

The Vienna Institute for International Economic Studies

# Monthly Report 7/06

### Contents

Please note: The next issue of the wiiw Monthly Report (no. 8-9) will be published at the beginning of September

# The floating exchange rate: a troublesome ally of the Polish central bank

BY ANDRZEJ SLAWIŃSKI<sup>\*</sup>

The floating exchange rate regime has a reputation of being an effective shock absorber. This feature attracted economists' attention especially after the series of currency crises in South-East Asia in the late 1990. At that time, the general conviction was that the emerging markets should adopt one of the so-called corner solutions, i.e. clean float or currency board. This materialised only to an extent. Floating exchange rates did spread among the emerging countries. However, clean floats are not a common phenomenon.<sup>1</sup> Currency boards are still rare, as the return to the quasi-gold standard rules under a much more volatile setting is rightly perceived as a risky solution.

Since its floating in 2000, the Polish zloty has not had plenty of opportunities to display its virtues as a shock absorber, as Poland's current account has been constantly improving. Nonetheless, there were alternative costs related to the zloty's high volatility, which was to a large extent disconnected from fundamentals.

# Foreign exchange market: the realm of momentum money

The reason why the movements of the floating exchange rates are disconnected from the fundamentals is one of the unsolved puzzles of

The Vienna Institute for International Economic Studies (wiiw) Oppolzergasse 6, A-1010 Vienna, Austria, Tel. (+43 1) 533 66 10, Fax (+43 1) 533 66 10-50 Email: wiiw@wiiw.ac.at, Web: www.wiiw.ac.at

The author is Professor at the Warsaw School of Economics and a member of the Monetary Policy Council. – The article expresses exclusively the author's views and not of the institutions he is associated with.

<sup>&</sup>lt;sup>1</sup> Foreign exchange market intervention in emerging markets: motives, techniques and implications, BIS, Monetary and Economic Department, May 2005.

The Vienna Institute Monthly Report is exclusively available to subscribers to the wiiw Service Package

international finance. Foreign exchange markets are, relatively more than other markets, ruled by noise traders, i.e. those market participants that react to informational noise rather than to information on fundamentals.

A typical financial market behaves as described by the efficient markets hypothesis (EMH). The EMH assumes that market participants have rational expectations, which means that they base their decisions on expectations on fundamentals. These are defined as economic variables, which influence financial asset prices.

The EMH assumes that due to the large number of investors, their individual errors net out. This, in turn, produces a situation in which the market price reflects the most probable course of future developments in fundamentals.

The other important assumption of the EMH is that investors are risk-neutral. They engage in speculation which is stabilising: it drives financial assets prices back to the levels reflecting fundamentals.

The EMH describes the real situation on the bond market, where expectations are rational and speculation is stabilising (driving bond prices to the levels reflecting fundamentals). Investors' expectations on the bond market are rational as they reflect mainly inflationary expectations. Yields on the bond market reflect the average level of the expected short-term interest rates adjusted by the risk premium. Thus, bond yields reflect investors' expectations how a central bank will react to the changing level of the expected inflation. (The important factor which enables stabilising speculation on the bond market is the possibility of undertaking speculation in the 'safe' form of arbitrage, i.e. through executing two reciprocal transactions. Arbitrage reduces substantially the risk of speculation, as the potential losses produced by one transaction are covered by the gains from the other).

All these factors (rational expectations, low risk of arbitrage, and stabilising speculation) are not

present in the foreign exchange market. Foreign exchange dealers' expectations are not rational. They do not form their expectations on the incoming information of fundamentals, but mainly on informational *noise*, i.e. on signals of technical analysis, rumours and changing market sentiment.<sup>2</sup>

The exchange rates of different currencies do not move in a parallel manner, which creates a large risk for arbitrage. Thus, on the foreign exchange market the stabilising speculation, which would drive exchange rates towards the levels reflecting fundamentals, is very risky and costly since taking risks demands capital to cover the potential losses involved. In the real world, stabilising speculation on the foreign exchange market is at best weak. The dominant force is trend-following, destabilising speculation.

Fundamentals do influence foreign exchange rates, but there are no stable relationships. Analysts change the set of variables which are used to explain the current exchange rate behaviour after the change of the trend in the market.<sup>3</sup>

There are no reliable methods of exchange rate forecasting. This is reflected in the real life behaviour of foreign exchange dealers. They start their day e-mailing and phoning other dealers to collect information on the volumes and directions of current flows on the market. Only after collecting such information, dealers dare start their transactions. This situation is described by the market microstructure theory. Empirical studies confirm that short-term movements of exchange rates may be explained by the information on flows of buy and sell orders.

The fact that exchange rates are disconnected from fundamentals creates a situation in which the investment horizon of foreign exchange dealers is very short, mostly a matter of hours. Analyses of exchange rate behaviour in periods longer than a

<sup>&</sup>lt;sup>2</sup> F. Black, 'Noise', *Journal of Finance*, Vol. 41, 1986, July.

<sup>&</sup>lt;sup>3</sup> P. De Grauwe, 'Exchange Rates in Search of Fundamentals: The Case of the Euro-Dollar Rate', *CEPR Discussion Paper* No. 2575, October 2000.

few months are treated as 'academic' by foreign exchange dealers.

All in all, foreign exchange markets are the realm of so-called momentum money, i.e. the noise traders betting mainly on the continuation of existing trends. As underlined by George Soros, 'the turning point (of a trend) cannot be determined until it has actually occurred'.<sup>4</sup> Thus, foreign exchange dealers watch trends rather than economy's fundamentals.

The parallel, which is frequently employed to illustrate the links between exchange rate movements and the fundamentals, is a drunken sailor descending a hill. Sooner or later he finds himself at the foot of the hill, but the number of possible routes is endless.<sup>5</sup> This reflects the real situation, in which exchange rates do gravitate towards fundamentals but are easily reverted by the erratic winds of unexpected changes in market sentiment.

The parallel of a drunken sailor is appropriate to illustrate how foreign exchange dealers' decisions are influenced by information (on fundamentals) and informational noise. However, if one tried to illustrate a balance of costs and benefits from adopting a floating exchange rate by a given country, a better parallel would be an alliance with a troublesome ally.

### The zloty's disconnection from fundamentals

The introduction of the floating exchange rate was a consequence of the adoption of inflation targeting in Poland in 1999. Nonetheless the floating exchange rate turned out to be a troublesome ally of the National Bank of Poland.

The lack of a stable relationships between the exchange rate and the fundamentals is illustrated by the difficulties in explaining the movements of the zloty after its floating. In 2000 and 2001 the sharp appreciation of the zloty might be explained

by the high level of real interest rates. However, in 2002 and 2003 there was a prolonged depreciation of the zloty despite an improving current account and high real interest rates.

What were the macroeconomic factors behind the downward trend of the zloty? The main suspect is the fiscal stance. However, the 5x5 *convergence spread* (the expected difference between the five-year interest rates in Poland and in the euro zone within five years) was sharply narrowing between mid-2001 and mid-2003, which illustrated the markets' growing confidence that Poland would fulfil the fiscal Maastricht criteria. It was only in the second half of 2003 that the convergence spread widened due to the growing worries about the budget.

The downward trend of the zloty reverted from the beginning of 2004. The Polish currency started to appreciate sharply. Partly, the reason was Poland's joining the EU, which reduced substantially the country risk. The other reason was the situation on the global foreign exchange market. The new EU member states' currencies became the darlings of the markets. In 2005, the zloty behaved properly. Its nominal appreciation continued, but the real effective exchange rate deflated by the unit labour cost was relatively stable, which contributed to the growth in exports.

The high volatility of the zloty made it difficult to conduct a counter-cyclical monetary policy. In 2000 and 2001, the MCI (monetary condition index) was sharply rising despite an abrupt slowdown in economic growth and cuts in the interest rate level. In late 2004, one of the factors behind the unexpected slowdown in domestic fixed investments might have been the investors' worries about the scope of the zloty appreciation.

The structural source of the zloty volatility is also the 'unfortunate' liquidity of the Polish foreign exchange market, which is deep enough to absorb large short-term flows (making it attractive for large players), but too shallow to prevent strong rate fluctuation.

<sup>&</sup>lt;sup>4</sup> G. Soros, *The Alchemy of Finance. Reading the Mind of the Market*, John Wiley & Sons, New York, 1994, p. 80.

<sup>&</sup>lt;sup>5</sup> O. F. Humpage, 'On the Rotation of the Earth, Drunken Sailors, and the Exchange Rate', Federal Reserve Bank of Cleveland *Economic Commentary*, 15 February 2004.

Figure 1



### The Polish zloty in a hypothetical ERM2 band

Source: National Bank of Poland data.

Figure 2

### Expected five-year interest rates in five years



Source: National Bank of Poland data.

In a shallow market, financial institutions may produce 'winds' augmenting the trends – as illustrated by flows related to dynamic hedging done by the issuers of foreign exchange options. This was the case in Poland when during the periods of zloty appreciation large banks were writing euro put options with deep out-of-the-money strike prices. In plain English this means that banks committed themselves to paying the buyers of these options money compensating the losses resulting from the zloty's depreciation against its value falling significantly below the current exchange rate. Such options were shielding market participants against sharp appreciation of the Polish currency.

The influence of such options on the spot exchange rate stems from the fact that the seller of an option has to earn money which he or she is committed to paying to the buyer in case the rate hits the strike price of the option. The issuer of the euro put options is selling European currency in order to repurchase it once its exchange rate falls below the strike price. He or she is selling the more euros the more the zloty is climbing closer to the strike price of the option. In the language of the financial markets this is called *dynamic hedging*. In relatively shallow markets, dynamic hedging may have an impact on the behaviour of the exchange rates.

# The exchange rate regime prior to joining the euro zone

The volatility of the zloty will probably make it a challenge for the National Bank of Poland to fulfil the Maastricht exchange rate stability criterion. Poland's situation is different from that of the former accession countries in the late 1990s. During the past couple of years, foreign exchange markets have changed. Round trips into different currencies are popular not only among the propriety desks of large international banks but also among the mushrooming hedge funds. Forex-only funds have gone mainstream. This has increased the number of institutions exploiting trends in foreign exchange markets. The changing institutional setting has produced a situation in which the Polish zloty is now among the favourite bets of foreign exchange dealers in the global market, unlike the currencies of the former accession countries in the late 1990s.

The volatility of the zloty is increasingly becoming a mere reflection of the developments in the global financial market, governed by the hectic ups and downs of investors' appetite for risk. The impact of the changing sentiment of investors on the global market on the exchange rates of the local currencies is quite straightforward. Once investors are making profits on the largest financial markets, they can afford round-trip excursions into the local financial markets. Once they are making losses, they have to cover the losses by selling the local currencies.

The high volatility of the zloty influences the balance of costs and benefits related to Poland's prospects of joining the euro zone. The textbook trade-off is between the gains from increased trade, growth and policy discipline and the costs of relinquishing monetary policy as a stabilisation instrument. Due to the high volatility of the zloty, Poland's trade-off is becoming one between the gains from eliminating exchange rate movements unwarranted by fundamentals and the costs of accepting a monetary policy tuned to euro-areawide conditions.

The best solution for Poland and other new member states would be to adopt the 'set the date and the rate' solution proposed by W. Buiter. He suggested that the accession countries should be allowed to join the euro zone shortly after fulfilling the fiscal criterion.<sup>6</sup> Such a solution would spare these countries the risk of being exposed to speculative attacks during the two-year mandatory stay in the 'purgatory' of the ERM2. Buiter's proposal is the best, but an 'impossible' solution – as it cannot be adopted under the rules of the Maastricht Treaty.

W. H. Buiter, 'To purgatory and beyond. When and how should the accession countries from Central and Eastern Europe become full members of the EMU?', Paper presented at the Conference for Central Banks in an Enlarged EMU, 20-21 February 2004.

Despite the obvious risks that stem from adopting the ERM2 system for at least two years, it is the only possible solution left. The Argentine debacle and the relentlessly growing imbalances in the economies of the Baltic states illustrate how risky it might be to return to the quasi gold standard rules under much more volatile capital flows.

The recent rejection of Lithuania's admission to the euro zone was a blow to this country. The reason was not only the small degree of surpassing the inflation criterion. The problem stems from the fact that Lithuania maintains a currency-board regime. It cannot raise the interest rate in order to increase the probability of fulfilling the inflation criterion next year. It was simply bad luck that the risks related to the adoption of a currency board materialised just in the period of the Baltic countries' assessment before joining the euro zone.

Lithuania's and Estonia's experiences with the currency-board regime show that the 'purgatory' of the ERM2 is for Poland the only possible way to the euro zone, even if it may expose Poland to a speculative attack. The consolation is that a potential speculative attack would not cause a currency crisis, because it would not trigger a banking crisis. Poland's banking system is properly supervised and well-capitalised. Even a sharp depreciation of the Polish zloty would lead to only a minor erosion of banks' capital base. It would not do much harm to Poland's corporate sector either, as the large firms are hedging their foreign exchange rate exposures with the use of interest rate swaps which are easily available in the interbank market and have become cheap due to the changes in interest rate differentials.

Thus, the only potential threat is a speculative attack against the zloty, which might cause temporary problems as had been the case within the European Monetary System in 1992. The risk of a massive speculative attack against the zloty is low as the overall balance of payments has been in surplus during the past five years. Foreign direct investments alone are almost twice as large as the volume of the deficit on the current account. The problem which Poland might face in case of a speculative attack would be that the ERM2 credit lines of the VSTF (very short-term financing) are only available for interventions on the edges of the 15% band, while an ERM2 member is expected to stabilise its currency within a 2.25% band. Thus, effectively Poland could count mainly on its foreign exchange reserves, as the ERM2 lines for interventions within the 15% band are limited.

Nonetheless, this problem is alleviated by the fact that, due to the balance of payments surpluses which Poland enjoyed during the past several years, domestic banks have accumulated a large stock of net foreign assets, which enlarge the overall stock of the country's foreign exchange reserves.

### The end to 'no-brainer' trade

The sharp appreciation of the zloty in 2004 was the result of 'no-brainer' trade, as foreign exchange dealers label buying a currency of a country with high interest rates and a favourable external balance.

The risk that the zloty might again be subject to 'no-brainer' trade has been reduced due to the series of interest rate cuts undertaken by the NBP in 2005 and 2006 in reaction to subsiding inflationary pressures. At the same time the Federal Reserve has been raising its repo rate. The ECB started a normalization of its interest rate in 2006. Due to these changes, short-term interest rates in Poland have become lower than in the United States and the spread over the interest rate level in the euro zone has narrowed substantially.

The changes in interest rate differentials may reduce the short-term capital inflows related to carry trade and other forms of interest rate speculation, as was the case with the Czech koruna. This might contribute to a reduction of the volatility of the zloty and the alternative costs of its floating.

### A note on the interpretation and international comparison of external imbalances

BY GÁBOR OBLATH\*

When economists try to evaluate the size/severity of a country's external imbalance, either in relation to its past levels, or in an international comparison, they generally refer to the ratio of the current account balance to GDP (CA/GDP). Recently this measure has been criticized on the grounds that official balance-of-payments (BOP) statistics contain grossly inaccurate figures. It has been claimed that, due to large unrecorded current transactions (called 'dark matter'), current account deficits/surpluses should be inferred from statistics on earnings on net foreign assets.<sup>1</sup> It is then asserted that the recent US CA deficits, and global imbalances, are simple appearances resulting from false statistical data.

This Note does not question the reliability of the available statistics. Instead, it questions the relevance of the CA/GDP as a macroeconomic *indicator*. A reliance on CA/GDP may lead astray in international comparisons, because the CA deficit may be a misleading numerator and the GDP may be a biased denominator for assessing external imbalances in such comparisons.

The first question addressed is why an exclusive focus on the balance on current transactions can be misleading. This is followed by a discussion of problems with the denominator of the CA/GDP ratio, with special regard to the question whether dividing a nominal balance by the GDP allows for the relative price level of non-traded services. In conclusion, rather than suggesting an alternative single indicator, it will be argued that a larger set of indicators has to be applied in order to assess external imbalances in a comparative perspective. To illustrate and support the arguments, statistics of selected European countries and the United States will be used.

### The CA/GDP ratio and the rules of thumb

It is conventional wisdom that a current account deficit above 3-5% of GDP is a 'warning signal'.<sup>2</sup> However, although there have been many cases where passing beyond this threshold appears to have served as a trigger for a sharp change in the current account, there remain a number of other cases where the current account deficit could grow to much larger proportions, without facing substantial financing difficulties. In Europe, for example, Estonia has been running a current account deficit above 10% of GDP for the past four years, without serious problems, and on the other side of the world, New Zealand recently reached a current account deficit over 8% of GDP. It remains to be seen whether or not these deficits are sustainable. Hungary is a somewhat different case: here the CA/GDP ratio has stayed around 8% since 2003, with a constant threat of a marketinduced reversal that has not actually materialized - at least as of mid-2006. There are several possible readings of the evidence that the 3-5% limit is not a universal binding constraint. In the following I shall focus only on one of these: namely, that the CA/GDP ratio may disquise the economically meaningful size of an external deficit. Let us first observe the numerator of this ratio.

### What does the current balance represent?

There are four reasons why the CA balance may either under- or overstate the size of the underlying

<sup>\*</sup> Gábor Oblath is a member of the Monetary Council of the National Bank of Hungary, professor at Corvinus University, Budapest and research advisor at Kopint-Datorg Institute, Budapest. (E-mail: <u>oblathq@mail.datanet.hu</u>) The views expressed in this article are the sole responsibility of the author and do not necessarily reflect those of the aforementioned institutions.

<sup>&</sup>lt;sup>1</sup> Hausmann and Sturzenegger (2005a and 2005b). This approach was critically assessed by, e.g., Buiter (2006).

<sup>&</sup>lt;sup>2</sup> See, e.g., United Nations (2003), p. 15: 'Indicator: Current external account deficit/GDP. Interpretation: Ability to service imports and current rate of growth (warning signal if over 3%)'; Milesi-Feretti and Razin (1996): 'current account deficits above 5% of GDP flash a red light'; Summers (1996): 'close attention should be paid to current account deficits in excess of 5% of GDP'.

external imbalance. The fifth point relates to the potential inaccuracy of CA statistics.

- it is not the current account balance, but the balance on *current and capital transactions* (i.e., net lending) that contributes to the change in net foreign assets (net worth) of a country;
- reinvested earnings from the stock of FDI constitute a special (imputed) component of the current account, which requires careful interpretation;
- the inflationary erosion of net foreign debt, which drives a wedge between the nominal and the 'real' external balance, may be important in countries having a high debt-to-GDP ratio;
- valuation effects on net foreign assets, due to changes in exchange rates and/or asset prices, may offset or magnify the direct impact of current and capital account transactions;
- *net errors and omissions* (NEO), the discrepancy between the financial account and the balance on current and capital transactions, may relate to measurement problems of current transactions.

*(i)* The current and the capital account. Although the definition of the 'current' and the 'capital' account was changed many years ago (in 1993, in line with the System of National Accounts), most textbooks still rely on the former definitions. In particular, what was formerly (and in most textbooks, is still) referred to as the 'capital account' is, according to current definition, labelled as the *financial account*. On the other hand, particular items (e.g. certain foreign unrequited transfers) that had formerly been included in the current account are presently recorded in the so-called *capital account*.<sup>3</sup> The important point is that, according to current statistical definitions, the financing requirement (net borrowing/lending) of a

country is revealed by the consolidated balance on the current and capital accounts.

As a practical matter, in most countries of the world, both gross and net flows in the capital account are negligible in comparison with other international transactions. However, *in the EU member countries,* the capital account of the BOP has become relatively important, as most of the *inward transfers* from EU funds (received by less developed EU countries/regions) are recorded as *capital transfers,* while national contributions to the common EU budget are accounted as *current* (outward) *transfers.* As a result, the current account balance, by itself, is certain to present a one-sided picture of the external position of the net receiving EU countries. (Their CA deficits are overstated by the current balance.)

