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Lithuanian Economic Review analyses the developments of the real sector, prices, public finance and credit in Lithuania, as well as the projected development of the domestic economy. The material presented in the Review is the result of statistical data analysis, modelling and expert assessment. The Review is prepared by the Bank of Lithuania.

During the preparation of the Lithuanian Economic Review, the data of the Bank of Lithuania, Statistics Lithuania, the European Central Bank, Eurostat, the International Monetary Fund, Bloomberg and other data published up to 28 October 2011 were used.

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Abbreviations

CEE	Central and Eastern Europe
CIS	Commonwealth of Independent States
CPI	consumer price index
EBF	European Banking Federation
ECB	European Central Bank
EC	European Commission
EU	European Union
EURIBOR	euro inter-bank offered rate, the rate at which a prime bank is willing to lend funds in euro to another prime bank
Eurostat	statistical office of the European Union
FDI	foreign direct investment
FRS	Federal Reserve System
GDP	gross domestic product
HICP	harmonised index of consumer prices
IMF	International Monetary Fund
LTL	Lithuanian litas
MFI	monetary financial institution
OPEC	Organization of Petroleum Exporting Countries
OTC	over the counter
rh scale	right-hand scale
US	United States of America
USD	US dollar
VAT	value-added tax
VILIBOR	Vilnius inter-bank offered rate, average interbank interest rates at which banks are willing (ready) to lend funds in litas to other banks

ECONOMIC OUTLOOK

The economy of Lithuania is recovering further, however, the expectations of both households and enterprises regarding future growth are starting to deteriorate. The growth of real GDP has been accelerating recently, the value added and employment increased in most economic activities over the year, and the unemployment rate declined. However, some segments of the economy, namely those related to foreign demand, grew slower. The volume of industrial production sold in foreign countries has been growing slower already for some time. Lithuania's exports of goods and services also grew more moderately both in terms of exports of the Lithuanian origin and in terms of total exports from Lithuania. Such development of economic indicators is related to less favourable demand for imports in trading partners that are important for Lithuania, such as Russia, Germany, Poland, and Estonia. The short-term outlook is assessed more poorly than several months ago by Lithuania's households as well as enterprises in the main economic activities, such as industry, trade and other services. Therefore, it is projected that the growth of Lithuania's real GDP will slow down. It is expected to stand at 6.2 percent in 2011 and at 3.5 percent in 2012.

Currently, the real GDP growth is mostly stimulated by private consumption expenditure. Expenditure started to grow at the end of the last year and its growth accelerated up to now. At first, private consumption was encouraged by the improvement of household expectations, while recently it has been positively affected by the labour market recovery (increasing employment and wages). The recovery of private consumption is also reflected by the rising retail trade: the sales of both non-durable and durable goods are increasing. However, the deteriorating situation in the global economy is starting to worsen the expectations of households regarding the future economic situation in Lithuania and the situation in the labour market. Therefore, the growth of private consumption is expected to stop accelerating already at the end of the year and to decelerate afterwards. It is projected that private consumption will grow by 3.5 percent in 2012, after growing by 6.3 percent in 2011.

Investment into gross fixed capital has been increasing quite significantly. This was mainly related to private sector investments into transport and means of production. Up to now, the increase of investment in this sector was encouraged by the rising production capacity utilization rate, which in some industrial branches (such as chemical, wood, textiles industry) reached the level observed before the downturn. Investment in transport has been increasing at an exceptionally high rate, however, this could be expected, since during the recession these investments dropped the most. Growing economy of Lithuania also contributed to the construction of buildings and structures. However, the projected less favourable economic outlook will also affect the development of the gross fixed capital formation. The future decline of investment growth is suggested by the weaker growth of the import of investment goods, which has been observed already for around a half of the year.

The situation in the labour market has apparently improved recently. The unemployment is declining, as well as the rates of long-term and youth unemployment, which increased rapidly during the recession. The growth of employment is mostly determined by the services sector but other activities, such as industry and construction, also contribute to it. Employment is largely stimulated by the larger private sector, however, it has been growing already for several quarters in the public sector as well. Employment is also favourably affected by employment forms that demonstrate labour market flexibility, such as part-time and temporary employment. Thus, the rise in employment is not related to a single activity or sector but is broad-based. It is forecasted that in 2011 and 2012 employment will rise (by 3.1 and 1.6 percent, respectively), whereas the unemployment rate will decline but will remain higher than its average since the beginning of data publication.

Not only employment but also wage indicators are changing. With the rise of activity and a shortage of employees with suitable qualification in some economic activities, the average wage is rising in the country. The annual growth of wages was largely determined by the services sector, however, wages are also rising in other sectors. The average wage is projected to rise further over the forecast horizon. It should increase by 4.0 percent in 2011 and 3.0 percent in 2012.

Recent foreign trade developments are mostly determined by re-exports. Re-exports remain larger than a year ago, however, it fell during the last several months according to seasonally adjusted data. It decreased due to a large decline in the sales of passenger cars. This development affected general trends of both exports and imports of goods. The exports of goods of the Lithuanian origin are also higher than a year ago. Recently, however, this type of exports was not rising (according to seasonally adjusted data): the export volumes of most goods remained stable. As mentioned, such export developments are determined by a more sluggish demand for imports in foreign countries. It is important to note that at the same time Lithuania's export market shares continue to increase. External demand should grow less in the future, therefore, it is projected that the exports will grow at a slower rate as well. Real exports of goods and services are expected to increase by 13.2 percent in 2011 and 5.3 percent in 2012.

Foreign trade deficit changed less significantly. In the second quarter of 2011, balance of goods, as well as balance of services (both measured as a share of GDP), was similar to the value of the beginning of the year. The income balance also changed insignificantly. **However, the current account deficit widened due to a lower surplus of current transfers.** This surplus went down due to a decline in payments from the EU funds. These payments should be restored in the nearest quarters. In addition, the balance of current transfers should be further positively affected by a continued growth of workers' remittances.

Table 1. Economic outlook for Lithuania in 2011-2012

	November 2011			August 2011		
	2010	2011*	2012*	2010	2011*	2012*
Price and Cost Developments (annual percentage changes)						
Average annual inflation (based on HICP)	1.2	4.2	3.0	1.2	4.4	4.1
GDP deflator	2.0	4.6	3.2	2.1	5.6	4.0
Wages (compensation per employee)	0.3	4.0	3.0	–0.1	3.8	5.3
Import deflator	9.7	12.6	2.4	9.2	13.6	2.6
Export deflator	10.6	11.3	2.4	10.9	12.6	2.4
Economic Activity (constant prices; annual percentage changes)						
Gross domestic product**	1.4	6.2	3.5	1.3	6.2	4.8
Private consumption expenditure	–4.9	6.3	3.5	–4.5	6.1	5.2
General government consumption expenditure	–3.3	0.3	0.2	–3.4	–0.4	2.9
Gross fixed capital formation	1.0	17.7	9.1	0.0	17.7	11.7
Exports of goods and services	17.4	13.2	5.3	17.4	12.0	5.7
Imports of goods and services	17.3	14.0	5.6	17.9	14.9	6.2
Labour market						
Unemployment rate (annual average as a percentage of labour force	17.8	15.4	13.6	17.8	15.5	13.0
Employment (annual percentage changes)	–5.1	3.1	1.6	–5.1	2.3	2.7
External Sector (as a percentage of GDP)						
Balance of goods and services	–1.1	–2.7	–3.3	–0.7	–3.0	–4.2
Current account balance	1.5	–1.3	–2.0	1.8	–1.5	–2.7
Current and capital account balance	4.2	1.1	0.2	4.5	0.9	–0.6

* Projection.
** Changes in inventories are not included in GDP components.

After reaching the highest level in the recent two years, the annual inflation declined slightly, owing to a slower food price growth and lower annual core inflation. Food prices' increase over the year remains the main driver behind inflation in Lithuania, however, its influence is decreasing as a result of a slower growth of global food prices. With the increasing concern about the prospects of the global economy, oil price growth decelerated, therefore, the annual increase in fuel prices in Lithuania slowed down and the influence of fuels on inflation declined. The impact of administered prices, on the contrary, is increasing. These prices are mostly pushed up by more expensive heat energy determined by the growing price of imported fuel. The prices of industrial goods and market services, which depend on the developments of domestic consumption and are included in the calculation of the core inflation measure, have a low impact on inflation. In the nearest future, this impact should not grow strongly, since the risk that Lithuania's economy will grow slower as a result of deteriorating situation in the global economy is increasing. Thus, owing to a less favourable assessment of the economic development of foreign countries and Lithuania, inflation is projected to be lower in both 2011 and 2012 standing at 4.2 and 3.0 percent, respectively.

Several factors may also determine a different development of the real sector and prices in Lithuania. The main potential risks and their impact on Lithuania's economic development over the forecasting period are discussed in Annex 1.

I. INTERNATIONAL ENVIRONMENT

Increasing tensions in international financial markets have caused the slowdown of global economic recovery.

At the beginning of 2011, the global economic growth was quite fast. However, in the second quarter, the expansion slowed down, and in a number of advanced economies nearly halted. The weak recovery of the US economy was much below the spring expectations; the outlook for the economic expansion in the European states such as France, the United Kingdom and the problematic euro area countries is estimated as much poorer. Meanwhile, in a number of emerging economies expansion has been weaker but still rapid.

The prolonged debt crisis in the euro area poses a particularly great threat both to the economy of Europe and the entire world.

In the context of increased tensions in the debt markets of the euro area problematic countries, the spill-over effect to other euro area countries, such as Italy and Spain, as well as financing problems of banks, in the middle of the year the localized crisis turned into a systemic one. Prompt stabilization measures have been undertaken: decisions on the increase of the flexibility of the instruments for Europe's financial stabilization were adopted, a new programme for the stabilization of the Greek economy was developed, providing for joint financial support from the EU and the International Monetary Fund and private sector participation in the restructuring of the Greek debt. Decisions of the European Council calmed the markets down for a while; however, the uncertainty surrounding the adequacy of measures for the resolution of the euro area crisis remains high.

