Warsaw, 26 February 2010

NBP

National Bank of Poland

Inflation projection of the National Bank of Poland based on the NECMOD model

Economic Institute

Inflation projection – February 2010

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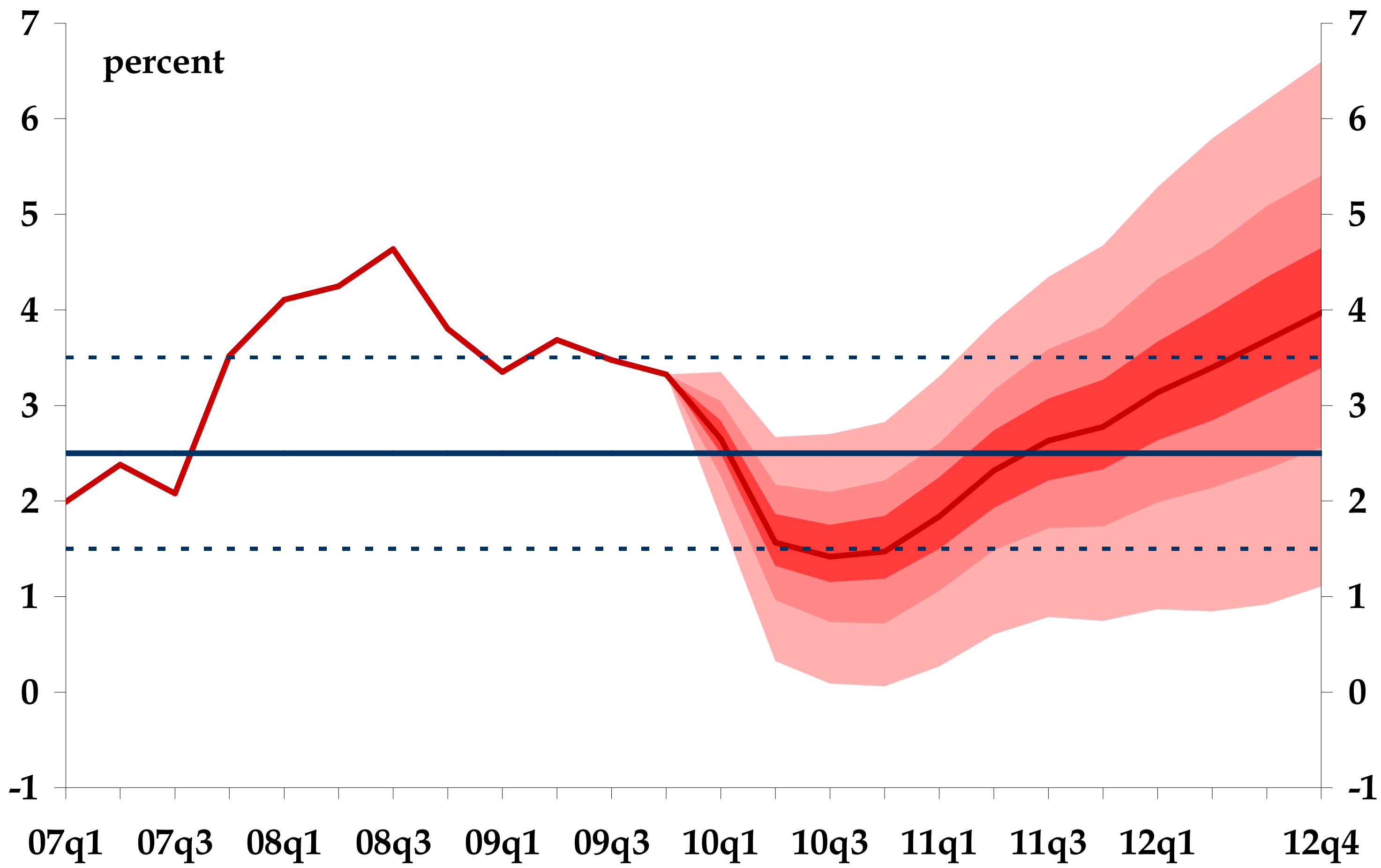
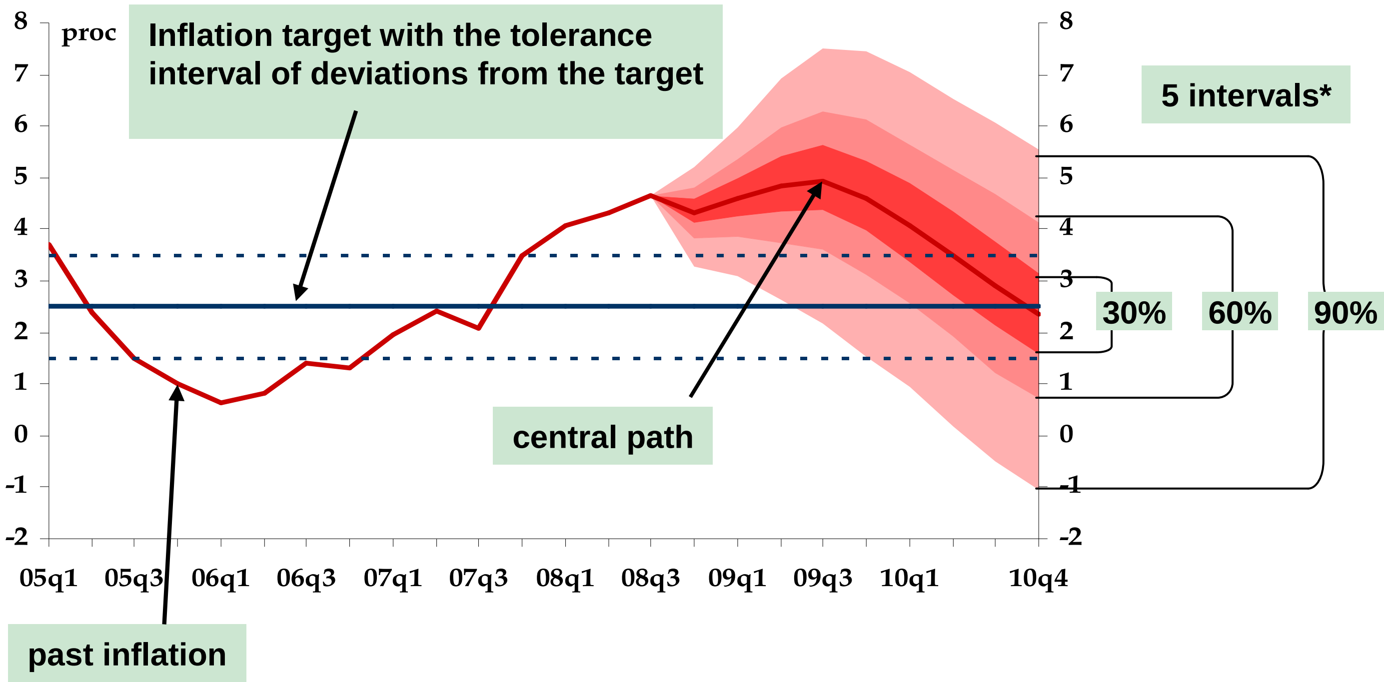


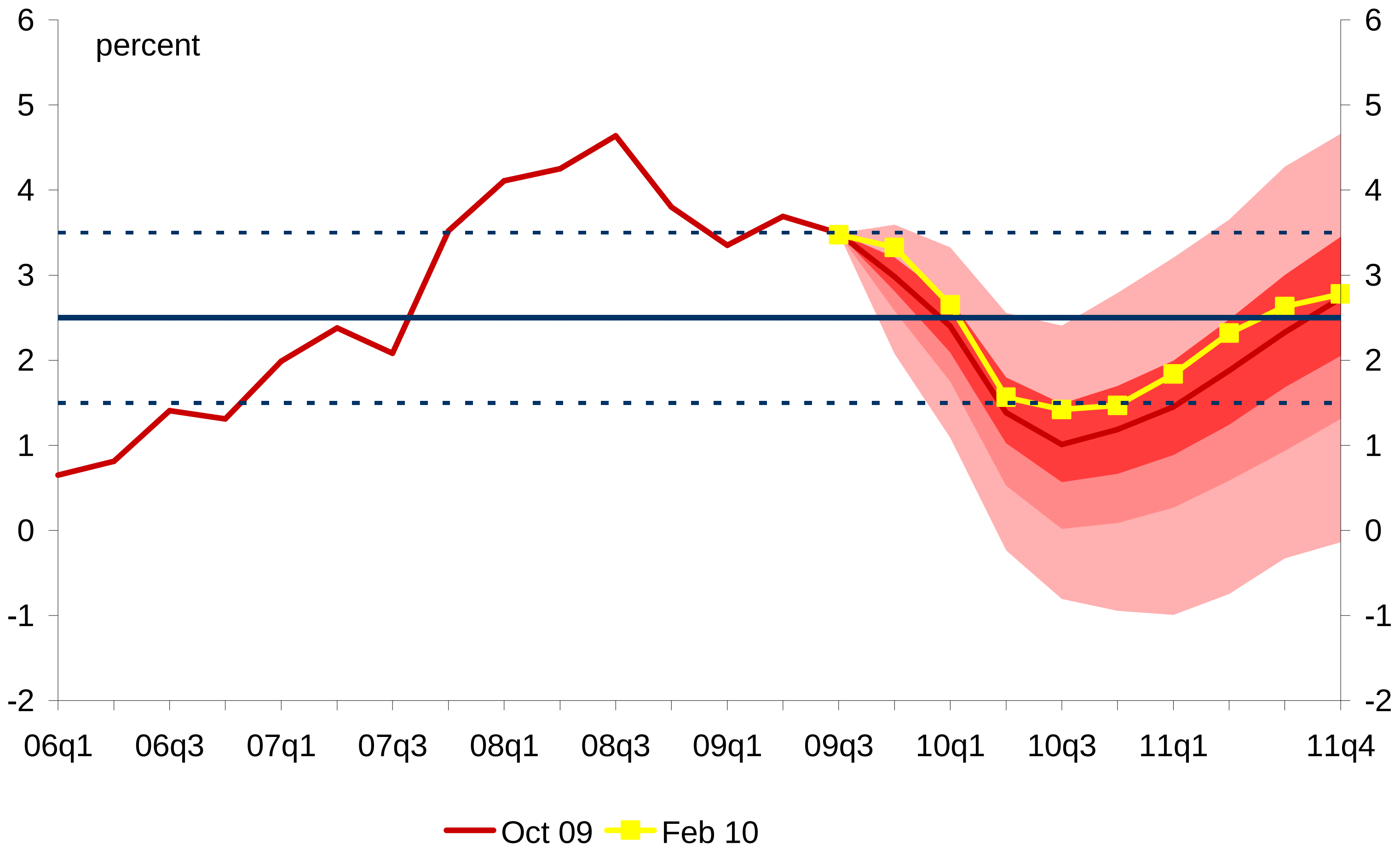
Construction of a fan chart

- Uncertainty of inflation and GDP projection is estimated on the basis of past forecasting errors from the ECMOD/NECMOD model and on the basis of risk assessment of forecasts of selected exogenous variables.



*Intervals have been chosen to ensure that the probability of inflation running below the lower limit of the tolerance range equals the probability of inflation running above the upper limit of the tolerance range.

