



NÁRODNÁ BANKA SLOVENSKA  
EUROSYSTEM



# MEDIUM-TERM FORECAST

Q3  
2010

Published by:  
© Národná banka Slovenska

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Approved by the NBS Bank Board  
on 28 September 2010.

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ISSN 1338-1474 (online)



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# 1 SUMMARY

The medium-term forecast of Národná banka Slovenska (NBS) has been updated to take account of new technical assumptions for the external environment, of the effect of the Slovak Government's planned measures for improving the performance of public finances, and of the latest developments in real economy indicators.

This latest medium-term forecast (MTF-2010Q3) was produced on the basis of more favourable assumptions for external demand as well as higher estimates for external prices. The current situation and expectations in regard to external demand have improved projections for the Slovak economy in comparison with the estimates given in the previous forecast, particularly those for 2010.

In compiling MTF-2010Q3, NBS took into consideration the proposed package of government measures intended to reduce the 2011 general government deficit by €1.7 billion (approximately 2.3% of GDP). The forecast was made having regard to the preliminary proposal for consolidation measures, sourced mainly from available information and also own calculations as at 17 September 2010<sup>1</sup>.

Of the measures under the Government's consideration which were taken into account for MTF-2010Q3, almost two thirds are focused on expenditures that directly affect GDP development. As a consequence, and to a lesser extent because of the effect of revenue measures, GDP growth over the projection horizon is expected to be slower than stated in June's medium-term forecast.

Since MTF-2010Q3 was produced before the Government had reached a final decision on the scope and structure of the consolidation measures, it may be assumed that if the fiscal measures ultimately adopted differ in form from those incorporated in this forecast, then the next forecast may have to revise the projections for macroeconomic development in the medium-term horizon, accordingly.

In the second quarter of 2010, GDP growth in quarter-on-quarter terms continued to be faster

than expected, according to data published by the Statistical Office of the Slovak Republic (SO SR). The stronger growth in this period was driven mainly by net exports. It is assumed that quarter-on-quarter growth in subsequent quarters will maintain a moderate pace (as projected in MTF-2010Q2) and that, in conjunction with current trends, GDP growth in 2010 will be higher than previously projected. As for the individual components of GDP, household consumption growth is assumed to be no more than moderate, owing to stagnation or decline in consumer confidence and a persistently high unemployment rate. With the rise in disposable income feeding through to only a modest increase in household consumption, the savings ratio is set to climb. Among the components of domestic demand, general government final consumption is expected to make the largest contribution to GDP growth, while gross fixed capital formation is assumed to continue declining moderately in 2010. Consequently, the total contribution of domestic demand to GDP growth is projected to be only slightly positive. There should, however, be a positive effect from the rebuilding of inventories, following the substantial destocking recorded in the previous year. As external demand continues to pick up, it is expected to boost further growth in the domestic economy's export performance and, given the current import intensity, a rise in this year's imports. Net exports are therefore assumed to be one of the main components to make a positive contribution to GDP. The gradual recovery of economic growth is expected to result in the labour market situation improving towards the end of the year. Price developments are expected to be marked by gradually accelerating growth in energy prices and food prices in the second half of the year.

In the medium-term horizon, the economic situation is expected to be affected mainly by the consolidation measures currently under the Government's consideration. These are assumed to cause a slowdown in GDP growth in 2011 by dampening the contribution of domestic demand. On one hand, the reduced government expenditure on intermediate consumption, compensation, and government investment will

<sup>1</sup> More detailed information is given in Annex 1.



have a direct impact on general government final consumption and gross fixed capital formation, which will decline in absolute terms in comparison with 2010. Further measures on the revenue side of the budget will result in lower household disposable income, thus indirectly slowing down private consumption growth. On the other hand, the projected increase in external demand should in subsequent years feed through to growth in exports and, eventually, in imports too. Imports, however, will be affected (through import intensity) by the dampening of domestic demand. Net exports are expected to contribute positively to GDP growth throughout the projection horizon. The labour market situation should improve in the medium term, although in 2011 it is assumed to be negatively affected by reductions in the public sector workforce brought about by the consolidation of public finances. As for inflation, it is expected to accelerate in 2011 amid growth in economic activity and rises in excise taxes and value-added tax.

GDP growth in 2010 is assumed to be stronger than projected in the previous forecast owing to a higher contribution of net exports. This improvement, however, is partially offset by lower domestic demand, which is expected to include a slowdown in private consumption growth and a decline in fixed investments in comparison with MTF-2010Q2. As a consequence of the faster GDP growth, the decline in employment will be more moderate and the unemployment rate will fall. Unlike in the previous forecast, the situation in subsequent years is affected by the mentioned fiscal consolidation, particularly

through its downward effect on domestic demand.

The main risk in the latest forecast is the unforeseen effects of consolidation measures. The upside risks to GDP growth include faster rises in external demand and in general government final consumption (depending on the extent of the measures implemented), as well as the substitution of reductions in government investments with private funds and/or with funds drawn from EU structural funds. On the downside, the risk is mainly that the decline in household disposable income is more strongly reflected in lower final consumption, and also that additional consolidation measures are undertaken in the medium term. After taking account of fiscal consolidation measures in the forecast, the risks to the projection for GDP growth are predominantly on the upside (especially in 2011).

