



# Macroeconomic Forecast Ukraine

- The real GDP is forecast to grow by 5.4% in 2003 mainly due to increased investment, while real growth in 2004, forecast at 5.1%, will be driven by private consumption.
- If the proposed tax reform is implemented in 2004, it will further stimulate private consumption at the expense of the state.
- Increases in profits and financial market developments are expected to contribute to a rise in investment activity in 2003.
- The import growth rate is expected to outstrip export growth, reducing the trade surplus in the forecast period.
- Construction will reach high growth rates due to increase in investments in the year 2003.
- A poor grain harvest is expected to lead to a further deceleration of growth in agriculture in 2003.

## GDP: Growth by around 5%

In 2003 and 2004 the real GDP is expected to grow by 5.4% and 5.1% respectively, as compared to a 4.6% increase last year. In 2003 the economic growth will be based on a substantial acceleration of private investments against the background of enterprise profit recoveries, and further expansion of the financial market. The year 2004 will be marked by increases in private consumption that will steer the GDP dynamics. The personal income tax rate reduction should translate into a positive stimulus for final household consumption, while the increased political uncertainty due to a presidential election is expected to slow down the accumulation of fixed capital. State consumption, as well as net exports will make minor contributions to the real GDP dynamics in the forecast period.

## Private Consumption: Acceleration in 2004 due to a reduction in personal income tax rate

For the last several years, private consumption was one of the major driving forces of economic growth in Ukraine. As forecast, final household consumption will increase by 5.6% in 2003, slightly decelerating when compared with last year. This deceleration is attributed to a slower pace of real wage growth, explained by opposing forces. On one hand, the increase in the minimal wage will have a positive effect on nominal incomes. On the other, higher inflation is expected to depress the increase in the purchasing power of consumers.

In the year 2004, private consumption is expected to accelerate. The reduction of the personal income tax rate as well as a further increase in the minimum wage will stimulate the growth in private consumption, now forecast to reach approximately 8.4%.

**No.1 (2)  
April  
2003**

## Forecast Period:

Q1-2003 to Q4-2004

## Forecast Variables:

GDP and components, inflation

Population: 48 m

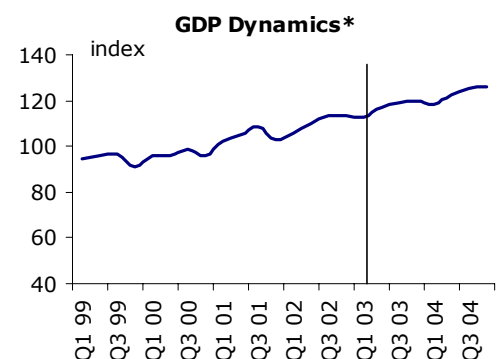
Industry/GDP: 30.5%

Agriculture/GDP: 13.4%

Investment/GDP: 20.3%

Export destinations: Russia 22%, EU 17%

Import origins: Russia 34%, EU 20%



Source: Derzhkomstat, own calculations  
\* seasonally adjusted, 1996 Q1 = 100

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## Assumptions of the Forecast

- A slow pace of structural change, but relative political stability in 2003.
- The minimal wage stays at UAH 185/month till the end of 2003, increasing to UAH 237/month in 2004.
- A poor grain harvest in 2003.
- Tax reform implementation in 2004: reductions in the enterprise profit tax rate and personal income tax rate.
- Presidential elections will take place in 2004 causing higher political uncertainty.
- A stable real exchange rate throughout 2003 and 2004.

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**State Consumption: State expenditures will not play an important role in real GDP growth**

Since the years 2003 and 2004 will be marked by peak repayments of the state's foreign debt, the possibilities to increase state expenditures in other areas will be rather limited. Thus, the forecast final state consumption will grow by only 1.7% in real terms in 2003. In the year 2004 state consumption will be further curtailed by the tax reform. The reductions of the personal income and the enterprise profits tax rates should lead to lower fiscal receipts. While this process will be partially offset by the growing economy, an expected widening of the tax base and by partial de-shadowing of personal incomes, next year's final state consumption is forecast to slip to a negative 3.4%.

