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INTERNATIONAL MONETARY FUND

REPUBLIC OF BELARUS

Selected Issues

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Approved by European Department

June 2, 2005

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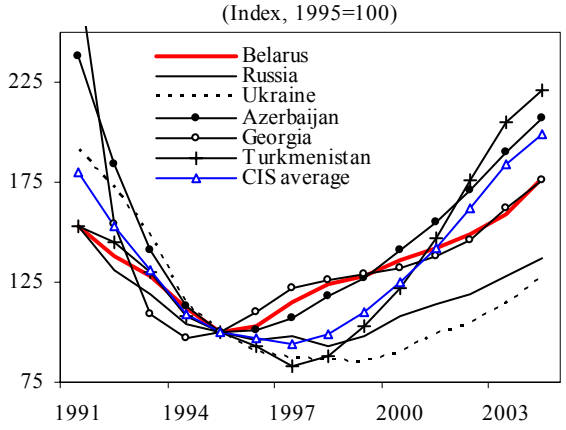
RAPID GROWTH IN BELARUS: PUZZLE OR NOT?

A. Introduction and Summary

1. **This paper discusses the growth process in Belarus, seeking to identify its main sources and assess its sustainability.** It complements the staff report, which placed considerable emphasis on macroeconomic policies, and provides (i) an overview of additional important factors underlying Belarus's recent economic performance and (ii) some further insights on the likely future path of main macroeconomic variables. The analysis suggests that, while several aspects of Belarus's macroeconomic performance have been unusual, there is no puzzle: domestic policies and favorable exogenous factors have combined to boost growth in recent years. However, in the absence of policy adjustment and wide-ranging structural reforms, this growth is ultimately unsustainable.

2. **The Belarusian experience is at odds with the standard transition paradigm (Fischer and Sahay (2000); Havrylyshyn (2001))**. Like other CIS transition countries, Belarus experienced major macroeconomic instability and a sharp output decline during 1992–94, when it undertook some initial, albeit incomplete, market reforms. However, since the mid-1990s, the country has pursued a strategy based on re-establishing centralized state control over the economy, and restoring some of the requisite economic institutions. As a result, the path of transition chosen by Belarus over the past decade differs considerably from that of other countries in the region. While several reform measures were undertaken (notably the lifting of price controls and the elimination of most energy cross-subsidization), the economy remains highly regulated and under predominant state control. The share of the private sector in GDP—at 25 percent—is the lowest among all transition economies except Turkmenistan.[1]

CIS: GDP Growth, 1991–2004
(Index, 1995=100)

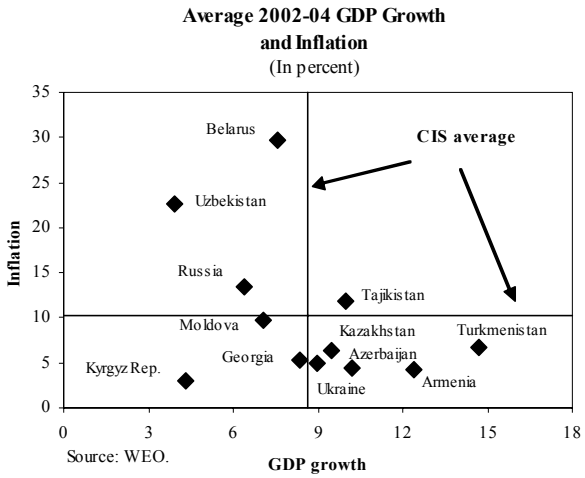


Source: WEO.

3. **Belarusian output began to recover from 1996**. Belarus has experienced nine years of uninterrupted growth, averaging 6.6 percent per annum. This rapid growth has occurred from a relatively high base, since Belarus suffered a smaller drop in output in the early 1990s than most other CIS countries. GDP growth has accelerated in recent years, reaching 7 percent in 2003 and 11 percent in 2004. Interestingly, Belarus's growth performance is not markedly more favorable than that of other CIS countries during the past decade. This points

[1] EBRD Transition Report, 2004, page 104.

to the importance of the growth contribution from returning toward trend growth.[2] In fact, even when focussing on the past three years characterized by higher growth and falling inflation, Belarus does not stand out, with average growth marginally below the CIS average and average inflation well above it. Inflation in Belarus remained the highest in the CIS during the past decade, although it has been on a declining path since 2000, and by April 2005, it declined to 11.1 percent on a 12-month basis. It is unlikely that biases in statistical measurement would fundamentally alter the emerging picture of brisk GDP growth in recent years (Box 1).



4. **Overall, the government pursued expansionary policies in recent years, despite tighter fiscal and monetary policies.** Policies were oriented toward underpinning economic stability and helping lower inflation by raising trust in the banking system and the rubel, and anchoring expectations through a stable nominal exchange rate. The general government deficit was on a downward trend, eliminated altogether in 2004. The NBRB ceased the inflationary financing of budgetary operations, and provided an effective nominal anchor through the stabilizing nominal exchange rate. It has also made significant progress in financial sector regulation and supervision. Financial deepening progressed despite continued weaknesses in the balance sheets of the largest state banks that dominate the banking system. However, massive quasi-fiscal interventions kept the overall stance of government policies on the expansionary side. They have led to an unsustainable excess of real wage increases over productivity; and a recurrent need for massive bank recapitalizations, as directed credits depleted state banks' liquidity and threatened their solvency.

5. **Rapidly rising demand boosted GDP growth in recent years.** Bolstered by rapid real wage growth stemming from the government's wage policies as well as decelerating inflation, consumption continued its rapid rise, significantly contributing to growth. In addition, Belarus has experienced a change in positive terms of trade stemming from rising energy prices—an unusual development for a net energy importer like Belarus—which had a marked income and a wealth effect, fueling consumption and investment. Investment in physical assets—both by government and non-government—has also increased markedly. However, foreign direct investment—the source of the bulk of investment in most other transition economies—was largely absent as a financing source. The main reason was the

[2] Gaidar (2005) refers to this as "recovery growth", stressing that growth can be temporarily higher while the economy is recouping previously lost output levels, especially if other processes of returning toward equilibrium, such as remonetization and dedollarization, also contribute. However, such booms cannot be sustained without broad structural reforms.

Box 1. Statistical Measurement Issues

While Belarus's national accounts methodology is in compliance with international standards, source data may introduce an upward bias into measured GDP. National accounts experts from the IMF's Statistics Department have found that Belarus's GDP and real GDP growth estimates were consistent both internally and with the source data used. The financial and production source data used in compiling national accounts were found to have good coverage and a high response discipline.

However, some weaknesses remain in the construction of the national accounts data. In particular, methodological shortcomings may have led to an upward bias in the estimated growth rates of the industrial production index (IPI), and hence to overstated GDP growth rates. This overstatement is proportional to the level of inflation, and by 2004, the bias is estimated to have fallen to around ½-percentage point of GDP. Whether similar biases existed in the statistical indices for agricultural and services output remains to be clarified. Another potential source of measurement problem is the methodology to adjust inventories for holding gains—although, as in the case of the IPI, this problem also diminishes as the level of inflation falls. Finally, the lack of a reliable price deflator for imports poses a problem for the construction of a price deflator for intermediate consumption which should take into account imported inputs.

A potentially more serious source of upward bias in reported national accounts data are in enterprise level source data. Data provision becomes politicized with the presidential administration imposing and closely monitoring a series of benchmarks, including those associated with output and economic growth, based on the 5-year program of social and economic development. As a result, enterprise directors, municipal and central government employees face strong incentives to report that targets were fulfilled. In fact, Belarus's Data ROSC reported that some users surveyed were of the view that statistical data included a positive bias. The presence of significant administrative price controls and the differences of the accounting system from internationally adopted accounting standards—which may result in understating some production costs—also present complications for the correct statistical measurement of value added.

The relatively small non-observed economy or "informal sector" is unlikely to significantly distort output data. Activities of individuals not obliged to report and small enterprises failing to report represent 10–11 percent of GDP in total. Most of the imputations needed for the estimates of the non-observed economy are concentrated in agriculture (57 percent of activity, amounting to 4.6 percent of GDP is not observed) and internal trade (one third of activity—3.4 percent of GDP—is not observed). Most of the data used in the compilation of national accounts are reported and only a relatively small proportion of GDP is estimated, owing to a traditionally high response discipline motivated in part by strict punishments for failing to comply with the statistical law. The percentage of total GDP represented by the economic activities of enterprises that fail to report is estimated at less than ½ percent of GDP.

The overall size of the statistical measurement biases remains to be quantified, but appear not to fundamentally alter the picture conveyed by official national account statistics pointing to strong output growth in recent years.

