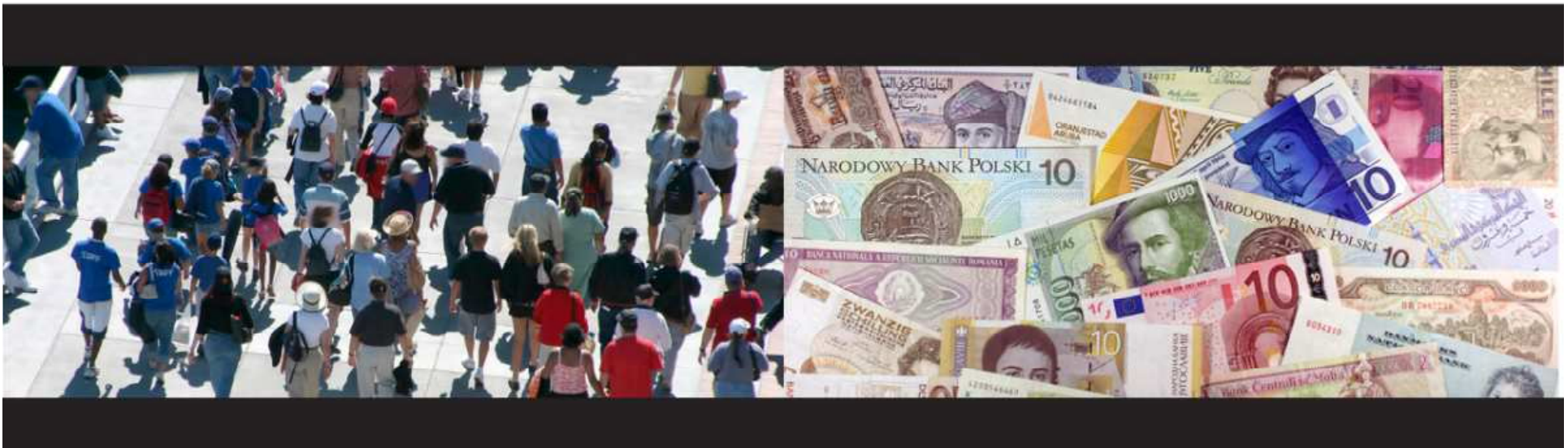


Warsaw, 30 October 2009

NBP

National Bank of Poland

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



GDP projection – October 2009

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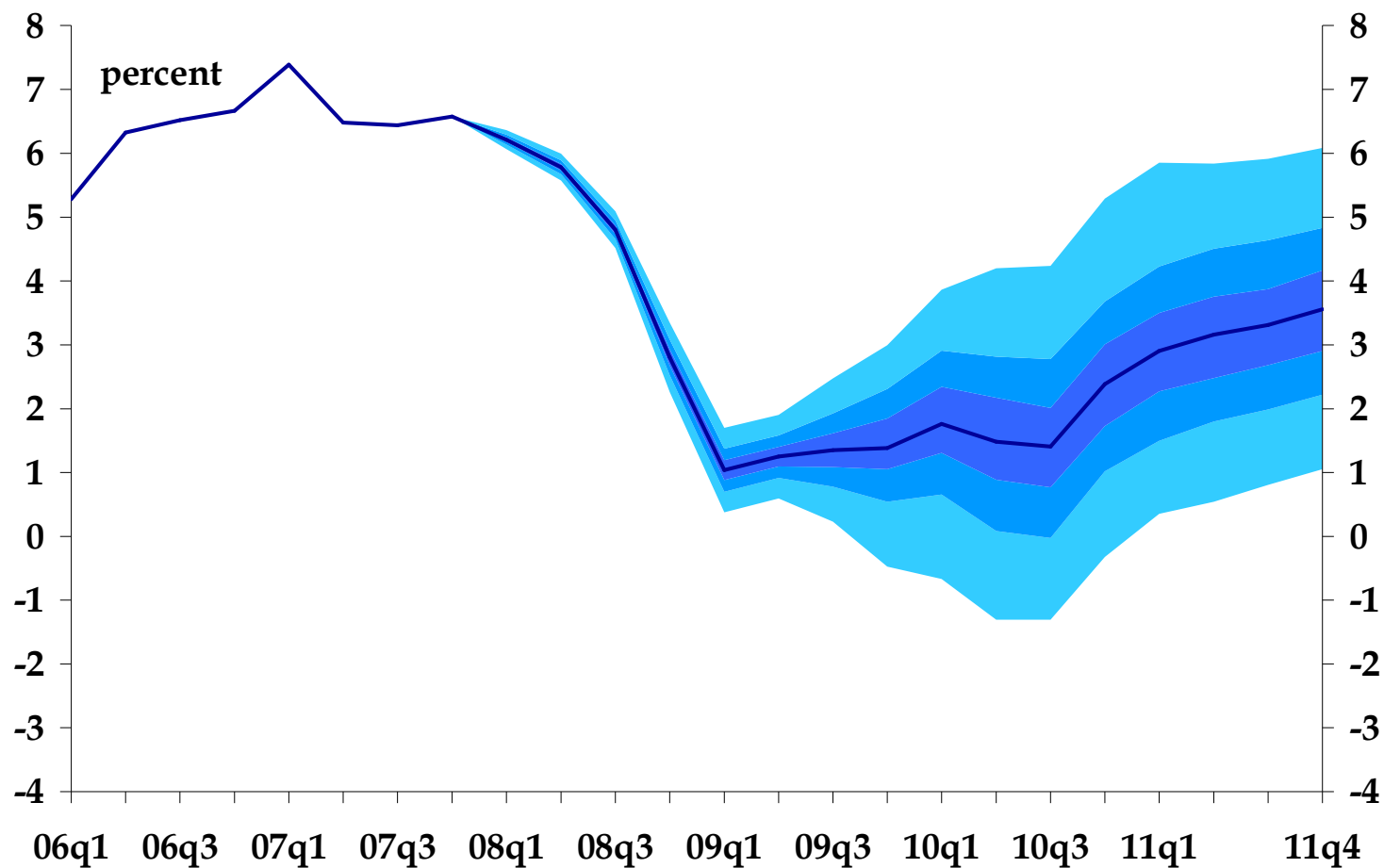
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Inflation projection – October 2009

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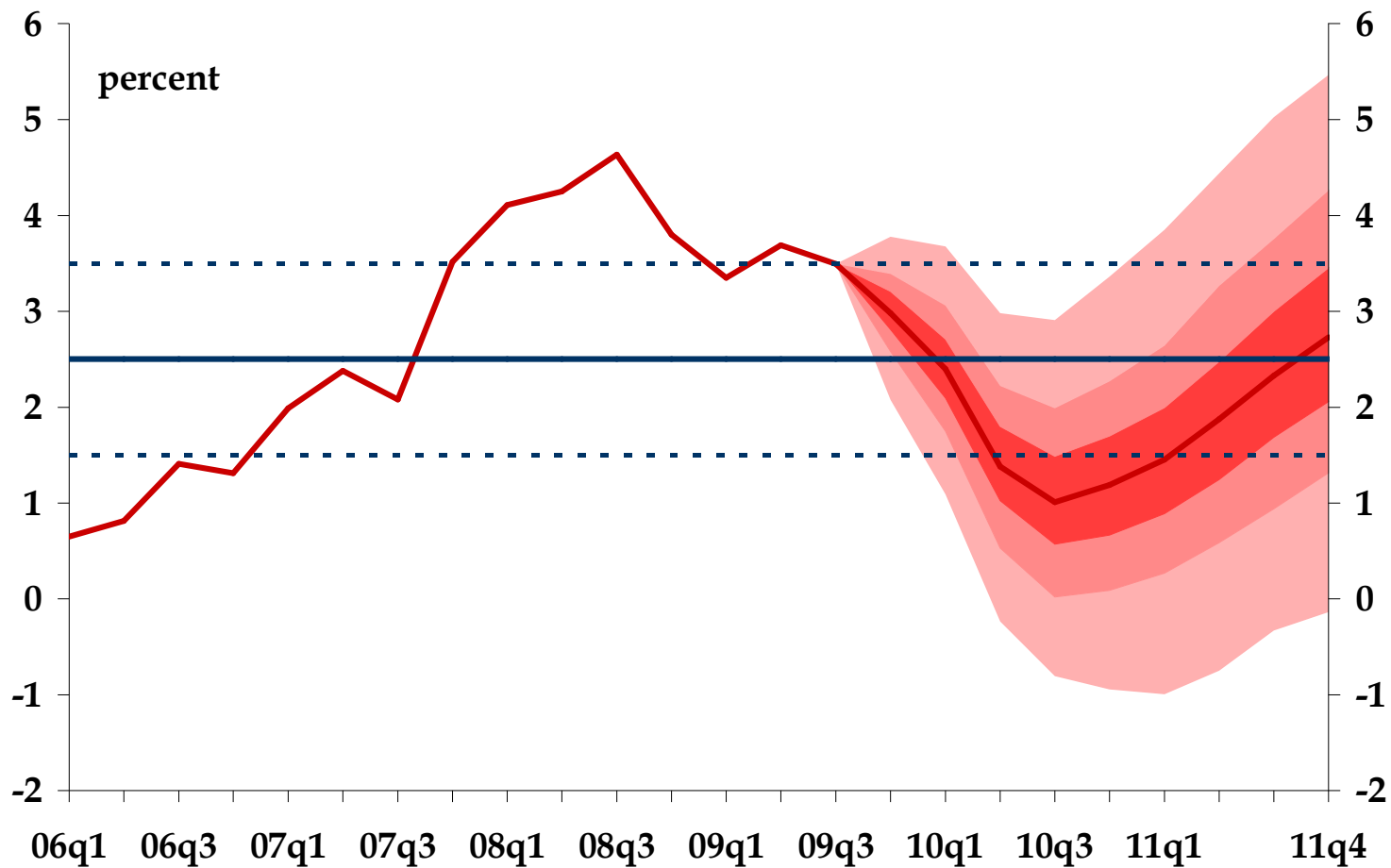
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Construction of fan chart