The medium-term forecast for inflation can be considered realistic since none of the selected inflation-determining factors are reported as a substantial risk, according to risk assessment results. The uncertainty in the inflation forecast is heightened by the fact that the fiscal consolidation is still in the approval process and also by the risk that the consolidation measures will have other effects on the economy than those assumed in the forecast. In connection with the negative output gap and stagnating consumer demand, there is also the risk that higher VAT and certain higher excise taxes may be reflected in prices to a lesser extent than stated in the medium-term forecast.



## 2 TECHNICAL ASSUMPTIONS AND THE INTERNATIONAL ENVIRONMENT

The technical assumptions for the medium-term forecast as well as developments in the international economy were taken from the ECB's September forecast (ECB Staff Macroeconomic Projections for the Euro Area).<sup>2</sup>

The technical assumptions about interest rates and both energy and non-energy commodity prices are based on market expectations, with a cut-off date of 13 August 2010. The average level of short-term interest rates is expected to be 0.8% for 2010 and 1.1% for 2011. The market expectations for euro area ten-year nominal government bond yields imply an average level of 3.6% in 2010, increasing to 3.8% in 2011. The baseline projection takes into account further improvements in financing conditions and assumes accordingly that, over the projection horizon, bank lending rate spreads vis-à-vis the above-mentioned interest rates will stabilise or narrow somewhat. Similarly, credit supply conditions are assumed to ease over the projection horizon. As regards commodities, oil prices per barrel are assumed to average USD 78.8 in 2010 and USD 84.0 in 2011. The prices of non-energy commodities in US dollars are assumed to rebound strongly, by 39.1% in 2010 and a further 11.0% in 2011. The bilateral EUR/USD exchange rate is assumed to remain unchanged over the projection horizon at the average level prevail-

ing in the ten-working day period ending on the cut-off date. This implies a EUR/USD exchange rate of 1.31 over the whole projection horizon and an effective exchange rate of the euro that, on average, depreciates by 6.5% in 2010 and a further 1.4% in 2011.

Compared with the June projections, the September projections assume that oil prices will be lower in 2010 and higher in 2011 and that non-energy commodity prices will rise more sharply in both 2010 and 2011.

The recovery of the global economy is continuing, although the waning contributions from the inventory cycle and fiscal stimuli are expected to lead to a slower pace in the second half of 2010. Thereafter, the further normalisation of financial markets as well as improvements in confidence and the labour market are expected to support global activity. World real GDP outside the euro area is assumed to grow, on average, by 5.1% in 2010 and 4.4% in 2011. Growth in the euro area's export markets is assumed to increase in comparison with the previous Eurosystem projections, to 10.4% in 2010 and 7.1% in 2011. The forecast of Národná banka Slovenska for 2012 assumes stable growth in commodity prices and the continuing moderate recovery of the global economy.

**Table 1 Technical assumptions (annual percentage changes, unless otherwise indicated)**

	Published in	Projection	
		2010	2011
Oil (USD/barrel)	June 2010	79.5	83.7
	September 2010	78.8	84.0
Non-energy commodities	June 2010	17.9	1.2
	September 2010	39.1	11.0
USD/EUR exchange rate	June 2010	1.30	1.26
	September 2010	1.32	1.31

Source: ECB.

<sup>2</sup> More detailed information about the ECB projection is available at [www.ecb.int](http://www.ecb.int).



### 3 MEDIUM-TERM FORECAST FOR THE EURO AREA

Euro area real GDP growth rebounded strongly in the second quarter of 2010. Domestic demand grew strongly, partly because of a surge in investment, while net exports and inventories also contributed to growth. Over the remainder of 2010, the rate of growth is expected to diminish somewhat, as factors that boosted growth – such as fiscal stimuli, the inventory cycle and the rebound in trade – lose some strength. Looking further ahead, economic activity is projected to pick up, supported by the recovery in exports and by gradually rising domestic demand, reflecting the effects of past monetary policy moves and significant efforts to restore the functioning of the financial system. However, the recovery is projected to remain rather moderate, owing to the need for balance sheet repair in various sectors. Private consumption is also expected to be affected by modest income dynamics. In addition, the outlook also takes into account ongoing fiscal adjustments aimed at consolidating confidence in medium-term sustainability. It is expected that real GDP growth will remain more moder-

ate than pre-crisis rates and that the output gap will narrow over the horizon.

Compared with the June projections, GDP growth is expected to accelerate in 2010 as well as in 2011.

