



# Macroeconomic Forecast Ukraine

- Real GDP growth will decelerate to 2.2% in 2006 against the background of sharp rise of imported gas prices.
- In 2007 the real GDP growth is forecast to improve to 3.7%.
- Key driving force of GDP growth remain final households' consumption both in 2006 and 2007.
- Investment activity remains sluggish in the beginning of 2006, but intensify late in the year. In 2007 investments are expected to restore high growth pace.
- Growth rate of imports will continue to surpass exports growth.
- Consumer price inflation is forecast to stay at around 12% in next two years.

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**Forecast Period:**

Q2-2006 to Q4-2007

**Forecast Variables:**

GDP and components, inflation

**GDP: Economic activity remains sluggish in 2006**

In 2006 the economic activity is forecast to remain sluggish. The adverse energy price shock, to be exact the sharp rise of price for imported gas, is among key factors that are expected to cause further deceleration of the real GDP compared to 2005. Higher imported gas prices cause deterioration of terms of trade and significant rise of costs for chemical industry and metallurgy, Ukraine's key export industries, and electricity and heat production. An additional negative impact on exports and thus growth will come from increased competition on world metal markets, first of all, due to expansion of Chinese metal production. Domestically, the political uncertainty remains among the major reasons behind low investment activity in the beginning of the year.

It is expected that these negative factors will be partially counterweighted by continued expansion of total domestic demand, first of all final households' consumption, stimulating development of consumer-oriented industries and services. Also, improved access to the USA and EU markets will help to partly mitigate negative shocks on exports. Thus, we forecast positive, but moderate 2.2% real GDP growth by the end of the year.

In 2007 the real GDP growth will somewhat improve to 3.7% against the background of much stronger investments growth and continued expansion of final households consumption. Although exports are forecast to stabilize, growth rates of imports will remain higher than rates of exports growth, maintaining negative trade balance.

Population: 46.9m

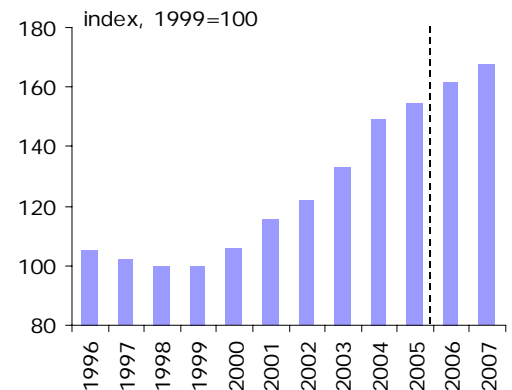
Industry/GDP: 24.8%

Agriculture/GDP: 9.6%

Investment/GDP: 21.1%

Export to: Russia 22%, EU 27%

Import from: Russia 36%, EU 33%

**Gross Domestic Product**

Source: Derzhkomstat, own calculations

**Assumptions:**

- The border gas price will increase from USD 95 per thousand cubic meters (tcm) in the first half of 2006 to around USD 120/tcm in the second half of the year.
- In 2007 the border gas price will further increase to USD 230/tcm.
- Ukraine will partially reduce demand for gas via gradual introduction of energy-saving technologies and switch to other energy resources.
- The Government will continue expansionary social and wage policies in 2006 and 2007.
- In 2007 personal income tax rate will be increased from current 13% to 15%.
- Ukraine will not access the WTO till the mid-2007.
- The average nominal exchange rate will be 5.10 UAH/USD and 5.35 UAH/USD in 2006 and 2007 respectively.

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## Private Consumption: It remains the key driving force for economic growth

Strong growth of private consumption was the major contributor to the real GDP growth since 2001. It is expected that the final consumption of households will remain the key driving force for real GDP growth in 2006 as well. It will be supported by further increase in incomes, however at the lesser extent than in 2005, thanks to the continuation of expansionary social and wage policy. Also, development of consumption-oriented micro-crediting will build additional financial foundation for growth of consumption. As a result, in 2006 real final consumption of households will increase by 8.6%. As the most of households' consumption growth is attributed to higher demand for non-food products and services, in particular telecommunication, recreational activities and health care, the deterioration of industrial development will have minor impact on private consumption.

In 2007 the growth of households' final consumption is expected to be more moderate at 7.1%. There are several factors behind this forecast, including an increase in personal income tax rate from 13% to 15%, the expected deceleration of social and wage policy expansion, and re-allocation of value added from wage bills to profits and thus investments.

## Government Consumption: The most of government consumption is spent on individual services

In 2005 the real final government consumption increased by 2.7%, thus remaining very moderate compared to final households' consumption. The most of government consumption is directed towards payments for individual services like education and health. It is forecast that the growth of government direct purchases of goods and services will remain at the similar level during next two years against the background of continued expansionary social policy of the state. In particular, in 2006 the real final government consumption will grow by 3.1% and in 2007 by 3.2%.

