lending terms and conditions will also be conducive to curbing demand and, consequently, inflationary pressure.** On the other hand, the **previously observed** considerable depreciation of the zloty exchange rate, observed in the past few months, will drive price increases. Weakening of the zloty exchange rate increases also the zloty value of liabilities of economic agents denominated in foreign currency, which might lead to lowering domestic demand.

### Changes in NBP's confidence package

Since the beginning of May the NBP will introduce also six-months repo operations, besides three-months operations. As regards foreign currencies, it is planned to introduce operation in EUR and USD for one month.

The list of collateral accepted by the NBP in repo operations will be supplemented by other than the government debt papers deposited in KDPW. What is more, in order to meet expectations presented by commercial banks, the NBP will accept in these operations the Polish government's papers denominated in euro. Other changes, which will be implemented since the beginning of new quarter will include also accepting in repo operations the papers with a coupon maturing during the period of operation.

Introduction of netting, which is a solution allowing banks using securities from maturing operations for new operation. Also, settlement with NBP will take place regarding the net amount.

### One quarter after another

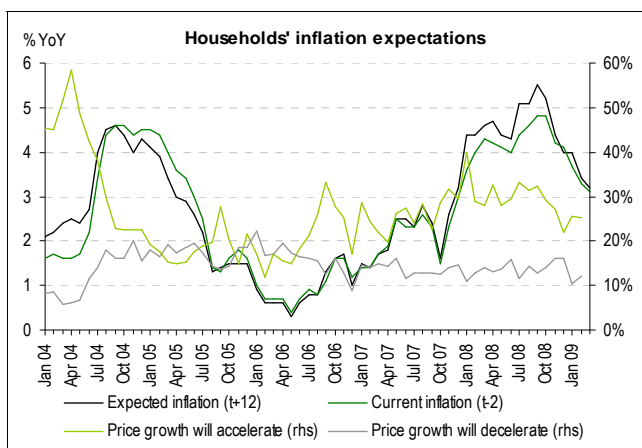
- Similarly as in February the MPC cut interest rates by 25bp, the reference rate to 3.75% - the lowest level in history.
- In our opinion, recent macroeconomic data justified the continuation of interest rate cuts, as the scale of worsening of economic situation in Poland is significant and will imply improvement in inflation outlook. Such view was also confirmed by the NBP's inflation and GDP projections presented a month ago. This is the case despite weaker zloty, which we show in this month's *Special focus* section.
- The information released after the meeting was very similar as last month, which means "dovish". The easing bias was maintained and a number of arguments favouring this has even increased as compared to February's statement (the Council added deteriorating situation in the labour market and worsening financial condition of enterprises).
- As regards the exchange rate, the MPC limited its comment to stating the fact that the recent period was marked by still heightened exchange rate volatility. At the same time, the statement did not include some comments from previous month on zloty undervaluation and a possibility of using instruments directly influencing the zloty exchange rate. Of course this does not mean that the MPC changed opinion in this regard and such comments may appear in the following months, depending on the situation in the foreign exchange market.
- The MPC maintained the opinion concerning the ERM2 and euro zone entry and after the meeting a few comments regarding this issue appeared (see next page for details).
- As regards other possible decisions, it was repeated that both reduction in obligatory reserve requirement and deeper decrease in deposit rate can be considered in future.

### The NBP's Package of confidence slightly expanded

- Bigger problem for the Polish banking sector is underliquidity in foreign currencies (being a result of mismatch between assets and liabilities) rather than liquidity in zloty.
- While deeper reduction in deposit rate may be positive from the point of view of limiting liquidity concentration in Polish currency, it is crucial that such a decision would be accompanied by a change in pricing of FX swaps transactions by the NBP. Keeping the deposit rate as a reference for swap pricing would lead to further significant rise in price of financing FX position by Polish banks.
- Unfortunately, the presented details did not include change in FX swap price. On a positive note, the NBP informed about start of negotiations on possibility to accept Polish zloty-denominated bonds as collateral for ECB operations.

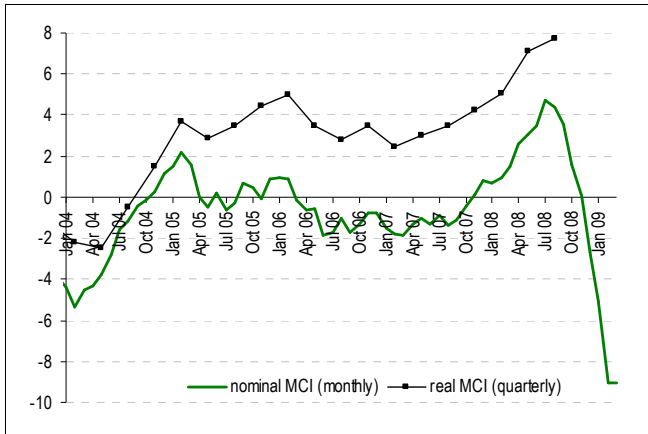
### Inflation expectations down together with CPI

- The last couple of months showed a significant decrease in inflation expectations, according to the measure calculated by the NBP.
- This was driven to a large extent by fall in CPI inflation rate and one may expect this trend to continue in the following months (with the exception of a period of temporary inflation increase in 1Q09).
- However, it is worth to notice the detailed breakdown of answers in the opinion poll. The percentage of people expecting that within twelve months prices will rise faster than currently is at the very low level in recent months. This is the level comparable to that observed when CPI inflation was at much lower level than today (around or below inflation target).



Source: NBP

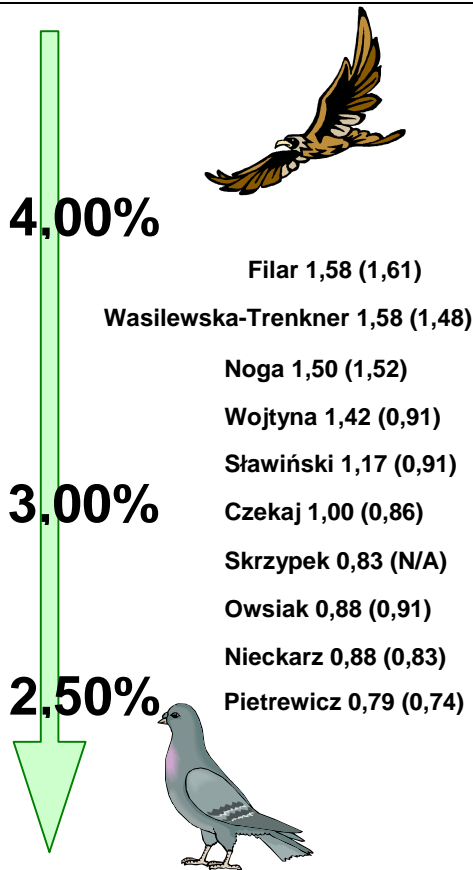
## Restrictiveness of the Monetary Policy (Council)



### Stabilisation of MCI after sharp fall

▪ After a significant decrease in monetary condition index, which we described last month, March brought some stabilisation. This was connected with the fact that the EURPLN rate was roughly unchanged as compared to the previous month (keeping much above our estimated of the long-term trend), while WIBOR fell further (indicating even wider gap as compared to the trend in the direction of easier monetary policy).