The risks for the further development of the global economy are also increasingly heightened by the thinning possibilities of the macroeconomic policy stimulus.

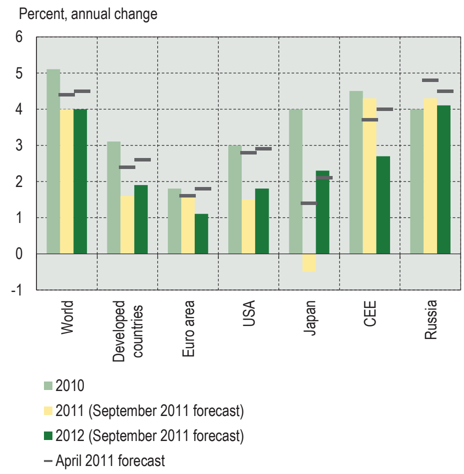
In order to retain long-term economic sustainability, a number of countries undertake tightening their fiscal policies. The accommodative possibilities of monetary policy are becoming increasingly exhausted as well – interest rates have been minimized, while additional monetary instruments are limited. The key interest rates of central banks remained at historical lows in the third quarter of 2011. The ECB increased its key interest rates for a second time this year in July (by 0.25 percentage point to 1.5 %) stressing, however, that this was its response to higher inflation, whereas the monetary policy still remains accommodative.

Global prices of energy and raw materials declined in the third quarter of 2011. This was driven by the slowdown in economic growth and the persisting uncertainties surrounding the outlook.

At the end of the third quarter, overall price index for commodities was approximately 10 percent higher than a year earlier, however, it has declined by approximately 20 percent during the last half-year. The fall in the prices of food and other agricultural raw materials was the most pronounced. It was driven by a good harvest this year. In addition, slower than expected recovery of demand in advanced economies and a decline in the volumes of OTC transactions on international markets were important factors behind the drop in the prices of agricultural and other raw materials. Oil prices were also influenced by the easing geopolitical tensions in North Africa. The average price of *Brent* crude oil has been quite stable since the mid-year (fluctuating at around 110 to 115 USD per barrel) but at the end of the third quarter they dropped to 100 USD.

Comparing to the spring forecast, growth projections were reduced in many countries.

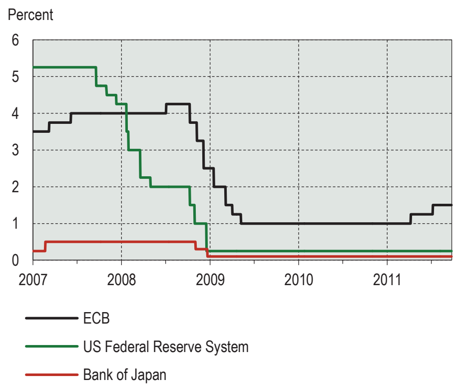
Chart 1. Real GDP in different regions of the world



Source: IMF.

Key interest rates remain low.

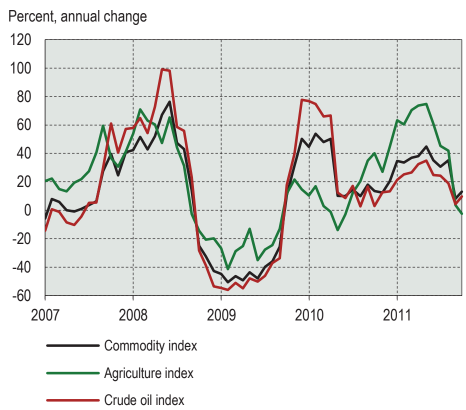
Chart 2. Key interest rates of central banks



Source: Bloomberg.

Commodity prices having significant effect on inflation remain high, however, compared to the levels seen in the middle of the year, they have declined markedly.

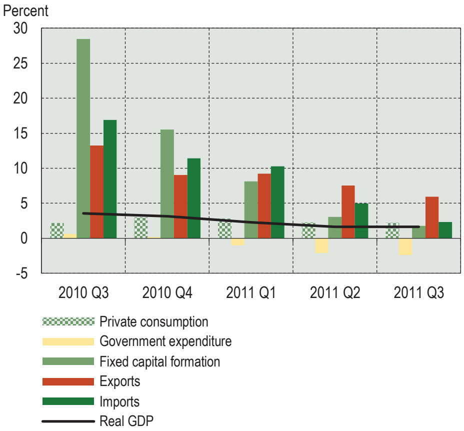
Chart 3. Global prices of commodities



Source: Standard & Poor's.

Slow recovery of the largest world economy hinders economic growth in many countries.

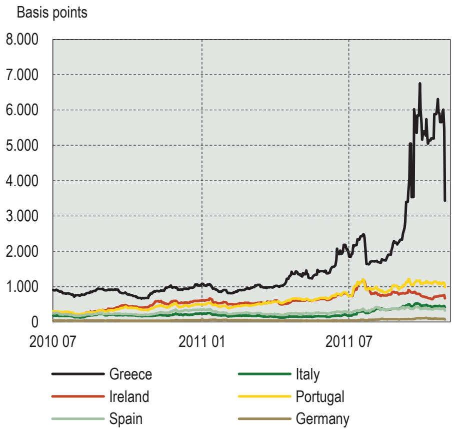
Chart 4. Annual change in real GDP, estimated by expenditure approach, in the US



Source: U.S. Bureau of Economic Analysis..

Tension related to Greece financing problems increased in the third quarter.

Chart 5. Price of five-year credit default swap in the euro area countries



Source: Bloomberg.

Compared with the other EU countries, the Baltic economies recorded the strongest growth.

Table 2. Macroeconomic indicators of Estonia and Latvia

	Estonia	Latvia
Annual percentage change in real GDP		
2011 Q2	8,4	5,6
2011*	6,5	4,0
2012*	4,0	3,0
Average annual percentage change in HICP		
2011 (September)	5,2	3,6
2011*	5,1	4,2
2012*	3,5	2,3

** Forecasts*
Sources: Statistical Offices of Estonia and Latvia, IMF.

The recovery of the US economy was hampered as the government stimulus programmes were completed; tensions have been increasing due to political disagreements over further fiscal consolidation and the strengthening of the financial sector.

In the second quarter of 2011, compared with the respective period of the previous year, US economy rose by 1.6 percent. According to the preliminary estimate, the growth rate in the third quarter was 1.6 percent as well. The economy was fuelled by increasing household consumption, investment, and a positive contribution from net exports. The weaker growth rate, compared to the first quarter, was driven by a decline in government expenditure. Real GDP was negatively affected by the still decreasing investment in residential and non-residential buildings. Removal of tax reliefs in the middle of the year caused a greater decline in the housing sales and construction volumes in the US. High unemployment (above 9 %) and rising inflation (annual increase of CPI amounted to 3.9 % in September) heighten the tensions in the US economy.

Slowdown of economic growth in the euro area followed the global trends, however, due to the prolonged euro area debt crisis great uncertainty over the outlook remains.

Annual growth rate slackened in the second quarter both in the euro area and across the EU (to 1.6 % and 1.7 % respectively from 2.4 % in the first quarter). In the euro area, the main driver behind the real GDP growth was net exports, whereas domestic demand had a negative impact. A downturn continued in Greece and Portugal, however, the development of a number of other euro area economies, especially within the advanced economies group, nearly came to a halt too. Among the Nordic countries, Swedish economy recorded the strongest growth.

The Baltic economies, after facing a deep recession, have been recovering; growth rates in Estonia are especially pronounced.

In the second quarter of 2011 the Estonian economy was mainly fuelled by the increasing activity of manufacturing sector. Strong growth of investments and an increase in household consumption, net exports, and all other GDP components were recorded. Tight fiscal consolidation increases the sustainability of the Estonian economy (in 2010, general government was in surplus of 0.2 % of GDP and is expected to be close to balance in 2011). In Latvia, economic growth accelerated in the second quarter of 2011 as well, with activity increasing in nearly all sectors, excluding those of construction and real estate. GDP growth in Latvia was driven by rising household consumption and business investments however, as import increased stronger than export, the impact from net exports on GDP was negative.

In the CIS countries, economic development was negatively affected by persisting financial sector problems and high inflation.

The situation across the CIS countries is distinct. Russia and other energy exporting countries recorded higher growth rates. The major risks in the region stem from the further development of commodity prices and persisting banking sector problems. The situation in Belarus is particularly tight, where economic growth almost came to a halt owing to a currency crisis, capital outflows, and a decline in domestic demand. High inflation is an important hindrance for economic developments across the region. One-third of the countries in the region record double-digit inflation rates. To curb price increases, Russia and some other CIS countries have increased interest rates and tightened reserve requirements.

II. REAL SECTOR

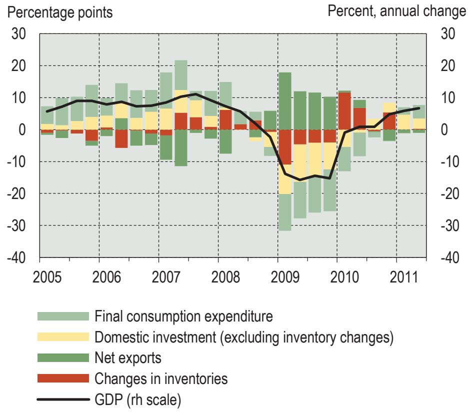
AGGREGATE DEMAND AND AGGREGATE SUPPLY

Due to recovering domestic demand, the growth of Lithuania's economy remains robust. GDP expanded because of increasing final consumption expenditure and domestic investment, while net exports had a minor negative impact. However, decelerating global economic growth will also affect Lithuania, therefore, forecasts indicate a slower growth of Lithuania's GDP in the near future.