February projection in comparison with the October projection - CPI



GDP projection – February 2010

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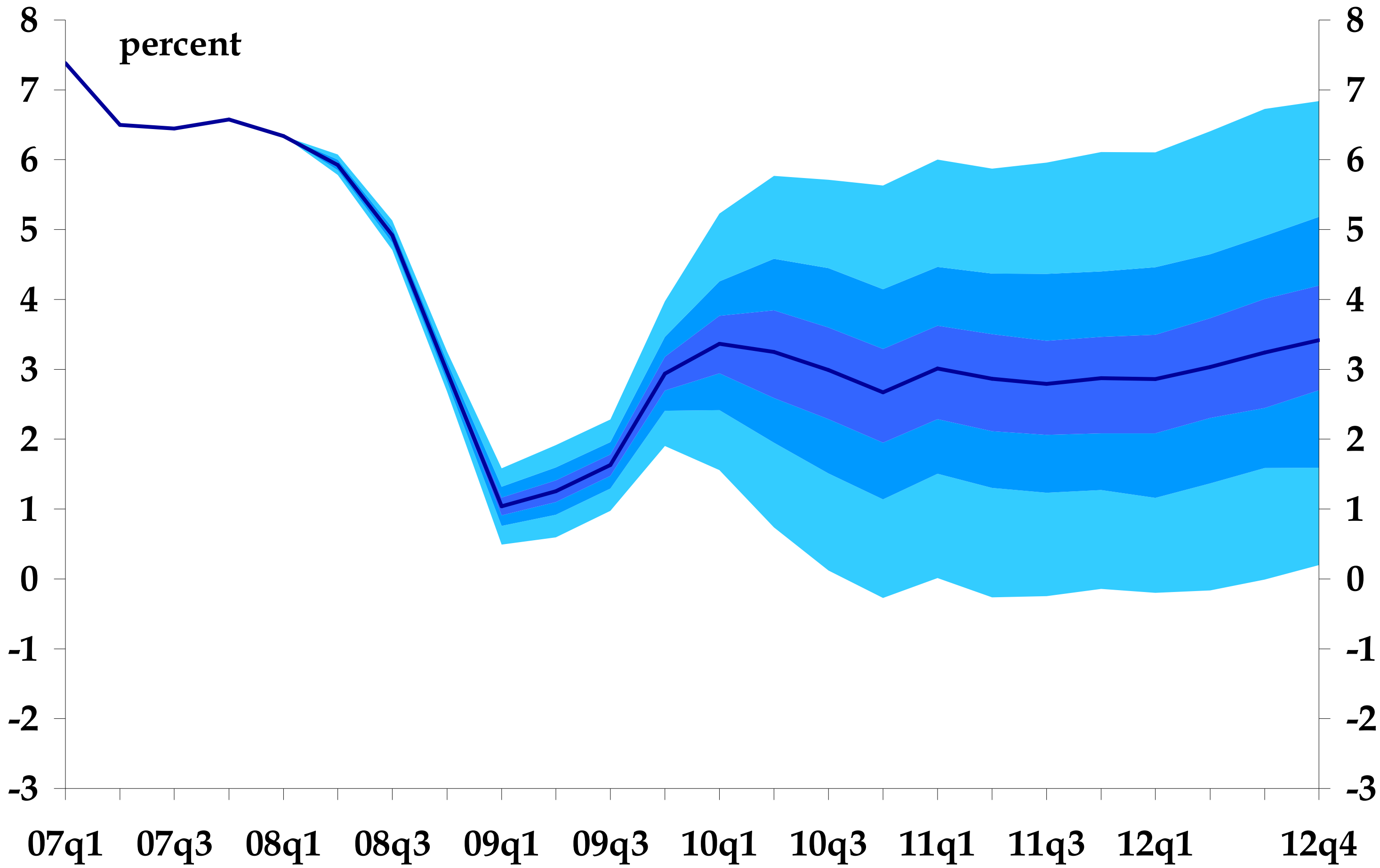
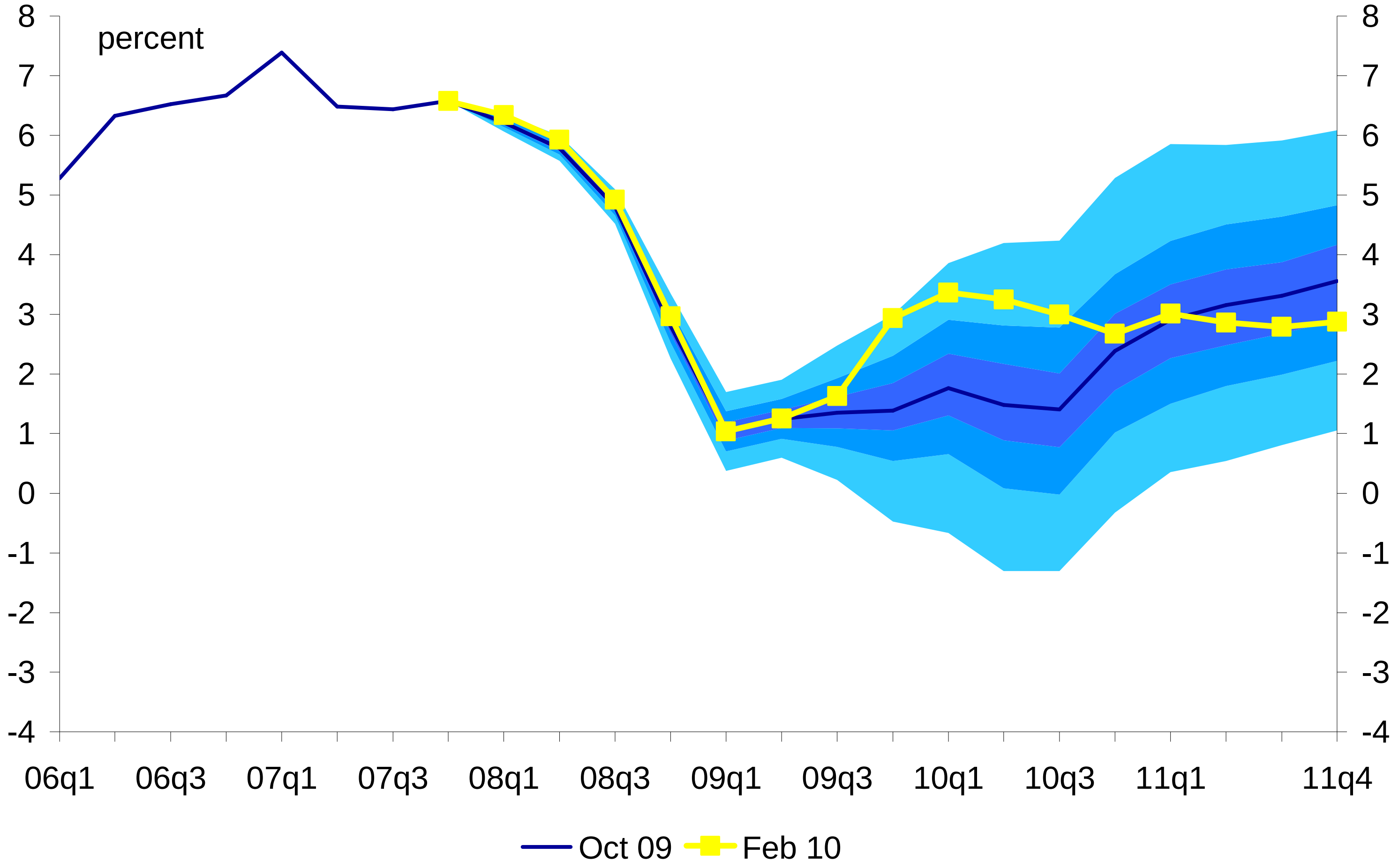


February projection in comparison with the October projection: GDP



CENTRAL PROJECTION

- Assumptions
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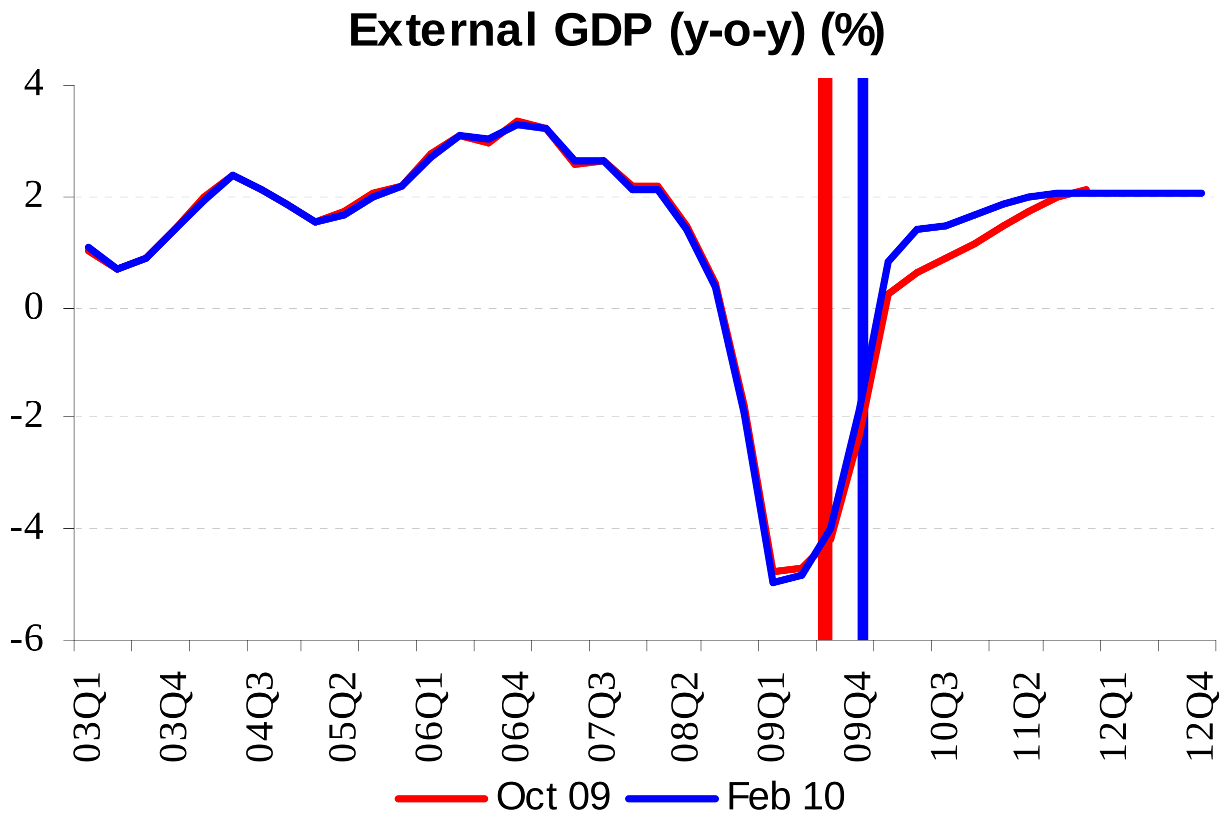
ASSUMPTIONS

- Growth abroad
- Price growth abroad
- Interest rates abroad
- Energy commodity price index
- Agricultural commodity price index