▪ As we already wrote a month ago, the influence of abrupt and significant change in the value of Polish currency is ambiguous. Therefore, the easing in monetary policy is probably less significant than indicated by the MCI. Additionally, the influence of inter-bank market rates is also lower amid lower availability of credit in the economy.



Index is between 0 and 2. A vote for the majority view is given a score of 1. A vote for a more hawkish (less dovish) decision than the majority view has a score of 2 and a vote for a less hawkish (more dovish) decision than the majority view has a score of 0. Average of points for all votes is the value of the index for a given MPC member.

Numbers directly by the name are values of the index for period since the beginning of Stawomir Skrzypek's term as NBP governor and numbers in parentheses are values of the index for 2004-2006.

Direction of the restrictiveness axis reflects our expectations regarding direction of interest rate changes within the nearest 12 months. Values in percent indicate our subjective assumption as regards a preferred level of the reference rate in 12 months by a particular MPC member.

### Three members against rate cut by 75 in January

The voting results of MPC's January decision to cut interest rates by 75 bp were published and they showed that three members opposed such move – Dariusz Filar, Halina Wasilewska-Trenkner and Andrzej Wojtyna. In our opinion, results of the next voting in February (cut by 25 bp) would be roughly, though not necessarily exactly, the same. Our assessment as regards the relative strength of different factions within the MPC remains unchanged. In the following months the members being against further easing will most likely include the above-mentioned three and Marian Noga. It is possible that Andrzej Ślawiński will join them, but this still would not be enough given the casting vote of the NBP President on the dovish side.

### ... but even hawks talk about a pause rather than the end of easing

It is worth to notice that "hawkish" members did not exclude a possibility of further rate cuts and they rather opted for a pause in easing cycle. Prof. Filar said that currently available information did not indicate a recession in Poland (he expects GDP growth of ca. 1% in 2009), but until there was no clear signs of stabilisation in economic situation globally, there was no reason for the MPC to finish the easing cycle. Also, prof. Noga said that he sees a possibility of rates reductions, though in his opinion there should be a pause in April/May. Some comments of hawkish members said they could imagine a situation in which interest rates might be hiked, but we perceive these voices as purely hypothetical and isolated within the Council.

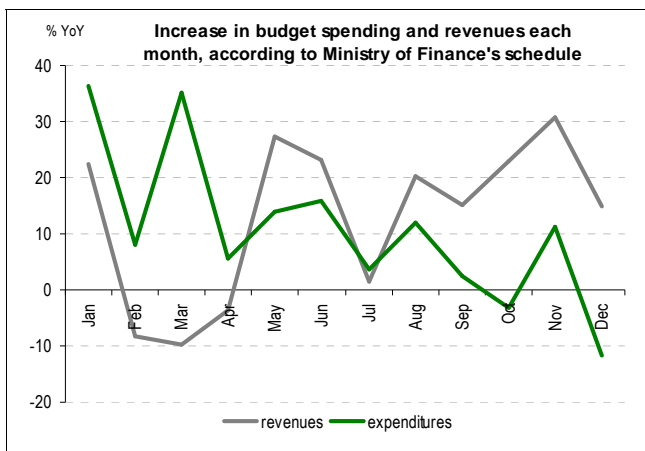
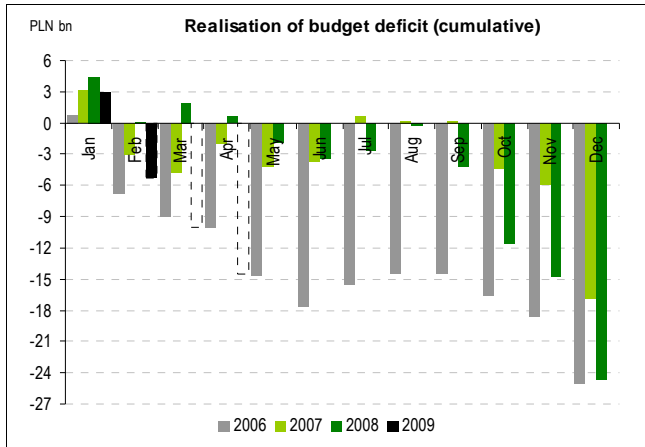
### No information justifying inactivity of the MPC

During the press conference after meeting in March, the NBP President emphasised that decision did not signal the end of easing cycle and the MPC was still in easing mood. The similar point of view was presented by the most dovish member of the Council, Mirosław Pietrewicz. As it is widely known, his opinion does not represent the mainstream within the Council, similarly as view of radical hawks presented above. The member, whose voting records is in line with the view of the MPC's majority is Jan Czekaj. After the meeting in March he said that in practice there were no information from the real sphere of the economy, which would justify the wait-and-see approach. In his opinion, data on production, sales, employment and leading business indicators are all in favour of continuation of monetary policy easing. We agree with this view and taking into account our forecast of next data we stick to the forecast of another rate cut in April.

### How the cabinet will convince to ERM2 without constitution's change?

An additional interesting aspect of the interviews with MPC members was the issue of possibility to enter the ERM2 mechanism without adopting changes in the Constitution. Prof. Czekaj said that change in the Constitution as a precondition to enter the ERM2 has been mentioned by the MPC in statements as this was the conclusion of the meeting with Prime Minister. And since then there was no new discussion. He added that "if there was a reasonable plan to join ERM2 with no change in the Constitution I think the MPC would be willing to support it". This suggests that a change in the opinion by the MPC is quite possible. However, it seems that the problem as for today is that the MPC does not know any plan of the government in this regard and thus is not able to assess its credibility. It will be very interesting to see what kind of arguments the government will use to convince the MPC (as well as the ECB and the European Commission) to change the opinion. When talking about this issue, prof. Filar suggested that the MPC could support ERM2 entry without the Constitution's change only if political support to accept legal changes later would be clear and credible. At the same time, he said "in current political environment such a political consensus seems unlikely".

## Government and politics



### Comments on entering the ERM2

#### Jacek Rostowski, finance minister, PAP, 20 March

The political consensus means a change in the Constitution – assuming this is necessary and I lean towards stating this is needed before ERM2 entry. This is the way we defined the consensus together with the ECB during the discussion in Frankfurt. And we stick to this definition.

#### Ludwik Kotecki, deputy finance minister, PAP, 1 April

Now we deal with two conditions, which it seems would have to be met before entering the ERM2. This is not change in the Constitution, as this is not necessary before entering ERM2. This will be necessary at the moment of joining the euro zone. (...) Now is the issue of political consensus, which would mean that a prospect of Constitution's change is clear.