(ii) Reinvested earnings constitute a special component of the CA. Although these are recorded as current expenditures in the BOP statistics, in sharp contrast to dividends paid from profits, they do not represent actual outflows. By definition, they remain in the country and are, in a technical sense, 'backed' by an equivalent amount of 'FDI inflow' recorded in the financial account of the BOP. In this case no actual transaction takes place; it is 'imputed' in the current account, as an accounting counterpart to an 'FDI inflow' in the financial account. To get a clear picture of the underlying external imbalance, reinvested earnings need to be distinguished from other components of the current account. Though this item carries a negative sign among current transactions, it is not an actual expenditure. Moreover, it is clearly 'positive' as it represents a potential contribution to domestic capital accumulation. However justified for the 'comprehensiveness' of BOP statistics, the inclusion of reinvested earnings into the current account is likely to have led to confusion regarding the relevant magnitude of external imbalances. Nonetheless, what has been said about the nature of this item does not imply that it should be disregarded, but certainly underscores that the balance on current transactions has to be considered both including and excluding this item.

<sup>&</sup>lt;sup>3</sup> The basic conceptual difference between unrequited current and capital transfers (those recorded in the current and the capital account, respectively), is whether they contribute to a change in the disposable income, or the net wealth of a nation. (See Chapter XV in the BOP-manual of the IMF: <u>http://www.imf.org/external/pubs/ft/bopman/bopman.pdf</u>.)

(iii) Inflationary erosion of net foreign debt. From a theoretical perspective, only the 'real' current (plus capital) account matters. That is, the inflationary erosion of (non-equity) foreign assets and liabilities should be deducted from nominal interest revenues/payments. The resulting external 'operational' balance is supposed to indicate the size of the change in the country's real net foreign assets. The larger a country's net external debt/GDP ratio, the larger is the difference between the nominal and the real external deficit to GDP ratio. Few countries report figures regarding changes in their net 'operational' position vs. nonresidents, but Hungary happens to be one of these. The figures published in the country's Financial Accounts indicate that over the past few years the inflationary erosion of net foreign debt was about 1-1.5% of GDP.

(iv) Valuation effects may also be important in countries having large gross stocks of foreign assets and/or liabilities relative to GDP. The change in the relative size of net foreign assets due to valuation changes has recently attracted special attention because of developments in the US, where the 'valuation channel' temporarily dampened, or even reversed, the effects of current transactions on the increase of net foreign liabilities.<sup>4</sup> According to the majority view, valuation changes cannot be expected to permanently offset the impact of current transactions on net foreign assets, but they may have a compensating effect for extended periods.

(v) Finally, *net errors and omissions* (NEO) are generally considered to be related to statistical measurement problems of capital flows, recorded in the financial account. Nevertheless, the statistical discrepancy may also be associated with the current account, in case these transactions are under- or over-reported. The underreporting of imports (and some over-reporting of exports) may have been the case in several new member

counties of the EU after introducing the common standards for collecting data on intra-EU trade in 2004. Hungary was practically the only country among the new member states which explicitly revealed this measurement problem in the form of a radically increased (negative) NEO.<sup>5</sup>

In the following we turn to the empirical relevance of the first two issues raised above. These issues are by far more important in the European context. Besides, comparable data on these two are available.

# The current account and other indicators: a cross - country comparison

In what follows, alternative measures of the external imbalance for five new EU members (the Czech Republic, Estonia, Hungary, Poland and Slovakia), four earlier members (Greece, Portugal, Spain and Ireland) and the United States will be compared. A common feature of these countries is that, with the exception of Ireland, all of them surpassed the 'five per cent limit' regarding the CA/GDP ratio in at least one year (some of them in every single year) during the period 2000-2005. Ireland and the US are included as a 'control group'; both have some peculiar features relative to the others, to be borne out by the following comparison. In order to use comparable data, we rely on the balance-of-payments statistics in the 'Economy and Finance' database of Eurostat.<sup>6</sup> We focus on the six-year period between 2000 and 2005. In the first stage of the comparison we rely on ratios relative to GDP, but later on we shall use alternative denominators. For easier presentation, graphs, referring to averages of the period under review, are shown in the text. (The tables with annual data are in the Appendix.)

<sup>&</sup>lt;sup>4</sup> For a review of the issues involved in the valuation channel see Obstfeld (2004). See also IMF (2005), Lane and Milesi-Feretti (2005) and Gourinchas and Ray (2005).

<sup>&</sup>lt;sup>5</sup> The item 'NEO' in Hungary's BOP, relative to GDP, changed from 0.3% in 2003 to -1.7% in 2004, and to -2.6 in 2005. There is no space to develop this issue here, but see National Bank of Hungary (2005), pp. 61-62, for an explanation and interpretation. In Slovenia and Poland, in contrast to other new members, the relative size of NEO also increased after the accession.

<sup>&</sup>lt;sup>6</sup> <u>http://epp.eurostat.cec.eu.int/portal/page?\_pageid=0,11361</u> 73,0 45570701& dad=portal& schema=PORTAL

Our first question concerns the relative size of the balance on current and capital transactions. This is meant to clarify whether the *conceptual* importance assigned to the *combined* balance of the current and capital accounts is borne out by the statistics, and if so, in which countries. Figure 1 shows the ratio of the current, and the current *plus* capital account balance to GDP for the ten countries reviewed, indicating averages for 2000-2005.

### Figure 1

The current and the current *plus* capital account balance relative to GDP in nine EU-countries and the United States; 2000-2005 averages



Notations: CA: current account balance; KA: capital account balance.

As shown by Figure 1, considering the balance on the capital account, as compared to the current account, is empirically relevant in the three Southern earlier EU countries, especially in Greece and Portugal, where, as a result of this item, the size of the external deficit-to-GDP ratio shrinks by more than one percentage point. In the new EU countries the effect is much smaller, but still observable (in Estonia, Hungary and Slovakia). In Ireland the discrepancy is not an issue, while in the US there is practically no difference at all.

These averages, however, conceal the significant diversities and the trends in national annual data. As shown in Table A1 in the Appendix, there were years when the difference between the two indicators reached 2% of GDP in Greece and Portugal. On the other hand, in the new EU countries the surplus on the capital account has increased over time. In 2005 net capital transfers in relation to GDP amounted to 0.5%, in the Czech

Republic, 1% in Estonia, 0.8% in Hungary and 0.5% in Poland. In the next few years the positive balance of the capital account is certain to grow further in the new member countries, as the scope and size of transfers from EU funds are rising. As a result, the empirical/policy relevance of the current account will continue to decline, and attention will have to be directed to the combined balance of the current and capital accounts.

The next question concerns the empirical significance of reinvested earnings (RE). In addition to the ratios presented in the diagram above, the next figure shows the effect of RE on the current plus capital account balance. (For some countries the averages for the CA and KA balance are somewhat different from those shown in the previous figure, because data on reinvested profits were not available for the whole period.) The effect of both gross (inward, IRE) and net (inward minus outward, NRE) RE is indicated in Figure 2. The gross sum shows the size of 'FDI inflows' to a country in the form of retained profits; the net amount indicates the impact on the current account resulting from both 'inward' and 'outward' RE. Ireland is left out from the graph as its inclusion would require a different scaling: in this country gross and net reinvested earnings amounted to 8% and 6% of GDP, respectively, in the period 2002-2005 (for which data are available). Slovakia and Greece were neglected as well, as the former does not publish figures on reinvested earnings, and the figure reported by the latter country (for 2002-2005) was nil.

In Figure 2, the ratio of reinvested earnings to GDP can be gauged by the deviation between the second and the third (or, for net RE, the second and the fourth) bar for each country. Clearly, this item is much more important in the new EU members (most notably in Estonia) than in the older ones. The reasons for these differences mainly have to do with the relative importance of gross and net FDI in the countries concerned, but they may also be related to the average 'age' of

foreign investments.<sup>7</sup> Regarding the magnitude of gross (net) FDI stocks, in 2004 their ratio to GDP was close to 90% (75%) in Estonia, above 60% (55%) in Hungary and around 55% (50%) in the Czech Republic, while it was 40% (10%) in Portugal and 40% (2%) in Spain (net FDI stocks are in brackets).8 On the other hand, the relationship between the 'age' of FDI and reinvested earnings is supported by the fact that, while the relative size of gross FDI stock in Poland (35%) was not significantly different from that in Portugal or Spain, still, gross reinvested earnings were relatively much larger. It is interesting to note that in our sample there are four quite different countries where the distinction between gross and net RE is empirically important: Estonia, Spain, Ireland and the US.

### Figure 2

The current and the current *plus* capital account balance corrected for reinvested earnings relative to GDP in six EU countries and the United States; 2000-2005 averages\*



\*) CZ: 2001-2005; EST: 2002-2005; PL: 2004-2005.

*Notations:* CA: current account balance; KA: capital account balance; IRE: inward FDI flows in the form of reinvested earnings; NRE: net reinvested earnings (as a component of net FDI flows)

For the purposes of our analysis the effects of national differences in reinvested earnings on the current account actually matter. These effects, in turn, are clearly revealed by Figure 2. By taking reinvested profits into consideration, our perspective regarding the relative size/burden of external imbalances in the countries compared changes significantly. In the new member countries the adjusted external deficit radically decreases (in particular in Estonia and Poland, but this applies to the Czech Republic and Hungary as well). In Spain and Portugal, in contrast, the latter effect is negligible. Considering the full impact of the two adjustments discussed above (the capital account and reinvested profits), as compared to the 'raw' CA/GDP indicator, the relative size of the external deficit declines in all new member countries below that of Portugal, and comes close to (or under) that of Spain.

The important message conveyed by Figure 2 is that a simple comparison of CA/GDP ratios of countries with different experiences/prospects regarding capital transfers and reinvested earnings is almost certain to lead to mistaken conclusions with respect to the relative size/burden of external imbalances.

### Allowing for the nominal GDP level

The direct comparison of nominal external deficits of different countries does not make sense: evidently, the size of a country's economy matters. Therefore, the external deficit is expressed as a fraction of the country's nominal GDP. It is commonly accepted that if the nominal deficit is divided by the nominal GDP, we get 'standardized' - i.e., internationally comparable - measures of external imbalances. In what follows it will be argued that rather than being a neutral measure, the deficit-to-GDP ratio is a strongly biased indicator. This is so because the nominal GDP is expressed at domestic prices which may understate (or overstate) the true internationally comparable level of the GDP.

In demonstrating why the nominal GDP may be an inadequate proxy, we proceed in the following steps. First we take a look at the relationship between nominal and real income levels in the new and in some earlier members of the EU. Next we compare the nominal and real 'size' of the economies

<sup>&</sup>lt;sup>7</sup> On the latter point see Brada and Tomsik (2003).

<sup>&</sup>lt;sup>8</sup> In Greece, Ireland and the US the gross (net) FDI/GDP ratio was 13 (7), 130 (70) and 23 (-5) per cent, respectively. The figures on FDI stocks are calculated from the dataset constructed by Lane and Milesi-Ferretti (2006).

between two earlier and two newer members. Finally, we identify some reasons for the differences between the nominal and real magnitudes.

Figure 3 shows the relation between nominal (expressed in euro at exchange rates) and real (expressed in PPS)<sup>9</sup> per capita income levels in selected EU countries relative to the average of the EU-25. The distance from the 45 degree line indicates, in percentage points, the extent to which a country's relative nominal and real income and, by implication, its nominal and real size differ in relation to the EU-25. (Of course, as we shall see later, differences in percentage points at lower levels of nominal GDP per capita indicate much larger relative deviations than at higher ones.) The main point borne out by this comparison is that in most of the new EU countries the per capita real income exceeds its nominal level to a larger extent than in the former members, both in absolute and in relative terms. It is also clear that the new member countries do not represent a uniform group in this respect. While Cyprus, Malta and Slovenia appear to have lower gaps between real and nominal GDP levels, these gaps are much higher in the East European and Baltic countries.

### Figure 3





Source: Eurostat.

Let us now look at some implications of the tendencies revealed by Figure 3. Table 1 shows the nominal and the real size of two new Eastern EU countries' economies in comparison with those of two 'old' ones, depending on whether GDP is expressed in *nominal* or in *real* terms. 'Nominal' means that GDP is converted at the current exchange rate, while 'real' refers to expressing the size of GDP at internationally comparable prices, i.e., relying on purchasing power parities (PPPs).

Table 1

### The size of GDP in the Czech Republic and in Hungary relative to that of Portugal and Greece, converted at the exchange rate (EXR) and purchasing power parity (PPP)

		Czech R	lepublic	Hungary				
		EXR	PPP	EXR	PPP			
Portugal =100	2005	67	100	60	83			
Fortugal – 100	Average 2000-2005	58	88	52	75			
0	2005	54	81	48	67			
Gleece - 100	Average 2000-2005	52	80	46	68			

Source: Calculations based on Eurostat data.

In 2005 (according to preliminary estimates on PPPs) the 'volume' of the GDP in the Czech Republic was the same as in Portugal and about 80% of that in Greece. Its nominal size, in contrast (i.e., converted at the exchange rate), was roughly two-thirds and 55% of that in Greece and Portugal, respectively. The table also presents comparable ratios for Hungary and averages for the period 2000-2005. The orders of magnitude in differences between relative volumes and nominal values of GDP are quite similar in Hungary's case and for the whole period as well. (The size of Hungary's economy 'shrinks' by about 30%, and that of the Czech Republic by one-third, as a result of using the nominal exchange rate for inter-country comparisons.)

The nominal GDP in the new member states is relatively smaller than the real one because of differences in their price structures (and levels) vs. the whole EU.

<sup>&</sup>lt;sup>9</sup> PPS (Purchasing Power Standard) is the PPP (Purchasing Power Parity) adopted by the Eurostat. The (quantitative) definition of PPS is derived from the following: the average price level of the EU-25 is identical, whether expressed in euro or PPS. In the text we use the terms 'PPP' and 'PPS' in the same sense, but in the graphs/tables we use the PPS, i.e., PPP calculated by Eurostat.

That the price level of the GDP (the ratio of the PPP to the exchange rate) is an increasing function of real income has long been established, but in the case of the new *Eastern* EU members (as compared to the older and non-eastern new members) a different effect is also at work. Namely, the relative price level of services, in particular, those of government services, is exceptionally low in the new Eastern member countries of the EU, and this low level does not seem to be related to the level of income in this group.

#### Figure 4

Per capita GDP (PPP) and the relative price level of GDP (PPS/exchange rate) in selected EU member countries, average of 2000-2004 (EU-25 = 100)



Source: Eurostat.

Figure 4 shows the relationship between relative per capita real income (GDP per head converted at PPS) and the relative price level of GDP for 13 less developed EU countries. A non-relation and a clear association can both be detected in the graph. On the one hand, there is practically no relationship whatsoever between relative income and price levels among new Eastern members of the EU (the relative price level of Latvia, having an income level corresponding to 40% of the EU average, was practically the same as that of the Czech Republic, whose average real income in this period was close to 70% of the EU-25). On the other hand, in the case of the other EU members shown in the diagram (both old and new), the relation between the level of real income and prices seems to 'function' properly.

Figure 5 tries to clarify the background of the differences observed in Figure 4. Here the relative

price level of three major groups (goods, services and – as a subgroup – public services, as defined by Eurostat-OECD, 2005) is indicated as a function of the relative price level of GDP.

#### Figure 5

The relative price level of goods, services and government services (Y axis) in relation to the relative price level of GDP (X axis) in selected EU member countries; average of 2000-2004 (EU-25 = 100)



Source: Eurostat.

While the price level of goods is somewhat lower in the 'Eastern block' of the new member sates than in the other EU countries, services, and in particular government services, are substantially cheaper. However, the fact that the *price* level of non-traded services is relatively low, should not be interpreted as a sign that the 'external earning capacity', relevant for judging the magnitude of an external deficit, is also low. Therefore, the figures above do indicate that, in an international comparison, the nominal GDP is a biased denominator with respect to the relative size of external imbalances of new Eastern EU members. What, then, is the economically satisfactory denominator?

The answer depends on whether we wish to handle the consequences of the large international differences in the prices of non-tradable services by altogether neglecting this sector, or by including the sector, but correcting for the price differences involved. In the first case, revenues from exports of goods and services may serve as an approximation for the earning capacity (though total current, or current plus capital, revenues may also be considered as a reference). In the second case, 'real' GDP (i.e., GDP converted at PPPs) can be used for comparing the size of deficits. The two figures below show the relative magnitude of external imbalances, depending on how the question is answered.

### Figure 6

External (current +capital account) imbalances compared to GDP, exports of goods and services (Xgs) and current foreign revenues (CFR) (2000-2005 averages)



Source: Eurostat.

If ratios of deficit to revenues from exports of goods and services (the second bar) or to total current revenues (the third bar) are considered, the order of countries with respect to the relative size of their external imbalances - defined as the balance on current and capital transactions - change in a fundamental way. The diversity in country-specific relations among the bars has to do with the extent of openness (the ratio of exports, or current revenues, to GDP). To take an extreme example, in the United States (left out from the diagram) the 5% external deficit-to-GDP ratio jumps to 50% if the deficit is compared to exports of goods and services, and drops to 38% when weighted against total current revenues. However, it is not the US but the older EU countries to whom the new Eastern members should compare themselves. In this respect, the modification in the benchmark for assessing foreign deficits markedly alters their relative significance. Most notably, external imbalances in Greece and Portugal appear to be significantly (in Spain, marginally) larger than in the new members, as a result of comparing deficits to actual foreign revenues, instead of the nominal GDP.

Figure 7 shows the effect of considering real, versus nominal, GDP as a benchmark.

As expected, the relative size of external deficits declines significantly in the new Eastern members if imbalances are compared to the PPP-adjusted (i.e., 'real') instead of the nominal GDP. As a result of this change, relative deficits in the older members also fall somewhat, but much less. The outcome of the comparisons shown in Figure 7 are similar to those in Figure 6, though the effects of switching the denominator are notably milder. The exceptionally large ratio in Estonia drops below that of Portugal after allowing for the price levels, and Hungary's ratio is lower than that of both Greece and Portugal.

#### Figure 7

External (current + capital account) imbalances compared to nominal (exchange rate-based) and real (PPP-based) GDPs (2000-2005 averages)



Source: Eurostat.

### Summary and conclusions

This note statistically illustrates two points regarding the use of the CA/GDP ratio in international comparisons.

First, the identification of external imbalances with current account deficits is a simplification.

 According to the present statistical definitions, changes in a country's net foreign assets are associated with the *combined* balance on its current *and* capital accounts. Due to the character of transfers from EU funds, the capital account is particularly important for the less developed EU members (Greece and Portugal). For the new member countries, its importance has grown and is certain to increase further in the future.

Reinvested earnings of foreign companies represent virtual outflows - and yet are recorded on the income account. Though a large size of this item has a negative effect on the current account, it has no implications for actual external financing; moreover, from a policy perspective, it is clearly 'good news'. The special features of reinvested earnings call for a careful reading of current account deficits of countries where this item is significant and/or markedly changing. By implication, international comparisons of current account imbalances cannot be meaningful if inter-country differences in reinvested earnings are disregarded. It has been shown that this special item in the current account is much more important for the new EU members than for the older ones with which they were compared.

Second, the use of nominal GDP in calculating the CA/GDP for cross-country comparisons introduces a systematic bias. This bias can be reduced by allowing for, e.g., real (PPP) GDP levels, or by considering shares of exports in the GDP<sup>10</sup>.

According to the conventional CA/GDP indicator, some of the East European members of the EU (e.g., Estonia and Hungary) have much larger external deficits than certain older members (in particular, Greece, Portugal and Spain). This picture, however, changes the more, the more the deficiencies of the CA/GDP ratio are corrected for. When the capital account and reinvested earnings are taken into consideration on the one hand, and deficits are compared to GDP valued at PPPs, or exports (gross foreign earnings) on the other, external imbalances in the new EU countries appear to be far milder than in the older ones chosen for comparison. Does this also mean that external deficits are less important in the new member states than in the three earlier EU members? This is not likely to be the case. While the foregoing discussion and the suggested indicators are definitely relevant for comparing the size of external imbalances, little has been said about their reasons, composition, financing and evolution over time. These factors are beyond the scope of our short analysis, but evidently affect the sustainability of foreign deficits, which is one of the considerations by which their relative importance can be judged. Another one, also ignored in the foregoing, is the vulnerability of a country due to its imbalance. The three Southern European countries, being members of the euro zone, are certainly in a better position to withstand external shocks, even with larger imbalances, than the new EU countries. Still, beside several other factors, the size of a deficit is an essential issue in assessing its sustainability, or a country's associated exposure to potential shocks. Therefore, it makes sense to consider comparable notions/indicators of external imbalances - like the ones suggested above - when their sustainability (and/or the vulnerability of countries due to deficits) is evaluated in a comparative perspective.