In the third quarter of 2011, the growth of Lithuania's economy was more intense compared to the previous one. According to preliminary estimates, real GDP increased by 6.6 percent on an annual basis and value added increased in all main economic activities. Similar dynamics of economic activities was observed in the second quarter as well when GDP increased on an annual basis by 6.5 percent. Based on the expenditure approach, the GDP development in the second quarter was determined by recovering domestic demand. It grew because of higher final consumption expenditure and domestic investment. In the context of a recovering domestic demand, imports grew more intensively and for already a year surpassed the growth rate of exports. In the background of such exports and imports dynamics, net exports reduce GDP.

The growth of Lithuania's economy remains robust.

Chart 6. Real GDP growth and contributions (expenditure approach)



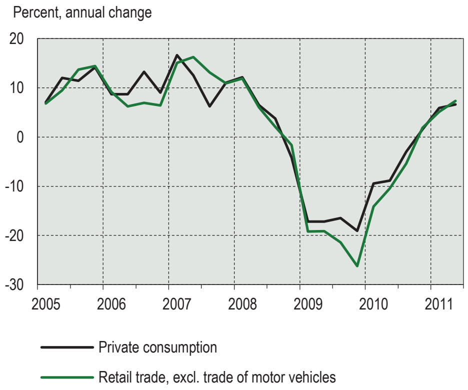
Sources: Statistics Lithuania and Bank of Lithuania calculations.

In the second quarter, Lithuania's GDP was mostly increased by private consumption. It grew due to improving household expectations and a more favourable situation in the labour market. In the third quarter, one-off factors should entail even faster growth of private consumption, although afterwards the growth rate will slacken due to deteriorating household sentiments.

The recovery of private consumption was intensifying. In the first quarter mainly increasing due to improving household expectations, in the second quarter the growth of private consumption was also intensified by a more favourable situation in the labour market – the unemployment rate decreased, while employment and wages moved up. This allowed household income to grow at a more robust rate than inflation and strengthened its purchasing power. Because of an increasing purchasing power and improving future expectations, household incentives to save were also weakening. In the third quarter, one-off factors and expected better indicators of the labour market will determine an even more robust private consumption growth. However, due to statements about a decelerating development of global economy household sentiments in the second half of the year started to deteriorate. Such developments may attenuate a further recovery of private consumption. According to consumer surveys, households expect Lithuania's economy to expand slower and unemployment to grow.

An improving situation in the labour market influenced the recovery of private consumption.

Chart 7. Development of private consumption and retail trade



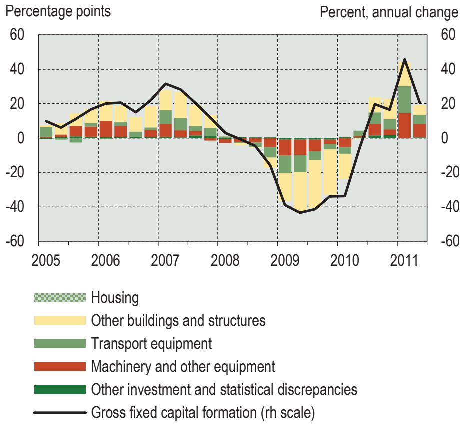
Sources: Statistics Lithuania and Bank of Lithuania calculations.

Another factor of domestic demand – gross fixed capital formation – increased in the second quarter at a slower rate than in the first, but development remained buoyant. Investments were largely pushed up by the private sector expenditure on transport and other capital goods.

Gross fixed capital formation grew in the second quarter by 20.7 percent. A particularly intensive growth for more than a year was observed in investments into vehicles. A significant part of this growth is attributed to the comparative base effect because during the downturn investments into vehicles were about 7 times smaller than in 2007. Due to recovering international trade the development of Lithuania's transport enterprises contributed to the growth of these investments as well. Investments into other capital goods also grew. In 2010, this indicator was pushed up by projects implemented by the government sector and state enterprises. In 2011, due to a stronger recovery of both the Lithuanian and foreign

An improving situation in the global economy and growing production of Lithuania's companies encouraged them to invest in development.

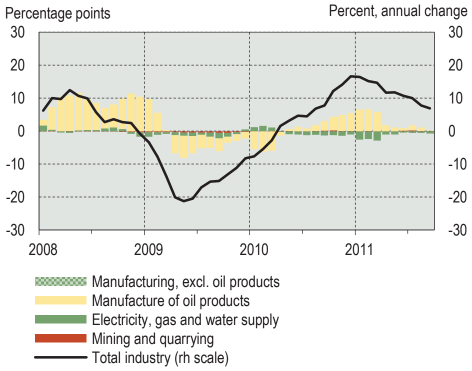
Chart 8. Gross fixed capital formation growth and contributions



Sources: Statistics Lithuania and Bank of Lithuania calculations.

A decelerating activity of the manufacture of refined petroleum products reduced the growth of industrial production most of all.

Chart 9. Industrial production growth and contributions (three-month moving sums)



Sources: Statistics Lithuania and Bank of Lithuania calculations.

economies, the growth was registered also in private sector investments. For more than two years private sector had basically frozen the major part of investment projects, therefore, in order to raise competitiveness and the volume of production, it had to renovate owned equipment.

A double-digit growth rate was also registered in investment into buildings and structures.

The construction of residential buildings was mostly encouraged by a revival in the real estate market. However, it should be noted that the period from obtaining a construction permission till the recognition of the housing suitable for usage lasts several years, therefore, it is probable that the major part of currently newly built apartments are residential housing projects which have been started during the upswing period and completed at the present time. Investment into other buildings and structures mostly increased due to the expansion of manufacturing, transport and storage, retail and wholesale trade enterprises.

However, in the short-term, due to persisting uncertainty surrounding the euro area debt crisis and a slower growth of the global economy, gross fixed capital formation will face a weaker growth.

As in the case of private consumption, a slackening global economy and deteriorating expectations of consumers and enterprises will force enterprises to be more cautious in assessing investment projects and to withhold from riskier ones. This will slow down the growth of both investment into capital goods and investment into construction.

In the context of slackening external demand, industry's activity drops as well. On an annual basis value added of this activity increased less compared to previous two quarters, but its growth remained robust.

Industry's activity grew at a slower rate largely because of the production of refined petroleum products. After an increase of almost one-fifth on an annual basis in the first quarter of 2011, its value added dropped by a bit less than one-tenth in the second quarter. A slower growth of value added was also observed in many other manufacturing activities, however, a further forecast of their development differs. Among the largest manufacturing activities the most favourable assessment may be given to wood and furniture industry. It has plans for a further production development and has free production capacity that would allow to effectively increase production if demand continues to grow. Although enterprises of textile industry forecast the growth of sales, they have large quantities of production inventories and production capacity is basically at the highest level since 2007. Factors limiting the activity of chemical industry are different: in the production of chemicals and chemical products sales are impacted by supply disruptions, while in the production of rubber and plastic goods – by less growing demand.

For more than a year the industry's value added has been reduced by the activity of electricity, gas and water supply. It decreases mainly because of a smaller electricity production in which costs are raised by natural gas prices.

After the closure of the Ignalina Nuclear Power Plant, value added of this economic activity has been permanently shrinking. This shift is explained by the fact that other Lithuania's power plants use mainly natural gas for the production, and an increasing price of natural gas determines the change of electricity produced in Lithuania to the imported one. In the first half of 2009, with the Ignalina Nuclear Power Plant still in operation, the share of imported electric power accounted for less than one-tenth in the structure of Lithuania's electric power consumption. In the same period of 2010, it soared up to more than a half and in 2011 it exceeded three-fourths.

LABOUR MARKET

The stance in the labour market improved markedly in the second quarter of 2011.

The unemployment rate dropped noticeably and accounted for 15.6 percent (in the first quarter – 17.2 %). For already two consecutive quarters unemployment was lower than a year ago. Employment increased 4.3 percent per annum, more than during the period of the most intensive economic growth. The increase was mainly related to the largest by employment sector – services sector, particularly transportation and storage activity as well as administrative and support service activity. However, industry and construction also contributed to employment growth.

Improving situation in the labour market was also reflected in lower long-term unemployment and youth unemployment rates. Before the second quarter long-term unemployment has been steadily increasing for several years. The youth unemployment rate was lower than a year ago for already a second quarter in a row. However, these indicators are still especially high in comparison with the EU average.

An increase was registered not only in employment but also in wages. The average gross wage dropped substantially during the downturn but from the end of 2010 it was higher than a year ago. In the second quarter, it stepped up by 2.5 percent per annum largely due to higher wages in the services sector. However, in other main activities (agriculture, industry, and construction) wages were also higher than a year ago.

Although the situation in the labour market was improving, unemployment expectations of the households within recent several months worsened.

This may be related to poor global economy news with Lithuanian households expecting that difficulties in the euro area will affect the economic situation in Lithuania. Employment expectations of enterprises also became more pessimistic.

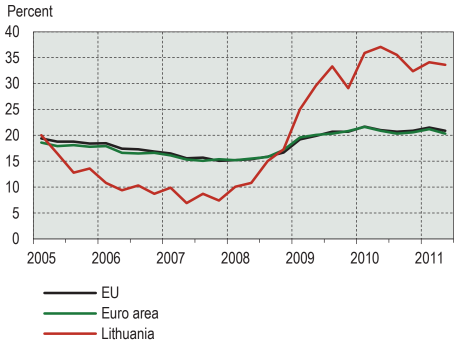
The labour market situation improved: employment grew, unemployment decreased.

Chart 10. The number of the employed and the unemployment rate

Sources: Statistics Lithuania and Bank of Lithuania calculations.

The youth unemployment rate was lower than a year ago; however, it remained well above the levels of the EU and the euro area.

Chart 11. The youth unemployment rate

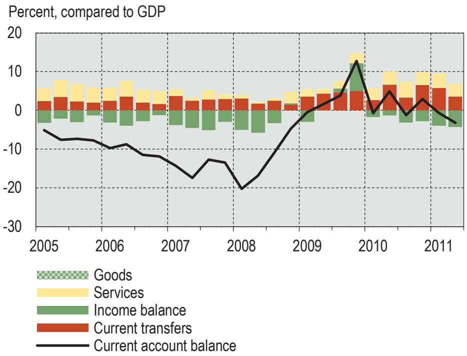


Source: Eurostat.