#### Zbigniew Chlebowski, chief of PO parliamentary caucus, PAP, 1 April

There is no possibility to enter ERM2 without agreement with the MPC. Though there are opinions that we can do it without this consent.

### Comments on change in the Constitution before the euro adoption

#### Ludwik Kotecki, deputy finance minister, Dziennik, 16 March

When entering the European Union we agreed to join the euro zone. Some specialists on constitution law think that change in the Constitution is only adapting local law into European law, which is binding. (...) It seems that lawyers are divided in this regard. And we have the example of Estonia – they did not change the Constitution and fixed their currency in to euro.

#### Prof. Piotr Winczorek, expert on constitutional law, Rzeczpospolita, 18 March

We have to remember that any international agreement, including European treaty, does not predominate Polish Constitution (...) Let's take note that Estonia did not introduce euro (...) I call on these people [being quoted by minister Kotecki] to come out and present publicly their arguments. It is worth to know them; accept if they are reasonable or reject if they are doubtful or worthless.

### Budget deficit rises further

▪ The Ministry of Finance presented the schedule of realisation of budget revenues and spending this year. This includes the reduction in both categories as compared to the Budgetary Act, taking into account savings proposed by the government. However, the amount of reduction was at PLN17.3bn, while the presented savings figure was at PLN19.7bn.

▪ It is worth to remember that the amount of close to PLN20bn did not represent savings, but partly only shifts outside the central budget. The government did not show yet what will be the impact of "savings" on general government balance.

▪ According to the schedule, deficit in March was expected to amount to above PLN12bn, but it turns out that the result will be lower by ca. PLN2bn. This is because of higher revenues by almost PLN1bn (mostly from CIT) and lower expenditures by more than PLN1bn. As regards the latter this is more delay than freeze in spending.

### ... but the ministry hope this trend will reverse

▪ As compared to the last year, the first quarter saw higher advance in spending realisation (due to some shifts from last year) and lower in the case of revenues, though not much. Of course, the scale of deficit realisation is under significant influence of the schedule of EU funds inflow, which is expected to accelerate in the second half of the year.

▪ The Ministry of Finance assumes above 90% deficit realisation in mid-year and then the update of analysis of spending and revenues will take place. As shown in the chart, the ministry assumes that average monthly growth in incomes will amount to ca. 20% in May-December period. Even if one takes into account a moderate economic recovery in H2 this may turn out too optimistic.

### The government finally agrees that ERM2 will be delayed

▪ We think that general government deficit will exceed 3% (or even 4%) of GDP this year, and probably also next year. This is sufficient argument to postpone the entry to the ERM2.

▪ There are also other arguments – no political consensus to change the Constitution (see also below) and high volatility on the FX market. This all means that it would be hard to convince European institutions to join ERM2 this year.

▪ Government's representatives finally started to talk more loudly about importance of these arguments and their possible impact on the road map to euro zone. Well, time is running out and the assumed moment of ERM2 entry (1H 2009) gets closer and closer. That is why the cabinet will present new document – this time with no dates (rightly so), but with conditions to join the ERM2 and the euro zone.

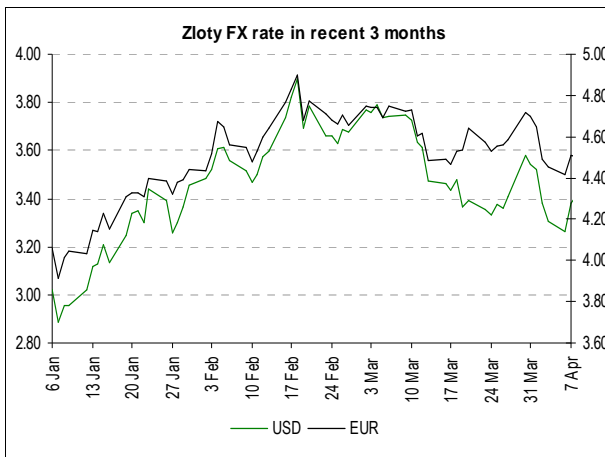
### Constitution change necessary before euro adoption

▪ We were surprised that government's representatives restarted the discussion whether a change in the Constitution is necessary before not only entering ERM2, but also before euro zone entry.

▪ This is weird, especially taking into account that after the meeting with Prime Minister the MPC included in the statement the sentence on necessity of political compromise before entering ERM2. As regards whether constitution's change is necessary before entering the euro zone, lawyers' view seemed to be clear.

▪ According to *Dziennik* daily an expertise of lawyers (anonymous) appeared showing a different opinion. We are not lawyers, certainly not specialists on constitutional law, but we tend to believe famous expert prof. Winczorek, rather than not really precise opinion of an anonymous source.

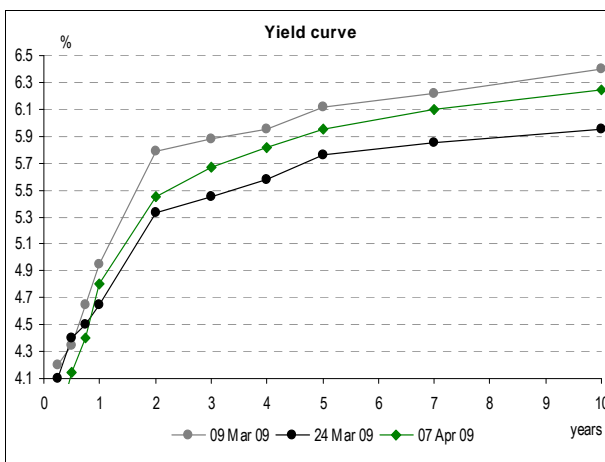
## Market monitor



### Stronger zloty

- The zloty appreciated to 4.40, the level indicated by us though this happened much sooner than we expected, a few days after the release of our previous report. In the second part of March there was a correction (EURPLN rate rose above 4.70), which resulted from political turmoil in the region (Hungary, Czech Republic), higher risk aversion globally and maturing FX option structures. At the start of April the zloty strengthened again to 4.40 vs. the euro.

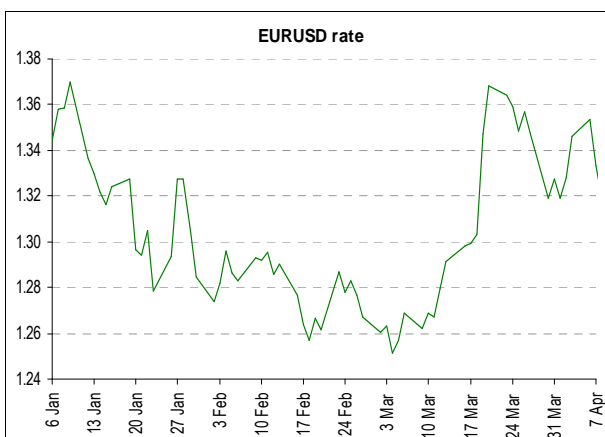
- In the nearest time the 4.40 will remain an important technical level for the EURPLN rate, though with it may be temporarily broken in period of stronger risk appetite. Domestic data are still pointing to clear economic slowdown, which does not support the zloty. On the other hand zloty will be stabilised by potential exchange of currencies by the FinMin and positive influence of the additional funds granted to IMF on region's financial stability.