### References

Brada J. C. and V. Tomsik (2003), 'Reinvested Earnings Bias, the 'Five Percent' Rule and the Interpretation of the Balance of Payments – With an Application to Transition Economies', William Davidson Institute Working Paper No.543.

Buiter, W. (2006), 'Dark Matter or Cold Fusion?', Goldman Sachs Global Economics Paper No. 135, January.

Gourinchas, P. O. and H. Ray (2005), 'International Financial Adjustment', NBER Working Paper 11155.

Hausmann, R. and F. Sturzenegger (2005a), 'U.S. and Global Imbalances: Can Dark Matter Prevent a Big Bang?', November,

http://www.utdt.edu/~fsturzen/darkmatter\_051130.pdf

Hausmann, R. and F. Sturzenegger (2005b), 'Global imbalances or bad accounting? The missing dark matter in the wealth of nations', December,

http://www.utdt.edu/~fsturzen/FinalDiciembre28.pdf

IMF (2005), 'Globalization and External Imbalances', *World Economic Outlook*, Chapter III, April.

<sup>&</sup>lt;sup>10</sup> The last factor is well established, although in a different context: the literature on the sustainability of persistent current account deficits has shown that countries with a large CA/GDP ratio, but also having a high ratio of exports to GDP, tend to be less prone to crises. (For an early exposition of this finding see Milesi-Ferretti and Razin, 1996.)

Lane, P. R. and G. M. Milesi-Ferretti (2005), 'Financial Globalization and Exchange Rates', IMF Working Paper 05/03, January.

Lane, P. R. and G. M. Milesi-Ferretti (2006), 'The External Wealth of Nations Mark II: Revised and Extended Estimates of Foreign Assets and Liabilities, 1970–2004', IMF Working Paper, 06/69, March. (The dataset related to the paper can be reached at http://www.imf.org/external/pubs/cat/longres.cfm?sk=189 42.0.)

Milesi-Ferretti, G. M. and A. Razin (1996), 'Sustainability of Persistent Current Account Deficits', NBER Working Paper 5467.

National Bank of Hungary (2005), *Quarterly Report on Inflation*, August,

http://english.mnb.hu/Resource.aspx?ResourceID=mnbfil e&resourcename=inflation0508\_en Obstfeld, M. (2004), 'External Adjustment', *Review of World Economics*, Vol. 140, No. 4.

Eurostat – OECD (2004), *Purchasing Power Parities and Real Expenditures, 2002 Benchmark Year*, Luxembourg – Paris.

Summers, L. H. (2000), 'International Financial Crises: Causes, Prevention and Cures', *American Economic Review*, Vol. 190, No. 2.

United Nations (2003), *National Accounts: A Practical Introduction*, New York,

http://unstats.un.org/unsd/nationalaccount/sna/serF\_85.pdf

### Appendix: Annual data, 2000-2005

Table A1

	67	FST	ын	DI	SK	GP	ESD	рт	IDI	
	02	LOT	110	ΓL	SK	GR	LOF	ΓI	INL	034
2000	_1 0	-5.5	_8.5	-5.8	_3.5	-8.4	-4.0	-10.4	0.0	_13
2000	-4,5	-5,5	-6,5	-3,0	-3,5	-0,4	- <del>-</del> ,0 _3.0	-10,4	-0.6	-4,5
2001	-5,7	-10.2	-0,1	-2,0	-0,5	-0,0	-0,0 _3 3	-3,0	-0,0 -1.2	-0,0
2002	-5,7	-10,2	-7,1	-2,0	-7,5	-7,2	-0,0	-7,0 5,0	-1,2	-4,5
2003	-0,5	-12,1	-0,7	-2,1	-0,9	-7,1	-5,0	-5,9	0,0	-4,7
2005	-0,1	10.5	-0,0	-4,2	-5,4	-0,2	-5,5	-7,5	-0,0	-5,7
	-2,1	-10,5	-7,5	-1,5	-5,5	-1,1 7 /	-1,4	-3,5	-1,5	-0,4
Average	-3, 1	-9,4	-7,7	-3,2	-4,9	-7,4	-4,0	-0,4	-0,0	-4,9
(CA+KA)/GDP										
2000	-4,9	-5,2	-7,9	-5,8	-3,0	-6,6	-3,2	-9,0	1,2	-4,3
2001	-5,4	-5,5	-5,5	-2,8	-7,9		-3,1	-8,9	0,0	-3,9
2002	-5,7	-9,9	-6,8	-2,6	-7,4	-6,0	-2,2	-6,4	-0,8	-4,5
2003	-6,3	-11,6	-8,7	-2,2	-0,5	-6,3	-2,5	-4,0	0,1	-4,8
2004	-6,6	-12,0	-8,3	-3,8	-3,1	-4,8	-4,3	-5,7	-0,5	-5,7
2005	-1,9	-9,4	-6,5	-1,1	-5,5	-6,6	-6,5	-8,1	-1,7	-6,5
Average	-5,1	-8,9	-7,3	-3,0	-4,6	-6,1	-3,6	-7,0	-0,3	-4,9
(CA+KA+IRE)/GDP										
2000			-5,7				-2,8	-8,4		-4,3
2001	-2,9		-3,0				-2,8	-8,3		-4,2
2002	-3,0	-7,0	-4,0				-2,0	-6,8	11,1	-4,5
2003	-4,5	-6,6	-6,3				-2,3	-3,7	11,4	-4,7
2004	-3,9	-5,6	-5,6	-1,3		-4,8	-4,1	-5,5	6,2	-5,2
2005	0,7	-4,0	-4,6	0,2		-6,6	-6,3	-8,0	3,8	
Average	-2,7	-5,8	-4,9				-3,4	-6,8	8,1	-4,6
(CA+KA+NRE)/GDP										
2000			-5,8				-3,4	-8,6		-5,2
2001	-3,0		-2,9				-2,8	-8,6		-4,9
2002	-2,9	-7,6	-4,1				-2,0	-6,5	9,4	-5,3
2003	-4,6	-7,2	-6,4				-2,4	-3,6	9,5	-5,9
2004	-4,2	-6,2	-6,0	-1,3		-4,8	-4,3	-5,7	4,3	-6,7
2005	0,6	-5,1	-4,5	0,2		-6,6	-6,5	-8,4	-	
Average	-2,8	-6,5	-4,9				-3,6	-6,9	6,3	-5,6
Memo: NEO/GDP										
2000	-0,5	0,1	-0,4	0,2	0,1	4,6	0,0	0,0	-9,7	-0,8
2001	0,8	0,3	0,1	0,9	0,9		-0,1	0,4	0,3	-0,1
2002	0,3	0,1	0,2	-0,7	1,3	0,6	0,0	0,6	-1,1	-0,2
2003	0,6	-0,4	0,3	-1,3	-0,2	0,1	0,1	-0,6	0,9	-0,3
2004	0,1	-0,7	-1,7	0,8	-0,1	0,0	0,1	-0,7	-3,1	0,7
2005	0,4	0,1	-2,6	-0,9	-0,4	-0,2	-0,1	-0,7	-0,2	0,1
Average	0,3	-0,1	-0,7	-0,2	0,3	1,0	0,0	-0,1	-2,2	-0,1

Ratios in per cent of nominal GDP

Notations: CA: current account; KA: capital account; IRE: inward reinvested earnings [with the same sign as in the financial account of the balance of payments (BOP), i.e., inward FDI flows in the form of RE carry a positive sign]; NRE: net reinvested earnings; NEO: net errors and omissions in the BOP.

Source: Calculations based on the Eurostat online database:

http://epp.eurostat.cec.eu.int/portal/page?\_pageid=0,1136173,0\_45570701&\_dad=portal&\_schema=PORTAL

Table A2

Ratios in per cent of exports of goods and services (Xgs) and total credits in the current account (CFR)

	CZ	EST	HU	PL	SK	GR	ESP	PT	IRL	USA
CA/Xgs										
2000	-7,6	-6,2	-11,5	-21,4	-5,0	-33,1	-13,8	-34,7	0,1	-38,9
2001	-8,1	-6,7	-8,4	-10,4	-11,5	-31,5	-13,6	-33,6	-0,7	-38,7
2002	-9,2	-13,7	-11,0	-9,0	-11,3	-32,6	-12,0	-27,6	-1,4	-48,4
2003	-10,1	-16,3	-13,9	-6,5	-1,1	-33,9	-13,6	-20,7	0,0	-50,9
2004	-8,5	-16,2	-13,0	-11,1	-4,6	-26,5	-20,2	-24,9	-1,0	-58,0
2005	-2,9	-12,5	-10,7	-3,9	-7,3	-33,6	-28,7	-31,8	-2,4	-63,3
Average	-7,7	-12,0	-11,4	-10,4	-6,8	-31,9	-17,0	-28,9	-0,9	-49,7
(CA+KA)/Xgs										
2000	-7,6	-5,9	-10,7	-21,4	-4,3	-26,1	-10,9	-30,1	1,2	-39,0
2001	-8,1	-6,6	-7,5	-10,3	-11,0		-10,8	-30,4	0,0	-38,8
2002	-9,2	-13,3	-10,6	-9,0	-10,6	-27,3	-8,1	-22,5	-0,9	-48,5
2003	-10,1	-15,6	-13,9	-6,5	-0,7	-30,1	-9,6	-13,9	0,1	-51,2
2004	-9,3	-15,3	-12,5	-10,1	-4,1	-20,5	-16,4	-19,5	-0,6	-58,1
2005	-2,7	-11,2	-9,5	-3,0	-7,3	-28,7	-25,3	-27,8	-2,2	-63,7
Average	-7,8	-11,3	-10,8	-10,0	-6,3	-26,5	-13,5	-24,0	-0,4	-49,9
NEO/Xgs										
2000	-0,8	0,1	-0,5	0,7	0,2	18,2	0,1	0,0	-10,1	-7,0
2001	1,2	0,3	0,1	3,3	1,2		-0,3	1,3	0,3	-0,9
2002	0,4	0,1	0,4	-2,6	1,8	2,7	0,1	2,3	-1,2	-2,0
2003	1,0	-0,5	0,4	-3,8	-0,2	0,4	0,4	-1,9	1,1	-3,4
2004	0,2	-0,9	-2,6	2,1	-0,1	-0,2	0,4	-2,3	-3,8	7,4
2005	0,5	0,2	-3,8	-2,4	-0,6	-0,8	-0,4	-2,3	-0,3	0,8
Average	0,4	-0, 1	-1,0	-0,5	0,4	4,1	0,1	-0,5	-2,3	-0,9
Percent of current f	oreign reve	enue								
CA/CFR	CZ	EST	HU	PL	SK	GR	ESP	PT	IRL	USA
2000	-7,0	-5,9	-10,8	-19,2	-4,7	-25,4	-11,4	-25,7	0,0	-29,1
2001	-7,5	-6,3	-7,9	-9,3	-10,9		-11,2	-24,6	-0,5	-29,9
2002	-8,6	-12,8	-10,4	-8,1	-10,7	-25,1	-9,8	-20,7	-1,0	-37,5
2003	-9,3	-15,1	-13,1	-5,9	-1,0	-25,9	-11,1	-15,2	0,0	-38,6
2004	-8,0	-14,6	-12,2	-9,9	-4,3	-20,6	-16,3	-18,4	-0,7	-43,1
2005	-2,7	-11,2	-10,0	-3,4	-6,7	-26,1	-23,1	-24,1	-1,8	-46,2
Average	-7,2	-11,0	-10,7	-9,3	-6,4	-24,6	-13,8	-21,5	-0,7	-37,4
(CA+KA)/CFR										
2000	-7,0	-5,5	-10,1	-19,1	-4,1	-20,0	-9,0	-22,4	0,9	-29,2
2001	-7,5	-6,2	-7,1	-9,1	-10,4		-8,9	-22,3	0,0	-30,0
2002	-8,6	-12,4	-10,0	-8,1	-10,1	-21,1	-6,6	-16,8	-0,7	-37,6
2003	-9,4	-14,5	-13,2	-5,9	-0,7	-23,0	-7,8	-10,2	0,1	-38,8
2004	-8,6	-13,8	-11,8	-9,0	-3,9	-15,9	-13,2	-14,5	-0,5	-43,2
2005	-2,4	-10,0	-8,9	-2,7	-6,7	-22,3	-20,3	-21,0	-1,6	-46,6
Average	-7,3	-10,4	-10,2	-9,0	-6,0	-20,4	-11,0	-17,9	-0,3	-37,6

Source and notations: See Table A1.

Table A3

### Ratios in per cent of GDP converted at purchasing power parity [GDP(PPP)]

	CZ	EST	HU	PL	SK	GR	ESP	PT	IRL	USA
CA/GDP(PPP)										
2000	-2,3	-2,9	-4,0	-3,0	-1,5	-6,6	-3,4	-7,7	0,1	-5,2
2001	-2,6	-3,1	-3,0	-1,6	-3,6	-6,3	-3,3	-7,4	-0,7	-4,9
2002	-3,0	-5,8	-3,9	-1,4	-3,5	-5,6	-2,8	-6,0	-1,4	-5,6
2003	-3,3	-6,9	-4,9	-1,1	-0,4	-5,7	-3,1	-4,9	0,0	-4,9
2004	-3,2	-7,3	-5,1	-2,0	-1,8	-5,1	-4,7	-6,0	-0,9	-5,4
2005	-1,2	-6,3	-4,4	-0,8	-2,9	-6,5	-6,7	-7,8	-2,3	-6,1
Average	-2,6	-5,4	-4,2	-1,7	-2,3	-6,0	-4,0	-6,6	-0,9	-5,4
CA+KA/GDP( <i>PPP</i> )										
2000	-2,3	-2,7	-3,7	-3,0	-1,3	-5,2	-2,7	-6,7	1,3	-5,3
2001	-2,7	-3,1	-2,7	-1,6	-3,4		-2,7	-6,7	-0,1	-4,9
2002	-3,1	-5,6	-3,7	-1,4	-3,3	-4,7	-1,9	-4,9	-1,0	-5,6
2003	-3,3	-6,6	-4,9	-1,1	-0,3	-5,0	-2,2	-3,3	0,1	-4,9
2004	-3,5	-6,9	-4,9	-1,8	-1,6	-3,9	-3,8	-4,7	-0,6	-5,4
2005	-1,1	-5,6	-3,9	-0,6	-2,9	-5,5	-5,9	-6,8	-2,1	-6,2
Average	-2,7	-5,1	-4,0	-1,6	-2,1	-4,9	-3,2	-5,5	-0,4	-5,4
Memo: (CA+KA+IRE)/G	DP( <i>PPP</i> )									
2000			-2,7				-2,4	-6,2		-5,3
2001	-1,4		-1,5				-2,4	-6,3		-5,4
2002	-1,6	-4,0	-2,2				-1,7	-5,2	12,0	-5,5
2003	-2,4	-3,8	-3,5				-2,1	-3,1	13,7	-4,8
2004	-2,1	-3,2	-3,3	-0,6			-3,6	-4,5	6,6	-4,9
2005	0,4	-2,4	-2,8	0,1			-5,8	-6,7	2,5	
Source and notations: See	e Table A1.									

# On heroes, villains and statisticians

BY ARNO TAUSCH\*

On 20 May 2006, EU Commission President Barroso presented a Centre for European Reform (CER) study maintaining that Denmark, Sweden and Austria are the best performing Lisbon process countries for 2005 and that Romania, Poland and Malta are the lowest ranked countries in the European Union in the same year (see Table 1). In the study some finger pointing is made, with the 'good' performers termed 'heroes' and the 'bad performers' termed 'villains'. Poland was made the 'European chief villain' for 2005 (henceforth called, in keeping with the tendency towards abbreviations in the eurocracy, the ECV).

Interestingly, the CER calculates the rankings despite the fact that the statistical data for some of the EU's structural indicators are actually missing – not only for 2004 and 2005, but for whatever year:<sup>1</sup>

- Total employment rate: data available for 1993-2004.
- Total employment rate of older workers: data available for 1993-2004.
- Youth education attainment level, total: data available for 1994-2005. Data for Germany in 2005 missing.
- Gross domestic expenditure on R&D: only two countries report data for 2005; 2004 data missing for Italy and Portugal; 2003 data complete for EU-25; 2002 data missing for Luxembourg, Greece and Sweden.
- Comparative price levels: data available for 1995-2004, Lisbon main indicator GDP per capita explains some 70% of comparative price levels, the relationship is positive. (Note: Eurostat suggests that a high indicator value is

Table 1

### The Lisbon league table Overall Lisbon Performance 2005\*

Rank 2005	Rank 2004	Country
1	1	Denmark
2	2	Sweden
3	4	Austria
4	5	United Kingdom
5	3	The Netherlands
6	6	Finland
7	10	Ireland
8	11	France
9	8	Luxembourg
10	9	Germany
11	12	Slovenia
12	7	Czech Republic
13	13	Belgium
14	15	Cyprus
15	14	Hungary
16	18	Estonia
17	20	Greece
18	16	Portugal
19	19	Latvia
20	21	Lithuania
21	23	Spain
22	17	Slovakia
23	24	Italy
24	26	Bulgaria
25	25	Romania
26	22	Poland
27	27	Malta

Note: \*) Ranking based on average performance in the EU's short-list of structural indictors.

Source: CER

(http://www.cer.org.uk/pdf/p\_661\_lisbon\_riseagain\_vi\_econ.pdf)

a sign of bad performance. But a high GDP per capita – i.e. good performance – is actually strongly related to high comparative price levels.)

- Business investment: data available for 1993-2004.
- At-risk-of-poverty rate after social transfers total: data available for 1995-2004. Data for 2004 and 2003 missing for several EU-25 countries, complete data for 2003 and 2004 only available for Luxembourg, Finland,

 <sup>\*</sup> Adjunct Professor of Political Science at Innsbruck University.
 <sup>1</sup> See

http://epp.eurostat.cec.eu.int/portal/page? pageid=1133,478 00773,1133\_47802588&\_dad=portal&\_schema=PORTAL

Norway, Denmark, Austria, France, Bulgaria, Belgium, EU (25 countries), Germany, EU (15 countries), euro-zone (12 countries), Spain, Greece, Portugal, Ireland, and Slovakia.

- Total long-term unemployment rate: data available for 1993-2004.
- Dispersion of regional employment rates total: data available for 1999-2004. Missing values for Denmark, Estonia, Ireland, Cyprus, Latvia, Lithuania, Luxembourg, Malta and Slovenia, for the entire period.
- Total greenhouse gas emissions: data available for 1993-2003 and target levels.
- Energy intensity of the economy: data available for 1992-2003.
- Volume of freight transport: missing values for Greece (missing since 2000), and Malta.

Thus data are missing, or are incomplete, for 12 of the 14 Lisbon indicators. Only 2 of the Eurostat structural Lisbon indicators present a complete data series for 2004 and 2005. Any rankings purporting to reflect the situation in 2004 and 2005 are therefore misleading, to say the least.

### An alternative scoreboard

- As only 2 of the Eurostat structural Lisbon indicators present a complete data series for 2004 and 2005, one needs to re-run the calculations, replacing data for 2005 with the data for the most recent period available and data for 2004 with the data for the year preceding that most recent year. The data for the year 2005 may have to be replaced with the data for 2004, or even 2003.
- One of the 14 Lisbon structural indicators, the dispersion of regional employment rates, does not list any data at all for the EU member countries Cyprus, Denmark, Estonia, Ireland, Latvia, Lithuania, Luxembourg, Malta, and Slovenia over the entire period, and not just the most recent years. An indicator with so many completely missing values would severely bias

Table 2

### Alternative Lisbon process scoreboard

final data, ranked by	UNDP Lisbon	UNDP Lisbon	Change in
performance in the	Amartya Sen-	Amartya Sen-	UNDP Lisbon
most recent year	type index, most	type index, most	Amartya Sen-
	recent year -1	recent year	type index
Norway	0.7186	0.7195	0.0009
Sweden	0.71237	0.71819	0.00582
Denmark	0.69523	0.71371	0.01849
Finland	0.64343	0.65095	0.00752
Luxembourg	0.61563	0.60788	-0.00774
Netherlands	0.60878	0.60203	-0.00675
United Kingdom	0.58703	0.59728	0.01025
Austria	0.59676	0.58867	-0.00808
Ireland	0.54181	0.56345	0.02164
France	0.56137	0.56166	0.00029
Slovenia	0.51586	0.53807	0.0222
Belgium	0.52994	0.53657	0.00663
Germany	0.54388	0.53493	-0.00895
Czech Republic	0.53265	0.53162	-0.00103
Cyprus	0.46456	0.4845	0.01995
Hungary	0.47006	0.456	-0.01406
Latvia	0.41708	0.45366	0.03658
Italy	0.43975	0.4468	0.00705
Spain	0.41572	0.42279	0.00707
Estonia	0.43377	0.4198	-0.01397
Greece	0.40539	0.41245	0.00706
Lithuania	0.38511	0.41036	0.02526
Portugal	0.3998	0.35828	-0.04152
Slovakia	0.35233	0.34704	-0.00529
Romania	0.3239	0.31548	-0.00843
Bulgaria	0.29376	0.30846	0.0147
Poland	0.30952	0.30302	-0.0065
Source: Own calcu	ulations.		

the results. For that reason it makes sense to ignore it.

