# **A Forecast Assumptions**

Sources of tables and graphs: CNB, CZSO, ECB, Eurostat, Ministry of Finance of the Czech Republic, IMF, OECD, The Economist, own calculations.

### A.1 External Environment

### **Economic output**

The outlook for the world economy has further deteriorated since the publication of the July Macroeconomic Forecast. At the same time, the main risks continue to be the further development in the euro zone, the ongoing slowdown in large emerging economies (China, Brazil, and India), and the possibility of a sharp drop in the US economy's growth in 2013 (problem of the so-called "fiscal cliff", see below).

After QoQ growth of 0.5% in Q1 2012, the **US economy's** growth slowed to 0.3% in Q2 (*versus 0.7%*). The dominant growth factors were household consumption and gross fixed capital formation. The labour market is developing positively, as the unemployment rate fell to 7.8% in September (under 8% for the first time since 2009). In October, moreover, the growth in new jobs was revised upwards.

Consumer confidence oscillated in the last three months, reaching a seven-month peak in September. Along with consumer confidence, the mood in industry and the development of new orders also point to economic expansion. The situation on stock markets improved at the end of summer when the Dow Jones Industrial Average rose to a level of 13,500 points. Nevertheless, caution is in order, as, due to the slump in real estate prices in recent years, the middle class has been considerably impoverished and the repercussions from reducing households' debt are far from overcome. Real estate prices have grown slowly, however, over the last several months, which may signal a more lasting recovery.

In the pre-election political context, the economy is supported primarily by measures from the central bank. In mid-September, the Fed announced that it will keep rates at current levels (i.e. 0–0.25%) until 2015. Referencing the persisting high unemployment rate, it also agreed to undertake a third round of quantitative easing.

The so-called "fiscal cliff", however, represents a great uncertainty, as at the end of this year temporary tax relief is set to expire and automatic cuts in federal spending will likewise occur. As long as the federal

government expenditure ceiling is not increased before this deadline (which requires agreement between Republicans and Democrats), these measures will mean substantial fiscal restrictions that could considerably reduce economic growth in 2013.

We therefore retain the growth estimate for the US economy at 2.2% for 2012 and reduce it to 2.1% (*versus 2.4%*) for 2013.

The euro zone economy (EA12), which stagnated in Q1 2012, showed a QoQ decline of 0.2% in Q2. Net exports were practically the only factor contributing positively to development. Household consumption and gross fixed capital formation, on the other hand, contributed negatively. Moreover, performance in the euro zone remains considerably differentiated. Germany shows the best results among the large EA12 economies (QoQ growth of 0.5% in Q1 and 0.3% in Q2). The French economy has remained level now for three quarters in a row, and Italy and Spain are in recession – Italy since Q3 2011, Spain since Q4 2011.

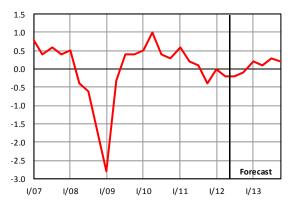
The differences in the euro zone continue to be clearly evident in the unemployment rate. In August, that rate in the euro zone steadied at 11.4%, which nevertheless constituted YoY growth of 1.3 p.p. Spain, where already more than a quarter (25.3%) of the labour force is out of work, exhibited the highest unemployment in August, followed by Greece (24.4%, in June), Portugal (15.9%), Ireland (15.0%) and Slovakia (14.2%). In contrast, the unemployment rate in Germany has been holding steady at 5.5% since May. A distinct problem is the extremely high rate of unemployment among people under 24 (52.9% in Spain in August, 55.4% in Greece in June).

Such high unemployment rates understandably have negative implications on, for example, household consumption, which considerably complicates government efforts to consolidate public finances in those countries most affected by the debt crisis.

We have deepened the estimated economic decline for the euro zone to -0.5% (*versus* -0.3%) for 2012. For 2013, we expect GDP growth of 0.3% (*versus* 0.6%).

Graph A.1.1: Growth of GDP in EA12

QoQ growth in % (adjusted for seasonal and working day effects)



The **Polish economy** has begun to slow considerably. It achieved QoQ growth of 0.6% in Q1 2012, but this diminished to 0.4% for Q2. At the same time, infrastructure investments and continually strong household consumption helped the economy in the first half of the year. Nevertheless, unemployment rose slightly to 10.1% in August. In view of the declining economic growth dynamics, the government abandoned its plans to reduce the deficit to below 3% of GDP this year.

We expect the Polish economy to grow by 2.5% (*versus 2.7%*) in 2012 and to accelerate to 2.9% (*no change*) in 2013.

The **Slovak economy** grew by 0.7% QoQ in Q2 2012, and thus at the same pace as in Q1. This relatively strong growth was driven almost exclusively by exports, and in particular of automobiles. The unemployment rate remains high, reaching 14.2% in August. Growth in 2013 will probably depend heavily on the situation in Germany. In accordance with estimates of the Slovak Ministry of Finance and the National Bank of Slovakia, we have reduced our estimate to 2.1% (*versus 2.9%*).

### **Commodity prices**

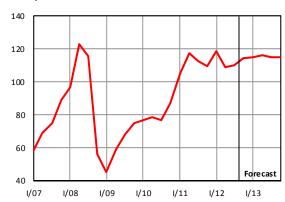
The price of Brent crude oil reached an average of USD 110 per barrel (*versus USD 102*) in Q3 and thus remained almost unchanged in comparison with Q2, when the average price was USD 108.9 per barrel. Contrary to the previous forecast, pressure for a drop in prices weakened. The slowdown of the world economy (including China, India, and Brazil), possible further escalation of the crisis in the euro zone, and

increased production should, however, continue to press downwards on prices. The strengthening of the euro against the dollar at the turn of August and September also contributed towards mitigating the pressure for a drop in oil prices.

Moreover, the possibility of a price increase is supported by the rise in marginal costs of production, which play an important role in price formation (this is, moreover, a constant factor that will influence price over mid- and long-term horizons). Although the third wave of quantitative easing surprisingly did not result in an immediate rise in commodity prices, the ECB and Bank of Japan have also joined the Fed in easing monetary policy. It may therefore be anticipated that the arrangements of these central banks will create conditions for moderate growth in oil prices next year. In addition, concerns persist regarding geopolitical unrest in the Middle East.

The forecast for the price of Brent crude oil has been raised slightly to USD 113 per barrel (*versus USD 112*) for 2012, and we anticipate a price around USD 115 per barrel (*versus USD 108*) for 2013. In the short-term perspective, however, risks to the forecast are high in both directions.

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



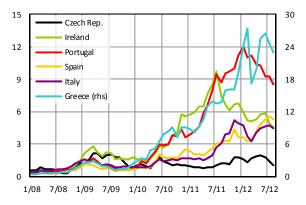
A sharp rise in grain prices was recorded at the turn of Q2 and Q3. The main cause was confirmation of the adverse weather (drought) forecasts and subsequent reduction in estimates of production volumes and revision of global supplies. If another downward supply revision occurs due to weather (which situation the derivatives market suggests), we may be faced with further growth in grain prices at the end of the year.

#### Debt crisis in the euro zone

With regard to developments surrounding the debt crisis in the euro zone, September was literally crammed with important events, particularly in comparison with August, which was relatively calm.