Having reached 1.6% in August, overall HICP inflation is projected to increase slightly by the end of the year, largely owing to effects from commodity price developments. Later on, while imported inflation moderates, domestic price pressures are expected to increase alongside the gradual improvement in activity, leading to a slow rise in the inflation of the HICP excluding food and energy. Overall, inflationary pressures are, however, expected to remain contained until 2011, with headline inflation being projected to be broadly stable. Growth in compensation per hour in the euro area is projected to decrease in 2010. As the labour market situation remains weak, little additional wage pressure is expected in 2011. Taking into account the expected strong recovery in labour productivity,

Table 2 Projections of selected euro area indicators (average year-on-year changes in %)

	Published in	Actual	Projections	
		2009*	2010	2011
HICP	June 2010		1.4 – 1.6	1.0 – 2.2
	September 2010	0.3	1.5 – 1.7	1.2 – 2.2
Real GDP	June 2010		0.7 – 1.3	0.2 – 2.2
	September 2010	-4.0	1.4 – 1.8	0.5 – 2.3
Private consumption	June 2010		-0.2 – 0.4	-0.2 – 1.6
	September 2010	-1.1	0.0 – 0.4	-0.1 – 1.5
Government consumption	June 2010		0.3 – 1.3	-0.3 – 1.1
	September 2010	2.6	0.3 – 1.3	-0.1 – 1.1
Gross fixed capital formation	June 2010		-3.4 – -1.2	-2.1 – 2.7
	September 2010	-11.0	-2.3 – -0.7	-1.6 – 3.0
Exports (goods and services)	June 2010		5.5 – 9.1	1.1 – 7.9
	September 2010	-13.2	7.4 – 10.0	2.9 – 9.3
Imports (goods and services)	June 2010		3.8 – 7.0	0.4 – 6.8
	September 2010	-11.8	5.8 – 8.2	1.6 – 7.8

\* actual data  
Source: ECB.



the projected profile of wages implies a decline in unit labour costs in 2010. This, in turn, is projected to allow a strong recovery in profit margins.

With regard to HICP inflation, the projection range for 2010 has been adjusted upwards from the range published in June. For 2011, the lower end of the range has been revised slightly upwards.



## 4 MEDIUM-TERM FORECAST FOR SLOVAKIA

The revised NBS medium-term forecast takes into account (in addition to the mentioned technical assumptions) new developments in real economy indicators and the effect of the Slovak Government's planned measures for improving the performance of public finances.

As part of Slovakia's commitments arising under the EU Stability and Growth Pact, the general government deficit must be reduced sufficiently by 2013 to ensure closure of the excessive deficit procedure (EDP) initiated against the country. In order to achieve this objective, Slovakia needs to adopt consolidation measures designed to gradually bring down the budget deficit. In compiling MTF-2010Q3, NBS took into consideration the proposed package of government measures intended to reduce the 2011 general government deficit by €1.7 billion (approximately 2.3% of GDP). The forecast was made having regard to the preliminary proposal for consolidation measures, sourced mainly from available information and also own calculations as at 17 September 2010.

These measures were incorporated into the September medium-term forecast as taking effect from the beginning of 2011, and it was assumed that no additional measures would be adopted in the following years. Almost two thirds of the fiscal consolidation measures in 2011 are focused on the expenditure side. Reducing government spending to such an extent has a direct effect on economic growth by lowering both general government final consumption and government investments. In addition, **measures on the revenue side of the budget result in lower household real disposable income, which in turn affects economic growth**, this time indirectly through private final consumption.

This current forecast (MTF-2010Q3) assumes that in the absence of the consolidation measures to repair the general government budget, GDP growth in 2011 would be at the same level as projected in MTF-2010Q2, and that the adoption of these measures will slow down growth to 3.0%.

Since MTF-2010Q3 was produced before the Government had reached a final decision on the

scope and structure of the consolidation measures, it may be assumed that if the fiscal measures ultimately adopted differ in form from those incorporated in this forecast, then the next forecast may have to revise the projections for macroeconomic development in the medium-term horizon.

### 4.1 THE REAL ECONOMY

#### CURRENT ACCOUNT

In the balance of payments **current account**, the **trade balance** for the second quarter of 2010 outperformed the projection given in MTF-2010Q2, since exports rose more strongly than expected amid more robust external demand. This was reflected also in higher import growth, through the effect of existing import intensity. With external demand projected to maintain its positive development (compared with MTF-2010Q2), export levels in the years 2010 to 2012 are expected to be higher. As a result of these factors, the trade balance in each of these years is assumed to improve in comparison with the previous forecast.

As stated in the previous forecast, exports and imports are expected to return to growth in the years 2010 to 2012, after declining by around 20% in 2009 in year-on-year terms.

The main **risk** to the trade balance forecast is stronger than projected external demand growth, as well as the timing of individual investment projects. Another risk is a different development in import intensity which could result in higher imports.

As for the **balance of services**, the lower amounts of revenue and expenditure in the first half of 2010 resulted, as expected, in the full-year figures for 2010 being revised down with only a minimal effect on the balance. In the medium-term horizon, however, revenue and expenditure in the balance of services are not expected to fall further, given that the recovery of external demand is projected to be stronger than originally



expected. The assumed changes in the **balance of income** figures also relate to current developments in the first half of 2010, as higher interest income allowed an upward revision of the income balance. Similarly with the **balance of current transfers**, the improvement in the full-year balance stemmed from current developments in private transfers, as well as new assumptions for payments to EU funds.

The **current account deficit** to GDP ratio in the years 2010 to 2012 is expected to fall in comparison with the previous forecast, owing to improved expectations for particular current account items. In 2011 and 2012, the current account deficit is projected to improve also in year-on-year terms, mainly because of steady growth in external demand (and its impact on the trade balance).