 It is obvious that the Eurostat data, as they are presented on the Internet, are not qualified for an immediate multivariate ranking or other multivariate analysis. Only the EU (or EEA) member countries Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Poland. Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, and the United Kingdom present at least two contiguous data for at least two recent periods for all the 13 indicators, while a varying number of other Eurostat structural indicator countries which include, to an amazingly varying degree, countries as different as the EU candidates, the EEA nation Iceland, the EFTA nation Switzerland. on one occasion Canada. sometimes Japan, and several times the United States - had to be relegated from the data matrix to make our comparisons more reliable. Countries that list less than 2 data points for the entire observation period (mostly starting somewhere in the 1990s) had thus to be eliminated from the data matrix.

- What is more, one of the indicators comparative price levels - correlates very positively with the other main Lisbon targets, and yet the EU Commission, Eurostat and the member countries continue to sanction it as an indicator that should achieve a low level to be compatible with the Lisbon process. High price levels and a stable currency and highly priced tradables and non-tradables are significantly and very closely associated (absolute value of the correlation coefficient higher or equal to  $\pm$  0.50) with a low energy intensity of the economy, a low long-term unemployment rate, a high rate of gross domestic expenditures on research and development, a high rate of total employment, a high GDP per capita and high labour productivity. A rigorous interpretation of these facts would warrant at least the calculation of two listings of ranks: one considering a high price level as something inherently wrong for the Lisbon process, the other considering a high price level as something structurally inherent in a highly developed economy with highly priced tradable goods and non-tradable goods, and with poorer countries catching up (Balassa/Samuelson effect).
- Far from presenting state-of-the-art methodology, the CER study simply performs an additive scoreboard calculation of ranks, neglecting other techniques such as the calculation of composite indices that has become very popular in applied social sciences especially with the publication of the UNDP Human Development Reports, let alone principal components or other multivariate techniques, available via the major computer softwares for the social sciences, such as the SPSS or the SAS programmes. Scoreboard ranks are absolutely inferior to such more advanced techniques

In light of these methodological remarks, we present the following final table of the results of our calculations, based on the UNDP-type of methodology. Our Lisbon Index projects the results of 13 component variables onto 13 dimension indicators that each range from 0 to 1, with 1 representing the best value and 0 the worst. The 13 dimension indices are then multiplied by 1/13 and added together for the composite index, ranging from 0 (worst value) to 1 (best value). Norway, Sweden and Denmark are the Lisbon model countries of the most recent period, while Romania, Bulgaria and Poland are indeed the 'villains (ECVs)' for the most recent year.

From the static point of view, Poland, Bulgaria and Romania have had the worst scores recently, and the Scandinavian countries the best. This is not quite surprising, given the initial conditions prevailing in the former countries. But, these countries have been making fast progress. As the last column of Table 3 indicates, they outperform, as far as the *movement* towards the Lisbon objectives is concerned, many other countries. If one is allowed to phrase the conclusions following Table 3 in the language used by the Centre for European Reform, the European Chief Villain is currently not Poland, but Portugal, followed by Hungary and Estonia. The 'heroes', by that criterion, are Latvia, Lithuania and Slovenia.

#### Table 3

### The rankings: for the most recent year, and according to the most recent change in the total score

	final rank, according to the	final rank, according to the
	UNDP LISDON Process –	Change in the UNDP
	Amariya Sen-type index	Sen type-index
Latvia	17	1
Lithuania	22	2
Slovenia	11	3
Ireland	9	4
Cyprus	15	5
Denmark	3	6
Bulgaria	26	7
United Kingdom	7	8
Finland	4	9
Spain	19	10
Greece	21	11
Italy	18	12
Belgium	12	13
Sweden	2	14
Norway	1	15
France	10	16
Czech Republic	14	17
Slovakia	24	18
Poland	27	19
Netherlands	6	20
Luxembourg	5	21
Austria	8	22
Romania	25	23
Germany	13	24
Estonia	20	25
Hungary	16	26
Portugal	23	27
Source: Own calcula	ations.	

### Literature and sources

Data used for the ranking of EU and EEA countries for Lisbon process performance:

http://www.gallileus.info/gallileus/members/m\_TAUSCH/publications/1143449412 48/114344964315/

Other macro-quantitative data:

http://www.gallileus.info/gallileus/members/m\_TAUSCH/publications/1126258360 0/112625847359/

http://www.gallileus.info/members/m\_TAUSCH/publications/112928097189/?-C=&language=en

### http://www.gallileus.info/gallileus/members/m\_TAUSCH/publications/1129280971 89/112928121463/?-C=&language=en

### http://www.gallileus.info/gallileus/members/m\_TAUSCH/publications/1129280971 89/114259767554/

#### Other sources:

Bartenstein, M. and G. Verheugen (eds.), (2006), Studies on Productivity, Services and Technologies – Lissabon vertiefen: Studien zu Produktivität, Dienstleistungen und Technologien, Austrian Federal Ministry of Economics and Labour, Vienna. Breuss, F. and H. Badinger (2005), 'The European Single Market for Services in the Context of the Lisbon Agenda: Macroeconomic Effects', Study commissioned by the Austrian Federal Ministry of Economics and Labour, Final report, December. Copenhagen Economics (2005), Economic Assessment of the Barriers to the Internal Market for Services, Copenhagen Economics for the European Commission, available at http://www.copenhageneconomics.com/publications/trade4.pdf Falkinger, J. Jr. (2006), 'Die Maastricht-Kriterien und das Trilemma der neuen EU-Mitglieder', Materialien zu Wirtschaft und Gesellschaft, No. 98, Austrian Chamber of Labour, Vienna, http://wien.arbeiterkammer.at/pictures/d36/Materialien\_WuG\_98.pdf Gahlteiner, H. und W. Raza (2006), 'Zu schön um wahr zu sein', Comment on the website of the Austrian Chamber of Labour, available at http://wien.arbeiterkammer.at/www-397-IP-26115.html Gekiere, W. (2004), Research report commissioned by Anne Van Lancker, Rapporteur Committee Employment and Social Affairs, European Parliament', Institute for European Law, Catholic University Leuven. Available at http://www.esip.org/publications/pb21.pdf Rao, J. M. (1998), 'Development in the time of Globalization', UNDP Working Paper Series, Social Development and Poverty Elimination Division, February, available at http://www.undp.org/poverty/publications/wkpaper/wp2/RAO-Rf1.PDF Raza, W. (2006), 'Erstanalyse der Studie ...', Chamber of Labour, Vienna, available at http://wien.arbeiterkammer.at/www-397-IP-26115.html. Sapir, A. (2005a), 'Globalisation and the Reform of European Social Models', BRUEGEL Institute, Brussels (Background document for the presentation at ECOFIN Informal Meeting in Manchester, 9 September 2005), available at http://www.bruegel.org/Repositories/Documents/publications/working\_papers/Sapi rPaper080905.pdf Sapir, A. (2005b), 'Globalisation and the Reform of European Social Models', BRUEGEL Institute, Brussels, bruegel policy brief, 01, November (restricted).

Tausch, A. (2006), 'From the "Washington" towards a "Vienna Consensus"? A quantitative analysis on globalization, development and global governance', Paper prepared for the discussion process leading up to the EU-Latin America and Caribbean Summit 2006, 11 to 12 May 2006, Vienna, Austria. Centro Argentino de Estudios Internacionales, Buenos Aires, available at http://www.caei.com.ar/ebooks/ebook1.pdf.

Yotopoulos, P. A. (1996), *Exchange rate parity for trade and development: theory, tests, and case studies*, Cambridge University Press, Cambridge [England]; New York.

Yotopoulos, P. and Y. Sawada (2005), 'Exchange Rate Misalignment: A New test of Long-Run PPP Based on Cross-Country Data,' *CIRJE Discussion Paper* CIRJE-F-318, University of Tokyo, Faculty of Economics, February, available at http://www.e.u-tokyo.ac.jp/cirje/research/dp/2005/2005cf318.pdf

### Conventional signs and abbreviations

used in the following section on monthly statistical data

	data not available
%	per cent
CMPY	change in % against corresponding month of previous year
CCPY	change in % against cumulated corresponding period of previous year (e.g., under the heading 'March': January-March of the current year against January-March
	of the preceding year)
3MMA	3-month moving average, change in % against previous year.
PM	change in % against previous month
PPI	producer price index
p.a.	per annum
mn	million
bn	billion
BGN	Bulgarian lev (1 BGN = 1000 BGL)
CZK	Czech koruna
EUR	Euro, from 1 January 1999
HRK	Croatian kuna
HUF	Hungarian forint
PLN	Polish zloty
RON	Romanian leu (1RON = 10000 ROL)
RUB	Russian rouble (1 RUB = 1000 RUR)
SIT	Slovenian tolar
SKK	Slovak koruna
UAH	Ukrainian hryvnia
USD	US dollar
M0	currency outside banks
M1	M0 + demand deposits
M2	M1 + quasi-money

Sources of statistical data: National statistical offices and central banks; wiiw estimates.

 Please note:
 wiiw Members have free online access to the wiiw Monthly Database Eastern Europe.

 To receive your personal password, please go to <a href="http://mdb.wiiw.ac.at">http://mdb.wiiw.ac.at</a>

### CZECH REPUBLIC: Selected monthly data on the economic situation 2005 to 2006

														(	updated e	nd of Ju	ne 2006)
		2005											2006				
		Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
					.,			- 5								r.	.,
PRODUCTION																	
Industry, total <sup>1)</sup>	real. CMPY	3.6	0.2	6.4	6.3	7.1	5.1	8.9	8.6	8.0	10.1	7.2	16.1	12.0	17.4	3.6	
Industry, total <sup>1)</sup>	real, CCPY	6.1	3.9	4.6	4.9	5.3	5.3	5.7	6.0	6.3	6.6	6.7	16.1	14.1	15.3	12.2	
Industry total <sup>1)</sup>	real 3MMA	3.9	3.4	4.2	6.6	6.2	7.0	7.6	8.5	89	8.5	11.1	11.7	15.3	11.0		
Construction total	real CMPY	3.8	-16.0	-29.6	26.1	19.1	6.0	6.5	94	13.8	6.6	8.6	-12	-8.2	87	-29	
		0.0	10.0	20.0	20.1	10.1	0.0	0.0	0.1	10.0	0.0	0.0	1.2	0.2	0.1	2.0	
LABOUR		4440	4404	4404	4404	4405	4404	4400	4400		4447		4400		4447	4440	
Employees in industry	th. persons	1118	1124	1124	1124	1125	1131	1132	1130	1141	1147	1141	1139	1144	1147	1143	
	tn. persons	555.0	540.5	512.6	494.6	489.7	500.3	505.3	503.4	491.9	490.8	510.4	531.2	528.2	514.8	486.2	463.0
Unemployment rate ?	%	9.6	9.4	8.9	8.6	8.6	8.8	8.9	8.8	8.5	8.4	8.9	9.2	9.1	8.8	8.3	7.9
Labour productivity, industry <sup>2/4</sup>	CCPY	7.0	5.0	5.6	5.9	6.4	6.3	7.0	7.4	7.7	8.0	8.2	14.4	12.0	13.4	10.3	•
Unit labour costs, exch.r. adj.(EUR) <sup>2/4/</sup>	CCPY	5.3	8.1	7.1	6.5	5.7	5.2	4.8	4.5	4.1	3.9	3.5	-2.1	0.0	-1.7	1.0	•
WAGES, SALARIES																	
Industry, gross <sup>2)</sup>	CZK	16320	17665	17618	18603	18570	18238	18058	17943	18184	21464	19629	17992	17284	18814	19588	
Industry, gross <sup>2)</sup>	real, CMPY	2.2	2.8	2.2	3.9	3.4	1.1	5.1	2.7	1.5	2.7	1.5	3.2	3.0	3.6	2.2	
Industry, gross <sup>2)</sup>	USD	709	782	757	781	752	728	750	751	736	865	803	758	726	789	842	
Industry, gross <sup>2)</sup>	EUR	545	593	585	616	618	604	610	612	613	734	677	626	608	657	687	
PRICES																	
Consumer	PM	0.2	-0.1	0.1	0.2	0.6	03	0.0	-0.3	0.9	-0.3	-0.1	14	0.1	-0.1	0.1	0.5
Consumer	CMPY	17	1.5	1.6	13	1.8	17	17	2.0	2.6	2.4	22	20	2.8	2.8	2.8	3.1
Consumer		1.7	1.5	1.0	1.5	1.0	1.7	1.7	17	1.0	1.0	1.0	2.3	2.0	2.0	2.0	2.1
Broducer in industry		0.2	0.2	0.1	0.7	1.0	0.1	1.7	0.2	1.0	1.9	1.9	2.9	2.0	2.0	2.0	2.9
Producer, in industry		0.2	0.2	0.1	-0.7	-0.2	0.1	0.0	0.2	0.4	-0.3	-0.0	1.0	0.2	0.1	0.5	0.5
Producer, in industry	CMPY	7.1	0.4	0.0	4.0	2.1	2.0	1.1	1.0	0.3	0.0	-0.4	0.3	0.3	0.3	0.5	1.0
Ploducer, in Industry	CCPY	1.2	6.9	0.0	0.1	5.5	5.0	4.5	4.1	3.7	3.3	3.0	0.3	0.3	0.3	0.4	0.6
RETAIL TRADE																	
Turnover	real, CMPY	0.7	3.9	2.2	7.6	4.4	1.2	6.9	3.8	3.2	3.4	2.1	6.9	7.8	6.9	5.1	
Turnover	real, CCPY	4.0	3.9	3.5	4.3	4.3	3.9	4.3	4.2	4.1	4.1	3.8	6.9	7.3	7.1	6.6	
FOREIGN TRADE <sup>5)6)</sup>																	
Exports total (fob),cumulated	EUR mn	9252	14456	19587	24747	30269	34887	39990	45761	51505	57699	62911	5701	11299	17830	23416	
Imports total (fob),cumulated	EUR mn	8673	13651	18796	23780	29010	33662	38877	44498	50149	56250	61585	5273	10688	16938	22518	
Trade balance.cumulated	EUR mn	578	806	791	967	1258	1225	1113	1263	1357	1449	1326	428	612	892	898	
Exports to EU-25 (fob), cumulated	EUR mn	7982	12370	16692	21061	25671	29537	33785	38639	43451	48670	52911	4801	9485	14897	19600	
Imports from EU-25 (fob) <sup>7)</sup> , cumulated	EUR mn	6209	9771	13427	16996	20778	24096	27794	31834	35759	39962	43663	3636	7431	11877	15787	
Trade balance with EU-25, cumulated	EUR mn	1773	2599	3265	4065	4893	5442	5991	6805	7692	8709	9248	1165	2054	3020	3813	
EOREIGN EINANCE																	
Current account cumulated <sup>5)</sup>	ELID mn	521	629	217	00	240	720	1096	1270	1096	1697	2070	90	7	0	497	
	EUKIIII	521	020	317	99	-349	-129	-1000	-1370	-1200	-1007	-2070	09	'	0	-407	•
EXCHANGE RATE																	
CZK/USD, monthly average	nominal	23.0	22.6	23.3	23.8	24.7	25.0	24.1	23.9	24.7	24.8	24.4	23.7	23.8	23.8	23.3	22.1
CZK/EUR, monthly average	nominal	30.0	29.8	30.1	30.2	30.0	30.2	29.6	29.3	29.7	29.3	29.0	28.7	28.4	28.6	28.5	28.3
CZK/USD, calculated with CPI <sup>8)</sup>	real, Jan03=100	127.1	128.4	123.9	121.6	117.8	116.0	120.1	119.3	116.1	116.2	118.3	122.6	122.1	121.2	123.3	130.1
CZK/USD, calculated with PPI <sup>8)</sup>	real, Jan03=100	125.3	126.2	121.4	118.4	113.9	111.0	114.5	112.4	106.4	107.3	108.7	111.9	113.7	113.5	115.4	121.6
CZK/EUR, calculated with CPI <sup>8)</sup>	real, Jan03=100	104.6	104.5	103.0	102.8	103.9	103.6	105.5	105.7	105.3	106.5	107.2	109.8	110.9	109.4	109.4	110.9
CZK/EUR, calculated with PPI <sup>8)</sup>	real, Jan03=100	110.3	110.4	108.8	108.0	108.1	107.3	109.1	109.8	108.4	109.9	110.2	111.4	112.5	111.2	111.3	112.6
DOMESTIC FINANCE																	
M0, end of period	CZK bn	240.8	242.9	245.9	248.8	253.2	253.0	252.9	256.3	258.5	262.7	263.8	261.8	264.8	267.3	272.7	
M1, end of period	CZK bn	963.5	972.7	965.5	1007.7	1004.0	1004.2	1028.2	1015.2	1048.5	1078.2	1087.3	1099.9	1103.5	1086.0	1111.0	
M2, end of period	CZK bn	1844.4	1844.9	1882.2	1912.1	1913.0	1908.3	1920.5	1919.2	1933.9	1965.6	1992.1	1989.6	2002.2	2011.2	2051.8	
M2, end of period	CMPY	4.7	5.3	4.7	5.4	5.2	4.8	4.6	4.2	5.0	6.8	8.0	8.9	8.6	9.0	9.0	
Discount rate (p.a.) end of period	%	1.25	1.25	0.75	0.75	0.75	0.75	0.75	0.75	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Discount rate (p.a.),end of period <sup>9)</sup>	real. %	-5.5	-4.9	-4.6	-3,1	-1.9	-1.2	-0.3	-0.2	0.7	1.0	1.4	0.7	0.7	0.7	0.5	-0.5
BUDGET		0.0			0.1			0.0	0.2	•			0	•	•	0.0	0.0
Control gov hudget helenes	074-	0504	0040	00400	07000	2700	10050	10000	05740	15404	004	EC000	2407	F00	15700	10050	10000
Central gov.buuget balance,cum.	CZK mn	-2584	ō249	-22492	-27029	3/63	10259	10008	20/48	12191	201	-၁೮ᲙᲙ୪	3427	-560	15/00	-19950	-12200

1) According to new calculation.

2) Enterprises employing 20 and more persons.

3) Ratio of job applicants to the economically active (including women on maternity leave), calculated with disposable number of registered unemployment.

4) Calculation based on industrial sales index (at constant prices).

5) Based on cumulated national currency and converted with the average exchange rate.

6) Cumulation starting January and ending December each year.

7) According to country of origin.

8) Adjusted for domestic and foreign (US resp. EU) inflation. Values more than 100 mean real appreciation.