Graph A.1.3: Spreads over German Bonds

The difference between yields of 10Y gov. bonds of the respective country and yields of 10Y German bonds, in p.p., monthly averages



Speculation concerning the possibility of additional ECB interventions on state bond markets, which contributed to the relative calming of the situation on financial markets during August, was, in certain respects, confirmed at the beginning of September. On 6 September, the Governing Council of the ECB approved a new programme for purchasing government bonds on secondary markets, so-called Outright Monetary Transactions (OMTs). OMTs will replace the previous Securities Markets Programme (SMP) and will differ in many important aspects, despite the seeming similarity to SMP.

A necessary (but not sufficient) condition for any intervention in relation to OMTs will be activation of the ESM bailout programme with the possibility for intervention on the state bond market and fulfilment of the conditions agreed under the programme. For existing programmes, the ECB could then intervene whenever a given country strives to return to the primary government bond market. While Ireland has already successfully come back to the primary market<sup>1</sup>, Portugal is expected to return in 2013. Meanwhile, on 3 October Portugal succeeded to exchange bonds payable in the next year (EUR 3.8 billion in volume) for bonds maturing in 2015.

Bonds with maturities of 1 to 3 years will be purchased as part of OMTs. Although no quantitative limits have

<sup>1</sup> At the end of July, Ireland organised an auction in which it offered bonds payable in 2017 (yield 5.9%) and 2020 (yield 6.1%). Investors also had the opportunity to exchange bonds payable in 2013 and

also had the opportunity to exchange bonds payable in 2013 and 2014 for these bonds. In total, investors purchased EUR 5.23 billion worth of bonds, of which EUR 1.04 billion was from bond exchanges.

been set *ex ante* for the volume of intervention, the intervention will be fully sterilised. For bonds purchased as part of OMTs, moreover, the ECB will not have the status of preferred creditor. In contrast to SMP, the new programme will also be significantly more transparent (with regular publication of information about those bonds purchased).

According to the ECB, interventions under OMTs should improve the functioning of the transmission mechanism of monetary policy in those euro zone countries where transmission is negatively influenced by mutual relations between the government sector and banks and, as stated by the ECB, "unfounded fears on the part of investors as to the possibility of a return to individual national currencies". In the ECB's opinion, poor economic policy is primarily responsible for putting the states in question into their situations, and while interventions through OMTs may help, they must be accompanied by corresponding reform measures. The question thus remains as to the extent to which the ECB will unwaveringly insist that fulfilment of the agreed conditions of the bailout programme is a necessary condition for any intervention. For the time being, however, the announcement of OMTs has itself calmed the situation in some financial market segments. For example, the yields of Italian and Spanish state bonds have decreased.

At the same time, Spain is considered to be a country that will sooner or later be forced to use financial assistance from the ESM (Spain has now already promised up to EUR 100 billion for recapitalising the banking sector). Although according to the results of the bottom-up stress test announced at the end of September it should not request more than EUR 60 billion, it is not entirely possible to exclude negative "surprises" in future.

Spanish banks, however, are not the only ones needing to increase capital. The recommendation of the European Banking Authority (EBA) from December of last year that 71 of 91 banks tested in the last round of European stress tests should strengthen their capital positions, or at least maintain them at the newly required level<sup>2</sup>, led to the reinforcing of banks' capital positions by more than EUR 200 billion in the first half of 2012. This was achieved only in small part by measures leading to a drop in risk-weighted assets.

Moreover, the European banking system may undergo relatively deep changes in future in connection with

At the end of June 2012, banks' Tier 1 capital adequacy exceeded 9%, after having set aside a portion of capital as a capital cushion to cover exposures to state bonds.

efforts to form a so-called banking union in the euro zone. On 12 September, the European Commission (EC) presented certain steps whose implementation should lead to this goal in the document "A Roadmap towards a Banking Union". In general, it is anticipated that the creation of a banking union will require unified systems for the supervision of banking institutions and for deposit insurance as well as a unified framework for restructuring institutions that come into difficulties. The proposal presented by the EC focuses on the creation of a unified system for bank supervision, which would open up the possibility for direct recapitalisation of banks through the ESM long-term bailout fund. With the gradual transposition of all key competencies related to supervision to the ECB, it is anticipated that as from 1 January 2013 the ECB should administer supervision primarily over those banks that received assistance from public resources, and thereafter, as from 1 July 2013, also over large systemically important banks, then from 1 January 2014 over all remaining banks. The proposal thus aims to ensure the gradual creation of a unified framework for supervision starting from 1 January 2013. At the same time, special attention is devoted to certain potentially problematic areas, such as separation of bank supervision within the ECB from monetary policy, so that possible conflicts of interests (for example, an increase of interest rates consistent with the inflation target but inconsistent with the goal of financial stability) are minimised.

The EC's proposal was discussed at an informal meeting of EU finance ministers and central bank governors (ECOFIN), held on 14 and 15 September in Nicosia. Reaching any agreement regarding the EC's proposal, however, will be more than complicated. On one side stand the Netherlands and Germany who are against rushing to adopt an agreement, while on the other is France seeking swift arrival at an agreement – if possible even this year. The different stances of euro zone members and non-members also pose a problem. It is not clear, for example, what impacts collective supervision in the EA would have for states outside the euro zone given such situation wherein banks from euro zone countries own certain important banks in states outside the EA.

A decision of the German Constitutional Court, which on 12 September concluded (for now provisionally) that Germany's participation in the ESM long-term bailout fund does not contradict the German constitution, also was an important event. In future, however, the amount of Germany's undertaking is limited to the current EUR 190 billion and any further

increase of that commitment must be approved by parliament. The German Constitutional Court thereby cleared the way to completing the process of ratifying the ESM Treaty, which thus went into effect on 27 September. The long-term bailout fund then started operating on 8 October, and on the same day the rating agencies Moody's and Fitch awarded it their highest ratings (albeit Moody's with a negative outlook).

Possible additional financial assistance programmes, therefore, will be funded primarily through ESM, which in contrast to EFSF and EFSM is designed to be a permanent institution and also will have its own capital at its disposal. ESM's underwritten capital should reach EUR 700 billion, EUR 80 billion of which is apportioned to paid-in capital while the remaining EUR 620 billion will comprise so-called callable capital, which will be paid in upon request. The capital should be transferred in five tranches of EUR 16 billion. The first two tranches should be paid in by mid-October, the next two over the course of 2013, and the final tranche at the beginning of 2014. ESM's lending capacity will reach EUR 500 billion, while the ratio of paid-in capital to issued bonds (i.e. to the amount of financial aid provided) should not fall below 15%. To ensure full lending capacity, it will be possible to accelerate the payment of capital. By mid-2013, moreover, it will be possible to achieve full credit capacity of EUR 500 billion also by connecting EFSF to new financial assistance programmes. The EFSF fund should, however, be primarily dedicated to financing the existing bailout programmes for Greece, Portugal and Ireland. The programme for recapitalising Spanish banks is expected to be transferred from EFSF to ESM, although in this case (in contrast to future programmes) ESM will not have the status of preferred creditor.

Greece's negotiations with representatives of the IMF, ECB and EC (the "Troika") for the time being remain unresolved. The release of additional financial assistance, which Greece de facto cannot do without (if further restructuring of Greek debt or the exit of Greece from the euro zone is to be prevented), depends on the outcome of these negotiations. Although the recent meeting in Athens between Chancellor Merkel and Greek Prime Minister Samaras may be interpreted as a signal that Germany would like for Greece to remain in the euro zone, the willingness of creditors (euro zone, IMF) to relax the conditions of the bailout programme, which would require additional financial assistance, nevertheless remains in question. At the same time, it is more than obvious

that further fiscal restriction would deepen the Greek economy's problems even more.

