International Center for Economic Growth
Európai Központ

NEWS OF THE MONTH

April 2006

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REVOLUTIONARY ACTIONS NEEDED IN PUBLIC FINANCES OF HUNGARY

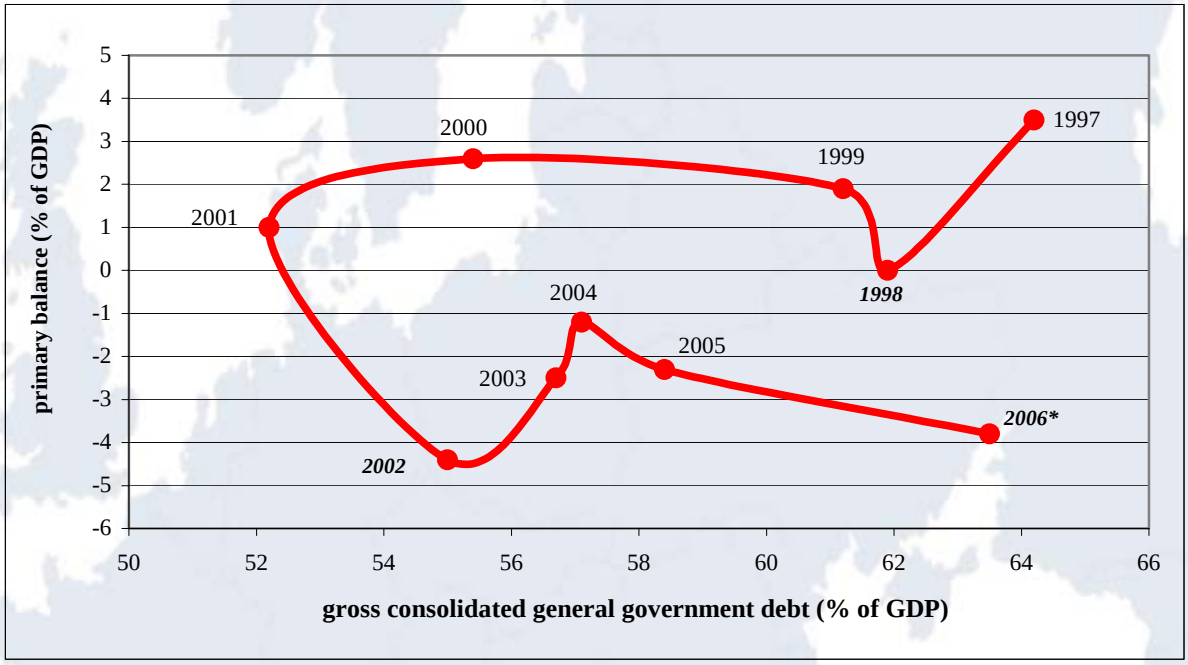
After elections finished with clear MSZP (Hungarian Socialists Party) victory in April, immediate rethinking of Hungarian public finances is inevitable in terms parallel fiscal stabilization and public finances reforms in order to bring the general government balance into more sustainable level and to stop the dynamic growth of general government debt.

By the projections of ICEG European Center, in case of lack of any stabilization and reform, the general government deficit defined by ESA 95 can reach 7.8% of GDP and the consolidated gross general government debt of 63.5% of GDP by the end of 2006. The deficit adjusted with the effect of pension reform can reach 9% of GDP.

DEVELOPMENT OF PUBLIC FINANCE CRITERIA

As investigating the development of fiscal adjustment seen in *Chart 1*, one can consider remarkable changes and negative direction both of balance and debt of general government.

Chart 1 Development of fiscal adjustment in Hungary 1997-2006



**ICEG European Center prediction*
Note: election years in italics
Source: Eurostat, Hungarian National Bank

From 1997 to 2001 with the exception of election year 1998, the government managed to keep fiscal discipline, as the primary balance remained balanced or in surplus of around 1.0-2.8% of GDP. This led to compliance with the Maastricht criterion of total balance in 2000 and a slight overshoot in 2001, 3.0% and 3.5% respectively. This adjustment in balance resulted in the record low 52% gross consolidated debt.

2002 was a turning point for budgetary events, as the general government achieved a 9.3% deficit accompanied with a more than 5% high primary short. The beginning of the year was

influenced by election-type measures and later on by extremely high wage boom in the public sector and other transfers also attached to election promises of new government. These expenditures and a near to 3.6% discretionary one-off measures (like debt adjusting, release from debts, drawn in below the line items) were financed by almost 3 percentage points debt rise.

However from 2002 some adjustment measures were taken, the government and the periodically changing ministers of finances were not able to overcome the budget problem. If having the total deficit of 9.3% minus the one-off 3.6%, thus 5.8% in 2002, 6.4% in 2003, 5.4% in 2004 and 6.1% in 2005, nothing really happened in the meaning of fiscal stabilization.

CONSEQUENCES OF FISCAL INDISCIPLINE

The fiscal events of last half decade led to several problems, mentioned above in bullet points inter alia:

- The market sent immediate signs to market, that led in first steps to considerable official interest rate increase by Hungarian National Bank.
- The high, with monetary policy inconsistent fiscal policy harmed the Hungarian currency that led to higher volatility and two mini-crises of exchange rate.
- In 2004 due to EU enlargement, Hungary became the target for commissioners under the Stability and Growth Pact, as it is failed to meet the 3% deficit criterion and the Excessive Deficit Procedure was launched.
- The expectations of Ministry of Finances failed several times by inappropriate planning, issuing negative warning for markets, that led to worsening rankings by most of rating agencies, like S&P or Fitch, that caused more unfavorable conditions on capital and money markets.
- The most of sub-systems of general government were unattached by reform measures.
- The financing of public debt possible only by higher risk premiums paid for.
- The crowding out effect of the state is strong harming the positions of private business sector, undermining the future growth prospects caused by lower investments increasing capacities.

