

# Monthly Report | 3/09

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## Euro or not? Early lessons from the crisis

BY CHARLES WYPLOSZ\*

### Executive summary

The adoption of the euro has modified the way economic disturbances are transmitted through financial markets, but it has not eliminated these disturbances. The current crisis well illustrates this change.

The enhanced role of fiscal policy as a macroeconomic stabilization tool means that market concerns about debt service are large. The disappearance of the exchange rate means that these concerns directly affect government bond yields, possibly triggering a vicious cycle whereby larger interest rates raise the debt burden, which pushes interest rates further up.

An associated implication is that fears of destabilizing effects may, perhaps, explain why most euro area member governments have made so limited a use of the fiscal policy instrument.

Non euro-area member countries have split into two groups. One group of countries have maintained their pegs vis-à-vis the euro at the cost of sharply increased interest rates. This aggravates the recessionary effect of the financial crisis. Another group of countries have seen their exchange rates depreciate vis-à-vis the euro. By boosting their competitiveness, this alleviates the recessionary effect of the financial crisis. On the other hand, the build-up of large currency mismatches presents many countries with a serious risk of the vicious cycles that led to the Asian crises a decade ago.

These developments serve as a reminder that a fully integrated Single Market works better with a single currency. Mild economic conditions during the first nine years of the euro have translated into a reasonable degree of exchange rate stability, pushing this consideration out of policymakers' attention. The current crisis brings to the fore an old truth and should lead to a rethink.

### Introduction

First and foremost, the euro was created to eliminate the risk of currency crises within the EU. This has been achieved. This success raises two important questions:

- Did the euro completely shield euro area member countries from diverging financial pressure?
- Did the non-euro area members suffer from their situation and, if so, is this a source of concern for the euro area members?

The answers given here are: no and yes.

### Financial turmoil in the euro area: principles

Euro area membership implies that disturbances that normally affect the exchange rate will have to work out their effects through other channels. The range of potential disturbances is unbounded. It includes anything that can alter a country's external competitiveness, the health of domestic financial institutions, the saving/borrowing behaviour of residents, including national governments, political instability, and many more possibilities. The only disturbance that is eliminated is monetary policy, although the effects of the common monetary policy may still be a source of tensions if economic conditions differ widely. The list of potential disturbances is so huge that, in fact, we should expect them to occur routinely. Most of the times, they are small and go therefore largely unnoticed, but it is only a matter of time until the next 'big one' will occur.

The current financial crisis is bound to create tensions. To start with, a good example is that not all banks are equally affected. If large banks suffer

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losses that require some bailout, the home budget is bound to be affected. This in turn raises the question of how large deficits will be financed. Without the common currency, the exchange rate might well depreciate as traders expect that part of the financing will have to come from abroad, which require an improvement in the current account to serve the debt. Note that, initially the exchange rate might appreciate as foreign capital flows in, but it could depreciate instead if foreign investors are strongly concerned about debt service.

In the absence of the exchange rate channel, foreign financing from within the euro area will not eliminate the need to serve the debt and therefore to run a current surplus. The surplus will have to be achieved through a restraint of domestic spending, which will be the natural implication of tax increases or public spending cuts required for debt service. Lower demand, in turn, could exert a moderating effect on prices, which would produce a real depreciation and thus partly mimic the now-impossible nominal depreciation. Demand contraction and relative price decline instead of a depreciation is the normal consequence of having lost the exchange rate instrument.

In addition, however, markets may be concerned that this relatively demanding response might be unpalatable to the government and its citizens. This will affect interest rates on public debt instruments. On the surface of it, this is no different from what would be the case when exchange rates exist, since a depreciation might be accompanied with rising interest rates. Two qualifications are in order, though. First, in the latter case, the interest rate increases will affect all borrowings in the domestic currency, not just those by the government. The single currency thus stands to shield private borrowers from market concerns about debt service. Second, because the government will not be able to depreciate or devalue the currency, debt service may be politically more difficult since it will necessarily involve tax increases or public spending reductions, which may alarm markets and lead to large risk premia. This, in turn, may further destabilize the budget and trigger even larger risk

premia. This shows that vicious cycles may operate with and without exchange rates.

Another aggravating factor is that fiscal policy is the only macroeconomic management tool. This is by design, of course, for eliminating the exchange rate is a way of eliminating beggar-thy-neighbor uses of the exchange rate. On the other hand, this sharpens uncomfortably the choice between fiscal policy inaction and fiscal expansions. In both cases, the deficit is bound to widen and markets may become concerned, imposing higher risk premia no matter what is the chosen course of action.

More examples may be imagined, but the general lesson should be clear: euro area membership simply restricts the freedom of action where market pressure is applied. Market concerns simply adapt to different variables. The concerns may be heightened or lessened by the absence of the exchange rate, but there is no general presumption as to what will the case be. The euro may help but it may be a destabilizing factor. An associated lesson is that fears of destabilizing effects may, perhaps, explain why most euro area member governments have made so limited a use of the fiscal policy instrument.

### **Financial turmoil in the euro area: outcomes and policy responses**

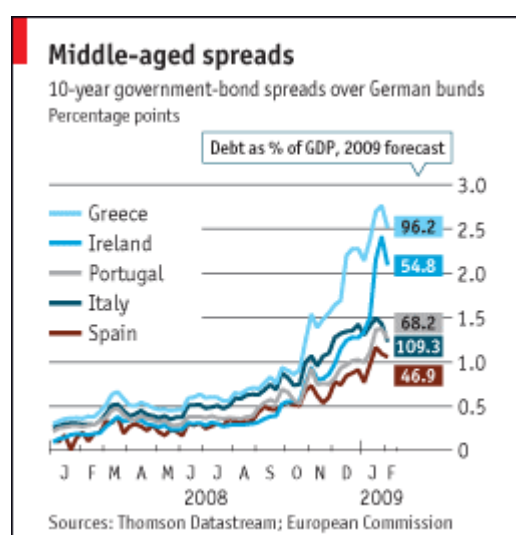
We have witnessed several of these destabilizing forces. The sharp interest rate increases on public debts may have come as a surprise, and they may have been excessive, but they should have been expected. The countries first affected by this phenomenon – Greece, Portugal, Ireland, Italy and Spain – do not necessarily share large deficits and debts but they do have in common large shocks and current account deficits. This suggests that markets look for any evidence of weakness, as is confirmed by the more recent surge in Austrian rates, driven by potential bank losses on lending in non-euro area member countries.

The possibility that this evolution developed in a vicious cycles is very real. The worst-case scenario

would include partial or all-out defaults by governments unable to simply roll-over their existing debts. The consequences on the euro area as a whole need not be drastic, as long as markets distinguish between the monetary union as a whole and particular members. Such a fine distinction, however, might be lost on panicky markets. In this case, the euro might depreciate significantly, which is not necessarily a bad thing when the economy is in recession and inflation is very low, possibly even negative. More damaging would be a contagion to all other interest rates, on private borrowings in the affected countries and on public debts in the other countries.

Figure 1

### Interest rate spreads of public debts



Source: The Economist, 5 February 2009.

Such fears have led to a number of proposals, including the issuance of bonds underwritten by all member governments or the monetization of existing public debts by the European Central Bank (ECB), either directly through purchases or through guarantees. Such moves are bound to carry high costs in the longer run, in the form of moral hazard and reduced central bank credibility. The worst-case scenario is not necessarily the most plausible, so such measures should not be implemented prematurely. Yet preparations are required to allow fast reaction in case of emergency, with a view of incorporating clauses that minimize the moral

hazard component. Examples of such clauses include a requirement that the IMF be involved, along with conditionality, or the imposition of above-market rates to countries that make use of euro area facilities.

### Financial turmoil outside the euro area

The usefulness of the euro is amply demonstrated by the sizeable depreciations that have been observed outside the euro area, as Figure 2 illustrates. With the exception of the Czech Republic and of the countries that peg to the euro, all other countries have seen their nominal exchange rates fall by 20% or more vis-à-vis the euro. The countries that peg to the euro have all had to raise their interest rates to high levels.

The reasons for this pressure are diverse, a further illustration of the vast list of potential disturbances. Particularly unsettling is the fact that the countries that resisted depreciation are facing an additional source of recession because of high interest rates while those that let their exchange rate float benefit from enhanced competitiveness.

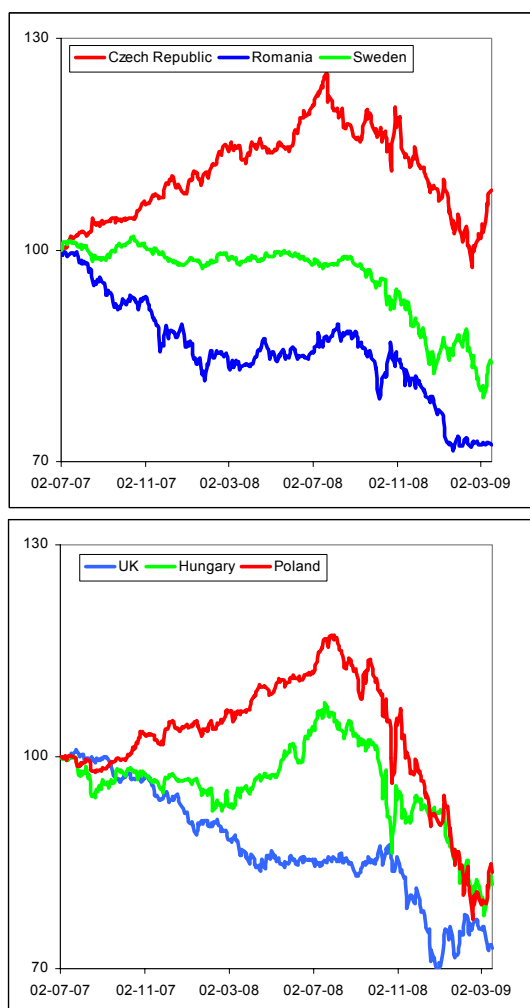
Yet, enhanced competitiveness may come at a cost. This is the case in countries where firms and households have succumbed to the temptation of borrowing in foreign currencies (chiefly the euro and the Swiss franc) at lower nominal rates than on domestic loans. Given that the building of such a currency mismatch has been identified as the key cause of the Asian crisis a decade ago, it is difficult to believe that national authorities have allowed this to develop to any significant extent. It is also surprising that the European Commission and the IMF, both of which carry out regular supervision, have not identified this major source of weakness. It is even more surprising that this has been condoned – in fact encouraged, according to some reports – by the banks that provided the loans.

At any rate, these developments carry important policy implications. First, those countries that intend to maintain a peg vis-à-vis the euro suffer greatly from not being in the euro area. Unsurprisingly, this

may produce a change of heart in the Danish public. More surprising is the continuous refusal by current euro area members to alleviate the plight of the other countries, on the basis of dubious principles.<sup>1</sup> The pressure on banks from outside of these countries that have built up significant exposure is a reminder of the dangers of local financial instability within the EU. The emergency loan to Latvia by the ECB indicates that this danger is not ignored.

Figure 2

**Exchange rate indices (100 = 2 July 2007)**



Source: ECB.

Second, the sharp depreciations reported in Figure 2 are bound to distort competition within the Single Market, at the expense of the euro area countries. In the past, intentional or *de facto* beggar-thy-neighbour policies have translated into political frictions among EU member countries, and there is no reason that this will not be case again this time around. The ECB loan to Hungary shows that this danger is not ignored either.

The main lesson here is simply a reminder of the second main rationale behind the creation of the euro: a fully integrated Single Market works better with a single currency. Mild economic conditions during the first nine years of the euro have translated into a reasonable degree of exchange rate stability, pushing this consideration out of policymakers' attention. The current crisis brings to the fore an old truth and should lead to a rethink. Should countries with an explicit or implicit opt-out be allowed to remain outside the euro area for an indefinite period? Should not the incumbents make efforts to attract new members, for example by overlooking some of the Maastricht criteria? The economic answers to these questions are rather uncontroversial, but political considerations have been so far overwhelming. The costs, present and future, of these considerations may be a silver lining if they prompt policymakers to change their views.

<sup>1</sup> This argument is developed in my Briefing Notes to the European Parliament of 2002 (second quarter), 2005 (third quarter) and 2007 (third quarter).



## Migration from the New to the Old EU Member States: country experiences\*

BY HERMINE VIDOVIC

Over the period 2003-2007 the stock of NMS-8<sup>1</sup> nationals in the EU-15 increased from 840,000 to 1.86 million persons, corresponding to 0.5% of the EU-15 population. The bulk of immigrants (over 60%) has been absorbed by the UK and Ireland, two of the countries that agreed to permit free access to their labour markets for nationals from the new member countries immediately after enlargement. In Ireland the share of NMS-8 migrants in the total population increased from 1.1% in 2004 to 4.1% in 2007, in the UK from 0.2% to 1%. Inflows of migrant workers to Sweden (which also allowed free access to its labour market for NMS nationals) and Denmark (applying moderate transitional rules) remained modest. Germany and Austria, imposing transitional rules, have experienced only a small influx of NMS migrants, but the share in their total population is relatively high, at 0.7% and 1% respectively, in 2007.