### H U N G A R Y: Selected monthly data on the economic situation 2005 to 2006

	(updated end of June 2								ne 2006)								
		2005											2006				
		Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
								0									,
PRODUCTION																	
Industry, total	real, CMPY	0.5	1.8	9.4	13.2	6.5	5.9	12.1	8.9	9.8	7.7	7.7	13.0	11.6	14.0	1.8	
Industry, total	real, CCPY	2.0	1.9	3.8	5.6	5.8	5.8	6.5	6.8	7.2	7.2	7.3	13.0	12.3	12.9	10.0	
Industry, total	real, 3MMA	1.9	3.8	7.9	9.6	8.5	8.0	8.9	10.1	8.8	8.4	9.3	10.7	12.9	9.1		
Construction, total	real, CMPY	21.9	1.5	14.2	8.6	23.5	18.7	13.1	37.0	13.3	17.5	15.0	10.5	-3.2	15.1	-4.8	
LABOUR																	
Employees in industry <sup>1)</sup>	th. persons	771.7	767.9	764.3	760.7	760.7	762.5	759.9	759.2	759.9	756.7	752.8	751.8	752.6	751.4	751.1	
Unemployment <sup>2)</sup>	th. persons	286.8	297.4	300.1	302.9	299.5	298.7	302.5	308.6	308.3	305.4	309.9	317.6	326.5	323.6	318.5	309.4
Unemployment rate <sup>2)</sup>	%	6.9	7.1	7.2	7.2	7.1	7.1	7.2	7.3	7.3	7.2	7.3	7.5	7.8	7.7	7.5	7.3
Labour productivity, industry <sup>1)</sup>	CCPY	4.0	4.3	6.5	8.6	9.0	9.1	10.0	10.3	10.5	10.6	10.7	17.0	16.0	16.1	12.9	
Unit labour costs, exch.r. adj.(EUR) <sup>1)</sup>	CCPY	11.2	8.5	4.8	1.9	2.1	1.5	0.5	-0.1	-0.7	-1.1	-1.7	-9.5	-9.4	-10.1	-8.6	
WAGES, SALARIES																	
Total economy, gross <sup>1)3)</sup>	HUF	144875	150942	150008	155911	155668	151352	148438	150339	152714	175837	179843	195625	157271	162315	162142	
Total economy, gross <sup>1)3)</sup>	real CMPY	4 7	2.9	2.9	6.5	2.8	37	3.2	3.9	3.3	3.9	20	3.4	60	51	57	
Total economy, gross <sup>1)3)</sup>	USD	774	812	783	786	761	740	747	750	729	825	844	945	747	748	750	
Total economy, gross <sup>1)3)</sup>	FUR	594	616	604	619	625	614	607	611	607	700	712	780	625	622	611	•
Industry, gross <sup>1)</sup>	FUR	564	605	591	624	610	595	607	598	585	714	663	592	588	622	590	
DDICES	2011				021	0.0							002		022	000	•
Consumer	DM	0.4	0.7	0.0	0.6	0.2	0.0	0.4	0.2	0.0	0.2	0.0	0.1	0.2	0.6	0.7	1.0
Consumer		0.4	2.5	2.0	2.6	20	2.7	-0.4	2.7	2.0	2.2	0.0	0.1	0.2	0.0	0.7	1.0
Consumer		3.2	3.5	3.9	3.0	3.0	3.7	2.0	3.7	3.2	3.5	3.5	2.1	2.0	2.3	2.5	2.0
Broducer in industry	DM	0.0	0.0	0.0	0.5	0.0	0.4	0.1	0.0	0.0	0.4	0.0	2.7	2.0	1.0	2.J	2.5
Producer, in industry		0.0	0.0 5.0	5.3	5.2	5.0	-0.4	3.4	0.0	0.0	0.4 / 1	1.5	13	4.4	5.4	5.8	53
Producer, in industry	CODY	3.1	10	13	J.Z 4.5	1.6	4.2	J.4 1 1	13	4.1	4.1	4.5	4.0	4.4	17	5.0	5.0
	0011	0.0	ч. <b>0</b>	4.5	7.5	4.0	4.0		4.0	4.5	<del>.</del>	ч.0	4.0	4.0	4.7	0.0	0.0
		4.0	7.0		7.0		- 4	~ ~	7.4		7.0	0.5	7.5	5.0		0.4	
Turnover	real, CMPY	1.8	1.2	2.6	1.2	6.8	5.1	6.2	7.4	6.8	7.0	3.5	7.5	5.9	3.4	6.1	•
lurnover	real, CCPY	2.5	4.3	3.8	4.5	5.0	5.0	5.1	5.4	5.6	5.7	5.5	7.5	6.7	5.4	5.6	
FOREIGN TRADE <sup>4/3</sup>																	
Exports total (fob), cumulated	EUR mn	7052	11195	15266	19305	23755	27553	31373	36202	40645	45570	49760	4123	8284	13277	17610	•
Imports total (cif), cumulated	EUR mn	7446	11709	16201	20397	24952	29193	33456	38374	43166	48338	52670	4282	8695	13919	18442	
Trade balance, cumulated	EUR mn	-394	-514	-935	-1092	-1196	-1640	-2083	-2172	-2521	-2768	-2909	-159	-411	-642	-832	
Exports to EU-25 (tob), cumulated	EUR mn	5570	8743	11879	14979	18347	21247	24075	27702	31147	34922	37950	3176	6349	10084	13332	•
Imports from EU-25 (cif) <sup>6</sup> , cumulated	EUR mn	5164	8106	11111	14040	17174	20146	22943	26298	29538	32965	35760	2830	5803	9389	12325	•
Trade balance with EU-25, cumulated	EUR mn	406	637	768	939	1173	1101	1132	1404	1608	1956	2190	347	546	695	1007	•
FOREIGN FINANCE																	
Current account, cumulated	EUR mn		-1442			-3150			-4988			-6525			-1442		
EXCHANGE RATE																	
HUF/USD, monthly average	nominal	187.2	185.9	191.7	198.3	204.6	204.6	198.8	200.6	209.4	213.0	213.0	207.1	210.6	216.9	216.3	205.5
HUF/EUR, monthly average	nominal	243.8	245.0	248.2	252.0	249.0	246.4	244.4	245.9	251.7	251.1	252.7	250.9	251.6	260.8	265.3	262.5
HUF/USD, calculated with CPI7)	real, Jan03=100	127.7	128.4	124.8	121.5	118.0	117.5	119.8	117.7	112.5	111.6	112.1	114.5	112.6	109.5	109.5	116.5
HUF/USD, calculated with PPI <sup>7)</sup>	real, Jan03=100	115.8	115.9	112.3	109.5	106.1	104.4	106.7	103.6	97.6	97.7	98.2	100.5	100.6	99.3	99.6	105.0
HUF/EUR, calculated with CPI7)	real, Jan03=100	105.0	104.6	103.7	102.6	104.0	105.0	105.3	104.4	101.9	102.5	101.5	102.6	102.2	98.8	97.2	99.3
HUF/EUR, calculated with PPI <sup>7)</sup>	real, Jan03=100	101.9	101.5	100.7	99.8	100.7	101.1	101.6	101.3	99.3	100.2	99.5	100.0	99.5	97.3	96.0	97.2
DOMESTIC FINANCE																	
M0, end of period <sup>8)</sup>	HUF bn	1320.6	1376.0	1403.5	1426.1	1456.7	1466.8	1475.2	1491.4	1532.7	1570.7	1600.2	1551.4	1555.5	1622.7	1663.9	1661.5
M1, end of period <sup>8)</sup>	HUF bn	4029.4	4195.0	4219.1	4390.4	4417.1	4436.1	4533.7	4643.4	4692.1	4960.0	5188.5	4863.8	4959.2	5318.0	5323.1	5363.7
Broad money, end of period <sup>8)</sup>	HUF bn	9752.0	9959.7	10166.1	10275.2	10253.9	10363.9	10469.0	10621.1	10673.6	10915.6	11232.1	11226.4	11356.4	11926.7	11780.5	11777.5
Broad money, end of period <sup>8)</sup>	CMPY	11.3	14.2	15.2	15.9	14.4	14.0	13.2	14.5	14.1	14.4	14.6	16.2	16.5	19.7	15.9	14.6
NBH base rate (p.a.),end of period	%	8.3	7.8	7.5	7.3	7.0	6.8	6.3	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
NBH base rate (p.a.),end of period <sup>9)</sup>	real, %	5.0	2.6	2.1	1.9	1.9	2.4	2.8	2.1	1.8	1.8	1.4	1.6	1.5	0.6	0.2	0.7
BUDGET																	
Central gov.budget balance,cum.	HUF bn	-379.0	-373.1	-589.0	-680.5	-798.6	-741.3	-769.0	-780.9	-738.7	-744.7	-545.0	-144.4	-440.6	-682.7	-794.2	-859.7

1) Economic organizations employing more than 5 persons.

2) According to ILO methodology, 3-month averages comprising the two previous months as well.

3) Increase of wages in January 2005 due to payment of one month extra salary in state sector (in January instead of December).

4) Based on cumulated national currency and converted with the average exchange rate.

5) Cumulation starting January and ending December each year.

6) According to country of dispatch.

7) Adjusted for domestic and foreign (US resp. EU) inflation. Values more than 100 mean real appreciation.

8) According to ECB monetary standards.

### POLAND: Selected monthly data on the economic situation 2005 to 2006

														(	updated e	end of Ju	ne 2006)
		2005											2006				
		Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
					-			-									
PRODUCTION																	
Industry <sup>1)</sup>	real, CMPY	2.4	-3.7	-1.1	0.9	6.9	2.6	4.8	5.9	7.6	8.5	9.5	9.7	10.2	16.5	5.7	19.1
Industry <sup>1)</sup>	real, CCPY	3.5	0.8	0.3	0.4	1.5	1.7	2.1	2.5	3.1	3.6	4.1	9.7	10.0	12.3	10.6	12.3
Industry <sup>1)</sup>	real, 3MMA	0.8	-1.0	-1.4	2.2	3.5	4.8	4.5	6.1	7.3	8.5	9.2	9.8	12.3	10.8	13.7	
Construction <sup>1)</sup>	real, CMPY	13.1	-3.9	-17.7	21.8	29.9	17.3	6.5	10.5	6.8	5.8	8.2	-7.9	-3.4	15.7	4.1	13.5
LABOUR																	
Employees <sup>1)</sup>	th. persons	4745	4743	4754	4756	4770	4772	4776	4788	4798	4804	4799	4862	4861	4870	4889	4901
Employees in industry <sup>1)</sup>	th. persons	2422	2423	2426	2423	2427	2422	2424	2428	2434	2436	2430	2457	2458	2464	2468	2471
Unemployment, end of period	th. persons	3094.5	3052.6	2957.8	2867.3	2827.4	2809.0	2783.3	2760.1	2712.1	2722.8	2773.0	2866.7	2865.9	2822.0	2703.6	2583.0
Unemployment rate <sup>2)</sup>	%	19.4	19.3	18.8	18.3	18.0	17.9	17.7	17.6	17.3	17.3	17.6	18.0	18.0	17.8	17.2	16.5
Labour productivity, industry <sup>1)</sup>	CCPY	2.6	-0.1	-0.7	-0.6	0.5	0.6	1.0	1.4	2.0	2.5	3.0	8.0	8.3	10.5	8.8	10.4
Unit labour costs, exch.r. adj.(EUR) <sup>1)</sup>	CCPY	17.8	21.2	20.4	19.9	18.6	17.3	16.2	15.6	14.9	14.4	13.0	1.9	1.7	-0.7	1.1	0.3
WAGES, SALARIES																	
Total economy, gross <sup>1)</sup>	PLN	2411	2481	2471	2424	2513	2507	2481	2484	2539	2678	2789	2471	2526	2614	2570	2550
Total economy, gross <sup>1)</sup>	real. CMPY	-2.4	-1.4	-1.3	0.6	3.1	2.0	1.3	0.3	5.1	6.2	1.2	3.2	4.3	5.1	3.4	4.4
Total economy, gross <sup>1)</sup>	USD	788	813	771	737	753	737	755	777	779	795	858	782	796	811	804	836
Total economy, gross <sup>1)</sup>	EUR	605	617	595	580	619	612	613	633	647	674	723	646	666	675	656	655
Industry, gross <sup>1)</sup>	EUR	616	625	597	580	630	617	618	637	639	697	738	648	678	681	661	661
DDICES																	
	DM	0.1	0.1	0.4	03	0.2	0.2	0.1	0.4	0.4	0.2	0.2	0.2	0.0	0.1	07	0.0
Consumer		-0.1	3.4	3.0	2.5	-0.2	-0.2	-0.1	1.9	1.6	-0.2	-0.2	0.2	0.0	-0.1	0.7	0.5
Consumer		1.0	3.4	3.0	2.5	3.1	2.8	2.7	2.6	2.5	23	2.2	0.0	0.7	0.4	0.7	1.0
Broducer in industry	DM	4.0	0.5	0.7	0.2	0.1	2.0	0.1	2.0	2.5	2.5	2.2	0.0	0.0	0.0	1.5	0.4
Producer, in industry		-0.0	0.0	0.7	-0.2	0.5	0.2	0.1	-0.5	-0.1	0.1	-0.7	0.2	-0.1	0.7	1.5	23
Producer, in industry		1.0	3.5	2.9	-0.5	1.0	1.5	-0.2	-0.5	-0.5	-0.4	0.2	0.0	0.7	0.5	0.0	1.0
	0011	4.0	0.0	2.0	2.1	1.0	1.5	1.5	1.1	0.5	0.0	0.7	0.5	0.5	0.0	0.5	1.2
		10		47.4				5.0	• •					40.4	40.4	40.0	44.0
	real, CMPY	-1.6	-3.8	-17.4	5.5	8.8	3.2	5.6	2.9	5.7	6.4	6.2	8.6	10.1	10.4	13.6	14.0
	real, CCPY	1.0	-0.4	-5.9	-4.1	-1.9	-1.0	-0.2	0.1	0.6	1.2	1.5	8.6	9.6	9.4	10.1	11.0
FOREIGN TRADE																	
Exports total (fob), cumulated	EUR mn	10584	16357	22299	27751	33973	39693	45260	51872	58747	65512	71720	6346	12806	20137	26726	
Imports total (cif), cumulated	EUR mn	11599	18272	24899	31378	38292	44740	51247	58688	66233	73941	81018	6937	14214	22383	29394	
Trade balance, cumulated	EUR mn	-1015	-1915	-2600	-3628	-4319	-5047	-5986	-6816	-7485	-8428	-9299	-590	-1408	-2246	-2668	
Exports to EU-25 (fob), cumulated	EUR mn	8189	12783	17413	21605	26151	30557	34696	39694	45078	50508	55149	5133	10049	15850	20925	•
Imports from EU-25 (cif) <sup>3</sup> , cumulated	EUR mn	7622	12075	16583	20887	25376	29705	33752	38544	43498	48559	52853	4272	8773	14112	18459	•
Trade balance with EU-25, cumulated	EUR mn	567	708	829	718	774	852	944	1149	1580	1948	2296	861	1275	1739	2466	
FOREIGN FINANCE																	
Current account, cumulated	EUR mn	-811	-1048	-1042	-1720	-1539	-1786	-2167	-2404	-2730	-3138	-3497	-76	-719	-1177	-1331	
EXCHANGE RATE																	
PLN/USD, monthly average	nominal	3.060	3.049	3.205	3.291	3.336	3.399	3.287	3.195	3.260	3.367	3.252	3.160	3.174	3.223	3.198	3.049
PLN/EUR, monthly average	nominal	3.984	4.021	4.151	4.183	4.060	4.097	4.045	3.925	3.926	3.972	3.856	3.825	3.794	3.875	3.919	3.894
PLN/USD, calculated with CPI <sup>6)</sup>	real, Jan03=100	125.3	124.9	118.6	116.0	114.1	111.3	114.4	116.9	114.7	111.7	115.9	118.5	117.8	115.3	116.0	122.7
PLN/USD, calculated with PPI <sup>6)</sup>	real, Jan03=100	121.0	120.4	114.3	111.5	110.3	107.1	110.0	109.7	104.8	103.1	106.4	108.6	109.8	108.8	110.1	115.9
PLN/EUR, calculated with CPI <sup>6)</sup>	real, Jan03=100	102.9	101.5	98.4	97.8	100.4	99.2	100.2	103.2	103.5	102.2	104.8	106.1	106.6	103.9	102.8	104.4
PLN/EUR, calculated with PPI <sup>6)</sup>	real, Jan03=100	106.3	105.1	102.3	101.5	104.5	103.5	104.5	106.9	106.3	105.4	107.7	107.9	108.4	106.4	106.0	107.2
DOMESTIC FINANCE																	
M0, end of period	PLN bn	50.5	51.4	53.2	52.9	53.8	55.3	55.2	55.3	55.8	55.9	57.2	55.3	56.3	58.4	61.3	61.1
M1, end of period <sup>7)</sup>	PLN bn	178.2	181.4	176.5	189.6	188.0	185.7	193.3	192.5	195.9	202.5	208.0	204.5	211.5	209.7	223.8	
M2, end of period <sup>7)</sup>	PLN bn	364.3	371.8	376.4	382.5	379.1	379.7	386.2	390.5	395.3	396.7	402.5	397.2	404.1	408.1	412.3	420.0
M2, end of period	CMPY	7.7	9.3	7.9	11.0	8.8	9.2	9.9	11.4	6.9	11.2	9.8	10.3	10.9	9.8	9.5	9.8
Discount rate (p.a.),end of period	%	7.0	6.5	6.0	6.0	5.5	5.3	5.3	4.8	4.8	4.8	4.8	4.8	4.5	4.3	4.3	4.3
Discount rate (p.a.),end of period <sup>8)</sup>	real, %	3.7	4.2	5.1	6.5	5.5	5.3	5.5	5.3	5.7	5.2	4.5	4.4	3.8	3.3	2.5	1.9
BUDGET												-					
Central gov, budget balance. cum	PI N mn	-8884	-12726	-13651	-18134	-18248	-17331	-18537	-17782	-20649	-22272	-27495	772	-6716	-9275	-10070	-14592
		0001								200.0		200		00	02.0		

1) Enterprises employing more than 9 persons.

2) Ratio of unemployed to the economically active.

3) Based on cumulated national currency and converted with the average exchange rate.

4) Cumulation starting January and ending December each year.

5) According to country of origin.

6) Adjusted for domestic and foreign (US resp. EU) inflation. Values more than 100 mean real appreciation.

7) Revised according to ECB monetary standards.