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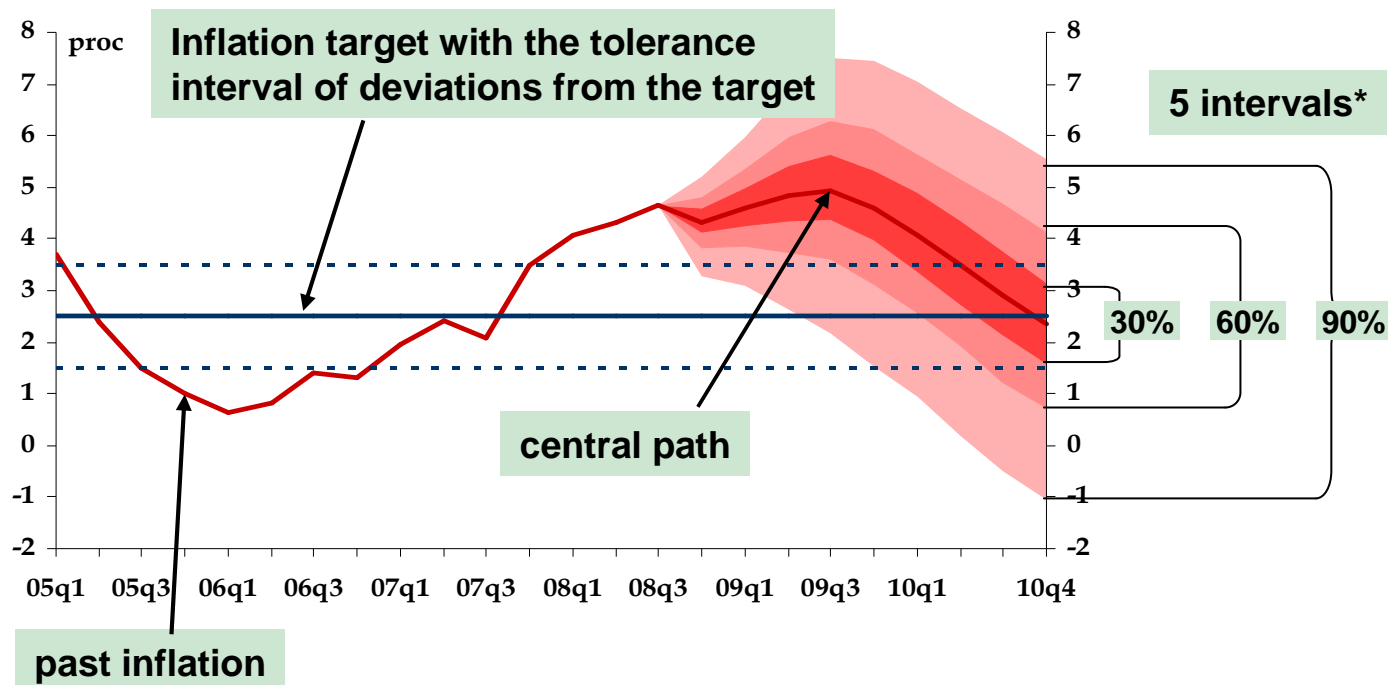
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- Uncertainty of inflation and GDP projection is estimated on the basis of past forecasting errors from the ECMOD/NECMOD model and on the basis of risk assessment of forecasts of selected exogenous variables.



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

October projection in comparison with the June projection: CPI inflation

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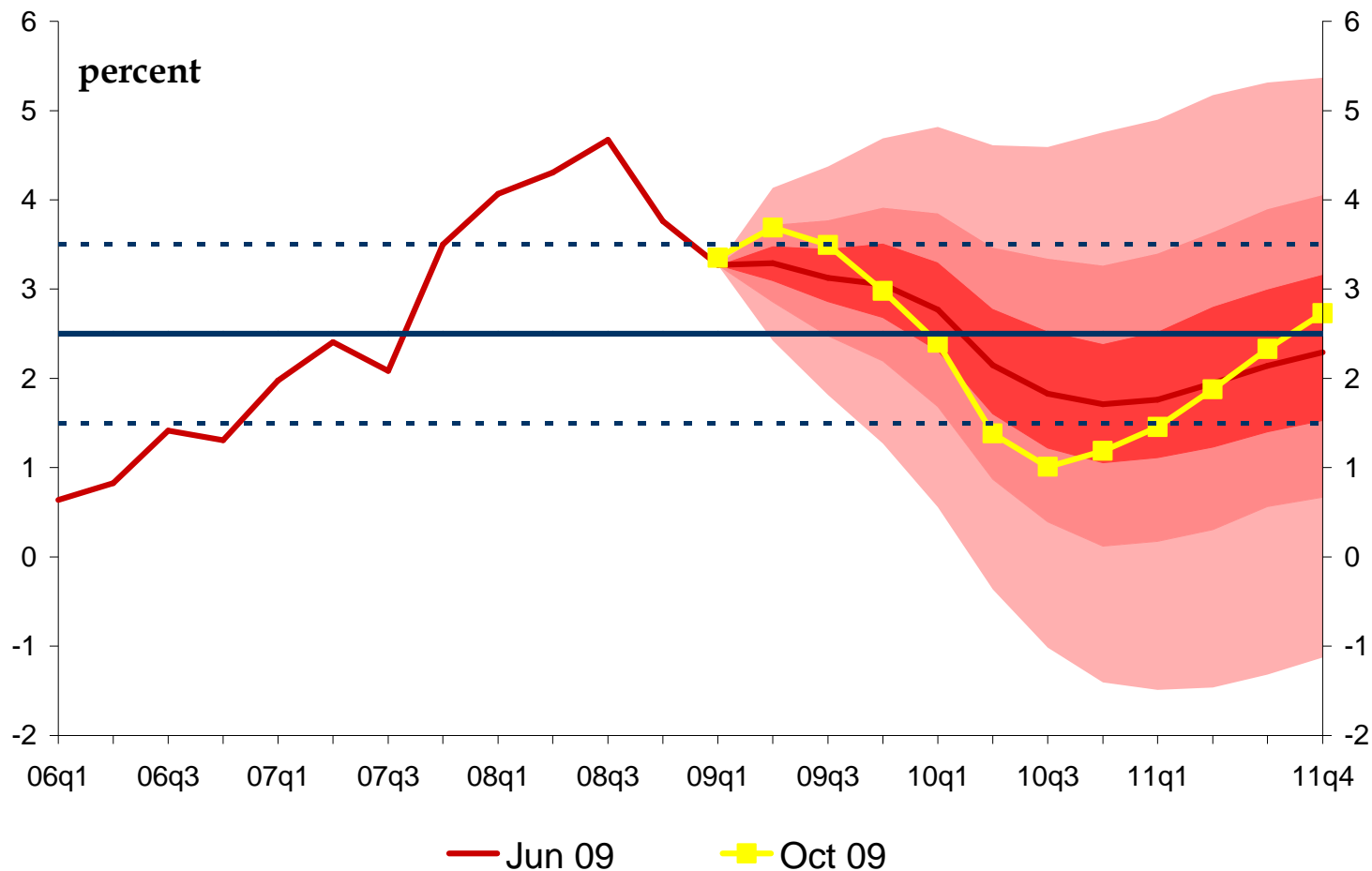
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October projection in comparison with the June projection: GDP

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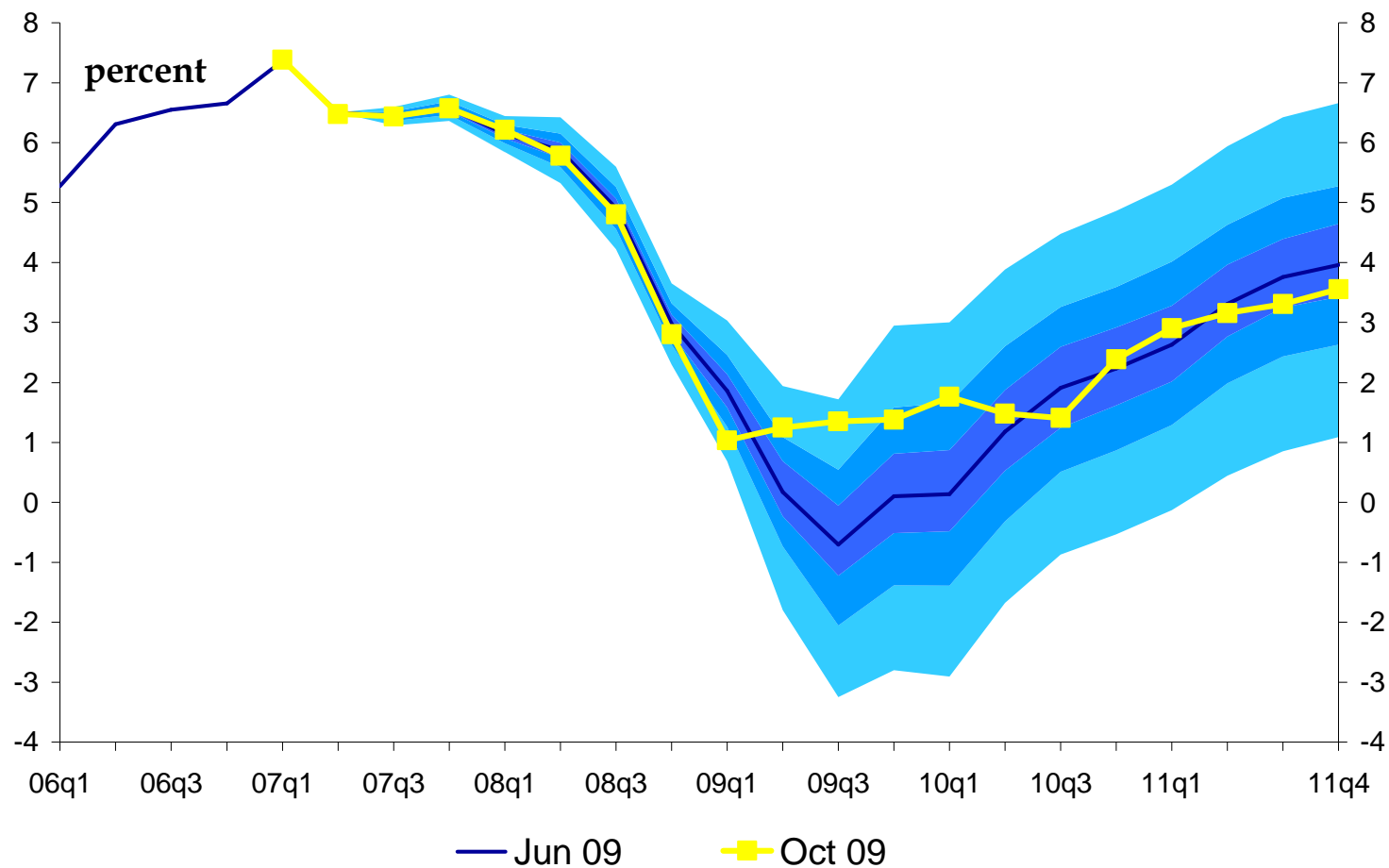
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CENTRAL PROJECTION

- Assumptions
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- Projection for 2009-2011