## Investment: Growth of gross fixed capital accumulation accelerates in the second half of 2006

In 2005 the growth of real gross fixed capital accumulation was negative for the first time since 1996. It dropped by 0.3% against the background of high statistical base, ambiguity concerning property rights in the country provoked by revision of the earlier privatisation settlements, and high political uncertainty.

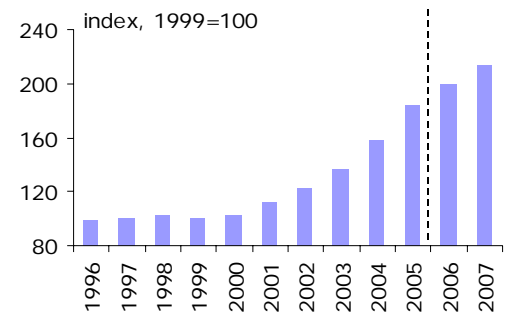
In the beginning of 2006 the investment activity remains rather sluggish due to high political uncertainty associated with parliamentary election of March 2006 and the change in the procedure of Cabinet of Ministers formation due to constitutional reform that came into force in January 2006. However, later during year investments are expected to revive, as increased gas price and higher competition both on domestic and external markets will push enterprises for restructuring. In 2006 the real gross fixed capital accumulation is forecast to grow by 6.2%.

In 2007 investments are expected to significantly accelerate as some investment plans postponed in previous years will be realized. One particular need for investments will be energy-saving technologies allowing to reduce gas consumption. The real gross fixed capital accumulation is expected to increase by 15.1% in 2007.

## External Sector: Imports continue growing faster than exports

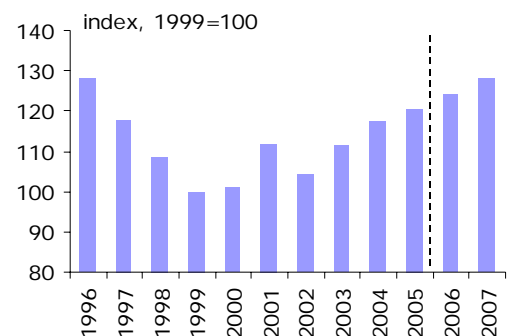
After six years of high growth rates, in 2005 real exports dropped by 11.2%, while imports increased by 2.1%. The decrease in exports is attributed, first of all, to reduction of metal and machinery exports. In particular, lower world prices and increased competition from China reduced the niche of Ukraine on world metal markets. The

### Households' Consumption



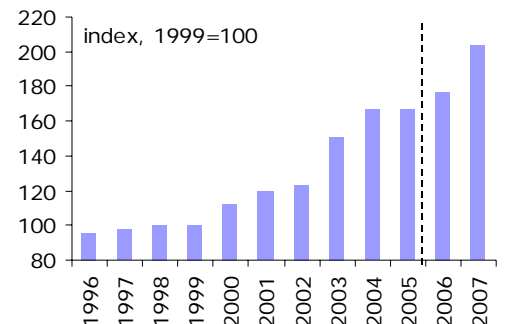
Source: Derzhkomstat, own calculations

### State Consumption

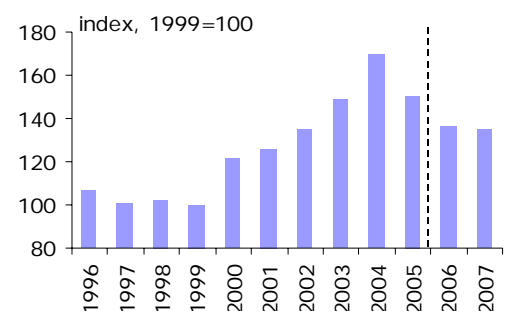


Source: Derzhkomstat, own calculations

### Gross Fixed Capital Accumulation



### Exports of Goods and Services



Source: Derzhkomstat, own calculations

import growth was supported, in particular, by expansion of the final demand.

In 2006 exports will be determined by several factors. As in the previous year, metal exports will be restrained by higher external competition. Also, the gas price shock will adversely affect exports as metallurgy and chemical industry are both large exporter and key gas consumers in Ukraine. In addition, exports of energy resources – gas and oil - will be negligible after it had been almost stopped already in January 2006. The ‘trade wars’ with Russia are expected to considerably lessen exports to this country. Thus, despite improved access to the USA and EU markets, in 2006 the real exports are forecast to drop by 9.6%.