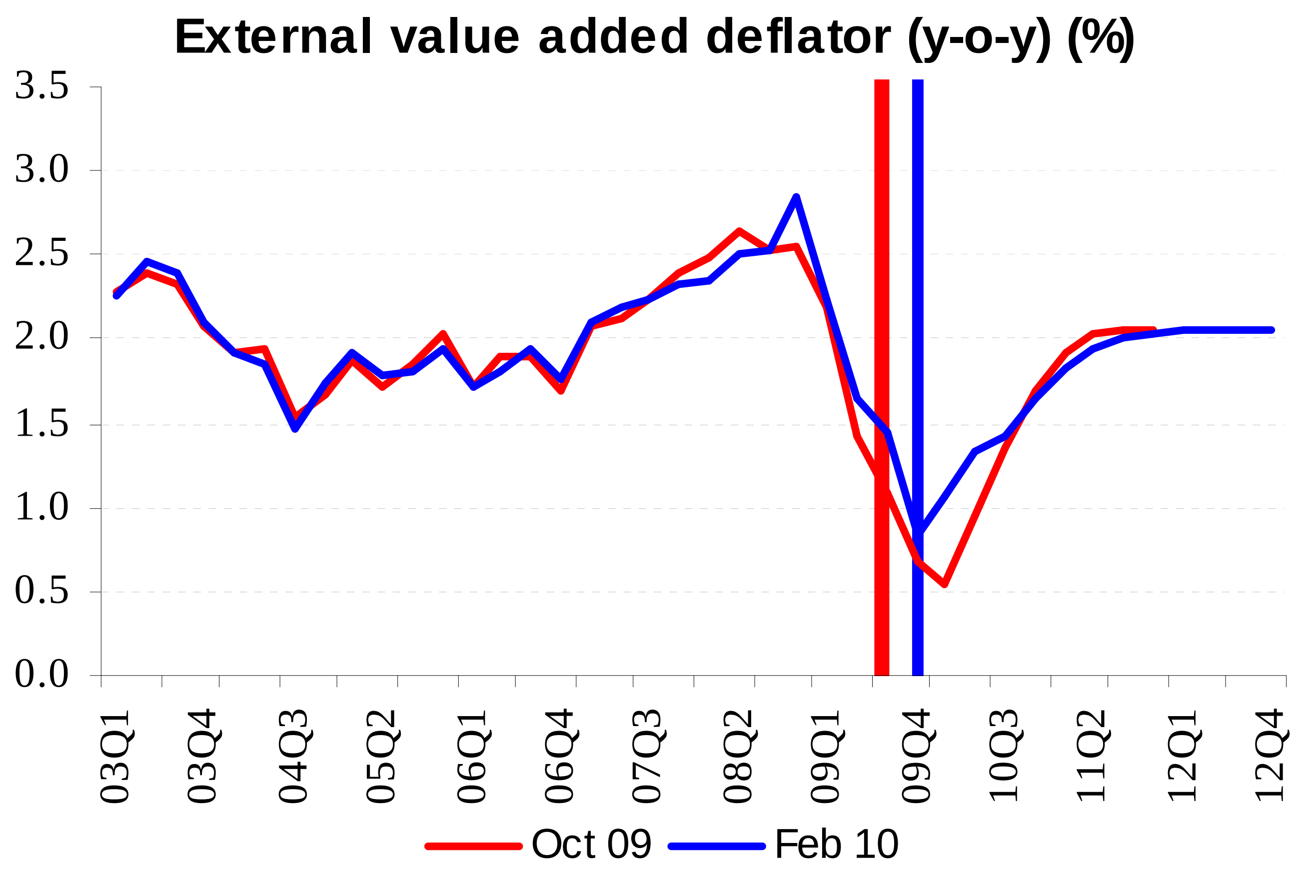
Growth abroad
(higher until 2011 Q3)



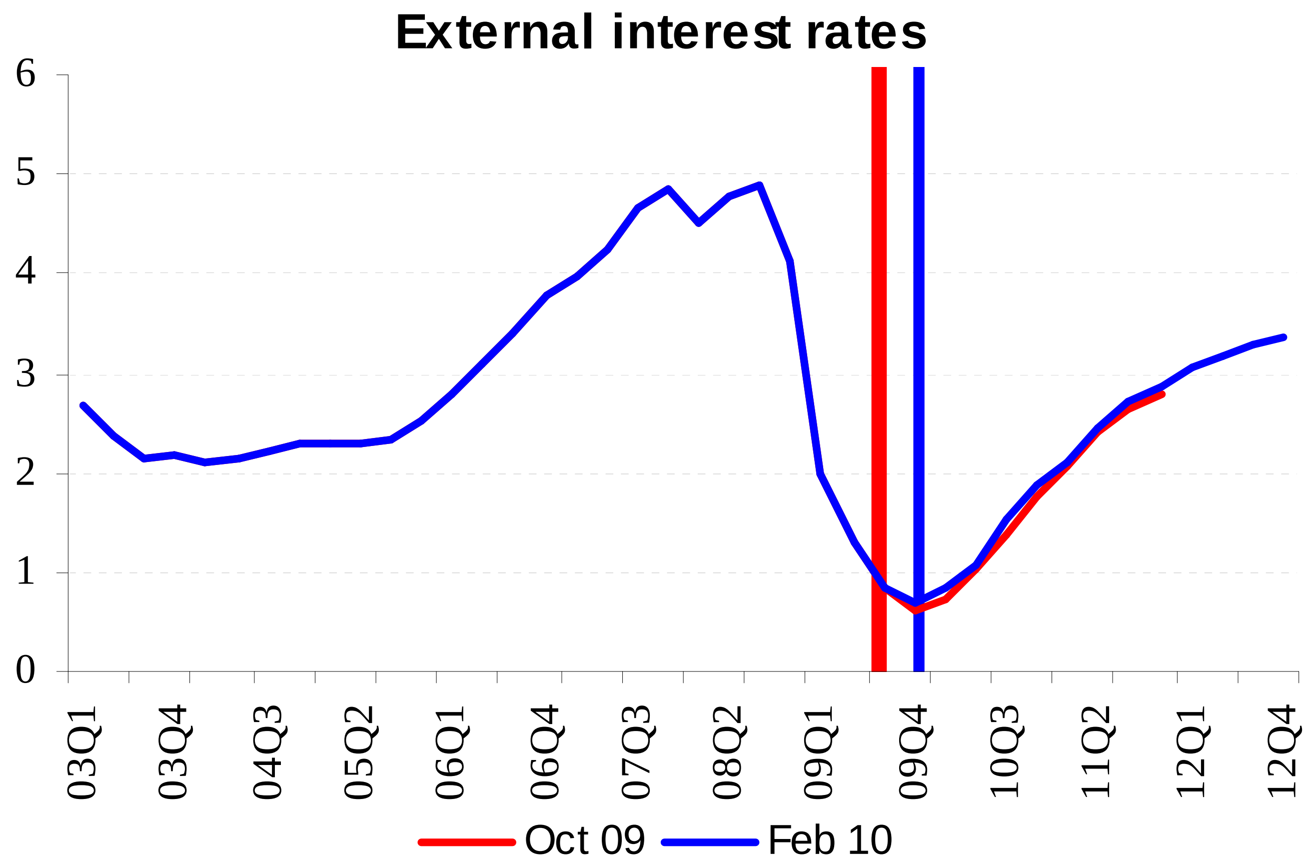
In NECMOD model, the foreign sector is represented by three economies (with weights, respectively):

- **euro area (87.8%)**
- **Great Britain (7.2%)**
- **United States (5.0%)**

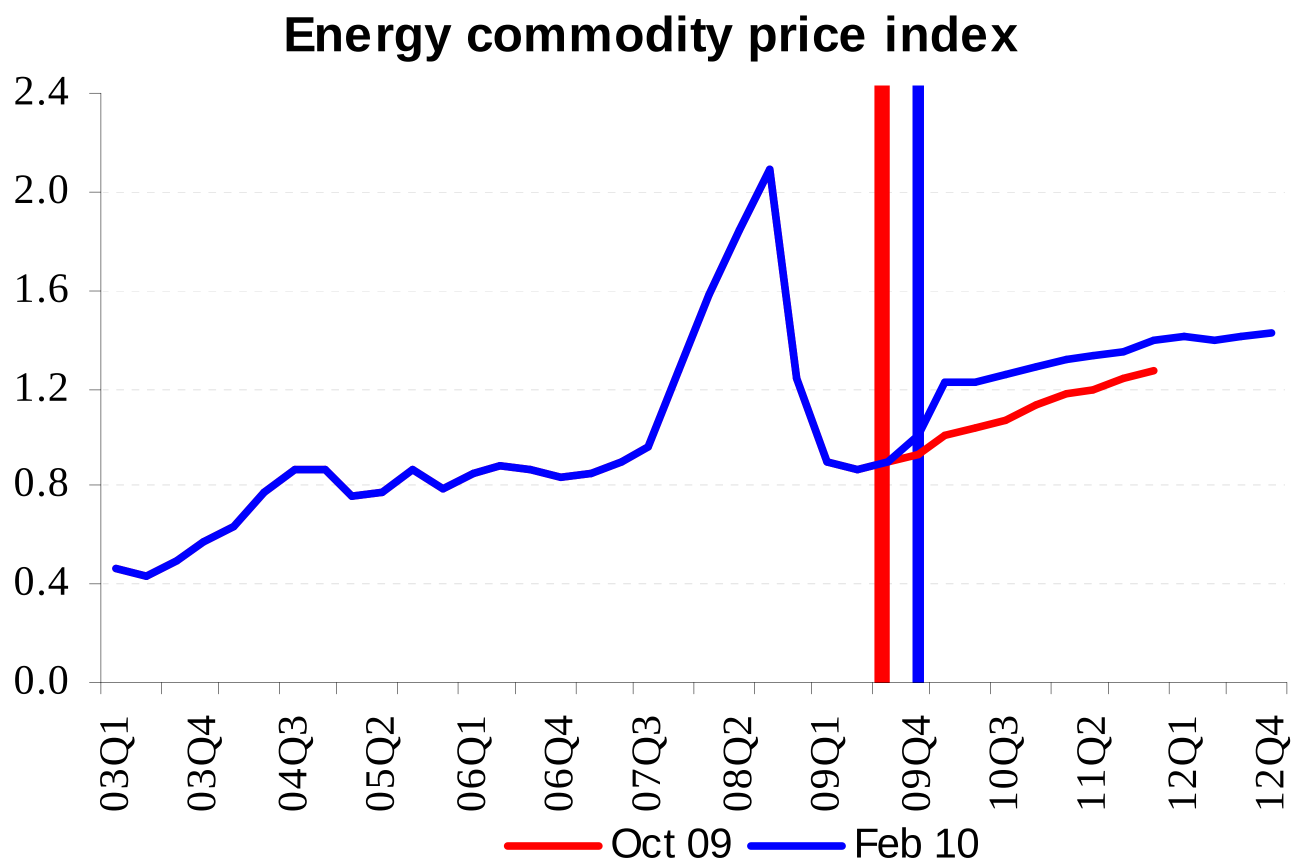
Price growth abroad
(higher until 2010 Q3, then comparable)



Interest rates abroad
(comparable)