#### LABOUR MARKET

Reflecting the fact that **compensation** per employee growth in the second quarter of 2010 exceeded NBS expectations, MTF-2010Q3 projects higher compensation growth in comparison with the previous forecast (amid unchanged assumptions for the second half of the year). The medium-term forecast for employee compensation was affected by a decline in government wage expenditure as well as by a change in the burden of payroll contributions. Government expenditure is expected to be cut both through reductions in the public sector workforce and by a drop in the amount of wages paid (through lower salaries and/or lower variable wage components), the effect of which will be a lower overall amount of compensation. On the other hand, however, the fall in overall compensation is being offset by employers' higher payroll contributions and the steeper costs related to them. In these circumstances, growth in compensation per employee in the medium-term horizon remained unchanged from the previous forecast.

With the economy performing better than expected in the second quarter of 2010, the number of employed persons increased. Since the assumptions regarding the development of this figure in second half of 2010 remained unchanged in comparison with MTF-2010Q2, the decline in employment for the whole of 2010 is expected to be more moderate. In the medium-

term horizon, the employment situation is more adverse than stated in the previous forecast, owing to the effect of estimated reductions in the public sector workforce.

Along with the improved employment figures, the latest forecast projects a decline in the rate of **unemployment**. It also assumes that the drop in employment in 2011 (due to public sector workforce cuts) will not fully translate into the unemployment rate. According to NBS's assumptions, some of the workforce reduction will be accounted for by people retiring, therefore becoming economically inactive and not adding to the number of unemployed.

As for **risks** in the labour market forecast, fiscal consolidation measures may have other effects than those predicted. This includes not meeting the assumptions for public sector expenditure cuts through a reduction in the workforce and lower wage costs, being spread equally (50:50). Another risk is that weaker corporate profitability (due to the price of work being driven up by higher payroll contributions and margins being cut in order to partially absorb the VAT increase) may be reflected in lower employment or in lower collectively bargained wages and/or a lower amount of the paid variable component – the effect of which would be slower growth in compensation per employee. A risk to the unemployment rate forecast lies in plans to end the situation where an individual can simultaneously receive an early retirement pension and income from employment. This measure could prove to be a boost to the employment of graduates who are currently struggling to find work. The unemployment forecast may also be affected if the age structure of the public sector workers made redundant is different to that projected (with a different number of persons at retirement age).

#### GDP

According to SO SR data, GDP growth in the second quarter of 2010 was slightly stronger than projected in NBS's June forecast. Economic activity thus continued to recover at an increasing pace, driven mainly by net exports, and this is expected to translate into faster GDP growth for the whole of 2010. The positive situation in external trade relates to both more robust export growth and lower imports. But owing to the ac-



celeration of price growth in external trade, particularly during the second quarter of the year, the dynamics of real exports and, to a greater extent, imports are expected to be more modest than projected in MTF-2010Q2. The contribution of domestic demand to GDP growth is assumed to fall in 2010, with household final consumption growth having been revised down due to adverse developments in the second quarter and worsening of consumer confidence. Similarly, the forecast for fixed investments given in MTF-2010Q2 has been revised, and they are now projected to maintain a rising trend in 2010 too. It is therefore assumed that the acceleration of GDP growth in comparison with the previous forecast is caused mainly by the higher contribution of net exports.

As for the economy's development in the medium-term horizon, it is expected to be affected by, on one hand, the projected strengthening of external trade, and, on the other hand, the implementation of the Government's consolidation measures in 2011. GDP growth is assumed to decline, largely owing to a reduction in government expenditure on intermediate consumption and compensation (lower general government final consumption) and to cuts in public investment. Measures concerning the cancellation of the income tax suspension for natural persons and the expansion of the income base for the assessment of social and health contributions are expected to put downward pressure on household disposable income and consequently lead to lower household consumption. Therefore lower domestic demand is assumed to be the main cause of the slowdown in GDP growth in comparison with June's medium-term forecast. Further measures related to raising rates of value-added tax and excise taxes are expected to push up the domestic price level at a faster pace compared with the previous forecast. As a consequence, household real disposable income is projected to be lower.

#### **Domestic demand**

After declining in 2009, **household final consumption** is expected to rise modestly in 2010. As a corollary of low consumer spending in the second quarter and of the stagnation or decline of consumer confidence, private consumption growth is assumed to be slower than stated in the previous forecast. Household disposable in-

come, however, is expected to reflect stronger growth in compensation per employee, and therefore the savings ratio is projected to increase in 2010. In the medium-term horizon, household disposable income growth is projected to decline in comparison with MTF-2010Q2, as a result of the Government's fiscal measures. Household income is expected to come under downward pressure from the expansion of assessment bases for social and health contribution, the reduction of compensation in the public sector (expenditure on compensation in the central government is estimated to fall by 10%) and the raising of indirect taxes. The drop in disposable income in 2011 will not, however, be fully reflected in lower household final consumption, given the expectation that savings will be gradually used and, as a consequence, the savings ratio will come down. Another expected drag on disposable income and consequently, to some extent, on consumption relates to the cancellation of certain income tax exemptions for natural persons and, in the case of self-employed persons, the reduction of flat-rate expenditure to 40%. The effect of these measures is not, however, expected to show through until 2012.

