# **A Forecast Assumptions**

The forecast was made on the basis of data known as of **March 23, 2012**. No political decisions, newly released statistics, or world financial or commodity market developments could be taken into account after this date.

Data from the previous forecast of October 2011 are indicated by italics. Data in the tables relating to the years 2014 and 2015 are calculated by extrapolation, indicating only the direction of possible developments, and as such are not commented upon in the following text.

Sources of tables and graphs: Czech Statistical Office (CZSO), Czech National Bank (CNB), Ministry of Finance of the Czech Republic, Eurostat, IMF, OECD, European Central Bank (ECB), The Economist, our own calculations.

## A.1 External Environment

### **Economic output**

The prospects for the world economy have improved since publication of the January Macroeconomic Forecast. There are essentially two reasons: good news from the US economy and calming of the situation in the euro zone. The present slowdown in China continues to be a cause for concern, however, while the growth of other large emerging economies (Brazil, India) also slowed in 2011.

The output of the **US economy** increased by 1.7% in 2011, and QoQ GDP growth gradually accelerated over the course of the year (from 0.1% in Q1 up to 0.7% in Q4). Additionally the figures from the US economy also give cause for (cautious) optimism. Consumer confidence reached its highest level of the past year in February, while the Purchasing Managers Index also gained. The situation on the labour market is improving, as well. Although unemployment remained at 8.3% in February (versus 9% in October 2011), an unexpectedly large increase in jobs was recorded in the private sector. This development strengthens household demand, which is the traditional driving factor for US GDP.

Stock markets are also showing signs of optimism. The Dow-Jones index has settled above 13,000 points in recent weeks – a level it last reached in June 2008. The economy is also being helped along by low interest rates and government aid for mortgages. Considering the approaching presidential elections, moreover, we cannot exclude the possibility of additional provisions supporting the economy (although monetary stimulus, and in particular another round of quantitative easing, is not expected). This year, the federal deficit should decrease from ca 9% of GDP in 2011 to an estimated 7.8% of GDP.

**Euro zone GDP** rose by 1.4% in 2011, as the slight YoY growth of 0.1% in Q2 and Q3 was replaced in the last quarter by a 0.3% drop. The large injection of liquidity

provided to the banking system by ECB and the restructuring of the Greek debt helped to mitigate concerns over the debt crisis which had strongly worsened economic sentiment in the final quarter of 2011. However, growth in practically all euro zone countries is hindered by efforts to consolidate public finances.

The euro zone continues to be driven by Germany, which in 2011 surpassed its pre-crisis GDP level (unlike most euro zone countries, as well as the Czech Republic). The German economy grew by 3.0% in 2011, though it was unable to avoid a QoQ decrease by 0.2% in Q4. Growth in the rest of the euro zone was weak, however, and a similar situation should also prevail in 2012. According to our estimates, the French economy will remain at practically the same level. Spain and Italy expect a decline, while Portugal and Greece are deep in recession.

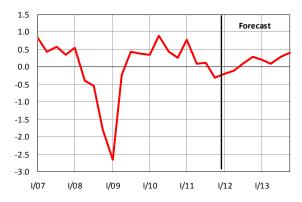
Unemployment offers a grim perspective on the economic situation in the euro zone. In January, it rose for the fifth month in a row, reaching 10.7%. The distribution is uneven: On one end of the scale is Spain (23.3%), followed by Greece (19.9%), Portugal and Ireland (14.8%), and Slovakia (13.3%). In Germany, on the other hand, unemployment has not exceeded 6% since the middle of last year. Youth unemployment in certain economies is alarming: In Spain, 49.9% of people under 25 are unemployed. That figure is 48.1% in Greece, 36% in Slovakia, and 35.1% in Portugal.

The **Polish economy** grew by a strong 4.3% overall in 2011, and by 1.1% QoQ in Q4. The unemployment rate remained unchanged in January at 10.1%. The economy is currently growing primarily due to investments (especially into infrastructure prior to the European Football Championship), though the growth in domestic consumption slowed somewhat in Q4. The impact of the government's ambitious fiscal consolidation programme has also become evident. For 2012, we expect growth to slow more markedly to 2.5%.

Considering that similar optimism prevalent in the same period last year proved unfounded, it seems appropriate for the time being to remain slightly cautious regarding the forecast.

The **Slovak economy** expanded by 0.9% QoQ in the last quarter of 2011 and by 3.3% for the entire year. Growth has of course been driven mainly by exports, especially of automobiles. Household consumption, on the other hand, has either stagnated or slightly decreased over the long term despite the dynamic economic growth. This is apparently caused by a high unemployment rate (the fifth highest in the euro zone). Growth in 2012 will likely depend strongly on the rate of slowing in Germany and on the new government's fiscal policy.

Graph A.1.1: **Growth of GDP in EA12**QoQ growth in % (adjusted for seasonal and working day effects)



We expect GDP in the EA12 to decline by 0.3% in 2012 (*versus stagnation*), and in 2013 the EA12 economic output could rise by 0.7% (*versus 0.8%*).

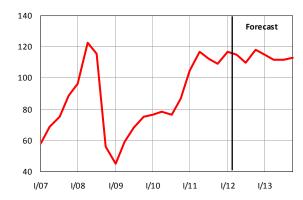
We have increased our 2012 growth estimate for the US economy by 0.2 p.p. to 2.2% (*versus 2.0%*), while we have also raised the forecast for 2013 by the same amount.

### **Commodity prices**

The price of Brent crude oil reached USD 111 per barrel in 2011, and in Q1 2012 it hovered around USD 117 (versus USD 113). Forecasting remains very difficult. Persisting doubts concerning production in a number of countries point to an increase: Not only is anxiety concerning the geopolitical unrest in the Middle East (Iran and Syria in particular) growing, but problems may arise also in Nigeria and potentially in Venezuela. The tension surrounding sanctions against Iran has driven the price of Brent crude up by an estimated USD 10–15/barrel so far.

In addition to fears of downturn in a number of economies (notably, China), arguments for a decrease also include the possible release of strategic reserves (USA). The price continues to be strongly influenced by a high degree of speculation, as in times of cheap money commodities seem to represent a possible profitable investment.

Graph A.1.2: **Dollar Prices of Brent Crude Oil** in USD per barrel



We have increased the forecast for 2012 to USD 115 per barrel (*versus USD 112*). We have also changed the forecast for 2013, although only minimally. The risks to the forecast are approximately balanced.

### Debt crisis in the euro zone

Since publication of the January Macroeconomic Forecast, the debt crisis in the euro zone has been characterised especially by restructuring of the Greek debt (as well as the "voluntary" private sector involvement, or "PSI").