Migration from Bulgaria and Romania started already in the pre-accession period; between 2003 and 2007 about 670,000 Romanian and 125,000 Bulgarian nationals went to the EU-15. Spain and Italy became the most favoured destinations. Only a smaller number of NMS-2 migrants emigrated to the UK or Ireland: this was primarily the result of the restricted access to the labour market for Bulgarian and Romanian citizens. The outstanding role of Spain and Italy as destination countries is also reflected in the high shares of Romanian and Bulgarian citizens in the total population of the former countries, accounting for 1.5% and 0.7% respectively. According to LFS figures, overall 1.2 million Romanian nationals and 270,000 Bulgarian nationals were residing in EU-15 countries in 2007.

\* This article is based on a wiiw study that was commissioned by the Austrian Federal Ministry of Economics and Labour.

<sup>1</sup> NMS-8: the new EU member states Czech Republic, Hungary, Poland, Slovakia, Slovenia, Estonia, Latvia and Lithuania. NMS-10: plus Bulgaria and Romania.

Figure 1 illustrates that the highest numbers by far of migrants to the EU-15 originate from Poland and Romania, which show the highest increases in stocks over the period 2003-2007. The shares of emigrants in the population of the sending countries are particularly high in Romania (5.4%), Lithuania (3.7%), Bulgaria (3.6%) and Poland (3.3%), while it is still relatively low in the Czech Republic (1%), Hungary and Slovenia (Figure 2). In 2007 close to 274,000 Bulgarian citizens lived in the EU-15, accounting for 3.6% of Bulgaria's total population.

Figure 1

### NMS-10 nationals residing in EU-15 change in stocks in thousand, 2003-2007

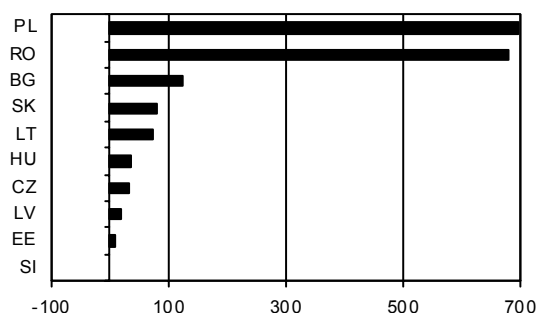
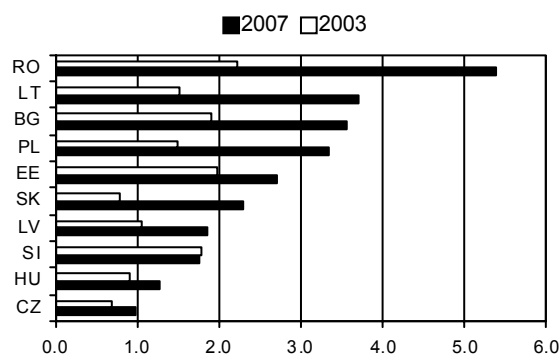


Figure 2

### NMS-10 migrants to the EU-15 in sending countries' population share in %, 2003 and 2007



Source: Eurostat-LFS, wiiw calculations.

In the following we examine the experiences of those receiving countries which allowed free access to their labour markets upon accession (UK, Ireland and Sweden). Developments in the main sending countries (Poland and Romania, but also the Slovak Republic, Hungary, the Czech Republic and Slovenia) are discussed thereafter.

### **United Kingdom**

#### *Migration trends*

The UK agreed to permit free access to its labour market for NMS nationals from 1 May 2004, but obliged them to register with the Home Office under a new 'Workers Registration Scheme' (WRS) and to obtain a worker's registration certificate. Transitional periods were introduced with respect to welfare benefits. As a result the UK experienced unprecedented inflows of migration within a short period of time (Upward, 2008). However, there is no precise estimate on the net inflows of migrants to the UK, because available administrative data record only gross inflows of migrants who enter the official labour force. Taking this caveat into account, over the period 2004-2007 up to one million migrants from the NMS-8 entered the UK (this includes a figure of people who were already in the country but were not registered), of which currently about 600,000 are residing in the UK.

The rules for Bulgarian and Romanian nationals wishing to work in the UK differ from those for the NMS of the 2004 enlargement. Migrants from Bulgaria and Romania are required to apply for an accession working card or a registration certificate if they are self employed.

#### *Characteristics of migrants*

The skill level of NMS migrants is higher than that of other migrant workers and/or the UK nationals. However, in the UK NMS-8 migrants tend to work in jobs for which they are overqualified. More than 60% of them are primarily employed in low-skilled occupations, working as operatives or in elementary occupations, compared to only 18% of UK-born workers). At the same time NMS migrants have higher education levels (two years more) than UK-born workers, suggesting 'that in some senses NMS migrants are "underemployed" relative to their education' (Upward, 2008). This is also the reason why wages of NMS migrants are considerably lower than those of UK nationals at the same educational level. Most of the NMS migrants are regionally concentrated in London (services and

hospitality industries) and in the Eastern parts of England (agriculture and manufacturing).

Studies examining the labour market outcomes for natives in the UK found that, in the pre-2004 period, immigration mainly had small negative effects on the earnings of incumbent immigrant workers, and on wages at the low end of the wage distribution (Manacorda et al., 2006; Dustmann et al., 2007). The post-enlargement evidence based on survey results shows that immigration has helped to alleviate labour and skills shortages, and that employers prefer these recent immigrants because of their comparatively high productivity (Upward, 2008).

NMS migrants to the UK show high rates of employment, so that only very low numbers have received benefits. As concerns education services, the UK has experienced a recent increase in pupils whose first language is not English, which poses additional costs to the educational system. Looking at health services, the NMS recent immigrants are likely to under-use these because of their low age. NMS nationals still may have put some strain on public services in the case of high concentration of non-registered migrant inflows, because local public services receive funding from the central government based on population estimates (Upward, 2008).

Latest data obtained from the Worker Registration Scheme (WRS) reveal that the inflow of migrants to the UK has been slowing down. Upwards (2008) expects that net migration from the NMS-8 will fall 'as outflows rise and inflows fall', first because of an improving economic environment in the sending countries and, second, due to the financial crisis (and in the wake labour market crisis) hitting the UK.

### **Ireland**

Ireland opened its labour market to NMS-8 nationals (Employment Permits Bill, April 2007) immediately after these countries' accession in 2004. The new regulations were applied both to the newly expected immigrants and to those already in

the country prior to enlargement. Monitoring the number of migrants is conducted via the number of social security (PPS) numbers issued. Transitional arrangements were introduced with respect to welfare benefits. Because of the large inflow of workers from the first enlargement round in 2004, Ireland introduced a seven-year transitional period for Bulgarian and Romanian nationals.

Information on migration flows from the NMS is limited. Detailed data, available only from 2005 onwards, show a rapid influx. Census figures for 2006 indicate that about 120,000 NMS-10 citizens were living in Ireland, of which about three quarters were Polish or Lithuanian nationals.

#### *Characteristics of migrants*

NMS migrants have higher educational levels than Irish nationals (OECD, 2008a), but the occupational mismatch is relatively high and they tend to work in jobs for which they are overqualified (Ivlevs, 2008a); their wages are considerably below average. This leads to the conclusion 'that Ireland may not be getting the most out of its immigrant workforce' (OECD, 2008a). Regarding sectors of employment, NMS nationals are primarily employed in hotels and restaurants, low-skill manufacturing and construction. They are slightly more likely than Irish workers to work shifts, evenings and weekends (Barret and Bergin, 2007).

Migrants from the NMS are slightly younger (median age 29) than the native population (median age 33) and much more likely to be of working age (Ivlevs, 2008a).

The OECD (2008a) found that wage growth in Ireland has been depressed in those sectors attracting the highest inflow of NMS migrants. Possibly this has caused Irish workers to move from those sectors.

As the majority of migrants are young and employed, they have not put major demands on public services or the welfare system (OECD, 2008a).

## **Sweden**

### *Migration trends*

Sweden was the only country that introduced free access to its labour market for NMS nationals including full access to social benefits. Despite this fact the inflow of NMS nationals remained moderate. Over the period 2003-2007 the stock of migrants from the NMS rose by about 25,000 persons (measured both by country of birth and by country of citizenship), particularly from Poland and the Baltic States. Since the initial basis was very low, this meant a doubling of the migrant stock from those countries. In sum, the share of NMS citizens in Sweden's total population remained negligible (rising from 0.3% in 2003 to 0.5% in 2007) (Ivlevs, 2008).

Possible reasons for the relatively low inflow of NMS migrants to Sweden compared to the UK and Ireland were, according to Wadensjö (2007), the low rate of job growth and vacancies, the diversion of migration flows to the UK and Ireland, but 'not least that English is the language of those two countries'. Dolvik and Eldring (2008), examining labour migration from the NMS to the Nordic countries (Sweden, Denmark, Finland, Iceland and Norway), concluded that 'the differences in the influx of migrants show little correlation with the presence of transitional arrangements' in these countries.

### *Characteristics of migrants*

After the EU enlargement of 2004, the share of female NMS immigrants employed primarily in the health sector fell significantly, caused by easier access to sectors employing primarily males (such as construction). In the case of Polish immigrants, for instance, the share of females dropped from 74% in the period 2000-2003 to 50% in the period 2004-2007. Regarding the age structure, about half of the NMS migrants are in the age group 15-34; the age group 35-54 years accounts for about 30% of the NMS migrant stock (Ivlevs, 2008).

Data available from the Swedish Migration Board reveal that in the period 2003-2007, 57% of NMS

migrants (including those from Bulgaria and Romania) were employees, 28% dependents and family members, and 8% students. The share of employers remained small (about 3%).

A comparison of the educational levels of NMS migrants and Swedish-born for 2005 (latest data available) shows a larger share of those with at least two years of higher education for NMS nationals (particularly from the Baltic States) than for Swedish-born. Regarding the sector of industry in which NMS migrant workers are employed, nationals from Poland and the Baltic States are overrepresented in the health sector, while Lithuanian nationals are overrepresented in agriculture as compared to the Swedish-born.

Overall wage differences between NMS and Swedish-born nationals are very small, but vary by sending country. For example, there is a wide wage gap between Polish nationals (wages lower by 4%) and citizens from the Baltic States (lower by 8%) on the one the hand and Swedish-born on the other. Wadensjö (2007) notes that, the earlier migrants born in the NMS have arrived in Sweden, the lower is the wage gap.

Concerning the impact of migration from the NMS on the Swedish economy Dolvik and Eldring (2007) conclude that 'the increasing labour mobility from Poland and the Baltic States has contributed to higher economic growth and slower increases in prices, costs and interest rates than what otherwise would have been possible in a period of sustained economic boom and increasing scarcity of labour in the Nordic countries. Labour migration has contributed to removing bottlenecks, and no significant imbalances in the Nordic labour markets have been registered.' In addition, they found no evidence that NMS migrants came to Sweden because of the generous welfare system.

### **Poland**

#### *Migration trends*

Poland's EU accession in 2004 triggered one of the largest migration waves in Polish history. According

to most recent estimates the number of Polish citizens working abroad for more than two months increased from about 1 million in 2004 to 2.3 million in 2007. The main destination countries of Polish migrants were those allowing free access to their labour markets for NMS nationals, Ireland and particularly the United Kingdom, attracting half a million labour migrants from Poland. At the same time Germany and Italy, the most popular destinations of Polish migrant workers before enlargement, lost importance.<sup>2</sup> However, if adding seasonal workers to the total migrant flows, Germany would remain the major target for Polish migrants (Fihel et al., 2008).

#### *Characteristics of migrants*

Both in the pre- and post-accession period, the majority of Polish migrants were males; their share in total migrants even increased after EU enlargement. After EU accession the age structure of Polish migrants became significantly younger than in the pre-accession period (persons aged 20-39 account for 45% of total migrants). Fihel et al. (2008) argue that this change was mostly caused by the rising importance of Ireland and the United Kingdom among the destination countries, attracting particularly very young migrants.

The qualification structure of Polish migrants also changed considerably after accession. Detailed research found that migrant workers leaving the country during the 1990s had rather low qualification levels and were very often pushed into informal activities due to heavy restrictions on the EU-15 labour markets – a situation very disadvantageous for the highly skilled (Fihel et al., 2008). In general, those with (secondary) vocational education have represented the majority of Polish emigrants both before and after

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<sup>2</sup> Prior to accession (abroad for at least 2 months in the period 1999-2003) the three most important destination countries of Polish migrants were Germany (32.1%), the United States (19.1%) and Italy (11.9%). After EU accession (abroad for at least 2 months between May 2004 and December 2006) Polish workers migrated primarily to the UK (31.1%), Germany (18.9%) as well as Ireland and the US (both 9.1%) (Fihel et al., 2008).

accession, but their number has been slightly declining since 2004. In the post-accession period the situation changed significantly with respect to the highly educated: the share of migrants with university degrees increased to about 20% as compared to 14% of university graduates in the overall population of Poland. In the case of females this proportion is even higher. Most of these migrants left for the UK and Ireland, which have attracted younger and better educated migrants. Fihel et al. (2008), note that some young migrants who left for other countries than the UK, Ireland and Sweden prior to enlargement may have moved to these three countries after Poland's EU accession.

Before as well as after enlargement the majority of Polish migrants (more than two thirds) accounted for persons from rural areas and small cities (less than 50,000 inhabitants). In the post-enlargement period the share of migrants from large cities has slightly increased to 24%, as against 20% prior to enlargement. Migrants are mostly recruited from Southern and Eastern Poland, either from rural and underdeveloped regions or the most populated areas (Fihel et al., 2008).