SHORT- AND MEDIUM-TERM ACTIONS, LONG-TERM CHALLENGES

The old new Hungarian government expressed intention to launch fiscal stabilization and public finance reform measures. The 2010 euro zone accession has not been given up yet. By the most of analysts more than HUF 1000 billion adjustment is needed that is 4-5% of GDP calculated on this year GDP. For the compliance with the criteria, a 2.1-2.4% yearly cut is inevitable till 2008 (euro in 2010), 1.1-1.2% till 2010 (euro in 2012). The market evaluates the 2012 data more feasible.

It is important to clarify the data of entry and draw a credible convergence path endowed with concrete short-term (stabilization) and medium-term (reform) measures.

The *short-term* immediate provisions have to be done in order to calm down money and capital markets to soften the currency exchange rate volatility that can lead to interest rate cuts by HNB. This means at least HUF 390-400 billion sudden correction only to realize deficit comparable with previous year (6.1%) that is a 1.7% cut. The source of reversal on revenue side can be the unification of VAT rates to the level of 20%, or the restoration of the top rate to the 25% level. On the expenditure side most probably the housing costs reduction, gas price compensation, invalid pensions review, public administration cuts, medicine cash register and the abolishment of several tax allowances are in plan.

Short-term stabilization risks are visible:

- Political cycle risk. Hungary is still in election period as the local government election will take place in autumn implying low political intention to realize painful stabilization steps.
- The possibility of political agreement by the current situation is low.
- Without clear expressed commitment to radical steps the market is keen on influence processes by shocking corrections through capital movements affecting currency exchange rate and interest rate.
- Convergence program has to be introduced to Commission. In case of negative response, sanctions are possible that can affect the EU Funds resources, over the credibility loss that will be able to cause painful market reactions.

The *medium term* provisions has to touch the big mammoths of public finances, like tax system, healthcare and social security fund, public administration, local governance, education and finally the still state owned MÁV (Hungarian Railway Company).

Medium-term stabilization risks are visible:

- The development of international economic environment, as a macro-risk with its rising oil prices, weaker expected output growth for 2007
- The rising pressure on budget related to co-financing obligations of EU Funds.
- Realization of contingent liabilities, especially related to PPP (Public Privet Partnership).
- It is to be feared that adjustment measures will be taken adversely for the investment expenditures.

From the indirect side of public finance reform, steps are needed to boost economic activity to have higher tax receipts. One of the most important direction in line with the Lisbon strategy is the expansion of employment through less rigid labor market regulations, active employment policies, demand driven education, SME programs, lowering of tax burden on labor etc.

Other crucial problem is the still existence of remarkable grey economy, employment, tax evasions. By estimations, in itself the income concealment causes more than HUF 1000 billion loss for Hungarian budget. Stricter approach from the clement authorities connected

with favorable tax incentives and conditions for the business entities can reimburse considerable amount of money for the state, not mentioning the positive externalities of more transparent and reliable economy on growth.

However, the most important long-term challenge for Hungarian and other Visegrad economies is the demography. Without national strategy facing demographic challenges, the reform of public finances and the wishes to keep economic growth on the current potential are questionable.

FISCAL RULE AND/OR FISCAL POLICY COMMITTEE

Related to problems of public finances, a debate started in connection with the topic of possible fiscal rules or establishment of Fiscal Policy Committee that can handle the problem of discretionary fiscal policy and the lack of fiscal indiscipline.

Hungary is already under provisions Excessive Deficit Procedure of Stability and Growth Pact, as the budget has shown continuous non-compliance with the criteria for years. The reform of the pact accompanied on the level of recommendation with the increasing role of national rules that has to be consistent with the SGP.

It is worth to rethink the possibility of introduction of expenditure limits on an aggregated base and on the different expenditures, or of its own, treating problematic types of expenditures by binding them to indices like inflation.

In the case of introduction of fiscal rule, or simply for the planning, monitoring of the budgetary processes, the formation of an independent specialized institution reacting on the functioning of public balance in aggregate terms without hitting the legitimate elected government right to determine subchapters, social, economic policy priorities would be reasonable.

Nevertheless, the budgeting procedures has to be deliberated, as in prudent fiscal policy the most effective, by empirical economics, is the transparent and enforceable process regulation.

GOOD PROSPECTS IN POLISH CONSTRUCTION INDUSTRY

Polish construction industry seems to be in upswing. Number of completed dwellings in Poland in March 2006 was 9 618, that is a 38% growth as compared to previous year. Number of completed private construction has decreased by 3.3% in March 2006 year on year. Number of dwellings assigned for sale or rent has increased by 136.2 %.

Considering the first three months of 2006 total number of completed dwellings (26 863) has slightly improved, it grew by 1.4% comparing with the same period one year earlier. Taking into account the forms of construction we can verify that the structure has significantly changed. A decrease was noted in the share of private construction. Number of completed dwellings in private construction has decreased by 19.1%. A 26.7% increase was noted in the number of completed dwellings designated for sale or rent, and 38.6%-increase in the number of co-operative constructions. Number of company constructions, municipal construction and public tenant construction rose by 80.7%.