The ECB's second<sup>2</sup> extraordinary refinancing operation (longer-term refinancing operation, LTRO) was also important. As part of this operation, which took place on 29 February, banks borrowed some EUR 530 billion from ECB for a period of approximately three years. Although the banks deposit a significant portion of the liquidity from both three-year LTROs overnight within the ECB deposit facility, these extraordinary operations have brought a measure of calm to financial markets. This is apparent not only on the interbank market, where the EURIBOR-OIS spread (an indicator of banks' willingness to lend to each other on the interbank market) has decreased by a significant ca 50 b.p. since the start of the year, but also on state bond markets. The more positive mood on state bond markets has also led, among other things, to a cessation (or at least suspension) of the interventions which the ECB had been conducting intermittently on secondary markets under the Securities Markets Programme (SMP) since May 2010. On the other hand, these operations may present a risk of moral hazard as it reduces pressure from financial markets (lower yields on state bonds) to consolidate public finances.

This critique came to light, for example, in relation to Spain's decision to re-evaluate its consolidation

<sup>&</sup>lt;sup>2</sup> Banks already had borrowed approximately EUR 489 billion from the ECB last December for a period of ca 36 months.

strategy for this year and the next. According to current estimates, Spain's general government deficit reached 8.5% of GDP in 2011, which was a markedly worse result (by ca 2.5 p.p.) compared to the plan. Achieving the original deficit target in 2012 (4.4% of GDP) would thus require severe austerity measures, which, considering the current macroeconomic situation and growth prospects, may not yield the desired result in any case (in this respect, the example of Greece serves as sufficient warning). Spain thus reduced the target for this year to 5.3% of GDP<sup>3</sup>, but for 2013 it continues to envisage a deficit not exceeding 3% of GDP.

At the same time, Spain is not the only country for which it is crucial that financial markets view the fiscal consolidation strategy as credible, and especially considering the additional cuts in ratings occurring since publication of the January Macroeconomic Forecast. On 27 January, Fitch decreased both Spain's and Italy's rating by two grades (from AA— to A with negative outlook and from A+ to A— with negative outlook, respectively). Portugal was downgraded one level in mid-February after a review by Moody's (from Ba2 to Ba3, negative outlook), while the same occurred for Italy (from A2 to A3, negative outlook). Moody's also reduced Spain's rating by two grades (from A1 to A3, negative outlook).

Let us return, however, to the restructuring of Greek debt. This was begun on 24 February with an official offer to exchange existing bonds and (essentially) concluded on 12 March with the actual exchange of the old bonds governed by Greek law. In total, the restructuring involved liabilities in a nominal value of ca EUR 206 billion, of which EUR 177.3 billion constituted state bonds subject to Greek law and the remaining EUR 28.3 billion of which constituted state bonds subject to law other than Greek and selected bonds guaranteed by the Greek government. For this category of bonds, the option to join the PSI was extended at first to 23 March, and subsequently to 4 April (as of 9 March bond holders representing a nominal value of EUR 19.5 billion had joined), and the exchange of these bonds should be settled by 11 April. In the case of bonds subject to Greek law, holders representing a nominal value of EUR 152 billion joined the PSI. For these bonds, the high percentage participation in PSI (over 85%) enabled the Greek government to apply the collective action clause (CAC),

thus obligating<sup>4</sup> the other holders of bonds subject to Greek law to participate in the exchange. Thus, in total, bond holders representing a nominal value of just under EUR 197 billion, which corresponds to 95.7% of the nominal value of bonds for which the exchange offer applied, have joined PSI (both voluntarily and due to CAC).

Holders of bonds subject to Greek law received 1-year and 2-year bonds issued by the European Financial Stability Facility (EFSF) bailout fund in a total nominal value of EUR 26.6 billion (EUR 13.3 billion for each maturity) and new Greek bonds payable in 2023–2042 in a nominal value of EUR 55.8 billion. The losses<sup>5</sup> of private creditors thus came to 53.5% of the nominal value of the "old" bonds. In net present value terms, the losses from PSI exceed 70% (the new Greek bonds have not only a longer maturity but also a relatively low, albeit gradually increasing, coupon).

The main rating agencies also responded to PSI. On 27 February, Standard & Poor's downgraded Greece's rating to SD (selective default). The agency later declared that after full completion of the restructuring (i.e. after 11 April; see above) it would probably raise Greece's rating to CCC. On 2 March, Moody's had reduced Greece's rating to C (the lowest rating grade, outlook not assigned), but it plans to re-evaluate the appropriateness of this decision soon. On 9 March, Fitch decreased Greece's rating to RD (restricted default). Four days later, however, following the exchange of old bonds in a nominal value of ca EUR 177 billion, it increased Greece's rating to B— with a stable outlook.

Successful completion of PSI cleared the way for Greece to receive a second bailout package from EA/IMF of up to EUR 130 billion. In addition, the remaining funds from the first bailout package (EUR 37 billion still to be drawn from the original EUR 110 billion) are expected to be drawn. According to a European Commission report, the EA's contribution in 2012–2014 should reach a total of EUR 144.7 billion (including resources from the first programme). The

This is a compromise variant resulting from discussions with other ministers of finance in the euro zone. Originally, Spain requested a target of 5.8% of GDP.

<sup>&</sup>lt;sup>4</sup> Application of CAC triggered the payment of CDS (credit default swap) contracts. The total amount of compensation to CDS holders (USD 2.5 billion), however, is not considered to be significant in volume terms and, moreover, it corresponded with market expectations. The impact on the CDS market was therefore minimal.

<sup>&</sup>lt;sup>5</sup> The interest accrued on the old bonds was also paid to private creditors. For holders of bonds subject to Greek law, this compensation amounted to EUR 4.6 billion. In order to further motivate creditors to join PSI, creditors also received bonds in a nominal value of EUR 55.8 billion the payment of which will be linked to GDP development (GDP-linked securities).

IMF should contribute EUR 19.8 billion to the bailout programme over the same period. In total, however, the IMF has approved EUR 28 billion in aid for Greece. Greece should draw the remaining EUR 8.2 billion during 2015 and in early 2016. Thus, according to current data, the second bailout programme for Greece totals more than EUR 170 billion. Part of this sum, however, will be used for financing PSI (including recapitalisation of Greek banks) and servicing the debt.

The euro system (ECB and central banks of the individual euro zone countries) should join, too, in the process of resolving Greece's problems. The euro zone also approved a retroactive decrease in the interest rate on loans to Greece by 1.5 p.p. These provisions, along with PSI and in combination with rigorous fiscal consolidation, realisation of an extensive privatisation programme and implementation of structural reforms, should reduce the general government debt to 120.5% of GDP in 2020. It must be said, however, that even in this case Greece's indebtedness would surpass the level considered safe for developed economies by 20–30% of GDP.

At the same time, achievement of this objective is very uncertain. The bailout programme is quite ambitious

concerning fiscal consolidation requirements (primary budget surpluses expected as from 2013) and structural reforms. Moreover, certain assumptions regarding future economic development are questionable at best. There is also a political risk for the programme's implementation stemming from the results of parliamentary elections to be held in mid-June at latest.