On imports side, the sharp growth of imported gas prices is expected to cause a decline of its consumption and, thus, imports. Additional factor for lower imports will be some deceleration of households’ demand growth. As a result, in 2006 real imports in expected to decline by 1.0%, while it will grow significantly in nominal terms. The trade balance will be negative.

In 2007 partial accommodation to gas price shock, as it becomes more predictable, is expected to slow exports reduction to 1.0%. At the same time, acceleration of investments will lead to 8.7% increase in imports.

### Production: Reduction in manufacturing value added in 2006 will be counterbalanced by growth of services

The value added in *agriculture* is expected to remain unchanged in 2006 compared to 2005. The grain harvest, one of the key determinants of agricultural growth, is forecast to be at 2005 level, as the reduction of food grains will be compensated by feed gains. In 2007 the growth is expected to return to moderate 3.5%.

Value added in *manufacturing* in 2006 is expected to be much lower compared to previous years. The gas price shock will adversely affect this sector, the value added in which is forecast to drop by 2.9% due to negative developments in metallurgy and chemical industry, only partially compensated by growth of domestic market oriented industries. In 2007 the manufacturing industry is expected to further reduce (-1.6%) as the gas price growth continues.

In 2006 the value added in *construction* is expected to grow by 13.1% after 8.8% drop in the previous year. The revival is grounded on partial restoration of investment activity. In 2007 the construction will increase by 14.3%.

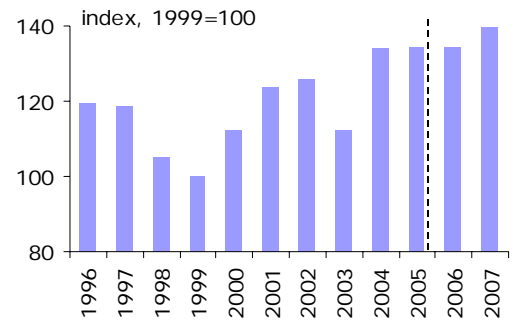
The drop in wholesale trade was not compensated by a stable development in the retail market in 2005, and resulted in 9.8% reduction in value added growth in *trades* after several years of double-digit growth. Yet, growth of the sector is forecast to return in 2006 to 9.5% in real terms, and accelerate to 10.2% in 2007.

Among service sectors, *transports* demonstrate the most stable growth pace. In 2005 the value added in this sector grew by 5.7%. It is forecast that in 2006-2007 the sector’s activities will slightly accelerate with growth rates at around 7%.

### Inflation: Consumer price inflation will remain above 10% in 2006-2007

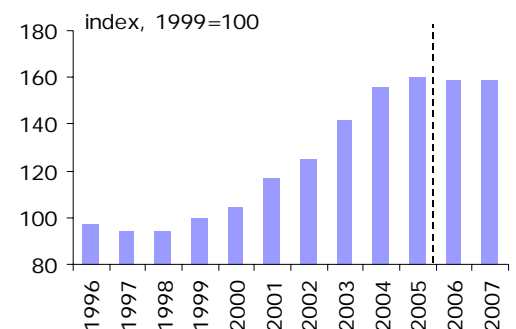
The consumer price inflation is expected to stay above 10%. On the demand side, growing household consumption stimulated by expansionary social and wage policies is creating permanent pressure on consumer prices. On the supply side, high inflation will be supported by revision of administratively regulated tariffs on electricity, gas, utility services and transportation fuelled by higher energy resources prices in Ukraine. As Ukraine will not gain an access to the WTO until mid-2007, no cheap food imports is expected to compensate for higher domestic prices. Thus, the estimated consumer price inflation is around 12% in 2006-2007.