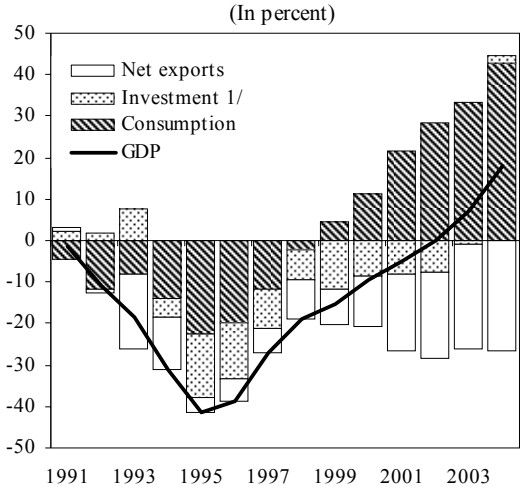
unwelcoming business environment, characterized by excessive regulation, and the predominance of state-owned enterprises and banks, epitomized in the eyes of potential rants by the recently strengthened golden share rule. Not only does this reduce the amount of FDI inflows to Belarus, but it also deters strategic investors, lowering the average quality of FDI.

6. **While rapid increases in exports also bolstered output growth, the contribution of net exports to growth has remained negative.** Export growth centered on large enterprises in the machine tool, petroleum refinery, and chemical industries. However, several factors that contributed to rapid export growth in recent years may be waning. In particular, Belarusian exports have to a great extent competed on price, rather than quality. This was supported by an exchange rate policy that by now, has probably used up any initial cushion of real effective undervaluation that the rubel had (Belarus's US dollar GDP has been rising at an annual average rate of 22.6 percent in the past three years, and the current account is in deficit, held from increasing further by binding financing constraints). Thus, looking forward, Belarusian exports may grow at a markedly slower pace, imparting less of a boost on GDP growth. While a loss of market share is more likely in non-CIS markets—since the bilateral real exchange rate vis-à-vis the Russian ruble has remained relatively stable—rising unit labor costs and developments in Russia may well undermine Belarusian competitiveness even in that market. Import growth has kept up with that of exports, boosted by real appreciation, the population's rapidly rising real income that raised demand for imported consumer goods, as well as imports of production inputs and investment goods. As a result, the overall contribution of net exports has been negative in 2004, as in previous years.

7. **Belarus's well-educated and disciplined workforce has been a key factor underlying rapid growth**. Labor productivity has increased markedly, albeit not sufficiently to offset the surge in real wages engineered by the government. Policies that augment human capital would be key for ensuring growth sustainability. Such policies include encouraging FDI—a key channel for knowledge transfers—continued spending on education and health, as well as economic liberalization to allow unleashing the workforce's potential through private enterprise.

8. **Belarus's preferred development model is a socially-oriented market economy model**. The authorities aim to achieve high growth while ensuring social stability. In particular, through gradual reforms, they seek to avoid reform shocks, high unemployment, and the emergence of oligarch-dominated capitalism. Indeed, Belarusian policies over the past decade have been consistently socially-oriented. The fall in GDP during the first half of the 1990s, and its subsequent recovery were largely driven by changes in public and private consumption, which contributed a remarkable 65 percentage points to cumulative GDP growth during the ten years

Cumulative Contribution to GDP Growth by Type of Expenditure
(In percent)



Source: Ministry of Statistics and Analysis.
1/ Gross fixed capital formation plus changes ininventori

through 2004. This period has also brought a marked improvement in poverty indicators.[3] Since the initial output loss was severe, real GDP reached its 1991 level only by 2002. In fact, investment recouped its cumulative losses of the first half of the 1990s only by 2004. Thus, rapid growth probably has some way to go before it hits its long-term trend. When it does, however, the recovery factor boosting growth rates will disappear, which could result in markedly lower growth rates.

9. **As a result of the Belarusian development model, a dual economy is taking shape**. It consists of a predominant, state-owned component subject to state commands, and a satellite private sector relegated to a secondary role, constrained to selected sectors and facing competitive handicaps. While key aspects of a classical centrally planned economy (CPE) are absent in Belarus—notably the funded allocation of resources to individual enterprises that bind them to suppliers; the assigned delivery of consumer goods; the single-tier banking system; and fully controlled trade in goods and foreign exchange—the centralized management of the state-owned component bears some traits similar to CPEs. In particular, a good part of production decisions and financial flows in the state sector are centrally designated, government support is provided to selected enterprises and banks when deemed necessary (giving rise to soft budget constraints), and administrative interventions continue in price formation. As a result, some of Belarus's underlying macroeconomic problems are similar to those of CPEs (Box 2).

Box 2. Implications of the Centralized Economic Management Approach

Some aspects of CPEs may have relevance for Belarus:

- Theoretical arguments about economic inefficiencies inherent in centrally managing an economy have centered on the **coordination problem** (Hayek, 1940), Blanchard (1997)). Interactions in a modern economy are too complex to be efficiently managed centrally, a problem exacerbated by technological change and innovation. The command center cannot reward efficient firms through higher prices and profits (thus undermining incentives), because it would not have up to date information on innovations or an objective basis to assess their usefulness, and would also find frequent changes in prices and other parameters difficult to implement.

- Kornai (1980) argues that growth in centrally-managed economies falters, because (i) administrative **intervention in price formation** can lead to shortages if prices significantly deviate from market-clearing levels; (ii) productivity and allocative efficiency suffers from disincentives induced by **soft budget constraints**, notably by the lack of a market-based exit mechanism for inefficient firms; and (iii) in the **absence of a market mechanism to compete for inputs** in the quality and quantity needed, efficient producers ultimately run up against bottlenecks.

[3] See the World Bank's forthcoming CEM for details and international comparisons.

10. **The IMF's growth forecasts in past years have been below those of the authorities, as well as the eventual outcomes**. While the main reason appears to have been the expectation that the growth costs of excessive government intervention and strongly expansionary policies would manifest themselves imminently, other factors have also played a role. First, IMF growth projections were also lower in several other CIS countries, including Russia and Ukraine in recent years. Second, Belarus's close ties with Russia—notably, Russian support through energy supplies at relatively low prices, trade credits, and a customs union providing ready access to Russia's large and buoyant market—have boosted growth in Belarus in recent years to a greater extent than was expected. Third, with IMF projections in part relying on the experience of other transition economies at similar levels of development, the significant regional boost stemming from strong trade and production ties may also have not received sufficient weight. Fourth, the feedback effects of strong domestic demand growth on activity may have been underestimated. Fifth, Belarus appears to have benefited in the short run from (i) the avoidance of structural reforms, which has so far precluded a transition recession, and (ii) the real income-boosting effect of increasing administrative price interventions. Finally, structural reforms were assumed in IMF projections, which duly accounted for their short-term growth costs. These costs were expected to be more than offset by the medium-term benefits of reforms.

11. **The Achilles heel of Belarus's growth strategy is its ultimate lack of sustainability**. In other economies throughout the world, expansionary policies like those pursued by Belarus—in a centralized and unreformed macroeconomic setting, allowing limited room for market forces—typically result in erratic and eventually lower growth. Thus, the authorities' expectation of continued rapid GDP growth and falling inflation under unchanged policies is inconsistent with the experience of other countries. In particular, European transition economies over the past decades have shown that sustainable growth hinges on reducing the size of government, institutional reforms, opening up the economy to trade and foreign investment, and implementing wide-ranging structural reforms to enhance the role of the market and mobilize resources to improve the physical and human capital of their countries.

B. Exogenous Factors Contributing to Growth

12. **In addition to specific policies aimed at boosting demand, Belarusian growth has benefited from contributing factors that policymakers do not directly control**. While some were the results of decisions taken earlier, others resulted from the country's historically close ties with key trading partners, its geographical location, or developments in the world economy.

13. **Belarus has retained largely intact its trade and production ties with Russia and other CIS countries**. Like some other CIS countries (Azerbaijan, Kazakhstan, the Kyrgyz Republic, Tajikistan, and Ukraine), Belarus has achieved a trade surplus with non-CIS countries while running a significant deficit with other CIS countries. It is particularly noteworthy that Belarus has been able to retain a large market share in Russia and several other CIS countries despite the slower pace of market reform in Belarus vis-à-vis other transition economies (in fact, Belarus may have even benefited from its intact industrial

capacity when other countries have experienced a transition recession). Commercial linkages have remained strong—e.g., in energy through oil refineries and oil and gas pipelines—while Russia continued to be the main market for Belarusian consumer and investment goods. Thus, for example, the share of Russia in Belarus's exports accounted for 41.5 percent of the total in 1990. Following independence, Belarus's exports share to Russia increased and peaked in 1998 at 65.2 percent. Although the importance of the Russian market has declined recently, it still accounts for half of total merchandise exports. The share of machinery and equipment in exports to Russia remained stable at around 30 percent during 1998–2004.