Greece, together with Spain, thus continues to pose the main risk for further worsening of the debt crisis. In the event of escalation of the crisis, therefore, one still cannot entirely rule out the possibility that the contagion will spread to other euro zone countries, or even to the EU as a whole.

As a small open economy with very strong ties to EU countries, the Czech Republic would naturally be

negatively impacted by any escalation of the debt crisis (impact on the expectations of households and companies, decrease in foreign demand). Nevertheless, its banking sector's high resilience to negative shocks and the credibility of its fiscal policy (to which the low yields of state bonds on the secondary market and very successful recent sale of Eurobonds, for example, testify) represent advantages for the Czech Republic.

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

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
		**********************	***************************************	*************************	***************************************	******************************	******************************		Forecast	Forecast
USA	3.5	3.1	2.7	1.9	-0.3	-3.1	2.4	1.8	2.2	2.1
China	10.1	11.3	12.7	14.2	9.6	9.2	10.4	9.1	7.9	7.5
EU27	2.5	2.1	3.3	3.2	0.3	-4.3	2.0	1.5	-0.4	0.4
EA12	2.2	1.7	3.2	3.0	0.3	-4.4	2.0	1.4	-0.5	0.3
Germany	1.2	0.7	3.7	3.3	1.1	-5.1	4.2	3.0	0.8	1.0
France	2.5	1.8	2.5	2.3	-0.1	-3.1	1.7	1.7	0.2	0.6
United Kingdom	2.9	2.8	2.6	3.6	-1.0	-4.0	1.8	0.8	-0.4	1.0
Austria	2.6	2.4	3.7	3.7	1.4	-3.8	2.1	2.7	0.6	1.1
Hungary	4.8	4.0	3.9	0.1	0.9	-6.8	1.3	1.6	-0.9	1.0
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	5.8	-4.9	4.2	3.3	2.7	2.1
Czech Republic	4.7	6.8	7.0	5.7	3.1	-4.7	2.7	1.7	-1.0	0.7

Graph A.1.4: Real Gross Domestic Product

YoY growth in %, seasonally unadjusted data

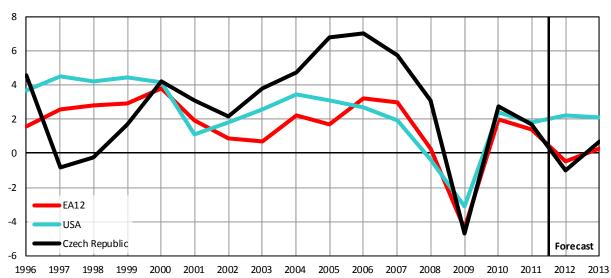


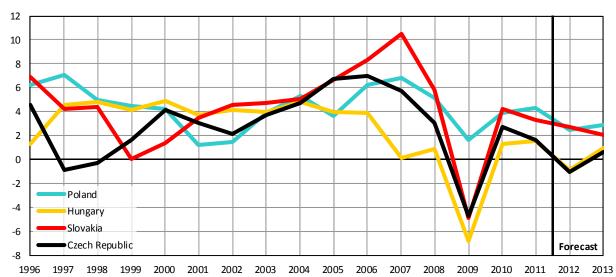
Table A.1.2: Real Gross Domestic Product – quarterly

growth in %, seasonally adjusted data

		201	1			20	12	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
							Estimate	Forecast
USA QoQ	0.0	0.6	0.3	1.0	0.5	0.3	0.4	0.5
YoY	1.8	1.8	1.5	1.9	2.4	2.1	2.2	1.7
China QoQ	2.2	2.3	2.4	1.9	1.8	1.8	1.6	1.7
YoY				9.1	8.7	8.1	7.3	7.1
EU27 Q0Q	0.6	0.3	0.2	-0.3	0.0	-0.1	-0.2	-0.1
YoY	2.4	1.6	1.4	0.8	0.2	-0.2	-0.6	-0.4
EA12 QoQ	0.6	0.2	0.1	-0.4	0.0	-0.2	-0.2	-0.1
YoY	2.3	1.5	1.2	0.6	0.0	-0.5	-0.8	-0.5
<b>Germany</b> QoQ	1.2	0.5	0.4	-0.1	0.5	0.3	-0.1	-0.1
YoY	4.8	3.0	2.7	2.0	1.3	1.1	0.6	0.6
France QoQ	0.9	0.1	0.2	0.0	0.0	0.0	0.1	0.0
YoY	2.4	1.6	1.6	1.2	0.3	0.2	0.1	0.1
United Kingdom QoQ	0.5	0.1	0.5	-0.4	-0.3	-0.4	0.1	0.3
YoY	1.4	0.8	0.4	0.7	-0.1	-0.6	-1.0	-0.3
Austria QoQ	0.6	0.4	0.0	0.2	0.5	0.1	-0.2	-0.1
YoY	3.9	3.6	2.1	1.2	1.1	0.8	0.6	0.3
Hungary QoQ	1.4	-0.3	0.0	0.1	-1.0	-0.2	0.1	0.2
YoY	2.4	1.7	1.5	1.2	-1.2	-1.1	-1.0	-0.9
Poland QoQ	1.1	1.3	0.7	0.8	0.6	0.4	0.3	0.3
YoY	4.6	4.7	4.1	4.3	3.4	2.5	2.1	1.6
Slovakia QoQ	0.9	0.9	0.7	0.8	0.7	0.7	0.5	0.4
YoY	3.5	3.4	3.3	3.4	3.1	2.9	2.7	2.3
Czech Republic QoQ	0.5	0.3	0.0	-0.2	-0.6	-0.2	-0.2	-0.1
YoY	2.8	2.1	1.3	0.6	-0.5	-1.0	-1.1	-1.0