Despite the significant outflow of labour, migrants constitute only a small fraction of the Polish population. So far the demographic impact of recent migration has only been felt in the south eastern parts of Poland. Assessments with respect to the impact of migration on the labour market are mixed: while the World Bank (2007) finds that migration has led to labour shortage, Fihel et al. (2008) conclude that migration plays an important, but not decisive role with respect to the changes on the Polish labour market.

Recently there has been a broad discussion about return migration, but research on the issue is scarce. Data provided by the British Home Office and the Irish Department for Social and Family Affairs show a weakening of Polish migration flows both to the UK and to Ireland starting from the fourth quarter of 2007. Pollard et al. (2008) estimate that about half of Polish migrants to the

UK have already returned home. Possible reasons for this decision are to be found in higher salaries and in job shortages in Poland along with the fall in the value of the British pound. However, according to the World Bank (2008) the return home may only be of a transitory nature: a survey among Polish nationals who had returned from the UK showed that a third of them intend to leave again in the future.

## Romania

### *Migration trends*

Immediately before the country's EU entry, official numbers of Romanian nationals in the EU-15 countries amounted to about one million (Iara, 2008; there is some variation in the figures depending on the different datasets). Between 2000 and 2006, the number of Romanian populations in this area at least doubled, both by the standards of nationality and place of birth, but increased even much more in some countries. The increase was particularly strong in Spain, where the stock of Romanian nationals rose from about 30,000 to about 500,000, and Italy, where the increase was especially sharp between 2002 and 2003, from 95,000 to 245,000. In the countries with time series on Romanian nationals, stocks increased most strongly between 2001 and 2003. As for the dynamics of temporary migration, the intensity of departures doubled in the second half of the 1990s as compared to the five preceding years, and has again tripled since 2001. The individual periods were dominated by varying destination countries: in the early 1990s Turkey and Israel were the main destinations, along with secondary destinations in Italy, Germany and Hungary; flows in the second half of the 1990s increasingly turned to Italy (Sandu et al., 2006).

After the lifting of the Schengen visa requirement for Romanian travellers as of 2002, the Romanian authorities introduced severe exit conditions. In 2007, the EU entry of Romania allowed for free travel and stay across the European Union, but stays exceeding three months still may be subject to the proof of subsistence. Finally, several

members of the enlarged EU permit access of Romanian nationals to their labour markets only within strict limits. Attempts to circumvent these constraints produce irregular migrants; their major share is not recorded in official data. It has been found that repressive migration policies do in fact foster irregular migration practices as well as permanent forms of migration, while the release of restrictions supports return migration. On the extent of irregular migration in Romania, according to an IOM survey of 2005, just 53% of the migrant workers interviewed performed labour abroad under legal contracts (Stan, 2006).

### *Characteristics of migrants*

Migrant characteristics have changed against the 1990s. Today, females provide almost two thirds, and prime-age individuals half of all permanent migrants, against a higher share of both dependent minors and elders in the early 1990s. Existing evidence suggests the over-proportionate participation of the better skilled in migration, pointing to the risk of brain drain. Other effects on the Romanian economy include the emergence of labour and skill shortages that may necessitate higher levels of immigration to Romania, as well as the inflow of large amounts of remittances, which are rarely used for investment though. Based on the existing characteristics of Romanian international out-migration, and looking at the supply side only, one should not expect a substantial decrease of the migration potential from Romania in the short run (Iara, 2008).

## **Slovakia**

### *Migration trends*

The number of Slovak citizens working abroad has been steadily on the increase since the beginning of the new millennium. According to LFS data the rise was particularly strong after Slovakia joined the EU in 2004, reached a peak in 2007 when 186,000 Slovak citizens worked officially abroad, and decreased somewhat thereafter. LFS data for the first quarter of 2008 post the number of Slovak labour migrants at 176,600, the vast majority of whom are males. However, the actual magnitude is

considerably higher than reported by the LFS (Balaz, 2008).

According to the Slovak Ministry of Labour – collecting data from its partner institutions in the EU – in 2007 the number of Slovak migrant workers in the EU was 215,000 or about 10% of Slovakia's working-age population. The majority of migrants moved to the Czech Republic (absorbing about 40% of total labour migrants), followed by the UK, Ireland, Germany, Hungary, Austria and Italy. But again, also these data have to be taken with caution as they refer to those Slovaks who registered with foreign employment services. They may include migrants who have already left their destination country, but exclude migrants working illegally and/or students working on part-time jobs.

Most of the labour migrants are coming from the Presov and Zilina counties. The major sectors of employment were manufacturing and construction, accounting for about 60% of total migrants.

Information on cross-border commuting is scarce and limited in quality. Estimates based on EURES mention some 2000 daily commuters and 5000 weekly commuters from Slovakia to Austria. But there may be as much as 15,000 Slovak social care workers in Austria, most of them employed in the informal sector (Balaz, 2008). Daily commuting of Slovak citizens is also very common to Northern Hungary where multinational companies such as Nokia, Philips and Suzuki have established their plants. Estimates available for 2007 put the number of daily commuters at 8000, the vast majority of them being members of the Hungarian minority living in the Southern parts of Slovakia. On top of that, 6000-7000 Slovaks commute daily from the border district of Cadca to the Czech hinterland. Most of these commuters work in low-skill and low-paid jobs (Balaz, 2008).

### *Characteristics of migrants*

Results obtained from a mailing survey conducted by EURES among 743 migrants in November 2007 indicate that 57% of Slovak migrants are males. Emigrants tend to be young, with the age group

18-34 accounting for 75%; about one quarter has a university degree. About half of the migrants are employed, while one quarter is unemployed, 16% are students and about 7% entrepreneurs. The UK is the most important destination country for Slovak labour migrants (29%), followed by Ireland (17%), the Czech Republic (11%), Germany and Austria (each close to 9%). The main sectors of employment are hotels and restaurants, manufacturing and transport, help in household, public and social services, agriculture, and construction.

### *Brain drain*

Research conducted by the OECD (2008b) found that some 362,300 persons born in Slovakia lived abroad in 2005. Out of the total more than 40% had primary education and 13% tertiary education. These data, however, differ significantly from EURES data and from the information obtained from the Slovak authorities, which put the share of university graduates at about one quarter of total migrants and that of those with primary education at 5%.

Studies examining the future migration flows (particularly of the highly skilled) found a very high potential of brain drain. For example, a survey carried out by Hanzelova (2006) on a sample of 802 university students found that more than half of the respondents wished to work abroad after graduation. Medical doctors and pharmacists wanted to work in the same field, while students of social sciences and agriculture were ready to accept jobs in different occupations. The main reasons for working abroad were, among other things: travelling and life experience abroad, improving language skills, earning higher incomes, and improving skill levels. Among the preferred destinations the UK ranked first, followed by Ireland, the Czech Republic, Germany and the US.

In order to stem the brain drain, in June 2008 the Slovak government adopted a resolution addressing the major problems of labour migration and calling explicitly for stopping mass migration of

skilled workers and applying policy measures to stabilize migration and the situation on the domestic labour market. The proposed measures include the build-up of a database on Slovak citizens living abroad, facilitating their return and reintegrating them in the Slovak labour market, and the establishment of Mobility Information Centres in countries with a high portion of Slovak migrants.

Apart from being a country of out-migration, Slovakia is also a country of immigration and transit migration (Biffi, 2004). Illegal migration to Slovakia played a bigger role in the past but has declined recently. Since the beginning of the millennium several thousand members of ethnic Slovaks formerly living in Russia, Ukraine, former Yugoslavia and Romania have arrived in Slovakia, but also workers from Vietnam and China who wish to become Slovak citizens (Balaz and Williams, 2007).

## **Hungary**

### *Migration trends*

With the country's accession to the EU, Hungarian citizens are in principle entitled to work in any other EU and European Economic Area (EEA) member state. However, due to transitional measures, completely unrestricted 'freedom of movement' will apply for Hungarian citizens only from 2011 onwards. Currently 21 EU countries and 1 EEA member apply no restrictions on migration from Hungary. We have a relatively clear picture about Hungarians migrating within the EU. The data show that in comparison to other new EU members the propensity of Hungarians to migrate is fairly limited. Hungary's working-age population amounted to 13.5% of the total NMS-8 working-age population, while the share of Hungarians of working age registered in other EU countries amounted to only 6.6% of the total NMS-8 working-age population in other EU members. Among the new member states only the Czech Republic showed similar proportions to those of Hungary, hinting at a similarly low migration propensity. The share of Hungarian working-age population registered in other EU members in relation to the whole

Hungarian working-age population is only 1%, substantially less than in any of the other new EU members, except for the Czech Republic (1.1%). Surprisingly, the traditional and more recent 'success stories' of the region, i.e. Slovenia, Estonia and Slovakia, show a much higher share than Hungary. Austria and Germany are the two traditional target countries of Hungarian migrants. In Austria, the share of NMS migrants in the total inflow ranged between 9% and 16% in 2000-2005, that of Hungarians was 3.6% in 2005, lower than in 2000 or 2001; thus no special impact of Hungary's EU accession can be observed. As for Germany, immigration from the NMS increased substantially, its share nearly doubled in the total (up to 30%). This was, however, the result of the strong increase of inflows from Poland. The Hungarians share remained at the pre-accession level, about 3%.

Time series on the inflow of foreigners show that Hungary has remained a relatively unimportant target country of international migration. The annual inflow was ranging between 13 and 22 thousand persons in the period 1996-2005. The three most important source countries of immigration were Romania, Ukraine and Serbia, each with substantial ethnic Hungarian population. All other source countries were of minor significance, with migrants below 1000 persons in any year. The foreign-born population slightly increased in 1996-2005, and surpassed 330,000 by the end of the period. Even then the share of the foreign-born population remained modest, 3.3% of Hungary's total population: this is lower than the respective indicator in the old EU member states, and also somewhat lower than in the Czech Republic (4-5%), and it corresponds roughly to the Slovak data. Illegal employment poses a special problem of capturing migrants' role on the labour market. In 2005 the share of foreign-born labour force made up 1.9% of the total labour force, while this population group constituted 3.3% of the total population. In the same year foreign labour force (those with other than Hungarian citizenship) amounted to 0.8% of the total labour force, while this group's share in total population was 1.5%. These figures hint at an overrepresentation of migrants in

illegal employment. Most of the immigrants arrive from neighbouring countries and they are typically ethnic Hungarians. This explains the relative importance of naturalizations appearing in the highly diverging numbers of foreign-born persons and foreign citizens, respectively, in Hungary. Foreign employment is highly concentrated in the Budapest agglomeration and, to a smaller extent, in Central Transdanubia, both regions figuring as engines of growth in Hungary. The breakdown of foreign employees by branches significantly differs from that of the total employees. Foreigners are over-represented in construction and industry while under-represented in the services sectors. The latter, however, may accommodate a substantial part of illegal employment.

The available figures on migration from and to Hungary clearly show that Hungary is a relatively 'closed' country, neither outward nor inward migration is really significant. Hungary is among the less important sending countries of the EU's new member states and, as a host country, attracts much fewer migrants in relative terms than the old EU members. Compared to the communist era, the mobility in both directions is more significant, but EU accession has not changed the characteristics of migration in either direction.

### **The Czech Republic and Slovenia**

Information available on labour migration both from the Czech Republic and Slovenia is scant. Migration data provided by mirror statistics in the receiving countries indicate that the propensity of Czech and Slovenian citizens to migrate is relatively low (similar to that of the Hungarians). Looking at absolute figures, the number of Czech migrants to the EU rose by 40,000 between 2004 and 2007, amounting to 102,000 or close to 1% of the total Czech population (up from 0.6% in 2004). At the same time only about 4000 Slovenian nationals migrated to the EU-15, totalling 35,700 person or 1.8% of the country's total population (up from 1.6% in 2004). Figures provided by the Czech Ministry of Labour post the stock of labour migrants at 78,000 by the end of 2007, the vast majority of



whom worked in the UK (41%), Germany (17%), Ireland (15%) and Austria (7%).

However, according to the British Home Office, the inflow of Czech migrants plummeted in the second quarter of 2008.<sup>3</sup> The drop is being attributed to the strength of the Czech koruna and changing trends in Czechs' migration habits.

The Czech Republic has also become an important immigration country. As of May 2008 the stock of foreign workers totalled 268,000, the majority of them coming from Slovakia, Ukraine and Poland. In attracting skilled workers from abroad in order to fill the vacancies, the Czech Ministry of Labour and Social Affairs launched a programme entitled 'Selecting qualified workers from abroad' as far back as 2003, offering permanent residence permits to those who had lived and worked in the country for two and a half years. Until June 2007 the programme had attracted 170 participants and their family members (OECD, 2008c).

Similarly, in Slovenia the number of foreign workers has increased steadily in the past couple of years. In March 2008 the number of work permits amounted to 72,000. Most foreign workers are engaged in construction or other jobs requiring only elementary or no education at all.

In both countries the share of foreigners in total workforce is relatively high, accounting for 7.3% in Slovenia (January 2008) and 5.5% in the Czech Republic (2006) respectively.