14. **Support from Russia and ready access to its large market remains critical for Belarusian growth**. The recent economic recovery in Russia led to a considerable expansion in traditional Belarusian exports, including labor-intensive items (equipment and consumer goods, such as trucks, tractors, TV sets, refrigerators etc.). Financial arrangements between Belarus and Russia have also been important, in particular, through loans (often provided at concessional terms), debt reschedulings, grants, and past-due payments owed to Russia.

15. **Belarus has derived substantial benefits from Russian energy pricing**. The average price of natural gas imports is significantly below the German border price, adjusted for transportation costs, which, for natural gas, are relatively high compared to crude oil (for equivalent energy content).[4] Clearly, the difference vis-à-vis the adjusted German border price contains, in addition to a subsidy element, a component related to Belarus's market power stemming from its geographical location—on the export route for Russian gas. As an alternative measure of Belarus's benefit from obtaining natural gas at below international market prices for its own consumption, we use the Ukrainian border price. Belarus's implicit gain from gas imports is estimated to lie between the two measures. Clearly, this gain was substantial in the past, but has declined markedly by 2004. The preferential price charged for Belarusian energy imports has been a point of contention between Russia and the WTO, with pressures for Russia to cease this arrangement with Belarus (and other CIS countries) and to increase domestic gas prices as a precondition for Russia's accession. As a result, internal gas prices in Russia are on a rising trend, which most likely means that Belarus's gain from this source is going to fade further in future.

[4] Based on data quoted for the Yamal-Europe pipeline. The calculation assumes that the distance between the Russian and German borders is 1,100 kilometers.

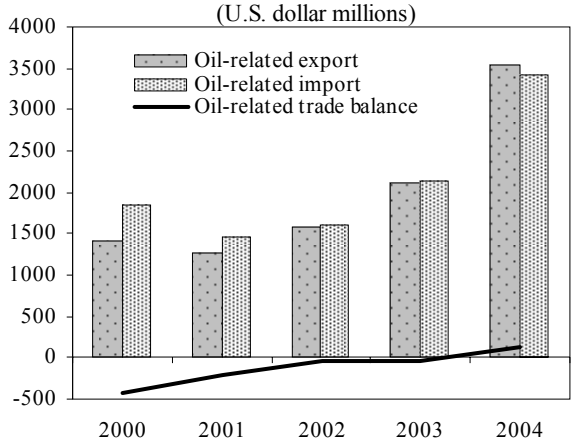
Belarus: Estimate of implicit gains from preferential gas import prices from Russia in 2000-2005
(in millions of US$, unless otherwise indicated)

	Price paid per 1,000 m3	Adjusted German border price 1/ US$ per 1,000 m3	Ukrainian border price US$ per 1,000 m3	Volume imported in million m3	Cost to Belarus	Cost difference in percent of GDP compared to	
						Germany	Ukraine
2000	30.7	119.2	56.1	17,114	526	11.6	3.3
2001	31.1	134.3	57.8	17,266	537	14.4	3.7
2002	30.6	90.9	62.7	17,578	539	7.2	3.8
2003	36.9	120.4	57.7	18,113	669	8.6	2.1
2004	47.7	130.1	60.0	19,643	937	7.1	1.1
2005 2/	47.7	130.5	60.0	19,643	937	6.1	0.9

Source: Belarusian authorities and staff estimates.
1/ Adjusted for transportation cost differential assuming distance of 1,100 km between Belarusian and German borders closest to Russia, and transportation cost of US$0.46 per 1000 cubic meters per 100 km.
2/ Preliminary data and staff estimates

16. **Higher average world oil prices have benefited Belarus through its current arrangements with Russia on the order of 2–3 percent of GDP**. In 2004, the average price of Belarus's crude imported from Russia, its sole oil supplier, was about US$14 per barrel lower than the price of the benchmark North Sea Brent. While some of this price differential reflects transportation cost and quality differences, the gap relative to international prices has increased compared to preceding years. As a result, Belarus gained from higher world market prices for oil despite being a net oil importer. For example, relative to 2001, the gap per barrel in 2004 was some US$5 wider, implying implicit support of 2–3 percent of GDP, given Belarus's import volumes. Another way to consider Belarus's advantage in the petroleum trade is to look at the evolution of the refining margin. This margin—the difference between the export price of refined petroleum products that can be obtained using existing technology from a barrel of crude oil and Belarus's crude import price per barrel—has averaged around US$10 per barrel in 2004, US$4.20/barrel more than in 2001. When applied to Belarus's petroleum export volumes, this incremental US$4.20 per barrel corresponds to 1.8 percent of GDP in 2004—all realized through foreign trade (Figure 1). Belarus's energy-related trade balance has been improving throughout 2000-2004 (Figure 2). In fact, Belarus has been able to cover its crude import bill, including the part used for domestic consumption, by its proceeds from refined petroleum products exports, utilizing its substantial refinery capacity since 2002.[5]

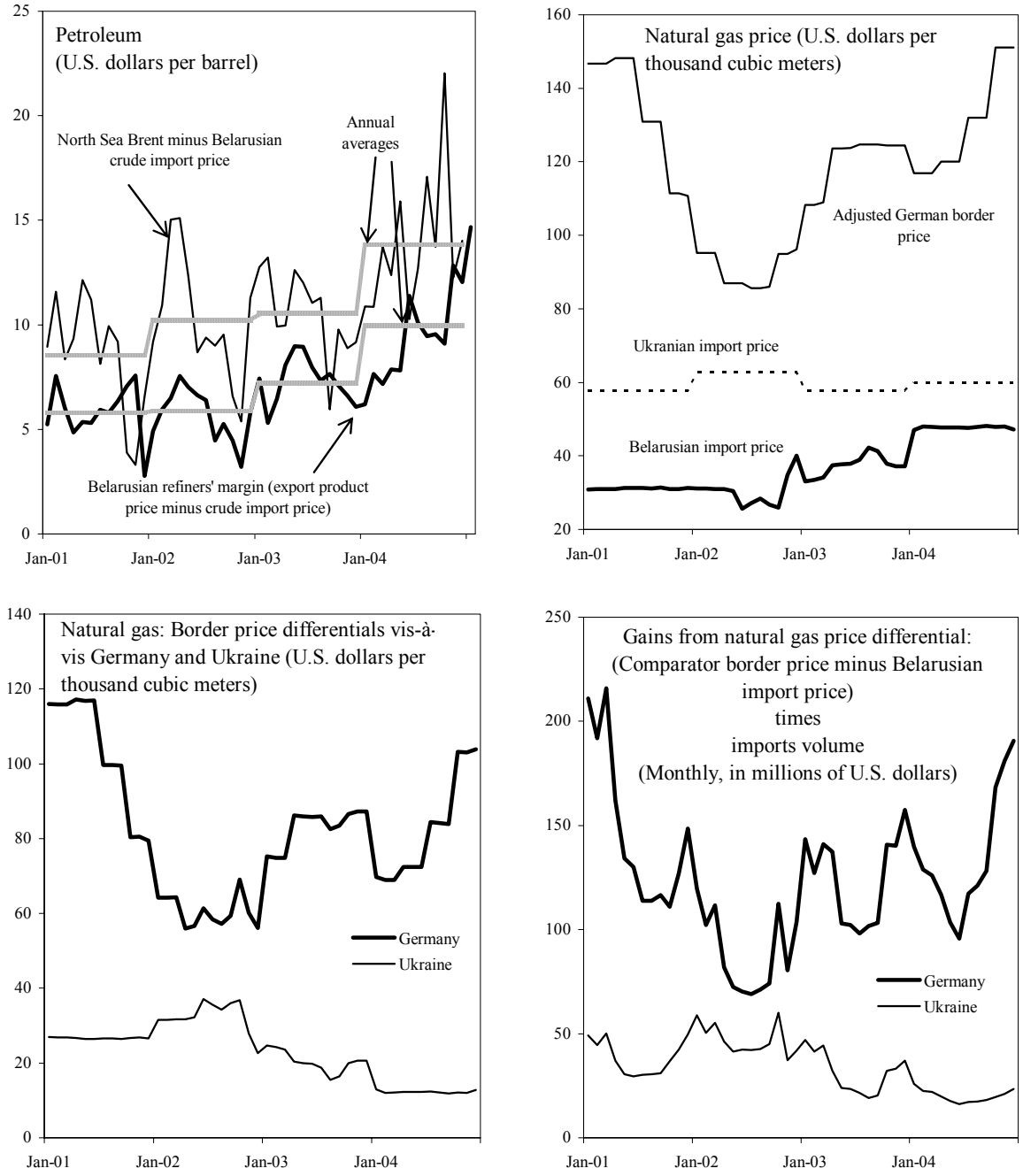
Oil-related trade balance
(U.S. dollar millions)



Source: Ministry of Statistics of Belarus.