With a view to the debt crisis, the Czech Republic is not a high-risk country. Financial markets perceive the fiscal consolidation trajectory as credible, and this is reflected by the low yields on state bonds. The financial sector is stable, liquid and well capitalised. The modest calming of the situation in the euro zone which has occurred as a result of concluding the Greek debt restructuring and the positive impacts of ECB's extraordinary operations means lower risks for the Czech economy's future development in the very short term. However, further escalation of the problems in the euro zone cannot be entirely excluded (it is sometimes speculated, for example, that Portugal will become another Greece), and therefore neither can the possibility for transmission of possible external shocks to the Czech economy.

Table A.1.1: **Real Gross Domestic Product** – yearly growth in %, non-seasonally adjusted data

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
									Forecast	Forecast
USA	3.5	3.1	2.7	1.9	-0.3	-3.5	3.0	1.7	2.2	2.5
EU27	2.5	2.0	3.3	3.2	0.3	-4.3	2.0	1.5	-0.2	0.8
EA12	2.2	1.7	3.2	2.9	0.3	-4.2	1.9	1.4	-0.3	0.7
Germany	1.2	0.7	3.7	3.3	1.1	-5.1	3.7	3.0	0.3	1.1
France	2.5	1.8	2.5	2.3	-0.1	-2.7	1.5	1.7	0.1	0.8
United Kingdom	3.0	2.1	2.6	3.5	-1.1	-4.4	2.1	0.8	0.3	1.2
Austria	2.6	2.4	3.7	3.7	1.4	-3.8	2.3	3.1	0.4	1.3
Hungary	4.8	4.0	3.9	0.1	0.9	-6.8	1.3	1.7	-0.2	0.8
Poland	5.3	3.6	6.2	6.8	5.1	1.6	3.9	4.3	2.5	2.9
Slovakia	5.1	6.7	8.3	10.5	5.9	-4.9	4.2	3.3	1.5	2.8
Czech Republic	4.7	6.8	7.0	5.7	3.1	-4.7	2.7	1.7	0.2	1.3

Graph A.1.3: Real Gross Domestic Product

YoY growth in %, nsa data

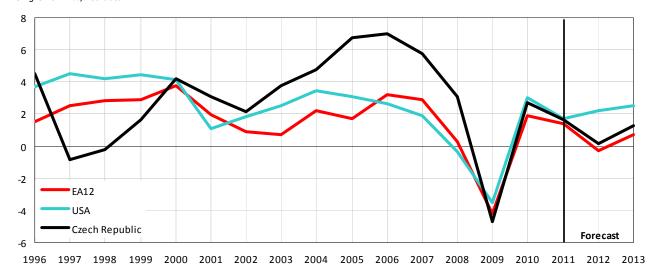


Table A.1.2: **Real Gross Domestic Product** – quarterly *growth in %, sa data* 

		20:	11			20:	12	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
					Estimate	Forecast	Forecast	Forecast
USA Qo	Q <b>0.1</b>	0.3	0.5	0.7	0.5	0.7	0.4	0.5
У	2.2	1.6	1.5	1.6	2.0	2.4	2.3	2.1
EU27 Qc	Q <b>0.7</b>	0.2	0.3	-0.3	-0.2	-0.1	0.1	0.3
Y	2.4	1.6	1.4	0.9	0.0	-0.3	-0.5	0.1
EA12	Q <b>0.8</b>	0.1	0.1	-0.3	-0.2	-0.1	0.1	0.3
Y	2.4	1.6	1.3	0.7	-0.3	-0.5	-0.5	0.1
Germany	a <b>1.3</b>	0.3	0.5	-0.2	-0.1	0.0	0.3	0.2
Y	4.6	2.9	2.7	2.0	0.5	0.2	0.0	0.4
France Qo	a <b>0.9</b>	-0.1	0.3	0.2	-0.1	-0.1	0.0	0.2
Y	2.2	1.6	1.5	1.4	0.3	0.3	0.0	0.0
United Kingdom Qd	Q <b>0.3</b>	0.0	0.5	-0.2	-0.1	0.1	0.2	0.2
У	1.6	0.5	0.4	0.7	0.2	0.3	0.0	0.4
Austria	<b>0.9</b>	0.5	0.2	-0.1	-0.1	0.1	0.2	0.3
У	4.4	4.1	2.7	1.5	0.5	0.1	0.1	0.5
Hungary Qo	Q <b>0.7</b>	0.1	0.4	0.3	-0.4	-0.2	-0.1	0.1
У	2.1	1.7	1.5	1.5	0.4	0.1	-0.4	-0.6
Poland Qd	a <b>1.0</b>	1.2	1.0	1.1	0.5	0.3	0.2	0.3
У	4.5	4.6	4.2	4.3	3.8	2.9	2.1	1.3
Slovakia	Q <b>0.8</b>	0.8	0.8	0.9	0.2	0.0	0.1	0.3
У	3.4	3.4	3.2	3.4	2.7	1.9	1.2	0.6
Czech Republic Qo	Q <b>0.5</b>	0.3	-0.1	-0.1	0.1	0.1	0.2	0.2
Y	2.7	2.1	1.3	0.6	0.2	-0.1	0.2	0.5

Graph A.1.4: **Real Gross Domestic Product** – Central European economies *YoY growth in %, nsa data* 

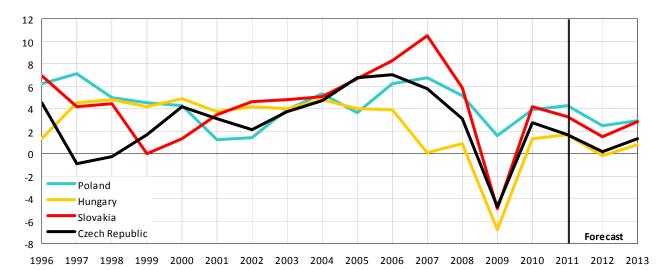


Table A.1.3: **Prices of Commodities** – yearly *spot prices* 

		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
										Forecast	Forecast
Crude oil Brent	USD/barrel	38.3	54.4	65.4	72.7	97.7	61.9	79.6	111.0	115	113
	growth in %	33.0	42.0	20.1	11.2	34.4	-36.7	28.7	39.3	3.7	-1.7
Crude oil Brent index (in CZK)	2005=100	75.5	100.0	113.3	113.3	127.9	90.5	116.7	150.6	169	166
	growth in %	21.1	32.4	13.3	-0.1	12.9	-29.3	29.0	29.0	12.5	-2.2
Wheat	USD/t	156.9	152.4	191.7	255.2	326.0	223.6	223.7	316.2		
	growth in %	7.3	-2.8	25.8	33.1	27.7	-31.4	0.1	41.4		
Wheat price index (in CZK)	2005=100	110.4	100.0	118.7	141.9	152.4	116.7	117.1	153.3		
	growth in %	-2.2	-9.4	18.7	19.6	7.3	-23.4	0.3	30.9		