Table 1. Dwellings completed from January to March 2006

Forms of construction	III. 2006			I-III. 2006	
	III. 2006 (number)	III. 2005=100 (%)	II. 2006=100 (%)	I-III. 2006 (number)	I-III. 2005=100 (%)
Cooperatives	798	222.3	87.7	2741	138.6
Private	4621	96.7	111.3	13368	80.9
For sale or rent	3654	236.2	130.1	8647	126.7
Rest*	545	193.3	70.3	2107	180.7
TOTAL	**9618**	**138.0**	**111.2**	**26863**	**101.4**

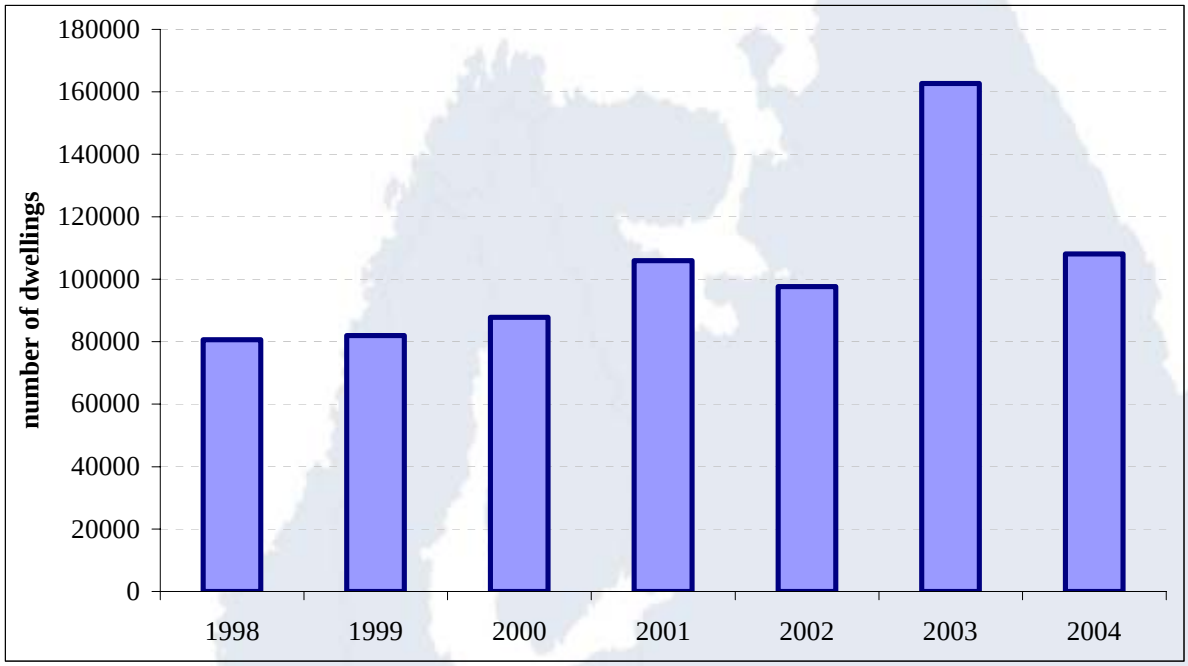
**company, municipal, public tenant*
Source: Central Statistical Office of Poland (GUS)

SHORT REVIEW OF POLAND'S CONSTRUCTION INDUSTRY

Considering the number of dwelling (*Chart 1.*) from 1998 to 2005 we can see that from 1998 until 2001 it was gradually increasing. There was a little downswing in 2002. From 2002 to 2003 total number of completed dwellings almost doubled, 65 091 more new dwellings were completed. In 2004 we can verify a significant backslide, when 54 569 less new dwellings completed. In 2005 the indicator grew by 5.8%, 6274 more new dwellings were completed.

But this backslide was partially due to the realization in 2003 by investors, before enter into force changes of the construction regulations, legal formalities related to the completion of works. According to the Regulations of Construction, the completion date of a building is acknowledged the date of obtaining the permit for the use or the date of reporting the completion of works.

Chart 2. Number of dwellings from 1998 to 2004



Source: Central Statistical Office of Poland (GUS)

Price of square meter of usable floor space of a residential building between 1999 and 2004 was also fluctuating. (*Table 2.*) During 2000 it was continually growing until third quarter of 2001. In the last quarter of 2001 it fell back a little, and continued to decrease until last quarter of 2003, when it begun to increase again. In the second half of 2004 it dropped back again, but in the first quarter of 2005 it went up for 613 Euro.

Table 2. Price of a square meter of usable floor space of a residential building (prices expressed in EURO)

	I quarter	II quarter	III quarter	IV quarter
1999	518	537	501	464
2000	568	566	587	593
2001	636	735	702	698
2002	666	599	609	580
2003	479	526	474	522
2004	506	558	545	530
2005	613	578		

Source: Central Statistical Office of Poland (GUS)