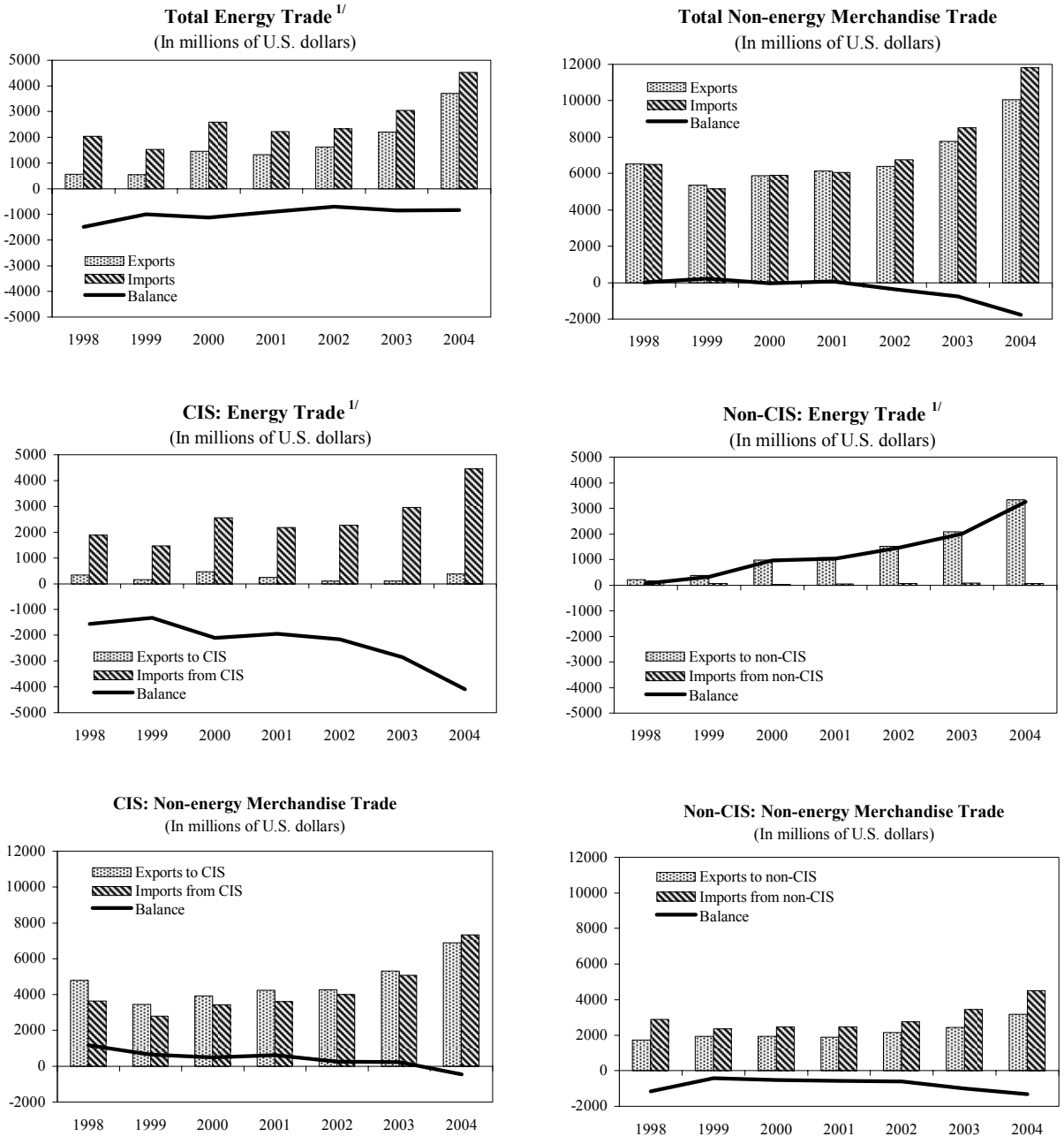
[5] Domestic production acounts for about a tenth of domestic consumption.

Figure 1. Energy Trade Advantage, January 2001–December 2004



Sources: Belarusian authorities; and Fund staff calculations.

Figure 2. Energy Trade Levels and Balances , 1998-2004



Source: COMTRADE.
1/ Mineral fuels, oils, gas, distillates, and electricity.

17. **Belarus's location confers it a geographical advantage in energy transportation**. Benefits accrue to the country in the form of transportation revenue on export volumes of crude oil and natural gas moving from Russia to third countries across Belarus's territory. This is partly reflected in significant transportation service revenues shown in the balance of payments. Although the exact amount of this geographical advantage would be difficult to estimate, it is clear that Belarus's strategic position accords it a strong bargaining position in negotiating transit agreements. As mentioned above, it may also contribute to the favorable energy pricing arrangements reached with Russia.

18. **A key risk is that most of the beneficial factors stemming from Belarus's close relationship with Russia may diminish over time**. The advantage from the close connection with Russia may fade out owing to changes in Russia as it enters the WTO—which would raise competition for Belarusian products in Russian markets that have been hitherto protected by special arrangements and could also lead to higher Belarusian energy import prices. Ongoing reforms in Russia and substantial FDI inflows to that country will, over time, promote domestic production of goods competing with traditional Belarusian exports to Russia. Belarusian exports are likely to face similarly mounting competitive pressures in other CIS markets, as well as in specific sectors (e.g., in textiles following the elimination of quotas in textiles trade this year).

C. Potential Output and Output Gap

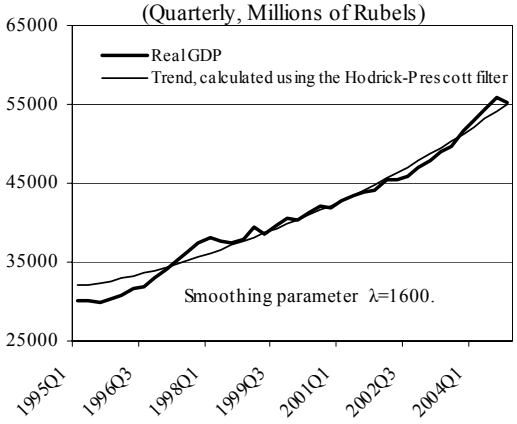
19. **Measuring a country's potential output and comparing it to actual GDP is useful for analyzing the factors behind economic growth**. In particular, the output gap, calculated as the difference between actual and potential output can be a useful indicator of the cyclical position of an economy. To this end, Belarusian potential output was statistically estimated using the Hodrick-Prescott (HP) filter. This simple statistical smoothing procedure separates a time series into a permanent trend and a cyclical component. It minimizes a combination of the gap between actual output and trend output and the rate of change in trend output, for the whole sample of observations with a pre-determined degree of smoothness of the trend.[6] While structural changes experienced by the Belarusian economy over the past decade have been substantial, they may have been of a lesser magnitude than in many other transition economies. Thus, the HP filter appears to be a reasonable approach for statistical analysis of Belarusian output data.

20. **We apply the HP filter to seasonally adjusted quarterly GDP data for 1994-2004, extending it with 2005 projections**. To avoid the end-of-sample bias, we present and analyze

[6] Attempts to use the production function were thwarted by the lack of consistent data on the capital stock. For more on the Hodrick-Prescott filter please see Hodrick, Robert J., and Edward C. Prescott (1997).

the results for the period 1995–2004. The resulting chart reveals an accelerating tendency in potential output, with a relatively flat trend in 1995─mid-1996, followed by a pick-up in growth during 1997─mid-2002, and a further acceleration with higher growth rates from 2002. Annual average potential GDP growth is estimated at 5.7 percent in the period 1996–2004, compared with actual average growth of 6.6 percent during the same period. Thus, average growth appears to have been marginally above potential in the past nine years, contributing to inflationary pressures, which kept Belarusian inflation the highest in the CIS throughout this period.

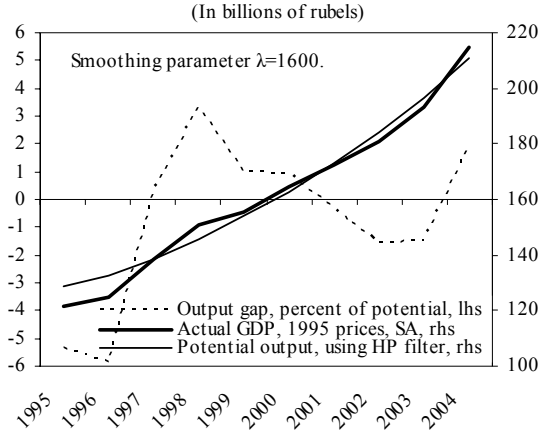
Real GDP: Actual and Trend
(Quarterly, Millions of Rubels)



Source: Ministry of Statistics and Fund staff estimates.