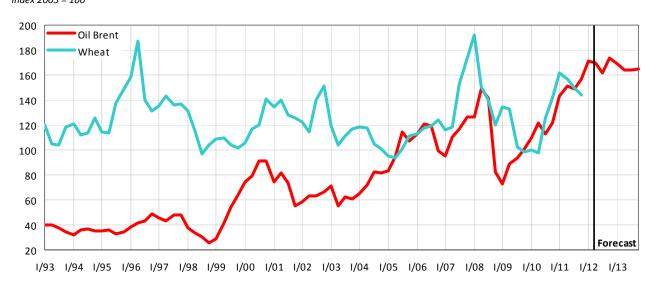
Table A.1.4: **Prices of Commodities** – quarterly *spot prices* 

			201	1			201	.2	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						Estimate	Forecast	Forecast	Forecast
Crude oil Brent	USD/barrel	104.9	117.1	112.5	109.3	117	115	110	118
	growth in %	36.8	48.9	47.3	25.9	11.5	-1.8	-2.2	8.0
Crude oil Brent index (in CZK)	2005=100	143.2	151.5	148.7	157.1	172	170	162	173
	growth in %	30.3	24.8	31.8	29.5	19.8	11.9	8.9	10.4
Wheat price	USD/t	330.5	339.0	315.6	279.7				
	growth in %	68.9	91.0	32.7	-1.4				
Wheat price index (in CZK)	2005=100	161.3	156.8	149.2	143.8				
	growth in %	60.9	60.1	18.7	1.4				

Graph A.1.5: **Dollar Prices of Oil** *USD/barrel* 



**Graph A.1.6: Koruna Indices of World Commodity Prices** *index 2005 = 100* 



# A.2 Fiscal Policy

According to preliminary estimates, the year 2011 resulted in a general government deficit of 117.9 billion, which represents 3.1% of GDP. It is a better result than the January estimate of 3.7% of GDP. However, this estimate was regarded as an (conservative) upper limit of the interval.

Tax revenues appeared as a significant risk in January. The difference was in fact larger than expected, amounting to nearly 0.5% of GDP (mostly indirect taxes).

On the contrary, number of factors on the expenditure side significantly outweighed the negative results of the revenue side of the balance. The most significant factor was the government investment, where the original assumption of stagnation compared to 2010 proved to be unfounded. Investments in the form of gross fixed capital formation fell by almost 0.7% of GDP and contributed decisively to positive developments in the past year. Primarily they consisted of investments that were financed from own resources (size of investment subsidies from the EU proved to be stable over time). Government sector entities cautiously perceive the current economic development and began to save on items that are non-mandatory, and which may be, to a large extent, decided on autonomously (investments from own resources).

Another important factor was the intermediate consumption, which reached lower level by 0.4% of GDP than originally expected. Such development was to a large extent anticipated by the Ministry of Finance in the process of preparation of the January forecast (mainly due to results of the first three quarters of 2011), however, due to persistent uncertainty (especially concerning tax revenues and possible problems with financing from European sources) a conservative estimate was used. As shown in preliminary data, the development of the intermediate consumption largely offsets the fall in tax receipts and the original conservative stance on the January estimate is thus proved to be fully justified.

Other items of revenues and expenditures were largely anticipated and prospective minor differences offset each other incidentally.

Compared to 2010 a significant improvement in the government sector balance occurred in the past year

amounting to more than 1.7 p.p. (from 4.8% to 3.1% of GDP). After cyclical adjustments and net of one-off measures, the fiscal effort amounts to 1.6 p.p. and reflects a range of austerity measures that were approved for 2011.

On the revenue side a significant increase in indirect taxes has occurred (almost 6%), owing to legislative changes, mainly due to higher collection of taxes on tobacco products, where the increase in tax rates in 2012 resulted in commodity stockpiling. The taxation of the photovoltaic power plants operators also brings positive effects with first revenues in 2011. The introduction of domestic reverse charge has had a positive effect on the collection of value added tax.

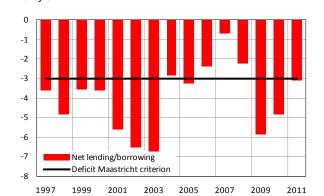
Direct taxes increased in 2011 by almost 7%, where e.g. the personal income tax has gone through a number of legislative changes (with the most significant impact of one-off reduction of the relief per taxpayer – the "antifloods 100 CZK"). While there have not been any fundamental legislative changes approved for the corporate income tax, it is still positively influenced by temporary acceleration of write-offs from 2009. It is assumed that 2012 shall be the last in which we will register positive effects of this acceleration. Finally, maintaining the rate and the caps for social security contributions at the level of 2010, had a beneficial effect on the revenue side.

The taxation of capital transfers in the form of assigned emission allowances and rising of toll rates by a quarter have had positive effects in the area of capital and other incomes.

Despite numerous changes in the tax area in the past year, the dominant part of the consolidation of public finances has been achieved on the expenditure side. It consisted mainly of the reduction of salaries of employees paid from public sources (excluding teachers and doctors), the reduction of selected social benefits and general non-mandatory expenditures savings, with emphasis on the current expenditure.

The forecast of the general government sector balance for the years 2012 to 2015 will be included in the updated Convergence Programme, which will be issued on 30th April 2012.

Graph A.2.1: **Net Lending/Borrowing** in % of GDP



Graph A.2.2: Government Debt

in % of GDP

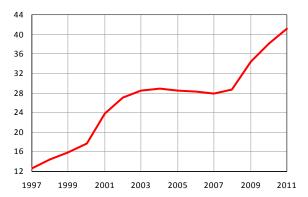


Table A.2.1: Net Lending/Borrowing and Debt

		2003	2004	2005	2006	2007	2008	2009	2010	2011
									Prelim.	Estimate
General government balance 1)	bill. CZK	-180	-83	-101	-80	-27	-86	-218	-182	-118
	% GDP	-6.7	-2.8	-3.2	-2.4	-0.7	-2.2	-5.8	-4.8	-3.1
Cyclical balance	% GDP	-0.6	-0.6	-0.1	0.6	1.2	1.0	-1.1	-0.6	-0.3
Cyclically adjusted balance	% GDP	-6.1	-2.2	-3.2	-3.0	-1.9	-3.3	-4.8	-4.2	-2.8
One-off measures	% GDP	-0.3	-0.7	-1.2	-0.2	-0.3	-0.1	0.3	0.0	-0.1
Structural balance	% GDP	-5.8	-1.6	-2.0	-2.8	-1.6	-3.2	-5.1	-4.3	-2.6
Fiscal effort 2)	percent. points	0.1	4.3	-0.4	-0.8	1.1	-1.5	-1.9	0.8	1.6
Interest expenditure	% GDP	1.0	1.1	1.1	1.1	1.1	1.0	1.3	1.4	1.4
Primary balance	% GDP	-5.7	-1.8	-2.2	-1.3	0.4	-1.2	-4.6	-3.5	-1.7
Cyclically adjusted primary balance	% GDP	-5.0	-1.2	-2.1	-1.9	-0.8	-2.2	-3.5	-2.9	-1.4
General government debt	bill. CZK	768	848	885	948	1 023	1 104	1 286	1 437	1 568
	% GDP	28.6	28.9	28.4	28.3	27.9	28.7	34.4	38.1	41.2
Change in debt-to-GDP ratio	percent. points	1.5	0.4	-0.5	-0.1	-0.3	0.8	5.7	3.7	3.1