### Summary and conclusions

Over the period 2003-2007 the stock of NMS-8 nationals in the EU-15 has increased from 840,000 to 1.86 million persons. The bulk of immigrants has been absorbed by the UK and Ireland. Inflows of migrant workers to Sweden, which also allowed free access to its labour market for NMS nationals, remained modest. Germany and Austria, imposing

transitional rules, have experienced only a small influx of NMS migrants, but the share in their total population is relatively high, at 0.7% and 1% in 2007. Overall, the propensity of Bulgarian and Romanian nationals to emigrate is much higher than among citizens from Central and Eastern Europe. Experiences from the receiving countries show that recent NMS migrants are young and well educated, particularly in the UK and Ireland. In most host countries the skill level of NMS migrants is higher than that of other migrants and/or the respective nationals. However, they tend to work in jobs for which they are overqualified. NMS migrants are strongly represented in agriculture, construction, hotels and restaurants, and in low-skill manufacturing sectors. It is still too early to obtain information whether the 'skills-jobs mismatch' (or 'brain waste') reduces over time and at what speed. In Poland, the Slovak Republic and probably so in Romania there is a growing share of outward migrants with university degrees (higher than that of the resident population), suggesting a certain brain drain. Most sending countries have started recruiting workers from abroad, but still in small numbers. Slovenia and the Czech Republic are exceptions in this respect, with tiny shares of foreigners in the total labour force.

### References

- Balaz, V. (2008), 'Migration in Slovakia. Background paper to the Study on Migration and Commuting Propensity in the NMS-10', Bratislava, August, mimeo.
- Balaz, V. and A. M. Williams (2007), 'Path Dependency and Path Creation Perspectives on Migration Trajectories: The Economic Experiences of Vietnamese Migrants in Slovakia', *International Migration*, Vol. 45, No. 2, pp. 37-67.
- Barrett, A. and A. Bergin (2007), 'The Economic Contribution of Immigrants in Ireland', in B. Fanning (ed.), *Immigration and Social Change in the Republic of Ireland*, Manchester University Press.
- Biffi, G. (2004), 'Immigration and Integration Issues in Austria and Slovakia. The case of Austria', Contribution to the Seminar 'Migration in Central Europe: Austria, the Slovak Republic and the EU', Vienna, 29 April to 1 May.
- Dølvik, Jon Erik and Line Eldring (2008), 'Arbeidsmobilitet fra de nye EU-landene til Norden.

<sup>3</sup> British Home Office quoted in Czech Radio, <http://www.radio.cz/en/article/107667>.

Utviklingstrekk og konsekvenser', Fafo, Norway, available at <http://www.fafo.no/Fafo-frokost/080123/index.html>.

Dustmann, C., T. Frattini and I. Preston (2007), 'A study of migrant workers and the national minimum wage and enforcement issues that arise', Low Pay Commission.

Fihel, A., P. Kaczmarczyk, J. Mackiewicz-Lyziak and M. Okólski, 2008, 'Labour Mobility within the EU in the context of enlargement and the functioning of the transitional arrangements, Country Study: Poland', Study commissioned by the European Commission, DG Employment, VC/2007/0293, forthcoming

Hanzelová, E. (2007), 'Fenomén pracovnej migrácie vysokoškolákov do zahraničia: trendy a dilemy' (The phenomenon of labour migration by university students: trends and dilemmas), Institute for Labour and Family Research, Slovak Ministry of Labour, Social Affairs and Family, Bratislava.

Ivlevs, A. (2008a), 'Labour Mobility within the EU in the context of enlargement and the functioning of the transitional arrangements: Country Study Ireland', Study commissioned by the European Commission, DG Employment, VC/2007/0293, forthcoming.

Manacorda, Marco, Alan Manning and Jonathan Wadsworth (2006), 'The Impact of Immigration on the Structure of Male Wages: Theory and Evidence from Britain', *CReAM Discussion Paper Series*, CDP No. 08/06, Centre for Research and Analysis of Migration, Department of Economics, University College London.

OECD (2008a), 'Integrating Migrants: Learning from OECD experience', Chapter 6 in: *OECD Economic Surveys: Ireland*.

Sandu, D. et al. (2006), 'Living abroad on a temporary basis: the economic migration of Romanians, 1990-2006', Open Society Foundation, Bucharest.

Wadensjö, E. (2007), 'Migration to Sweden from the New EU Member States', *IZA Discussion Paper* No. 3109.

## Outsourcing and skills: an empirical investigation\*

BY MICHAEL LANDESMANN AND ROBERT STEHRER

The question we shall answer in this text is which parts of the value chain (distinguished in trade statistics as primary inputs, processed inputs, parts and final goods) are particularly affected by international trade integration. Furthermore, we shall be interested whether international trade integration in these various stages of the production chain are characterized by high-, medium- or low-skill content.

The data set used for this analysis are the UN trade statistics. Furthermore LFS statistics were used to classify industries by skill content (see Box).

We shall start by giving an overview of import structures of the EU-27 by stages of fabrication and skill content.

Outsourcing is usually defined by purchases ('sourcing') of inputs from abroad; this could be either done by subsidiaries of companies operating both in the 'home' and the 'sourcing' country or purchasing inputs from foreign suppliers. The first information we shall provide is to check the importance of imports of inputs (primary, processed and parts) in comparison to imports of final stage products. This information is presented in Table 1 for the years 1995 and 2005. We also checked whether the imports of these categories of imports are of the types which can be linked to high-, medium-, and low-skill production activities.

Table 1 shows the following: Of total imports of the EU-27 in 2005, 40% are processed inputs, 21.7% are parts and 36% are final goods imports (a

negligible 2.2% are classified as primary – i.e. unprocessed - inputs). Hence if we take processed inputs and parts together, these account for almost 2/3 of total imports of the EU-27 and hence the majority of imports. International production integration (or the international 'sourcing' of inputs and parts) is therefore an important phenomenon.

Table 1

### Imports of EU-27 -- shares in total imports, 1995, 2005

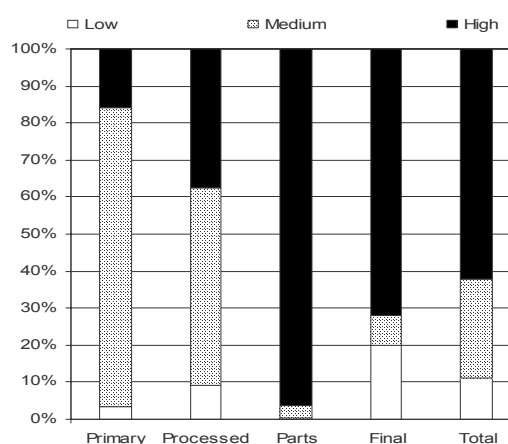
Industry group	Year	Primary	Processed	Parts	Final	Total
1	1995	0.1	4.9	0.1	7.6	12.8
2	1995	2.2	26.5	0.8	2.8	32.3
3	1995	0.8	14.7	19.2	20.1	54.9
TOTAL		3.1	46.1	20.1	30.6	100.0
1	2005	0.1	3.6	0.1	7.3	11.0
2	2005	1.8	21.4	0.7	2.8	26.7
3	2005	0.3	15.0	21.0	26.0	62.3
TOTAL		2.2	40.0	21.7	36.0	100.0

Note: Industry group refers to 1..low-skill, 2...medium-skill, 3...high-skill.

Source: UN trade statistics; own calculations.

Figure 2

### Skill composition of import categories, EU-27 in 2005



Source: wiw; calculated from UN trade statistics

If we look at the skill content of the various import types (primary, processed, parts, final) we can see rather different patterns: given our classification of industries by degrees of skill intensity we see in Figure 2 that the supply of parts falls overwhelmingly into the domain of high-skill-intensive industries (96.4%, while about 43% of employment is

\* This text is part of a larger study published in *International Trade & Domestic Growth: Determinants, Linkages and Challenges*, Proceedings of OeNB Workshops (No. 14), Oesterreichische Nationalbank, Vienna 2009. The groupings of countries into low-, medium- and high-income countries also differentiated by past growth performances (referred to in this article) is fully explained in the above report.

Box

## Classification of industries by skill types

NACE code	Skill type	1999	2005	
		High skill share		
19	low	4.8	7.8	Tanning and dressing of leather; manufacture of luggage, handbags, saddlery, harness and footwear
18	low	6.3	7.7	Manufacture of wearing apparel; dressing and dyeing of fur
17	low	6.9	8.1	Manufacture of textiles
20	low	7.5	8.4	Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials
37	low	8.1	10.0	Recycling
36	low	9.6	10.8	Manufacture of furniture; manufacturing n.e.c.
28	medium	10.1	11.7	Manufacture of fabricated metal products, except machinery and equipment
26	medium	10.3	11.8	Manufacture of other non-metallic mineral products
15	medium	11.1	12.2	Manufacture of food products and beverages
25	medium	11.4	13.4	Manufacture of rubber and plastic products
21	medium	12.6	15.0	Manufacture of pulp, paper and paper products
27	medium	13.0	13.4	Manufacture of basic metals
16	medium	15.4	24.9	Manufacture of tobacco products
34	high	16.0	19.5	Manufacture of motor vehicles, trailers and semi-trailers
29	high	18.2	20.6	Manufacture of machinery and equipment n.e.c.
31	high	20.8	19.8	Manufacture of electrical machinery and apparatus n.e.c.
22	high	21.7	26.7	Publishing, printing and reproduction of recorded media
35	high	24.9	24.9	Manufacture of other transport equipment
33	high	26.1	27.7	Manufacture of medical, precision and optical instruments, watches and clocks
24	high	27.8	33.4	Manufacture of chemicals and chemical products
32	high	27.8	29.8	Manufacture of radio, television and communication equipment and apparatus
23	high	30.5	32.2	Manufacture of coke, refined petroleum products and nuclear fuel
30	high	37.2	41.2	Manufacture of office machinery and computers

## Shares of industries in EU-27 employment structures and shares of high-skilled employees

	1999		2005	
	High-skill share	Empl share	High-skill share	Empl share
<b>low</b>	7.49	19.63	9.02	18.54
<b>medium</b>	11.08	37.17	12.48	38.46
<b>high</b>	22.22	43.20	24.85	42.99

*Notes:* The industry groupings (high, medium, low) were obtained by ranking the EU-27 industries – in the aggregate – by the shares of high-skill employees (those with concluded tertiary degrees) in total employment (see columns 3 and 4 in first table above). The second table shows the shares of the high-skilled in the three groups of industries (columns 2 and 4) and their shares in total manufacturing employment in the EU-27 (columns 3 and 5). Industry 16 (Manufacture of tobacco products) shows a large increase in the share of high-skilled workers in a number of countries which might be explained by higher investments in R&D and marketing due to increasing regulations. Despite the large high-skill share in 2005 we decided to keep this industry in the medium group as the number of employment is rather low and thus the figures are somewhat unreliable, the initial position is more important for the analysis than the position in the last year and also to guarantee a broadly balanced distribution across industry types.

happening in these industries on average in the EU-27 in 2005 and 62.3% of total imports); for processed inputs only 37.5% falls into the domain of high-skill industries and 53.5% into that of medium-skill industries, and for primary products it is only 16% in the high-skill and 80.6% in the medium-skill industries. Hence, amongst the input-supplying imports we have a clear hierarchy with parts production falling almost entirely into the domain of high-skill industries, processed inputs being produced mostly by medium-skill and about one

third by high-skill industries and primary inputs mostly by medium-skill industries. In comparison, final goods imports of the EU-27 are also mostly in high skill categories (72%, which is still substantially less than in the case of imports of parts), but there is also a significant share in low-skill areas (about 20%).

If we look at changes over time, there is evidence that over the period 1995 to 2005 there has been an increase in the shares of final goods and of parts production in the overall import bill of the

EU-27 and a decline (by 6 percentage points) of processed inputs. Within the supplies of final goods and processed goods there was also a significant increase in the shares of goods produced by high-skill industries (see Table 2) and a fall of goods produced by medium- and low-skill industries (in final goods there was a sharper fall of the share of goods produced by low-skill industries, in processed inputs a sharper fall of the share of goods produced by medium-skill industries; parts production falls almost completely into the high-skill category so that there is little scope for further upgrading) given our industry classification.

Table 2

**Imports of EU-27 – imports by types of import categories and skill content**

Industry group	Year	Primary	Processed	Parts	Final	Total
1	1995	4.6	10.6	0.5	24.9	12.8
2	1995	69.4	57.4	3.8	9.3	32.3
3	1995	25.9	31.9	95.7	65.8	54.9
TOTAL		100.0	100.0	100.0	100.0	100.0
1	2005	3.5	9.0	0.4	20.1	11.0
2	2005	80.6	53.5	3.2	7.8	26.7
3	2005	15.9	37.5	96.4	72.1	62.3
TOTAL		100.0	100.0	100.0	100.0	100.0

Note: Industry group refers to 1..low skill, 2...medium skill, 3...high skill (see Box 1 for details).

Source: UN trade statistics; own calculations.