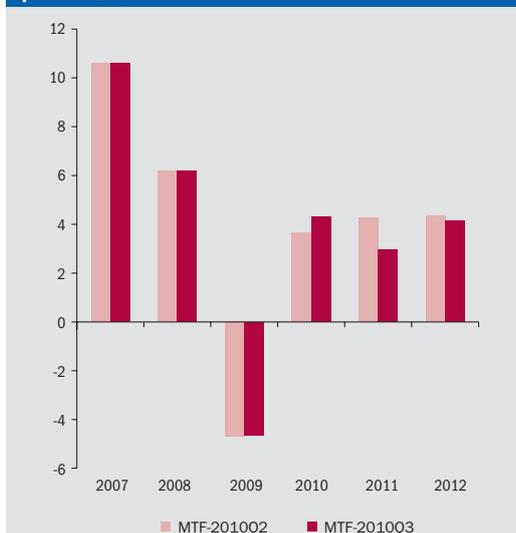
Following the slump in **fixed investments** in 2009, the decline in firms' investment activities is expected to decelerate in 2010 as the economy picks up, while infrastructure investments are assumed to rise. The principal contributors to capital formation, should, however, continue to be investments in infrastructure (2nd package of PPP projects; investments related to flood damage removal) and in the car industry. Their impact is assumed to be similar to that projected in the previous forecast. In the medium-term horizon, fixed capital formation is assumed to be lower, largely due to reductions in public investments.

As stated in MTF-2010Q2, restocking of inventories is expected to make a positive contribution to economic growth in 2010. Over the medium-term horizon, inventory changes are assumed to have a negligible effect on GDP.

#### **Net exports**

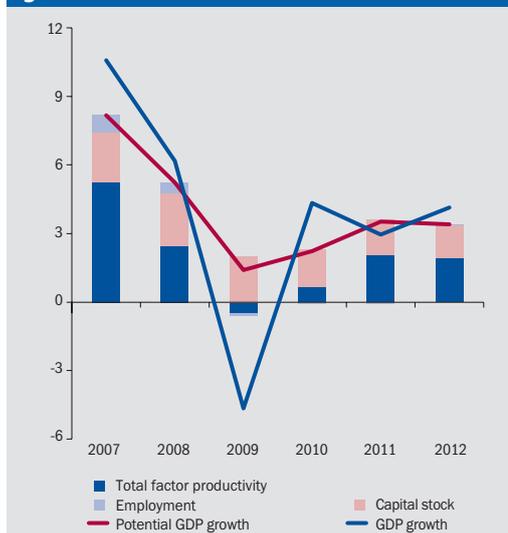
The contribution of net exports to GDP growth in 2010 is expected to be considerably stronger than projected in the June's medium-term forecast, as a result of current developments as well as expectations for the near term (lower restock-

**Chart 1 Forecast for GDP growth at constant prices (%)**



Source: NBS.

**Chart 2 Contributions to potential GDP growth**



Source: NBS.

ing). In the medium-term horizon, export performance is assumed to continue rising, driven up by the positive developments projected for external demand and, as mentioned in the June forecast, by the expansion of car industry production in 2011. Through existing import intensity, export growth will eventually be reflected in import growth too. In comparison with the previous forecast, however, imports will be negatively affected by lower domestic demand.

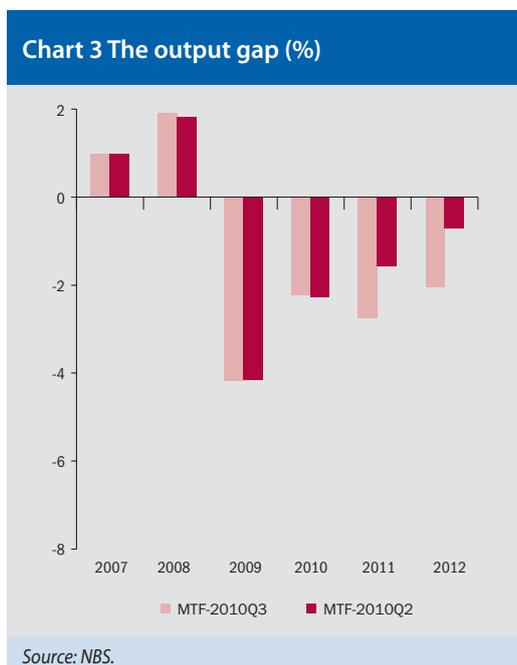
Whereas the planned fiscal consolidation was the main downside risk to the previous GDP forecast, it has already been taken into account in the latest medium-term forecast. The principal downside risk to this forecast is that the decline in household disposable income has a more pronounced negative effect on final consumption in the event that savings are utilised to a lesser extent than expected. Another downward risk to disposable income growth could be if employers meet higher payroll contributions by reducing wage growth over the near term. The medium-term forecast for GDP faces the downward risk that additional consolidation measures not incorporated in this forecast (e.g. a change in the pension-indexing mechanism from 2012) will be implemented. An upside risk to GDP growth is the substitution of reductions in government investments with private funds and/or with funds

drawn from EU structural funds. Another positive risk is any stronger than expected growth in demand among Slovakia's major trading partners. There is also the upward risk that general government consumption could be higher than projected, since – according to information available after the production of MTF-2010Q3 – not all of the consolidation measures may actually be implemented in the form assumed by NBS for the purpose of this forecast. In this regard, the risks to GDP growth (especially in 2011) appear to be more on the upside.