21. **The output gap has dipped into negative territory in 2001-2003, but turned sharply in 2004, approaching two percent of potential GDP**. The output gap—calculated as the difference between actual and potential GDP levels (as percent of potential GDP)—has been positive during 1997-2000, coinciding with a period of high inflation. Its 2004 increase has so far not resulted in a reversal of the downward inflationary trend, but this analysis points to a possible increase in inflation pressures with a combination of lags, administrative intervention in price formation, and benign money demand developments holding price increases in check for the time being. This would argue for cautious macroeconomic policies.

Potential Real Output Based on HP Filter
(In billions of rubels)



Source: Ministry of Statistics and Fund staff estimates.

D. Quasi-Fiscal Operations

22. **Fiscal consolidation has progressed in recent years, resulting in increased transparency and a decline of quasi-fiscal activities from very high levels**. Several large extra-budgetary funds─with earmarked revenue and expenditure─have been consolidated into the budget since 1998, notably the Social Protection Fund (SPF) in 2004, and innovation funds—accounting for some 2 percent of GDP—in 2005. The unification of the exchange rate and gradual monetary policy tightening resulted in a decline of quasi-fiscal activities through the National Bank of the Republic of Belarus (NBRB). The unified exchange rate has greatly reduced distortive quasi-fiscal intervention in the economy. The discontinuation of directed recapitalization of banks by the NBRB as well as of highly concessional lending to banks and the government was beneficial for lowering inflation.

23. **However, quasi-fiscal activities remain widespread and imply a markedly larger government role than what transpires from the general government budget alone**. They

contribute to the large footprint of the government in the Belarusian economy and add to officially reported fiscal deficits. At less than 2 percent of GDP in the past few years, the officially reported budget deficit is significantly underestimated. Including quasi-fiscal activities (QFAs) would result in a much higher estimate for the overall deficit of all government operations. However, it is difficult to obtain reliable estimates for the actual deficit including QFAs, since the relevant data are not readily available and those that exist suffer from measurement problems.

24. **Quasi-fiscal activities in Belarus comprise those channeled through the banking system, and those outside it**. This is possible since the enterprise sector and the largest banks are state-owned. This allows the government to intervene extensively through the banking system, by channeling resources to preferred projects, and through state-owned enterprises, and other channels (Box 3).

Box 3. What are Quasi-fiscal Activities?

An economic approach to analysis of government accounts requires that all government activities (in money terms) be included as transactions in the general government budget[1]. In some cases activities are pursued outside the general government, but are close in nature to fiscal operations as they aim at achieving some government goals. These fiscal-type operations which are carried out explicitly or implicitly on behalf of the government but are not reflected in the government accounts are called quasi-fiscal activities.

There are different types of activities which can be defined as quasi-fiscal and which, together with the fiscal activities, broaden the role of the government in the economy. Below is a list of some quasi-fiscal activities which are often encountered in transition economies at their different stages of development:

- subsidized lending to enterprises by the banking system;
- exchange rate subsidies under a multiple exchange rate regime;
- incurring contingent liabilities of the central bank and government;
- off-budget funds financed by earmarked revenue spent for specific purposes;
- provision of goods and services at below-market prices by non-financial public enterprises;
- cross-subsidization through public utilities;
- specific price and tariff controls to support or "protect" certain sectors or consumers;
- enforcing wage increases regardless of enterprise costs and productivity;
- some specific support operations by banks or non-financial enterprises extended to specific sectors, employees or to other enterprises; and
- central bank support to specific sectors or banks.

In most cases, data to assess quasi-fiscal activities is not readily available and estimating them is a difficult task. Some activities may be balanced, i.e., revenue is collected to fully cover spending, while others result in a deficit, and need to be financed. As these activities are in one way or another imposed by the government, they may have distortionary effects and result in inefficient resource allocation.

[1] In some cases the definition of the general government is extended to also cover the public sector enterprises.

25. **QFAs in the banking system have been conducted through the central bank, as well as through the state-owned commercial banks**. Eighty percent of the banking system is owned by the state or the central bank: four of the six largest banks are majority state-or NBB-owned. The state has a minority stake in the other two largest banks. Through 2003, the central bank has provided funds at below-market interest rates to finance housing construction. In addition, commercial banks have extended substantial directed credits at heavily concessional terms, directed to priority sectors and projects under numerous presidential and government resolutions (contributing to banks' low profitability). Such loans averaged around 3.4 percent of GDP in 2004 or about half of new bank lending, with two thirds of it extended to agriculture. As of October 1, 2004, these loans were estimated to account for about a quarter of total bank lending to the economy. Loans for housing construction with maturities of up to 40 years and interest of three percent are another important component of preferential lending. Extensive government guarantees have also been extended to the banking system, particularly for the purpose of financing agriculture. The amount of guarantees has increased from Rbl100 billion envisaged initially in the 2004 budget to Rbl600 billion (1.4 percent of GDP) after a Presidential Decree granted debt relief to agricultural enterprises.

26. **QFAs outside the banking system also have a substantial impact and take a variety of forms**. They include government intervention through ownership of large enterprises, such as the request to petrochemical firms to donate fuel oil to agriculture for sowing or harvest, and regulatory intervention, of which the most important form is the administrative economy-wide US dollar wage target, which affects both public and private enterprises. The US$250/month wage target to be reached by end-2005 requires a substantial reallocation of resources by enterprises, which may well affect their cash flow, as well as the employment opportunities of people with marginal skills. One possible way to estimate the quasi-fiscal component of wage increases is to calculate estimated wage growth—as mandated by government—in the non-budgetary sector in excess of nominal GDP growth in 2001–05. This approach would yield an estimate of 3.6 percent of GDP per annum on average during this period. Additional channels of non-bank QFAs include the considerable social infrastructure maintained by enterprises (largely shifted to central and local budgets in most other countries); cross-subsidization of the population by public utilities, which remains substantial despite recent declines; as well as the activities of some off-budget funds. Finally, substantial revenues and expenditures are currently occurring outside the formally consolidated general government budget owing to the collection and spending of "own revenues" of budgetary organizations. These accounted for an estimated 6 percent of total recorded general government expenditure in 2001. With the associated spending believed to be strictly limited to "own revenues" collected, these operations only raise the size of overall government operations, but not their deficit.

E. Fiscal Stance and the Fiscal Impulse Taking into Account QFAs

27. **Measuring the balance of overall government operations and its changes is central to macroeconomic policy analysis**. As fiscal imbalances can lead to macroeconomic imbalances, both internal and external, understanding fiscal developments is critical to the analysis of growth. In many countries, the conventional measure of the general government

budget balance is sufficient to assess the macroeconomic impact of fiscal policy. However, in others, it is necessary to take a broader view. For example, in some countries, public enterprises and financial institutions are formally consolidated with general government into "public sector operations." For Belarus, at least the key QFAs need to be estimated and added to the reported general government operations. The fiscal impulse, calculated using this measure of the fiscal balance, can provide useful insights into the true impact of the overall operations of the government on the economy (Box 4).

Box 4. Fiscal Impulse Indicator

Defining:

BB ─ as the budget balance,
To ─ base-year (1999) revenue,
Go ─ base-year expenditure,
Yo ─ base-year actual nominal GDP (equal to potential),
Y ─ actual nominal GDP, and
Yp ─ potential nominal GDP,

we can calculate the

cyclically neutral budget CNB = (To/Yo)*Y-(Go/Yo)*Yp,
fiscal stance FS = CNB – BB,
fiscal impulse FI = change in the FS,
structural budget balance SBB = (To/Yo - Go/Yo)*Yp – FS, and
structural impulse SI = - change in the SBB.

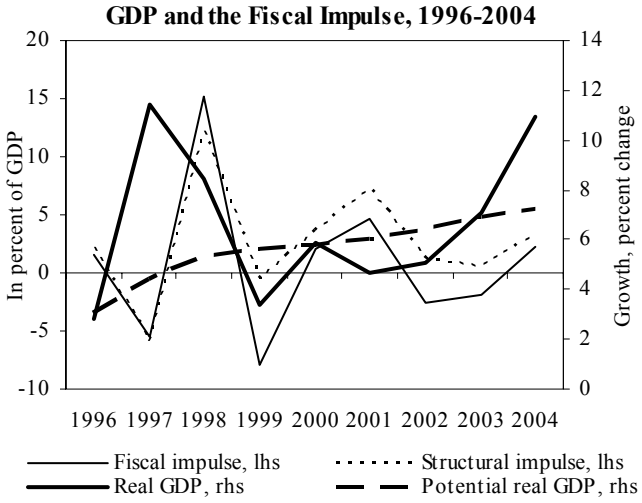
The above indicators allow testing the actual change in the budget deficit against a normative neutral change, as provided by the movement in the cyclically neutral budget. If the actual change in the budget deficit is bigger than the normative change, the fiscal impulse is viewed as expansionary. This can be a result of either excessive expenditures, or deficient revenue, or the combination of both. The fiscal impulse can be also viewed as a measure of the initial fiscal contribution to the growth in aggregate demand.