III. EXTERNAL SECTOR

In the second quarter of 2011, the current account deficit was increasing.

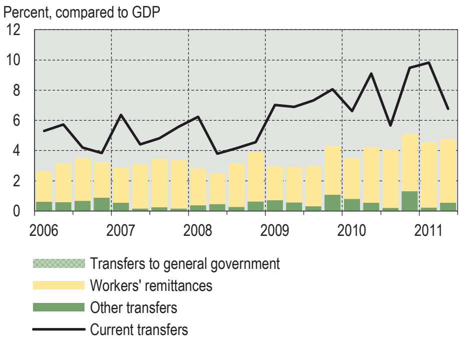
Chart 12. Components of the current account balance



Sources: Statistics Lithuania and Bank of Lithuania calculations.

Emigrants' transfers (see "Workers' remittances" in the chart) to Lithuania are increasing, while EU funds transfers (see "transfers to general government" in the chart) have a much higher variation.

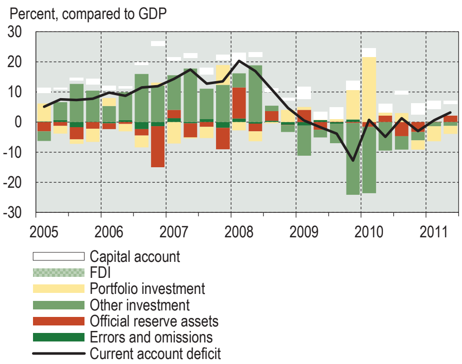
Chart 13. Current transfers to Lithuania



Sources: Statistics Lithuania and Bank of Lithuania calculations.

In the second quarter of 2011, the current account deficit was balanced mainly by credits provided by foreign investors.

Chart 14. Current account deficit and its financing



Sources: Statistics Lithuania and Bank of Lithuania calculations.

CURRENT ACCOUNT AND ITS FINANCING

During the second quarter of 2011, Lithuania's current account deficit expanded to 3.2 percent of GDP.

An important contributor to the current account deficit – goods and services balance – had a significant deficit. Together with the negative income balance it basically formed the current account deficit in the second quarter. The income balance deficit was largely formed by foreign capital enterprise dividends, which are normally paid out in full until May of every year. In the first half-year return of foreign investment capital increased, just as the confidence of investors in Lithuania's market. This year they are more inclined to reinvest earned profits, therefore, the amount of dividends paid out in the first half-year is by 30 percent smaller than a year ago.

EU transfers in the second quarter were smaller compared to two previous quarters, while emigrants' transfers remain significant and are increasing.

Current transfers are basically formed from non-investment payments from EU funds and emigrants' transfers, therefore, they significantly improve the current account balance. In the second quarter of 2011, transfers of structural support of the EU 2007-2013 financial programme, as well as the transfers for the Ignalina Nuclear Power Plant closure programme, decreased. However, these changes mainly indicate temporary postponements of payments[1] or just imbalances of project financing schedules, therefore, they should be compensated within the nearest quarters. It is expected that EU payments in the next half-year will be larger and significantly define the current account balance trend. It is also important to note that emigrants' remittances to Lithuania remain to be constantly increasing. Within the second quarter of 2011 they grew by 15 percent, i.e., more than during any other quarter since the beginning of 2010.

In the second quarter, total surplus of the capital and financial accounts was rising. Changes of official reserve assets and portfolio investment made the largest contribution to this shift, while the capital account surplus was smaller compared to the previous period.

As the current account had a deficit, to balance this out the capital and financial accounts had an equivalent surplus on the other side of the balance of payments. A significant impact on the capital and financial accounts was exercised by an increase of the surplus of FDI (entailed by borrowing of enterprises from direct foreign investors). The flow of investment portfolio halved and had a positive influence on the formation of the surplus of capital and financial accounts. Lithuania's financial account was in surplus in the second quarter of 2011 mainly due to the fall of foreign currency reserves and increasing liabilities of enterprises to their foreign capital owners. This surplus has been attained for the first time within two recent years. The capital account surplus shrank in the second quarter largely due to reduced transfers of the EU funds. However, EU transfers are expected to have a more positive impact on the capital account surplus in the second half-year.

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[1] At the beginning of this year EC suspended transfers for projects administered by the Transport Investment Administration. This was due to negative conclusions of the State Control report about the usage of EU funds in the transport infrastructure sector in 2009. EC renewed the financing only in August 2011, it will also compensate the extra expenditure encountered by national funds due to the suspension of ongoing projects.

FOREIGN TRADE AND COMPETITIVENESS

The nominal value of foreign trade deficit almost did not change throughout the second quarter of 2011 but on a year on year basis it boosted by more than 50 percent.

A stable foreign trade deficit in recent months was defined by converging growth rates of imports and exports and the fact that significant change in trade of one product was balanced out by an opposite change in trade of another. For example, in the second quarter rising imports of chemicals (due to seasonal effects) entailed a higher deficit of this product group but in the total foreign trade balance this was balanced by a smaller deficit of the trade of cars. It was the vehicles trade deficit driven by very intensive re-exports into the CIS[2] in the second quarter, which together with the development of imports of mineral products were the main contributors to the deficit of foreign trade.

Annual growth rates of exports slackened by a half at the end of the second quarter compared to those at the beginning of 2011. The foreign trade development of goods produced in Lithuania maintains a higher stability than re-exports which after a particularly buoyant growth at the start of the year slowed down substantially from July.

Changing internal and external environment, as well as a diminishing effect of the comparative base, was behind a deceleration of exports growth. It is important to note that the slowdown of growth was observed in the majority of product groups. The largest shrinkage was registered in the growth of exports of mineral products, the annual development of exports of metals, food and vehicles also decreased significantly. Exports of the Lithuanian origin considering seasonality was shrinking throughout the second quarter for the first time within two years (3.7 %). It was mainly determined by a temporary suspension of operations of the oil refinery "ORLEN Lietuva" in April which resulted in a 10 percent quarter-on-quarter reduction of exports of oil products. However, compared to a respective quarter of 2010, the growth remained significant. The contribution of re-exports weakened because of a substantial drop of car sales to Belarus and Kazakhstan from July.

In the second quarter, Lithuania's export shares in the key trade partners were expanding on an annual basis.

At the end of the second quarter of this year, share of Lithuanian exports in the EU market was by 17 percent larger than a year ago, while in the Russian market it increased substantially less (5 %). The list of key Lithuania's trade partners is stable, where more than a half (59 %) of the total trade volume is attributed to the EU. However, this share became somewhat thinner throughout the recent year, whereas that of the CIS countries increased up to 33 percent.

The annual growth rate of imports slowed down and was almost the same as the growth of exports.

The development of imports was mostly influenced by the demand of intermediate goods, while the impact of consumer goods weakened substantially. Lower imports of capital goods allow assuming that business as well makes cautious assessments regarding both external and internal economic environment risks. Also recent data suggest that the number of cars imported has decreased significantly and this is associated with the abovementioned changes in re-exports to the CIS markets.

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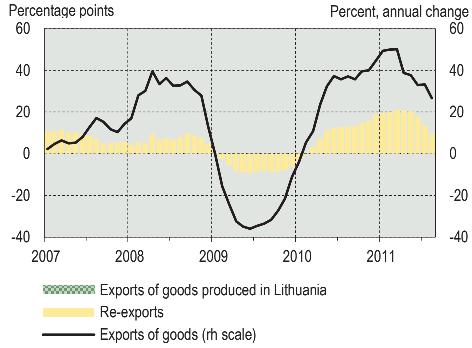
[2] In the first half of 2011 re-exports of used cars to Belarus and Kazakhstan was booming mainly because of excessive demand for these goods caused by higher customs duties expectations. They actually increased significantly from July due to harmonization of customs regulations in the Customs Union of Russia, Belarus and Kazakhstan.

Re-exports slumped through July-August; hence this had a significant impact on overall growth rates of exports.

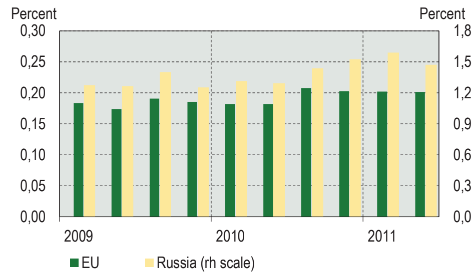
Chart 15. Contributions to exports growth (three-month moving sums)



Sources: Statistics Lithuania and Bank of Lithuania calculations.

The annual growth of the market share of Lithuanian exports in the EU and Russia remained positive in the second quarter of 2011.

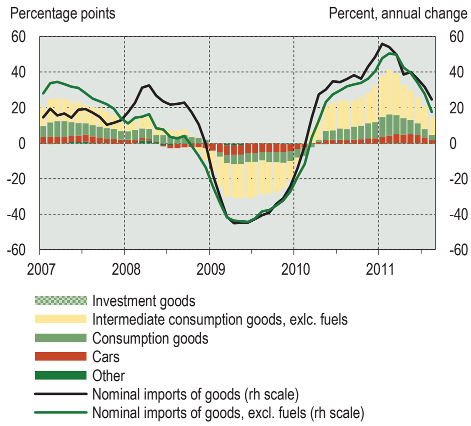
Chart 16. The market share of the Lithuanian exports in the EU and Russia



Sources: Eurostat, Russian Federation Customs Service, Statistics Lithuania and Bank of Lithuania calculations.

Growth rates of imports and exports are converging since the beginning of 2011.