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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 2010 Q4)

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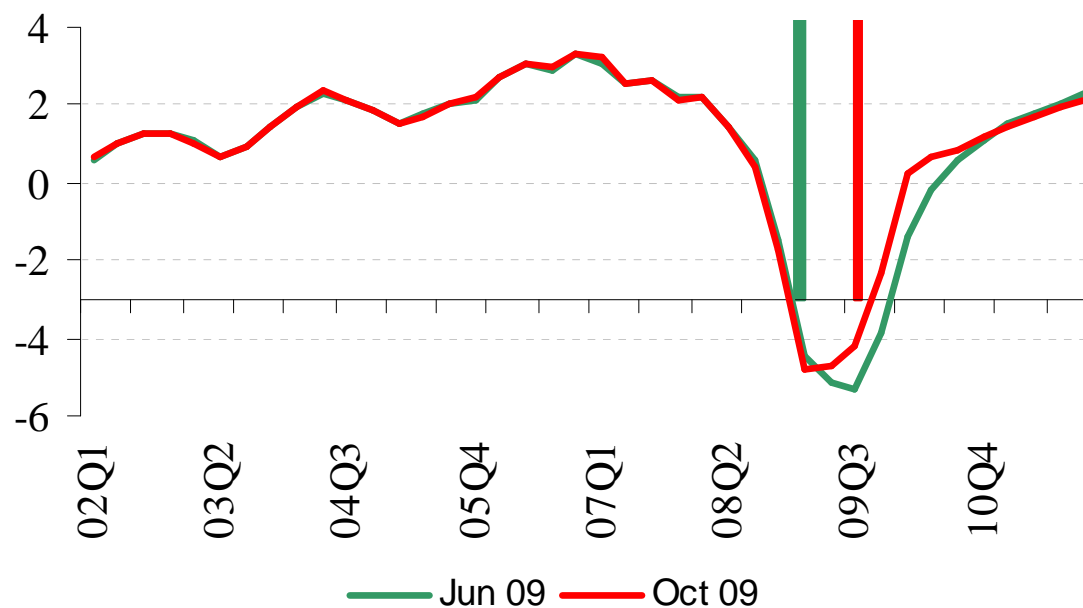
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External GDP (y-o-y) (%)



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 (comparable)

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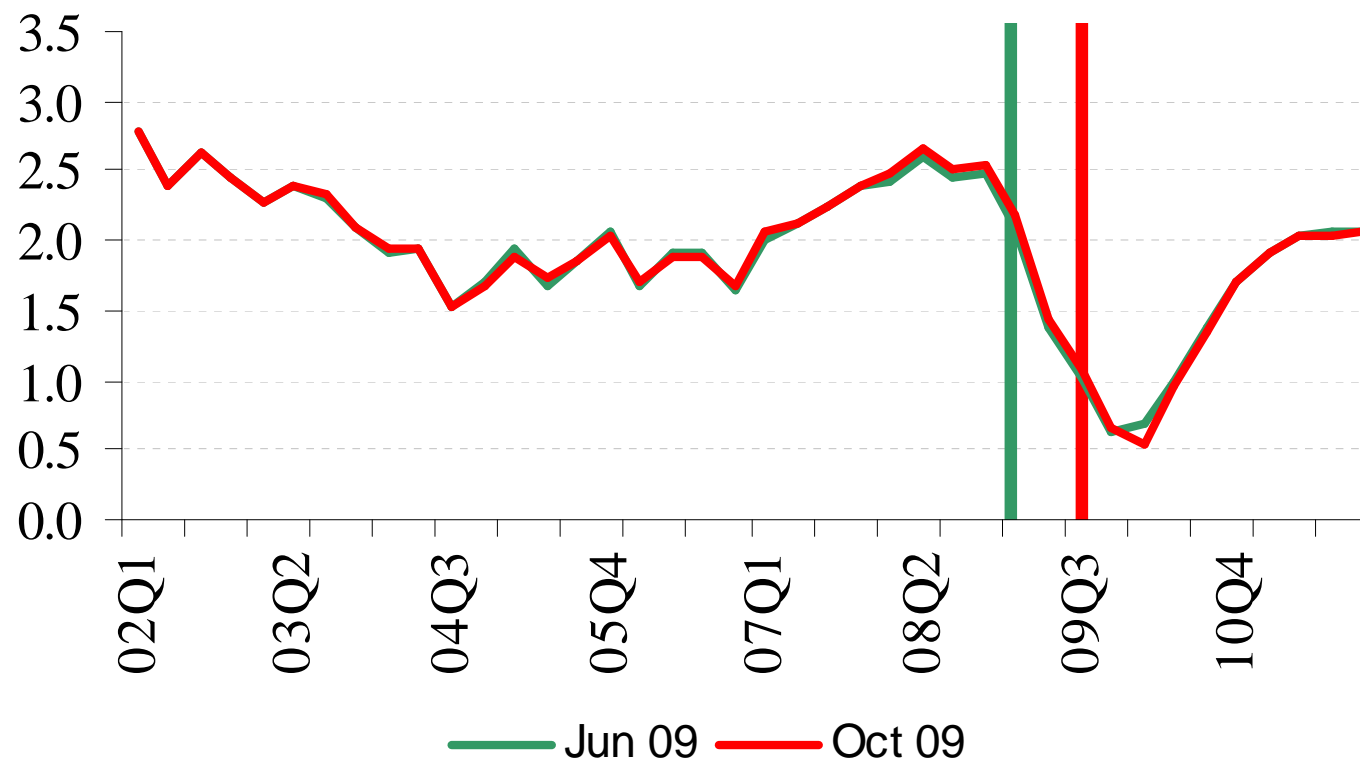
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External value added deflator (y-o-y) (%)



Interest rates abroad (lower)

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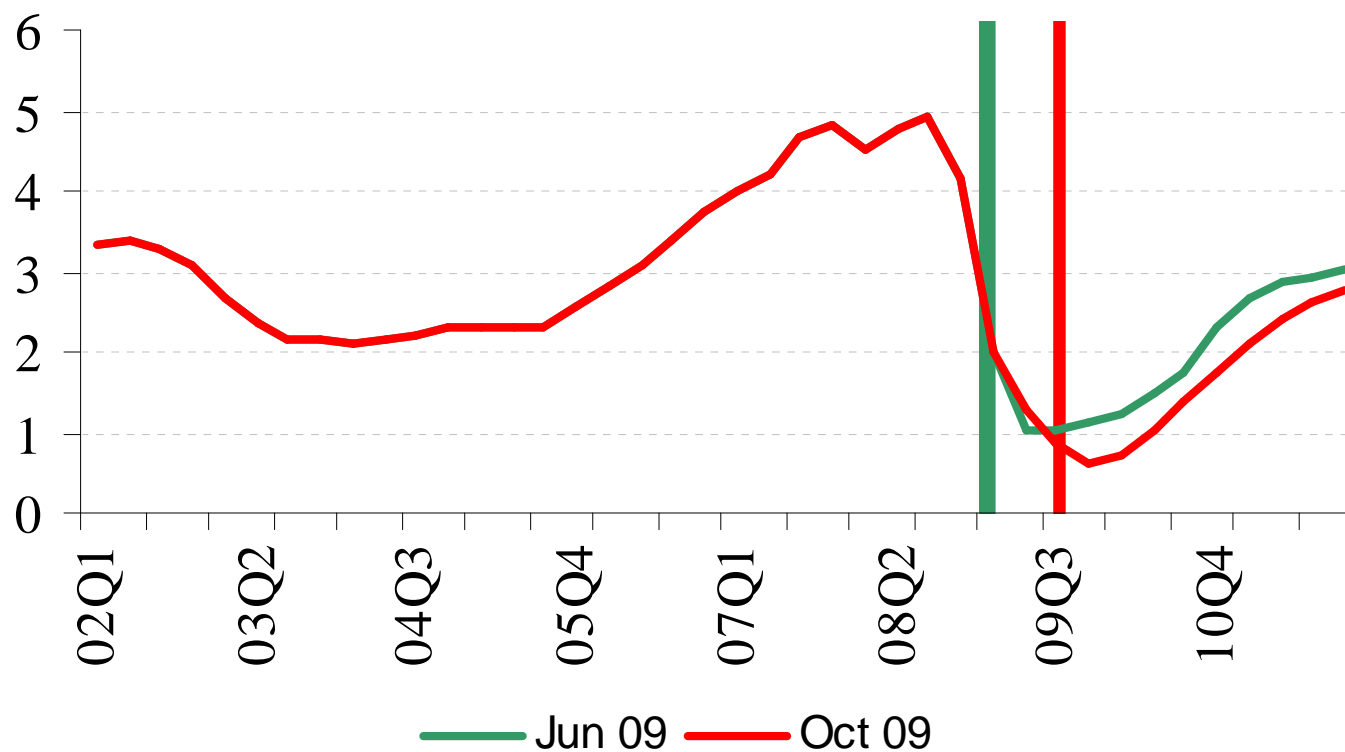
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External interest rates



Energy commodity price index* (comparable)

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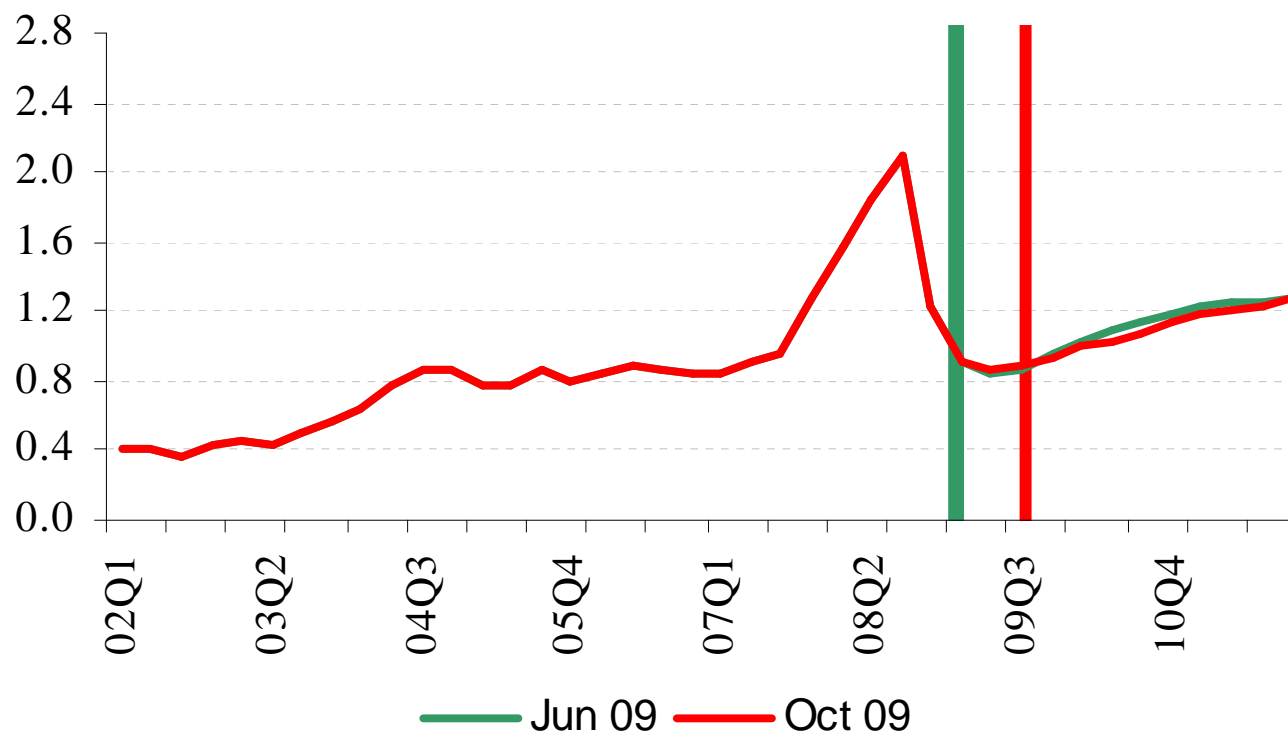
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Energy commodity price index