### Yield curve steepening – yields down

- In mid March there was a significant decline in market interest rates along with the zloty strengthening. Before the MPC meeting there was some correction though after the MPC cut rates by 25 bp rates fell again along the IRS and bond curve. The end of the past month brought a weakening, which resulted from moves in the FX market. In April the decline of interest rates amid significant zloty appreciation was initially relatively moderate, though in the next days market rates continued declines. Since the release of the previous report bond yield curve lowered by 20-40 bp.

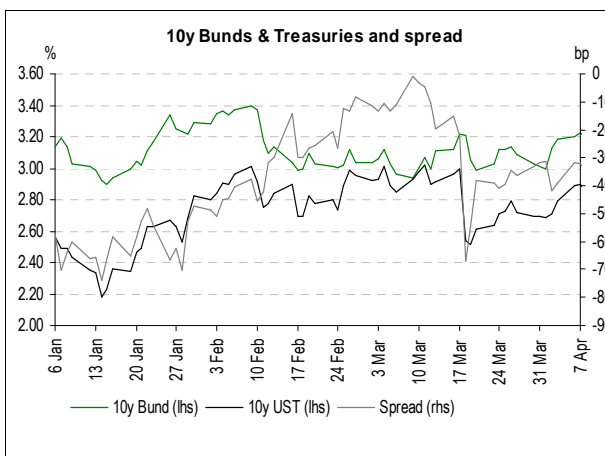
- Unless there is a sudden substantial zloty depreciation the MPC should continue interest rate cuts, which should support the short end of the curve. If positive moods in the global markets hold the bond yields should decline more than IRS curve. The longer end of the curve will be still find smaller demand of investors.



### Euro appreciates against the dollar

- Last month there was some improvement of investors' moods and decline in risk aversion (on slightly better than expected economic data in major economies, positive signals from the banking sector and G20 meeting), which together with substantial price increases in the international equity markets resulted in significant euro appreciation vs. the dollar. Euro do dolara. Euro was supported by smaller than expected interest rate cut by the ECB. After the EURUSD rate increased to 1.355 the last days brought substantial recovery of the dollar to ca. 1.325.

- The euro appreciation came sooner than expected and was stronger than we anticipated. In our view in the coming weeks the EURUSD rate may stabilise against the euro near 1.33. The dollar will gain later this year toward 1.30, supported by quantitative monetary policy measures in the euro zone.

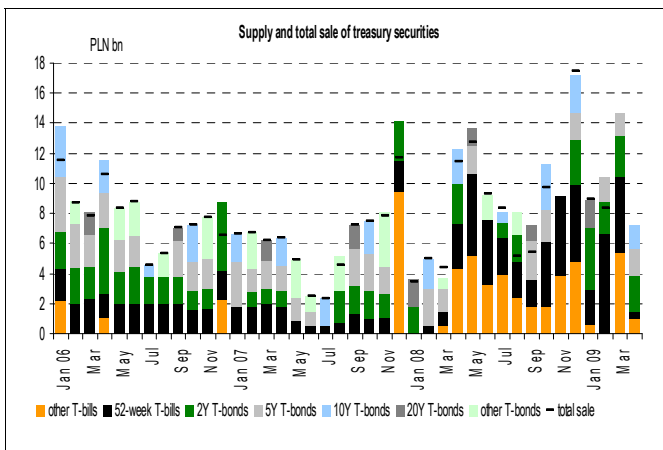
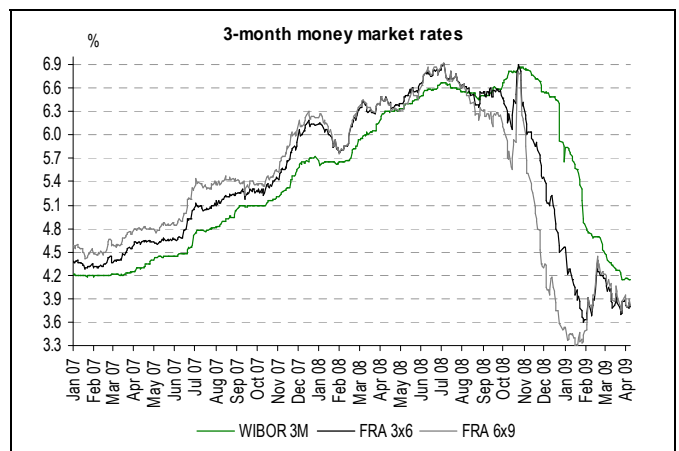
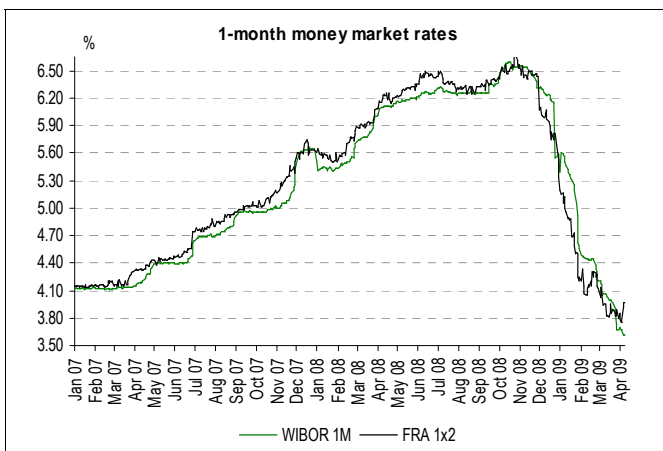
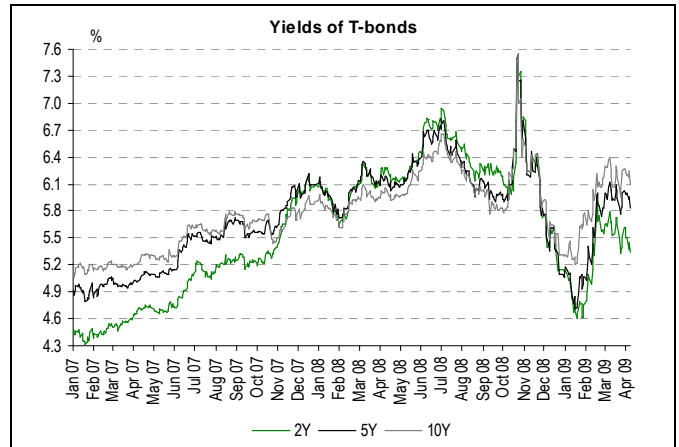
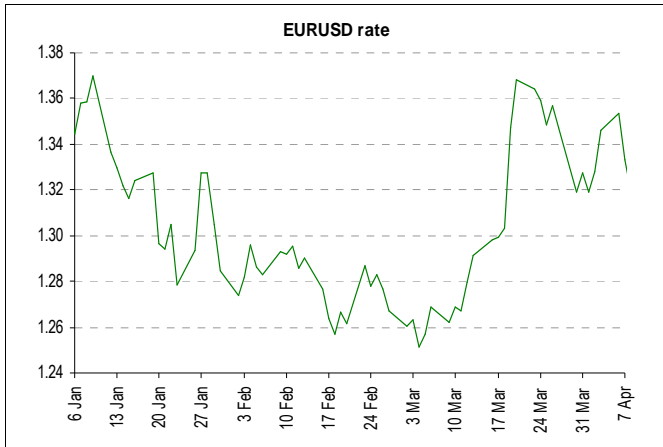