Note: Government debt consists of the following financial instruments: currency and deposits, securities other than shares excluding financial derivatives and loans. Government debt means total gross debt at nominal value outstanding at the end of the year and consolidated between and within the sectors of general government. The nominal value is considered to be an equivalent to the face value of liabilities. It is therefore equal to the amount that the government will have to refund to creditors at maturity.

<sup>&</sup>lt;sup>1)</sup>Balance in EDP methodology, i.e. general government net lending (+)/borrowing (-) including interest derivates.

<sup>&</sup>lt;sup>2)</sup> Change in structural balance.

# A.3 Monetary Policy and Interest Rates

### Monetary policy

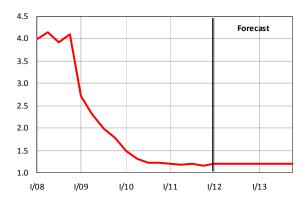
The CNB uses an **inflation-targeting** regime to achieve its main objective — ensuring price stability. Using monetary instruments, the CNB influences overall inflation so that YoY increase in the CPI does not deviate from the medium-term inflationary target of 2% by more than ±1 p.p. Its primary monetary policy instrument is the interest rate for **2W repo operations**, which was 0.75% in Q1 2012. This can be regarded as a very low rate. Considering the expected economic development, moreover, the 2W repo rate will probably not increase in the near future.

At the end of Q1 2012, the **interest-rate spread** was -0.25 p.p. between the Czech Republic and the EMU and 0.50–0.75 p.p. relative to the US. Interest rate spreads are thus reaching very low levels and do not constitute a fundamental cause for changes in the Czech koruna's exchange rates.

#### Interest rates

The average value for **3M PRIBOR** held at 1.2% in Q1 2012. We expect the same value also for the whole of 2012 (*versus 1.1%*) and 2013 (*versus 1.3%*).

Graph A.3.1: PRIBOR 3M in %



Long-term interest rates should remain at the same level in the coming period or increase only very slightly. The Czech Republic's ratings are currently at a good investment-grade level (AA— with S&P, Moody's A1 and Fitch A+) with stable outlooks. The favourable ratings should support the success of further government bond issues. Moreover, the risks ensuing from the debt crisis in the euro zone have decreased (see Chapter A.1). The credibility of Czech fiscal policy is reflected in the negative spread vis-à-vis average long-term rates in the euro zone. These spreads have been in negative values since mid-2010, and in Q3 2011 reached as deep as -0.80 p.p. (see Graph A.3.6).

In February 2012, CNB carried out another round of stress tests of the Czech banking sector. The stress tests have proven banks' sufficient resilience to external shocks, supported especially by high capital adequacy (15.2% at the end of 2011 versus the regulatory minimum of 8%). On the interbank market, the volume of deposit operations based on a selective measurement in January 2012 decreased rather significantly versus the preceding quarter. This was caused especially by a decline in operations with non-residents with maturity of up to one week. The volume of derivative operations remained at an approximately unchanged level.

We expect the **yield to maturity of 10-year government bonds** to average 3.4% (*unchanged*) in 2012 and 3.5% (*versus 3.6%*) in 2013.

Interest rates for loans to non-financial corporations remained level at 3.9% in Q4 2011. For Q1 2012, we expect them to rise to 4.0%. These rates should remain at that same level on average for the whole of 2012 (*versus 4.1%*), while we expect them to increase slightly to 4.2% in 2013 (*versus 4.4%*). Rates for households' deposits hovered around 1.2% in Q4 2011. They should stay at this level not only this year (*versus 1.1%*), but also in 2013 (*versus 1.3%*).

The development of real interest rates is crucial from the perspective of the real economy. The assumptions for nominal interest rates and the gross domestic expenditure deflator imply a decrease in real interest rates for loans to non-financial corporations to 1.8% (*versus 1.6%*) for 2012 and an increase to 2.4% (*versus 3.0%*) for 2013.

Graph A.3.2: **Average Real Rates on Loans** rates on loans deflated by end-of-year final domestic use deflator, in % p.a.

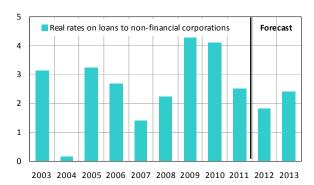


Table A.3.1: Interest Rates – yearly

average interest rates in per cent p.a.

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
								Forecast	Forecast	Forecast
Repo 2W CNB (end of year)	2.50	2.00	2.50	3.50	2.25	1.00	0.75	0.75		
Main refinancing rate ECB (end of year)	2.00	2.25	3.50	4.00	2.50	1.00	1.00	1.00		
Federal funds rate (end of year)	2.25	4.25	5.25	4.25	0.25	0.25	0.25	0.25		
PRIBOR 3M	2.36	2.01	2.30	3.09	4.04	2.19	1.31	1.19	1.2	1.2
Government bond yield to maturity (10Y)	4.75	3.51	3.78	4.28	4.55	4.67	3.71	3.71	3.4	3.5
Interest rates on loans to non-financial corpor.	4.51	4.27	4.29	4.85	5.59	4.58	4.10	3.93	4.0	4.2
Interest rates on deposits from households	1.33	1.24	1.22	1.29	1.54	1.37	1.25	1.20	1.2	1.2
Real rates on loans to non-financial corporations 1)	0.17	3.24	2.68	1.42	2.25	4.27	4.09	2.5	1.8	2.4
Net real rates on deposits										
from households with agreed maturity 2)	-1.64	-1.13	-0.63	-4.11	-2.26	0.17	-1.21	-1.4	-1.3	-0.7

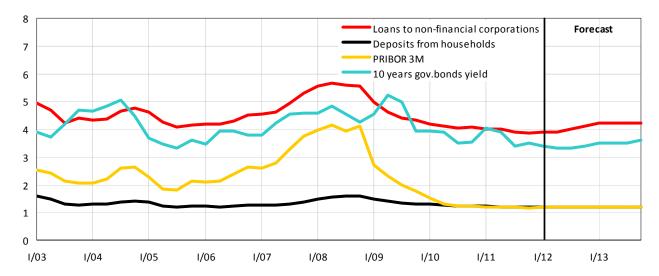
Deflated by gross domestic expenditure deflator.