#### POTENTIAL GDP AND THE OUTPUT GAP

This forecast does not substantially revise the projection for potential GDP development from that given in MTF-2010Q2. As in the previous forecast, the potential growth of the Slovak economy in the medium-term horizon is gradually accelerating. Given the favourable global outlook and positive current developments in the first two quarters of 2010, the MTF-2010Q3 forecast for potential growth modestly revises up the projection in MTF-2010Q2. From 2011, potential growth is expected to be driven mainly by rising total factor productivity.

In comparison with the previous forecast (MTF-2010Q2), the latest forecast assumes that real



GDP growth will accelerate in 2010 (in line with positive current developments) and slow down in 2011 (due to fiscal consolidation measures). The projected output gap in 2010 is therefore less negative compared with the previous forecast. The cyclical position, however, has improved only moderately, since the favourable current situation is felt not only on the demand side of the economy, but on the supply side too. In 2011, the output gap is assumed to be more negative, and to close more slowly, than projected in MTF-2010Q2.

## 4.2 INFLATION

Since April 2010, the inflation rate in year-on-year terms has been gradually accelerating in line with expectations. As measured by the Harmonised Index of Consumer Price (HICP), the annual inflation rate has been marked by a sharper rise in food prices and a slower decline in prices of non-energy industrial goods, alongside decelerating inflation in prices of services and a sharper fall in energy prices. As regards food prices, inflation has accelerated in prices of processed foods and, to a greater extent, non-processed foods.

Compared with the MTF-2010Q2 forecast, the actual inflation rate was on average lower in

recent months, owing to developments in non-energy industrial prices and services prices. The deceleration of these prices was driven by stagnating demand, a fact further confirmed by retail sales figures.

This latest forecast takes into account new assumptions regarding prices of energy and agricultural commodities, as well as the USD/EUR exchange rate. These assumptions have been reflected in food price projections for the second half of 2010 and also for the first half of 2011. It is expected that excise taxes and VAT will increase and new fees will be introduced in 2011, thereby adding 1 percentage point to the average rise in consumer prices in 2011 and 0.1 of a percentage point in 2012.

The contributions of particular tax changes were based on the proposed increases in the respective rates or the amount of new fees (fee to the National Nuclear Fund; fee to the State Material Reserves). On the basis of historical experience (past changes in indirect taxes), it is assumed that the entire rise in consumption taxes (including VAT) in prices subject to such taxes will be reflected in the final consumer price. In the case of VAT, the assumption for 2011 is that, as happened in the past, the full rise in VAT will be passed on to regulated prices and prices of unprocessed foods (seasonal foods). As for other unregulated and non-seasonal items, the full increase in VAT is not expected to be reflected in the final prices, owing to competition pressures, the efforts of sellers to keep prices attractive, demand-side factors, and so on. This assumption is again based on historical analysis and on the fact that the VAT change effective from January 2011 will not be substantial.

Table 3 summarises how individual changes in excise taxes and VAT and the introduction of new fees are expected to affect the overall inflation rate.

In 2012, the inflation rate is expected to slow down in comparison with the previous year since the increase in indirect taxes will have ceased to have an effect. Inflation should be lower than projected in MTF-2010Q2, given the weaker domestic demand (affected by measures in public finances).

As for the structure of inflation, the component of food price inflation in the years 2010 and 2011



**Table 3 Calculation of the inflationary impact of changes in excise taxes and VAT and of the introduction of new fees**

	Expected rise in %	Total contribution in p.p.	Contribution to average inflation in 2011 in p.p.	Contribution to average inflation in 2012 in p.p.
Beer	8.6	0.14	0.11	0.03
Cigarettes	3.6	0.07	0.05	0.02
Road toll sticker	37.0	0.02	0.02	0.00
Heat energy	2.8	0.11	0.06	0.06
Electricity	8.6	0.31	0.31	0.00
Motor fuel	4.5	0.10	0.10	0.00
Impact on these items of an increase in excise taxes and VAT and of the introduction of new fees	-	<b>0.75</b>	<b>0.64</b>	<b>0.11</b>
Rise in prices of other items on which VAT will be increased from 19% to 20%	0.5	0.33	0.33	0.00
<b>TOTAL IMPACT</b>	-	<b>1.08</b>	<b>0.97</b>	<b>0.11</b>

Source: NBS calculation.

has probably increased in comparison with MTF-2010Q2, owing to expected developments in agricultural commodities, as well as increases in VAT and in excise duties on cigarettes and beer during the course of 2011.

Prices of **non-energy industrial goods** are expected to rise gradually. Their level in 2011 is assumed to be higher than stated in MTF-2010Q2 as a result of the increase in VAT as well as the higher projected import prices.