### Fed purchases halt yield rise in the US

- Last weeks were featured by rising tendency of German bond yields. Fall of appetite for safe haven assets, recovery in the stock markets and concerns over large debt supply contributed to further price declines. The euro zone markets were also negatively influenced by smaller scale of interest rates reduction by the ECB. These factors also affected the US market, though they were completely offset by the decision of the Federal Reserve to introduce additional quantitative measures of monetary policy easing. i.e. purchases of Treasury bonds. Since the release of the previous report yields of 10Y Treasuries remained unchanged (2.90%) and of 10Y Bunds rose by 25 bp to 3.20%.

- The bond prices declines in the US should be further constrained by purchases of bonds by Fed in the market. Meanwhile, in the euro zone there may come an upside recovery of prices on expectations of further monetary easing.

# Market monitor



**Treasury bills auctions (PLN m)**

Auction date	(OFFER)*SALE			
	52W	28W	26W	13W
23.02.2009	1300-1800/2395	-	-	-
02.03.2009	700-1000/1160	-	300-500/677	-
09.03.2009	1500-1800/1854	-	1100-1400/1400	-
16.03.2009	900-1200/1181	-	1100-1400/1555	-
23.03.2009	-	-	1300-1600/1610	-
30.03.2009	800-1000/1013	-	300-500/500	-
06.04.2009	800-1000/1077	-	-	-
09.04.2009	1000-1500	800-1000	-	-
20.04.2009	1000-1500	-	-	-
27.04.2009	1000-1500	-	-	-
04.05.2009	-	-	-	-
11.05.2009	-	-	-	-
18.05.2009	-	-	-	-

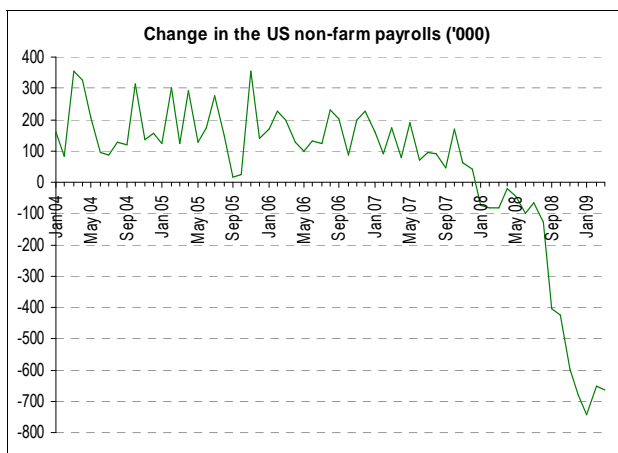
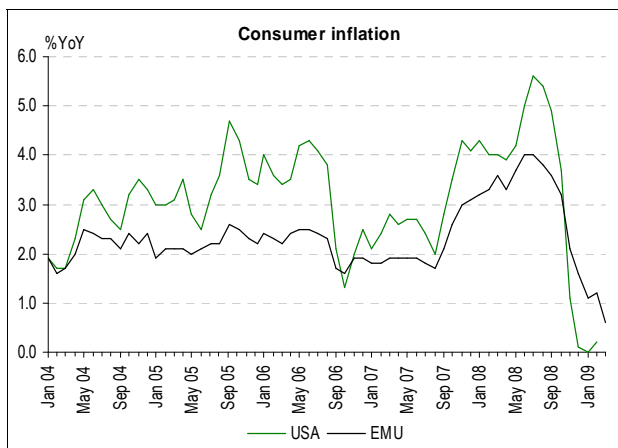
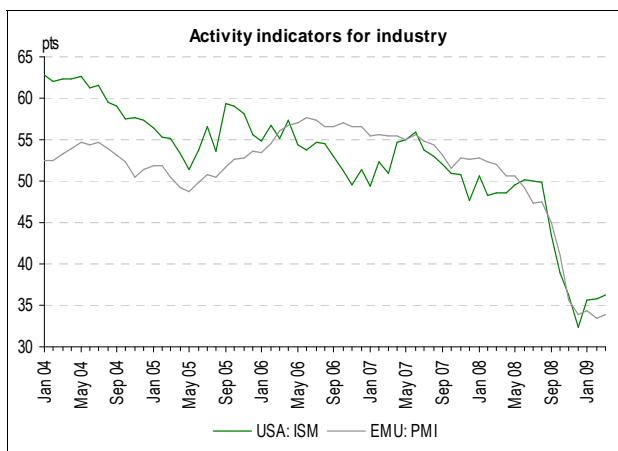
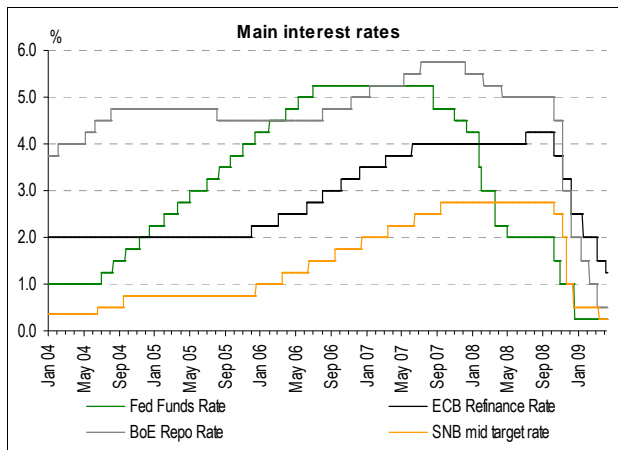
\* based on data of the Ministry of Finance