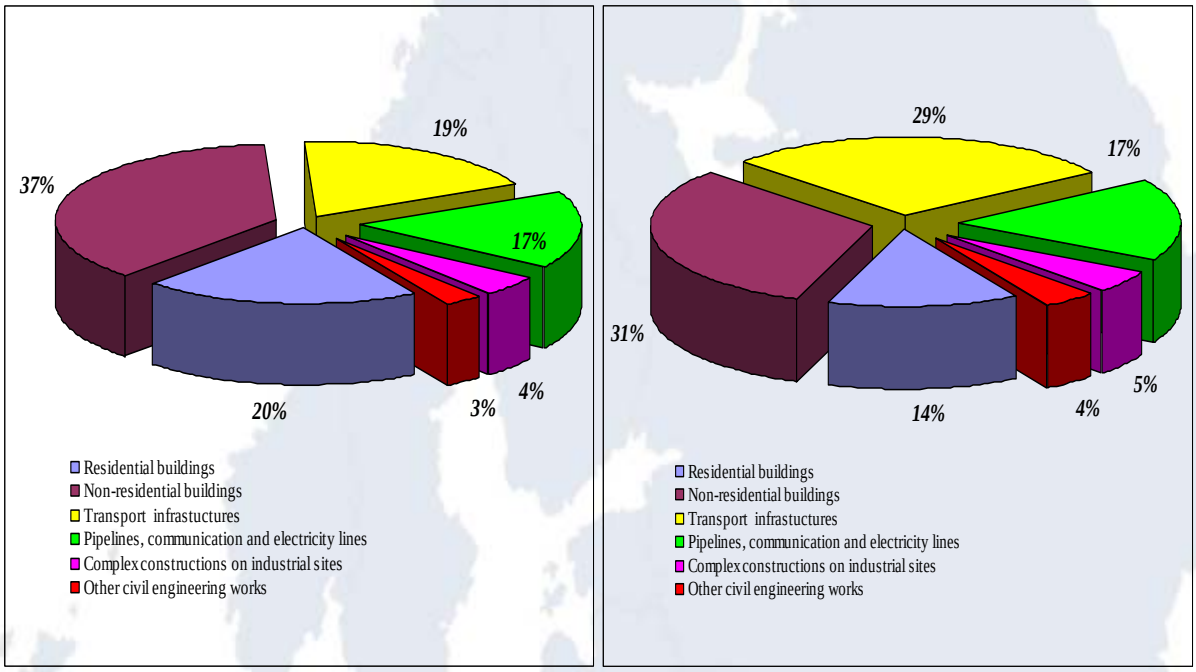
CONSEQUENCES FROM THE INDICATORS

Index number of construction-assembly production also increased in March 2006, it grew by 34% from February 2006. Considering one year earlier date it increased by 15.5%. In the first quarter of 2006 there was a 4.5% total increase comparing with the same period data of 2005.

As for the structure of constructions from 2000 to 2004 a decrease was noted in the share of private construction (from 20.3% to 14%). Share of non-residential buildings also fell (from 37.2% to 31.2%). On the other hand share of transport infrastructures rose by 10.4% (from

18.6% to 29%). Bigger share of transport infrastructure constructions is partially due to the increase of EU funds arriving into Poland.

Chart 3. Change of structure in construction and assembly production by type of constructions in 2000 and 2004



Source: Central Statistical Office of Poland (GUS)

To sum-up of the indicators one can say that the sector is on the rise. As for the structure of construction one can verify that it has significantly changed. Instead of residential constructions there is a growing share of constructions related to transport infrastructures.

FINANCIAL CONDITIONS OF CONSTRUCTION

Financial conditions of the sector also seem to improve. According a survey pressed by PMR Publications (*http://www.pmrpublications.com*) in November 2005, 61% of respondents construction firms consider being in a good financial position. Two-third of respondents said their financial positions were improving, their orders were on increase. Firms also consider that Polish construction industry enjoys benefits from Poland's EU membership. It can be explained by the increased number Polish firms conducting business outside their boarders. Their target is mainly Germany.

According to the survey of PMR, lasting relations with customers and lasting relations with subcontractors are mentioned as most important business factors by the firms. High labour cost and taxes, payment bottlenecks and complex and frequently changing laws are considered as obstacles in construction industry.

FUTURE OF THE SECTOR

Poland's largest construction firms except improvement in near future. Companies count with increase both in construction and assembly output and in cement production. Survey made in April 2006 by PMR showed that roads and residential buildings are expected to be the most attractive segments of the construction markets over the next years.

However economic participants of the sector are optimistic about the future, they are less enthusiastic about government measures designed to liven up the market. Polish government plans to give up the license based system of motorway construction in favor of state financing. It also plans to stimulate the residential market through top-up financing of housing loans. Economic participants of the construction sector do not regard government policy as a factor that itself can do much to improve the sector.

After all, many positive factors can favorably influence Poland's construction industry on long term. Economic situation improves, thus investments of private firms, foreign investments inflow and EU funds contribution are also rising. Besides this financial situation and climate in the Polish construction sector is developing favorably and steadily. All these processes augur well for the near future. We can expect stable growth in Polish construction industry over the next years.

DEMOGRAPHIC SITUATION AND TRENDS OF THE VISEGRADIANS

The Visegrad countries (Czech Republic, Hungary, Poland and Slovakia – V4) faced two different demographic trends concerning total population in 2005. Hungary and Poland could not stop the decrease of total population. Hungarian population was by 20 549 people lower in 2005 than in the previous year. Poland experienced a similar loss of 16 835 people. However, comparing the population change per 1 000 inhabitants – which were -2.04 in Hungary and -0.44 in Poland – shows that the situation is worrisome in Hungary. On the contrary, the population of the Czech Republic and Slovakia increased by 30 500 and 4 358 people respectively (2.98 and 0.81 per 1 000 inhabitants) in 2005.

NATURAL MOVEMENTS

The number of live births has been increasing since 2001 in the Czech Republic. 102 200 children were born in 2005, 11 485 more than in 2001 and 4 536 more compared to the previous year. However, it is still much lower than the number of children born in 1990 or in 1985 (130 564/135 881) and less than half of children born in 1946 (210 454). The number of deaths fluctuate around 108 000, reaching 107 900 in 2005. This number was slightly over 130 000 in 1985 and was by 10 000 higher ten years ago. As a result of the decreasing number of children born the natural increase of the Czech population turned into natural decrease in the beginning of the 90s. This trend continued in 2005 as there were 5 700 less live births than deaths.