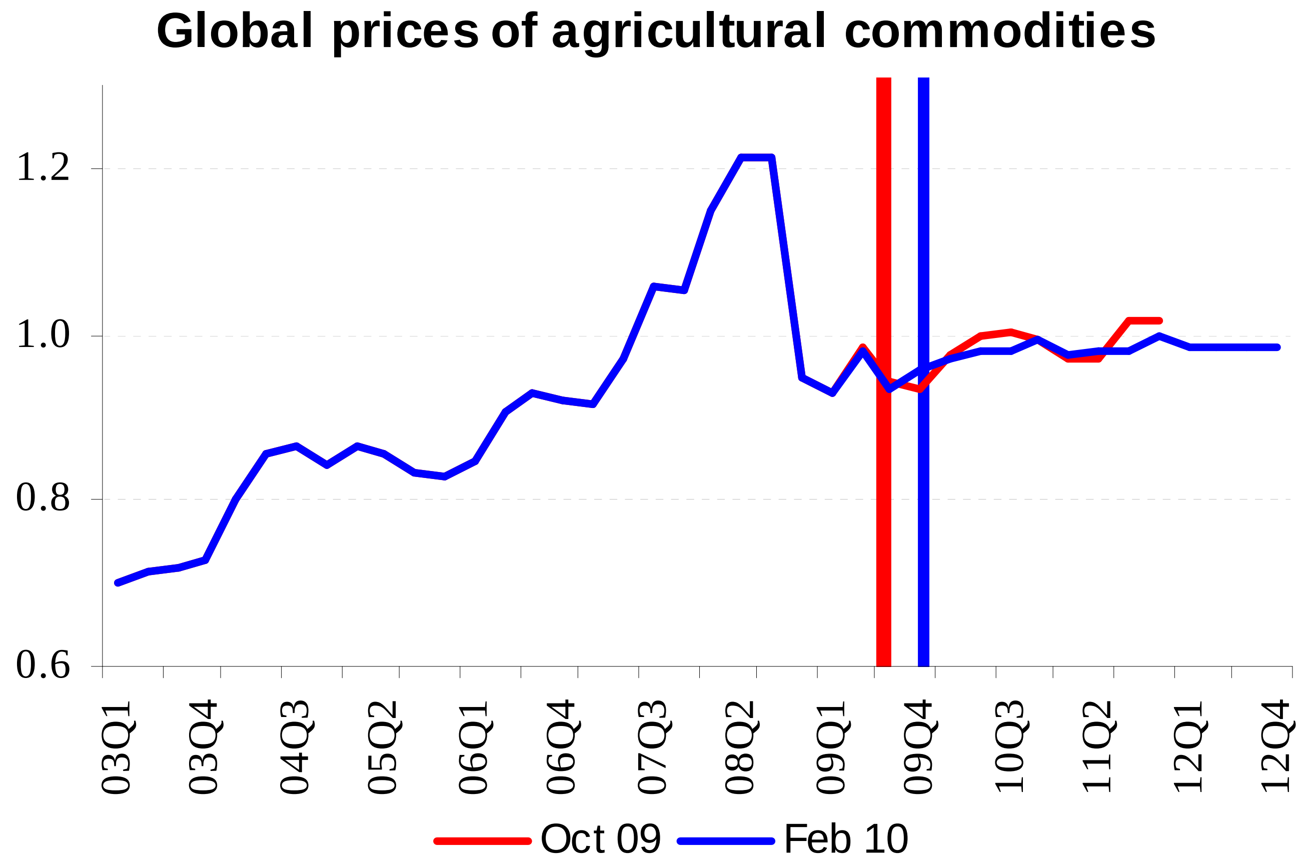


Energy commodity price index *
(higher)



* Global index of energy prices includes prices of coal, crude oil and natural gas.

Agricultural commodity price index *
(comparable)



* Global index of agricultural commodity prices consists of prices of wheat, pork, beef, poultry, fish, seed oil, sugar, oranges, bananas and index of beverages. .

STARTING POINT

of February projection compared to October projection

- GDP and its components
- Labour market
- Inflation

GDP and its components – starting point*

	09Q3	09Q4 (IE estimate)
GDP (y/y) (%)	1.7 (1.4)	2.9 (1.4)
Domestic demand (y/y) (%)	-1.2 (-1.3)	0.6 (0.4)
Individual consumption (y/y) (%)	2.2 (1.8)	2.3 (1.4)
Public consumption (y/y) (%)	1.5 (-2.5)	-2.7 (-1.2)
Gross fixed capital formation (y/y) (%)	-1.5 (-1.1)	-1.4 (-1.5)
Exports (y/y) (%)	-9.5 (-12.3)	-4.1 (-9.7)
Imports (y/y) (%)	-14.9 (-17.7)	-9.3 (-11.4)
Contribution of net exports (percentage points)	3.0 (2.8)	2.3 (1.0)

* Values from the October 2009 projection are given in brackets. Indicators with values higher than in the October projection are marked in green, whereas indicators with lower values are marked in red.

Labour market – starting point*

	09Q3	09Q4
ULC (y/y) (per cent)†	1.4 (1.4)	-0.7 (-0.4)
ULC in non-agricultural sector (y/y) (per cent)†	2.2 (2.1)	0.2 (0.4)
Labour productivity (y/y) (per cent)†	3.7 (3.0)	5.4 (3.2)
Labour productivity in non-agricultural sector (y/y) (per cent)†	2.9 (2.2)	4.5 (2.5)
Wages (y/y) (per cent)	4.7 (4.2)	4.5 (3.4)
Number of working persons according to BAEL (y/y) (per cent)†	-2.1 (-1.6)	-2.4 (-1.8)
Working persons in non-agricultural sector (y/y) (per cent)†	-1.3 (-0.8)	-1.6 (-1.1)
Unemployment according to BAEL (per cent)	8.4 (7.6)	8.7 (8.5)
Labour market participation rate (per cent)	54.8 (54.6)	54.9 (54.7)
Population†	-1.4 (-1.4)	-1.2 (-0.6)

* Values from the October 2009 projection are given in brackets. Indicators with values higher than in the October projection are marked in green, whereas indicators with lower values are marked in red.

† Based on adjusted BAEL (LFS) data

Inflation – starting point*

	09Q3	09Q4
CPI inflation (y/y) (per cent)	3.6 (3.6)	3.3 (3.0)
Core inflation (y/y) (per cent)	2.9 (2.9)	2.8 (2.9)
Inflation of food prices (y/y) (per cent)	4.2 (4.2)	3.3 (2.2)
Inflation of energy prices (y/y) (per cent)	5.2 (5.2)	5.6 (4.6)

* Values from the October 2009 projection are given in brackets.
Indicators with values higher than in the October projection are marked in green, whereas indicators with lower values are marked in red.

Projection for 2010-2012

- GDP and its components
- Labour market
- Exchange rate
- Inflation

Investment outlays
(lower till 2010 Q4)

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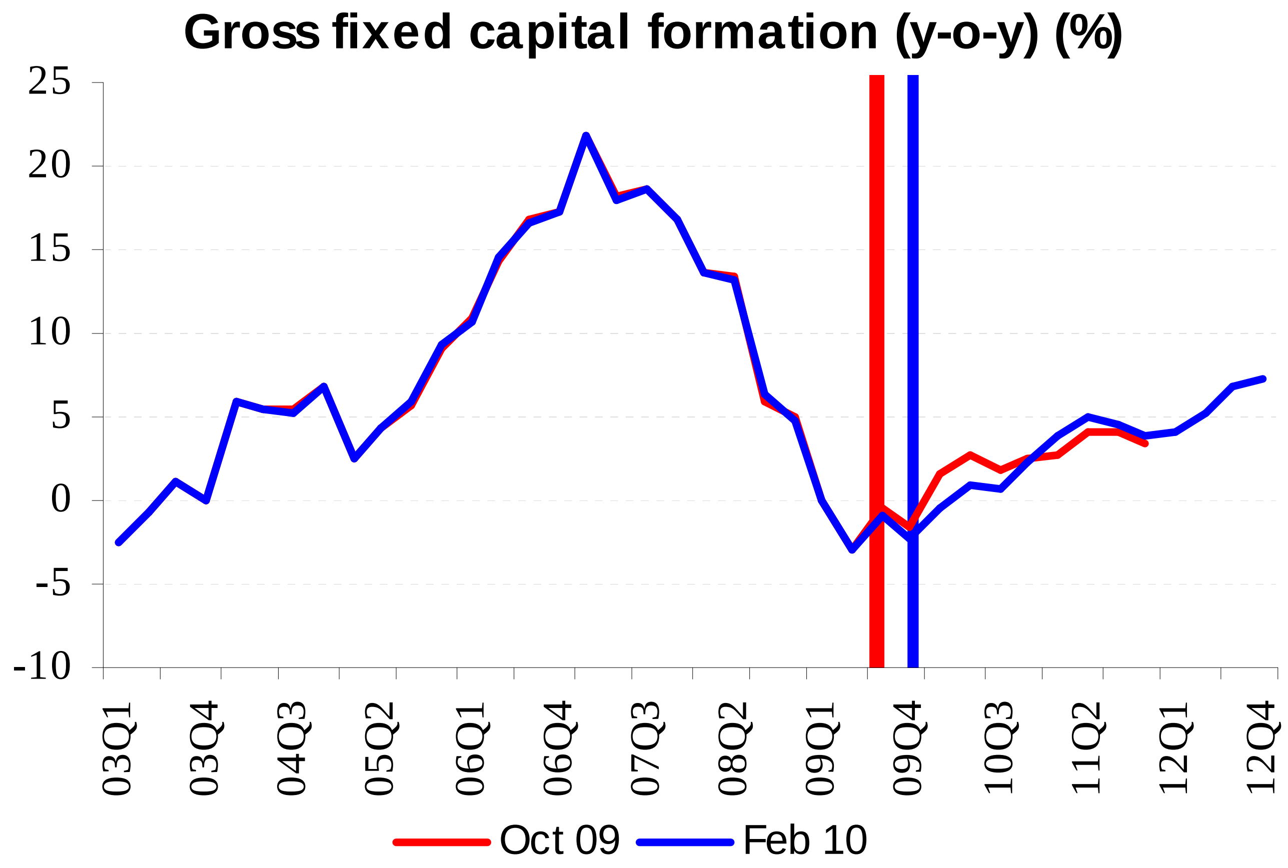
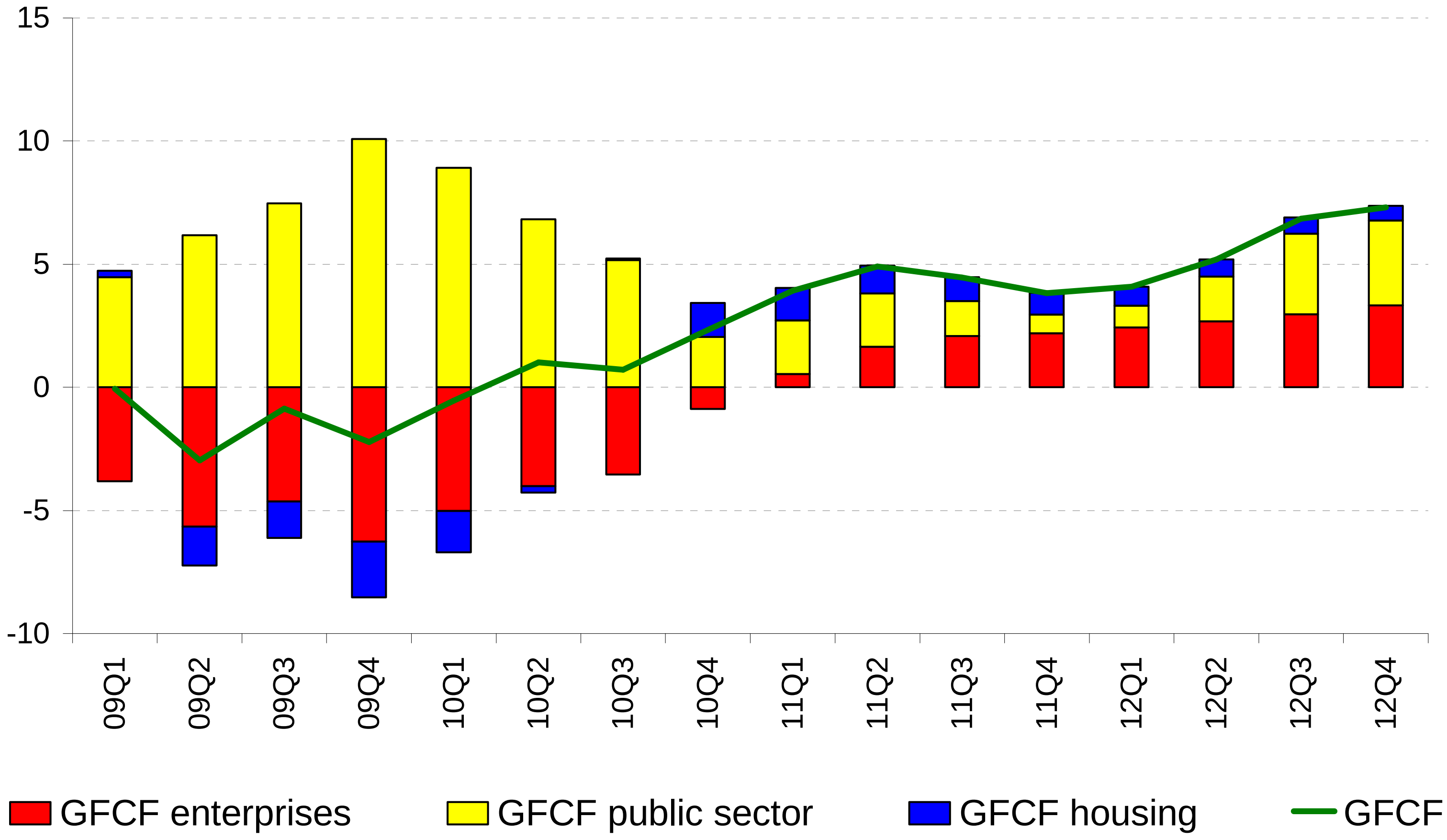