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

Agricultural commodity price index * (comparable)

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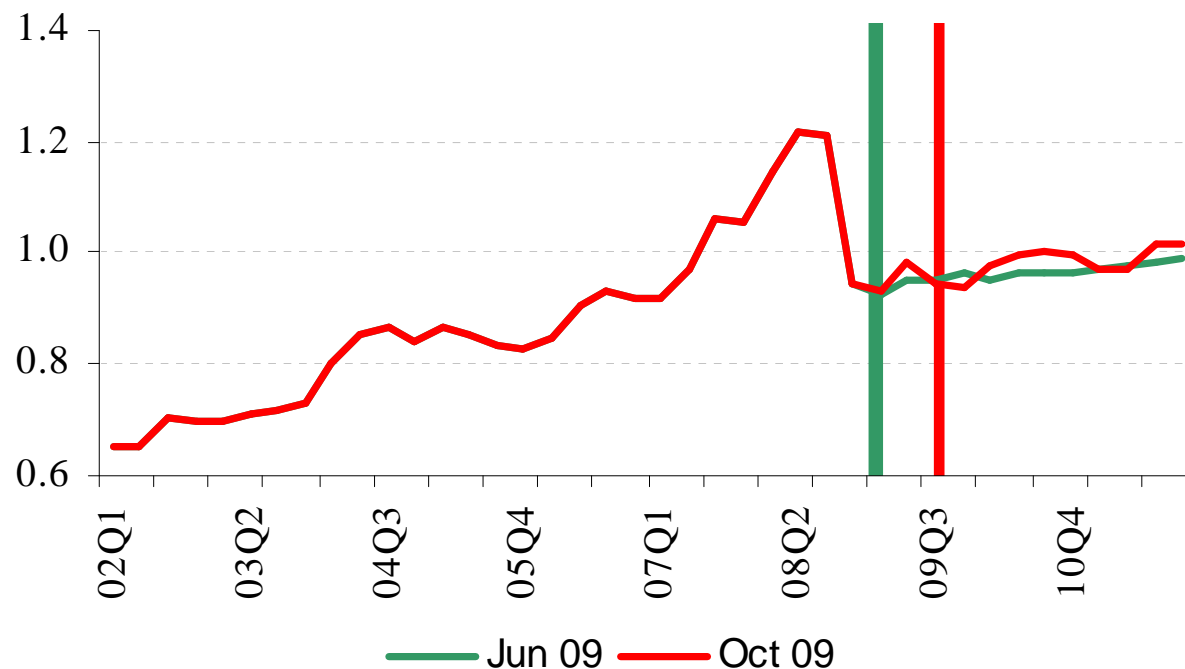
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Global prices of agricultural commodities



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

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Starting point of October projection compared to June projection

- GDP and its components
- Labour market
- Inflation

GDP and its components – starting point*

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	09Q2	09Q3 (IE estimate)
GDP (y/y) (%)	1.1 (0.2)	1.4 (-0.7)
Domestic demand (y/y) (%)	-2.0 (-1.7)	-1.3 (-3.1)
Individual consumption (y/y) (%)	1.9 (2.9)	1.8 (2.4)
Public consumption (y/y) (%)	1.2 (-0.2)	-2.5 (-3.9)
Gross fixed capital formation (y/y) (%)	-2.9 (-6.7)	-1.1 (-5.7)
Exports (y/y) (%)	-14.6 (-8.2)	-12.3 (-8.4)
Imports (y/y) (%)	-20.3 (-11.8)	-17.7 (-13.3)
Contribution of net exports (percentage points)	3.1 (1.9)	2.8 (2.5)

* Values from the June 2009 projection are given in brackets.

Indicators whose value is higher than in June projection are marked in green colour whereas indicators whose value is lower than in February projection are marked in red colour.

Labour market – starting point*

INTRODUCTION		09Q2	09Q3
PROJECTION	ULC (y/y) (%)†	1.8 (3.0)	1.4 (2.1)
• Assumptions	Non-agricultural ULC (y/y) (%) †	2.6 (2.7)	2.1 (1.7)
	Labour productivity (y/y) (%) †	2.4 (1.5)	3.0 (1.3)
• Starting point	Non-agricultural labour productivity (y/y) (%)†	1.6 (1.8)	2.2 (1.7)
• Projection 2009-11	Wages (y/y) (%)	4.6 (5.3)	4.2 (3.4)
	LFS employment (y/y) (%) †	-1.2 (-1.4)	-1.6 (-2.0)
CHANGES	Non-agricultural employment (y/y) (%) †	-0.4 (-1.6)	-0.8 (-2.4)
• With respect to the previous projection	LFS unemployment rate (%)	7.6 (9.3)	7.6 (10.5)
	Participation rate (%)	54.7 (54.9)	54.6 (55.1)
• Expert adjustments	Population (y/y) (%)†	-1.9 (-0.6)	-1.4 (0.4)

•Values from the June 2009 projection are given in brackets.

Indicators whose value is higher than in June projection are marked in green colour whereas indicators whose value is lower than in June projection are marked in red colour.

† Based on adjusted LFS data

Inflation – starting point*

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	09Q2	09Q3
CPI inflation (y/y) (%)	3.7 (3.3)	3.6 (3.1)
Core inflation (y/y) (%)	2.7 (2.8)	2.9 (2.8)
Food price inflation (y/y) (%)	5.2 (3.9)	4.2 (4.1)
Energy price inflation (y/y) (%)	5.4 (4.4)	5.2 (2.7)

* Values from the June 2009 projection are given in brackets.

Indicators whose value is higher than in June projection are marked in green colour whereas indicators whose value is lower than in June projection are marked in red colour.

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Projection for the years 2009-2011

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

Investments (higher)

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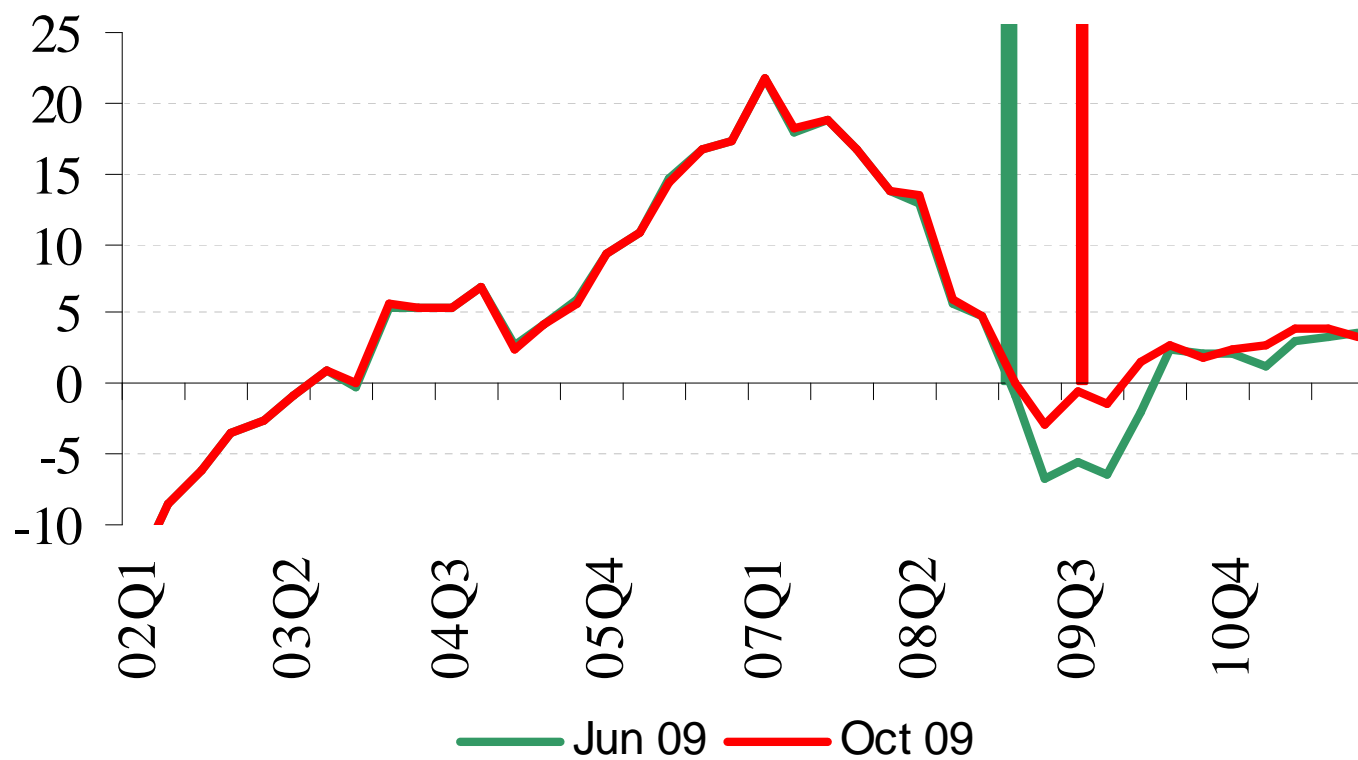
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Gross fixed capital formation (y-o-y) (%)