28. **The inclusion of QFAs in the measure of government operations makes a significant difference**. When official data are used for analyzing fiscal outcome over the past ten years, one can observe two different phases in the budget outcome against the background of a persistently rising size of the government. While the trend for revenue was above that of the expenditures between mid-1995 and mid-1999, the situation was reversed from mid-1999, when expenditures exceeded revenue. However, the budget was balanced by the end of the second phase.Throughout this period, budget financing from domestic and external sources on better-than-market conditions has played a significant role. In particular, the NBB extended credit to government at highly concessional terms, securities were issued at tightly regulated rates, and bilateral external borrowing (largely from Russia) was obtained at below-market rates. Therefore, the debt service cost of such borrowings has been low.

29. **On the other hand, if estimated quasi-fiscal activities are taken into account, the deficits are markedly higher.** Data available for quasi-fiscal activities related to directed

lending and government-mandated wage increases in non-budgetary sector are used to estimate the broad budget balance (including QFAs).[7] The resulting picture is sobering: expenditures persistently remain well above revenues throughout the past nine years. Moreover, the deficits are seen to have been significantly higher (Figure 3).

30. **Overall government operations turn out to have been expansionary during much of the past decade**. The broad budget balance described above was used to calculate an augmented fiscal impulse. The calculations suggest that following the stop-go fiscal policies of 1995–99, the fiscal stance and the structural impulse were highly positive. The average structural impulse over the past five years was 2.6 percent of GDP, with a massive increase in 2004. These findings are consistent with the view that overall fiscal policies have been expansionary, significantly contributing to aggregate demand growth.



Source: Ministry of Statistics and Fund staff estimates.

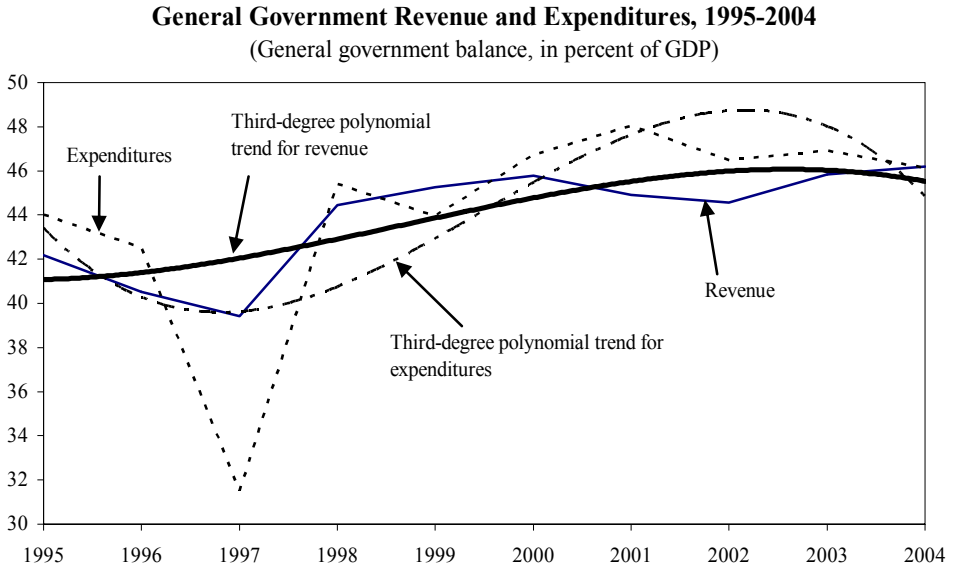
Belarus: Measures of the Impact of Fiscal Policy, 1996-2004
(General Government)

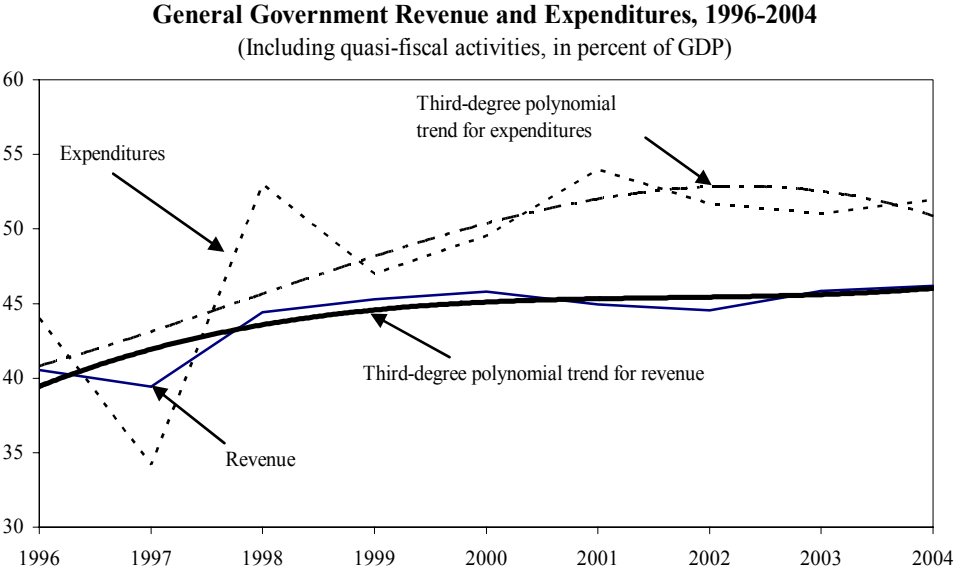
	1996	1997	1998	1999	2000	2001	2002	2003	2004	**average 1996-2004**
(In percent and in billions of rubels)										
Real GDP growth rate	2.8	11.4	8.4	3.4	5.8	4.7	5.0	7.0	11.0	**6.6**
Potential real GDP growth rate	3.1	4.5	5.3	5.7	5.8	6.0	6.4	6.9	7.2	**5.7**
Nominal GDP	192	367	702	3,026	9,134	17,173	26,138	36,565	49,445	
Potential nominal GDP	204	365	679	2,990	9,023	17,181	26,491	37,004	48,348	
Revenue	78	145	312	1,370	4,183	7,714	11,649	16,765	22,833	
Expenditure and net lending	84	125	372	1,422	4,525	9,268	13,509	18,671	25,682	
Budget balance (BB) 1/	-7	19	-60	-52	-342	-1,555	-1,860	-1,906	-2,849	
(In percent of GDP)										
General government budget balance	-2.0	7.9	-1.0	1.3	-0.9	-3.1	-1.9	-1.1	0.0	**-0.1**
Augmented budget balance (BB) 1/	-3.5	5.2	-8.5	-1.7	-3.7	-9.1	-7.1	-5.2	-5.8	**-4.4**
Cyclically neutral budget balance (CNB) 1/	-4.7	-1.5	-0.2	-1.2	-1.2	-1.8	-2.4	-2.3	-0.7	**-1.8**
Fiscal stance (FIS) 1/	-1.2	-6.7	8.4	0.5	2.6	7.3	4.7	2.9	5.1	**2.6**
Fiscal impulse (FI) 1/	1.5	-5.6	15.1	-7.8	2.0	4.7	-2.6	-1.8	2.2	**0.9**
Structural budget balance (SBB) 1/ 2/	-0.6	5.0	-10.4	-2.3	-4.4	-9.0	-6.4	-4.6	-6.9	**-4.4**
Structural impulse (SI) 1/ 2/	1.1	-5.4	13.1	-0.1	3.6	6.7	0.6	0.0	3.4	**2.6**

1/ Alternative measure, including quasi-fiscal activities.
2/ In percent of potential GDP.

[7] Estimates for the following quasi-fiscal activities were included on the expenditure side of the officially reported budget: (i) flow of directed lending for housing construction and government programs and (ii) the quasi-fiscal component of government-mandated wage increases in the non-budgetary sector.

Figure 3. General Government Fiscal and Quasi-Fiscal Operations





Sources: Belarusian authorities; and Fund staff calculations.

31. **In sum, for Belarus, the conventional budget deficit definition can usefully be expanded for the purpose of analyzing the government's true policy stance**. While the results have an intuitive appeal, they provide only an approximation of the true picture for the overall government policy stance, rather than an accurate measure of it. Deficiencies in the estimation of the magnitudes of quasi-fiscal activities—due in part to inadequate data availability—preclude the calculation of a more accurate overall public sector balance.