### S L O V A K REPUBLIC: Selected monthly data on the economic situation 2005 to 2006

														(1	updated e	nd of Jur	ne 2006)
		2005											2006				
		Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
PRODUCTION												I			10 -		
Industry, total	real, CMPY	0.0	-3.1	5.7	1.9	1.7	4.9	4.5	5.4	4.1	5.8	8.7	7.3	4.9	16.5	3.5	•
Industry, total	real, CCPY	2.3	0.3	1.7	1.7	1.7	2.1	2.4	2.8	2.9	3.2	3.6	7.3	6.1	9.7	8.1	•
Industry, total	real, 3MMA	0.3	0.7	1.3	3.0	2.8	3.6	4.9	4.7	5.1	6.1	7.2	7.0	9.7	8.4		•
Construction, total	real, CMPY	7.7	8.1	18.1	18.8	25.2	17.3	15.1	20.7	9.4	15.8	0.5	4.6	19.9	18.0	11.1	•
LABOUR																	
Employment in industry	th. persons	562.1	568.4	574.7	579.3	582.2	583.0	585.7	583.2	585.8	587.5	579.6	556.3	557.7	559.4	561.1	
Unemployment, end of period	th. persons	379.4	368.6	344.2	330.8	325.4	322.4	318.7	327.8	322.2	322.6	333.8	342.4	337.3	329.3	315.6	302.6
Unemployment rate <sup>1)</sup>	%	13.1	12.7	11.9	11.3	11.1	11.0	10.9	11.2	10.9	10.9	11.4	11.8	11.7	11.4	11.0	10.6
Labour productivity, industry	CCPY	-0.9	-2.9	-1.7	-1.7	-1.6	-1.3	-1.0	-0.6	-0.3	0.1	0.6	8.5	7.1	11.0	9.7	
Unit labour costs, exch.r. adj.(EUR)	CCPY	21.9	22.7	17.9	16.8	15.8	14.1	13.4	12.5	12.1	11.4	10.6	-0.6	-3.3	-5.7	-3.2	
WAGES, SALARIES																	
Industry, gross	SKK	17730	17527	16869	17637	18572	17636	17751	17727	18471	21515	19949	17781	17311	18401	17893	
Industry, gross	real, CMPY	16.6	6.5	1.4	5.1	2.9	1.7	3.8	2.7	3.6	3.2	3.1	0.6	-6.5	0.5	1.5	
Industry, gross	USD	606	607	558	575	587	547	564	565	571	656	625	573	553	590	586	
Industry, gross	FUR	466	459	431	452	482	454	459	461	475	556	527	474	463	491	479	
DDICES	2011				.02	.02					000	02.					•
PRICES	DM	0.2	0.1	0.0	0.0	0.2	0.2	0.1	0.2	1 1	0.0	0.1	0.1	0.6	0.0	0.2	0.4
Consumer		0.3	-0.1	0.2	0.0	0.5	-0.5	-0.1	0.2	1.1	0.0	0.1	2.1	0.0	0.0	0.5	0.4
Consumer	CMPT	2.7	2.5	2.7	2.4	2.5	2.0	2.0	2.2	3.3	3.4	3.7	4.1	4.4	4.5	4.5	4.8
Consumer Des dueses in industry	CUPY	2.9	2.8	2.7	2.7	2.0	2.5	2.5	2.4	2.5	2.0	2.7	4.1	4.3	4.3	4.4	4.5
Producer, in industry	PM	0.3	0.7	0.8	0.7	1.0	0.6	0.8	0.5	0.5	1.8	-0.6	1.4	1.4	0.7	0.7	•
Producer, in industry	CMPY	2.1	2.6	3.5	4.0	4.8	5.3	5.6	5.8	5.7	1.4	7.0	8.7	9.9	9.9	9.8	•
Producer, in industry	CCPY	2.4	2.5	2.7	3.0	3.3	3.6	3.8	4.1	4.2	4.5	4.7	8.7	9.3	9.5	9.6	•
RETAIL TRADE <sup>2)</sup>																	
Turnover	real, CMPY	12.5	8.1	6.8	9.6	8.0	7.5	11.7	12.7	14.4	12.3	6.3	6.6	6.5	10.0	8.6	
Turnover	real, CCPY	10.1	9.4	8.8	9.0	8.8	8.6	9.0	9.4	9.9	10.1	9.7	6.6	6.6	7.7	7.9	
FOREIGN TRADE <sup>3)4)5)</sup>																	
Exports total (fob),cumulated	EUR mn	3575	5593	7633	9710	11954	13968	16067	18486	20975	23583	25773	2171	4443	7131	9483	
Imports total (fob),cumulated	EUR mn	3736	5939	8184	10428	12765	14903	17012	19501	22165	24878	27751	2408	4952	7755	10390	
Trade balance,cumulated	EUR mn	-161	-346	-551	-717	-811	-935	-945	-1015	-1190	-1295	-1978	-238	-509	-624	-907	
Exports to EU-25 (fob), cumulated	EUR mn	3181	4942	6674	8445	10284	12015	13751	15816	17958	20184	22015	1922	3897	6224		
Imports from EU-25 (fob) <sup>6)</sup> , cumulated	EUR mn	2637	4204	5825	7470	9174	10725	12220	14053	15963	17894	19778	1519	3181	5123		
Trade balance with EU-25, cumulated	EUR mn	544	738	849	975	1110	1290	1532	1763	1996	2290	2237	404	716	1101		
FOREIGN FINANCE																	
Current account, cumulated <sup>3)</sup>	EUR mn	-90	-199	-364	-972	-1309	-1495	-1586	-1765	-1949	-2146	-3288	-294	-509	-742		
EXCHANGE RATE	nominal	20.2	28.0	20.2	20.7	21.6	22.2	21.5	21.4	22.4	22.0	21.0	21.0	21.2	21.2	20.5	20.5
SKK/USD, monthly average	nominal	29.3	20.9	20.2	20.0	29.5	20.0	20.7	29.5	20.0	20 7	31.9	27.5	27.4	27.5	27 4	29.0
		140.0	142.0	125.0	124.1	120.0	107.1	100.0	100.0	105.5	104.0	120.0	124.4	122.0	122.6	125 7	141.0
	real, Janu3-100	142.3	142.9	100.9	104.1	130.3	127.1	129.2	120.0	120.0	124.9	129.0	104.4	100.0	104.7	100.7	141.2
SKK/USD, calculated with PPI	real, Janu3-100	120.0	129.3	123.3	112.9	120.4	117.4	142 5	112.0	112.7	114.0	117.0	120.9	123.5	124.7	120.0	100 4
SKK/EUR, calculated with CPI		117.0	110.9	112.0	113.0	114.7	110.0	113.5	115.9	113.7	114.3	110.7	120.5	121.2	120.7	120.5	120.4
SKK/EUR, calculated with PPI'	real, Janu3=100	113.2	112.7	110.5	111.7	114.0	113.4	114.3	115.0	113.7	110.5	118.4	120.3	121.9	122.1	122.3	•
DOMESTIC FINANCE																	
M0, end of period <sup>6</sup>	SKK bn	101.5	102.8	105.2	106.3	108.1	110.1	111.4	112.6	113.6	114.9	119.8	129.1	129.8	130.4	131.9	
M1, end of period <sup>3</sup>	SKK bn	427.3	410.8	403.9	420.9	428.5	421.7	433.2	443.0	445.8	464.4	486.0	488.1	503.9	496.3	496.1	•
M2, end of period <sup>9</sup>	SKK bn	719.8	716.1	730.2	721.3	726.1	731.5	738.1	744.1	751.0	751.7	786.0	789.7	798.9	806.9	819.1	•
M2, end of period <sup>o</sup>	CMPY	5.8	7.6	8.3	9.0	6.5	5.9	5.9	6.1	7.3	6.4	7.4	9.8	11.0	12.7	12.2	•
Discount rate (p.a.),end of period <sup>9)</sup>	%	4.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.5	3.5	4.0
Discount rate (p.a.),end of period <sup>9)10)</sup>	real, %	1.9	0.4	-0.5	-0.9	-1.7	-2.2	-2.5	-2.6	-2.5	-4.1	-3.7	-5.2	-6.3	-5.8	-5.8	•
BUDGET																	
Central gov.budget balance, cum.	SKK mn	-1108	2799	6388	-3858	-1149	1922	-5065	-8107	-5115	-7553	-33886	12083	6347	157	180	-11700

1) Ratio of disposable number of registered unemployment calcu

2) According to NACE (52 - retail trade), excluding VAT.

3) Based on cumulated national currency and converted with the average exchange rate.

4) Cumulation starting January and ending December each year.

5) From January 2005 excluding value of goods for repair and after repair.

6) According to country of origin.

7) Adjusted for domestic and foreign (US resp. EU) inflation. Values more than 100 mean real appreciation.

8) According to ECB methodology.9) Corresponding to the 2-week limit rate of NBS.

### S L O V E N I A: Selected monthly data on the economic situation 2005 to 2006

														(1	updated e	nd of Jun	e 2006)
		2005											2006				
		Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Industry total <sup>1)</sup>	real CMPY	-22	-16	3.0	61	7.0	39	0.9	26	33	76	61	73	83	72	0.5	
Industry, total <sup>1)</sup>	real CCPV	-2.2	-1.0	0.0	1 0	2.8	3.0	27	2.0	2.8	7.0	3.5	73	7.8	7.6	5.8	
Industry, total <sup>1)</sup>	real 3MMA	1.1	1.0	2.0	1.5	2.0	13	3.6	12.1	6.2	73	77	7.5	7.0	53	0.0	•
Construction total <sup>2)</sup>	real CMPY	-13.2	23	0.3	16.0	13.2	1.5	-1.2	-4.7	_8.2	8.6	13.2	-30	7.0	1.0	-3.2	
		10.2	2.0	0.0	10.0	10.2	1.0	1.2	4.7	0.2	0.0	10.2	0.0	1.1	1.0	0.2	
Employment total	th porcons	807.4	800 5	812.2	<b>81/1 8</b>	816 1	813.5	812.7	816.1	817 5	818 3	813.6	812.5	81/1 1	817.3	810.0	
Employees in industry	th persons	240.8	240.7	240.5	2/0 0	240.4	230.2	238.3	238.1	238.3	238.1	235.8	235.1	23/ 0	017.3	019.9	
	th persons	240.0	240.7	240.5	240.3	240.4	233.2	200.0	230.1	230.3	230.1	233.0	255.1	204.9	01/	00.0	•
Linemployment, end of period	ui. persolis	10.3	10.2	10.1	05.0	00.3	10.1	10.0	10.0	10.3	10.3	10.2	10.5	10.4	10.1	0.0	•
Labour productivity industry	CCPV	20	10.2	2.0	3.5	3.0 / 1	10.1	10.0	10.0	10.5	5.0	5.3	10.5	10.4	10.1	5.5	•
Linit labour costs exch r adi (EUR)	CCPV	2.3	1.0	2.0	2.6	4.1	4.J	4.2	4.5	4.4	13	0.4	2.5	33	3.4	•	•
	COPT	2.2	4.5	5.2	2.0	1.5	1.1	1.4	1.4	1.5	1.5	0.4	-2.5	-5.5	-0.4	•	•
		000.0	074 7	000 4	074.0	074 7	074.4	070.0	077.4	070 5		000 5	004.0	077.4	005 7	070.0	
Total economy, gross	th. SII	262.9	2/1./	269.4	2/1.8	2/1./	2/1.4	279.0	2//.4	279.5	314.0	290.5	281.6	2//.4	285.7	279.9	
I otal economy, gross	real, CMPY	1.8	1.9	1.9	3.8	2.7	1.6	3.2	1.3	1.6	6.9	-1.5	2.8	3.2	3.2	1.2	•
I otal economy, gross	USD	1427	1497	1454	1442	1381	1364	1432	1420	1403	1545	1437	1423	1384	1432	1429	•
l otal economy, gross	EUR	1097	1133	1124	1134	1134	1133	1165	1158	1167	1310	1213	11/5	1158	1192	1168	•
Industry, gross	EUR	959	1019	983	1008	998	993	1042	1028	1036	1221	1060	1061	1021	1078	1026	•
PRICES																	
Consumer	PM	0.6	1.1	0.0	0.3	0.1	0.7	-0.6	1.0	0.2	-0.5	0.0	-0.5	0.4	0.8	0.8	0.9
Consumer	CMPY	2.6	3.1	2.7	2.2	1.9	2.3	2.1	3.2	3.1	2.1	2.3	2.4	2.2	1.9	2.7	3.2
Consumer	CCPY	2.4	2.7	2.7	2.6	2.5	2.4	2.4	2.5	2.5	2.5	2.5	2.4	2.3	2.2	2.3	2.5
Producer, in industry	PM	0.3	0.0	0.3	-0.3	0.0	-0.2	0.3	0.3	0.2	0.1	0.4	-0.1	0.6	0.4	0.3	0.1
Producer, in industry	CMPY	4.1	3.8	3.6	2.6	2.4	2.0	2.1	1.9	1.8	1.8	1.8	1.3	1.6	2.0	2.0	2.4
Producer, in industry	CCPY	4.5	4.3	4.1	3.8	3.6	3.3	3.2	3.0	2.9	2.8	2.7	1.3	1.4	1.6	1.7	1.9
RETAIL TRADE																	
Turnover	real, CMPY	4.4	7.1	2.8	9.3	11.7	7.2	14.5	8.2	8.0	18.9	14.3	8.4	10.0	9.4	8.2	
Turnover	real, CCPY	6.7	6.8	5.7	6.5	7.4	7.4	8.2	8.2	8.2	9.2	9.7	8.4	9.2	9.3	9.0	
FOREIGN TRADE <sup>5)6)</sup>																	
Exports total (fob), cumulated	EUR mn	2073	3318	4514	5719	7012	8201	9184	10516	11802	13156	14314	1231	2489	3975	5259	
Imports total (cif), cumulated	EUR mn	2224	3579	4845	6119	7466	8686	9877	11328	12703	14263	15728	1245	2616	4253	5554	
Trade balance total, cumulated	EUR mn	-151	-261	-331	-400	-455	-485	-693	-812	-901	-1107	-1414	-14	-127	-278	-294	
Exports to EU-25 (fob), cumulated	EUR mn	1477	2314	3114	3953	4819	5623	6235	7123	7987	8901	9688	894	1784	2812	3681	
Imports from EU-25 (cif) <sup>7)</sup> , cumulated	EUR mn	1727	2780	3800	4908	6025	7087	8018	9205	10311	11514	12722	964	2014	3331	4364	
Trade balance with EU-25, cumulated	EUR mn	-251	-466	-686	-955	-1205	-1464	-1783	-2082	-2324	-2613	-3034	-70	-229	-518	-683	
FOREIGN FINANCE																	
Current account, cumulated	EUR mn	-53	-125	-166	-151	-87	-108	-38	-18	3	-92	-301	74	-22	-141	-114	
EXCHANGE RATE																	
SIT/USD, monthly average	nominal	184.2	181.5	185.3	188.5	196.7	198.9	194.9	195.3	199.3	203.2	202.2	197.9	200.4	199.5	195.9	187.6
SIT/EUR, monthly average	nominal	239.7	239.7	239.7	239.6	239.6	239.6	239.6	239.6	239.6	239.6	239.6	239.6	239.6	239.6	239.6	239.6
SIT/USD, calculated with CPI <sup>8)</sup>	real. Jan03=100	119.6	121.8	118.6	117.0	112.2	111.2	112.3	111.9	109.6	107.8	108.8	109.7	108.5	109.4	111.2	117.2
SIT/USD, calculated with PPI <sup>8)</sup>	real, Jan03=100	113.5	113.6	110.6	108.8	104.3	101.6	103.2	100.4	96.2	95.8	97.1	98.1	99.0	99.8	100.8	105.4
SIT/EUB, calculated with CPI <sup>8)</sup>	real .lan03=100	98.3	98.8	98.5	98.6	98.6	99.2	98.5	99.0	99.1	98.7	98.4	98.1	98.3	98.7	98.9	99.8
SIT/EUR, calculated with PPI <sup>8)</sup>	real, Jan03=100	99.8	99.1	99.1	99.0	98.7	98.2	98.1	97.9	97.7	98.0	98.3	97.5	97.8	97.7	97.4	97.4
M0 end of period <sup>9)</sup>	SIT bn	164.4	166 1	173 1	17/ 0	170.2	170.0	174.6	177.6	186.0	177 1	187.2	202.7	206.8	207.5	220.0	
M1, and of period <sup>9)</sup>	SIT bit	104.4	100.1	1022.2	1054.9	1074.7	1057.4	1051.6	1069.4	100.0	1072 4	1151 4	1692.0	200.0	207.5	1756.6	
Broad money, end of period <sup>9)</sup>		1000.1	1012.3	1032.2	1034.0	1014.1	1037.4	1001.0	1000.4	1079.1 1161 F	10/3.4	1131.4	3408 5	3524.1	3570.0	3533 /	•
Broad money, end of period <sup>9)</sup>		+000.0 7 1	4034.0 Q N	+1+U.4 Q.0	-1010.3 6 A	-10J1.Z	1.0+0+1 // 2	4000.3 5 F	41JJJ.0 6.1	+104.0 7 F	4240.9 Q A	42J0.Z	J430.0	JJ24.7	_12.8	_1/ 7	•
Refinancing rate (n.a.) and stragt		1.1 2.0F	2 0.U	0.Z 2.50	0.4 3 50	4.0 3 50	4.J 2.E0	2 50	3 50	2 50	2 50	0.0 275	- 14.U 2 7E	- 13.3	3.05	-14.1 3.05	•
Refinancing rate (p.a.),end of period	70 roal <sup>0/</sup>	0.20 .0 P	J.20	.01	0.00	J.UU 1 1	J.JU 1 F	J.JU 1 /	0.00 1 A	3.50 1 7	J.JU 17	3.75	3.13 9.4	10	J.20 1 0	1.20	•
DUDOCT	iedi, %	-0.0	-0.5	-U. I	0.9	1.1	1.5	1.4	1.0	1.7	1.7	1.9	2.4	1.9	1.Z	1.Z	
BUDGET						e · -	<b>~</b> ~ /		/= r					10.0			
General gov.budget balance, cum.	SII bn	-16.6	-34.9	-53.3	-70.3	-84.7	-82.1	-62.3	-47.5	-49.9	-36.9	-/1.8	16.2	-18.0	-31.4	•	

1) Data in 2005 according to new methodology introduced in July 2005.

2) Effective working hours, construction put in place of enterprises with 20 and more persons employed.

Ratio of unemployed to the economically active.
 Break 2004/2005 - until December 2004 without small privat enterprises (with 1 or 2 employees).

5) Based on cumulated national currency and converted with the average exchange rate.

6) Cumulation starting January and ending December each year.

7) According to country of dispatch.

8) Adjusted for domestic and foreign (US resp. EU) inflation. Values more than 100 mean real appreciation.

9) From 2006 harmonized ECB methodology.

### B U L G A R I A: Selected monthly data on the economic situation 2005 to 2006

														(	updated e	nd of Jur	ie 2006)
		2005											2006				
		Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
PRODUCTION																	
Industry, total <sup>1)</sup>	real. CMPY	4.7	6.9	9.3	6.5	6.2	7.0	6.5	1.7	9.2	7.8	6.3	7.6	8.9	5.7	3.3	
Industry, total <sup>1)</sup>	real, CCPY	6.4	6.6	7.3	7.1	6.9	7.0	6.9	6.3	6.6	6.7	6.7	7.6	8.3	7.3	6.3	
Industry, total	real, 3MMA	6.6	7.0	7.6	7.3	6.6	6.6	5.0	5.8	6.3	7.7	7.2	7.5	7.3	5.9		
LABOUR																	
Employees total	th. persons	2197	2214	2237	2247	2264	2285	2279	2266	2260	2261	2234	2201	2213	2237		
Employees in industry	th. persons	718	719	722	720	718	720	719	715	714	713	708	699	701	702		
Unemployment, end of period	th. persons	485.5	471.3	449.7	427.2	411.6	405.5	399.0	388.5	386.5	383.9	397.3	432.3	426.2	401.5	378.9	355.3
Unemployment rate <sup>2)</sup>	%	13.1	12.7	12.1	11.5	11.1	10.9	10.8	10.5	10.4	10.4	10.7	11.7	11.5	10.8	10.2	9.6
Labour productivity, industry <sup>1)</sup>	CCPY	1.8	2.0	2.5	2.4	2.2	2.2	2.2	1.7	2.0	2.0	2.0	10.6	11.1	9.7		
Unit labour costs, exch.r. adj.(EUR)1)	CCPY	1.7	0.1	-0.4	0.3	1.3	2.0	2.3	3.1	3.4	3.5	4.0	9.2	9.5	9.4		
WAGES, SALARIES																	
Total economy, gross	BGN	293	310	310	319	314	317	310	324	317	321	340	324	322	340		
Total economy, gross	real, CMPY	1.8	2.5	2.8	3.4	3.4	3.4	1.5	1.4	0.5	-0.9	-0.2	3.4	1.0	0.9		
Total economy, gross	USD	195	209	205	207	195	195	195	203	195	193	206	201	197	209		
Total economy, gross	EUR	150	159	159	163	161	162	159	166	162	164	174	166	165	174		
Industry, gross	EUR	153	164	160	162	168	164	162	170	168	166	175	167	168	179		•
PRICES																	
Consumer	PM	0.9	0.3	1.1	-0.5	-1.3	0.1	0.6	1.4	1.2	1.0	0.8	0.8	3.0	0.3	0.4	0.0
Consumer	CMPY	3.9	4.3	5.1	4.6	5.1	3.9	5.0	5.4	6.5	6.9	6.5	6.6	8.7	8.7	8.1	8.5
Consumer	CCPY	3.6	3.8	4.2	4.2	4.4	4.3	4.4	4.5	4.7	4.9	5.0	6.6	7.6	8.0	8.0	8.1
Producer, in industry <sup>1)</sup>	PM	0.8	2.4	1.1	-0.6	0.7	1.1	0.2	1.3	0.8	0.5	0.7	-0.6	1.9	0.7	2.1	•
Producer, in industry <sup>1)</sup>	CMPY	6.4	7.5	7.7	5.9	7.2	6.6	6.6	7.0	6.3	7.7	9.8	8.7	9.9	8.1	9.1	•
Producer, in industry'	CCPY	5.6	6.2	6.6	6.5	6.6	6.6	6.6	6.6	6.6	6.7	7.0	8.7	9.3	8.9	8.9	•
FOREIGN TRADE <sup>3)4)</sup>																	
Exports total (fob), cumulated	EUR mn	1288	2081	2828	3565	4386	5245	6027	6800	7716	8596	9454	816	1692	2667	3656	•
Imports total (cif), cumulated	EUR mn	1839	2962	4075	5301	6592	7864	9137	10404	11831	13290	14682	1233	2457	3933	5344	•
Trade balance, cumulated	EUR mn	-551	-881	-1247	-1736	-2206	-2618	-3110	-3604	-4115	-4694	-5228	-418	-764	-1266	-1688	•
FOREIGN FINANCE																	
Current account, cumulated <sup>5)</sup>	EUR mn	-370	-551	-790	-1010	-1116	-1136	-1174	-1346	-1685	-2111	-2531	-439	-682	-1108	-1473	
EXCHANGE RATE																	
BGN/USD, monthly average	nominal	1.503	1.482	1.512	1.543	1.608	1.625	1.591	1.597	1.628	1.660	1.650	1.614	1.638	1.627	1.597	1.532
BGN/EUR, monthly average	nominal	1.956	1.956	1.956	1.956	1.956	1.956	1.956	1.956	1.956	1.956	1.956	1.956	1.956	1.956	1.956	1.956
BGN/USD, calculated with CPI <sup>6)</sup>	real, Jan03=100	128.6	129.8	127.9	124.8	118.1	116.5	119.1	119.0	117.8	117.6	119.8	122.5	124.0	124.6	126.3	131.6
BGN/USD, calculated with PPI <sup>6)</sup>	real, Jan03=100	118.9	121.8	119.6	116.9	113.0	111.6	113.3	111.1	107.2	107.3	109.1	109.8	112.0	113.5	116.7	•
BGN/EUR, calculated with CPI <sup>6)</sup>	real, Jan03=100	105.8	105.6	106.3	105.6	104.2	104.2	104.6	105.6	106.7	107.9	108.5	109.6	112.6	112.5	112.3	112.2
BGN/EUR, calculated with PPI <sup>6)</sup>	real, Jan03=100	104.7	106.4	107.3	106.8	107.3	108.1	107.9	108.8	109.2	110.0	110.6	109.1	110.8	111.2	112.7	
DOMESTIC FINANCE																	
M0, end of period <sup>7</sup>	BGN mn	4414	4487	4652	4756	4848	5058	5147	5213	5134	5096	5396	5092	5080	5113	5190	5323
M1, end of period')	BGN mn	10201	11331	10552	10790	11167	11494	11713	11566	11792	11729	12443	11840	12058	12371	12430	13080
Broad money, end of period <sup>()</sup>	BGN mn	20739	23205	22004	22440	22778	23211	23663	23746	23939	24010	25260	24633	25125	25558	25771	26776
Broad money, end of period	CMPY	23.9	38.1	28.0	29.0	25.4	26.4	29.0	26.6	27.0	27.3	23.9	20.0	21.1	10.1	17.1	19.3
BNB base rate (p.a.),end of period	%	1.9	1.9	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.5	2.6
BNB base rate (p.a.),end of period	real, %	-4.3	-5.2	-5.3	-3.6	-4.7	-4.3	-4.3	-4.6	-4.0	-5.2	-7.0	-5.9	-6.9	-5.3	-6.1	
BUDGET																	
Central gov.budget balance,cum.	BGN mn	45.9	400.9	623.6	926.7	1007.7	1001.5	1198.9	1339.3	1488.3	1611.8	1333.9	137.0	457.7	619.9	·	

1) According to new calculation for industrial output and prices. Output data based on survey for enterprises with 10 and more persons.