Gross fixed capital formation: decomposition



Individual consumption
(higher till 2010 Q3)

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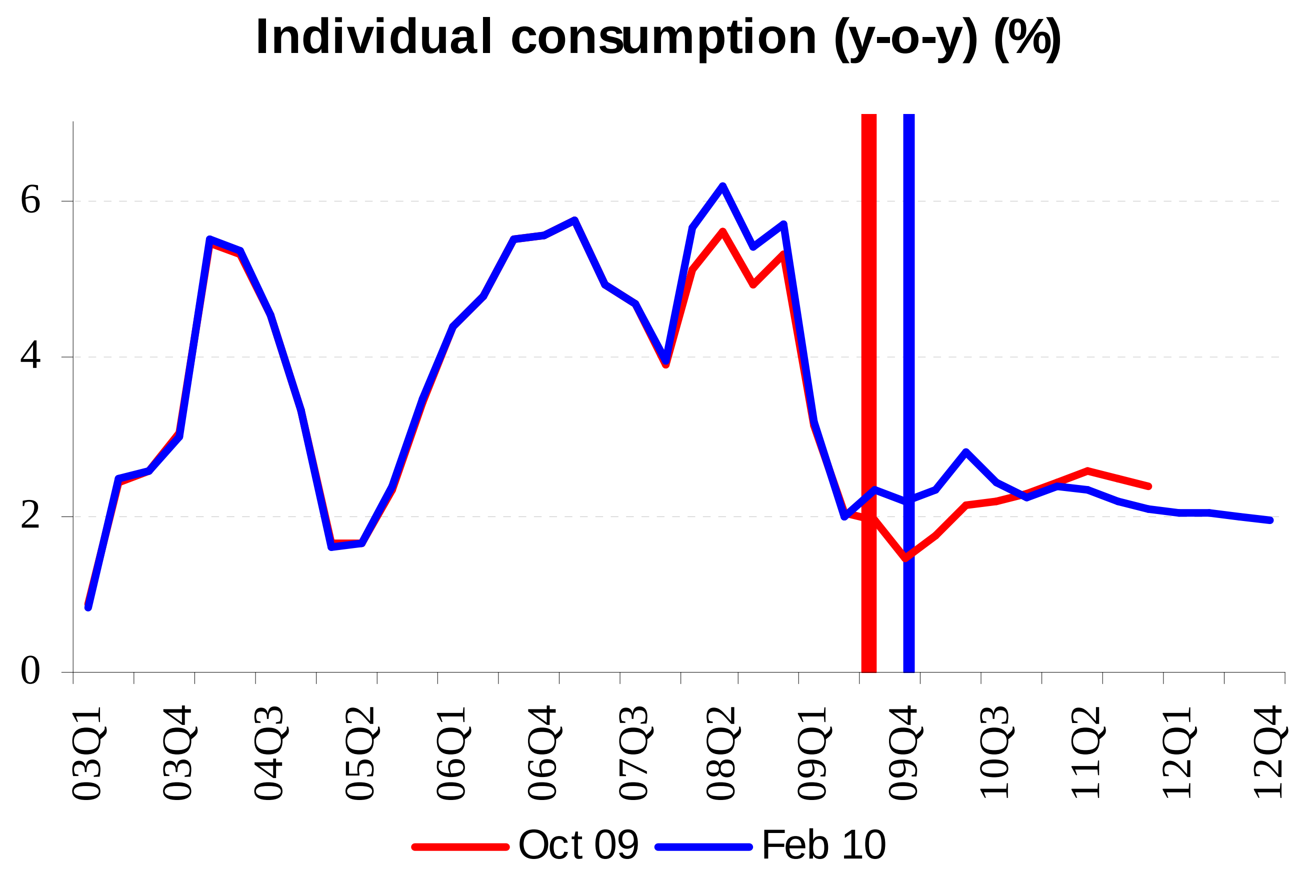
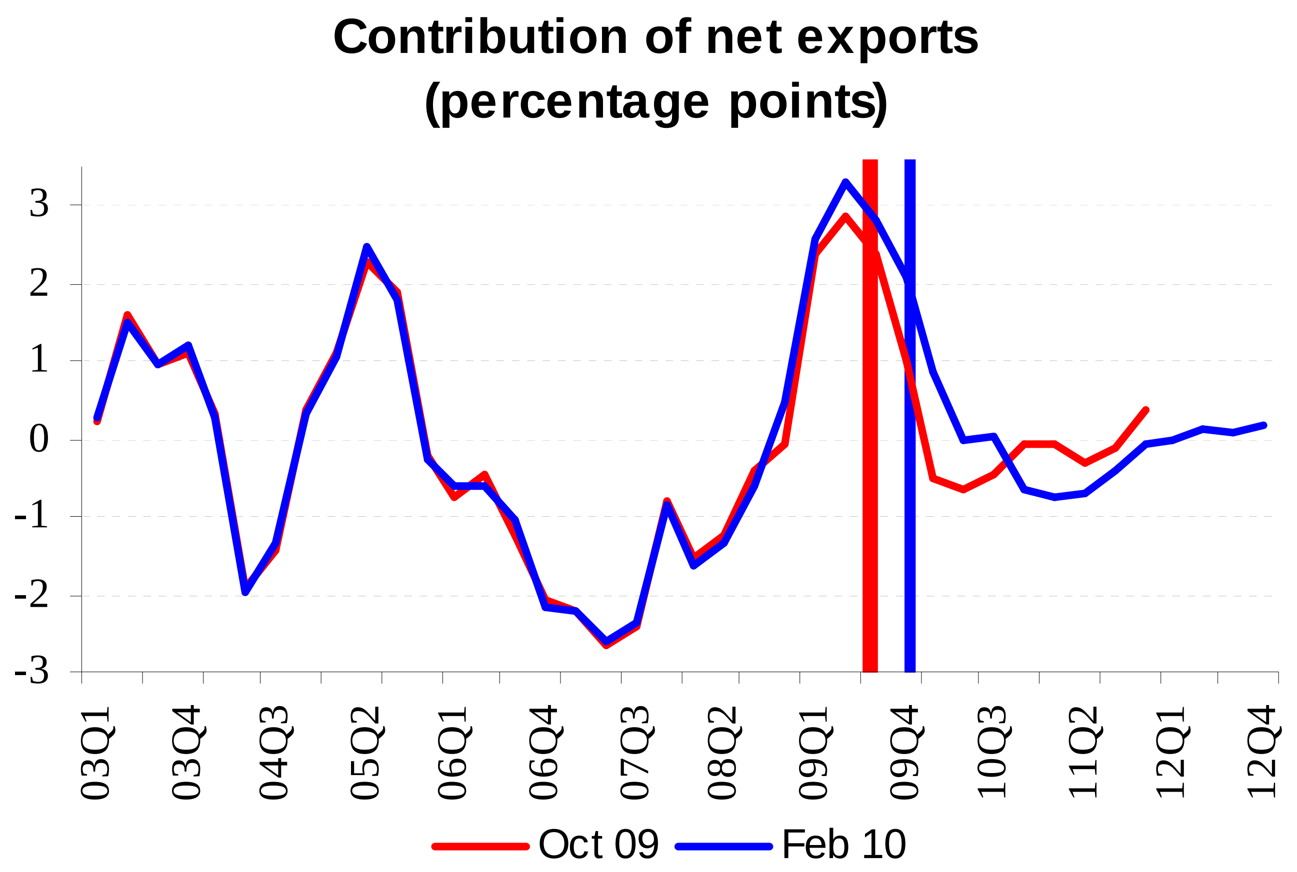
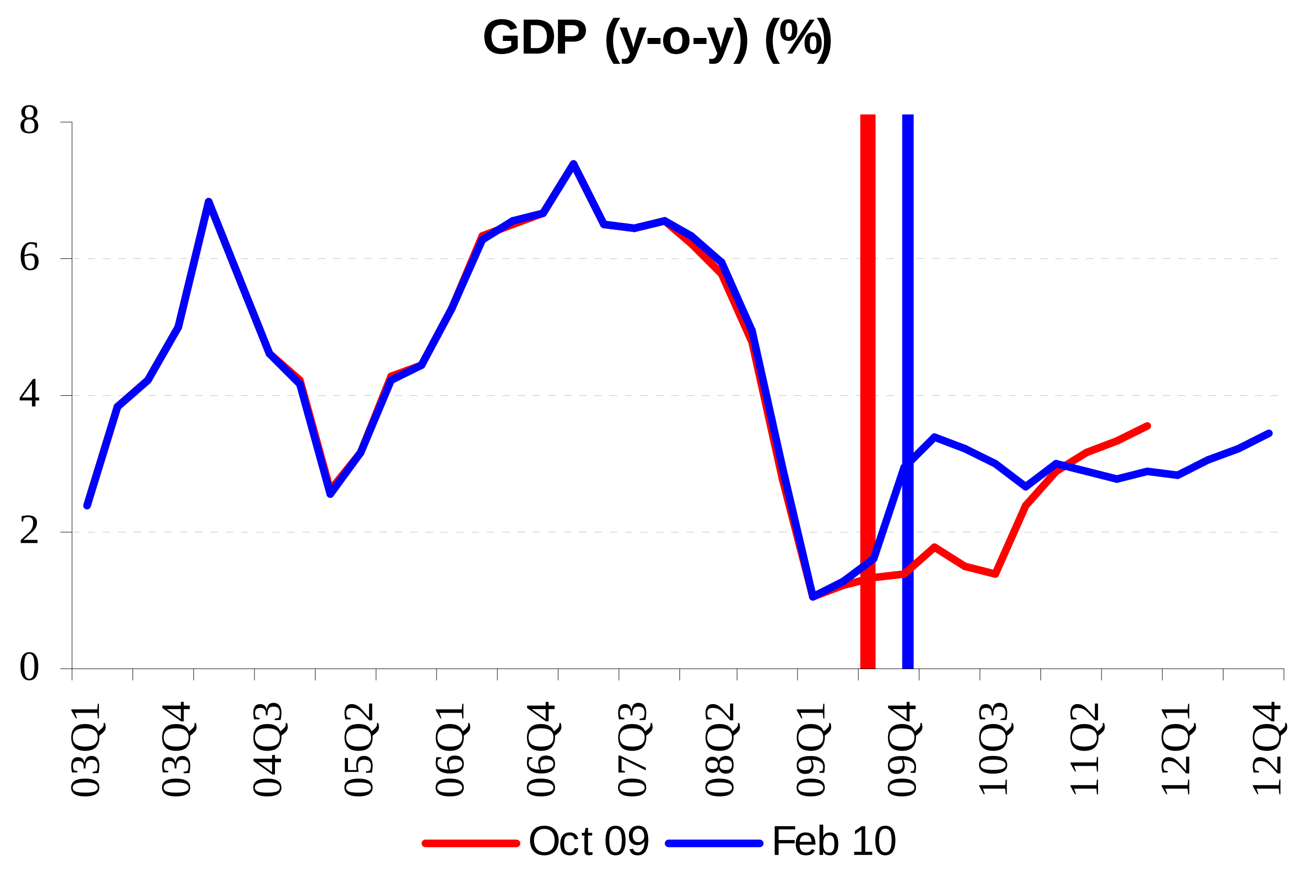