**The sourcing pattern of EU-Northern countries**

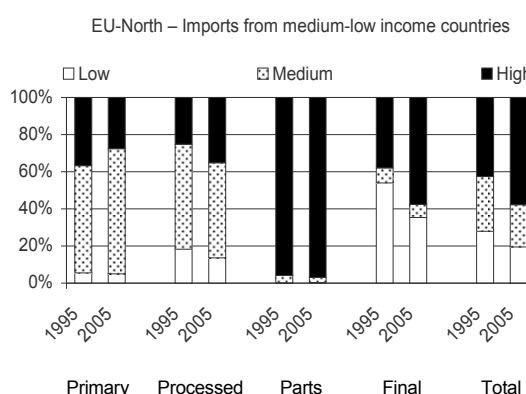
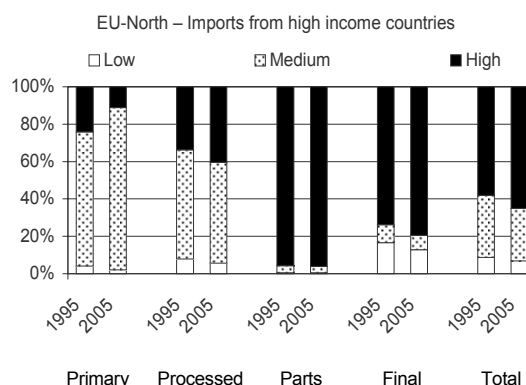
We shall focus in the following analysis on the sourcing pattern of EU-Northern countries from different 'sourcing regions'. In particular, we shall check whether the sourcing pattern by type of import category (processed inputs, parts, final goods) and by skill content is different from different suppliers (high-income, medium-income, low-income suppliers). The focus on EU-North rather than on the EU as a whole is because we want to focus on the 'outsourcing' from high-income to lower-income economies. We shall take initially a global view in the sense of looking at outsourcing patterns to lower- and medium-income countries all over the world (including the EU lower income

countries in these groupings) and then look at the more specific intra-EU patterns of outsourcing.

Coming to the information contained in Figure 3a, which looks at the composition of imports of different source regions, we can see that both high- and low- (and medium-) income suppliers have been shifting their supplies from processed inputs towards parts and final goods supplies over the period 1995 to 2005. The shift towards parts supplies is strong for the low- (and medium-) income suppliers and negligible for the high-income suppliers.

Figure 3a

**Imports of EU-North from high-income and low-/medium-income countries and by import categories and skill content**



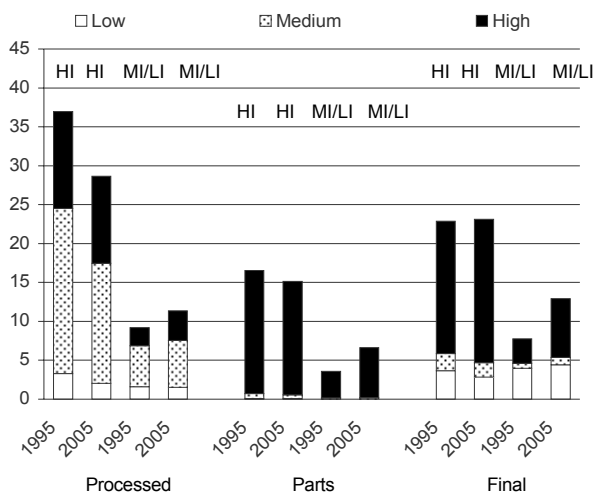
Source: wiiw; calculated from UN trade statistics; EU North is defined as the high-income countries of the EU comprising the EU-15 without Spain, Portugal and Greece

From Figure 3b we can see another important shift, namely that in the skill composition of imported goods: There is a shift towards higher skill

composition in all categories of imports (processed, parts and final) and both in imports from high-income and low- (and medium-) income suppliers, but the shift is much stronger for the supplies from low- (and medium-) income suppliers than from high-income suppliers: thus while the share of high-skill goods in total imports from high-income countries has increased from 58% in 1995 to 65% in 2005 (i.e. by 7 percentage points), that from low- (and medium-) income suppliers has increased from 42% to 58% (i.e. by 16 percentage points); on the other end, the shares of low-skill products supplied by high-income producers has declined from 9% to 7% over the period 1995 to 2005, while that from low- (and medium-) income suppliers from 28% to 20%. Hence we can see that while there is still a difference in the skill content of goods supplied by high- and low- (and medium-) income suppliers, that difference has been declining.

Figure 3b

**Shares of high- and medium-/low-income countries in EU-North total imports; by import categories, 1995 and 2005 (in % of total imports)**



Note: HI: high-income countries, MI/LI: medium-/low-income countries.

Source: wiw; calculated from UN trade statistics.

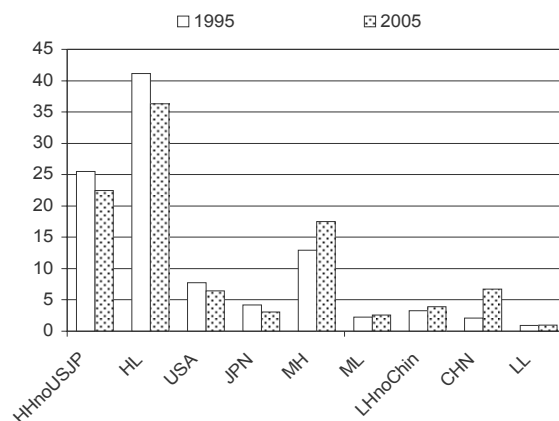
**The sourcing pattern of EU-27**

Next, we show the shift in the weights of different suppliers and in this analysis we shift back towards

analysing the import structure of the EU-27 (see Figure 4). From this we can see that there was a significant shift in the share of EU-27 imports in favour of imports accounted for by low- and medium-income suppliers and a fall in the share of imports accounted for by high-income suppliers. Thus while high-income suppliers accounted for 79% of total imports in 1995, this share fell to 68% in 2005; symmetrically, the shares of low- (and medium-) income suppliers moved from 21% to 32%.

Figure 4

**Imports of EU-27 by source regions, 1995 and 2005**



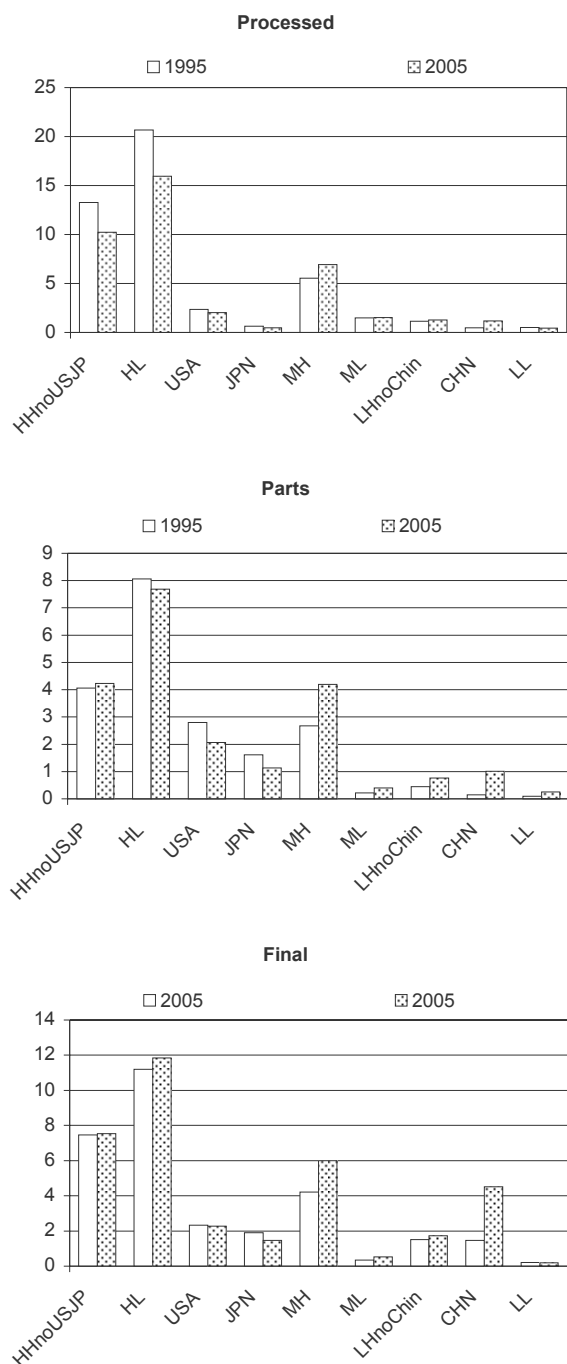
Note: HHoUSJP are high-income high-growth countries without USA and Japan, HL are high-income low-growth countries, MH are middle-income high-growth countries, LHoChin are low-income high-growth countries without China, LL are low-income low-growth countries.

Source: wiw; calculated from UN trade statistics.

Figure 5 investigates further features in the development of import shares by looking at differences in market share performances of the different suppliers in different import categories (primary, processed, parts, final). The interesting features which emerge from Figure 5 are that high-income countries are losing shares in EU-27 total imports especially in processed inputs and parts production (although the group of high-income high-growth economies are holding their shares) while in final goods their shares (in total EU-27 imports) are maintained. This is clear evidence for an outsourcing story. The main beneficiaries are the middle-income high-growth (MH) economies

Figure 5

**Imports of EU-27 by source regions and by import categories (shares in % of total imports), 1995 and 2005**



Source: wiiw; calculated from UN trade statistics.

and China, which are both substantially increasing their shares in EU-27 imports. The MH economies are occupying a significant market share position in all three categories of imports and China mostly in final goods. This can be interpreted as evidence for

the importance of geography in outsourcing where geographic proximity matters in supplying processed inputs and parts and hence the MH countries (many of which are European) feature strongly in these import categories. It is also clear that other middle- and low-income countries (ML, LL, LH without China) hardly feature in import shares except for the LH without China group (LHnoChin which consists predominantly of other South and Southeast Asian countries); they feature in final goods imports of the EU-27 but not in processed inputs and parts, which again supports the idea that geographic proximity matters in outsourcing.

Next we discuss the changing skill content of imports from the different suppliers and we shall focus here on the evidence for skill upgrading by different suppliers, concentrating in this analysis on the 'important players' in EU imports, i.e. the high-income countries on the one hand (HH, HL, USA) and the middle-income high-growth (MH) economies on the other as well as China.

Looking at the shares of these supplier groups in total EU-27 imports, and distinguishing industries with high, medium and low skill content in the different import categories, reveals both an outsourcing and skill upgrading story: First of all, the change in import shares between China and middle-income high-growth (MH) economies, on the one hand, and the high-income countries (both of the high- and the low-growth variety as well as the USA) on the other hand, is clearly visible. Secondly, the percentage point increases of import shares of China and those of the MH economies especially in the high-skill segment of industries is clearly in evidence. There is, however, a difference between the MH countries (many of which are European) and China in that China increases its import shares mainly in final goods, while the increases of the MH countries took place across all the three categories of imports (i.e. processed inputs, parts and finished goods). Looking at it from the high-income countries point of view, we can see that they lose shares in EU-27 imports mostly in processed inputs, and there particularly in the

medium-skill segment. This indicates that the high-income countries are subject to outsourcing of the processing of inputs, but maintain a relatively strong position in finished goods trade. Successfully upgrading middle-income countries make particularly strong inroads in the high-skill segments of processing and parts production while

China's import incursions are concentrated – in contrast to the MH economies – in final goods exports (both at the low-skill and the high-skill end).

### Summary and conclusions

The following provides a summary of the results obtained in this article:

- The decomposition of trade flows to the EU-27 (including intra-EU27 trade) has shown that there is a significant difference in the skill content of different import categories (primary inputs, processed inputs, parts, final goods).
- Grouping suppliers into high-income and low-/middle-income economies we observed an upward pressure in the skill content of exports to the EU-27 of both types of economies, but the upgrading proceeded more rapidly amongst the low-/medium-income economies.
- Furthermore, there was a significant shift in the shares of EU-27 imports in favour of those supplied by low-/medium-income countries as compared to those supplied by high-income economies. Particularly the medium-income high-growth economies (MH) and China are gaining in market shares.
- The observed changes in skill content and in the shares of imports by low-/medium-income economies particularly in the areas of processed inputs and parts production supports an outsourcing story combined with catching-up. High-income countries are losing market shares particularly in processed inputs and in parts and less in final goods.
- Geography does matter in outsourcing which is shown by the fact that China and other high-growth/low-income economies (mostly outside Europe) make less inroads in processed inputs than in finished goods while MH countries (a lot of them in Europe) increase their shares in intermediate inputs (processed and parts) quite strongly.