Graph A.1.5: Real Gross Domestic Product – Central European economies

YoY growth in %, seasonally unadjusted data



Graph A.1.6: GDP in the Czech Republic and the neighbouring states

Q3 2008=100, seasonally adjusted data

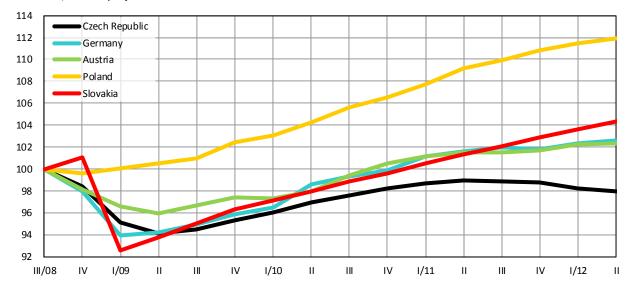


Table A.1.3: **Prices of Commodities** – yearly

spot prices

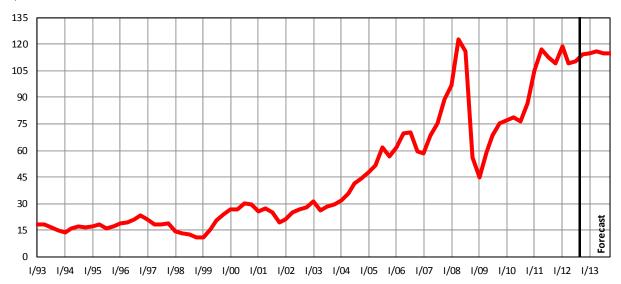
		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
										Forecast	Forecast
Crude oil Brent	USD/barrel	38.3	54.4	65.4	72.7	97.7	61.9	79.6	111.0	113	115
	growth in %	33.0	42.0	20.1	11.2	34.4	-36.7	28.7	39.3	1.7	2.1
Crude oil Brent index (in CZK)	2005=100	75.5	100.0	113.3	113.3	127.9	90.5	116.7	150.6	169	169
	growth in %	21.1	32.4	13.3	-0.1	12.9	-29.3	29.0	29.0	12.3	0.0
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
									Forecast
Crude oil Brent	USD/barrel	104,9	117,1	112,5	109,3	118,5	108,9	110,0	114
	growth in %	36,8	48,9	47,3	25,9	13,0	-7,0	-2,2	4,3
Crude oil Brent index (in CZK)	2005=100	143,2	151,5	148,7	157,1	173,6	164,5	169	168
	growth in %	30,3	24,8	31,8	29,5	21,3	8,6	13,6	6,8
Wheat price	USD/t	330,5	339,0	315,6	279,7	278,8	269,0	349,5	
	growth in %	68,9	91,0	32,7	-1,4	-15,6	-20,6	10,7	
Wheat price index (in CZK)	2005=100	161,3	156,8	149,2	143,8	146,1	145,3	192,0	
	growth in %	60,9	60,1	18,7	1,4	-9,4	-7,4	28,7	

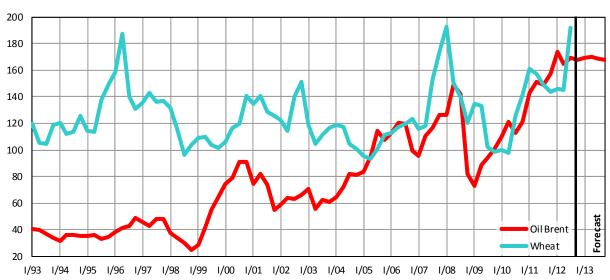
### Graph A.1.7: Dollar Prices of Oil

USD/barrel



**Graph A.1.8: Koruna Indices of World Commodity Prices** 

index 2005=100



# A.2 Fiscal Policy

According to the CZSO's current estimate, the general government deficit reached CZK 125.2 billion in 2011, which represents 3.3% of GDP. In comparison with the previous figure from April of this year, it worsened by 0.2 p.p., primarily due to a revision of accrued tax revenues in 2011 and changes to interest estimates in the area of financial leasing. Local and central government budgets worsened most severely (by nearly CZK 5 billion and more than CZK 3 billion, respectively). The health insurance subsector, on the other hand, improved slightly.

The current deficit estimate for **2012**, which the Ministry of Finance published in the Notification of Government Deficit and Debt on 1 October, is CZK 124.0 billion, representing 3.2% of GDP (*no change*).

Consequently, the cyclically unadjusted balance should improve by only 0.1 p.p. in comparison with 2011. Fiscal effort (defined as the YoY change in the balance adjusted in relation to the impact of the economic cycle and one-time operations) should nevertheless reach 0.8 p.p. this year due to the deeper negative output gap caused by the ongoing recession.

More marked change occurred in the structure of revenue and expenditure items. Due to a drop in household consumption, the revenue side recorded a negative adjustment in expected income from VAT and social contributions by 0.3% of GDP in total.

Expectations regarding the drawing of investment grants from EU funds were also adjusted. Due in particular to problems with determining the eligibility of selected expenditures in individual operating programmes, these were reduced by approximately 0.3% of GDP versus the original estimates. This problem subsequently leads to a decline in investment activity, and, in some cases, to financing of ongoing projects from national sources, in which case the accrued subsidies are not imputed to the revenue side of the general government balance. The majority of problems associated with payments under operating programmes should be resolved by the end of this year, and those remaining at the start of next year.

A reassessment of wage expenditures in the government sector was made on the spending side. The expectation was increased by approximately 0.3% of GDP on the basis of data for the first two quarters.

The most substantial savings are likely to occur in social spending (with the exception of pensions), for which cash performance data for the first nine months of this year show favourable results. Savings relative to plan also are anticipated for interest payments. Overall savings in interest payments and social benefits thus comprise more than 0.4% of GDP.

As in the last two years, a drop in government investments is also anticipated for this year, although significantly less dramatic. A reassessment was conducted in comparison to the previous forecast, especially due to problems with recognizing outlays in various operating programmes. The drop in investments also reflects the considerable uncertainty regarding the future.

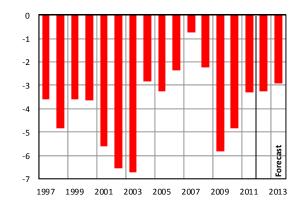
As concerns government operating expenditures, a further drop of 4.5% in intermediate consumption is anticipated, reflecting especially the spending freeze approved at the beginning of this year.

The aforementioned development will in turn be decisively evident in nominal expenditures on final government consumption, which in the end will evidently fall by only 0.1% compared with the original assumption (decrease by 1.6%). Fiscal policy for 2012 thus appears to be less restrictive than originally assumed.

A risk to this forecast is the amount of ineligible expenditures which the European Commission can refuse to pay and which were already invested from public resources. In such case, the deficit would have to be adjusted as the accrued subsidies for these issued resources had already been recorded under revenues.

For 2013, when the general government deficit should, in accordance with the excessive deficit procedure (EDP), be lower than 3% of GDP and continually sustainable below that threshold, we predict a balance of –2.9% of GDP. Due to the deeply negative output gap, the structurally adjusted balance should thus reach –2.0% of GDP. We are in the process of preparing detailed data on the expected development of public finances in the period 2013–2015 for November's Fiscal Outlook of the Czech Republic.

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



Graph A.2.2: Government Debt in % of GDP

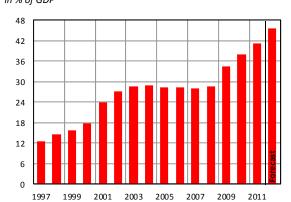


Table A.2.1: Net Lending/Borrowing and Debt

		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
									Prelim.	Forecast	Outlook
General government balance 1)	bill. CZK	-83	-101	-80	-27	-86	-218	-183	-125	-124	-114
	% GDP	-2.8	-3.2	-2.4	-0.7	-2.2	-5.8	-4.8	-3.3	-3.2	-2.9
Cyclical balance	% GDP	-0.6	-0.1	0.6	1.2	1.0	-1.1	-0.5	-0.2	-0.9	-1.0
Cyclically adjusted balance	% GDP	-2.2	-3.1	-3.0	-1.9	-3.3	-4.8	-4.3	-3.1	-2.4	-1.9
One-off measures	% GDP	-0.7	-1.2	-0.2	-0.3	-0.1	0.3	0.0	-0.1	-0.3	0.1
Structural balance	% GDP	-1.5	-1.9	-2.8	-1.6	-3.2	-5.1	-4.3	-3.0	-2.1	-2.0
Fiscal effort 2)	percent. points	4.3	-0.4	-0.8	1.1	-1.6	-1.9	0.7	1.4	0.8	0.1
Interest expenditure	% GDP	1.1	1.1	1.1	1.1	1.0	1.3	1.4	1.4	1.5	•
Primary balance	% GDP	-1.8	-2.2	-1.3	0.4	-1.2	-4.6	-3.5	-1.9	-1.8	
Cyclically adjusted primary balance	% GDP	-1.1	-2.0	-1.9	-0.8	-2.2	-3.5	-3.0	-1.7	-0.9	•
General government debt	bill. CZK	848	885	948	1 023	1 104	1 286	1 437	1 568	1 737	
	% GDP	28.9	28.4	28.3	27.9	28.7	34.4	38.1	41.2	45.5	
Change in debt-to-GDP ratio	percent. points	0.4	-0.5	-0.1	-0.3	0.8	5.7	3.7	3.1	4.3	

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.