Hungary has been facing a natural decrease longer than the Czech Republic. While the Czech population grew by 1 398 people, the Hungarian decreased by 19 981 people in 1990. The natural decrease started in the mid 80s and has always been the highest among the V4 countries (see Table 1). The number of live births decreased from 148 673 in 1980 to 97 500 in 2005 which is almost by 100 000 people less than in 1949 (190398). It seems to be stabilized around 96 000 children per year. The number of deaths was 135 500 in 2005 which is a bit lower compared to 1980 (145 355) but much higher in comparison with the year 1949 (105 718).

Table 3. Natural increase in the V4 countries

	1985	1990	1995	2000	2001	2002	2003	2004	2005
Czech Republic	4240	1398	-21816	-18091	-17040	-15457	-17603	-9513	-5700
Hungary*	3318	-19981	-33377	-38004	-35136	-36029	-41176	-37355	-38000
Poland	296100	157400	47025	10320	4985	-5721	-14158	-7391	-
Slovakia	-	-	-	2427	-844	-691	-517	1895	955

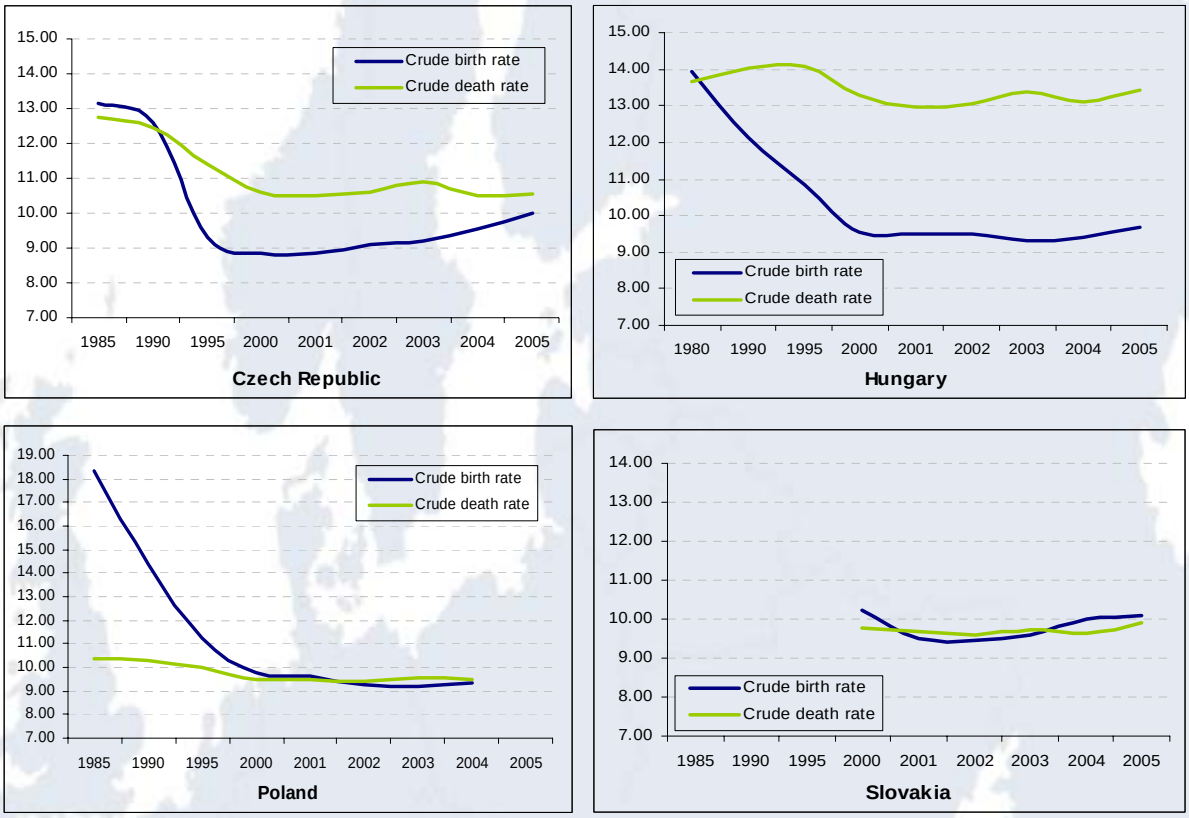
** first data is for 1980.*
Source: Eurostat, national statistical offices

Although the exact number of natural movements is not known, the Central Statistical Office of Poland projected that the trend of natural decrease continued in 2005. However, the demographic situation is closer to reproduction than in the previous two countries. Natural decrease started the latest in Poland (2002) and amounted to 7 391 people in 2004. The number of live births decreased from 680 100 in 1985 to 356 131 in 2004 while the number of deaths can be considered as relatively stable, moving between 360000 and 390 000 (363 522 in 2004).

Although Slovakia experienced natural decrease as well, it is the only V4 country having a natural increase in 2004 and 2005. According to the natural movement it can be concluded that the population of Slovakia is stagnating. In 2005 the number of live births was the second largest in the last six years reaching 54 430. The fewest children were born in 2002 (50 841) and the most in 2000 (55 151) in this period. The number of deaths fluctuated between 51 000 and 53 500. The most people died in 2005 (53 475) in this period.

Comparing the crude birth rates and the crude death rates of the V4 countries it can be said that demographic trends are similar in each country, but the processes are slower in Poland and Slovakia.