## STATISTICAL ANNEX

### Selected monthly data on the economic situation in Southeast Europe, Russia and Ukraine

**Please note:**

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## A L B A N I A: Selected monthly data on the economic situation 2007 to 2009

(updated end of Feb 2009)

		2007		2008												2009
		Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
<b>LABOUR</b>																
Employment, end of period	th. persons	.	939.0	.	.	939.3	.	.	965.9	.	.	969.9	.	.	.	.
Employment, end of period	CMPY	.	100.4	.	.	100.7	.	.	103.5	.	.	103.6	.	.	.	.
Unemployment, end of period	th. persons	.	142.8	.	.	140.8	.	.	140.0	.	.	140.1	.	.	.	.
Unemployment rate	%	.	13.2	.	.	13.0	.	.	13.0	.	.	12.6	.	.	.	.
<b>PRICES</b>																
Consumer	PM	0.2	1.3	0.5	1.0	0.9	-0.4	-1.0	-0.8	-0.6	0.6	1.1	0.1	-0.1	0.9	0.4
Consumer	CMPY	3.5	3.0	3.0	3.6	4.6	4.4	4.2	4.0	3.7	2.5	2.7	2.9	2.6	2.2	2.1
Consumer	CCPY	2.9	2.9	3.0	3.3	3.7	3.9	4.0	4.0	3.9	3.8	3.6	3.6	3.5	3.4	2.1
Producer, in industry	PM	-0.1	0.0	2.8	0.6	0.1	0.6	0.4	0.5	-0.3	-0.3	0.6	.	.	.	.
Producer, in industry	CMPY	4.8	4.4	6.9	7.6	7.7	7.0	7.3	7.9	7.4	6.8	7.2	.	.	.	.
Producer, in industry	CCPY	3.4	3.5	6.9	7.3	7.4	7.3	7.3	7.4	7.4	7.3	7.3	.	.	.	.
<b>FOREIGN TRADE<sup>1)2)</sup></b>																
Exports total (fob), cumulated	EUR mn	727	782	61	132	205	289	372	466	556	620	707	785	859	915	.
Imports total (cif), cumulated	EUR mn	2762	3048	239	506	772	1057	1356	1654	1962	2255	2556	2902	3218	3568	.
Trade balance, cumulated	EUR mn	-2035	-2266	-178	-374	-567	-768	-984	-1188	-1406	-1635	-1849	-2117	-2359	-2653	.
<b>FOREIGN FINANCE</b>																
Current account, cumulated	EUR mn	-735	-831	-67	-166	-245	-369	-479	-591	-683	-815	-843	.	.	.	.
<b>EXCHANGE RATE</b>																
ALL/USD, monthly average	nominal	83.01	83.03	83.39	83.90	80.32	77.79	78.45	78.52	77.24	81.12	85.65	92.82	96.84	90.96	94.62
ALL/EUR, monthly average	nominal	121.78	120.91	122.61	123.69	124.59	122.68	122.08	122.03	121.87	121.44	123.05	123.13	123.29	123.18	125.18
USD/ALL, calculated with CPI <sup>3)</sup>	real, Jan04=100	122.4	124.1	123.5	123.8	129.3	132.2	128.7	126.3	127.0	122.1	117.1	109.2	106.6	.	.
USD/ALL, calculated with PPI <sup>3)</sup>	real, Jan04=100	120.2	120.4	121.7	120.5	122.5	125.3	121.1	119.2	118.0	115.1	111.2	.	.	.	.
EUR/ALL, calculated with CPI <sup>3)</sup>	real, Jan04=100	108.9	110.7	109.9	109.6	108.9	109.7	108.4	107.2	106.8	107.8	107.3	107.3	107.4	108.7	108.1
EUR/ALL, calculated with PPI <sup>3)</sup>	real, Jan04=100	112.6	113.2	113.6	112.5	111.0	112.3	111.7	110.8	109.8	110.7	110.3	.	.	.	.
<b>DOMESTIC FINANCE</b>																
M0, end of period	ALL bn	143.0	155.0	147.0	147.1	146.8	146.2	145.0	145.8	150.8	152.3	152.7	165.3	173.3	.	.
M1, end of period	ALL bn	218.1	246.6	230.4	225.1	219.2	219.6	219.5	223.3	230.1	230.8	232.0	244.4	254.6	.	.
M2, end of period	ALL bn	716.6	761.2	762.7	765.1	756.8	760.8	758.5	772.9	786.1	810.0	821.3	806.7	799.1	.	.
M2, end of period	CMPY	12.3	12.9	12.6	11.8	10.3	10.5	10.1	13.2	13.4	12.9	14.7	12.2	11.5	.	.
NB base rate (p.a.) <sub>end of period</sub>	%	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	5.8
NB base rate (p.a.) <sub>end of period</sub> <sup>4)</sup>	real, %	1.4	1.8	-0.6	-1.3	-1.4	-0.7	-1.0	-1.5	-1.1	-0.5	-0.9	.	.	.	.
<b>BUDGET</b>																
General gov.budget balance, cum.	ALL bn	4710	-34119	.	.	10352	9341	5921	-2431	-5587	-8904	-8395	-16786	-21894	.	.

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

2) Cumulation starting January and ending December each year.

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

4) Deflated with annual PPI.

## B O S N I A and H E R Z E G O V I N A: Selected monthly data on the economic situation 2007 to 2009

(updated end of Feb 2009)

		2007		2008												2009
		Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
<b>PRODUCTION</b>																
Industry, total <sup>1)</sup>	real, CMPY	4.3	-0.3	7.3	11.1	-1.6	6.6	5.5	8.1	9.8	5.5	11.6	10.6	14.8	40.9	-9.2
Industry, total <sup>1)</sup>	real, CCPY	7.1	6.4	7.3	9.2	5.3	5.5	5.5	6.0	6.6	6.4	7.0	7.4	8.1	11.0	-9.2
Industry, total <sup>1)</sup>	real, 3MMA	3.5	3.8	6.0	5.6	5.4	3.5	6.7	7.8	7.8	9.0	9.2	12.3	22.1	15.5	
<b>LABOUR</b>																
Employees <sup>2)</sup>	th. persons	693.0	697.7	697.9	699.5	702.1	703.8	704.6	704.6	705.2	704.8	706.0	707.3	708.2	706.1	.
Employees <sup>2)</sup>	CMPY	104.4	105.1	103.5	103.5	103.5	103.6	103.6	103.0	102.1	102.0	101.7	101.8	102.2	101.2	.
Unemployment, end of period <sup>3)</sup>	th. persons	518.2	515.7	516.8	517.2	509.6	499.9	494.0	489.7	488.4	484.8	480.3	477.6	479.3	483.3	.
Unemployment rate	%	42.8	42.5	42.5	42.5	42.1	41.5	41.2	41.0	40.9	40.8	40.5	40.3	40.4	40.6	.
<b>WAGES, SALARIES</b>																
Total economy, gross	BAM	998	1007	1000	1060	1074	1094	1115	1108	1130	1131	1148	1155	1149	1183	.
Total economy, gross	real, CMPY	7.5	5.4	3.7	9.4	8.4	8.5	8.1	6.8	8.5	7.2	9.4	10.1	9.1	13.2	.
Total economy, gross	EUR	510	515	511	542	549	559	570	567	578	578	587	591	587	605	.
<b>PRICES</b>																
Consumer	PM	1.1	1.1	1.4	0.4	1.0	-0.4	0.9	0.9	0.1	0.1	0.1	0.7	-0.6	-0.6	-0.1
Consumer	CMPY	4.0	5.0	6.1	6.2	7.1	7.4	8.2	9.6	9.9	9.5	8.8	7.3	5.5	3.8	2.3
Consumer	CCPY	1.2	1.5	6.1	6.1	6.4	6.7	7.0	7.4	7.8	8.0	8.1	8.0	7.8	7.4	2.3
<b>FOREIGN TRADE<sup>4)</sup></b>																
Exports total (fob), cumulated	EUR mn	2799	3035	248	527	801	1092	1399	1713	2037	2316	2631	2929	3204	3432	197
Imports total (cif), cumulated	EUR mn	6484	7106	512	1178	2016	2758	3488	4217	4984	5691	6446	7235	7864	8465	417
Trade balance, cumulated	EUR mn	-3686	-4071	-263	-651	-1215	-1667	-2089	-2504	-2948	-3375	-3815	-4306	-4659	-5033	-220
Exports to EU-27 (fob), cumulated	EUR mn	1619	1738	147	304	458	619	800	977	1151	1295	1464	1631	1783	1894	116
Imports from EU-27 (cif), cumulated	EUR mn	3093	3397	244	566	893	1247	1588	1915	2266	2590	2965	3371	3695	3996	205
Trade balance with EU-27, cumulated	EUR mn	-1475	-1658	-96	-262	-435	-628	-788	-939	-1115	-1295	-1501	-1740	-1912	-2102	-89
<b>FOREIGN FINANCE</b>																
Current account, cumulated <sup>4)</sup>	EUR mn	.	-1396	.	.	-409	.	.	-924	.	.	-1361	.	.	.	.
<b>EXCHANGE RATE</b>																
BAM/USD, monthly average	nominal	1.334	1.342	1.329	1.328	1.263	1.242	1.257	1.258	1.240	1.304	1.362	1.464	1.537	1.457	1.478
BAM/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
USD/BAM, calculated with CP <sup>5)</sup>	real, Jan04=100	114.2	114.9	117.1	117.4	123.5	124.5	123.0	122.8	124.1	118.6	113.8	107.7	103.9	.	.
EUR/BAM, calculated with CP <sup>6)</sup>	real, Jan04=100	101.8	102.5	104.1	104.1	104.3	103.4	103.7	104.2	104.4	104.6	104.4	105.1	104.8	104.4	104.9
<b>DOMESTIC FINANCE</b>																
M0, end of period	BAM mn	2065	2185	2044	2075	2061	2134	2125	2076	2152	2168	2131	2279	2139	2302	.
M1, end of period	BAM mn	5944	6160	5904	5940	6006	6089	6071	6032	6144	6242	6198	6045	5876	5995	.
M2, end of period	BAM mn	11928	12250	12226	12281	12402	12608	12726	12793	13079	13275	13426	12759	12645	12776	.
M2, end of period	CMPY	22.0	21.6	20.4	18.4	18.1	17.4	15.8	14.3	14.9	14.7	14.8	7.5	6.0	4.3	.

1) Federation of B&H and Srpska weighted by wiiw.

2) Sum of employees in Federation of B&H, Republic Srpska and District Brcko, calculated by wiiw.

3) Sum of unemployed persons in Federation B&H, Republic Srpska and District Brcko, calculated by wiiw.

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

5) Cumulation starting January and ending December each year.

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

## C R O A T I A: Selected monthly data on the economic situation 2007 to 2009

(updated end of Feb 2009)

		2007		2008												2009
		Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
<b>PRODUCTION</b>																
Industry, total <sup>1)</sup>	real, CMPY	2.5	1.5	6.7	8.2	0.1	6.9	-2.1	7.2	1.9	-4.5	3.0	-0.7	-3.5	-1.5	.
Industry, total <sup>1)</sup>	real, CCPY	6.0	5.6	6.7	7.5	4.8	5.3	3.7	4.3	3.9	2.9	2.9	2.5	1.9	1.6	.
Industry, total <sup>1)</sup>	real, 3MMA	3.1	3.4	5.3	4.8	4.9	1.5	3.8	2.2	1.5	0.2	-0.7	-0.5	-1.9	.	.
Construction, total, effect. work. time <sup>1)</sup>	real, CMPY	0.0	2.1	10.6	15.0	5.8	21.4	6.5	14.8	15.0	2.0	18.0	10.6	7.8	.	.
<b>LABOUR</b>																
Employment total	th. persons	1224.0	1215.8	1210.1	1208.0	1213.8	1220.9	1230.7	1239.0	1245.1	1245.0	1241.8	1237.6	1232.0	1222.7	.
Employees in industry	th. persons	294.7	291.8	290.6	290.6	291.0	290.8	291.2	291.0	290.7	290.2	289.6	289.3	288.3	285.6	.
Unemployment, end of period	th. persons	253.2	254.5	261.1	260.1	255.5	245.2	232.8	222.3	219.7	219.3	222.2	228.5	233.7	240.5	254.3
Unemployment rate	%	14.5	14.7	14.8	14.7	14.5	13.9	13.2	12.5	12.4	12.3	12.6	12.9	13.2	13.7	14.5
Labour productivity, industry <sup>1)</sup>	CCPY	5.5	5.2	7.3	8.2	5.6	6.3	4.8	5.4	5.2	4.2	4.3	4.1	3.7	3.5	.
Unit labour costs, exch. r. adj. (EUR) <sup>1)</sup>	CCPY	-0.1	0.1	0.6	2.6	2.9	2.6	4.2	3.1	3.4	3.9	4.2	4.6	4.6	.	.
<b>WAGES, SALARIES</b>																
Total economy, gross	HRK	7521	7255	7357	7340	7404	7395	7625	7478	7580	7489	7526	7621	7829	7868	.
Total economy, gross	real, CMPY	1.3	-0.1	1.1	2.9	0.5	1.4	0.9	-1.6	-1.1	-1.6	2.7	1.4	-0.6	5.4	.
Total economy, gross	EUR	1025	992	1004	1010	1019	1018	1051	1032	1048	1041	1056	1065	1096	1093	.
Industry, gross	EUR	958	901	933	948	930	942	980	954	980	946	984	1004	1000	.	.
<b>PRICES</b>																
Consumer	PM	1.0	1.2	0.7	-0.1	0.6	0.7	1.1	0.7	0.1	-0.3	0.2	-0.1	-0.1	-0.6	1.2
Consumer	CMPY	4.6	5.8	6.2	5.8	5.7	5.7	6.4	7.6	8.4	7.4	6.4	5.9	4.7	2.9	3.4
Consumer	CCPY	2.6	2.9	6.2	6.0	5.9	5.9	6.0	6.2	6.5	6.7	6.6	6.6	6.4	6.1	3.4
Producer, in industry	PM	0.6	0.4	2.3	0.3	0.8	0.4	1.3	1.3	2.4	-0.1	-0.1	-1.1	-1.5	-1.3	-0.1
Producer, in industry	CMPY	5.4	5.8	7.4	7.5	7.6	7.7	8.7	9.6	12.0	11.0	10.3	8.8	6.5	4.7	1.8
Producer, in industry	CCPY	3.2	3.4	7.4	7.5	7.6	7.5	7.8	8.1	8.6	9.0	9.1	9.0	8.8	8.4	1.8
<b>FOREIGN TRADE<sup>2)3)</sup></b>																
Exports total (fob), cumulated	EUR mn	8268	9002	701	1463	2177	2980	3822	4618	5631	6387	7270	8068	8868	9572	.
Imports total (cif), cumulated	EUR mn	17335	18833	1522	3159	4860	6816	8615	10516	12432	14032	15958	17774	19344	20817	.
Trade balance, cumulated	EUR mn	-9067	-9830	-821	-1696	-2683	-3836	-4793	-5898	-6801	-7645	-8688	-9705	-10476	-11245	.
Exports to EU-27 (fob), cumulated	EUR mn	5036	5429	434	889	1360	1833	2319	2852	3425	3841	4386	4902	5407	5839	.
Imports from EU-27 (cif), cumulated	EUR mn	11280	12232	882	1904	3056	4381	5529	6760	7990	8956	10161	11376	12369	13347	.
Trade balance with EU-27, cumulated	EUR mn	-6244	-6803	-448	-1014	-1696	-2548	-3210	-3909	-4565	-5115	-5776	-6474	-6962	-7508	.
<b>FOREIGN FINANCE</b>																
Current account, cumulated <sup>4)</sup>	EUR mn	.	-3233	.	.	-2517	.	.	-4336	.	.	-2486	.	.	.	.
<b>EXCHANGE RATE</b>																
HRK/USD, monthly average	nominal	5.005	5.023	4.987	4.933	4.689	4.606	4.664	4.665	4.580	4.797	4.955	5.355	5.609	5.377	5.529
HRK/EUR, monthly average	nominal	7.340	7.315	7.327	7.267	7.267	7.266	7.255	7.247	7.230	7.196	7.126	7.158	7.141	7.197	7.363
USD/HRK, calculated with CP <sup>6)</sup>	real, Jan04=100	120.5	121.7	122.8	123.8	129.8	132.3	131.0	130.6	132.5	126.6	123.0	114.8	111.6	.	.
USD/HRK, calculated with PPP <sup>6)</sup>	real, Jan04=100	110.8	111.0	112.9	113.4	116.9	117.7	114.3	113.5	115.6	113.3	111.0	107.5	106.2	.	.
EUR/HRK, calculated with CP <sup>6)</sup>	real, Jan04=100	107.4	108.6	109.4	109.7	109.5	109.8	110.5	110.9	111.4	111.6	112.6	112.0	112.6	111.2	110.7
EUR/HRK, calculated with PPP <sup>6)</sup>	real, Jan04=100	103.8	104.4	105.6	106.0	106.1	105.5	105.5	105.6	107.6	108.7	110.0	109.8	110.5	109.8	.
<b>DOMESTIC FINANCE</b>																
M0, end of period	HRK bn	15.9	16.0	15.3	15.2	15.3	15.8	16.2	16.9	17.6	17.6	16.6	17.0	16.8	17.1	.
M1, end of period	HRK bn	54.2	57.9	52.2	51.2	52.8	52.7	53.2	54.4	55.5	55.7	53.7	52.7	51.1	55.2	.
Broad money, end of period	HRK bn	207.6	215.5	208.4	209.6	211.6	212.9	212.9	216.0	221.2	226.4	226.9	223.5	218.1	225.0	.
Broad money, end of period	CMPY	15.6	18.1	13.9	14.7	14.4	13.8	12.3	11.1	9.9	9.2	14.7	9.3	5.0	4.4	.
Discount rate (p.a.), end of period	%	4.5	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
Discount rate (p.a.), end of period <sup>6)</sup>	real, %	-0.9	3.0	1.5	1.4	1.3	1.2	0.3	-0.5	-2.7	-1.8	-1.2	0.2	2.3	4.1	7.1
<b>BUDGET</b>																
Central gov. budget balance, cum. <sup>7)</sup>	HRK mn	-900	-3500	1963	1680	1383	3062	2992	2957	3772	3633	3159	3680	2660	.	.