Gross fixed capital formation: decomposition

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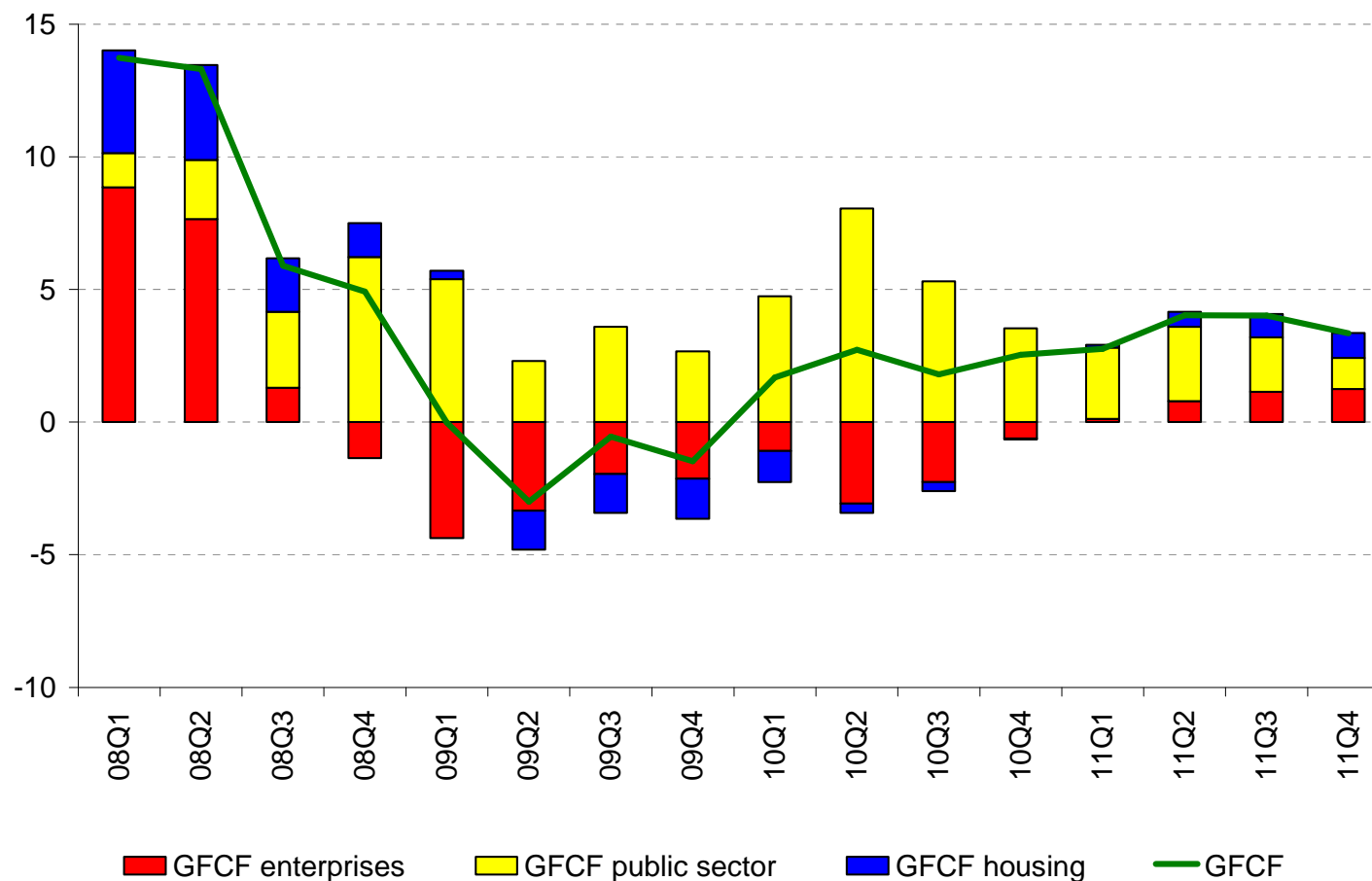
- Projection 2009-11

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Individual consumption (higher)

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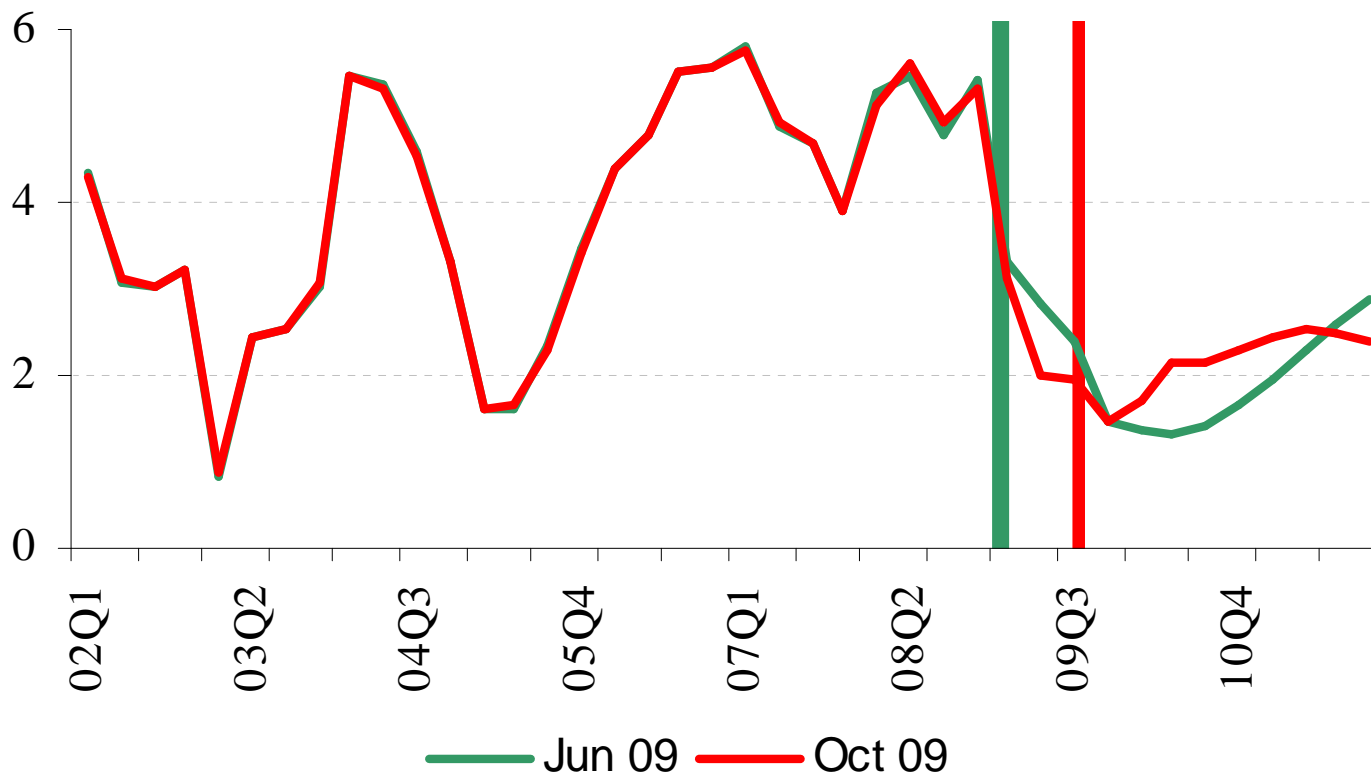
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Individual consumption (y-o-y) (%)



Contribution of net exports (lower)

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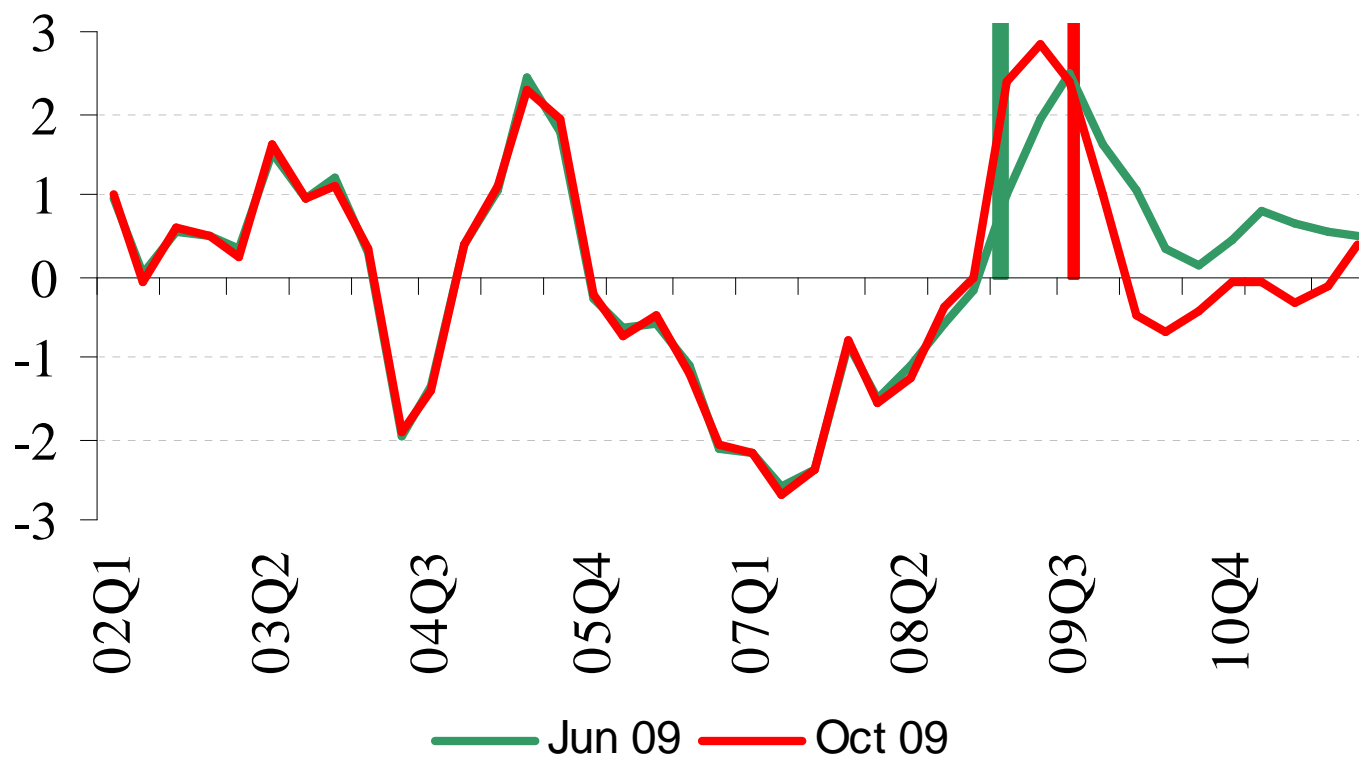
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Contribution of net exports (percentage points)