**Investment: Acceleration of growth to more than 12% in 2003**

In 2003 all sources of investments will improve. First, enterprise profits, which are responsible for two thirds of all investments by enterprises, are expected to recover. Second, commercial bank lending is assumed to further expand. According to a survey of enterprises, banks will become more willing to provide long-term loans than before. The continuing downward trend of interest rates should positively affect the affordability of credits. Third, the growth of the primary corporate bond market will bring additional investment stimuli.

The tax reform expected in 2004 will also have a positive impact on the current year's investments. The expected increase in disposable incomes of households, causing an increased demand for consumer goods, should stimulate investments at least in industries producing consumer goods.

In 2003 the accumulation of fixed capital is forecast to grow by 12.7% compared with a 5% rise in 2002. This growth will be accompanied by higher growth rates in construction (after last year's decline) and in machine building. Some acceleration of imports of machinery and equipment is also expected.

In 2004 two opposite forces will determine the pace of fixed capital accumulation. On the one hand, the tax reform, assumed to take place in 2004, will have freed-up enterprise funds and will have stimulated their investment activities. On the other hand, the presidential elections scheduled for that year may increase investment risks due to a rise in political uncertainty, hampering the investment activity of enterprises. As a result of these forces, the growth of fixed capital is expected to decelerate to 8%.

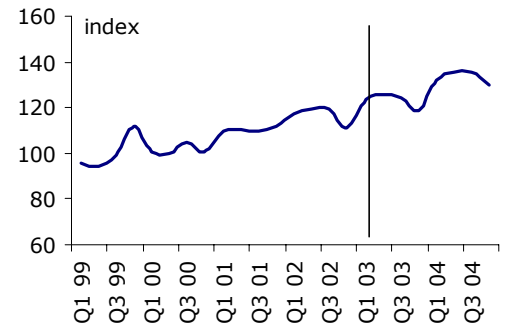
**External Sector: Imports will grow faster than exports in the forecast period**

The intensification of Ukraine's foreign trade, observed in 2002, is expected to continue in the first half of 2003. Among the driving forces of Ukrainian merchandize exports, ferrous metals will remain the major one due to favourable world market conditions. However, some of Ukraine's metal producers have now achieved their minimum cost production levels. Thus, any further increase in production, without concomitant changes in technology, will increase costs and reduce competitiveness, decelerating exports in the second half of the year.

The forecast growth of goods and service exports will reach 6.9% in real terms in 2003 despite an expected fall in grain exports and lower prices for gas transit. The growth rates of imports will exceed the growth of exports and constitute 8.5% mainly due to an intensification of imports in the first half of the year. Still the trade surplus will be approximately USD 1.7 bn.

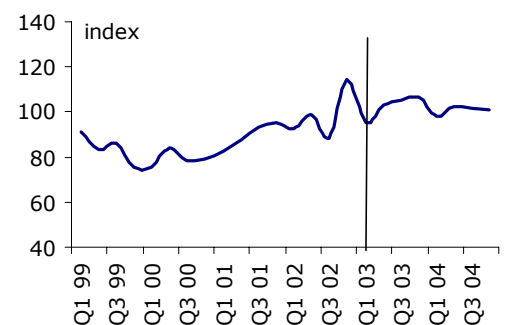
In 2004 the growth rate of imports will continue to exceed the growth rate of exports due to increases in both consumption and investment demand. Still, both trade flows are expected to grow

**Dynamics of Private Consumption\***



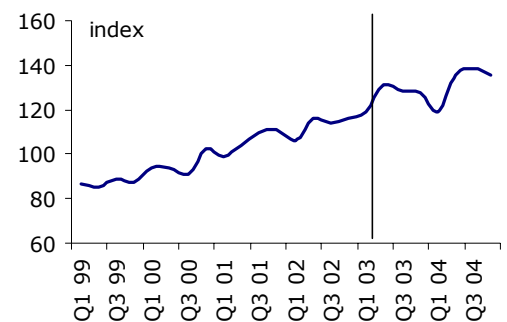
Source: Derzhkomstat, own calculations  
\*seasonally adjusted, 1996 Q1=100