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

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

3) Cumulation starting January and ending December each year.

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

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

6) Deflated with annual PPI.

7) Consolidated central government budget.

## M O N T E N E G R O: Selected monthly data on the economic situation 2007 to 2009

(updated end of Feb 2009)

		2007		2008												2009
		Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
<b>PRODUCTION</b>																
Industry, total	real, CMPY	5.8	7.7	13.1	18.9	2.4	-5.3	-9.5	4.4	-12.7	-7.3	2.3	-20.7	-6.8	-19.9	.
Industry, total	real, CCPY	-0.7	0.1	12.4	17.2	12.0	6.9	3.7	3.8	1.2	0.1	0.4	-2.1	-2.6	-4.2	.
Industry, total	real, 3MMA	13.0	8.3	13.6	12.0	5.3	-4.4	-4.5	-6.3	-5.7	-5.8	-8.9	-8.7	-16.0	.	.
<b>LABOUR</b>																
Employment <sup>1)</sup>	th. persons	157.7	159.2	160.4	161.1	162.6	162.3	166.0	170.1	168.9	168.5	167.7	168.6	169.1	169.2	.
Employment in industry	th. persons	33.9	34.1	34.4	34.4	34.7	33.4	34.0	34.4	34.1	34.1	33.9	33.9	34.3	34.7	.
Unemployment, end of period	th. persons	31.8	31.5	31.3	31.5	31.3	30.3	30.0	29.1	28.7	28.1	28.3	28.7	28.6	28.4	.
Unemployment rate	%	16.8	16.5	16.3	16.3	16.1	15.7	15.3	14.6	14.5	14.3	14.4	14.5	14.5	14.4	.
Labour productivity, industry	CCPY	1.6	2.4	14.8	19.7	14.2	9.9	6.9	6.9	4.4	3.2	3.6	1.2	0.3	-1.8	.
Unit labour costs, exch.r. adj.(EUR)	CCPY	9.7	9.1	17.6	-1.8	0.6	3.6	6.8	8.6	11.5	12.5	12.1	14.7	16.1	18.9	.
<b>WAGES, SALARIES</b>																
Total economy, gross	EUR	539	554	564	584	578	588	602	623	610	625	630	621	629	651	.
Total economy, gross	real, CMPY	14.5	12.8	16.0	13.5	13.5	11.7	12.7	12.5	13.9	14.7	14.3	10.4	9.6	9.6	.
Industry, gross	EUR	594	588	620	624	607	612	671	730	673	679	720	683	716	704	.
<b>PRICES</b>																
Consumer	PM	1.0	0.3	1.4	0.1	0.4	1.2	1.0	1.2	-0.4	0.3	1.0	0.0	-0.2	1.0	.
Consumer	CMPY	7.6	7.7	7.9	8.0	8.2	9.1	9.5	11.4	9.7	9.5	8.5	7.8	6.5	1.0	.
Consumer	CCPY	3.9	4.2	7.9	7.9	8.0	8.2	8.5	8.8	9.0	8.9	8.9	8.8	9.2	9.0	.
Producer, in industry	PM	2.9	0.2	2.1	0.8	2.8	0.5	1.1	5.5	0.1	1.2	-1.0	-0.1	-0.8	-5.2	.
Producer, in industry	CMPY	13.9	14.6	16.3	16.0	16.4	15.1	16.5	22.7	17.2	19.0	17.6	17.2	12.9	6.9	.
Producer, in industry	CCPY	8.1	8.7	16.3	16.2	16.2	15.9	16.1	17.2	17.2	17.4	17.4	17.4	17.0	16.1	.
<b>FOREIGN TRADE<sup>2)</sup></b>																
Exports total (fob), cumulated	EUR mn	.	660	.	.	111	.	.	270	.	.	415	.	.	530	.
Imports total (cif), cumulated	EUR mn	.	2001	.	.	415	.	.	967	.	.	1499	.	.	2300	.
Trade balance, cumulated	EUR mn	.	-1342	.	.	-305	.	.	-697	.	.	-1084	.	.	-1770	.
<b>FOREIGN FINANCE</b>																
Current account, cumulated	EUR mn	.	-825	.	.	-294	.	.	-623	.	.	-640	.	.	-900	.
<b>EXCHANGE RATE</b>																
EUR/USD, monthly average	nominal	0.681	0.686	0.679	0.678	0.644	0.635	0.643	0.643	0.634	0.668	0.696	0.751	0.785	0.744	0.755
USD/EUR, calculated with CPI <sup>3)</sup>	real, Jan04=100	86.7	87.8	87.6	87.4	82.6	81.9	83.1	83.3	81.4	86.3	90.9	99.1	105.5	.	.
USD/EUR, calculated with PPI <sup>3)</sup>	real, Jan04=100	85.3	86.3	86.1	85.8	81.5	79.4	78.9	81.7	78.7	86.2	90.2	102.8	112.1	.	.
<b>BUDGET</b>																
General gov.budget balance, cum.	EUR mn	.	179	.	.	42	.	.	81	.	.	157	.	.	67	.

1) Excluding individual farmers.

2) Cumulation starting January and ending December each year.

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

## M A C E D O N I A: Selected monthly data on the economic situation 2007 to 2009

(updated end of Feb 2009)

		2007		2008												2009
		Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
<b>PRODUCTION</b>																
Industry, total <sup>1)</sup>	real, CMPY	5.4	2.6	13.6	7.0	-1.4	6.2	17.6	12.2	14.7	8.5	13.7	-9.9	-2.9	-10.1	.
Industry, total <sup>1)</sup>	real, CCPY	3.9	3.8	13.6	10.1	5.8	5.9	8.3	9.0	9.9	9.7	10.2	7.8	6.8	5.3	.
Industry, total <sup>1)</sup>	real, 3MMA	7.3	7.1	7.2	5.8	3.8	7.2	11.9	14.8	11.8	12.4	3.7	0.2	-7.7	.	.
<b>LABOUR</b>																
Employees <sup>1)</sup>	th. persons	255.3	256.6	255.0	255.6	255.9	256.8	257.9	257.8	258.2	257.4	256.9	255.8	.	.	.
Employees in industry <sup>1)</sup>	th. persons	89.9	90.1	88.6	88.4	88.4	88.8	89.3	89.2	89.1	88.4	87.8	86.9	.	.	.
Unemployment, quarterly average <sup>2)</sup>	th. persons	.	316.2	.	.	319.9	.	.	310.4	.	.	305.3	.	.	.	.
Unemployment rate <sup>2)</sup>	%	.	34.7	.	.	34.8	.	.	33.8	.	.	33.0	.	.	.	.
Labour productivity, industry <sup>1)</sup>	CCPY	9.8	8.9	13.5	10.3	6.0	6.1	8.5	9.6	10.5	10.5	11.0	8.6	.	.	.
Unit labour costs, exch.r. adj.(EUR) <sup>1)</sup>	CCPY	-4.9	-3.8	-4.4	-3.3	0.6	0.1	-2.2	-2.7	-3.6	-3.9	-4.1	-2.1	.	.	.
<b>WAGES, SALARIES</b>																
Total economy, gross	MKD	25397	25435	25349	24799	25289	25412	25612	25673	25739	25758	27513	27758	27507	.	.
Total economy, gross	real, CMPY	2.2	3.9	2.6	-0.8	-0.4	-1.2	-0.3	0.1	0.5	0.5	3.9	0.9	3.2	.	.
Total economy, gross	EUR	415	415	413	404	413	414	418	420	421	421	450	454	448	.	.
Industry, gross	EUR	359	364	368	349	361	365	368	374	370	372	384	389	.	.	.
<b>PRICES</b>																
Consumer	PM	1.4	1.2	1.6	0.8	0.8	0.4	0.2	0.3	-0.9	-0.2	-0.2	0.7	0.2	0.3	-0.6
Consumer	CMPY	4.8	6.2	7.4	8.3	8.8	8.8	8.3	8.7	8.1	7.2	6.0	6.2	5.0	4.1	1.8
Consumer	CCPY	1.8	2.2	8.7	9.1	9.5	9.7	9.6	9.7	9.7	9.5	9.3	9.0	8.7	8.3	1.8
Producer, in industry	PM	2.6	-0.3	1.1	-0.2	2.5	0.7	3.4	2.8	2.3	-2.2	-0.3	-3.3	-6.8	-1.4	-3.0
Producer, in industry	CMPY	8.7	6.9	9.6	10.2	11.7	10.7	14.4	15.7	17.2	13.8	14.4	9.2	-0.9	-1.8	-5.9
Producer, in industry	CCPY	2.2	2.5	9.6	9.9	10.5	10.5	11.3	12.1	12.8	13.0	13.1	12.7	11.4	10.3	-5.9
<b>FOREIGN TRADE<sup>3)</sup></b>																
Exports total (fob), cumulated	EUR mn	2235	2449	182	397	612	842	1102	1352	1619	1820	2062	2293	2489	2665	.
Imports total (cif), cumulated	EUR mn	3421	3814	308	683	1054	1442	1857	2299	2761	3149	3525	3947	4319	4661	.
Trade balance, cumulated	EUR mn	-1186	-1365	-126	-285	-442	-600	-755	-947	-1142	-1328	-1463	-1655	-1829	-1996	.
Exports to EU-27 (fob), cumulated	EUR mn	1468	1593	114	251	384	524	662	803	984	1100	1240	1373	1502	1609	.
Imports from EU-27 (cif), cumulated	EUR mn	1697	1888	165	298	469	663	863	1077	1305	1476	1664	1870	2057	2240	.
Trade balance with EU-27, cumulated	EUR mn	-228	-295	-51	-47	-85	-139	-201	-273	-321	-377	-423	-497	-554	-631	.
<b>FOREIGN FINANCE</b>																
Current account, cumulated	EUR mn	-261	-415	-29	-99	-169	-230	-276	-376	-409	-422	-440	-534	-720	.	.
<b>EXCHANGE RATE</b>																
MKD/USD, monthly average	nominal	41.74	42.02	41.69	41.63	39.54	38.90	39.37	39.33	38.79	40.79	42.59	45.79	48.27	48.56	46.08
MKD/EUR, monthly average	nominal	61.20	61.23	61.34	61.32	61.21	61.37	61.23	61.17	61.18	61.18	61.17	61.20	61.41	61.41	61.40
USD/MKD, calculated with CPI <sup>6)</sup>	real, Jan04=100	108.6	109.3	111.4	112.2	118.0	119.7	117.6	116.9	116.9	111.4	106.6	100.8	97.7	.	.
USD/MKD, calculated with PPI <sup>6)</sup>	real, Jan04=100	110.4	109.5	110.2	109.0	114.5	115.3	114.4	115.4	116.9	111.7	108.1	102.9	95.5	.	.
EUR/MKD, calculated with CPI <sup>6)</sup>	real, Jan04=100	96.8	97.5	99.1	99.5	99.7	99.4	99.2	99.2	98.4	98.2	97.8	98.4	98.6	99.1	99.1
EUR/MKD, calculated with PPI <sup>6)</sup>	real, Jan04=100	103.5	102.9	102.9	102.0	104.0	103.4	105.6	107.3	108.9	107.3	107.3	105.1	99.5	99.5	.
<b>DOMESTIC FINANCE</b>																
M0, end of period	MKD bn	16.3	17.9	16.4	16.2	15.7	16.3	16.4	16.2	16.8	16.4	16.6	16.6	15.9	17.6	.
M1, end of period	MKD bn	39.8	45.8	43.0	43.9	42.6	44.3	46.1	47.4	46.1	47.6	47.6	46.6	46.6	.	.
Broad money, end of period <sup>5)</sup>	MKD bn	166.2	175.0	175.3	178.1	177.3	181.8	185.8	188.4	191.1	195.7	196.0	193.7	188.6	.	.
Broad money, end of period <sup>6)</sup>	CMPY	27.9	29.5	29.6	27.9	25.3	23.3	22.9	21.4	20.0	22.2	21.9	19.3	13.5	.	.
NB discount rate (p.a.) <sup>end of period</sup>	%	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
NB discount rate (p.a.) <sup>end of period<sup>7)</sup></sup>	real, %	-2.0	-0.4	-2.8	-3.4	-4.6	-3.8	-6.9	-7.9	-9.1	-6.4	-6.9	-2.4	7.4	8.5	13.1
<b>BUDGET</b>																
General gov.budget balance, cum. <sup>8)</sup>	UAH mn	10836	2173	1558	802	4259	4698	4238	4002	4906	6370	10383	10473	7577	-3852	.