#### Agriculture



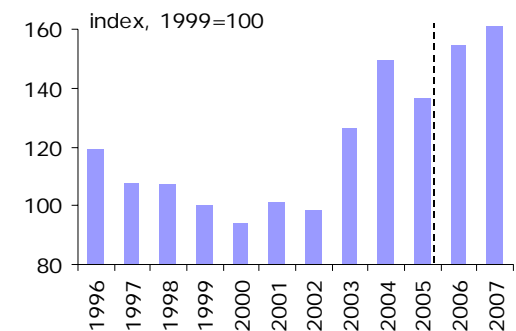
Source: Derzhkomstat, own calculations

#### Industry



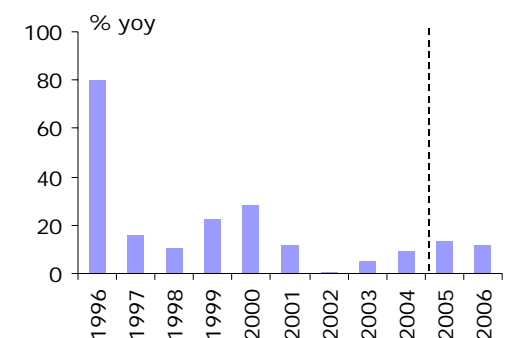
Source: Derzhkomstat, own calculations

#### Construction



Source: Derzhkomstat, own calculations

#### Consumer Price Index



Source: Derzhkomstat, own calculations

**Table 1. Forecast growth of the real GDP by expenditures (% yoy)**

	2003	2004	2005P	2006E	2007F
Household consumption	11.5	13.3	16.6	8.6	7.1
State consumption	6.9	1.8	2.7	3.1	3.2
Gross fixed capital formation	22.5	20.4	-0.3	6.2	15.1
Exports of goods and services	10.3	16.1	-11.2	-9.6	-1.0
Imports of goods and services	16.4	10.5	2.1	-1.0	8.7
<b>Gross Domestic Product</b>	<b>9.6</b>	<b>12.1</b>	<b>2.6</b>	<b>2.2</b>	<b>3.7</b>
<b>Gross Domestic Product (UAH bn)</b>	<b>267.34</b>	<b>345.11</b>	<b>424.74</b>	<b>503.70</b>	<b>613.62</b>

Note: P – preliminary official data; E – estimate; F – forecast

**Table 2. Forecast growth of the real GDP by sector (% yoy)**

	2003	2004	2005P	2006E	2007F
Agriculture, hunting and forestry	-11.0	19.8	0.4	0.0	3.5
Extractive industry	5.4	3.5	3.9	4.2	4.5
Manufacturing industry	17.4	12.4	2.1	-2.9	-1.6
Production/distribution of electricity, gas, water	4.5	-3.6	2.1	4.1	2.0
Construction	28.2	21.3	-8.8	13.1	14.3
Wholesale and retail trade, repair services	21.5	13.4	-9.8	9.5	10.2
Transport	11.1	11.4	5.7	7.0	6.9
Education	10.4	0.0	0.8	1.0	1.2
Health care	9.0	11.6	1.6	1.5	1.6
<b>Gross Domestic Product</b>	<b>9.6</b>	<b>12.1</b>	<b>2.6</b>	<b>2.2</b>	<b>3.7</b>

Note: P – preliminary official data; E – estimate; F – forecast

### Technical note

This forecast is based on iterative-analytical techniques, grounded in the system of national accounts, using different methods of GDP determination.

There are three basic methods for calculating GDP: GDP by production, GDP by income and GDP by expenditures (final uses of income). Two methods are used in this forecast – production and expenditures.

The calculations are conducted on a quarterly basis. Annual data are derived by aggregating the quarterly dynamics.

The forecasting procedure involves the following steps:

- For each method, the level of disaggregation of the GDP components is selected. The final result of the GDP forecast is based on forecasts for each component.
- The evolution of each component is forecast on the basis of historical data as well as the set of assumptions supplied with the forecast. Whenever possible, a forecast is based on a suitable leading indicator. Major work is focused on the dynamics of each component in real terms.
- The real GDP growth (for each method separately) is determined by summation of the contributions of each component. Here, contribution means the real growth of each component weighted by its share in the GDP structure in the corresponding period of the previous year (see Box 1 for details).
- The real values of GDP - determined by the two methods - are compared, and if a discrepancy is noted, another component forecasting iteration is initiated.

The forecast is built on a system of build-in indicators (proportions), which are expected to stay fairly constant. These indicators partially connect components of the GDPs by production and by expenditures. As additional instruments in component forecasting, econometric equations and input-output tables are used. The iterations continue until the two methods of GDP determination produce identical results.

### Box 1. Calculations

To identify the contribution of each GDP component to total real growth, the following formula for growth of GDP  $\hat{Y}$  can be used (1):

$$\hat{Y} = \left( \frac{Y^*_t - Y_{t-1}}{Y_{t-1}} \right) = \left( \sum_{i=1}^I \frac{X^*_{it} - X_{it-1}}{X_{it-1}} \cdot \frac{X_{it-1}}{Y_{t-1}} \right)$$

for each period  $t$ ,

where  $Y$  is the GDP, and  $X$  is a component of the GDP,  $I$  is the number of components, and the sign \* indicates inflation adjustments to the respective data.

Consequently, a contribution  $\Theta^{X_i}$  of component  $X_i$  to real growth can be calculated as (2):

$$\Theta^{X_i} = \frac{\left( \frac{X^*_{it} - X_{it-1}}{X_{it-1}} \right) \cdot \frac{X_{it-1}}{Y_{t-1}}}{\hat{Y}} \cdot 100$$

for each period  $t$ .

In formula (2), the ratio of real growth rates of component  $X_i$  to GDP is weighted on the basis of the previous-period's share of this component in the nominal GDP.

**Note: yoy year-on-year**