**Dynamics of State Consumption\***



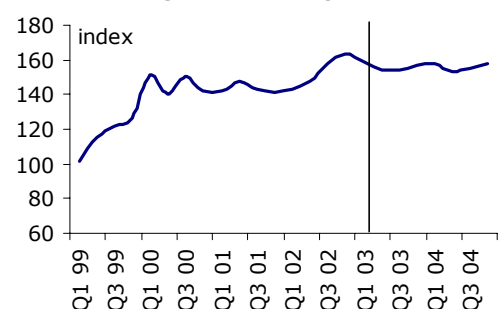
Source: Derzhkomstat, own calculations  
\*seasonally adjusted, 1996 Q1=100

**Dynamics of Investments \***



Source: Derzhkomstat, own calculations  
\*seasonally adjusted, 1996 Q1=100

**Dynamics of Exports\***



Source: NBU, Derzhkomstat, own calculations  
\*seasonally adjusted, goods and services, 1996 Q1=100



at lower rates: exports are forecast to increase by 3.9%, while imports should increase by 5.7%.

Despite further progress in the WTO accession activity, Ukraine will not become a member of the WTO within the study period. Also, the process of accession will have no significant impact on Ukraine's foreign trade flows.

### Production Side: Major growths in industry and construction

The growth rates of value added in *agriculture* are expected to decelerate in 2003 for the third year in a row. The forecast growth in agriculture is 1.6% as compared with 10.2% in 2001 and 3.6% in 2002. This reduction can be attributed to an expected poor grain harvest due to bad winter conditions, as well as to lower yields of spring crops that will be used to substitute for lost winter crops. In the year 2004 the growth rates in agriculture are expected to accelerate again to 3.8%.

The value added in the *manufacturing industry* is expected to grow at nearly 11% in 2003 and at 9% in 2004, which roughly corresponds to the 2002 growth rate. Major contributors to growth will be metallurgy and the food products industry. The growth of the petroleum processing industry in 2003 may be impeded by transportation problems revealed at the beginning of the year, as well as by a potential decline in the supply of oil to Ukraine's petroleum processing factories due to the war in Iraq and related changes in the world oil markets.

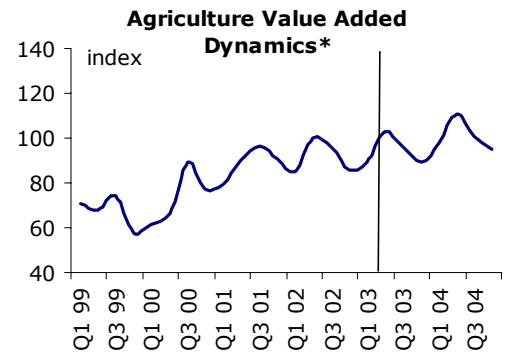
After last year's decline, the value added in *construction* is expected to grow by 16.8% in 2003. That will happen due to an intensification of the housing sector and higher enterprise investment demand. In the year 2004, the construction growth rates will decelerate somewhat to an 8.6% level because of lower investment activity on the eve of the presidential elections.

The *wholesale and retail trades* will continue the decelerating path started last year. The forecast growth in value added is 5.7% in the year 2003 due to lower private consumption growth. However, in 2004 the tendency is expected to reverse due to the positive impact of the tax reform. The value added growth rate for 2004 is forecast to reach 10.5%, regaining its role as one of the major contributors to real GDP growth. Another sector that will gain more importance in 2003 will be *transport*. The value added in this sector is expected to increase by 5.5% for 2003, caused by some positive developments in infrastructure. In 2004 the forecast growth is 5.3%.

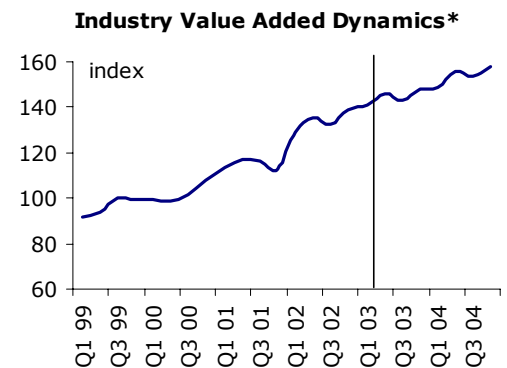
### Inflation: Consumer prices will exhibit moderate growth