## Treasury bond auctions in 2008/2009 (PLN m)

month	First auction			Second auction			Switch auction				
	date	T-bonds	offer	sale	date	T-bonds	Offer	sale	date	T-bonds	sale
July	02.07	OK0710	1 000	1 000	09.07	DS1017	700	705	23.07	PS0413	1558
August	06.08	OK0710	1 800	1 830	13.08	WZ0118 Z0823	1 000   500	1 000   451	22.08	DS1017	1244
September	03.09*	PS0413	2 640	2 640	10.09	WS0429	1 000	1 000	17.09	DS1017/WS0429	3113/590
October	01.10*	PS0414	2 160	2 160	08.10*	DS1019	3 000	3 000	24.10	IZ0816/WZ0118	620 / 655
November	-	-	-	-	-	-	-	-	12.11	OK0710/PS0414	874 / 313
December	10.12*	Ok0711	3000	3430	17.12*	PS0414 DS1019	1800   2500	2042 2340	03.12	PS0414/DS1019	1212 / 1350
January	07.01*	OK0711	4200	4296	14.01	WS0429	1500	1500	21.01	PS0414/DS1019	2800/1300
February	04.02	OK0711/PS0414	2200/1600	722/1186	-	-	-	-	18.02	-	-
March	04.03	OK0711/PS0414	2760/1500	2550/640	-	-	-	-	11.03	OK0711/PS0414	2759/1809
April	01.04	OK0711/PS0414	2400/1800	2544/1814	08.04	DS1019	1000-1500	-	15.04	-	-
May	06.05	OK i/lub PS	-	-	13.05	DS i/lub WS	-	-	-	-	-
June	03.06	OK i/lub PS	-	-	10.06	DS i/lub WS	-	-	-	-	-

\* with supplementary auction

## International review



Source: Reuters, ECB, Federal Reserve

### More monetary policy easing

▪ Fed did not change interest rates in March keeping the main rate in range of 0-0.25%. Scale of declared activities was a positive surprise for markets. The Fed said that within 6 months it will purchase long-term state Treasuries worth \$300bn, and it will increase purchases of debt related to mortgage market by \$850bn (to \$1.45 trillion) in order to support housing market revival and speed up economic recovery. In sum, currently Fed wants to buy assets worth \$1.75 trillion, while until recently the plan was \$600bn.

▪ ECB surprised markets in March cutting rates by 25bp, while the market expected 50bp reduction. Main refinance rate fell to 1.25%, the lowest level in history. The ECB president did not rule out further cuts of the refi rate and stabilisation of deposit rate (currently at 0.25%). At the same time, he announced that decision on introducing measures of quantitative easing will be taken at the next meeting. A rate cut next month, in addition to an announcement on quantitative easing, now seems less likely and the ECB may well now wait until June to cut rates to 1%, which would also coincide with the release of its latest economic projections.

▪ Inflation is currently not the most important problem for the major central banks and it allows for application of further measures of monetary policy easing.

▪ Inflation data from the euro zone for February showed an increase of the HICP increase by 1.2%YoY, slightly above expectations. According to preliminary estimates of the Eurostat for March inflation in the euro zone fell again to only 0.6%YoY against expected decline to 0.9%.

▪ Meanwhile, the US CPI rose in February by 0.4%MoM against expected 0.3%MoM. Core inflation were as expected at 0.2%MoM. In annual terms CPI rose by 0.2% and core index increased by 1.8%.

### Further stabilisation of the activity indices

▪ March was another month, where the activity indices stabilisation was recorded.

▪ PMI for manufacturing sector in the euro zone was slightly worse than forecasted and recorded increase to 33.9 pts from 33.5 pts in February against forecasted 34 pts. However, PMI for services in the euro zone rose more than forecasted to 40.9 pts from 39.2 in February amid market consensus and preliminary estimate of 40.1.

▪ The ISM index for US manufacturing for March rose to 36.3 pts from 35.8 pts in the previous month against slightly lower than expected 36.0 pts. The index for US services unexpectedly fell to 40.8 pts from 41.6 pts vs. expected increase to 42 pts.

▪ The PMI index for China rose in March to 52.4 pts, above 50 pts expected for the first time since July 2008.

▪ Final data on US GDP for Q4 pointed to decline by 6.3% (expected -6.5%), the largest drop since the first quarter in 1982, against 6.2% according to previous estimates. The revisions were influenced by changes in inventories (-\$25.8bn) and investments (-21.7%). The drop in private consumption (-4.3%) and exports (-23.6%) remained unchanged vs. the previous estimates (-4.3%).

▪ The Q4 2008 GDP growth for the euro zone was revised down to -1.6%QoQ and -1.5%YoY from -1.5%QoQ and -1.3%YoY, with decline in investments by 4%QoQ, private consumption by 0.3%QoQ, exports by 6.7% and imports by 4.7%. We currently expect that the euro zone economy will contract by 3.5% this year.

▪ According to the US Labour Department the non-farm payrolls fell by 663k in March near the expected 660k in February against 650k in February. Data for January were clearly downwardly revised from -655k to -741k. The rate of unemployment rose as expected to 8.5% the highest level since 1983 from 8.1% in the previous month.

## Economic calendar

Monday	Tuesday	Wednesday	Thursday	Friday
<b>6 April</b> <i>PL: Auction of Treasury Bills</i>	<b>7</b> EZ: Revised GDP (Q4)	<b>8</b> <i>PL: Auction of Treasury bonds</i> JP: BoJ meeting – decision US: Wholesale inventories (Feb) US: FOMC minutes	<b>9</b> GB: BoE meeting – decision US: Trade balance (Feb) US: Import prices (Mar)	<b>10</b> GB, DE, CH, IT, CA: Market holiday (Good Friday)
<b>13</b> <i>PL: Auction of Treasury Bills</i>	<b>14</b> <i>PL: Money supply (Mar)</i> <i>PL: Balance of payments (Feb)</i> US: PPI (Mar) US: Retail sales (Mar)	<b>15</b> <i>PL: Switch auction</i> <i>PL: CPI (Mar)</i> US: CPI (Mar) US: NY Fed index (Apr) US: Capital flows (Feb) US: Industrial production (Mar) US: Capacity utilisation (Mar)	<b>16</b> EZ: Industrial production (Feb) EZ: Final HICP (Mar) US: House starts (Mar) US: Building permits (Mar) US: Philadelphia Fed index (Apr)	<b>17</b> <i>PL: Wage and employment (Mar)</i> US: Preliminary Michigan (Apr)
<b>20</b> <i>PL: Auction of Treasury Bills</i> <i>PL: Industrial production (Mar)</i> <i>PL: PPI (Mar)</i> US: Leading indicators (Mar)	<b>21</b> DE: ZEW index (Apr)	<b>22</b> <i>PL: Core inflation (Mar)</i> <i>PL: Business climate (Apr)</i>	<b>23</b> <i>PL: MPC minutes (Mar)</i> EZ: Flash manufacturing PMI (Apr) EZ: Flash services PMI (Apr) US: Home sales (Mar)	<b>24</b> DE: Ifo index (Apr) US: Durable goods orders (Mar) US: New home sales (Mar)
<b>27</b> <i>PL: Auction of Treasury Bills</i> <i>PL: Retail sales (Mar)</i> <i>PL: Unemployment rate (Mar)</i> DE: GfK index (May)	<b>28</b> <i>PL: MPC meeting</i> US: Case/Shiller report (Apr) US: Consumer confidence (Apr)	<b>29</b> <i>PL: MPC meeting - decision</i> JP: Market holiday EZ: M3 money supply (Mar) EZ: Economic sentiment index (Apr) US: Preliminary GDP (Q1) US: Core PCE (Q1) US: Fed meeting – decision	<b>30</b> JP: BoJ meeting – decision EZ: Flash HICP (Apr) US: Core PCE (Mar) US: Chicago PMI (Apr)	<b>1 May</b> <i>PL: Labour Day</i> DE, CH: Market holiday US: Final Michigan (Apr) US: Factory orders (Mar) US: Manufacturing ISM (Apr)
<b>4</b> <i>PL: PMI (Apr)</i> <i>PL: Auction of Treasury Bills</i> EZ: Manufacturing PMI (Apr) US: Pending home sales (Mar)	<b>5</b> EZ: PPI (Mar) US: Non-manufacturing ISM (Apr)	<b>6</b> <i>PL: Auction of Treasury bonds</i> JP: Market holiday EZ: Services PMI (Apr) EZ: Retail sales (Mar) US: ADP report (Apr)	<b>7</b> DE: Industrial orders (Mar) EZ: ECB meeting decision US: Productivity & unit labour costs (Q1)	<b>8</b> US: Non-farm payrolls (Mar) US: Rate of unemployment (Mar) US: Wholesale inventories (Mar)