Chart 17. Contributions to imports growth (three-month moving sums)

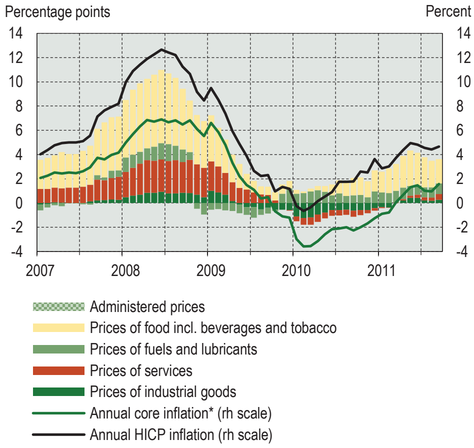


Sources: Statistics Lithuania and Bank of Lithuania calculations.

IV. PRICES AND COSTS

In the summer months, annual inflation declined.

Chart 18. Contributions to annual inflation



Sources: Statistics Lithuania and Bank of Lithuania calculations.
** Change in HICP, excl. food, fuels and lubricants, and administered prices.*

Previously rising annual inflation decreased in June to August; however, it picked up again in September.

In May, annual inflation was 5.0 percent, the highest in approximately two years. During subsequent months it gradually declined in the context of decelerating food price growth and lower core inflation, to 4.4 percent in August. However, it rose again in September (to 4.7 %). This was mainly driven by higher core inflation and accelerating growth of heat energy price. In line with the previous pattern, annual inflation was mainly driven by growing prices related to the external environment (food, fuel, administered prices), whereas the contribution from the domestic demand related prices to inflation was small.

CORE INFLATION

Annual core inflation became positive yet remained at low levels and its impact on headline inflation was minor.

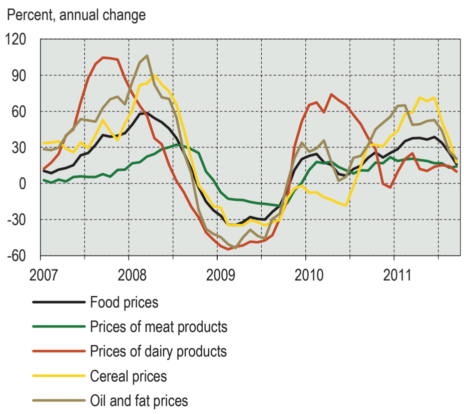
As from the late 2009, the prices of industrial goods and market services, which are included in the calculation of the core inflation, were lower than a year ago. In March 2011, annual core inflation turned positive. During subsequent months it was on the rise, except for July and August, when it was lower due to the sales of garments and footwear. It rose in September owing mainly to a pickup in accommodation prices during the Basketball Championship (15.6 % month-on-month) and in garments prices after the end of seasonal sales.

Unemployment remained high and wages rose only moderately but data show that private consumption recovered. The seasonally adjusted turnover of non-food retail trade as well as of catering gradually increased. However, in a context of the increasing risk of economic slowdown, this is not likely to encourage a strong rise in core inflation.

FOOD PRICES

Global food prices grew less year on year and food price contribution to inflation in Lithuania decreased.

Chart 19. Global food prices



Sources: Food and Agriculture Organization of the United Nations and Bank of Lithuania calculations.

Food price growth was the main driver behind annual inflation in Lithuania; however, its influence decreased as a result of the decelerating growth of global food prices.

Food prices picked up in Lithuania reflecting rising food commodity prices: in February 2011, they hit record heights and exceeded the peak of mid-2008, and their annual growth was approximately 35 percent. Global prices were on the rise, driven by the various factors. The short-term factors included a decline in supply as a result of unfavourable weather conditions, rising prices of energy resources, as well as higher financial investment in food commodities, while the long-term factors comprised rising demand for biofuel and demand for food products in emerging economies.

Afterwards, however, global food prices gradually declined, driven by better estimates of harvest and increasing concerns about the slowdown of the global economy and its impact on demand. The annual growth of global food prices was significantly lower than before (16 % in September), with lower variation of different product price growth rates. The rise in the prices of fat and sugar was the most pronounced (approximately one-fifth), and prices of dairy products increased the least (by almost a tenth).

In August, the World Bank pointed out that the assessment of global food supply improved during the recent few months but uncertainty surrounding further price developments still remains due to rather low stock levels.

In Lithuania, the prices of food and non-alcoholic beverages rose by 11.1 percent in May year on year, the most since the end of 2008. During subsequent months their rise moderated, driven mainly by less pronounced increases in the prices of fruit and vegetables over a year. Nevertheless, the growth of prices related to the situation in the international markets, such as those of bread and cereals, oils and fats, dairy products, also decelerated.

Unlike food products and non-alcoholic beverages, the contribution of alcoholic beverages and tobacco products to inflation was insignificant. During the first nine months of 2011, their prices were only approximately 1 percent higher than a year ago. In the same period, the prices of tobacco products increased by approximately 3 percent, whereas those of alcoholic beverages (beer, wine, spirits) dropped year on year.

ADMINISTERED PRICES

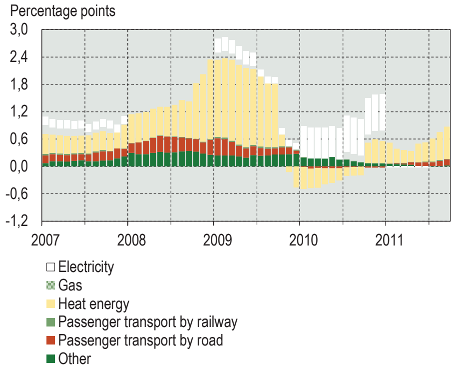
The increase in the price of imported fuels entailed more expensive heat energy; the price of natural gas provided for household consumers picked up in the middle of the year.

The annual growth rate of administered prices has accelerated since May, mainly fuelled by higher increases of heat energy price. Over May alone it increased by approximately 5 percent, owing mainly to increased price in Vilnius where it was not changed for quite a while, although the price of the fuel used for heat production was growing steadily.

The price of heat energy can be recalculated on a monthly basis, reflecting the price changes of purchased fuel, mainly natural gas. Recent increases in the price of imported natural gas also affected other administered prices. The price of natural gas went up 17.4 percent in July, after a decline at the beginning of 2011. Moreover, electricity price for households should increase from the beginning of 2012.

The rise in administered prices was fuelled by increasing price of heat energy.

Chart 20. Contributions of administered prices to annual inflation



Sources: Statistics Lithuania and Bank of Lithuania calculations.

FUEL PRICES

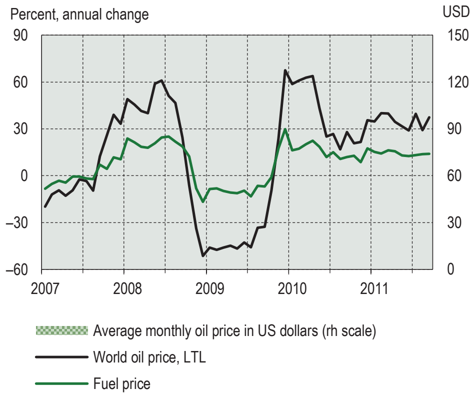
The price of crude oil remained rather high, and fuel prices in Lithuania were well above their levels a year ago.

The price of oil has fluctuated substantially recently amid the market concerns over the outlook for the global economy and oil demand. Organizations forecasting oil demand, for example, the International Energy Agency and OPEC, indicated that the expansion of the global economy would be less robust than expected earlier, thus oil demand will also be lower. However, so far the price of oil has not dropped significantly, standing at about 112 USD per barrel in September, approximately 45 percent higher year on year. The rise in the oil price in litas was less pronounced (approximately 37 %), reflecting the US dollar depreciation against the litas over the year.

Although the price of fuel in Lithuania declined in May, June and August, driven by a decrease in the oil price, it remained much higher (13.8 % in August) than a year ago and contributed to inflation. In September, with little change in the oil price in USD, its price in litas went up reflecting a hike in the USD rate, thus fuel prices also increased marginally.

Crude oil price was significantly higher than a year ago, thus rising fuel prices contributed to inflation in Lithuania.

Chart 21. Crude oil price and fuel prices in Lithuania

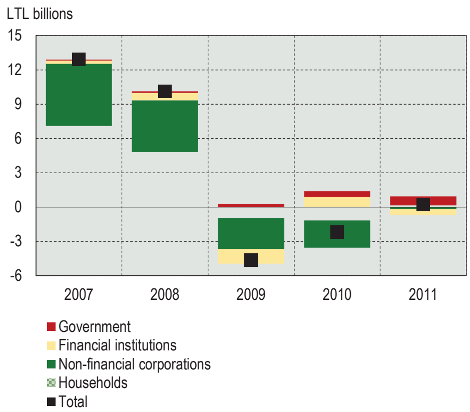


Sources: Bloomberg and Bank of Lithuania calculations.

V. CREDIT AND DEPOSITS

Due to the recovery in economy, the borrowers' financial standing is improving and loan portfolio is showing more and more signs of recovery.

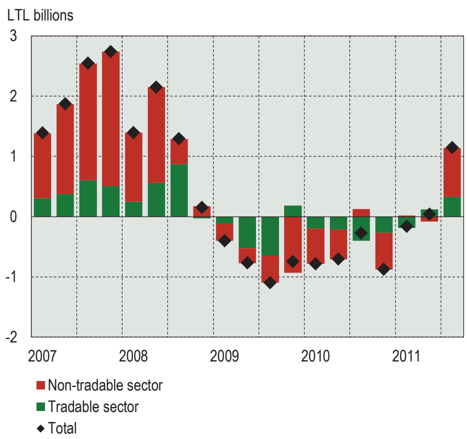
Chart 22. Contributions to the changes of banks' loan portfolio in January-September



Source: Bank of Lithuania calculations.

Although internal funds remain the main business financing source, borrowing from banks becomes more important due to the growth of investment.