1) Balance in EDP methodology, i.e. general government net lending (+)/borrowing (-) including interest derivatives.

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

# A.3 Monetary Policy and the Financial Sector

### Monetary policy

The primary monetary policy instrument is the interest rate for **2W repo operations**, which the Bank Council reduced at the end of Q3 (effective from 1 October) to a historic low of 0.25%. The discount rate was then decreased by 0.15 p.p. to 0.1% and the Lombard rate by 0.75 p.p. to 0.75%. Possibilities to use non-standard monetary policy instruments are also being discussed. As a result, the **interest-rate spread** between the Czech Republic and the EMU has deepened to -0.50 p.p. and that relative to the US to 0-0.25 p.p. Interest spreads thus continue at very low levels and therefore do not constitute a fundamental cause for significant fluctuations in the CZK exchange rate.

#### Financial sector and interest rates

The **3M PRIBOR** interbank market rate averaged 1.0% in Q3 2012 (*consistent with the forecast*), which is also the value it could reach on average for the entire year (*versus 1.1%*). Considering the expected trajectory of CNB rates, we anticipate that next year 3M PRIBOR will reach an average value of 0.5% (*versus 1.1%*).

Research conducted in July regarding average daily turnovers on the interbank market showed a relatively significant decrease in the volume of deposit operations compared to April (caused mainly by the decrease in operations with non-residents having maturity of less than 1 week). While the volume of derivative operations (interest rate swaps) multiplied in comparison to April, the volume of forward rate agreements (FRAs) fell to zero.

Uncertainty on the interbank market, as measured by the spread between the 2W repo rate and 2W or 3M PRIBOR, remains stable after accounting for the typical fluctuation accompanying changes in the 2W repo rate.

Long-term interest rates have reached historically low values in the current period. Considering the Czech Republic's very good rating (Standard & Poor's AA-, Moody's A1, Fitch Ratings A+; stable outlook for all

agencies), relatively successful issues of state bonds can be expected in future. We estimate that the **yields to maturity of 10-year government bonds** (for convergence purposes) will reach on average 2.9% (*versus 3.4%*) this year and 2.7% (*versus 3.5%*) in 2013. The change in the forecast was caused by a sharp decline in government bond yields in recent months. The future development in the euro zone poses the greatest risk to the forecast of government bonds yields.

In July, CNB published findings from the first round of newly introduced examination of credit terms. The investigation concluded that in Q2 2012 banks (18 banks with over 90% share of the bank lending market participated in the research) tightened credit standards for corporate and consumer loans, while those for housing loans were relaxed. For Q3, the banks expected a toughening of credit standards for corporate loans and housing loans. The banks also anticipated that demand for corporate and housing loans would grow in Q3, while they expected decreasing demand for consumer loans.

The situation concerning loans in default has been stabilised, as in Q2 their share in total loans stood at 5.2% for households (0.1 p.p. less YoY) and 7.9% for non-financial corporations (0.6 p.p. less YoY). The ratio of loans to household deposits in the Czech Republic in the long term fluctuates just above 60% and is approximately one-third lower than in euro zone countries. We may note an even more distinct difference between the Czech Republic and the euro zone in the ratio of loans to non-financial corporations' deposits. In the Czech Republic this ratio is at a level of 120%, whereas in the euro zone it is 280–290%.

The Prague Stock Exchange's PX index has fluctuated around 950 points in recent weeks, which value is comparable to that from the same period of last year and represents a slight increase in comparison to Q2.

Table A.3.1: Interest Rates, Deposits and Loans – yearly

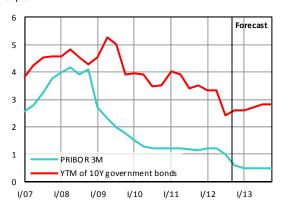
		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
										Forecast	Forecast
Repo 2W rate CNB (end of period)	in % p.a.	2.50	2.00	2.50	3.50	2.25	1.00	0.75	0.75		
Main refinancing rate ECB (end of period)	in % p.a.	2.00	2.25	3.50	4.00	2.50	1.00	1.00	1.00		
Federal funds rate (end of period)	in % p.a.	2.25	4.25	5.25	4.25	0.25	0.25	0.25	0.25		
PRIBOR 3M	in % p.a.	2.36	2.01	2.30	3.09	4.04	2.19	1.31	1.19	1.0	0.5
YTM of 10Y government bonds	in % p.a.	4.75	3.51	3.78	4.28	4.55	4.67	3.71	3.71	2.9	2.7
Households (CR, unless stated otherwise)											
-interest rates on loans	in % p.a.	8.09	7.53	6.93	6.63	6.81	7.00	7.00	6.83		
-loans	growth in %	31.8	32.6	32.1	31.7	28.9	16.3	8.7	6.5		•
-deposits	growth in %	6.0	5.2	7.3	10.6	9.4	10.5	5.4	5.0		
- share of non-performing loans	in %	4.8	4.2	3.7	3.2	3.0	3.7	4.8	5.3		
-loans to deposits ratio	in %	26	33	40	48	57	60	61	62		
-loans to deposits ratio (Eurozone)	in %	91	94	99	99	94	89	90	90		•
Non-fin. corporations (CR, unless stated oth	erwise)										
-interest rates on loans	in % p.a.	4.51	4.27	4.29	4.85	5.59	4.58	4.10	3.93		
-loans	growth in %	3.3	10.3	13.9	16.7	17.5	0.2	-6.5	3.3		
-deposits	growth in %	10.5	4.5	10.9	13.2	5.3	-1.7	4.8	0.9		
-share of non-performing loans	in %	7.8	5.7	4.5	3.8	3.6	6.2	8.6	8.5		
-loans to deposits ratio	in %	108	113	117	120	134	137	123	126		
-loans to deposits ratio (Eurozone)	in %	294	290	292	296	315	315	294	286		