Source: CSO, NBP, Finance Ministry, Reuters

## MPC meetings and data release calendar for 2009

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
MPC meeting	27	24-25	24-25	28-29	26-27	23-24	28-29	25-26	29-30	27-28	24-25	22-23
MPC minutes	22	19	19	23	21	18	23	20	24	22	19	17
GDP*	-	-	2	-	29	-	-	28	-	-	30	-
CPI	14	13 <sup>a</sup>	13 <sup>b</sup>	15	14	15	14	13	15	14	13	15
Core inflation	21	20	22	21	22	22	20					
PPI	20	19	18	20	20	19	17	19	17	19	19	17
Industrial output	20	19	18	20	20	19	17	19	17	19	19	17
Retail sales	29	24	24	27	-	-	-	-	-	-	-	-
Gross wages, employment	19	17	17	17	19	18	16	18	16	16	18	16
Unemployment	29	24	24	27	-	-	-	-	-	-	-	-
Foreign trade	about 50 working days after reported period											
Balance of payments*	-	-	31	-	-	30	-	-	-	-	-	-
Balance of payments	15	12	13	14	15	17	14	-	-	-	-	-
Money supply	14	13	13	14	14	12	14	-	-	-	-	-
NBP balance sheet	7	6	6	7	7	5	7	-	-	-	-	-
Business climate indices	22	20	20	22	22	22	22	21	22	22	20	22

\* quarterly data, <sup>a</sup> preliminary data for January, <sup>b</sup> January and February

Source: CSO, NBP

## Economic data and forecasts

### Monthly economic indicators

		Mar 08	Apr 08	May 08	Jun 07	Jul 08	Aug 08	Sep 08	Oct 08	Nov 08	Dec 08	Jan 09	Feb 09	Mar 09	Apr 09
Industrial production	%YoY	0.7	14.4	1.4	6.5	4.8	-4.4	5.5	-2.0	-10.6	-5.6	-15.3	-14.3	-4.8	-13.0
Retail sales <sup>c</sup>	%YoY	16.0	18.3	15.2	14.3	14.7	8.3	12.4	9.2	3.0	6.9	1.3	-1.6	-2.1	0.2
Unemployment rate	%	10.9	10.3	9.8	9.4	9.2	9.1	8.9	8.8	9.1	9.5	10.5	10.9	11.2	11.2
Gross wages <sup>b,c</sup>	%YoY	10.5	12.9	10.8	12.3	11.8	9.9	11.2	10.1	7.6	5.6	8.1	5.1	4.2	3.8
Employment <sup>b</sup>	%YoY	5.7	5.5	5.3	4.7	4.6	4.1	4.0	3.5	3.0	2.2	0.7	-0.2	-0.8	-1.3
Export (€) <sup>d</sup>	%YoY	10.6	33.6	12.1	18.7	22.8	9.4	20.9	0.5	-11.3	-16.4	-25.2	-31.4	-21.1	-30.0
Import (€) <sup>d</sup>	%YoY	12.2	33.1	15.3	21.7	22.5	17.8	21.0	4.8	-8.3	-13.5	-26.6	-30.9	-22.6	-31.9
Trade balance <sup>d</sup>	EURm	-1345	-1195	-1420	-1661	-1635	-1329	-1249	-1526	-1519	-1688	-441	-610	-900	-606
Current account balance <sup>d</sup>	EURm	-1807	-1521	-1745	-2219	-879	-1300	-1881	-2012	-1637	-1920	-1078	-610	-940	-616
Current account balance <sup>d</sup>	% GDP	-4.9	-5.1	-5.1	-5.1	-4.9	-5.0	-5.2	-5.3	-5.5	-5.4	-5.4	-5.3	-5.1	-5.0
Budget deficit (cumulative)	PLNbn	1.9	0.6	-1.9	-3.5	-2.7	-0.3	-4.2	-11.6	-14.8	-24.6	2.9	-5.3	-10.0	-14.5
Budget deficit (cumulative) <sup>e</sup>	% of FY plan	-7.6	-2.4	7.5	14.1	10.9	1.3	17.0	47.1	60.3	100.0	-16.0	29.0	55.0	80.0
CPI	%YoY	4.1	4.0	4.4	4.6	4.8	4.8	4.5	4.2	3.7	3.3	2.8	3.3	3.2	3.2
PPI	%YoY	2.5	1.9	2.4	2.2	1.7	1.4	2.0	2.4	2.2	2.7	3.6	5.4	5.7	5.9
Broad money (M3)	%YoY	13.6	15.0	15.1	16.3	16.8	16.8	17.3	17.3	18.1	18.6	17.6	17.4	17.1	15.4
Deposits	%YoY	15.3	16.7	17.4	18.5	19.4	18.9	20.0	18.7	19.4	20.6	19.5	18.7	18.1	16.3
Loans	%YoY	29.7	28.3	27.6	27.7	25.3	26.7	28.0	32.8	31.7	36.0	35.8	37.3	34.2	31.7
USD/PLN	PLN	2.28	2.19	2.19	2.17	2.07	2.19	2.34	2.69	2.93	2.98	3.18	3.63	3.55	3.40
EUR/PLN	PLN	3.54	3.45	3.40	3.37	3.26	3.29	3.37	3.57	3.73	4.01	4.22	4.65	4.62	4.45
Reference rate <sup>a</sup>	%	5.75	5.75	5.75	6.00	6.00	6.00	6.00	6.00	5.75	5.00	4.25	4.00	3.75	3.50
Lombard rate <sup>a</sup>	%	7.25	7.25	7.25	7.50	7.50	7.50	7.50	7.50	7.25	6.50	5.75	5.50	5.25	5.00
WIBOR 3M	%	6.03	6.29	6.41	6.58	6.62	6.52	6.56	6.80	6.74	6.40	5.51	4.69	4.30	4.11
Yield on 52-week T-bills	%	6.09	6.10	6.10	6.63	6.70	6.60	6.46	6.45	6.52	6.10	4.85	4.62	4.78	4.70
Yield on 2-year T-bonds	%	6.17	6.20	6.27	6.73	6.66	6.32	6.25	6.46	6.26	5.43	4.81	5.37	5.60	5.40
Yield on 5-year T-bonds	%	6.20	6.12	6.25	6.62	6.53	6.15	6.01	6.48	6.21	5.42	4.96	5.57	5.97	5.90
Yield on 10-year T-bonds	%	5.98	5.98	6.10	6.41	6.43	6.10	5.89	6.39	6.25	5.57	5.43	5.94	6.21	6.10