Chart 4. Natural population movement (‰)



Source: Eurostat, national statistical offices

The decreasing crude birth rate is determined by several factors such as the number of marriages and divorces, postponing childbirth and the number of abortions. The number of marriages shows a decreasing trend in each V4 country. In the Czech Republic there were 80 653 new marriages in 1985 and even by 10 000 more in 1990 (90 953). This number dropped to 51 829 in 2005 and has been fluctuating around the 50 000 level since 1995. The same process can be observed in case of Hungary. The number of marriages decreased from 73 238 in 1980 to 44 100 in 2005 and has been moving around 44 000 since 2001. In Poland the number of marriages dropped by 74 992 from 266 816 in 1985 to 191 824 in 2004 and is oscillating between 191 000 and 195 000 marriages per year. The smallest decrease of the number of marriages happened in Slovakia, from 38 930 marriages in 1985 to 26 149 in 2005.

The number of divorces did not change at such a pace. It remained relatively stable in each country. In the Czech Republic the number of divorces has been fluctuating between 30 000 and 33 000 since 1985 (reaching the maximum in 2004 with 33 060 divorces). Recently, there

have been 5 000 divorces less each year compared to 1985 (29 309) in Hungary. In Poland and Slovakia a slight increase can be observed: from 49 095 in 1985 (dropping to 38 115 in 1995) to 56 332 in 2004 in Poland and from 7 800 divorces in 1985 continuously increasing to 11 553 in 2005.

As a result of the decreasing number of marriages and the stable amount of divorces the indicator of divorces per 100 marriages increased in each V4 country. This rate was the highest (67.1 from 37.8 in 1985) in the Czech Republic in 2003 followed by Hungary (from 40 to 55.2), Slovakia (from 20 to 41.2) and the more religious Poland (from 18.4 to 24.9).

The mean age of women at first marriage has been increasing since the 80s but is still lower in the V4 countries compared to the average of the EU15. In 1985 the mean age at first marriage was 21.6 years in the Czech Republic, 21.3 years in Hungary, 22.6 years in Poland and 21.94 years in Slovakia compared to 24.5 in the EU15. Women of the V4 countries got married approximately 4 years later in 2003, at the age of 25.6 in the Czech Republic, 25.8 in Hungary, 24.7 in Poland, 25 in Slovakia which is still significantly less than the age of 28.2 in the EU15.

The birth of first child is also postponed in the V4 countries. Women gave birth to their first child on average at the age of 22.35 in the Czech Republic, 22.8 in Hungary, 23.45 in Poland and 22.61 in Slovakia in 1985 which is lower than in Germany (26.07), one of the most developed countries of the EU15. The birth of the first child was postponed to the age of 25.9 in the Czech Republic, 25.9 in Hungary, 25.3 in Poland and 25 in Slovakia by 2003, while a similar increase happened in Germany (28.8 years).

In spite of the decreasing number of declared legal abortions (from 83 042 to 26 474 in the Czech Republic, from 81 970 to 50 500 in Hungary, from 135 564 to 199 in Poland and from 45 594 to 14 427 in Slovakia between 1985 and 2005) the total fertility rate decreased as a result of postponed marriages and first child birth. The total fertility rate dropped from 1.96 in 1985 to 1.23 in 2004 but increased to 1.28 in 2005 in the Czech Republic. Hungary faced the same trend: the rate decreased from 1.85 to 1.28 in 2005 and increased to 1.32 in 2005. Poland and Slovakia show similar trends, but the decrease of the total fertility rate was much bigger compared to the Czech Republic or Hungary: from 2.33 in 1985 to 1.22 in 2003 in Poland and from 2.25 in 1985 to 1.18 in 2002 in Slovakia. The trend seems to be turned in these countries as well. Total fertility rate amounted to 1.23 in 2004 in Poland and 1.2 in 2003 increasing to 1.25 in 2004 in Slovakia. For the simple reproduction a total fertility rate of around 2.1 would be needed.

NET MIGRATION

Except for Poland the V4 countries have more immigrants than emigrants. There was only one year (2001) in the Czech Republic when there were 8 550 more emigrants compared to the number of immigrants. Net migration was above 10 000 people in the last four years reaching 36 200 in 2005 (17 565 more than in 2004). The sharp change from a negative net migration to above 10 000 is due to the change of the survey on demographic events of foreigners, which was extended by foreigners with long-term stay (before only foreigners with permanent stay were included). The number of emigrants exceeded the number of immigrants until 1995 in Hungary and 2000 in Slovakia. Recently there has been a positive net migration reaching 17 451 people in Hungary and 3 403 people in Slovakia in 2005. On the contrary Poland had positive net migration until the mid 90s and there were 9 382 more emigrants than immigrants in 2004.

It is only the Czech Republic where positive net migration turned the natural decrease into a total population increase (30 500 in 2005). The majority of immigrants can only slow down the decreasing trend of the total population in Hungary and Poland. Slovakia has the best demographic situation among the V4 countries having natural increase and a positive net migration, which results in increasing population.

Table 4. Population change* in the V4 countries

	1985	1990	1995	2000	2001	2002	2003	2004	2005
Czech Rep.	28202	-28941	-55063	-11552	-60110	-3167	8186	9122	30500
Hungary	-282597	-38123	-115056	-21346	-25445	-32491	-25620	-19193	-20549
Poland	975100	542194	72962	-399604	-11758	-23666	-27923	-16773	-16835
Slovakia	143095	68544	42450	-19874	168	210	892	4769	4358

**in 5-year periods and then year to year.*
Source: Eurostat, National statistical offices

EXPECTATION

Natural decrease and longer life expectancies cause the ageing of the population. The proportion of population aged 19 years and less decreased in each V4 country. In 1985 30.1% of the population in the Czech Republic, 28.1% in Hungary, 32.2% in Poland and 33.8% in Slovakia were younger than 19 years old. By 2005 these proportions decreased to 21.4% (CZ), 21.9% (HU), 24.5% (PL) and 24.8% (SK). Although the increase of the proportion of population aged 60 years and more is not as significant as the decrease of the proportion of young generations, the trend is explicit. The proportion of the population older than 60 years changed from 17.4% to 19.7% (CZ), from 18% to 21.3% (HU), from 13.8% to 17.7% (PL) and from 14.2% to 16% (SK) between 1985 and 2005.