Table A.3.2: Interest Rates, Deposits and Loans – quarterly

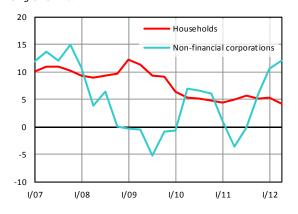
			2011				201	12	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
								Estimate	Forecast
Repo 2W rate CNB (end of period)	in % p.a.	0.75	0.75	0.75	0.75	0.75	0.50	0.50	
Main refinancing rate ECB (end of period)	in % p.a.	1.00	1.25	1.50	1.00	1.00	1.00	0.75	
Federal funds rate (end of period)	in % p.a.	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
PRIBOR 3 M	in % p.a.	1.20	1.21	1.18	1.16	1.20	1.23	0.98	0.6
YTM of 10Y government bonds	in % p.a.	4.03	3.90	3.40	3.50	3.34	3.31	2.4	2.6
Households (CR, unless stated otherwise)									
- interest rates on loans	in % p.a.	6.95	6.88	6.80	6.69	6.59	6.51		
-loans	growth in %	7.1	6.8	6.4	5.6	5.7	5.2		
- deposits	growth in %	4.5	4.9	5.6	5.1	5.3	4.3		
-share of non-performing loans	in %	5.3	5.3	5.3	5.1	5.0	5.2		
-loans to deposits ratio	in %	62	62	62	63	62	62		
-loans to deposits ratio (Eurozone)	in %	90	90	90	90	88	88		
Non-fin. corporations (CR, unless stated oth	nerwise)								
-interest rates on loans	in % p.a.	4.00	3.99	3.88	3.87	3.87	3.86		
-loans	growth in %	0.1	3.3	4.4	5.3	4.8	3.4		
-deposits	growth in %	1.2	-3.6	-0.1	6.0	10.5	12.1		
- share of non-performing loans	in %	8.8	8.5	8.4	8.2	8.1	7.9		
-loans to deposits ratio	in %	126	128	130	120	119	118		
-loans to deposits ratio (Eurozone)	in %	290	285	286	284	287	283		

### Graph A.3.1: Interest Rates

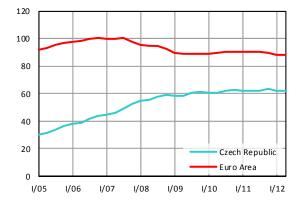
in % p.a.



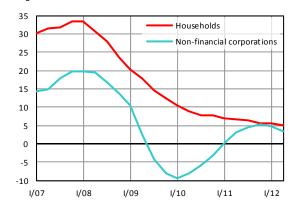
Graph A.3.3: Deposits of Households and Firms  $\it YoY\ growth\ in\ \%$ 



Graph A.3.5: Households – Loans to Deposits Ratio



# Graph A.3.2: Loans to Households and Firms YoY growth in %



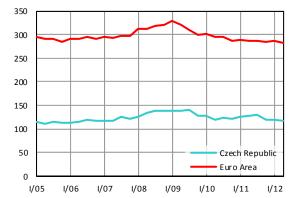
Graph A.3.4: Non-performing Loans

ratio of non-performing to total loans, in %

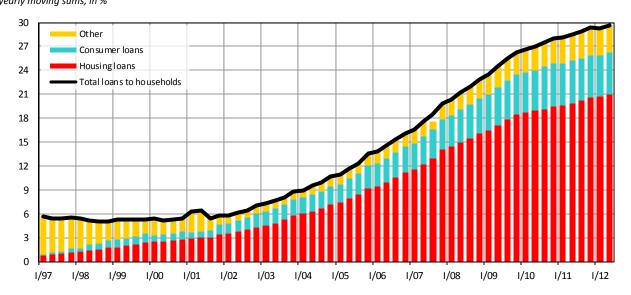


Graph A.3.6: Firms – Loans to Deposits Ratio

in %



Graph A.3.7: Ratio of Bank Loans to Households to GDP yearly moving sums, in %



# A.4 Exchange Rates

In Q3 2012, the CZK/EUR exchange rate averaged 25.07, thus weakening by 2.7% YoY. Although the koruna rate has oscillated around 25.20 CZK/EUR for several quarters due to investors' changing risk aversion, we nevertheless expect future development to continue along the koruna's long-term strengthening trend. Considering the lingering uncertainty over the debt crisis in the euro zone, negative interest rate differential versus the EMU, and lower rate of economic convergence to the EU average, the nominal and real exchange rates should be below the previous long-term trend for the entire forecast horizon.

The average rate should reach 25.1 CZK/EUR in 2012, while slight appreciation of ca 0.8% per year on average should resume thereafter. Should the crisis in

the euro zone escalate, however, exchange rate volatility would certainly increase.

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

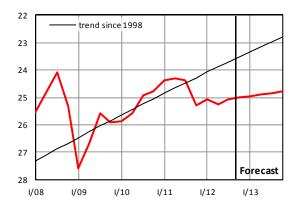


Table A.4.1: Exchange Rates – yearly

		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	25.1	24.9	24.7	24.5
	appreciation in %	5.1	2.1	11.3	-5.6	4.6	2.8	-2.0	0.9	0.8	0.7
CZK / USD	average	22.59	20.31	17.06	19.06	19.11	17.69	19.5	19.1	19.0	18.8
	appreciation in %	6.0	11.3	19.0	-10.5	-0.3	8.0	-9.5	2.1	0.8	0.7
NEER	average of 2010=100	88.2	90.6	101.2	98.0	100.0	103.1	100	100	101	102
	appreciation in %	4.8	2.7	11.7	-3.2	2.1	3.1	-3.3	0.8	0.8	0.8
Real exchange rate to EA12 <sup>1)</sup>	average of 2010=100	89.7	92.5	103.0	98.1	100.0	100.8	99	100	100	100
	appreciation in %	3.8	3.1	11.3	-4.7	1.9	0.8	-1.4	0.5	0.2	0.2
REER	average of 2010=100	86.2	88.7	102.1	98.1	100.0	102.4				
(Eurostat, CPI deflated, 36 countries)	appreciation in %	5.1	2.9	15.1	-4.0	2.0	2.4				

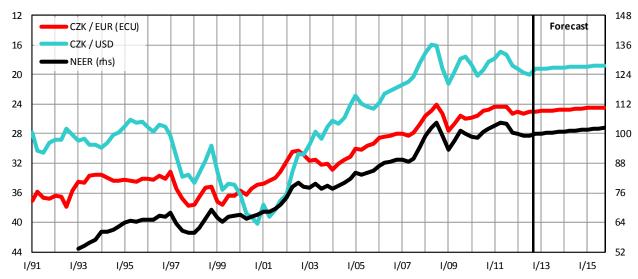
<sup>1)</sup> Deflated by GDP deflators.

Table A.4.2: Exchange Rates – quarterly

			201	1			20	12	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
								Estimate	Forecast
Nominal exchange rates:									
CZK / EUR	average	24.37	24.32	24.39	25.28	25.08	25.3	25.1	25.0
	appreciation in %	6.1	5.2	2.2	-1.9	-2.8	-3.7	-2.7	1.1
CZK / USD	average	17.83	16.90	17.27	18.78	19.14	19.7	20.1	19.2
	appreciation in %	5.0	19.3	11.7	-2.8	-6.9	-14.3	-13.9	-2.4
NEER	average of 2010=100	103.4	104.3	104.0	100.6	100.2	99.2	99.3	100
	appreciation in %	4.9	6.0	2.9	-1.6	-3.2	-4.8	-4.5	-0.7
Real exchange rate to EA12	average of 2010=100	100.8	101.7	101.7	99.0	98.9	98.9	99	100
	appreciation in %	3.1	2.3	0.3	-2.5	-1.9	-2.8	-2.3	1.3
REER	average of 2010=100	103.1	103.3	103.4	99.8	101.4	99.9		
(Eurostat, CPI deflated, 36 countries)	appreciation in %	4.4	4.6	2.1	-1.5	-1.7	-3.3		