Net of 15 % income tax, deflated by CPI.

Table A.3.2: Interest Rates – quarterly average interest rates in per cent p.a.

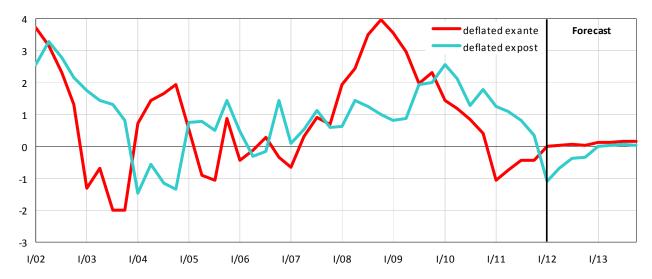
		201	1			201	12	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
					Forecast	Forecast	Forecast	Forecast
Repo 2W rate CNB (end of period)	0.75	0.75	0.75	0.75				
Main refinancing rate ECB (end of period)	1.00	1.25	1.50	1.00		•		
Federal funds rate (end of period)	0.25	0.25	0.25	0.25		•		
PRIBOR 3M	1.20	1.21	1.18	1.16	1.2	1.2	1.2	1.2
-10-year government bonds yield to mat.	4.03	3.90	3.40	3.50	3.4	3.3	3.3	3.4
Interest rates on loans to non-fin. corporations	4.00	3.99	3.88	3.87	3.9	3.9	4.0	4.1
Interest rates on deposits from households	1.21	1.20	1.20	1.20	1.1	1.1	1.1	1.1

Graph A.3.3: Interest Rates in % p.a.



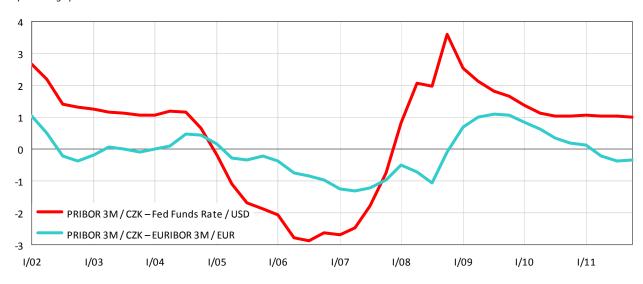
Graph A.3.4: Real PRIBOR 1Y

deflated ex post and ex ante by gross domestic expenditure deflator, in % p.a.



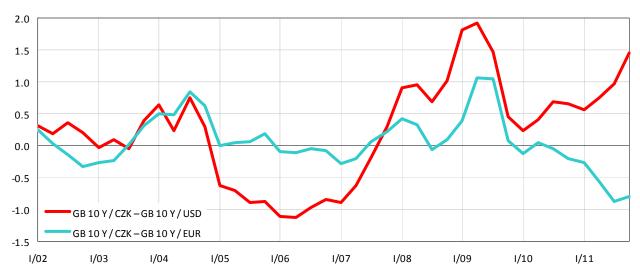
 $\label{eq:Graph-A.3.5} \textbf{Graph A.3.5: \textbf{Short-Term Interest Rate Spread}}$ 

in percentage points



Graph A.3.6: Long-Term Interest Rate Spread

government bonds, in percentage points



# A.4 Exchange Rates

The Czech koruna gradually strengthened through the first three quarters of 2011, with no major fluctuations, to an average of 24.56 CZK/EUR in September. In early Q4, as anxiety on financial markets increased due to escalation of the debt crisis in the euro zone, investors turned away from the Central European region and the currencies of these countries depreciated quite dramatically. The koruna, for example, weakened to an average of 25.51 CZK/EUR in December. The situation had already calmed down by the start of 2012, and the koruna began to strengthen once again, returning to below the 25 CZK/EUR mark in March.

Considering the negative interest differential versus EMU, the enduring uncertainty and the weakening in Q4 2011, the nominal and real exchange rates should be below the long-term trend for the entire forecast horizon. The average rate should reach 25.0 CZK/EUR

in 2012, while moderate appreciation of ca 0.6% per year should resume thereafter. Should the situation in the euro zone's problem countries worsen, exchange rate volatility would likely increase.

Graph A.4.1: Exchange Rate CZK/EUR quarterly averages

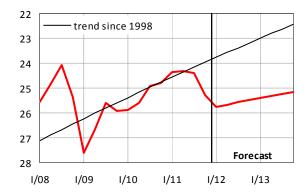


Table A.4.1: Exchange Rates - yearly

		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
								Forecast	Forecast	Outlook	Outlook
Nominal exchange rates:											
CZK / EUR	average	28.34	27.76	24.96	26.45	25.29	24.59	25.0	24.9	24.7	24.6
	appreciation in %	5.1	2.1	11.3	-5.6	4.6	2.8	-1.7	0.6	0.6	0.6
CZK / USD	average	22.59	20.31	17.06	19.06	19.11	17.69	19.2	19.1	19.0	18.9
	appreciation in %	6.0	11.3	19.0	-10.5	-0.3	8.0	-7.9	0.4	0.6	0.6
NEER	average of 2010=100	88.2	90.6	101.2	98.0	100.0	103.1	101	102	103	103
	appreciation in %	4.8	2.7	11.7	-3.2	2.1	3.1	-1.7	0.6	0.6	0.6
Real exchange rate to EA121)	average of 2005=100	103.7	107.0	119.0	113.5	115.8	116.5	115	115	115	116
	appreciation in %	3.7	3.1	11.2	-4.6	2.1	0.6	-1.3	0.2	0.0	0.1
REER	average of 2005=100	105.1	108.1	124.5	119.5	121.8					
(Eurostat, CPI deflated, 36 countries)	appreciation in %	5.1	2.9	15.2	-4.0	1.9					

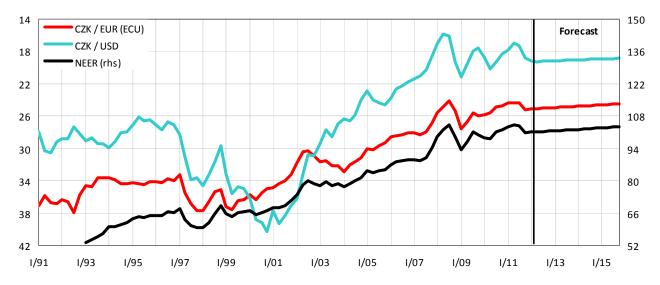
<sup>1)</sup> Deflated by GDP deflators.