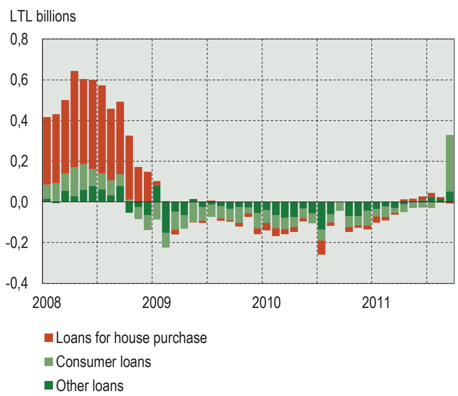
Chart 23. Changes of loan portfolio to the corporate sector per quarter



Source: Bank of Lithuania calculations.

Households remain cautious about borrowing for other purposes than house purchase.

Chart 24. Changes of loan portfolio to households per month



Source: Bank of Lithuania calculations.

In June 2011, the banking system's loan portfolio hit bottom since the start of the current economic downturn, and begin gradually improving later.

Liabilities to banks grew over the third quarter by 1.0 billion litas. Recovering economy and improving financial situation have encouraged borrowers to take on new liabilities, while easing credit standards and historically low interest rates have made borrowing more attractive.

Liabilities to the banking system went up during the first nine months by 0.2 billion litas, although in the corresponding period of the previous year the loan portfolio shrank by 2.2 billion litas. In September 2011, the annual loan portfolio decrease was moderate (1.2 %) compared to previous month mainly as a result of the new loans issued to social security funds.

The financial standing of non-financial corporations continued to improve in the first half of 2011 on the back of recovering consumption and private investments in domestic and foreign markets.

The profit earned by businesses in the second quarter of 2011 was the highest since mid-2008, while the sales profitability made up 6.7 percent. The share of profit earning corporations continued to grow further, while the number of companies which reported about bankruptcy proceedings initiated against them went down. Also, a decrease was observed in the share of enterprises facing lower demand and financial difficulties. This contributed to strengthening of business confidence, although renewed concerns regarding sustainability of global economy development led to a poorer assessment of outlook by some non-financial enterprises (especially among industrial and construction companies) in the middle of the second half of 2011.

In mid-2011, when the economic sentiment indicator reached its peak since the start of the recent economic recession and the demand in foreign markets was still high, non-financial corporations were gradually increasing bank borrowing.

Growing demand in domestic and foreign markets was followed by the growth in demand for investments and investment financing. Businesses were drawing mainly on internal funds to satisfy their needs as non-financial corporations were generating profit during the last year and a half period. However, an increase was observed in the number of enterprises which decided to rely on bank loans because of comparatively low interest rates and easing lending requirements.

In the course of the first nine months of 2011, liabilities to banks of non-financial corporations declined slightly by 0.2 billion litas, which is twelve-time less than a year ago, while the loan portfolio growth was observed in four out of nine months during the reported period (a year ago, the loan flow was negative for all the months). In the first three quarters of 2011, the biggest decrease in liabilities to banks was observed among real estate enterprises, while the highest increase in bank borrowing following a recovery in domestic and foreign demand could be seen among trade companies.

Increasing operational activity of non-financial corporations led to a shortage of labour force; this supported the growth of employment and wages, as well as strengthening of financial standing of households and credit demand.

Improved financial situation and expectations of households added to the growth of bank borrowing in some months. During the first three quarters in 2011, the portfolio of loans for house purchase surged by 34.4 million litas while a decline of 155.0 million litas was registered during the corresponding period a year ago. Despite gradual improvement in the financial standing of residents, they are still cautious and do not rush to borrow funds for financing their consumption needs. For example, the flow of consumption lending started to show first signs of recovery in the third quarter, i.e., for the first time since the start of the current economic downturn in the fourth quarter of 2008.

After the ECB raised its key interest rates, the price of borrowing in the international markets grew as well, leading to an interest rate increase for retail banking clients.

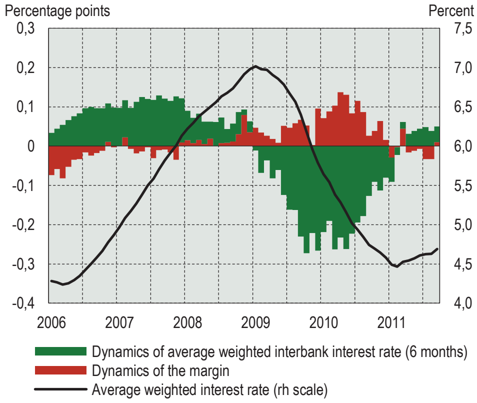
The growing competition among banks in Lithuania and improving financial standing of borrowers, however, led to the decline in the borrowing margins; consequently, the pass-through of the increase in interbank interest rates to private sector was incomplete. During the first three quarters in 2011, weighted average interest rates on new loans to private sector increased by 0.1 percentage point to 4.7 percent in September (the growth of 0.4 percentage point in interbank interest rates was counterbalanced by a 0.3 percentage point drop in interest rate margin).

Increasing costs of borrowing in international markets have partially contributed to the growth of interest rates and improving activity of depositors.

Weighted average interest rates paid for new deposits (of one-month and longer term) of the private sector remained below 2 percent in recent years, with the lowest level (1.3 %) throughout the observation period available (since October 2004) registered in April 2011. In September 2011, interest rates for new deposits by households and non-financial corporations increased to 1.8 percent probably contributing to the recent deposit growth within the banking system. During the first nine months in 2011, deposits in banks grew by 0.8 billion litas pushed up by the growth of deposits of local authorities and non-financial corporations and contained by withdrawals of the central government. In comparison with the period a year ago, deposits grew by 1.9 billion litas as a result of the deposit boost by all the sectors excluding financial intermediaries.

Due to the growth of interest rates in inter-bank market, borrowing from banks becomes more expensive.

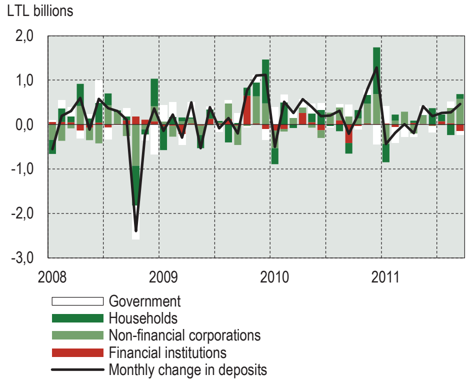
Chart 25. Contributions to the changes of weighted average interest rate of new loans for private sector (twelve-month moving average)



Sources: Euribor-EBF and Bank of Lithuania calculations.

The growth of deposits was mainly determined by the less favorable future expectations and slight increase of interest rates for new deposits.

Chart 26. Contributions to the changes of deposits in banking system per month

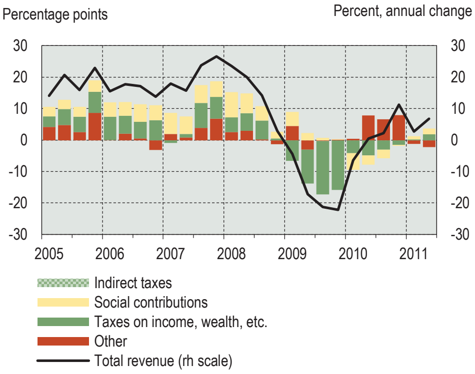


Source: Bank of Lithuania calculations.

VI. GENERAL GOVERNMENT FINANCE

Increase in real economic activity and higher price level led to accelerating growth in general government revenues.

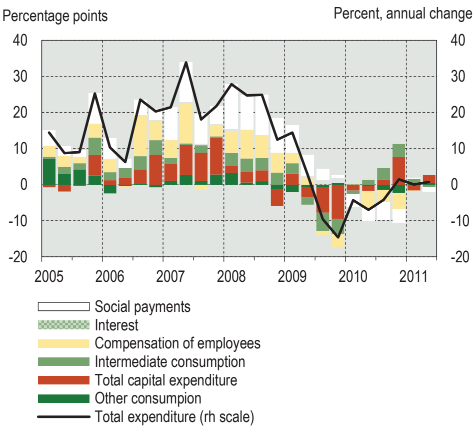
Chart 27. General government revenue growth and contributions



Sources: Statistics Lithuania and Bank of Lithuania calculations.

Due to saving measures total government spending,..

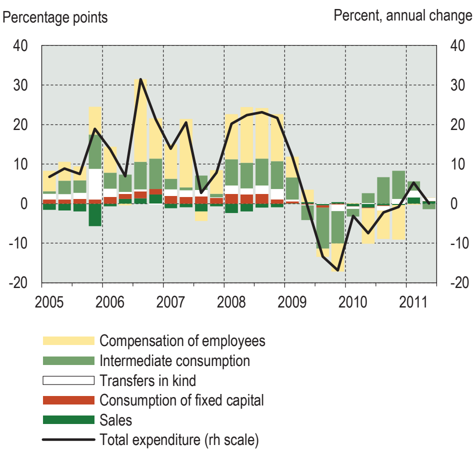
Chart 28. General government spending growth and contributions



Sources: Statistics Lithuania and Bank of Lithuania calculations.

...as well as government consumption, remains broadly unchanged.

Chart 29. Government consumption expenditure growth and contributions



Sources: Statistics Lithuania and Bank of Lithuania calculations.

In the second quarter, the general government revenue grew year on year by nearly 7 percent driven mainly by higher revenue from indirect taxes.

The general government revenue raised from indirect taxes surged by one-sixth over the year, largely due to a growth in VAT revenue (by one-tenth) and in revenue from other indirect taxes, mainly excise taxes (by one-fifth). A few drivers stood behind the higher VAT revenue. In the second quarter of 2011, the turnover of retail trade, including motor vehicles, at constant prices increased by more than one-fifth year on year. Inflation also had positive effect on VAT collection because nominal turnover grew by one-quarter. As a result of more intensive foreign trade in the second quarter, a year-on-year increase of one-fifth was observed in the import of consumption goods subject to VAT. Revenues raised from indirect taxes other than VAT, grew over the year approximately by one-fifth. According to the State Tax Inspectorate, tax revenues surged largely driven by improved collection of excise taxes on ethanol and alcoholic beverages, as well as on processed tobacco. The turnover of both groups of goods at current prices grew significantly over the year; in addition, the increase of excise tax tariffs in early 2011 to the minimum threshold set by the EU had positive effect on tobacco excise tax collection. Considering the national budget data for July to August 2011, annual growth rate of revenues raised from indirect taxes in the third quarter 2011 is expected to slow down slightly due to decelerated annual increase in revenues from both VAT and excise taxes.