Last year's unusual diminishing dynamics of consumer prices will reverse. In 2003 inflation is forecast to reach 7% yoy mainly due to price increases of major food products. In particular, bread-products will become more expensive because of the poor grain harvest, and prices of milk and meat products are expected to increase due to state regulations on the minimal purchase prices for meat and milk. On the demand side, the increase in the minimal wage will raise the purchasing power of the poorest group of the population, creating further pressures on food prices. In addition, increases in the tariffs for communal services, postponed in 2002, are likely to be implemented in 2003. Another factor to add to inflation will be rises in producer prices, which were observed last year and which usually translate into consumer prices after a few months' lag.

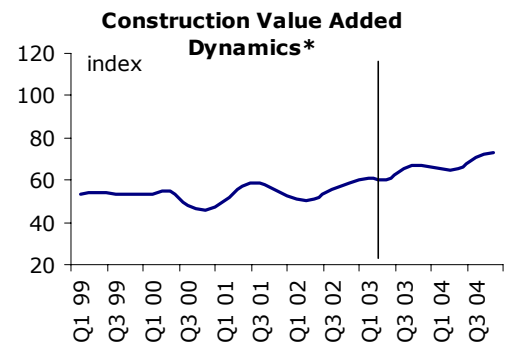
In 2004 consumer prices should increase at a slower rate; they are expected to reach a modest 5.1% yoy growth. On the demand side the upward pressure on prices will remain the same, because of a further increase in the minimal wage and the reduction of the personal income tax rate. However, on the supply side political forces will be used to deter producers from price increases during the presidential election campaign.



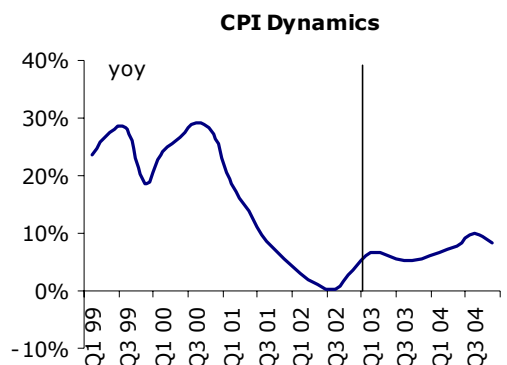
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Source: Derzhkomstat, own calculations



**Table 1. Growth of Real GDP by Expenditures: Forecast (% year-on-year)**

	2000	2001	2002 P	2003 F	2004 F
Private consumption	2.5	9.1	6.0	5.6	8.4
State consumption	1.0	9.6	-0.1	1.7	-3.4
Gross fixed capital formation	12.4	8.3	4.0	12.7	8.0
Exports of goods and services	21.5	2.9	9.7	6.9	3.9
Imports of goods and services	23.8	2.2	3.6	8.5	5.7
<b>Gross Domestic Product</b>	<b>5.9</b>	<b>9.1</b>	<b>4.6</b>	<b>5.4</b>	<b>5.1</b>

Note: P – preliminary; F – forecast

**Table 2. Growth of Real GDP by Sector: Forecast (% year-on-year)**

	2000*	2001	2002 P	2003 F	2004 F
Agriculture, hunting and forestry	5.9	10.9	3.6	1.6	3.8
Manufacturing industry	12.8	16.5	9.0	10.8	9.3
Construction	1.6	9.0	-0.7	16.8	8.6
Wholesale and retail trade, repair services	5.4	25.0	8.1	5.7	10.5
Transport	1.4	0.8	4.3	5.5	5.3
<b>Gross Domestic Product</b>	<b>5.9</b>	<b>9.1</b>	<b>4.6</b>	<b>5.4</b>	<b>5.1</b>

\* In 2000 the GDP components were re-classified, thus the data shown are approximate

Note: P – preliminary; 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.

Within a forecasting table, there is 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 methods 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  $\Theta_i^{X_i}$  of component  $X_i$  to real growth can be calculated as (2):

$$\Theta_i^{X_i} = \left( \frac{X_{it}^* - X_{it-1}}{X_{it-1}} \right) \cdot \frac{X_{it-1}}{Y_{t-1}} \cdot 100$$

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**