Table A.4.2: Exchange Rates – quarterly

			201	1			201	.2	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
						Estimate	Forecast	Forecast	Forecast
Nominal exchange rates:									
CZK / EUR	average	24.37	24.32	24.39	25.28	25.1	25.0	25.0	25.0
	appreciation in %	6.1	5.2	2.2	-1.9	-2.8	-2.9	-2.5	1.3
CZK / USD	average	17.83	16.90	17.27	18.78	19.1	19.3	19.2	19.2
	appreciation in %	5.0	19.3	11.7	-2.8	-6.9	-12.3	-10.2	-2.2
NEER	average of 2010=100	103.4	104.3	104.0	100.6	101	101	101	101
	appreciation in %	4.9	6.0	2.9	-1.6	-2.3	-3.0	-2.5	0.9
Real exchange rate to EA12	average of 2005=100	116.5	117.6	117.5	114.5	114	115	115	116
	appreciation in %	2.9	2.2	0.0	-2.6	-2.3	-2.2	-2.1	1.5
REER	average of 2005=100	125.5	125.8	125.9					
(Eurostat, CPI deflated, 36 countries)	appreciation in %	4.3	4.6	2.2					

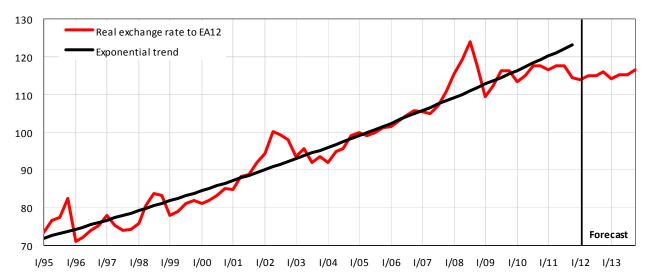
Graph A.4.2: Nominal Exchange Rates

quarterly average, average 2005 = 100 (rhs)



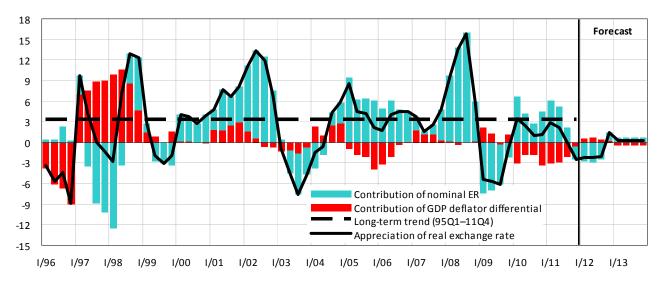
Graph A.4.3: Real Exchange Rate to EA12

quarterly average, deflated by GDP deflators, average 2005 = 100



Graph A.4.4: Real Exchange Rate to EA12

deflated by GDP deflators, YoY growth, in percentage points



## A.5 Structural Policies

#### **Business environment**

In order to simplify doing business, strengthen motivation to manage companies well, and improve the situation of creditors, the act on business corporations and co-operatives was adopted and signed by the President of the Czech Republic on 20 February 2012. This legislation governs the establishment, dissolution and management companies and introduces a number of fundamental changes. Members of the statutory bodies of companies in bankruptcy will be liable with their property for honouring all the company's obligations, if a court so declares. Moreover, a company may not pay out any funds if by so doing it would put itself into bankruptcy and endanger its creditors. Joint-stock companies will be able to choose between two management models (supervisory board and board of directors, or statutory director and managing board) and also will be able to issue multiple types of shares. For limited liability companies, associates will be able to own multiple business shares and a company will be able to issue multiple types of shares (e.g. priority and voting shares). The act also decreases the amount of the basic capital required for incorporation of a limited liability company from CZK 200,000 to CZK 1. The act will take effect as from 1 January 2014.

The objective of an **amendment to the act on public tenders**, which takes effect on 1 April 2012, is to increase transparency in public procurement processes. Toward this end, the amendment decreases the limit for public tenders regarded as small to

CZK 1 million, eliminates the possibility to choose contenders in public tenders by lottery and introduces the obligation to cancel a procurement process if in the last round only one offer remains to be considered. It replaces the supplier's economic and qualification conditions with a statutory declaration as to its economic and financial capability to fulfil the tender and also introduces the institution of major public tenders (at the state level above CZK 300 million, at local government level above CZK 50 million), for which it tightens up the requirements for both the procurer and the evaluator. The procurers will be obliged to publish the procurement documentation, contract and final price of the tender, and a winning company will have to publish a list of sub-suppliers to which it paid more than 10% of the total price of the procurement or more than 5% in the case of a major public tender.

On 21 March 2012, the Chamber of Deputies approved an **amendment to the act on investment incentives**, with the aim to motivate corporate investments directed to sophisticated technologies and services. While the basic parameters of incentives remain unchanged, the amendment introduces the possibility to draw incentives also for companies operating in research and development as well as strategic and telecommunications services. Moreover, the period for receiving income tax incentives will be extended from 5 years to 10.

An **amendment to the trade licensing act** approved by the Chamber of Deputies on 21 March 2012 reduces the administrative burden on entrepreneurs. The amendment extends the range of services offered by central registration offices, simplifies the administrative process of moving, and abolishes the obligation to designate a place of business with a special number.

The purpose of an amendment to the **insolvency act** approved by the government on 25 January 2012 is to prevent abuses of the insolvency law. According to the new legal regulation, a court will be able to reject a creditor's motion for insolvency if it is clearly unfounded and to establish a money penalty for such insolvency motion.

An amendment to the act on the protection of competition approved by the government on 15 February 2012 should more readily expose cartel agreements. According to the new legislation, participants in cartels who cease such operations of their own accord and report the other participants to the Office for the Protection of Competition will have half or the entire penalty remitted. Last but not least, companies caught in a cartel agreement will be barred from participating in public tenders.

#### **Financial markets**

An amendment to the financial market supervision act came into effect on 31 January 2012. It transposes into Czech law the European directive aiming to

# A.6 Demographic Trends

As of the end of 2011, the Czech Republic had 10.504 million inhabitants. This is the first published figure following from the **census** in 2011. The natural population growth was 2 thousand (8 thousand less versus 2010) and the positive migration balance reached 17 thousand (1 thousand more). An unexpected drop in the birth rate from 117 to 109 thousand is staggering. After three years of stagnation just below 1.5, the total fertility rate thus fell rather sharply to 1.42.

The undercount, i.e. the difference between the balance of population changes based on the previous census and the results of the 2011 census, is 47 thousand. (For comparison: in 2001 it was 35 thousand and in 1991 60 thousand.) In most cases this is probably due to unregistered emigration.

Regarding age structure, the Czech population reached The age structure of the population compatible with the results of the census will be available sometime contribute to preventing the occurrence and mitigating the course of financial crises. The amendment regulates CNB's co-operation with European supervisory authorities, consisting especially in its duty to inform and possibilities for consultation and collaboration.