Source: CSO, NBP, Finance Ministry, BZ WBK own estimates

<sup>a</sup> at the end of period <sup>b</sup> in corporate sector <sup>c</sup> in nominal terms <sup>d</sup> balance of payments data on transaction basis <sup>e</sup> 2008 - % of Dec, 2009 - % of plan



## Quarterly and annual economic indicators

		2006	2007	2008	2009	1Q08	2Q08	3Q08	4Q08	1Q09	2Q09	3Q09	4Q09
GDP	PLNbn	1 060.0	1 175.3	1 266.6	1 311.0	295.3	309.9	312.1	349.3	305.8	320.8	322.3	362.1
GDP	%YoY	6.2	6.7	4.8	0.8	6.0	5.8	4.8	2.9	0.4	0.7	1.0	1.1
Domestic demand	%YoY	7.3	8.6	5.0	-0.1	6.2	6.0	4.3	3.6	-0.1	-0.4	0.0	0.1
Private consumption	%YoY	5.0	5.0	5.4	1.6	5.6	5.5	5.1	5.2	2.0	1.8	1.4	1.0
Fixed investments	%YoY	14.9	17.6	7.9	-2.7	15.7	15.2	3.5	3.5	-4.0	-6.0	-3.0	0.0
Industrial production	%YoY	12.5	9.7	3.5	-7.5	8.2	7.0	2.2	-6.3	-11.5	-10.3	-6.1	-1.9
Retail sales (real terms)	%YoY	11.9	14.0	9.6	-0.2	16.1	11.8	8.4	4.8	-1.2	0.6	0.5	-0.6
Unemployment rate <sup>a</sup>	%	14.8	11.2	9.5	13.8	10.9	9.4	8.9	9.5	11.2	11.4	12.2	13.8
Gross wages (real terms) <sup>c</sup>	%YoY	4.2	6.7	5.9	0.7	7.5	7.9	5.6	3.6	2.6	0.1	0.3	-0.1
Employment <sup>c</sup>	%YoY	3.2	4.6	4.5	-2.1	5.8	5.2	4.2	2.9	-0.1	-1.8	-2.9	-3.7
Export (€) <sup>b</sup>	%YoY	20.4	13.4	12.7	-20.0	21.2	19.8	19.5	-7.5	-26.5	-26.2	-18.0	-8.0
Import (€) <sup>b</sup>	%YoY	24.0	19.5	14.9	-22.2	22.5	21.7	22.6	-4.4	-27.8	-29.0	-20.0	-11.0
Trade balance <sup>b</sup>	EURm	-5 539	-12 369	-16 538	-10 335	-3 241	-4 218	-4 356	-4 723	-1 951	-2 124	-2 851	-3 408
Current account balance <sup>b</sup>	EURm	-7 445	-14 586	-19 613	-10 622	-4 727	-5 401	-4 361	-5 124	-2 628	-1 814	-2 471	-3 708
Current account balance <sup>b</sup>	% GDP	-2.7	-4.7	-5.4	-3.4	-5.1	-5.2	-5.3	-5.4	-5.1	-4.3	-3.9	-3.4
General government balance	% GDP	-3.8	-2.0	-2.7	-3.9	-	-	-	-	-	-	-	-
CPI	%YoY	1.0	2.5	4.2	2.7	4.1	4.3	4.7	3.8	3.1	2.8	2.3	2.5
CPI <sup>a</sup>	%YoY	1.4	4.0	3.3	2.8	4.1	4.6	4.5	3.3	3.2	2.4	2.3	2.8
PPI	%YoY	2.4	2.0	2.2	5.0	2.6	2.2	1.7	2.4	4.9	5.4	4.9	4.9
Broad money (M3) <sup>a</sup>	%YoY	16.0	13.4	18.6	5.2	13.6	16.3	17.3	18.6	17.1	14.1	10.0	5.2
Deposits <sup>a</sup>	%YoY	15.2	14.5	20.6	5.1	15.3	18.5	20.0	20.6	18.1	14.7	9.9	5.1
Loans <sup>a</sup>	%YoY	23.4	29.9	36.0	3.9	29.7	27.7	28.0	36.0	34.2	26.7	17.4	3.9
USD/PLN	PLN	3.10	2.77	2.41	3.27	2.39	2.18	2.20	2.87	3.45	3.41	3.18	3.03
EUR/PLN	PLN	3.90	3.78	3.52	4.25	3.58	3.41	3.31	3.77	4.50	4.42	4.13	3.97
Reference rate <sup>a</sup>	%	4.00	5.00	5.00	3.00	5.75	6.00	6.00	5.00	3.75	3.00	3.00	3.00
Lombard rate <sup>a</sup>	%	5.50	6.50	6.50	4.50	7.25	7.50	7.50	6.50	5.25	4.50	4.50	4.50
WIBOR 3M	%	4.21	4.73	6.36	3.85	5.80	6.43	6.57	6.65	4.83	3.86	3.40	3.30
Yield on 52-week T-bills	%	4.18	4.69	6.26	4.29	5.84	6.28	6.59	6.36	4.75	4.40	4.00	4.00
Yield on 2-year T-bonds	%	4.57	5.23	6.22	4.99	5.99	6.40	6.41	6.05	5.26	5.20	4.90	4.60
Yield on 5-year T-bonds	%	5.03	5.52	6.15	5.46	6.02	6.33	6.23	6.04	5.50	5.70	5.45	5.20
Yield on 10-year T-bonds	%	5.22	5.56	6.06	5.92	5.87	6.16	6.14	6.07	5.86	6.10	5.90	5.80

Source: CSO, NBP, Finance Ministry, BZ WBK own estimates

<sup>a</sup> at the end of period; <sup>b</sup> balance of payments data on transaction basis <sup>c</sup> in corporate sector

This analysis is based on information available until 06.04.2009 has been prepared by:

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