In the second quarter, a year-on-year growth was also observed in revenues from direct taxes due to higher wages and number of employees.

Personal income tax revenue increased by almost one-tenth owing largely to the increase in wages, number of persons employed in the economy and a decline in underpaid tax amount by one-sixth over the year. Meanwhile, revenues from corporate tax went up approximately by a quarter. This high annual growth rate was basically a result of an especially low comparative base, as the average profit tax amount for four quarters was at the 2004 level. The growth of profit tax revenues has been contained by advance profit tax payers who increasingly prefer making advance payments based on profits of the previous year. In the second quarter, the contribution of non-tax revenues to general government total revenues was negative. Although revenues from capital and current transfers went up due to increased transfers from the EU, a significant decrease was observed in revenues from sales of assets and goods, and services. The national budget data for July-September 2011 point to a slowdown in the annual growth of revenues raised from direct taxes in the third quarter of 2011.

As a result of higher investment and current transfers, the general government spending increased during the year by 0.8 percent; however, the decline in subsidies and social welfare payments put significant downward pressure.

Public investment growth was supported by a significant increase in the EU funds for implementation of co-financed projects. Intensive borrowing by the general government in previous years made the interest payments climb during the year to the highest level since the start of the statistical data publication in 1999. An annual decrease of 3 percent in social payments was the main driver behind the expenditure decrease in the second quarter. Social payments declined mainly due to a significant fall in the spending related to sickness and maternity (paternity) social insurance. Due to the number of unemployed persons, which went down during the year by one-sixth, the amount of unemployment benefits decreased in the second quarter by more than 40 percent. Moreover, the total number of unemployment benefit recipients decreased significantly due to the end of the payment period. The general government spending for acquisition of intermediate goods and services went down slightly during the year. When analysing the general government consumption, it is worth noting that intermediate consumption was among main drivers which pushed the spending down as the compensation of employees, the biggest component, remained basically unchanged year on year.

In the second quarter of 2011, Lithuania's public finances continued to improve, and the general government deficit went down by nearly one-quarter on an annual basis.

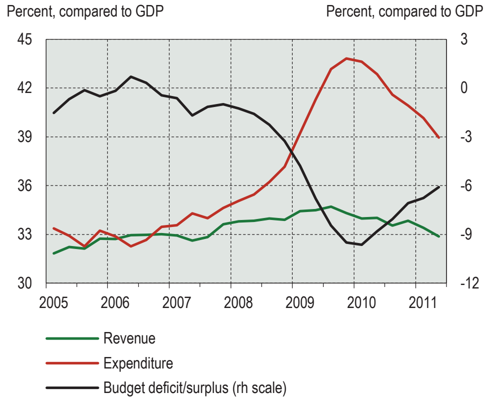
The deficit of central government, which consists of the state budget and non-budgetary funds and is the key component of the general government sector, decreased by one-third driven mainly by annual increase in tax revenues. The central government spending noticeably melted because of subsidies which went down two-fold compared to the previous year. The local government balance was in surplus, but lower than during the same period a year ago mainly because of lower revenues, compared to the previous year, although they were as planned. The local government spending decreased as a result of earlier approved saving measures, such as reduced budget for compensations to public sector employees and the cut in spending for intermediate goods and services. Social security funds, however, contributed to the improvement of the general government balance. Social security contributions, which were higher than a year ago due to rising employment and growing average wage in the economy, significantly added to an increase in general government revenues.

The general government debt increased slightly during the second quarter with the debt to the four-quarter GDP ratio reaching 38.1 percent.

During the second quarter, the general government debt increased approximately by 50 million litas. The biggest increase was observed in the debt of social insurance funds and local governments, while the central government debt decreased. The decrease was determined by the short-term government securities: the amount redeemed was higher than the value of longer-term securities issued to refinance them. The social security fund's debt surged during the quarter by 400 million litas driven by credit line agreements signed with commercial banks. The State Social Insurance Fund Board of the Republic of Lithuania announced the lending tender in April this year. The money borrowed went to social payments in the second quarter of 2011. The data of the Finance Ministry showed the debt of central government and social security funds made up 34.7 billion litas at the end of August (LTL 34.9 billion at the end of the second quarter). The central government debt slightly decreased in the period from July to August as the repaid debt was higher than the amount borrowed by government institutions. Securities issued earlier through private placements in domestic market made up the biggest portion of the securities redeemed. In this context, public debt is unlikely to grow much in the third quarter this year, and the debt to four-quarter GDP ratio should go down further as a result of expected growth in real economic activity and price level.

In the second quarter of 2011, public finances improved, and the general government deficit went down by nearly one-quarter on the annual basis.

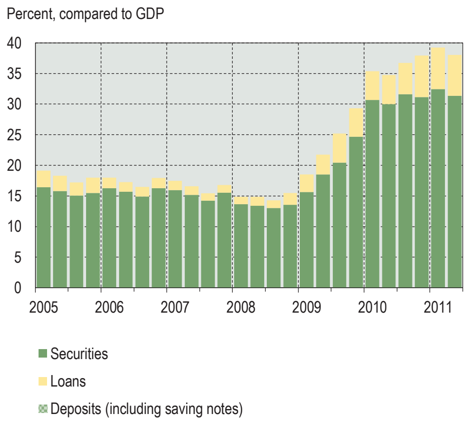
Chart 30. General government revenues, spending and balance



Sources: Statistics Lithuania and Bank of Lithuania calculations.

Due to lower borrowing needs, growth of price level and increase in real economic activity the debt-to-GDP ratio is starting to stabilize.

Chart 31. Breakdown of general government debt



Sources: Ministry of Finance and Bank of Lithuania calculations.

ANNEXES

ANNEX 1. Potential risks and their impact on Lithuania's economic development

Forecasts are always subject to uncertainty. There are various reasons due to which the economic development may be different from that envisaged in the main projection scenario. Presently the highest risk is posed by the public finance situation in some EU member states. An increasing number of countries recognize their public sector indebtedness problem – the situation in Greece is immensely serious, great concern confronts Ireland, Portugal, Spain, Italy. Therefore, contagion risk is assessed as substantially increased, particularly taking into account the fact that international financial markets are highly integrated. More profound problems of the public finance situation should primarily be reflected in interest rate spread, EU and the global economic development would also be negatively affected. The analysis of an alternative Lithuania's economic development scenario is provided below. Such scenario encompasses three main impact channels on the economy: higher interest rates, lower foreign demand and a decreased oil price.

The described scenario is exercised under the assumption of no additional monetary and fiscal policy measures. Therefore, shocks included in the macroeconomic model are permanent. The size of the interest rate shock corresponds approximately to two standard deviations of the interest rate level during the recent decade. Two standard deviations of annual growth rates of the oil price and external demand variables within the same period are taken for the analysis. Such shocks are sufficiently strong – to compare with the main scenario, the interest rate is higher by 500 basis points, external demand drops by 7 percent, and the oil price is smaller by 60 percent. However, shocks of this size are not exceptional. For example, during the recent economic downturn the difference between 3 months VILIBOR and the ECB refinancing interest rates jumped by more than 600 basis points, foreign demand (calculated by the GDP of Lithuania's main foreign partners) fell by one-tenth from its peak to the trough, and the oil price drop accounted for 56 percent. Results of all three shocks are presented in Table A. They show the difference of the annual growth rates as compared to those envisaged in the main scenario within a three year period.

An interest rate shock. The impact of a 500 basis points increase of the domestic market interest rate on Lithuania's economic indicators is analysed here. In this case the interest rate would rise from approximately 1.6 percent within the nearest three years (as assumed in the main scenario) to 6.6 percent.

The shock of domestic market interest rates affects investment and consumption decisions. Due to higher capital costs, the enterprises tend to decline or postpone investments; higher interest rates encourage the households to save, thus reducing the private consumption spending. Weakening domestic demand in its turn affects other economic indicators, i.e., a poorer real sector development exercises a negative influence on the labour market and reduces inflation.

The results show that investments would have the most sensitive reaction to the 500 basis points domestic market interest rate shock. The annual growth of investment against the main scenario would drop by 24 percentage points. The development of private consumption would slow substantially less – by more than 2 percentage points, and the GDP growth would slacken by 2.5 percentage points. As the domestic market interest rate shock would have no effect on exports but significantly impact imports, the current account balance would improve noticeably.

Table A. Reaction of the main macroeconomic indicators to permanent shocks
(difference from growth rates in the main scenario, percentage points if not indicated otherwise)

	Shock of domestic market interest rates	Shock of the external demand	Shock of the oil price
HICP	-0.5	-0.9	-4.9
GDP	-2.5	-3.8	1.3
Private consumption expenditure	-2.2	-4.4	1.6
Investment	-24.0	-5.8	2.6
Real exports	0.0	-5.5	0.8
Current account balance (as a percentage of GDP in the main scenario)	9.8	-4.0	-2.8
Unemployment rate	0.1	1.7	-0.5

A foreign demand shock. Analysing the external demand shock's influence on Lithuania's economic development, foreign demand was reduced by 7 percent. In this case the average annual growth of foreign demand during the three-year period would slow down from 2.9 percent (as envisaged in the main scenario) to 0.5 percent.