Ageing population is going to cause major problems in the economies of the V4 countries in the near future. Social security and health care systems need to be reformed in order to decrease the expenses of the government. Otherwise budget deficit will be too high and will endanger the stability of the euro zone. Reforming these systems would mean only handling the outcome and not ceasing the cause of the problem. Companies could be subsidized to offer part-time jobs and home-working opportunities for women with small children. Young families could get state support to build or buy their own flat and could have tax allowance based on the number of their children. These measures could boost the number of births and stop natural decrease in the V4 countries.

However, these trends are affecting not only new member states but also the developed countries of the EU15. Working women and increasing welfare resulted in less children born and longer life expectancies. Thus V4 countries could take older EU members as an example in finding the right reforms in order to solve the expected economic problems originating from the disadvantageous demographic trends.

EMERGING NEW ENERGY STRATEGY IN UKRAINE?

Last winter, a serious row erupted between Ukraine and Russia on the price of gas, during which Russia even temporarily cut its gas shipments to Ukraine, causing disruptions not only in neighbor country, but also in several countries of the EU. Although interpretations vary as to the real cause of this crisis, what has been made clear is that Ukraine is unhealthily dependent on cheap Russian gas, and that this situation needs to be addressed quickly. Experts and the new energy strategy of Ukraine unveiled in March 2006, envisage several steps in this direction: the diversification of gas imports, increased reliance on nuclear and coal plants and the improvement of energy efficiency.

CRISIS

In last December, Gazprom, the Russian state-owned gas giant announced that it would almost quadruple the price at which it supplies gas to Ukraine, from USD 50 to USD 230 per one thousand cubic meters. This step has been interpreted in several ways. Many believed that this was one way for Russia to punish Ukraine for the pro-Western course it has taken after the 'orange revolution'. Also, Gazprom may have been retaliating for the Ukrainian government's refusal to let it buy a stake in the pipelines that carry its gas through Ukraine to other European countries.

While there is doubtlessly much truth in these allegations, one should also keep in mind that Russia has been supplying Ukraine for more than a decade with gas prices deeply below the world price level. This means that, in effect, Russia has subsidized the economy of Ukraine with billions of dollars per year. Nobody could seriously expect this to continue forever, and it was the responsibility of Ukraine's ruling political class that they failed to start wean the economy off cheap Russian gas earlier.

In the end, a five-year compromise deal had been struck. Under a somewhat complicated agreement, Ukraine does indeed pay USD 230 for Russian gas. However, in order to offset this price hike, it imports much less gas from Russia than it used to, and has increased its import from countries such as Turkmenistan, Kazakhstan and Uzbekistan for about USD 95 per thousand cubic meters.

In the short term, the price increase will clearly have a negative effect on the growth prospects of the Ukrainian economy. In the medium term, however, the present crisis may paradoxically turn out to have been beneficial as it may force Ukraine to carry out a restructuring and reform of its energy sector it has so far failed to do.

WHAT'S NEXT?

Experts have for long called for a rethinking of Ukraine's energy policy. This would include diversification in terms of suppliers and energy sources, increasing energy efficiency, and a plan for the gradual and smooth transition from subsidized prices to world-level energy prices.

After his inauguration, President Yushchenko has repeatedly spoken about the necessity of such reform. The events of last winter only underline the urgency of the steps to be taken. In March 2004, the government of Ukraine has published its new Energy Strategy till the year 2030, developed by the Ministry of Fuel and Energy of Ukraine and the Institute of Energy of

National Academy of Science of Ukraine. The main points of the plan echo the recommendations of analysts: more efficient use of energy, increased reliance on home-produced energy (nuclear and coal plants), and the integration of the Ukrainian energy transport network with that of the EU in order to decrease the dependence from Russia.

In what follows, the possible steps of such a reform will be reviewed.

SUPPLY

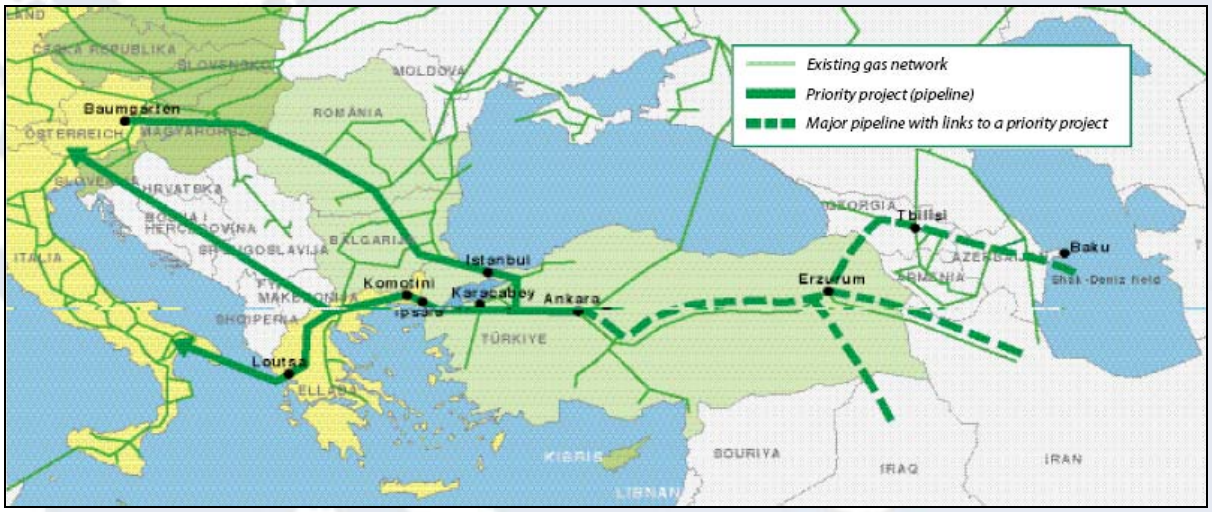
Gas and Oil supply. As far as the supply of gas and oil are concerned, the main objective of Ukraine is to ease its dependence on these fuels in general, and on Russian oil and gas in particular. In order to reach the first goal, Ukraine plans to increase the contribution of alternative sources of energy such as nuclear and coal plants. According to Ukraine's new ambitious energy strategy, demand for gas should sink from the current 76 billion cubic meters per year to 49 billion by 2030.