### Education, science and research

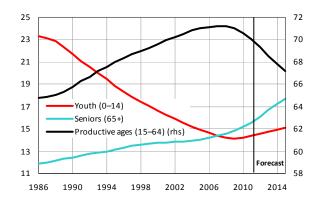
On 8 February 2012, the Chamber of Deputies approved an amendment to the act on pedagogical personnel. The amendment increases permeability between qualifications for individual types and levels of schools, provides additional regulation of direct educational activities, and addresses the issue of unqualified educators. The amendment should take effect on 1 September 2012.

#### Health care

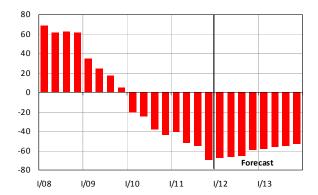
The act on medical services, act on emergency medical services, and act on specific medical services, collectively referred to as the **second phase of the health care reform**, came into effect on 1 April 2012. These acts govern the rights and obligations of medical personnel and patients, stipulate conditions for providing emergency medical service, and establish procedures for performing medical procedures which in the majority of cases are irreversible.

this quarter. Based on the aforementioned undercount, we can anticipate further decrease in the structural proportion of inhabitants in the age group of 15–64 years. Nevertheless, the Czech population has still an economically favourable age structure, and especially in comparison to Western European countries.

Graph A.6.1: **Groups by Age** structure in per cent



Graph A.6.2: Czech Population from 15 to 64 Years YoY increases of quarterly averages, in thousands

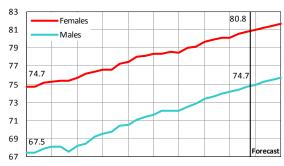


The decline in the working-age population is, however, partially compensated by effects within the age structure of the labour force, as proportions of age groups with high or growing participation are increasing. The extension of the retirement age has the same effect. Immigration could be another positive factor, but its extent in the last two years was below the middle variant of CZSO's demographic projection.

The continuing **ageing of the population** has been confirmed. The structural proportion of persons over

64 years of age in the total population, which reached 14% in early 2005, should exceed 16% in 2012 and increase to nearly 20% by 2020. The number and proportion of seniors in the population is rising due to the demographic structure and further continuation of the intensive process of increasing life expectancy. Despite extension of the legal retirement age, the negative impact on the pension account of the state budget is exacerbated by high increase in early retirements (see Graph A.6.5).

Graph A.6.3: **Life Expectancy** *in years* 



1985 1988 1991 1994 1997 2000 2003 2006 2009 2012 2015

Table A.6.1: Demography

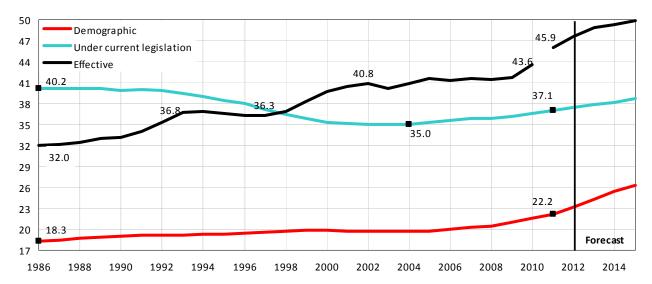
in thousands of persons

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
							Forecast	Forecast	Outlook	Outlook
Population (January 1)	10 251	10 287	10 381	10 468	10 507	10 533	10 504	10 537	10 569	10 600
growth in %	0.3	0.4	0.9	0.8	0.4	0.2	-0.3	0.3	0.3	0.3
Age structure (January 1):										
(0–14)	1 501	1 480	1 477	1 480	1 494	1518	1 533	1 557	1 581	1 604
growth in %	-1.7	-1.5	-0.2	0.2	1.0	1.6	0.9	1.6	1.5	1.5
(15–64)	7 293	7 325	7 391	7 431	7 414	7 379	7 281	7 222	7 168	7 120
growth in %	0.5	0.4	0.9	0.5	-0.2	-0.5	-1.3	-0.8	-0.7	-0.7
(65 and more)	1 456	1 482	1513	1 556	1 599	1 636	1 690	1 758	1 820	1876
growth in %	1.5	1.8	2.1	2.9	2.7	2.3	3.3	4.0	3.5	3.1
Old-age pensioners (January 1) <sup>1)</sup>	1 985	2 024	2 061	2 102	2 147	2260	2 340	2 394	2 426	2 457
growth in %	1.0	2.0	1.8	2.0	2.1		3.5	2.3	1.3	1.3
Old-age dependency ratios (January 1, in %):										
Demographic <sup>2)</sup>	20.0	20.2	20.5	20.9	21.6	22.2	23.2	24.3	25.4	26.3
Under current legislation 3)	35.6	35.8	35.9	36.1	36.6	37.1	37.4	37.8	38.2	38.7
Effective 4)	41.3	41.6	41.5	41.8	43.6	45.9	47.6	48.9	49.4	49.8
Fertility rate	1.328	1.438	1.497	1.492	1.493	1.42	1.52	1.53	1.54	1.55
Population increase	36	94	86	39	26	-29	33	32	31	29
Natural increase	1	10	15	11	10	2	8	7	6	4
Live births	106	115	120	118	117	109	114	113	112	110
Deaths	104	105	105	107	107	107	106	106	106	106
Net migration	35	84	72	28	16	17	25	25	25	25
Immigration	68	104	78	40	31	23				
Emigration	33	21	6	12	15	6		•		
Census difference	х	х	х	х	х	-47	х	х	х	х

<sup>1)</sup> In 2010 disability pensions of pensioners over 64 were transferred into old-age pensions.
2) Demographic dependency: ratio of people in senior ages (65 and more) to people in productive age (15–64).
3) Dependency under current legislation: ratio of people above the official retirement age to the people over 19 below the official retirement age.
4) Effective dependency: ratio of old-age pensioners to working people.

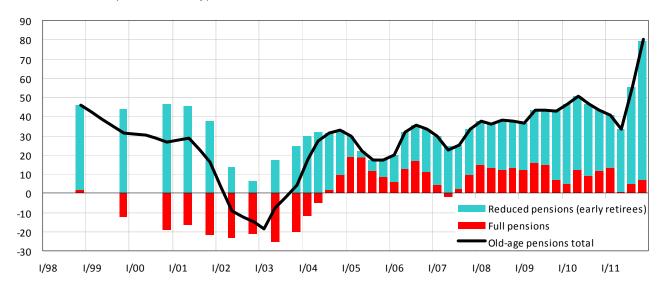
## Graph A.6.4: Dependency Ratios

As of January 1, in %, inconsistent between 2010 and 2011 due to transfer of disability pensions to old-age pensions for people over 64 years



Graph A.6.5: Old-Age Pensioners

absolute increase over a year in thousands of persons



Note: Transfer of disability pensions to old-age pensions for people over 64 years in 2010 is not included.