GDP

(higher till 2010 Q2)

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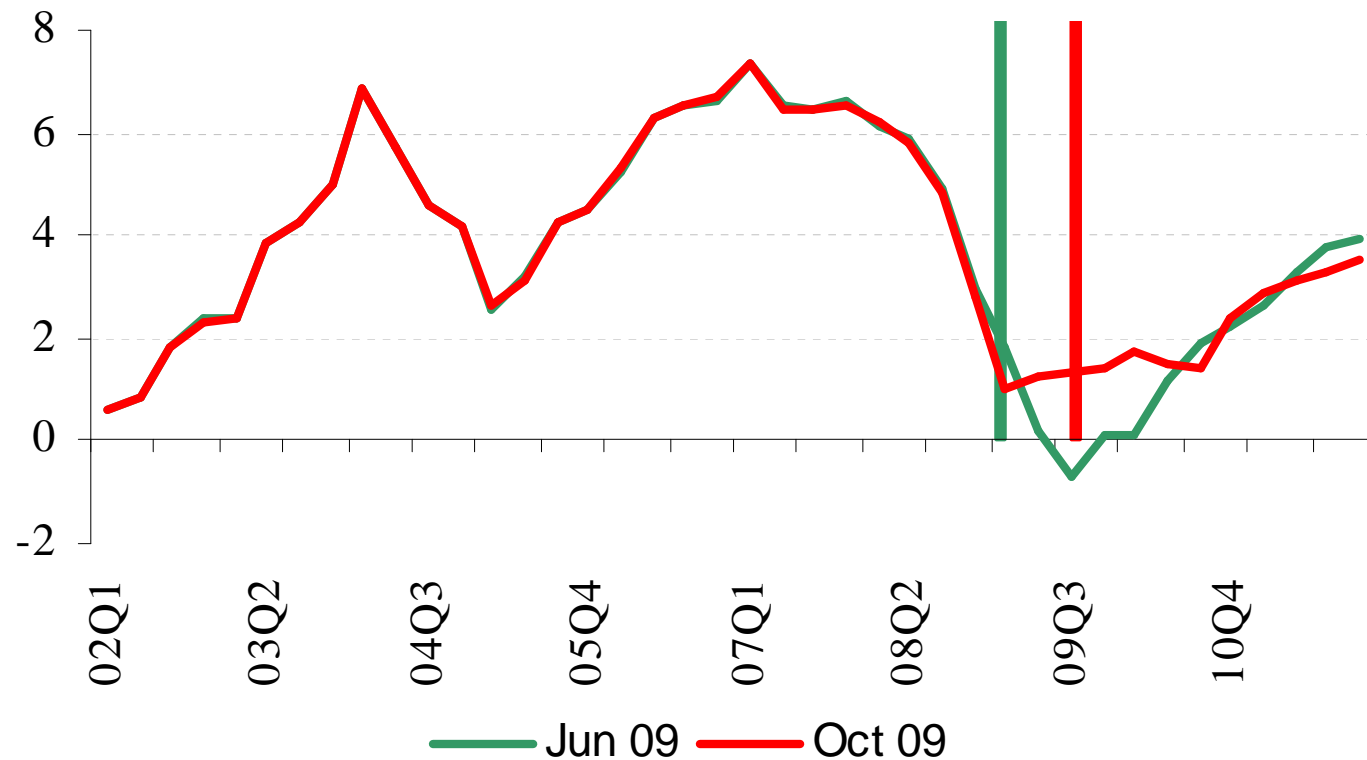
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GDP (y-o-y) (%)



Labour market

(comparable growth rate of employment, yet higher outside agriculture till 2010 Q2, lower unemployment rate, higher growth rate of wages till 2010 Q2)

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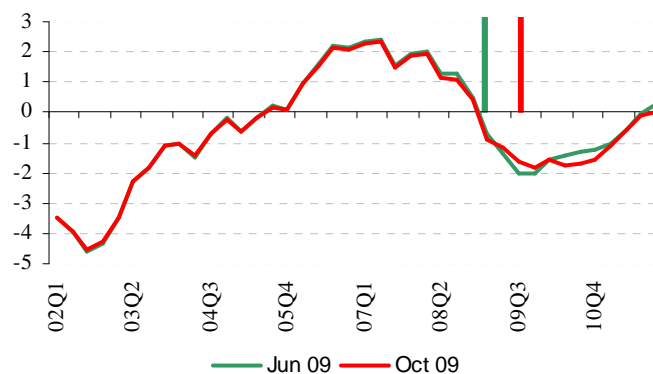
CHANGES

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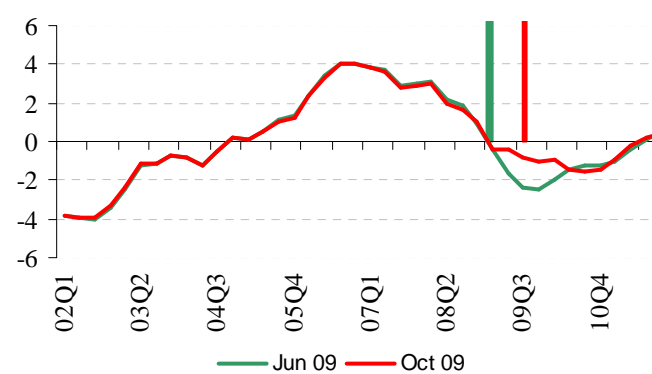
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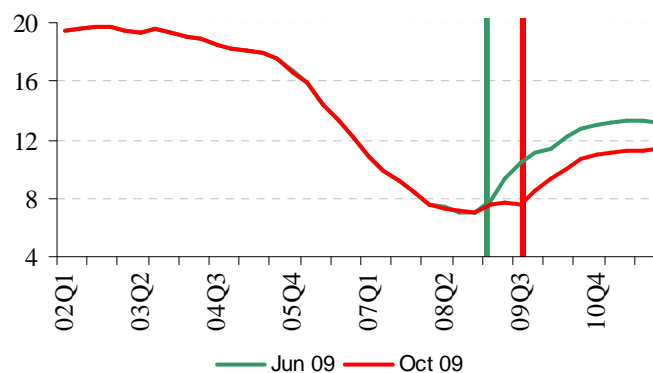
Total employment (y-o-y) (%)



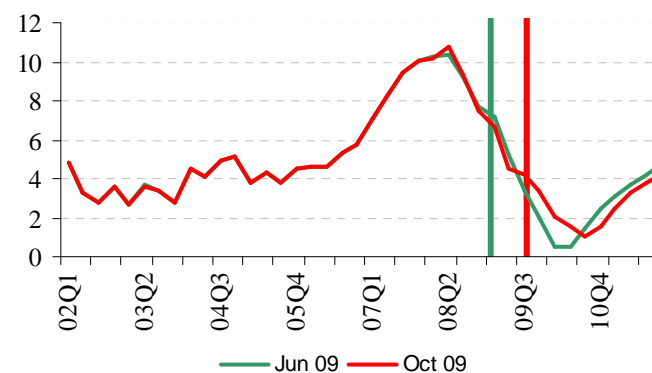
Non-agricultural employment (y-o-y) (%)



Unemployment (p.p.)



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



ULC

(lower, yet higher till 2010 Q2 outside private farming)

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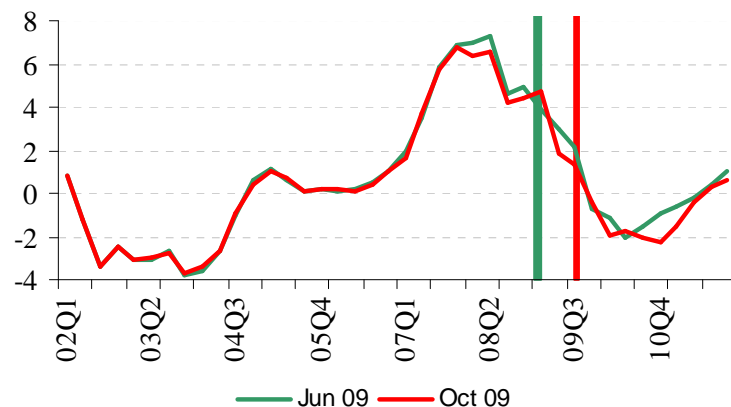
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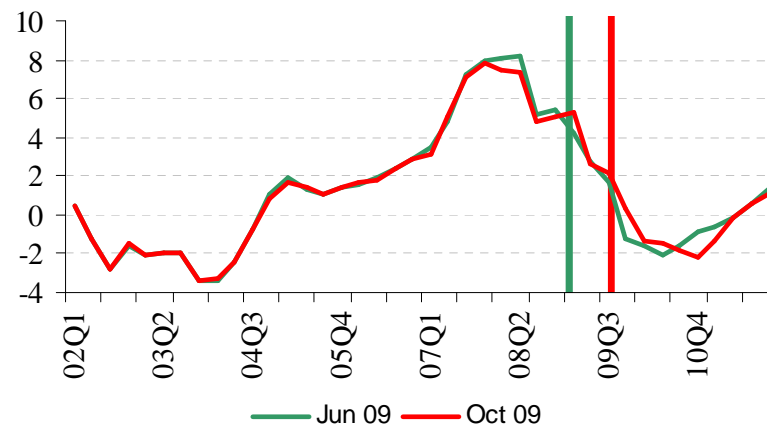
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ULC (y-o-y) (%)



ULC in non-agricultural sector (y-o-y) (%)



Exchange rate (stronger till 2010 Q4, then weaker)