F. The Sustainability of Belarusian Growth

32. **The key issue regarding Belarusian growth—which permitted large increases in incomes—is its longer-term sustainability.** Given the objective to keep increasing living standards on a sustained basis, policymakers need to confront the constraint that the average wage cannot continue to rise at the rates experienced in recent years without decapitalizing enterprises or impairing their profitability. With the traditional sources of growth fading out, the government may not be able to provide public services and subsidies to the population and enterprises at the same level without running into financial problems. As a result, continued growth in private and public consumption, as well as capital investment may not be possible without jeopardizing macroeconomic stability or external sustainability. Finally, growth might be undermined by exogenous shocks, which the highly concentrated and unreformed economy is ill-equipped to withstand.

33. **While growth in recent years has been rapid, its sources are likely to wane in the absence of policy adjustment and structural reforms.** The main sources of growth in Belarus can be broadly divided into endogenous and exogenous ones. The endogenous set includes macroeconomic policies which are oriented mainly toward raising short-term growth, without being complemented by measures that would ensure the consistency of the continued application of these policies with macroeconomic stability. Exogenous factors have also contributed significantly to Belarusian growth so far, allowing Belarus to implement its socially-oriented model of economic development. However, discussed in the staff report and in this paper, the current macroeconomic policy mix is ultimately unsustainable. A marked reduction in quasifiscal activities and wide-ranging structural reforms would be needed to eliminate value-subtracting activities and support improvements in the allocation and level of investment in human and physical capital.

34. **Real wage growth has outpaced productivity growth in Belarus by a wide margin over the past decade**. Labor productivity (GDP per employed person) growth amounted to just ½–⅔ of the growth in real wages (depending on whether deflated by the CPI, or measured in U.S. dollars), missing doubts about the sustainability of this aggressive wage policy.[8] Belarusian average real wage growth outpaced labor productivity growth owing

[8] The productivity indicators calculated here are close to those in the Brixiova-Volchok study. The lack of reliable capital stock data precluded the decomposition of productivity changes into components specifically associated with changes in capital and labor.

mainly to two factors. First, the growth in the output price (measured by the GDP deflator) has consistently exceeded that in the CPI, creating room for wage growth. Second, some of the wage increases came at the expense of enterprises' cash-flow, impacting their capital stock and profitability (Figure 4, with the underlying methodology explained in Box 5). Regarding the first point: our calculations suggest that about 23 percent of the increase in real wages (i.e., nominal wages deflated by the CPI) in 1995–04 could be accommodated by a faster growth in the GDP deflator relative to the CPI. Some of the growth divergence between the rates of growth in the GDP deflator and the CPI could be linked to a favorable evolution in the terms of trade.[9]

Belarus: Economic Growth, 1995–2004
(Average annual compound change, percent; unless noted otherwise)

Real GDP	6.5
Real GDP per employed person	6.6
Employment	-0.1
Real wage, CPI deflated	12.4
U.S. dollar average wage	10.6
Excess of growth in GDP deflator over CPI, percentage points	4.0
Fixed investment/GDP, average, percent	23.5

35. **The preceding analysis uses economy-wide data, and thus points to overall, economy-wide constraints**. These constraints cannot be breached in aggregate, unless Belarus benefits from transfers from abroad.[10] As discussed earlier, Belarus benefits from a privileged relationship with Russia—notably from access to crude oil and natural gas on relatively favorable terms—and its geographical position. It has also received financing from Russia on concessional terms.

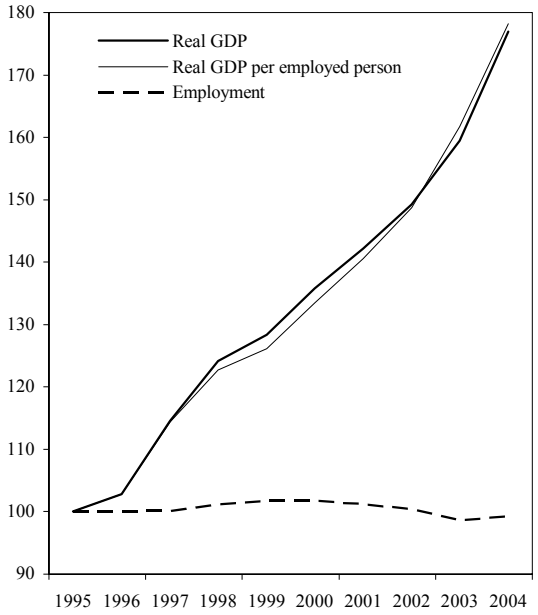
36. **The analysis also helps focus attention on the key reasons why current policies are ultimately unsustainable.** First, the demand-supporting overall policy stance cannot be

[9] To precisely quantify the contribution of positive terms-of-trade changes, we would need information on export and import deflators (for goods and services). The difference between the two price indices is due to their divergence from the investment deflator (thought to have a relatively minor contribution), to the difference between the deflators for public and private consumption, and to the terms of trade.

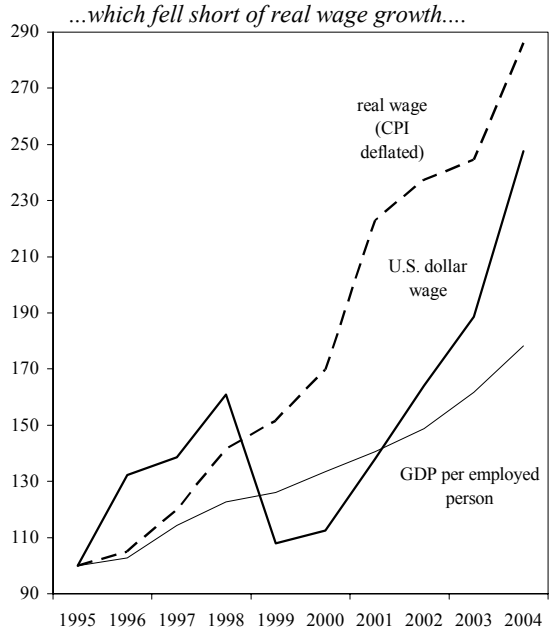
[10] In individual cases, the profitability constraints can be breached, if enterprises have access to subsidies or other forms of financial support, which represent domestic redistribution.

Figure 4. Wage Puzzle, 1995–2004
(Index, 1995=100; unless noted otherwise)

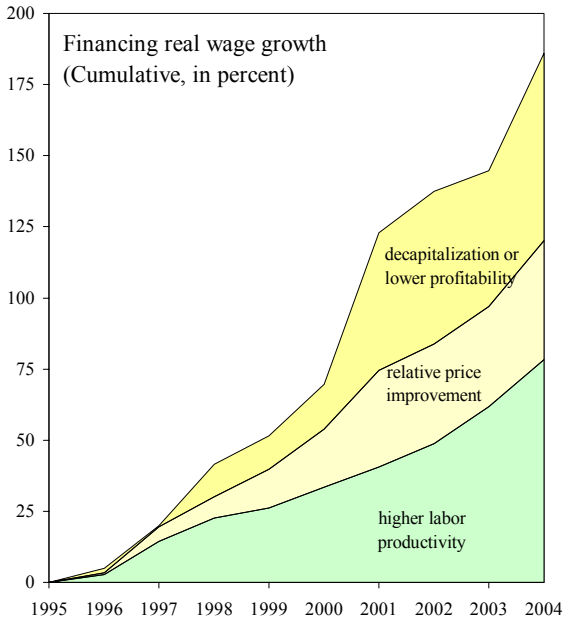
GDP growth was driven by productivity gains...



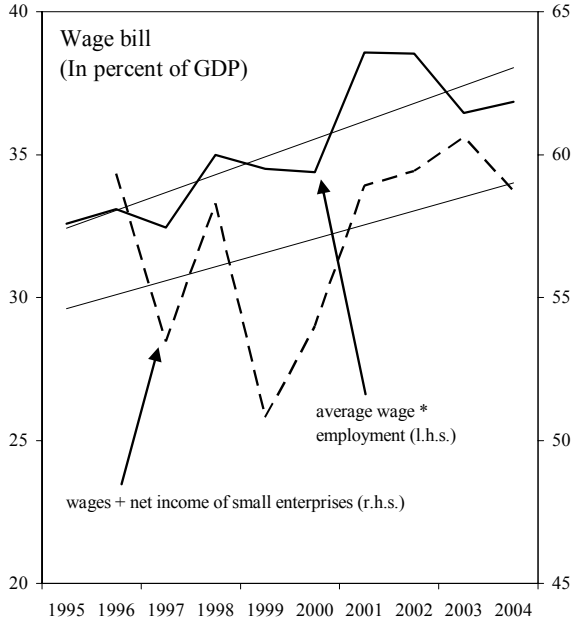
...which fell short of real wage growth....



...impairing enterprise profitability...