2) Ratio of unemployed to the economically active.

3) Based on cumulated national currency and converted with the average exchange rate.

4) Cumulation starting January and ending December each year.

5) Based on national currency and converted with the exchange rate.

6) Adjusted for domestic and foreign (US resp. EU) inflation. Values more than 100 mean real appreciation.

7) According to ECB methodology.

### R O M A N I A: Selected monthly data on the economic situation 2005 to 2006

														(	updated e	end of Jur	ie 2006)
		2005											2006				
		Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
								0								·	
PRODUCTION																	
Industry, total <sup>1)</sup>	real, CMPY	4.1	4.4	9.0	-4.0	-0.7	-6.2	2.3	2.7	1.7	1.6	2.2	5.0	4.2	4.3	0.5	
Industry, total <sup>1)</sup>	real, CCPY	6.5	5.7	6.6	4.3	3.4	1.9	1.9	2.0	2.0	2.0	2.0	5.0	4.6	4.5	3.4	
Industry, total	real, 3MMA	5.7	5.8	2.9	1.2	-3.7	-1.6	-0.5	2.2	2.0	1.8	2.8	3.8	4.5	3.0		
LABOUR																	
Employees total	th. persons	4500.7	4535.7	4551.0	4560.3	4577.8	4567.5	4563.2	4554.6	4538.0	4537.6	4501.2	4556.2	4565.6	4582.0	4589.7	
Employees in industry	th. persons	1757.0	1749.4	1740.0	1731.5	1722.2	1712.6	1699.4	1690.3	1680.6	1670.7	1652.3	1684.0	1680.8	1678.5	1666.7	
Unemployment, end of period	th. persons	558.6	537.8	511.3	495.9	488.8	489.3	499.0	493.8	499.7	504.8	523.0	548.0	554.6	545.9	512.3	
Unemployment rate <sup>2)</sup>	%	6.3	6.1	5.8	5.6	5.6	5.6	5.7	5.6	5.7	5.7	5.9	6.2	6.3	6.2	5.9	
Labour productivity, industry	CCPY	8.4	7.6	8.2	6.1	5.4	4.3	4.5	4.8	5.0	5.2	5.4	8.8	8.6	8.4	7.5	
Unit labour costs, exch.r. adj.(EUR)	CCPY	17.6	17.4	17.2	20.4	22.0	24.0	24.8	25.0	25.1	24.6	24.0	9.9	10.2	12.0	12.1	
WAGES SALARIES												-					
Total economy gross	RON	874 9	920.3	973.0	9/11 7	943.6	957 N	963.0	965.0	974.0	1017 0	1121 0	1100.0	1017 0	1101.0	1120.0	
Total economy, gross	real CMPY	73	5.0	6.6	69	7 1	77	900.0 Q 2	83	7.4	7.8	6.0	6.2	7 1	10.4	7.7	
Total economy, gross		310	334	347	330	318	323	338	337	325	328	364	366	3/13	377	202	
Total economy, gross	FUR	238	253	268	260	261	268	275	275	271	278	306	302	287	314	321	
Industry gross	EUR	230	200	200	200	201	200	213	273	262	210	296	262	268	302	301	•
	LOIX	224	240	200	204	200	200	217	211	202	200	200	202	200	502	501	
PRICES				4.0			4.0				4.0	0.5	4.0				
Consumer	PM	0.6	0.3	1.8	0.3	0.3	1.0	0.1	0.6	0.9	1.2	0.5	1.0	0.2	0.2	0.4	0.6
Consumer	CMPY	8.9	0.7	10.0	10.0	9.7	9.3	0.9	0.0	0.1	8.7	0.0	8.9	0.0	8.4	0.9	7.3
Consumer Draduaar in industry	CCPY	8.9	0.0	9.1	9.3	9.4	9.4	9.3	9.2	9.1	9.0	9.0	8.9	8.7	0.0	8.Z	8.0
Producer, in industry	PM	-0.0	10.0	2.5	C.U	10.2	0.7	1.2	0.7	1.7	0.7	-0.1	1.4	1.1	0.4	1.0	•
Producer, in industry	CMPY	12.8	12.0	12.3	11.4	10.4	9.3	0.0	0.1	0.2	0.0	9.0	9.8	11.7	11.3	10.0	•
Producer, in industry	CCPY	13.7	13.3	13.1	12.7	12.3	11.9	11.5	11.1	10.8	10.6	10.5	9.8	10.7	10.9	10.8	
RETAIL TRADE																	
Turnover	real, CMPY	25.3	18.7	24.1	14.8	14.2	14.2	22.6	11.7	9.2	12.4	30.3	25.4	26.7	24.0	16.0	
Turnover	real, CCPY	19.2	19.0	20.3	19.2	18.4	17.5	18.2	17.4	16.5	16.0	17.6	25.4	26.0	25.1	22.6	
FOREIGN TRADE <sup>3)</sup>																	
Exports total (fob), cumulated	EUR mn	3163	5095	6889	8663	10527	12530	14394	16466	18407	20436	22255	1774	3881	6215	8077	
Imports total (cif), cumulated	EUR mn	4063	6669	9223	11899	14740	17521	20220	23066	26144	29462	32569	2420	5287	8575	11488	
Trade balance, cumulated	EUR mn	-900	-1575	-2333	-3236	-4213	-4990	-5826	-6600	-7737	-9025	-10313	-646	-1406	-2360	-3411	
Exports to EU-25 (fob), cumulated	EUR mn	2298	3581	4799	5969	7275	8590	9745	11153	12477	13935	15043	1237	2681	4256	5473	
Imports from EU-25 (cif), cumulated	EUR mn	2558	4140	5767	7495	9288	11025	12611	14366	16340	18417	20251	1456	3142	5160	6947	
Trade balance with EU-25, cumulated	EUR mn	-260	-558	-968	-1526	-2013	-2436	-2866	-3213	-3863	-4482	-5208	-219	-462	-904	-1474	
FOREIGN FINANCE																	
Current account, cumulated	EUR mn	-564	-980	-1581	-2178	-2872	-2952	-3248	-4363	-4891	-6023	-6891	-391	-1018	-1564	-2486	
EXCHANGE RATE																	
RON/USD, monthly average	nominal	2.824	2.757	2.804	2.851	2.969	2.961	2.851	2.865	2.993	3.097	3.084	3.006	2.963	2.918	2.849	2.745
RON/EUR, monthly average	nominal	3.676	3.634	3.629	3.618	3.614	3.566	3.506	3.510	3.598	3.653	3.659	3.645	3.540	3.507	3.491	3.507
RON/USD, calculated with CPI <sup>4)</sup>	real, Jan03=100	139.9	142.7	141.9	140.2	134.8	136.0	140.7	139.3	134.2	132.3	134.1	137.8	139.9	141.7	144.4	150.8
RON/USD, calculated with PPI <sup>4)</sup>	real, Jan03=100	143.7	146.4	146.2	145.1	139.6	139.2	145.1	141.3	134.2	132.6	133.6	137.6	143.4	146.1	150.7	
RON/EUR, calculated with CPI <sup>4)</sup>	real, Jan03=100	115.3	116.4	118.2	118.7	119.1	121.8	123.8	123.8	121.8	121.5	121.6	123.5	127.1	128.2	128.5	128.7
RON/EUR, calculated with PPI <sup>4)</sup>	real, Jan03=100	126.7	128.3	131.3	132.6	132.7	135.0	138.4	138.5	136.9	136.0	135.5	136.9	142.0	143.4	145.7	
DOMESTIC FINANCE																	
M0, end of period	RON mn	7658	7786	8750	8689	9582	9790	9985	10341	10258	10348	11386	10977	11165	11480	12471	12595
M1, end of period	RON mn	14777	15465	16376	17146	18495	19162	20456	20964	21289	21133	24551	23560	23508	23843	24593	26080
M2, end of period	RON mn	65213	67957	69096	71966	74200	74080	76745	80152	81098	81402	86332	85727	85677	87528	88034	91747
M2, end of period	CMPY	42.2	41.1	43.9	46.7	46.5	41.1	39.9	41.3	41.3	43.1	33.9	35.8	31.4	28.8	27.4	27.5
Discount rate (p.a.),end of period <sup>5)</sup>	%	15.7	10.8	8.4	8.0	8.0	8.0	8.0	8.3	7.7	7.5	7.5	7.5	7.5	8.5	8.5	8.5
Discount rate (p.a.),end of period <sup>5)6)</sup>	real, %	2.6	-1.6	-3.4	-3.1	-2.2	-1.2	-0.7	0.1	-0.4	-1.2	-1.9	-2.1	-3.8	-2.5	-1.9	
BUDGET																	
Central gov.budget balance.cum.	RON mn	-521.9	-673.4	-5.5	-235.2	-725.9	-255.6	50.7	403.0	1363.8	653.2	-2182.9	850.9	851.4	472.6	674.3	
												-					

Note: On 1 July 2005, the new Romania leu was introduced (1 RON = 10000 ROL). Data in this table are presented in new leu RON.

1) Enterprises with more than 50 (in food industry 20) employees.

2) Ratio of unemployed to economically active population as of December of previous year, from 2004 as of December 2003.

3) Cumulation starting January and ending December each year.

4) Adjusted for domestic and foreign (US resp. EU) inflation. Values more than 100 mean real appreciation.

5) Reference rate of RNB.

### C R O A T I A: Selected monthly data on the economic situation 2005 to 2006

														(	updated e	end of Jur	ie 2006)
		2005											2006				
		Feb	Mar	Apr	Mav	Jun	Jul	Aua	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Mav
PRODUCTION																	
Industry, total <sup>1)</sup>	real, CMPY	-1.5	-2.9	6.3	8.3	12.3	5.4	4.7	6.0	7.2	6.4	3.1	5.9	7.3	6.0	-3.2	4.1
Industry, total <sup>1)</sup>	real, CCPY	2.2	0.3	1.9	3.2	4.8	4.9	4.9	5.0	5.2	5.3	5.1	5.9	6.6	6.4	3.7	3.8
Industry, total <sup>1)</sup>	real, 3MMA	0.3	0.6	3.8	9.0	8.7	7.5	5.4	6.0	6.5	5.5	5.0	5.3	6.4	3.1	2.3	
Construction, total,effect.work.time <sup>1)</sup>	real, CMPY	-11.0	-6.9	-6.6	-6.7	-3.6	-3.6	5.5	5.6	8.8	8.0	4.4	13.3	17.1	16.9		
LABOUR																	
Employment total	th. persons	1396.8	1400.6	1407.4	1420.1	1434.2	1444.5	1446.3	1436.9	1429.7	1425.4	1417.2	1406.6	1403.8	1406.7	1416.3	
Employees in industry	th. persons	278.4	278.7	279.1	279.7	279.4	279.6	279.5	278.5	279.4	279.1	277.4	273.1	274.6	274.8	275.5	
Unemployment, end of period	th. persons	330.2	329.0	320.3	308.3	297.6	293.2	291.0	294.3	300.6	305.5	307.9	314.2	313.6	311.3	302.4	287.3
Unemployment rate <sup>2)</sup>	%	19.1	19.0	18.5	17.8	17.2	16.9	16.8	17.0	17.4	17.7	17.8	18.3	18.3	18.1	17.6	16.8
Labour productivity, industry <sup>1)</sup>	CCPY	0.7	-1.2	0.3	1.6	3.1	3.2	3.3	3.4	3.6	3.7	3.5	5.2	6.8	7.0	4.7	
Unit labour costs, exch.r. adj.(EUR) <sup>1)</sup>	CCPY	6.6	8.3	6.3	5.3	3.5	2.9	3.0	2.8	2.8	2.9	3.1	4.3	2.6	2.5		
WAGES SALARIES																	
Total economy, gross	HRK	5965	6280	6112	6358	6348	6199	6306	6202	6184	6588	6409	6386	6326	6650		
Total economy gross	real CMPY	11	14	-0.4	3.2	14	-0.5	2.0	0.8	0.4	11	0.8	22	24	2.8	•	•
Total economy, gross	USD	1032	1111	1069	1104	1057	1023	1055	1025	1008	1054	1028	1046	1032	1090	•	•
Total economy, gross	FUR	794	842	826	868	868	849	858	835	837	893	867	866	863	908	•	•
Industry, gross	EUR	726	775	758	800	795	780	797	783	768	833	796	795	797	850		
DDICES																	
Consumer	PM	11	0.7	-0.2	0.0	-0.1	-0.2	0.1	0.5	0.7	0.2	0.5	0.6	0.8	0.1	0.2	0.5
Consumer	CMPY	3.3	3.9	3.5	2.8	2.9	3.1	3.1	3.8	4.1	3.8	3.6	3.9	3.6	3.0	3.5	4.0
Consumer	CCPY	3.0	3.3	3.4	3.2	3.2	3.2	3.2	3.2	3.3	3.4	3.3	3.9	3.8	3.5	3.5	3.6
Producer, in industry	PM	0.3	0.3	0.3	0.1	-0.2	0.8	0.1	0.8	0.5	0.1	-0.3	0.5	0.0	0.3	0.0	0.0
Producer in industry	CMPY	5.1	5.0	4.5	2.3	2.4	2.3	1.5	21	1.8	2.3	27	3.2	3.6	3.6	3.4	3.7
Producer, in industry	CCPY	47	4.8	4.8	4.3	4.0	3.7	3.4	3.2	3.1	3.0	3.0	3.2	34	3.5	3.4	3.5
							•						•	••••			
Turnover	real CMPY	-33	35	2.0	6.6	73	2.0	51	36	17	2.0	29	3.6	53	03	15	
Turnover	real CCPY	-0.0	0.7	11	23	3.2	3.0	3.1	33	3.1	2.0	2.5	3.6	0.0 4 4	17	23	
		1.2	0.1		2.0	0.2	0.0	0.1	0.0	0.1	0.1	0.2	0.0		1.7	2.0	
Exports total (fab), aumulated	FUD ma	060	1400	0107	0677	2224	2010	4404	E166	5707	6407	7000	605	1101	1065	2547	
Imports total (cif), cumulated	EUR IIII	1902	2002	2127	5706	7126	9417	4494	10014	10246	12656	14022	1124	2152	2679	2047 5022	•
Trade balance, cumulated	EUR IIII	860	1601	2274	3028	3802	1/08	5106	57/8	6600	72/0	7830	520	2155	1713	2486	•
Exports to ELI-25 (fob) sumulated	EUR mn	-000	020	13/7	1726	213/	2/03	2856	3040	3500	4021	1400	-323	-302	1201	1600	•
Imports from FLI-25 (cif), cumulated	EUR mn	1184	2021	2803	3750	4689	5568	6310	7163	8037	8030	94400	643	1474	2449	3300	•
Trade balance with ELI-25 cumulated	EUR mn	-531	-1052	-1545	-2033	-2555	-3075	-3454	-3921	-4438	-4909	-5389	-251	-680	-1158	-1709	·
	Lorentin	001	1002	1010	2000	2000	0010	0101	0021	1100	1000	0000	201	000	1100	1100	
Current account aumulated <sup>5)</sup>	FUD ma		1540			2606			121			1064					
	EUKIIII		-1042		•	-2090			-404		•	-1904				•	•
		F 700	5 050	c 747	F 750	0.007	0.000	F 075	0.050	0.400	0.050	0.004	0.400	0.400	0.000	F 074	5 005
HRK/USD, monthly average	nominal	5.780	5.653	5./1/	5.759	0.007	0.062	5.9/5	0.052	0.130	0.252	0.234	6.102	6.129	5.098	5.974	5.695
HRK/EUR, monthly average		100 4	125.0	100.6	1.321	116.6	114.9	1.348	1.432	110.0	1.3/5	112 1	1.3/8	1.321	1.325	117.2	1.213
HRK/USD, calculated with CPI?		145 4	120.0	122.0	121.9	100.5	109.0	100.1	105.9	101.7	101.4	101.0	110.4	115.5	106.1	107.2	123.0
HRK/USD, calculated with PPI*	real, Janu3=100	110.4	101.4	114.7	114.4	109.5	108.0	100.0	100.2	101.7	101.4	101.0	103.4	105.4	100.1	107.3	113.0
HDK/EUD, calculated with DD <sup>(0)</sup>	real Jan03-100	100.5	101.4	101.7	102.0	102.5	102.3	101.0	100.5	101.7	102.2	102.2	103.2	104.5	104.2	104.0	103.1
	Teal, Janu5-100	101.5	101.7	102.0	103.9	105.5	104.2	105.5	102.4	103.1	105.5	102.9	102.7	103.9	105.0	105.5	104.5
DOMESTIC FINANCE		40.0			44.5	40.0	40.4	40.7	40.0	44.0	44 7	40.0	44 7	44.0	40.4	40.7	
Mu, end of period		10.9	11.1	11.4	11.5	12.2	13.1	12.7	12.2	11.9	11./	12.2	11./	11.0	12.1	12.7	•
Ring and a period		34.4 120 0	34.5 120.0	34.8 127.0	30.0	30.7 140.6	38.3 115.6	37.8 151.4	30.7	37.1	31.2 1 E A 7	38.8	37.2	31.2 161 7	38.2	39.2 155 1	•
Broad money, end of period		130.9	130.0	137.9	140.0	142.0	0.040 0 /	101.1	0.101.0	102.0	104.7	104.0 10 F	102.0	101.7 0.2	100.0	100.1	
Discount rate (n a ) and of pariod		0.0	5.1 1 E	1.0	10.5	10.1	5.4 1 5	10.4	5.5 1 E	10.2	10.0	10.5	9.4 1 F	9.J 1 F	11.3	12.0	1 F
Discount rate (p.a.),end of period	/0 // real	4.0 _n r	4.5 _n r	4.5 0.0	4.0	4.J 2.1	4.5	4.0 २.0	4.0 21	4.0 97	4.0	4.0 1 R	4.0	4.J N 0	4.J N 0	4.0	4.0 0.8
	10ai, /0	-0.0	-0.0	0.0	2.2	2.1	2.2	0.0	2.4	2.1	2.2	1.0	1.0	0.9	0.9	1.1	0.0
Central gov, hudget balance		3160	6125	6076	6720	670/	7602	6557	500F	6004	6036	6074	000	1740	2002	3007	
Sontrai gov. Sudget Salarioo, talli.		-0400	-0100	-0210	-0102	-0104	-1000	-0001	-0330	-0334	-0300	-0014	-000	-1144	-2000	-0001	

1) In business entities with more than 20 persons employed.