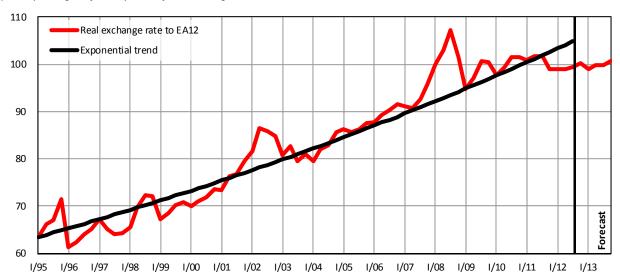
**Graph A.4.2: Nominal Exchange Rates** 

quarterly average, average 2010=100 (rhs)



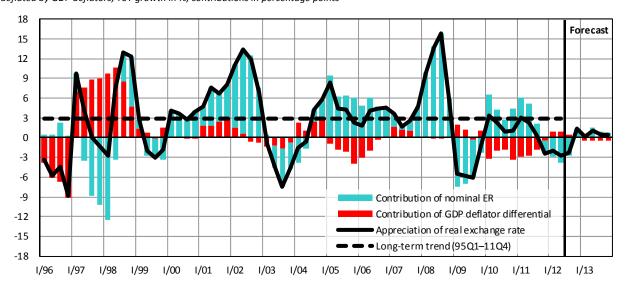
Graph A.4.3: Real Exchange Rate to EA12

quarterly average, deflated by GDP deflators, average 2010=100



Graph A.4.4: Real Exchange Rate to EA12

deflated by GDP deflators, YoY growth in %, contributions in percentage points



### **A.5 Structural Policies**

#### **Business environment**

On 25 July 2012, the government approved an amendment to the Commercial Code, which should lead to improvement of payment discipline and reduction of secondary insolvency among companies. The basic term of payment for invoices will be set at 30 days, but it will be possible to prolong the period up to 60 days by agreement. In case of delivery of goods or services to a public procurer, extension to 60 days is the maximum and must be substantiated by the nature of the order. For other business relationships, the term may be extended beyond 60 days only if doing so will not be grossly unjust to the creditor. The amendment also sets the default interest rate at a minimum of eight percentage points above the CNB's reference rate. The amendment is expected to come into effect on 1 March 2013.

The purpose of an amendment to the **insolvency act**, signed by the President of the Czech Republic on 1 October 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 petition for insolvency if it is clearly unfounded and to establish a monetary penalty for such insolvency petition.

An amendment to the act on protection of competition approved by the Chamber of Deputies with comments from the Senate on 19 September 2012, should more readily expose cartel agreements. According to the amendment, 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 the penalty

reduced or entirely remitted. Last but not least, the amendment bars companies caught in cartel agreements from participating in public tenders and concession agreements.

#### **Taxes**

In order to strengthen the revenues side of the state budget and thereby gradually reduce the public finances deficit, on 6 September 2012 the government re-approved draft legislation to amend taxation, insurance and other legislation related to decreasing public budget deficits previously rejected by the Chamber of Deputies. According to the draft legislation, as from 2013 lump-sum cost deductions for personal income taxes will be limited to CZK 800,000 for activities included under the 40% deduction and to CZK 600,000 for the 30% deduction. At the same time, persons benefiting from deductions will not be able to apply the tax benefit for child support or the credit for a spouse. The real estate transfer tax will be increased from 3% to 4% and the withholding tax on income of non-residents from countries with which the Czech Republic has not concluded an agreement on preventing double taxation will be increased from 15% to 35%. Last but not least, the entitlement to an excise tax refund on diesel fuel for agricultural purposes will be decreased at first, and from 2014 abolished.

During 2013–2015, a 7% surcharge on the personal income tax will be temporarily introduced for incomes exceeding 48 times the average monthly wage, the basic income tax deduction for working pensioners will be abolished, and the maximum assessment base for health insurance premiums will be cancelled. During

this period, the two VAT rates will be increased by 1 p.p. to 21% and 15%, respectively, while implementation of the uniform rate of 17.5% will be postponed until 2016.

An amendment to the act on excise taxes approved by the Chamber of Deputies on 26 September 2012 will raise the excise tax on cigarettes. The previously approved increase of the excise tax on cigarettes planned for 1 January 2014 will now be divided between 2013 and 2014.

On 26 September 2012, the Chamber of Deputies approved an **amendment to the VAT act**, according to which taxpayers, with the exception of individuals having turnover up to CZK 6 million, will be obliged to file electronically. The amendment also introduces the institution of an unreliable taxpayer, which will allow identification of higher-risk taxpayers abusing the VAT system, whose registration as VAT payers the tax administrator cannot directly cancel. Entrepreneurs accepting taxable payments from unreliable payers are exposed to a risk of liability for unpaid VAT. The amendment should come into force on 1 January 2013, and the provisions relating to electronic filing one year later.

#### **Financial markets**

Following the principle of responsible lending and strengthening the position of the consumer, on 22 August 2012 the government approved an amendment to the consumer credit act. From now on, a creditor will be able to provide a consumer loan only in the case that after evaluating the consumer's creditworthiness with expert care it will be apparent that the consumer will be able to repay the loan. The consumer will be able to withdraw from an agreement on intermediation of a consumer loan within 14 days from its conclusion without penalty and without stating a reason. Due to their frequent misuse, bills of exchange and cheques will be banned from use in connection with consumer loans. Last but not least, it will not be possible to use telephone numbers with a higher-than-usual price per minute for calling when offering, negotiating or intermediating consumer loans. The amendment is expected to come into force on 1 January 2013.

### Education, science and research

On 1 September 2012, an amendment to the **act on pedagogical personnel** came into force. 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.

### **Energy industry and environmental protection**

On 26 September 2012, the Chamber of Deputies approved the proposed act on the conditions for trading in greenhouse gas emission allowances. At present, allowances are allocated free of charge on the basis of historic emissions. In the period 2013–2020 the Czech Republic will have 645 million allowances at its disposal, of which 342 million will be sold by auction and 303 million allocated free of charge according to reference values defined by EU regulations. The number of freely allocated allowances will be gradually decreased during this eight-year period. Yields from the allowances will become revenue for the state budget, but at least 50% of revenues will be earmarked for the purpose of subsequent financing of activities related to climate protection. The act is expected to come into force on 1 January 2013.

The Chamber of Deputies overturned a presidential veto and on 19 September 2012 approved an amendment to the act on energy management, which should lead to a decrease in the energy demands of buildings. According to the amendment, starting from 2021 all new buildings will be built as buildings with almost zero energy consumption. New buildings used and owned by public authorities will do so already from 2019. Last but not least, the amendment regulates the mandatory energy certification of buildings. Property owners will present a certificate of energy requirements when selling self-contained units of existing buildings starting from 2013, and when renting beginning from 2016. Already existing residential or administrative buildings will obtain their certificates gradually over the period 2015–2019 depending on their floor space. The amendment will come into force on 1 January 2013.

The aim of an amendment to the **law on climate protection** which came into effect on 1 September 2012 is to maintain climate quality at levels that do not pose health risks. It reduces administrative burdens and strengthens incentives for those who reduce emissions beyond the scope established by law. Fees for atmospheric pollution remain in place and will be gradually raised from 2017 to 2021. Henceforth, only those firms whose fees for emission of harmful substances exceed CZK 50,000 will be obliged to pay those fees. Municipalities will be able to define low-emission zones in polluted areas, spas and localities in protected areas, and an industrial plant in the process of introducing new operations will need to put old

ones out of operation so that there will not be an increase of emissions in the given area.