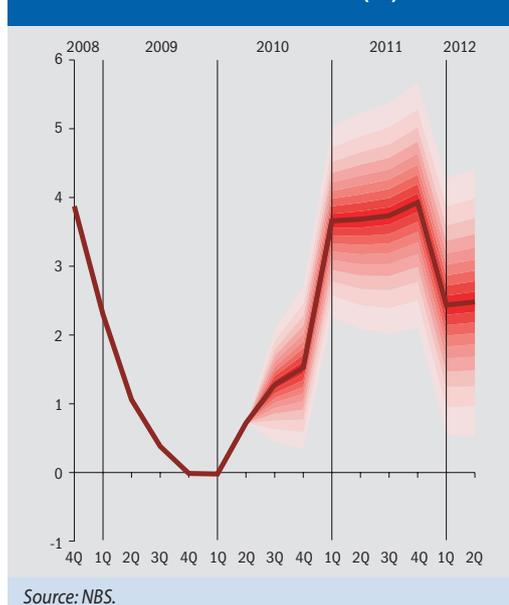
Prices of **services** continue to be affected by the slowdown in economic activity in 2009, as well as by the low consumer demand recorded this year. They are assumed to rise in 2011 at the same pace as projected in MTF-2010Q2, driven up by higher taxes and moderately stronger secondary effects arising from a sharper rise in fuel prices (the introduction of a fee for the State Material Reserve and higher consumer taxes on biocomponents). In 2012, prices of services may be dampened by the low demand resulting from fiscal measures.

Administrative prices in 2011 are projected to accelerate in comparison with 2010. As a consequence of higher taxes (VAT and energy taxes), they are expected to be higher than stated in the previous forecast. The assumptions concerning regulated prices are not expected to change in 2011 and 2012.

The medium-term forecast for inflation can be considered realistic since none of the selected inflation-determining factors are reported as a substantial risk, according to risk assessment results.

The uncertainty in the inflation forecast is heightened by the fact that the fiscal consolidation is still in the approval process and also by the risk that

**Chart 4 HICP inflation forecast (%)**



Source: NBS.



the consolidation measures will have different effects on the economy to those assumed in the forecast. Upside risks include the development of import prices, which due to a stronger recovery of economic activity, as well as higher energy prices, may rise more sharply than currently projected. A negative output gap and stagnating consumer

demand create the risk that changes to VAT and certain excise taxes will be reflected in the price level to a lesser extent than projected in this forecast. The risk of a change in the form of energy price regulation, or of any further liberalisation of the household energy market, may exist on both the upside and downside.



**Table 4 Medium-term forecast (MTF-2010Q3) – main macroeconomic indicators**

	Actual data	Projection in MTF-2010Q3			Difference versus MTF-2010Q2		
	2009	2010	2011	2012	2010	2011	2012
<b>Prices (annual percentage changes)</b>							
HICP inflation (average)	0.9	0.9	3.8	2.6	0.1	1.1	-0.2
CPI inflation (average)	1.6	1.0	3.8	2.6	-0.1	1.1	-0.3
ULC <sup>1)</sup> (compensation per employee at current prices / labour productivity ESA 95 at constant prices)	7.2	-1.9	2.2	2.8	1.1	0.8	0.2
Labour productivity ESA 95 (GDP at constant prices / employment ESA 95)	-2.4	5.9	2.9	3.7	0.2	-0.8	-0.2
Compensation per employee (current prices)	4.7	3.8	5.2	6.5	1.3	0.0	-0.1
<b>Economic activity (annual percentage change; unless otherwise indicated)</b>							
Real GDP	-4.7	4.3	3.0	4.1	0.6	-1.3	-0.3
Final consumption of households	-0.7	0.1	2.0	3.8	-1.0	-1.4	-0.3
Final consumption of general government	2.8	3.2	-3.9	0.0	1.7	-6.0	-0.3
Gross fixed capital formation	-10.5	-0.4	-0.9	3.7	-4.0	-1.8	-0.1
Exports of goods and services	-16.5	13.3	7.5	7.9	-1.0	-0.3	0.6
Imports of goods and services	-17.6	11.7	5.6	7.1	-3.6	-0.9	0.7
Gross real disposable income of households	-0.2	0.9	1.1	3.8	0.2	-2.0	-0.4
Output gap (% of the potential output)	-4.1	-2.2	-2.7	-2.1	0.1	-1.1	-1.4
<b>Labour market (annual percentage change)</b>							
Employment, based on ESA 95	-2.4	-1.5	0.1	0.5	0.4	-0.5	0.1
Unemployment rate, LFSS-based <sup>2)</sup> (%)	12.1	14.3	14.2	13.9	-0.4	-0.1	-0.1
<b>Balance of payments</b>							
Economic openness (% of GDP)	139.8	156.1	159.8	163.7	1.1	1.7	3.1
Balance of trade (% of GDP)	1.9	1.3	2.3	2.9	0.4	0.6	0.6
Balance of services (% of GDP)	-2.0	-1.6	-1.3	-1.1	0.0	0.0	0.0
Current account (% of GDP)	-3.2	-2.6	-1.2	-0.2	0.7	0.8	0.7
Current and capital account (% of GDP)	-2.5	-1.1	0.7	1.7	0.7	0.8	0.8

Source: NBS.