The drop of foreign demand has a direct impact on the country's exports. A poorer development of exports negatively affects the demand of imports (particularly imports of intermediate goods) and GDP. As a result, a drop of foreign demand weakens the general economic development and domestic demand in Lithuania and indirectly influences the development of labour market and prices as well. The shock results (Table A) show that the decline in the external demand by 7 percent would reduce the annual growth of real exports by close to 6 percentage points as compared to the main scenario projection. The growth of investments would weaken rather similarly; the annual growth of private consumption and total GDP would decline by about 4 percentage points. HICP inflation in the case of such shock would be close to 1 percentage point smaller, and the unemployment rate – 2 percentage points higher.

An oil price shock. The oil price was reduced by 60 percent, and its average annual growth rate over the nearest three years has fallen from -0.5 percent (this is the main scenario assumption constructed from oil futures prices) to -21 percent.

The drop of oil prices primarily affects the domestic price development. Energy HICP would decrease, lower energy costs would also impact non-energy consumer prices. Lower oil price reduces export, import and investment deflators as well. However, in the context of lower prices, propensity to invest and consume increases, thus this shock entails a positive impact on the real sector. The latter, in turn, defines a more favourable stance in the labour market.

With a 60 percent drop of the oil price, annual HICP inflation vis-à-vis the one envisaged in the main scenario would slow down by about 5 percentage points. The shock impact on the real sector is only indirect and rather negligible – the investment annual growth would accelerate by less than 3 percentage points, and the GDP development would speed up by 1 percentage point. This would also slightly reduce the unemployment rate.

When assessing the impact of potential risks on Lithuanian economic development, attention should be paid to several circumstances. Firstly, the estimated shocks are mainly external and entail the largest impact on the tradable sector. In other words, no regard is given to internal economic factors. For example, the recent economic downturn encompassed the fall in the real estate market, which made an immensely strong contribution to a drop of the non-tradable sector and severely aggravated situation in the labour market. Secondly, the econometric model used in the shock estimation is linear and allows no potential non-linearities, which may occur in the event of such sizeable shocks. Moreover, the model is backward-looking. Hence the variable reaction to shocks is slow: on the basis of the perceived precondition of adaptive expectations, equations include the lags. However, in the case of substantial shocks, the reaction of economic participants may be significantly quicker, and changes in indicators may occur not during several years but in a much shorter period.

ANNEX 2. Economic recovery without a rebound in credit: paradox or logical pattern?

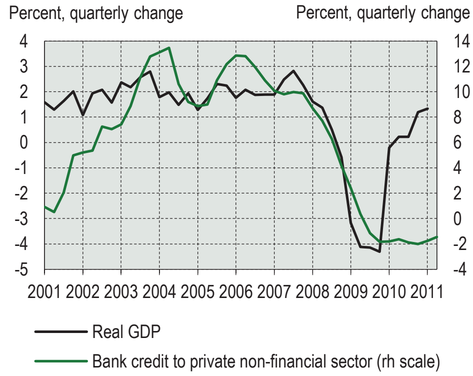
The Lithuanian economy is recovering after a sharp systemic decline related to excessive borrowing, credit contraction and reversal of international capital flows. It is notable that whilst economic recovery was gaining traction, the portfolio of bank lending to private non-financial sector continued to shrink gradually (see Chart A). The phenomenon of credit-less recovery following sudden systemic stops is quite common for emerging market economies. Calvo *et al.* (2006) call this phenomenon the Phoenix Miracle, where economy „like a proverbial bird rises from its ashes“. Calvo *et al.* consider it a paradox, as shrinking economic activity during an economic downturn is often so closely related to contraction of credit aggregates; however, economic recovery is feasible without expanding bank loan portfolio.

Economic recovery may be accelerated by other factors. Economic recovery in Lithuania strongly relied on particularly rapid growth of export, the volume of which went up from trough to peak in mere one and a half year. Also, in the context of decreasing private sector debt levels, the general government picked up the baton with its debt growing from 14 percent of GDP in pre-crisis period to 39 percent of GDP in the first quarter of 2011. The general government borrowing (predominantly in foreign markets) allowed financing of an increased general government deficit and the government was able to fund the expenditures, which had, at least over the short-term, stabilising and positive effect on the economic recovery. Finally, the ongoing structural adjustments, improved competitiveness following a reduction of wages in real terms, and reduced firm reliance on credits, have also contributed to the economic growth.

There is another more direct explanation of the Phoenix Miracle. According to Biggs *et al.* (2009), it would be economically incorrect to compare GDP which is a flow indicator with the portfolio of bank loans to non-financial sector, which is a level indicator[3]. In their view, GDP should rather be associated with the credit flow (or a change in the bank loan portfolio), and they provide empirical evidence that after a sharp decrease GDP recovery is usually accompanied by more positive (or less negative) credit flow. In other words, during a given period the purchasing power of private non-financial sector and economic activity are in general primarily related to net borrowing (or debt repayment) during that period rather than the level of debts to banks. So, a situation may arise in which economy will grow on the back of increasing net credit flow to private sector with the net flow itself, however, remaining negative (i.e., the bank portfolio will be decreasing, although at a more moderate rate).

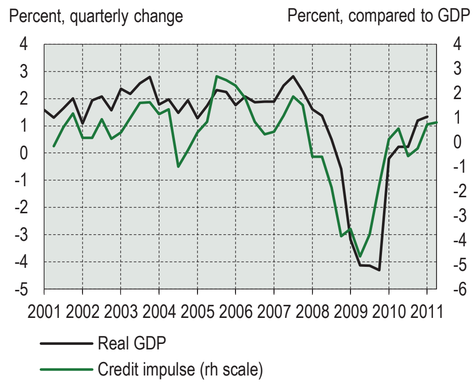
The Lithuanian data confirmed that the so called credit impulse, i.e., a ratio of credit flow change to nominal GDP, is very closely related to changes in economic activity and asset prices, while the relationship between the appropriate measure of credit and general economic development remains even after a sharp economic downturn (see Charts B, C, and D). It should be noted that a statistical relationship between credit flows and other variables does not indicate the direction of causality. Most likely there is a mutual causality, i.e., credit to the private sector, on one hand, allows to boost financial capability of individuals and enterprises to acquire consumption and capital goods, and on the other hand, banks are more inclined to credit economy when economic situation is good. Causal relationships between credit and economic processes are analysed with the help of economic models (see, for instance, Ramanauskas, 2011).

Chart A. Changes in real GDP and credit to private nonfinancial sector (moving sums)



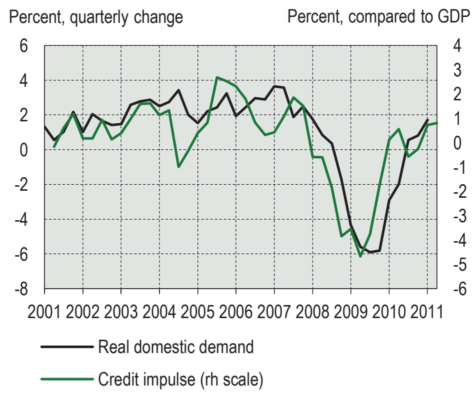
Sources: Statistics Lithuania and Bank of Lithuania calculations.

Chart B. Credit impulse and changes in real GDP (moving sums)



Sources: Statistics Lithuania and Bank of Lithuania calculations.

Chart C. Credit impulse and changes in real domestic demand (moving sums)



Sources: Statistics Lithuania and Bank of Lithuania calculations.

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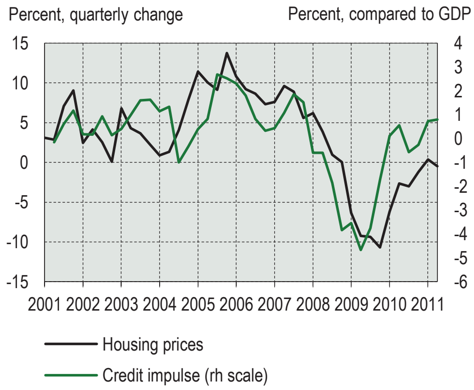
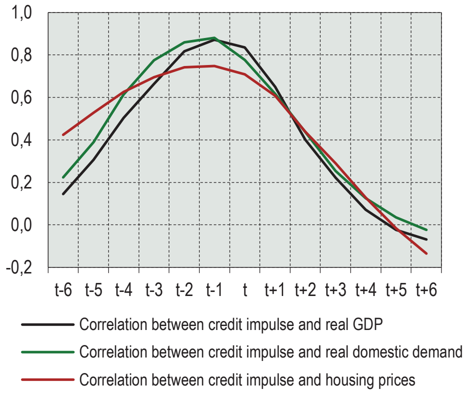
[3] Level indicator shows the (cumulative) size of the described variable at a specific point of time, while flow indicator shows volumes of the described variable over a certain time interval.

Chart D. Credit impulse and changes in housing prices (moving sums)



Sources: Statistics Lithuania and Bank of Lithuania calculations.

Chart E. Correlations between credit impulse in quarter t+i and economic variables in quarter i



Source: Bank of Lithuanian calculations.

As can be seen from Charts B, C, and D, fluctuations in real GDP, real domestic demand[4] and housing price index quite closely match fluctuations in credit impulse. It is worthwhile noting that in quarters prior to 2008 crisis declines in credit impulse preceded those of economic activity, domestic demand or housing prices. The growth of credit impulse observed later was once again a leading indicator of coming economic recovery and stabilisation of housing prices. Simple correlation analysis also shows that the highest correlation is between current quarter macroeconomic variables and credit impulse in previous quarter, while correlation between credit and macroeconomic processes in previous quarters fades off pretty fast (see Chart E). This suggests that credit variables may be useful for forecasting economic development[5]. This informal analysis provides evidence of importance of credit (and partially, bank lending decisions) to economy during the economic growth, downturn, and recovery periods. It also suggests that the Phoenix Miracle may not be an economic paradox.

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[4] Here, domestic demand is defined as a sum of real consumption spending and real gross fixed capital formation spending (excluding changes in inventories).

[5] It should be noted that the results of correlation analysis should be interpreted with caution due to possible non-stationarity and autocorrelation.