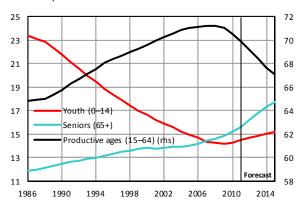
#### Labour market

An amendment to the act on supplementary pension savings approved by the Chamber of Deputies on 26 September 2012 will allow persons close to retirement age to draw a pension from the system of additional pension savings even before reaching retirement age. Persons five years below the age necessary for entitlement to an old-age pension will be entitled to benefits from the third pillar. If the amount of individual payments reaches at least 30% of the average wage, the drawing of benefits will not influence the amount of pension entitlements from the

# A.6 Demographic Trends

At the end of June of this year, 10.512 million people were living in the Czech Republic. During the first half of 2012 the population increased by 7 thousand inhabitants. The positive migration balance reached 8 thousand and the mortality exceeded births by 1 thousand. In comparison with the first half of 2011, the birth rate and positive migration balance decreased negligibly while the mortality rate increased.

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

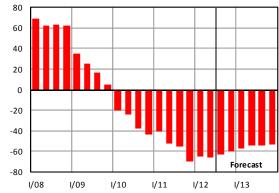


Graph A.6.1 shows, that the structural share of the population aged 15–64 years has been rather dynamically decreasing since 2008. The lower boundary is crossed by the numerically weak age group born in the late 1990s, while the senior age group includes the highly populous generation born after the Second World War. Nevertheless, the Czech population still has an economically very favourable age structure, and especially in comparison to Western European countries (see Table A.6.1).

pay-as-you-go first pillar or from public health insurance. Participants will be motivated to save in the third pillar by a state contribution and employers by tax benefits, as contributions from employers will be exempt from income tax up to CZK 30,000 per year. The amendment is expected to come into effect on 1 January 2013.

An amendment to the act on pension insurance which went into effect on 27 September 2012 will contribute towards stabilising the state budget's balance of revenues and expenditures. From 2013 to 2015, pensions will be valorised by one-third of the growth in prices and one-third of the growth in real wages.

Graph A.6.2: **Czech Population Aged 15–64** *YoY increases of quarterly averages, in thousands* 



Note: This graph does not reflect the results of the 2011 census

Tab. A.6.1: **Structure shares of persons aged 15–64** *in %, as of January 1 of the given year* 

	2004	2008	2012
Slovakia	70.9	72.3	71.8
Poland	69.8	71.1	71.1
Czech Republic	70.8	71.2	69.1
Hungary	68.6	68.8	68.6
Austria	67.9	67.5	67.7
Germany	67.3	66.2	66.1
United Kingdom	65.8	66.4	65.9
Italy	66.6	65.9	65.7
Sweden	65.2	65.7	64.5
France	65.1	65.1	64.3

Note: The year 2012 includes the effects of census. United Kingdom and Italy year 2011.

The negative impact on the labour supply from decline in the working-age population is to a great extent 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 and greater flexibility of the labour market have the same effect. The ratio of the labour force to working-age population has thus increased, thereby enabling maintenance of a stable or even slightly growing labour force (see Chapter C.3).

On the other hand, the structural proportion of persons over 64 years of age in the total population reached 16.2% at the start of 2012 and according to the middle variant of the CZSO's Demographic Projection should increase to nearly 20% by 2020. Both the number and proportion of seniors in the

population are rising considerably due to the demographic structure and further continuation of the intensive process of increasing life expectancy.

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

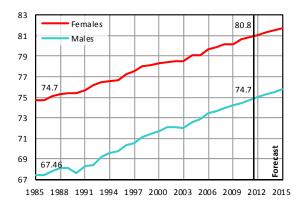


Table A.6.2: **Demography** *in thousands of persons* 

	2006	2007	2000	2000	2010	2011	2042	2042	2014	2045
	2006	2007	2008	2009	2010	2011	2012	2013 Forecast	2014 Outlook	2015 Outlook
Population (January 1)	10.251	10 287	10 201	10.468	10 507	10.497			10 571	
growth in 9		0.4	0.9	0.8	0.4	-0.2	0.2	0.3	0.3	0.3
	0.5	0.4				-0.2	0.2			0.5
Age structure (January 1):										
(0–14)	1501	1 480	1 477	1 480	1 494	1 522	1 541	1 563	1 587	1611
growth in 9		-1.5	-0.2	0.2	1.0	1.8	1.3	1.4	1.5	1.5
(15–64)	7 293	7 325	7 391	7 431	7 414	7 328	7 263	7 207	7 154	7 105
growth in 9	[	0.4	0.9	0.5	-0.2	-1.2	-0.9	-0.8	-0.7	-0.7
(65 and more)	1 456	1 482	1 5 1 3	1 556	1 599	1 637	1 701	1 768	1830	1 885
growth in 9	1.5	1.8	2.1	2.9	2.7	2.4	3.9	3.9	3.5	3.0
Old-age pensioners (January 1) <sup>1)</sup>	1 985	2 024	2 061	2 102	2 147	2260	2340	2 349	2 380	2 411
growth in 9	1.0	2.0	1.8	2.0	2.1	•	3.5	0.4	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	22.3	23.4	24.5	25.6	26.5
Under current legislation 3)	35.6	35.8	35.9	36.1	36.6	37.4	37.8	37.8	38.2	38.7
Effective 4)	41.3	41.6	41.5	41.8	43.6	45.9	47.9	48.1	48.8	49.3
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	-20	19	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	-46	х	х	х	х	х

<sup>1)</sup> In 2010 disability pensions of pensioners over 64 were transferred into old-age pensions.

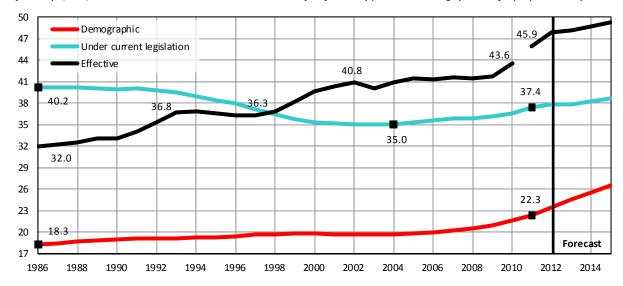
Demographic dependency: ratio of people in senior ages (65 and more) to people in productive age (15–64).

Dependency under current legislation: ratio of people above the official retirement age to the people over 19 below the official retirement age.

<sup>4)</sup> Effective dependency: ratio of old-age pensioners to working people.

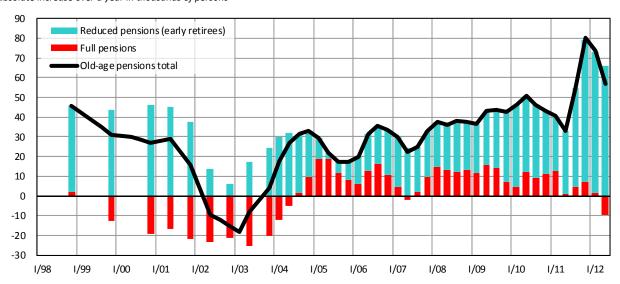
### Graph A.6.4: Dependency Ratios

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.