2) Ratio of unemployed to the economically active population.

3) Based on cumulated national currency and converted with the average exchange rate.

4) Cumulation starting January and ending December each year.

5) Calculated from USD to NCU to EUR using the official average exchange rate.

6) Adjusted for domestic and foreign (US resp. EU) inflation. Values more than 100 mean real appreciation.

7) Deflated with annual PPI.

8) Consolidated central government budget. Including extra-budgetary funds.

### R U S S I A: Selected monthly data on the economic situation 2005 to 2006

														(	updated e	end of Jur	ne 2006)
		2005											2006				
		Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
PRODUCTION																	
Industry, total <sup>1)</sup>	real, CMPY	4.1	3.8	3.7	1.1	6.1	4.0	3.1	5.1	3.8	6.1	4.9	4.4	1.0	4.1	4.8	10.6
Industry, total <sup>1)</sup>	real, CCPY	2.9	3.2	3.3	2.8	3.4	3.5	3.4	3.6	3.6	3.9	4.0	4.4	2.7	3.1	3.6	5.0
Industry, total <sup>1)</sup>	real, 3MMA	3.2	3.9	2.8	3.6	3.7	4.4	4.1	4.0	5.0	4.9	5.2	3.4	3.1	3.3	6.5	
Construction, total	real, CMPY	4.6	4.7	6.1	5.3	7.4	12.9	11.6	10.4	13.6	16.2	15.6	-7.5	-3.5	10.7	12.1	10.9
LABOUR <sup>2)</sup>																	
Employment total	th. persons	66900	67300	67800	68300	68600	68900	69300	69100	68900	68700	68300	67600	67600	68000	68400	
Unemployment, end of period	th. persons	6056	5820	5610	5406	5400	5397	5395	5444	5491	5543	5660	5776	5893	5712	5538	5367
Unemployment rate	%	8.3	8.0	7.6	7.3	7.3	7.3	7.2	7.3	7.4	7.5	7.7	7.9	8.0	7.8	7.5	7.3
WAGES, SALARIES																	
Total economy, gross	RUB	7465	8093	8002	8089	8637	8651	8616	8829	8701	8931	11319	9016	9255	9914	9833	10030
Total economy, gross	real, CMPY	7.8	11.1	9.4	9.2	8.8	9.8	11.6	13.7	12.8	14.0	16.0	10.9	11.5	10.7	11.8	13.2
Total economy, gross	USD	267	293	288	289	303	301	303	311	305	311	393	319	328	356	357	371
Total economy, gross	EUR	205	222	222	228	249	250	246	254	253	263	331	263	274	296	291	291
Industry, gross <sup>3)</sup>	EUR	205	217	224	229	245	251	251	252	259	266	302	257	263	285	286	
PRICES																	
Consumer	PM	1.2	1.3	1.1	0.8	0.6	0.5	-0.1	0.3	0.6	0.7	0.8	2.4	1.7	0.8	0.4	0.5
Consumer	CMPY	12.8	13.3	13.4	13.6	13.3	12.9	12.3	12.2	11.7	11.2	10.9	10.7	11.2	10.7	9.9	9.6
Consumer	CCPY	12.7	12.9	13.0	13.1	13.2	13.1	13.0	12.9	12.8	12.7	12.5	10.7	10.9	10.8	10.6	10.4
Producer, in industry	PM	1.3	2.5	2.5	2.7	0.1	0.5	2.0	2.8	0.9	-0.9	-2.1	0.5	3.3	2.1	0.6	1.8
Producer, in industry	CMPY	22.0	23.5	24.0	24.7	21.4	20.6	20.8	20.5	19.4	16.0	13.4	13.4	15.6	15.1	13.0	12.0
Producer, in industry	CCPY	23.3	23.3	23.5	23.8	23.4	22.9	22.6	22.4	22.1	21.4	20.7	13.4	14.5	14.7	14.3	13.8
RETAIL TRADE																	
Turnover <sup>4)</sup>	real, CMPY	10.6	10.8	13.5	14.4	13.6	12.8	13.1	13.8	12.9	12.2	14.8	10.8	10.1	10.8	10.7	11.6
Turnover <sup>4)</sup>	real, CCPY	10.3	10.5	11.3	11.9	12.2	12.3	12.4	12.6	12.6	12.6	12.8	10.8	10.5	10.6	10.6	10.8
FOREIGN TRADE <sup>5)6)7)</sup>																	
Exports total, cumulated	EUR mn	23253	38274	53627	69547	85395	103059	120528	138178	156521	175258	195673	17292	35829	56088	75880	
Imports total, cumulated	EUR mn	11838	19572	27057	34619	42848	51758	60475	69270	78796	89135	100663	7229	15722	25993	35495	
Trade balance, cumulated	EUR mn	11415	18702	26570	34928	42547	51301	60053	68909	77725	86124	95010	10064	20106	30095	40385	
FOREIGN FINANCE																	
Current account, cumulated <sup>8)</sup>	EUR mn		15461			33281			49473			67695			23250		
EXCHANGE BATE																	
RUB/USD monthly average	nominal	27 995	27 626	27 810	27 951	28 498	28 694	28 480	28 380	28 563	28 763	28 805	28 228	28 195	27 874	27 564	27 065
RUB/EUR, monthly average	nominal	36.381	36.470	35,993	35.485	34.725	34.568	35.015	34.808	34.338	33.951	34,162	34.293	33,733	33.492	33,767	34.524
RUB/USD, calculated with CPI <sup>9)</sup>	real. Jan03=100	136.4	138.9	138.7	139.3	137.3	136.5	136.7	136.1	135.6	136.7	138.1	143.2	145.5	147.6	148.5	152.0
RUB/USD, calculated with PPI <sup>9)</sup>	real, Jan03=100	149.5	153.2	154.6	158.6	155.7	153.4	156.4	156.8	153.4	153.2	150.4	152.7	160.5	165.6	166.6	172.7
RUB/EUR, calculated with CPI <sup>9)</sup>	real, Jan03=100	112.4	113.0	115.4	117.7	120.9	122.0	120.1	120.6	122.9	125.3	125.1	127.9	131.9	133.4	132.0	129.8
RUB/EUR, calculated with PPI <sup>9)</sup>	real, Jan03=100	131.9	133.9	138.6	144.7	147.6	148.5	149.0	153.3	156.2	156.8	152.4	151.4	158.5	162.4	160.9	160.2
DOMESTIC FINANCE																	
M0. end of period	RUB bn	1444.1	1481.7	1565.8	1582.3	1650.7	1701.8	1703.3	1740.7	1752.0	1765.8	2009.2	1875.6	1890.1	1928.8	2027.8	
M1, end of period	RUB bn	2757.1	2859.6	2906.3	2965.6	3144.3	3162.5	3240.8	3371.9	3340.1	3413.2	3858.5	3662.0	3686.7	3855.9	3957.7	
M2, end of period	RUB bn	5344.4	5499.6	5594.0	5743.0	6015.9	6087.4	6286.5	6458.4	6482.7	6604.8	7221.1	7035.6	7155.7	7392.9	7534.2	
M2, end of period	CMPY	30.6	31.2	29.1	31.5	32.4	33.8	37.6	39.3	37.0	35.7	36.3	35.7	33.9	34.4	34.7	
Refinancing rate (p.a.),end of period	%	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	12.0	12.0	12.0	12.0	12.0	12.0
Refinancing rate (p.a.),end of period <sup>10)</sup>	real, %	-7.4	-8.5	-8.9	-9.4	-7.0	-6.3	-6.5	-6.2	-5.3	-2.6	-1.3	-1.3	-3.1	-2.7	-0.9	0.0
BUDGET																	
Central gov.budget balance, cum.	RUB bn	304.4	525.3	621.4	738.2	942.2	1036.5	1172.9	1162.0	1429.6	1636.7	1612.9	221.7	390.8	575.9		
- •													•				

1) Data revised according to new methodology.

2) Based on labour force survey.

3) Manufacturing industry only.

4) Including estimated turnover of non-registered firms, including catering.

5) Based on cumulated USD and converted using the ECB EUR/USD average foreign exchange reference rate.

6) Cumulation starting January and ending December each year, incl. estimates of non-registered imports.

7) Based on balance of payments statistics.

8) Calculated from USD to NCU to EUR using the official average exchange rate.

9) Adjusted for domestic and foreign (US resp. EU) inflation. Values more than 100 mean real appreciation.

### U K R A I N E: Selected monthly data on the economic situation 2005 to 2006

														(1	updated e	end of Jur	ie 2006)
		2005											2006				
		Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
								-									-
PRODUCTION																	
Industry, total	real, CMPY	5.6	6.6	5.1	4.3	-0.9	-2.4	0.9	0.9	2.4	2.0	5.3	-2.9	1.5	1.3	0.5	10.0
Industry, total	real, CCPY	7.3	7.1	6.7	6.2	5.0	3.9	3.5	3.2	3.1	2.9	3.1	-2.9	-0.6	0.2	0.4	2.4
Industry, total	real, 3MMA	6.9	5.8	5.3	2.8	0.3	-0.8	-0.2	1.4	1.8	3.2	1.5	1.3	0.0	1.1	3.9	
LABOUR																	
Employees <sup>1)</sup>	th. persons	11248	11315	11332	11319	11339	11371	11361	11361	11357	11306	11220	11245	11296	11352	11378	11381
Employees in industry <sup>1)</sup>	th. persons	3413	3428	3421	3410	3408	3413	3410	3407	3407	3394	3368	3374	3380	3380	3367	3355
Unemployment, end of period	th. persons	1019.0	1018.4	986.7	918.6	858.3	825.4	800.4	780.6	762.9	809.7	881.5	899.9	923.8	913.7	868.7	805.8
Unemployment rate <sup>2)</sup>	%	3.6	3.6	3.5	3.3	3.0	2.9	2.8	2.8	2.7	2.9	3.1	3.2	3.3	3.2	3.1	2.9
Labour productivity, industry <sup>1)</sup>	CCPY	6.9	6.5	6.1	5.6	4.4	3.4	3.1	2.9	2.8	2.7	3.0	-2.1	0.3	1.3	1.6	3.7
Unit labour costs, exch.r. adj.(EUR) <sup>1)</sup>	CCPY	14.1	14.0	14.9	17.0	20.2	23.2	24.9	26.1	27.2	29.1	30.6	50.8	47.2	46.3	42.2	34.3
WAGES, SALARIES 1)																	
Total economy, gross	UAH	667	722	734	764	823	837	831	856	882	897	1020	865	905	987	984	948
Total economy, gross	real, CMPY	15.4	15.5	16.8	20.2	19.6	20.0	19.7	19.2	23.3	24.3	31.3	22.9	22.6	25.8	24.9	15.6
Total economy, gross	USD	126	136	141	151	163	166	165	170	175	178	202	171	179	195	195	188
Total economy, gross	EUR	97	103	109	119	134	138	134	138	145	150	170	142	150	163	159	147
Industry, gross	EUR	120	130	135	144	156	163	165	166	171	177	188	173	177	194	182	174
PRICES																	
Consumer	PM	10	16	07	0.6	0.6	03	0.0	04	0.9	12	0.9	12	18	-0.3	-0.4	0.5
Consumer	CMPY	13.3	14.7	14 7	14.6	14.4	14.8	14.9	13.9	12.4	12.0	10.3	9.8	10.7	8.6	7.4	7.3
Consumer	CCPY	13.0	13.5	13.8	14.0	14.1	14.2	14.3	14.2	14.0	13.8	13.5	9.8	10.2	9.7	9.1	8.7
Producer, in industry	PM	27	19	2.5	16	-0.8	-1.6	0.7	19	0.0	-0.1	0.3	12	0.3	0.4	14	1.0
Producer, in industry	CMPY	22.4	22.0	21.1	20.5	17.7	15.7	14.7	14.7	12.9	10.4	9.6	10.7	8.1	6.5	5.4	4.7
Producer, in industry	CCPY	22.5	22.3	22.0	21.7	21.0	20.2	19.5	18.9	18.3	17.5	16.8	10.7	9.4	8.4	7.6	7.0
		20.3	18.6	10.2	20.4	21.1	21.8	23.0	23.1	22.4	22.4	23.0	313	28.4	26.5	27.4	27.2
	Teal, COP I	20.3	10.0	19.2	20.4	21.1	21.0	23.0	23.1	22.4	22.4	23.0	51.5	20.4	20.5	21.4	21.2
FOREIGN TRADE				0744				17000				07545	4000		00.15		
Exports total (tob), cumulated	EUR mn	3925	6372	8/14	10909	13174	15436	17693	19998	22430	24909	27545	1933	4041	6645	9055	•
imports total (cir), cumulated	EUR mn	3223	5/16	8103	10298	12877	15343	17986	20591	23243	25981	29034	2241	4895	8116	10792	
I rade balance, cumulated	EUR mn	702	655	611	612	297	93	-293	-592	-813	-1072	-1490	-309	-854	-1472	-1/3/	•
FOREIGN FINANCE																	
Current account, cumulated <sup>57</sup>	EUR mn		1221	•		1727	•	•	2076	•	•	2030		•	-618	•	
EXCHANGE RATE																	
UAH/USD, monthly average	nominal	5.300	5.292	5.190	5.050	5.055	5.053	5.050	5.050	5.050	5.050	5.050	5.050	5.050	5.050	5.050	5.050
UAH/EUR, monthly average	nominal	6.894	6.983	6.714	6.422	6.151	6.090	6.208	6.200	6.070	5.961	5.983	6.101	6.037	6.064	6.180	6.428
UAH/USD, calculated with CPI <sup>7)</sup>	real, Jan03=100	117.2	118.3	120.7	125.0	125.5	125.4	124.8	124.0	124.7	127.2	128.9	129.4	131.5	130.4	128.7	129.4
UAH/USD, calculated with PPI <sup>7)</sup>	real, Jan03=100	126.9	127.7	132.3	138.7	137.5	133.6	133.5	132.2	129.0	130.8	131.8	132.0	134.6	135.0	135.4	136.7
UAH/EUR, calculated with CPI <sup>7)</sup>	real, Jan03=100	96.1	95.9	100.1	105.1	110.2	111.6	109.3	109.4	112.6	116.2	116.4	115.8	118.8	117.5	114.1	110.3
UAH/EUR, calculated with PPI <sup>7)</sup>	real, Jan03=100	111.4	111.3	118.3	125.9	130.0	128.8	126.7	128.7	130.9	133.4	133.2	131.1	132.5	131.9	130.4	126.6
DOMESTIC FINANCE																	
M0, end of period	UAH bn	41.8	43.1	47.6	47.9	51.3	53.8	53.8	55.5	54.9	55.1	60.2	56.8	57.0	58.6	61.0	61.1
M1, end of period	UAH bn	67.1	73.5	76.2	77.6	83.8	84.8	85.5	90.1	88.7	92.7	98.6	92.1	93.6	96.2	97.5	99.8
Broad money, end of period	UAH bn	130.9	140.1	146.5	147.9	156.3	159.1	164.8	171.0	174.8	180.1	194.1	188.8	191.3	195.3	201.2	207.4
Broad money, end of period	CMPY	36.3	38.5	39.4	35.1	37.2	35.9	35.6	31.3	38.5	43.8	54.3	50.1	46.1	39.4	37.4	40.2
Refinancing rate (p.a.),end of period	%	9.0	9.0	9.0	9.0	9.0	9.0	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
Refinancing rate (p.a.),end of period <sup>8)</sup>	real, %	-10.9	-10.7	-10.0	-9.5	-7.4	-5.8	-4.5	-4.5	-3.0	-0.8	-0.1	-1.1	1.3	2.8	3.9	4.5
BUDGET																	
General gov.budget balance, cum.	UAH mn	2042	2931	2252	4007	1735	2959	6907	5816	5309	3216	-7735	2508	2497	380	-856	

1) Excluding small firms.

2) Ratio of unemployed to the economically active.

3) Official registered enterprises.

4) Based on cumulated USD and converted using the ECB EUR/USD average foreign exchange reference rate.

5) Cumulation starting January and ending December each year.

6) Calculated from USD to NCU to EUR using the official average exchange rate.

7) Adjusted for domestic and foreign (US resp. EU) inflation. Values more than 100 mean real appreciation.

### Guide to wiiw statistical services on Central, East and Southeast Europe, Russia and Ukraine

	Source	Type of availability	How to get it	Time of publication	Price
Annual data	Handbook of Statistics 2005	printed	order from wiiw	November 2005	€ 90.00; for Members free of charge
		on CD-ROM (PDF files)	order from wiiw	October 2005	€ 90.00; for Members € 63.00
		on CD-ROM (MS Excel tables + PDF files), plus manual	order from wiiw	October 2005	€ 225.00; for Members € 157.50
	individual chapters	via e-mail (MS Excel tables)	order from wiiw	October 2005	€ 36.00 per chapter;
	computerized wiiw Database	online access	via WSR http://www.wsr.ac.at	continuously	€ 2.70 per data series; for Members € 1.90
Quarterly data (with selected annual data)	Research Report, Special issue	printed	order from wiiw	February and July	€ 70.00; for Members free of charge
		PDF (online or via e-mail)	order from wiiw	February and July	€ 65.00; for Members free of charge
	<i>Monthly Report</i> (2nd quarter)	printed, PDF (online or via e-mail	for wiiw Members only	<i>Monthly Report</i> nos. 10, 11, 12	only available under the
Monthly data	<i>Monthly Report</i> (approx. 40 time series per country)	printed	for wiiw Members only	monthly (11 times a year)	wiiw Service Package for € 2000.00
	Internet	online access	see http://mdb.wiiw.ac.at	continuously	for Members free of charge
Industrial Database		on CD-ROM (MS Excel files)	order from wiiw	June	€ 295.00; for Members € 206.50
Database on FDI	wiiw Database on FDI in Central, East and Southeast Europe, May 2005	printed	order from wiiw	Мау	€ 70.00; for Members € 49.00
		PDF (online or via e-mail) on CD-ROM (tables in HTML, CSV and MS Excel + PDF files), plus bardcopy	order from wiiw order from wiiw	May May	€ 65.00; for Members € 45.50 € 145.00 for Members € 101.50

Orders from wiiw: via wiiw's website at <u>www.wiiw.ac.at</u>, by fax to (+43 1) 533 66 10-50 (attention Ms. Ursula Köhrl) or by e-mail to <u>koehrl@wiiw.ac.at</u>.

## Index of subjects - July 2005 to July 2006

Albania	economic situation	
Bosnia and Herzegovina	economic situation	
Bulgaria	economic situation	
China	direct investment abroad	
	banking	
Croatia	economic situation	
Czech Republic	economic situation	
Estonia	economic situation	
Hungary	economic situation	
	elections	
Kosovo	economic situation	
Latvia	economic situation	
Lithuania	economic situation	
Macedonia	economic situation	
Montenearo	economic situation	
Poland	economic situation	2006/4 2005/10
Romania	economic situation	2005/10
Russia	economic situation	2005/11
Sorbia		2005/11
Slovekie		
Slovenie		
Slovenia		
l urkey		
Ukraine	economic situation	
Region Eastern Europe and CIS	convergence and inflation	
multi-country articles	convergence and labour demand	
and statistical overviews	economic forecast	
	electricity consumption	
	energy intensity	
	energy supplies	
	EU budget	
	exchange rates	
	EDI	2000/7
	arowth measures	2006/2
	input-output analysis	2005/8-9
	land market	2005/7
	Lisbon process	
	trade	
	trade in the Balkans	
	transition	
	welfare state	

The monthly publication *The Vienna Institute Monthly Report* summarizes wiiw's major research topics and provides current statistics and analyses exclusively to subscribers to the wiw Service Package. This information is for the subscribers' internal use only and may not be quoted except with the respective author's permission and express authorization. Unless otherwise indicated, all authors are members of the Vienna Institute's research staff or research associates of wiw.

Economics editor: Leon Podkaminer