Contribution of net exports
(higher till 2010 Q3, then lower)



GDP
(higher till 2011 Q1)



Labour market

(from 2010 Q3 till the end of 2011 higher growth rate in the number of working persons and working persons in non-agricultural sector, comparable rate of unemployment, higher wage growth till 2011 Q3)

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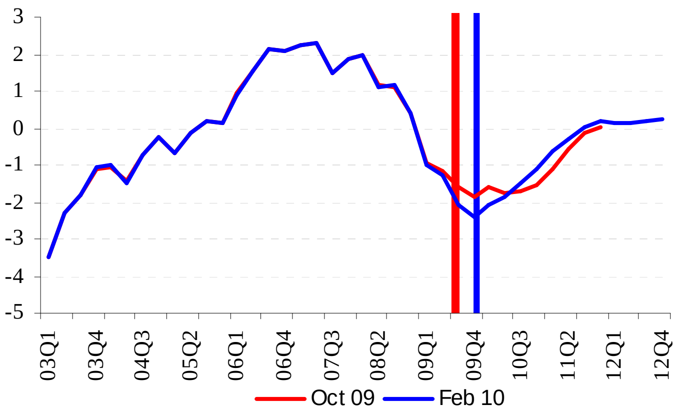
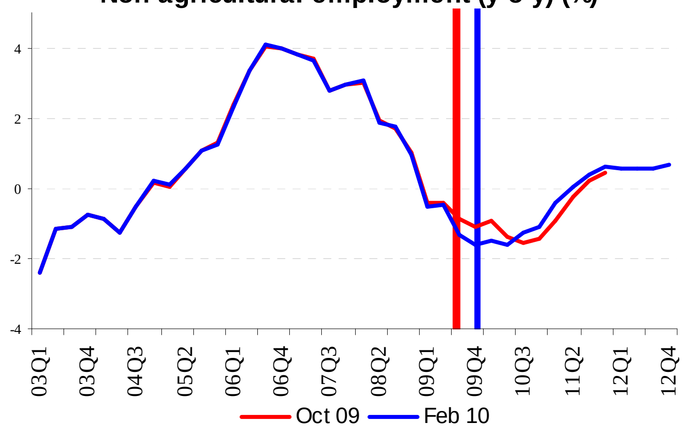
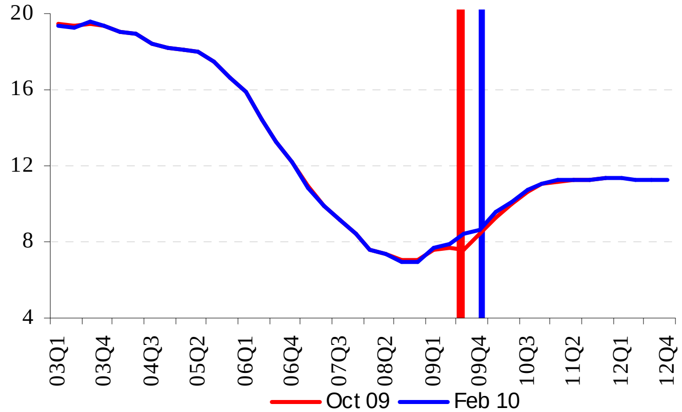
Total employment (y-o-y) (%)



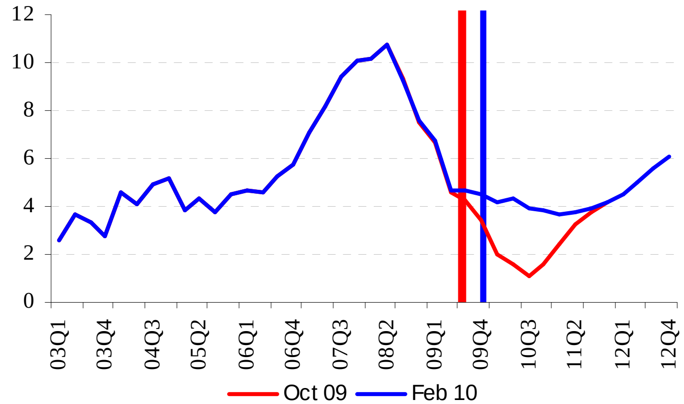
Non-agricultural employment (y-o-y) (%)



Unemployment (p.p.)



Gross wages (y-o-y) (%)



ULC
(higher)

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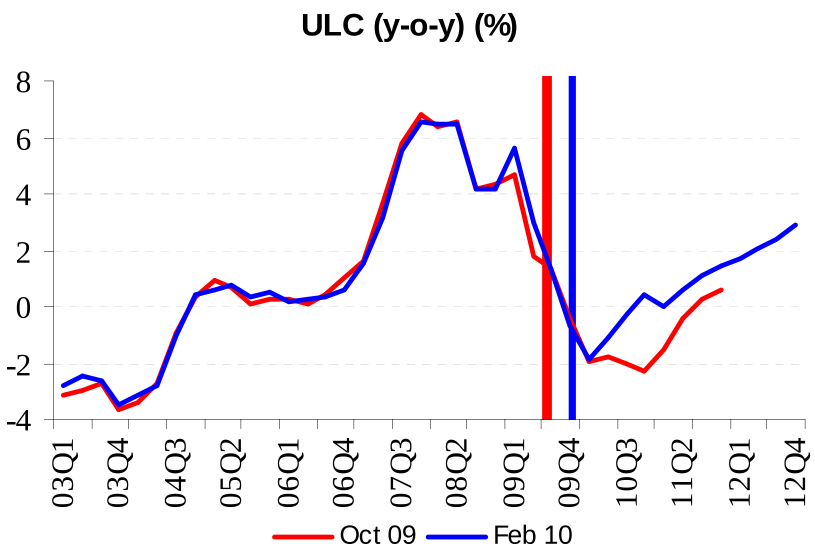
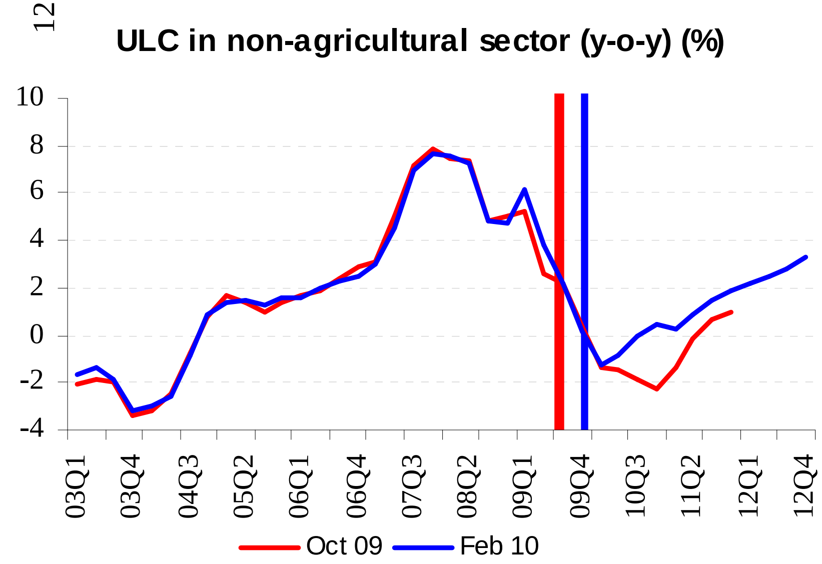
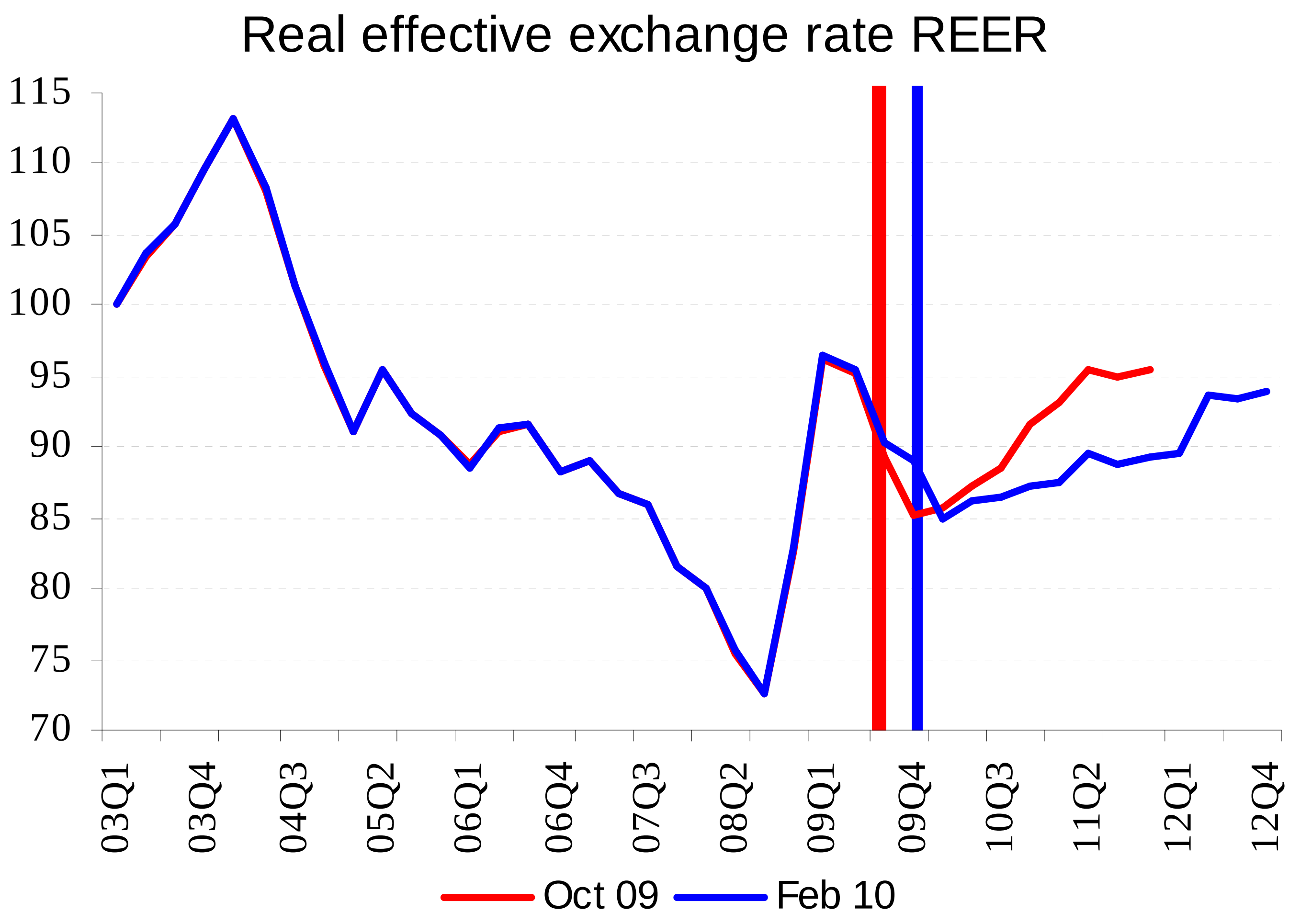