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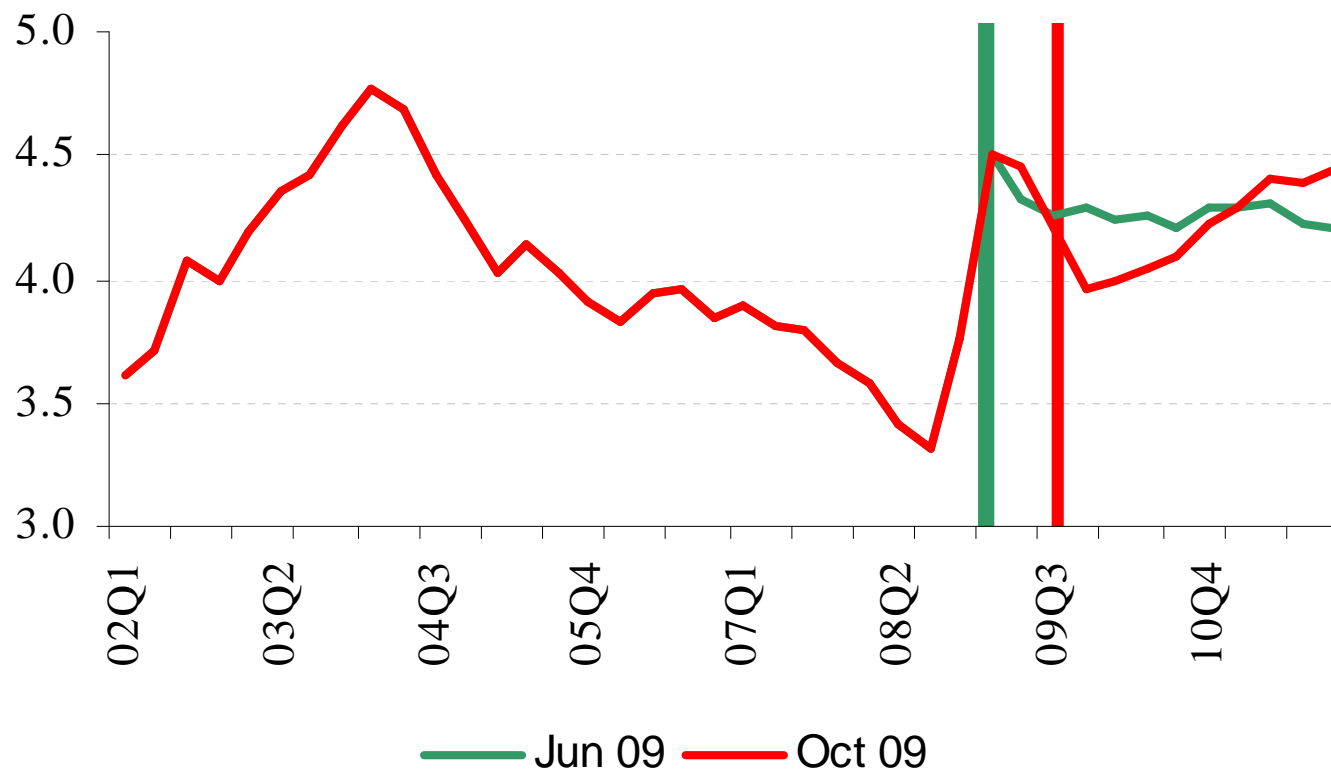
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Exchange rate EUR/PLN



Core inflation*

(slightly lower till 2010 Q2, higher from 2011 Q2)

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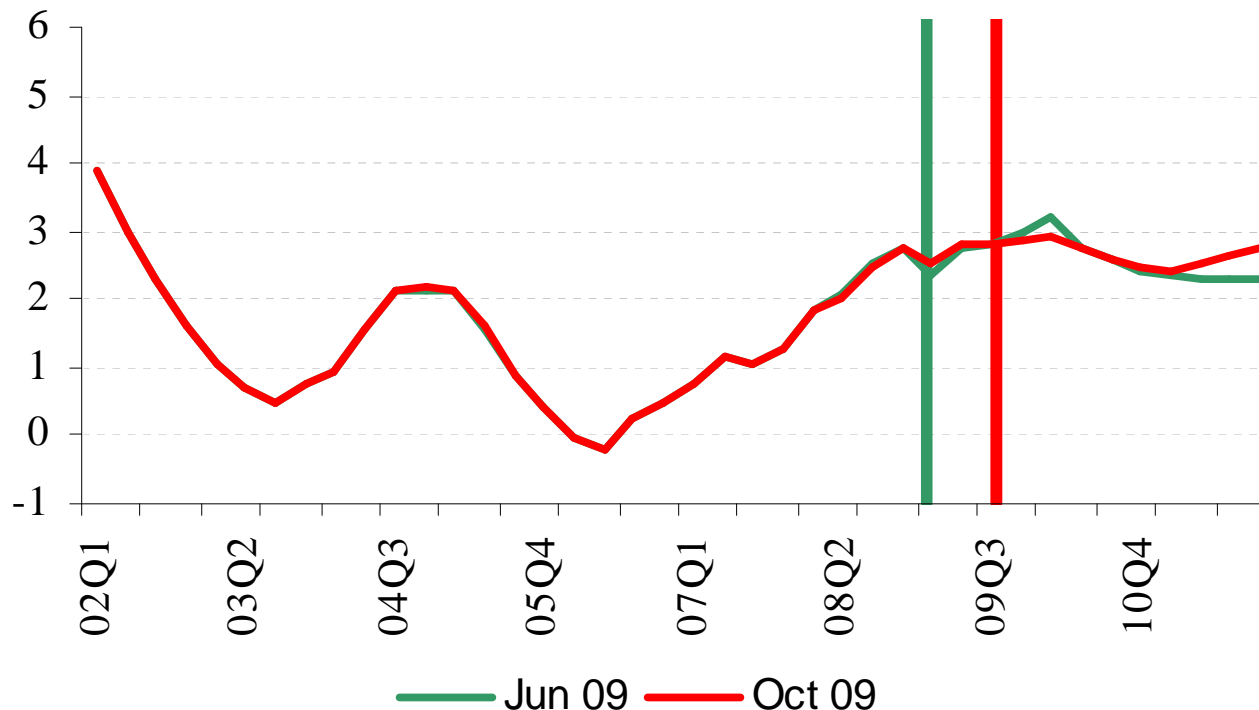
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Core inflation (%)



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

Determinants of core inflation

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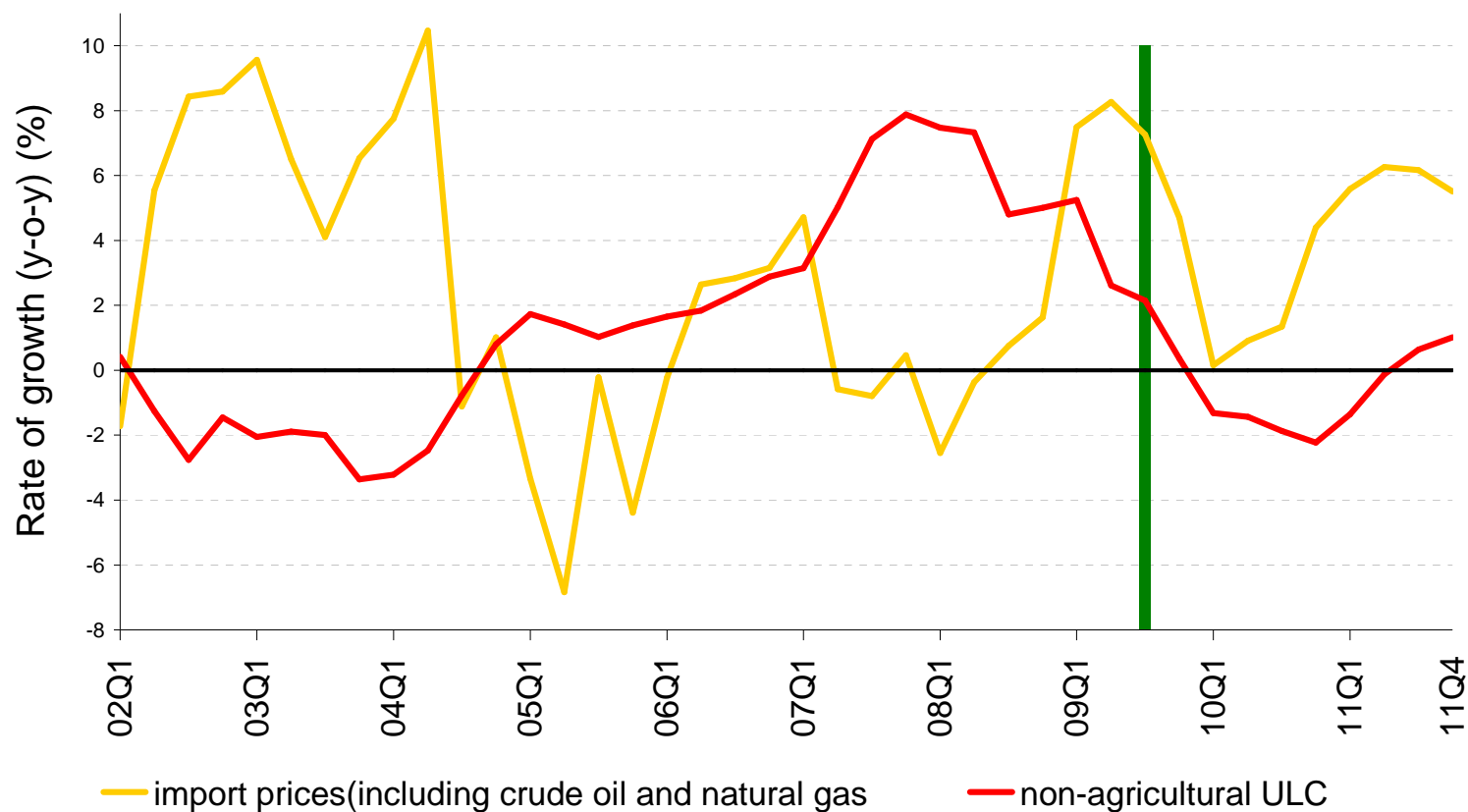
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Determinants of core inflation (y-o-y) (%)



CPI inflation (lower till 2011 Q1)