... and raising the share of wages in GDP.



Sources: Belarusian authorities; and staff calculations.

Box 5. Profitability—Conceptual Framework

Define nominal GDP as

$$P \cdot Y = W \cdot L + \Pi \qquad (1)$$

Where: P = GDP deflator
Y = real GDP
W = average wage
L = employment
$\prod$ = profits

Define the share of profits in GDP as $\pi = \frac{\Pi}{P \cdot Y}$

From (1) we can write

$$\pi = 1 - \frac{W \cdot L}{P \cdot Y} \qquad (2)$$

Define also real wage (w) as $w = \frac{W}{P_c}$, where Pc = consumer price index ; labor productivity (ρ) as $\rho = \frac{Y}{L}$; price ratio (σ) as $\sigma = \frac{P}{P_c}$; and denote the wage bill as share of GDP (WL/PY) as α. We can write (2) as

$$\pi = 1 - \frac{w}{\rho \cdot \sigma} \qquad (2b)$$

Then a change in profitability ($d\pi$) can be written as

$$d\pi = \left(\hat{\rho} + \hat{\sigma} - \hat{w}\right) \cdot \alpha \qquad (3)$$

where ^ denotes a proportional change: $\hat{X} = \frac{dX}{X}$.

Equation (3) can be written as

$$\hat{\pi} \cdot \frac{1-\alpha}{\alpha} = \hat{\rho} + \hat{\sigma} - \hat{w} \qquad (3b)$$

In the text, we are trying to account for the difference $\hat{w} - \hat{\rho}$, so we write (3b) as

$$\hat{w} - \hat{\rho} = \hat{\sigma} - \hat{\pi} \cdot \frac{1-\alpha}{\alpha} \qquad (3c)$$

Equation (3c) shows that real wage growth can exceed labor productivity growth, provided output price growth exceeds that of the CPI, and/or profitability declines.

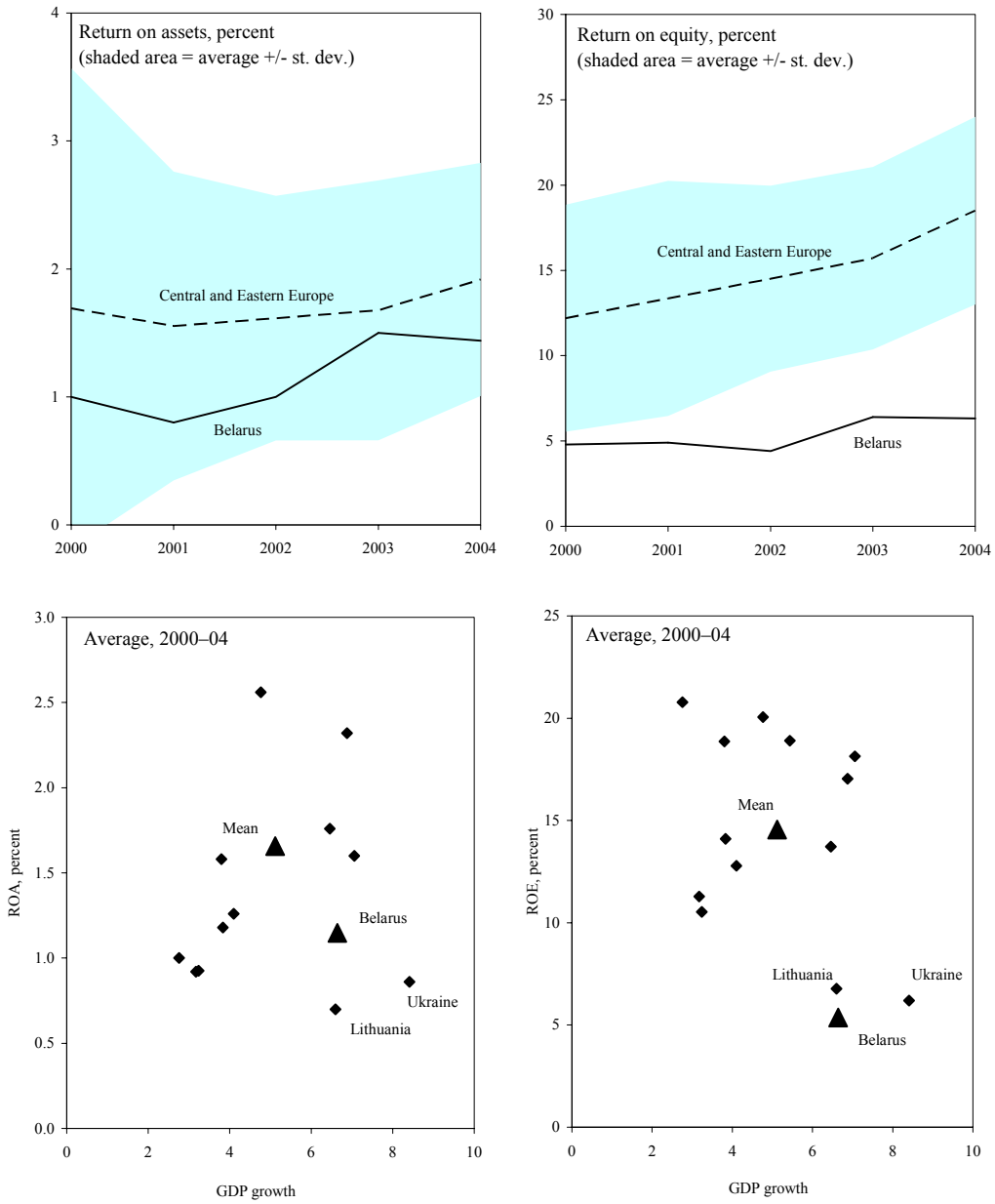
maintained for very long without running into financing constraints or re-igniting inflation. Second, while enterprises may be able to finance continued wage increases for some time,sooner or later they will not be able to do so without impairing their capital base and profitability, i.e., without putting their ongoing viability at risk. Moreover, even in the short run, lossmaking and marginally profitable enterprises will face this constraint, adding to the already sizeable share of value subtractors in the enterprise sector. Turning to exogenous factors of growth, it is unlikely that the favorable constellation of external political and economic conditions be maintained, implying a likely reversal in the favorable trend in the terms of trade in the future.

37. **Wide-spread quasi-fiscal operations are critical for maintaining high growth rates, but place increasing pressure on the economy.** Of particular importance is the low profitability of the banking system despite the high growth rates experienced in recent years (Figure 5). The vulnerability of the banking system is manifested in the need for regular substantial recapitalizations of the largest state banks. The high level of dollarization in the economy, and precariously low foreign exchange reserves add to this vulnerability. While recurrent recapitalizations keep the banking sector's problems at bay, they do so at the expense of shifting the burden to the fiscal side, which is already constrained by limited access to financing. Finally, Belarus's external position also remains vulnerable despite low external debt, since the current account deficit is constrained by limited access to foreign financing.

38. **While so far the authorities have been able to cope with these pressures through administrative means and a large redistribution of resources in the domestic economy, there is a significant risk that this strategy will run out of steam**. As noted, this strategy has been facilitated to an important extent by continued access to external resources—a combination of access to Russian markets and financing, a privileged position in regional energy trade and improving terms of trade. These favorable external factors are unlikely to remain available to the same extent as in earlier years owing to Russia's pending accession to the WTO, the expected development in world energy prices, and increasing competition in Belarus's main export markets. This raises the issue of how policies should adjust to minimize the negative impact on Belarusian medium-term growth.

39. **The current favorable macroeconomic situation provides a window of opportunity to launch the policy and structural reforms necessary for sustained growth.** This would allow the Belarusian economy to catch up with its successful EU-member neighbors—a natural set of comparator countries for Belarus. The economy's current momentum, ongoing remonetization, and the favorable external environment would facilitate absorption of the inevitable up-front costs of reform. Belarus also has enviably low debt levels and the benefit of lessons from the experience of other transition economies. Reforms should aim at substantially reducing the economic footprint of government and laying the basis for rapid productivity growth. Key measures would include markedly reducing the state's direct intervention in economic activity, eliminating centrally-mandated wage targets and directed credits through state banks, as well as the golden share rule that causes more harm in investment foregone than any conceivable benefits that it delivers. In addition, the commendable progress toward bringing government operations into the formal budget should

Figure 5. Belarus: Banking System Profitability, 2000–04
(Comparison with Emerging Markets in Central and Eastern Europe)



Source: Belarusian authorities; and staff estimates.

continue, facilitating a streamlining of remaining activities that are now quasi-fiscal in nature. Privatization should begin in a transparent manner that attracts strategic owners—both domestic and foreign—and the business environment needs to be improved. Finally, as discussed in the accompanying staff report, financial sector weaknesses need to be addressed.

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