Exchange rate
(lower)



Core inflation*
(lower till 2010 Q2, then higher)

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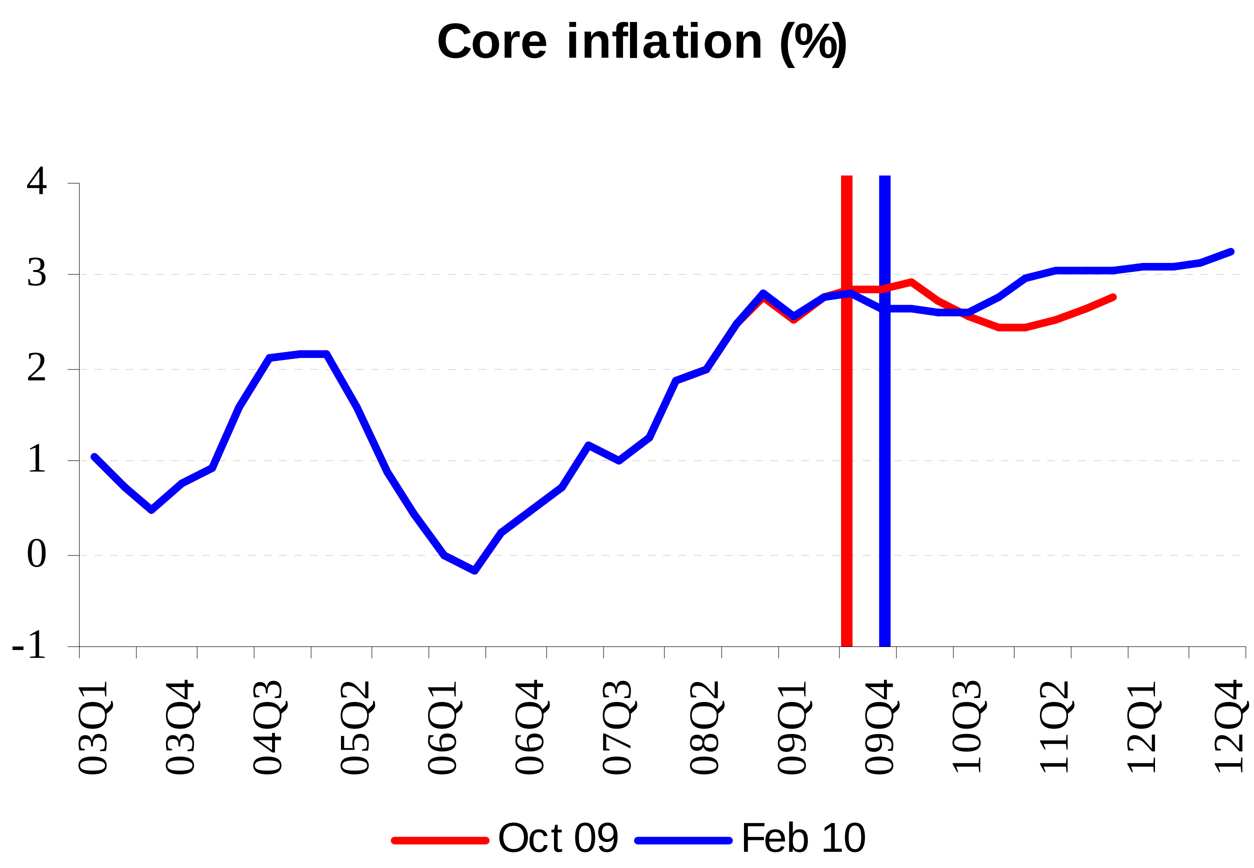

* Core inflation does not include prices of food and non-alcoholic beverages or energy prices

Cost determinants of core inflation

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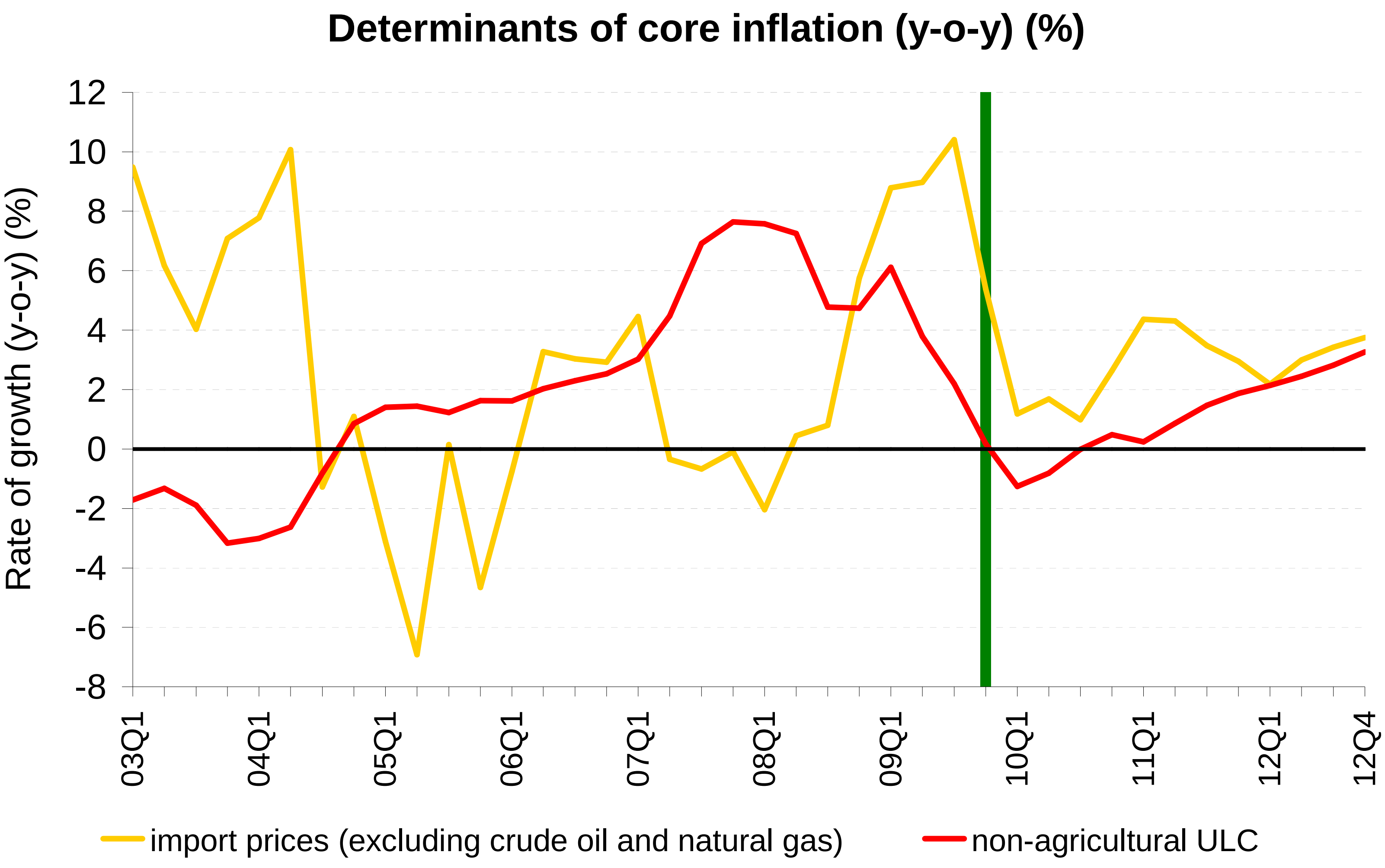

Inflation of food and energy prices
(growth rate of food prices lower from 2010 Q4, higher growth of energy prices)