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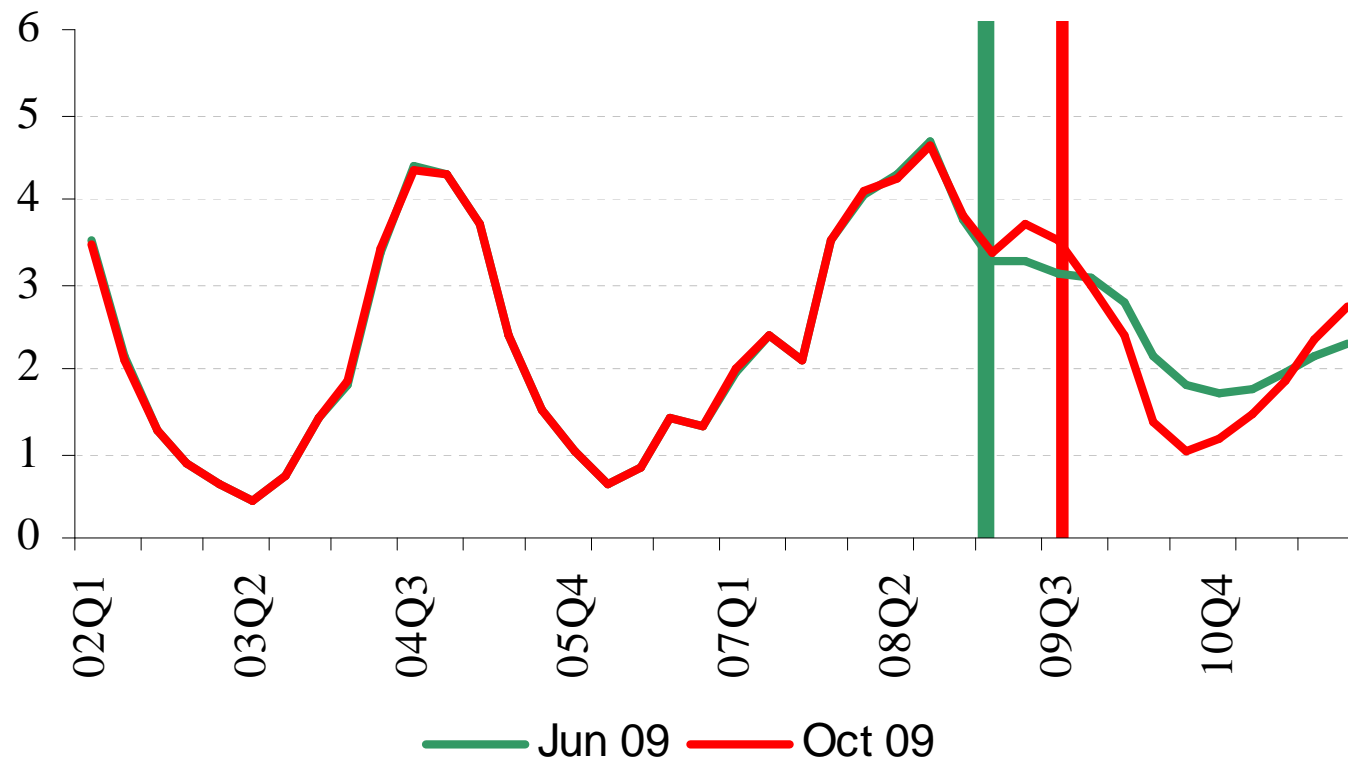
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CPI inflation (%)



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CHANGES IN THE PROJECTION

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October projection
in comparison with
the June projection

Change in the projection scenario

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- National Accounts in 2009 Q2 and Q3 : higher GDP, high net export contribution to growth in 2009 Q2 and lower import deflator growth **
- Starting point for the labour market and downward revision of *prime age* population forecast**
- Lower commodity prices expressed in EUR**
- Higher growth of energy prices at the starting point **
- Higher GDP growth abroad*

Scale of adjustments:

*** significant

** medium

* small

Decomposition of deviations between June and October projections

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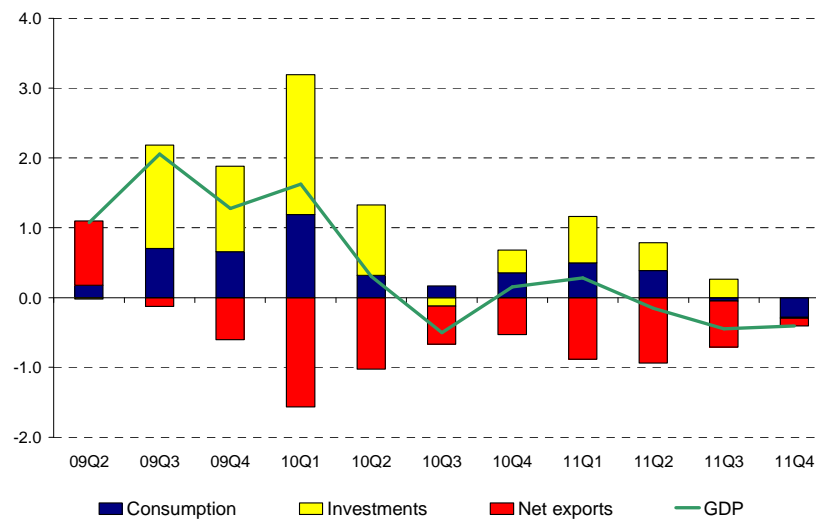
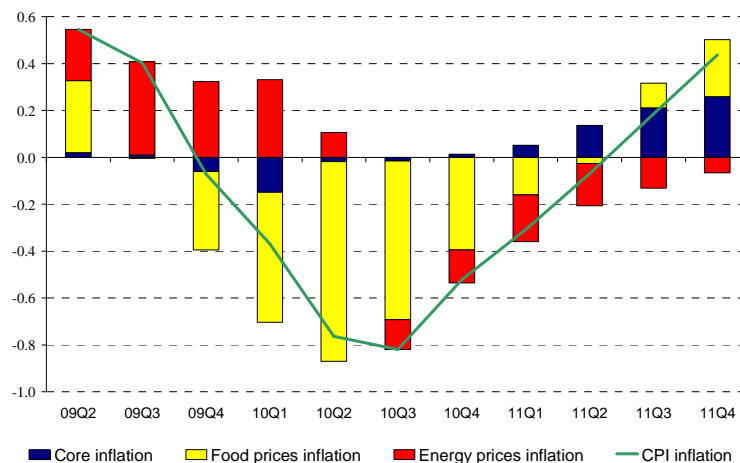
- Projection 2009-11

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Expert adjustments

Main areas of expert adjustments

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- Developments on the labour market
- Deterioration of credit conditions for the private sector, as compared with the previous years
- Situation on the housing market

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Joint impact of adjustments on inflation and GDP

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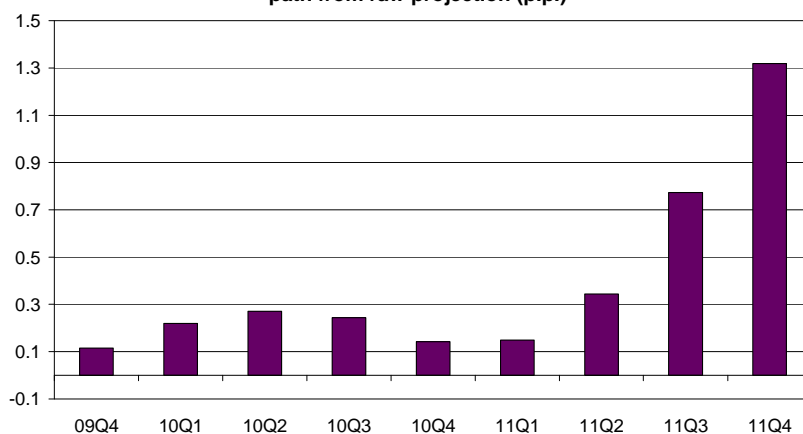
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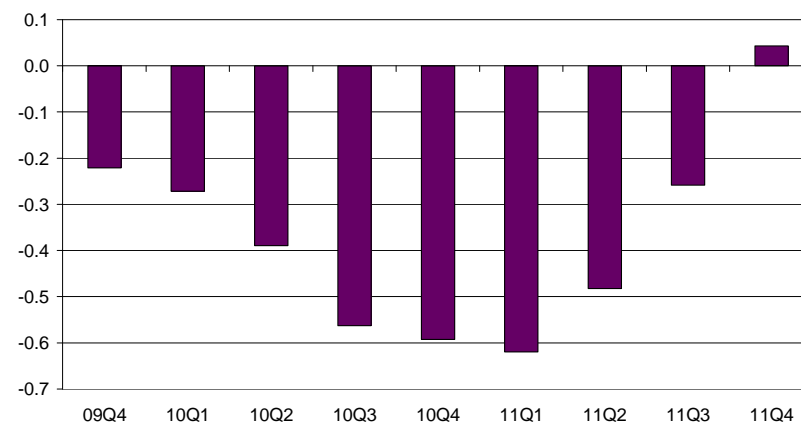
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Deviation of CPI inflation path from raw projection (p.p.)



Deviation of GDP growth path from raw projection (p.p.)



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UNCERTAINTY OF PROJECTION

Probability distribution of inflation

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Probability of inflation running:					
	below 1,5%	below 2,5%	below 3,5%	below the central path	in the range (1,5%; 3,5%)
2009 Q4	0.00	0.16	0.85	0.48	0.84
2010 Q1	0.13	0.53	0.92	0.48	0.79
2010 Q2	0.54	0.87	0.98	0.49	0.45
2010 Q3	0.66	0.90	0.99	0.51	0.33
2010 Q4	0.59	0.85	0.96	0.49	0.37
2011 Q1	0.51	0.77	0.92	0.50	0.41
2011 Q2	0.41	0.66	0.84	0.51	0.43
2011 Q3	0.31	0.55	0.75	0.51	0.44
2011 Q4	0.24	0.45	0.66	0.51	0.42

Risk factors part 1

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1. External environment

- Delay in significant recovery on the global economy and related slower revival of international trade (also in Poland).
- Developments of commodity prices and cross exchange rates (including, in particular, USD/EUR exchange rate).

2. Exchange rate path and competitiveness of the Polish economy

- Considerable uncertainty of the future zloty exchange rate connected, among other things, to real and nominal economic developments around the world and in Poland, and the pace of accumulation of the general government sector debt.
- Character of adjustments of the private sector in Poland to the economic slowdown may affect competitiveness of the Polish trade and inflow of foreign direct investment.

Risk factors part 2

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3. Fiscal policy

- Risk of lower than anticipated general government revenues (including revenues from privatisation) and increased costs of public debt financing tied to higher risk premium.
- Response of financial markets and adjustments of fiscal policy (on the revenue and expenditure side) in 2011 after exceeding prudential thresholds set for public debt.

4. Integration and institutional processes

- Risks to EU fund utilisation connected with deteriorating situation in the general government sector and tightening of banks' loan policy.
- Uncertainty about the impact on the economy of EU regulations, among other things, on carbon dioxide emissions and future direction of EU policies in terms of extra euro area trade, agricultural policy, environmental policy and tax policy (decisions concerning VAT preferential rates).
- Scope and pace of deregulation of the energy market in Poland.

5. Labour market developments

- Uncertainty about the actual labour market flexibility (including the effectiveness of implemented regulatory changes and government's temporary measures in the form of lay-offs) and future direction of regulatory and tax policies.

6. Discussion of data released after 21 September 2009

- Expectations of weaker dollar exchange rate against the euro and higher prices of energy commodities in the projection horizon.

Uncertainty factors – summary

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Having considered the above discussed uncertainty factors, it is assessed that the risk of inflation running above the central path prevails throughout the medium-term projection horizon.

As regards growth, extra-projection risk factors are balanced.