1) ULC – unit labour costs.

2) LFSS – Labour Force Sample Survey.



## THE EFFECT OF FISCAL CONSOLIDATION ON MACROECONOMIC DEVELOPMENTS IN SLOVAKIA

In relation to the decision of the EU Council to open an excessive deficit procedure against Slovakia – under which a deadline of 2013 is set for the correction of the general government deficit to 3% of GDP – the Slovak Government has presented its plans to begin implementing a scenario for the gradual reduction of the deficit from 2011. NBS therefore considered it essential to reflect these plans in its medium-term forecast, even though the individual measures had still not been fully worked out or approved when the forecast was produced. Therefore this medium-term forecast (MTF-2010Q3) carries with it the risk that the final measures will differ both in their structure and scope. Any potential divergence will be corrected in the December forecast, given that the new Stability Programme of the Slovak Republic – setting out the consolidation measures planned for the period up to 2013 – is expected to be available before the forecast is produced. This medium-term forecast is based on many assumptions and estimates which, if not implemented, could significantly alter the extent to which the fiscal consolidation affects macroeconomic developments. They include for example, the proportion of the VAT increase that is passed on to consumer prices; whether and to what extent households will cover falls in their real disposable income by dipping into savings; or what proportion of the public sector workforce reductions will be accounted for by retirements. Efforts to cut public spending on investment will indeed result in its reduction, since such spending may be financed with EU funds or may be substituted with private funds. From the view of GDP or inflation developments, a change in these assumptions will represent a risk on both the upside and downside.

The fiscal consolidation measures in 2011 represent on aggregate around €1.7 billion, with almost two thirds of that amount focused on the expenditure side. Reducing government spending to such an extent has a direct effect on economic growth by lowering both general government final consumption and government investments. In addition, measures on the reve-

nue side of the budget result in lower household real disposable income, which in turn affects economic growth, this time indirectly through private final consumption.

Since most of the consolidation measures in 2011 are to be implemented on the expenditure side (directly affecting economic growth), it is expenditure cuts that will account for the larger part (almost 60%) of the negative fiscal stimulus to GDP growth. Approximately half of this effect results from saving measures related to government intermediate consumption, social benefits in kind and government investments, and they directly reduce general government consumption and gross fixed capital formation. Through the import intensity of government intermediate consumption and investments, these measures also affect the level of exports in 2011. It is assumed that around 10% of the planned savings in government expenditure could be achieved through the more efficient (cheaper) public procurement that the Government is planning to introduce. This will again result in a lower deflator of general government final consumption, without directly

**Table 5 Government consolidation measures for 2011**

	% of GDP
REVENUE	0.9
Tax revenue	0.6
Income tax on natural persons	0.1
Income tax on legal persons	0.0
Value-added tax	0.3
Excise taxes	0.2
Revenue from contributions	0.2
Non-tax revenue	0.2
EXPENDITURE	-1.4
General government final consumption	-1.1
Compensation of employees	-0.4
Intermediate consumption	-0.3
Social benefits in kind, etc.	-0.3
Government investments	-0.4
Consolidation measures	2.3

Source: Publicly available information.



affecting general government final consumption in real terms. The other half of the expenditure-side of the fiscal impulse involves cutting expenditure on employee compensation in the public sector, thereby reducing nominal general government final consumption and also its deflator (by lowering rates of pay in the public sector). Expenditure on compensation in the public sector is to be cut partly through reducing employment and partly through cutting compensation per employee. The reduction in compensation is reflected in lower household disposable income and puts downward pressure on private consumption. However, the worse financial condition of households only partially translates into their consumption, since consumption is saturated at the expense of a falling savings ratio. As with the previous measures, imports reflect the changed situation in the area of domestic demand. The unemployment rate is higher owing to lower employment in the public sector; it is assumed that half of the employees whose employment is terminated will become unemployed and half will leave the labour market.

Consolidation measures on the revenue side represent the smaller part of the fiscal stimulus to GDP growth in 2011. Under these measures, almost the entire effect is caused by raising value-added tax and excise taxes, and it is reflected in higher inflation, in higher deflators of the final

consumption of households and of general government, and in the GDP deflator. Amid stagnating nominal wages, the higher price level results in a slump in real disposable income, which has an adverse effect on private consumption. The worse financial condition of households again only partially translates into their consumption (which is saturated at the expense of savings), while changes in domestic demand are, as with the previous measures, reflected in lower import growth. Another group of measures on the revenue side are legislative amendments that raise payroll contributions. The effect of such measures on GDP in 2011 is negligible. On one hand, the burden of higher payroll contributions on employers raises nominal compensation, but, on the other hand – owing to the higher payroll contributions of employees – disposable income falls and adversely affects household final consumption. Since the decline in income again only partially feeds through to private consumption (owing to the lower savings ratio), the overall effect of these measures on economic growth in 2011 is minimal. The final group of revenue-side measures are changes concerning the cancellation of deductible items in income tax for natural persons. Although these measures take effect from 2011, they will not in fact affect the perceived financial position of households until 2012, with the annual settlement of income tax of natural persons.