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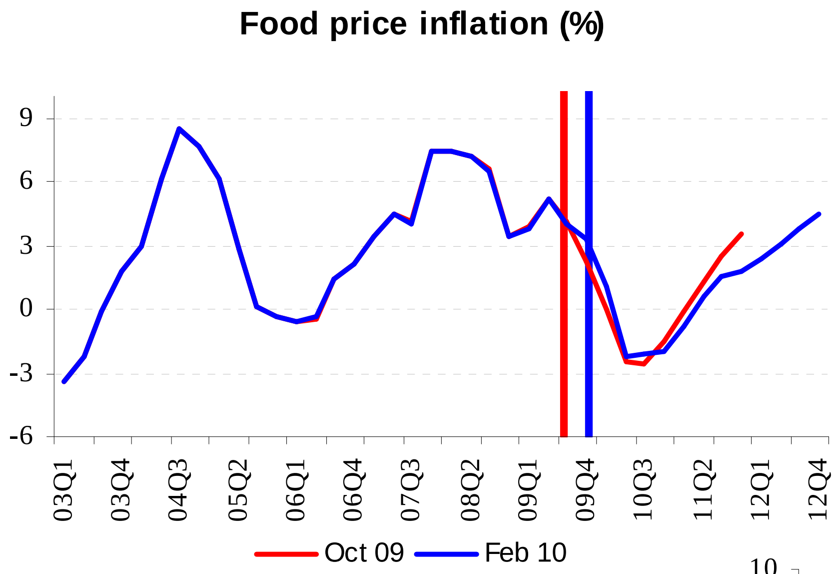
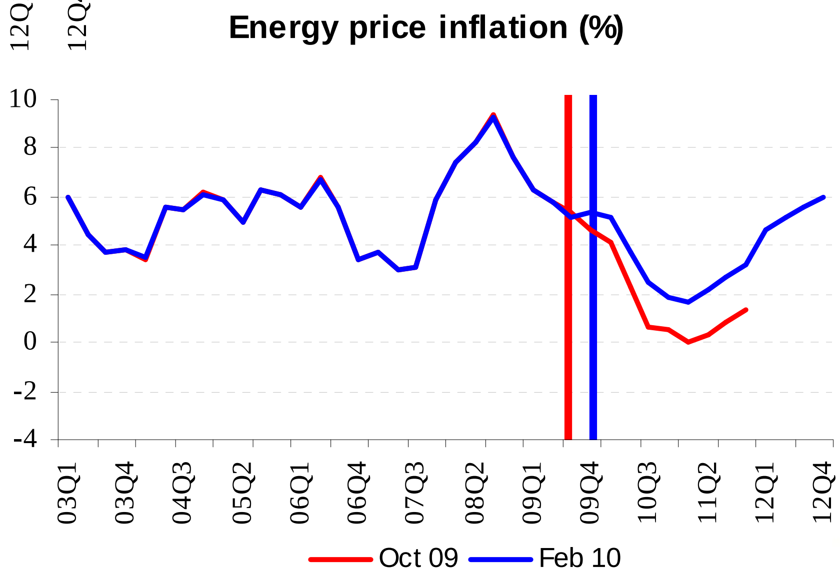
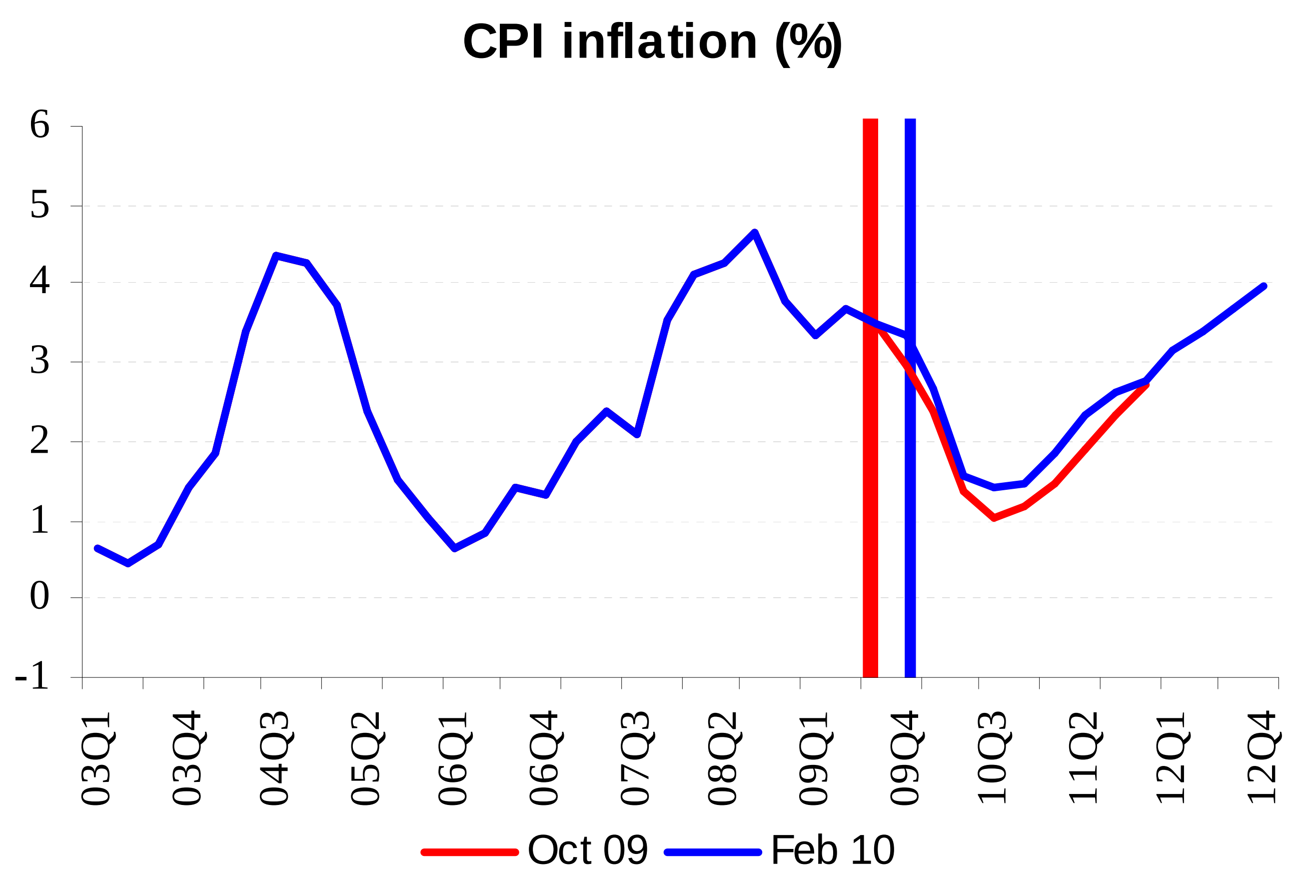




CPI inflation
(higher)



CHANGES

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- The February projection as compared to the October projection

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The February projection as compared to the October projection

Change in the projection scenario

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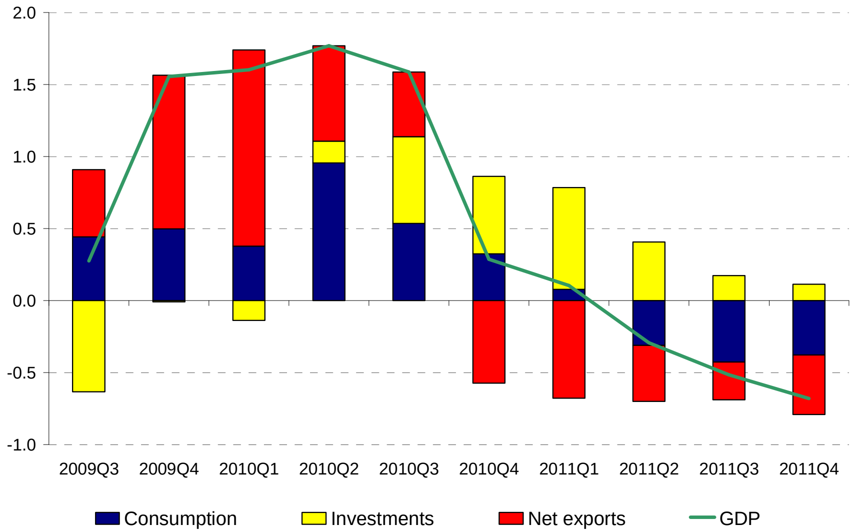
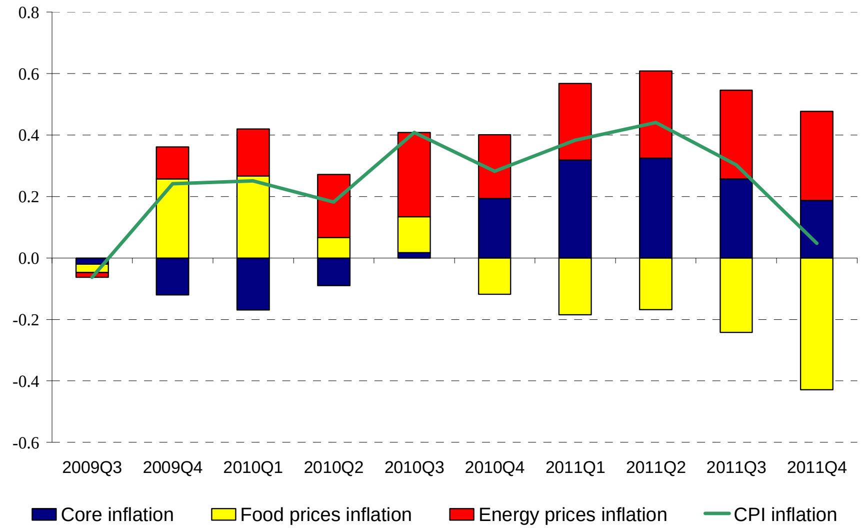
- National Accounts in 2009 Q3 and Q4: higher GDP, higher contribution of net exports to growth and higher rate of consumption growth***
- Higher energy and food prices at the starting point**
- Higher prices of energy commodities connected with better outlook for global economic growth*
- Higher wages at the starting point*
- Weaker exchange rate of the dollar against the euro*

Scale of impact:	***	significant
	**	moderate
	*	slight

Decomposition of the difference between the October and February projections





UNCERTAINTY

OF THE PROJECTION

Probability distribution of inflation

	Probability of inflation running:				
	below 1,5%	below 2,5%	below 3,5%	below the central path	in the range (1,5%; 3,5%)
2010 Q1	0.01	0.35	0.98	0.49	0.97
2010 Q2	0.44	0.91	1.00	0.48	0.56
2010 Q3	0.52	0.93	1.00	0.47	0.48
2010 Q4	0.50	0.90	1.00	0.49	0.49
2011 Q1	0.35	0.75	0.97	0.48	0.62
2011 Q2	0.20	0.55	0.89	0.48	0.69
2011 Q3	0.15	0.44	0.78	0.49	0.63
2011 Q4	0.15	0.40	0.71	0.48	0.56
2012 Q1	0.11	0.32	0.60	0.49	0.49
2012 Q2	0.11	0.26	0.51	0.49	0.40
2012 Q3	0.10	0.23	0.43	0.49	0.33
2012 Q4	0.08	0.19	0.37	0.49	0.29

Risk factors part 1

1. External environment

- Uncertainty connected with the rate and scale of global economic recovery and ensuing rebuild in the volume of trade – including trade exchange with Poland Unknown scale of monetary and fiscal policy tightening and ensuing risks for growth and inflation in Poland's main trading partners
- Future paths of commodity prices and cross exchange rates (in particular, USD/EUR exchange rate)

2. Food and energy prices in Poland

- Uncertainty of the future zloty effective exchange rate connected, among others, with real and nominal economic developments around the world and in Poland, the rate of accumulation of general government sector debt and international financial flows
- Unknown scale of regulatory measures in the energy market in Poland
- Uncertainty as to the impact of EU regulation on prices in Poland (connected, among others, with natural environment protection, including carbon dioxide emissions, and regulatory measures in the food market)

Risk factors part 2

3. Recovery in domestic demand

- Nature of adjustments in the private sector in Poland as the economy enters the recovery phase – developments in inventories and investment
- Risk connected with labour market developments feeding through to uncertainty of consumption demand path

4. Fiscal policy

- Reaction of financial markets and fiscal policy developments (on the revenue and expenditure side) after possible exceeding of prudential threshold (55% of GDP) in 2011
- High probability of actual general government deficit realising at a slightly lower level in 2011-2012, as a result of undertaking consolidation measures announced by the government (among others, spending rule, tax base extension)

Uncertainty factors – summary

Having considered the above uncertainty factors, it is assessed that over the projection horizon the risks not accounted for in the projection are <u>well-balanced</u> both for economic growth and inflation.