As of diversification of oil and gas supplies, the process is in a sense already under way. Under the January agreement with Gazprom, Ukraine already imports less gas from Russia and more from Turkmenistan, Kazakhstan and Azerbaijan then it used to. This trend is likely to continue.

It is important to keep in mind that all these gas shipments are all delivered through the pipelines of Gazprom, which means that despite having diversified, Ukraine is still vulnerable to the state-owned Russian energy giant. In order to decrease this vulnerability, Ukraine is very much interested in plans that would allow it to import oil and gas without Russian interference.

One such project is the proposed USD 5 billion Nabucco gas pipeline, planned to run from Turkey to Austria through Bulgaria, Romania and Hungary (*Map 1*).

Map 1. NABUCCO pipeline location



Source: Copyrighted image from European Union website, PDF document Energizing Europe's Infrastructure
http://europe.eu.int/comm/energy/electricity/publications/doc/ten_e_en.pdf

The construction is to be financed by the gas companies of these countries and is to be started in 2008 and finished by 2011. This pipeline would make it possible to deliver natural gas from the Middle East and, most importantly, the Caspian region to Europe, and, by extension, to

Ukraine, without using Russian gas infrastructure. The completion of this project would by all probability increase Ukraine's energy independence.

Nuclear Energy. Somewhat controversially, nuclear energy is to play a central role in the new energy strategy. Although all four currently serving nuclear reactors will reach the end of their tenures in four years, their operations are likely to be extended. What is more, the government plans to start constructing five new reactors in five years, and plans to build a whole of 14 new reactors by 2030. Also, according to an announcement by President Yushchenko, Ukraine will start to enrich uranium from its own reserves, in a step to further decrease dependence from Russia. This ambitious project is supposed to increase the share of home-produced nuclear energy from the current 20% to 36% percent by 2030 in Ukraine's energy consumption.

Although increased reliance on nuclear energy in order to decrease dependence on fluctuating commodity prices and rival regional powers is a sensible idea, there are several difficulties ahead. First of all, it is unclear how this project is to be financed (although in the past, EBRD has helped the construction of two reactors, Khmelnitsky 2 and Rivne 4, through loans). Also, it is unclear where spent radioactive fuel rods are going to be stored. And it is important to bear in mind that for several years to come, Ukraine will have to import fuel rods from Russia, which would leave considerable leverage in the hand of the country's mighty neighbor.

Coal. The role of coal is to be increased significantly according to the new energy strategy: the Ukrainian energy industry is planned to consume 153 billion tons of coal per year by 2030 (up from the current 65 billion).

Renewable Energy. As far as renewable energy sources are concerned, neither independent experts nor the new energy strategy reckon with these as viable alternatives. In the long run, however, as technology is becoming cheaper and more accessible, these energy sources will surely have a role to play in Ukraine as well

DEMAND

The other side of the Ukraine energy equation is demand, and here is plenty of room for improvement. Post-Soviet countries are infamous for their highly inefficient use of energy. According to a recent study by the Institute of General Energy (an institute of the National Academy of Sciences of Ukraine), with better management, Ukraine could save as much as 42–48% of the energy it is currently using. This would mean several billions of dollars in savings.

There are several ways to increase energy efficiency. At present, the domestic distribution of energy is governed by murky and bureaucratic mechanisms, which provide plenty of opportunities for manipulation and free riding, or even outright corruption. The introduction of more transparent mechanisms and the gradual liberalization of the energy market would lead to the more efficient distribution and more economical use of energy.

In Ukraine, as in much of Eastern Europe, the domestic consumption of gas is heavily subsidized as a form of social assistance. Unreal low gas prices, however, not only add a huge burden to the budget, but also lead to distorted energy consumption patterns and a wide disregard for energy saving: while residents can take cheap heating for granted, they have no incentives to spend money on, say, improving insulation. The inevitable gradual increase of

heating prices will slowly change this situation, but in the meantime, the government should consider introducing incentives for houses or individuals who engage in refitting their homes in a more energy-efficient fashion. Similar incentives (e.g. in the form of tax cuts) should be provided to the industry.

Importantly, the government should consider whether it is sensible to continue to heavily subsidize such loss-making and energy-inefficient industries as much of the metal and petrochemical industry.

The implementation of the provisions of the Kyoto protocol and the trade in greenhouse gas credits could attract a lot of so-called green investment to Ukraine, bringing in much-need foreign capital for industrial energy conservation projects.

In sum, according to the Institute of General Energy, 38% of energy economies could be achieved in industry, 30% in the residential sector, and 17% in the fuel and energy sector itself. The National Security Council and the National Institute for Strategic Studies reckons that an ambitious project of energy saving could result in as much as USD 15 billion in net savings until 2020.