1) In business entities with more than 10 persons employed.

2) Based on labour force survey.

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

4) Cumulation starting January and ending December each year.

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

6) M2 plus restricted deposits (in denar and in foreign currency) plus non-monetary deposits over 1 year.

7) Deflated with annual PPI.

8) Central government budget plus extra-budgetary funds

## S E R B I A: Selected monthly data on the economic situation 2007 to 2009

(updated end of Feb 2009)

		2007		2008												2009
		Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
<b>PRODUCTION</b>																
Industry, total	real, CMPY	-2.5	-0.5	3.3	11.6	2.1	2.5	2.1	2.0	5.0	-4.4	2.3	-3.0	-2.7	-9.0	.
Industry, total	real, CCPY	4.1	3.6	3.3	7.4	5.5	4.7	4.2	3.8	4.0	2.9	2.8	2.2	1.7	0.7	.
Industry, total	real, 3MMA	0.4	-0.1	4.4	5.5	5.1	2.2	2.2	3.0	0.8	0.9	-1.7	-1.2	-4.9	.	.
<b>LABOUR</b>																
Employees total	th. persons	1422.0	1418.0	1416.0	1413.0	1432.0	1429.0	1428.0	1426.0	1424.0	1423.0	1425.0	1426.0	.	.	.
Employees in industry	th. persons	460.0	445.0	441.0	441.0	445.0	443.0	441.0	338.0	437.0	435.0	435.0	432.0	.	.	.
Unemployment, end of period	th. persons	785.1	785.1	793.0	796.0	795.1	789.0	773.3	756.5	744.8	733.7	726.5	717.4	.	.	.
Unemployment rate	%	25.1	25.1	25.3	25.4	25.2	25.1	24.7	24.4	24.1	23.8	23.6	23.4	.	.	.
Labour productivity, industry	CCPY	11.6	11.0	10.1	13.8	11.3	10.3	9.4	13.1	12.6	10.9	10.4	9.6	.	.	.
Unit labour costs, exch.r. adj.(EUR)	CCPY	13.2	13.2	-4.5	-2.9	1.0	3.8	5.4	2.5	3.9	6.3	7.0	7.2	.	.	.
<b>WAGES, SALARIES</b>																
Total economy, gross	RSD	41010	48122	39331	43218	42873	45355	44835	45608	46115	46222	46015	47883	46944	53876	40245
Total economy, gross	real, CMPY	9.4	3.9	3.5	8.2	3.3	5.4	2.7	1.0	3.5	6.7	5.6	6.3	3.5	3.5	-6.9
Total economy, gross <sup>1)</sup>	EUR	484	607	475	518	521	566	544	577	599	605	601	563	526	608	428
Industry, gross <sup>1)</sup>	EUR	404	504	426	448	448	488	473	526	526	537	528	488	.	.	.
<b>PRICES</b>																
Consumer	PM	1.6	1.5	0.8	0.6	1.6	1.8	1.6	0.5	-1.1	0.1	0.9	1.9	0.0	-0.8	2.4
Consumer	CMPY	10.6	11.9	12.4	13.4	14.4	15.3	15.2	15.4	14.4	11.2	10.2	11.8	10.0	7.7	9.3
Consumer	CCPY	5.9	6.4	12.4	12.9	13.4	13.9	14.2	14.4	14.4	14.0	13.5	13.3	13.0	12.6	9.3
Producer, in industry	PM	1.2	1.0	2.6	0.7	1.7	1.0	1.2	1.2	1.0	0.8	-0.3	0.1	-0.4	-0.6	-1.6
Producer, in industry	CMPY	8.5	9.8	12.1	12.9	14.1	14.3	13.0	13.6	14.8	14.9	13.7	12.9	11.1	9.3	4.9
Producer, in industry	CCPY	5.9	6.2	12.1	12.5	13.0	13.4	13.3	13.3	13.5	13.7	13.7	13.6	13.4	13.0	4.9
<b>FOREIGN TRADE<sup>2)3)</sup></b>																
Exports total (fob), cumulated	EUR mn	5865	6429	468	1047	1675	2296	2977	3662	4406	5058	5733	6339	6851	7380	355
Imports total (cif), cumulated	EUR mn	11872	13188	1011	2241	3611	4985	6339	7748	9179	10390	11782	13083	14128	15326	629
Trade balance, cumulated	EUR mn	-6007	-6759	-544	-1195	-1936	-2688	-3362	-4087	-4773	-5332	-6049	-6743	-7277	-7945	-274
Exports to EU-27 (fob), cumulated	EUR mn	2995	3249	259	549	858	1162	1481	1919	2192	2419	2812	3088	3332	3556	174
Imports from EU-27 (cif), cumulated	EUR mn	6693	7428	480	1156	1917	2697	3437	4211	5052	5602	6336	7031	7589	8190	333
Trade balance with EU-27, cumulated	EUR mn	-3697	-4179	-221	-608	-1059	-1535	-1956	-2293	-2860	-3182	-3524	-3944	-4257	-4633	-158
<b>FOREIGN FINANCE</b>																
Current account, cumulated <sup>4)</sup>	EUR mn	-3792	-3838	-315	-754	-1279	-1886	-2421	-3066	-3688	-4085	-4609	-3031	-4908	.	.
<b>EXCHANGE RATE</b>																
RSD/USD, end of month	nominal	57.45	53.73	55.58	54.97	52.13	51.46	53.09	50.01	49.40	51.79	53.78	66.33	69.02	62.90	72.86
RSD/EUR, end of month	nominal	84.75	79.24	82.77	83.46	82.31	80.13	82.43	78.98	76.99	76.44	76.60	84.99	89.20	88.60	94.10
USD/RSD, calculated with CPI <sup>6)</sup>	real, Jan04=100	131.4	142.8	138.4	140.5	149.2	152.9	149.4	157.8	157.2	150.7	146.6	122.3	119.9	.	.
USD/RSD, calculated with PPI <sup>6)</sup>	real, Jan04=100	114.1	123.5	120.9	121.9	127.2	128.1	122.0	128.5	128.3	126.7	123.3	105.9	106.5	.	.
EUR/RSD, calculated with CPI <sup>6)</sup>	real, Jan04=100	114.2	123.5	119.5	118.7	121.3	126.3	123.9	129.5	131.4	132.6	133.1	122.2	116.9	116.9	113.5
EUR/RSD, calculated with PPI <sup>6)</sup>	real, Jan04=100	104.4	112.6	109.5	108.6	111.2	114.2	110.8	115.5	118.7	121.4	121.2	110.8	107.2	108.8	.
<b>DOMESTIC FINANCE</b>																
M0, end of period	RSD bn	64.3	77.0	73.9	78.0	70.3	72.4	74.1	69.5	69.2	70.5	71.6	77.3	80.6	90.0	81.8
M1, end of period	RSD bn	223.0	248.9	236.7	240.0	227.2	225.8	230.6	225.5	213.6	218.3	222.0	222.8	223.5	241.0	212.1
Broad money, end of period <sup>5)</sup>	RSD bn	878.0	903.9	936.3	939.0	953.5	942.8	979.0	947.2	936.5	966.7	985.1	974.3	1000.3	992.5	1005.5
Broad money, end of period <sup>6)</sup>	CMPY	50.0	42.5	50.4	46.5	42.5	39.3	39.4	33.7	25.6	23.7	24.5	23.0	13.9	9.8	7.4
NB discount rate (p.a.)end of period	%	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	.
NB discount rate (p.a.)end of period <sup>7)</sup>	real, %	0.0	-1.2	-3.2	-3.9	-4.9	-5.1	-4.0	-4.4	-5.5	-5.6	-4.5	-3.9	-2.3	-0.8	.
<b>BUDGET</b>																
Central gov.budget balance, cum. <sup>8)</sup>	RSD mn	31069	-38692	3456	251	-729	-7945	-16885	-19146	-10637	-17219	-17983	-17412	-32179	-54600	.

1) Calculation from NCU to EUR using the official end of month exchange rate.

2) Based on cumulated national currency and converted with the end of month exchange rate.

3) Cumulation starting January and ending December each year.

4) Calculated from USD to NCU to EUR using the official end of month exchange rate.

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

6) Excl. gov. deposits, excl. frozen foreign currency savings deposits.

7) Deflated with annual PPI.

8) Including net lending.

## R U S S I A: Selected monthly data on the economic situation 2007 to 2009

(updated end of Feb 2009)

		2007		2008												2009
		Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
<b>PRODUCTION</b>																
Industry, total <sup>1)</sup>	real, CMPY	5.2	5.7	4.5	7.5	6.6	9.2	6.7	0.8	3.1	4.8	6.4	1.7	-8.7	-10.2	-16.0
Industry, total <sup>1)</sup>	real, CCPY	6.4	6.4	4.5	6.0	6.2	6.9	6.9	5.8	5.4	5.4	5.5	5.1	3.7	2.4	-16.0
Industry, total <sup>1)</sup>	real, 3MMA	5.6	5.2	5.9	6.2	7.7	7.5	5.5	3.5	2.9	4.8	4.2	-0.3	-5.8	-11.5	.
Construction, total	real, CMPY	12.9	25.8	30.3	30.0	27.0	21.8	17.2	16.2	12.1	6.4	9.8	5.9	6.3	-15.7	-16.8
<b>LABOUR<sup>2)</sup></b>																
Employment total, quarterly average	th. persons	.	70814	.	.	69491	.	.	71631	.	.	72136	.	.	70711	.
Unemployment, quarterly average	th. persons	.	4246	.	.	5308	.	.	4097	.	.	4472	.	.	5289	.
Unemployment rate	%	.	5.7	.	.	7.1	.	.	5.4	.	.	5.8	.	.	7.0	.
<b>WAGES, SALARIES</b>																
Total economy, gross	RUB	14656	18591	14771	15354	16172	16538	16643	17715	17758	17244	17739	17643	17598	20238	15200
Total economy, gross	real, CMPY	16.2	16.5	14.8	15.9	14.6	15.9	13.0	12.2	14.3	13.0	12.8	10.4	5.5	-4.0	-9.3
Total economy, gross	EUR	408	519	411	425	440	446	451	481	482	476	488	500	507	533	359
Industry, gross <sup>3)</sup>	EUR	389	454	392	397	414	421	424	440	459	460	461	471	479	487	.
<b>PRICES</b>																
Consumer	PM	1.2	1.1	2.3	1.2	1.2	1.4	1.4	1.0	0.5	0.4	0.8	0.9	0.8	0.7	2.4
Consumer	CMPY	11.5	11.9	12.6	12.6	13.3	14.2	15.1	15.1	14.7	15.0	15.0	14.2	13.8	13.3	13.5
Consumer	CCPY	8.9	9.1	12.6	12.6	12.8	13.2	13.6	13.8	14.0	14.1	14.2	14.2	14.2	14.1	13.5
Producer, in industry	PM	3.1	3.7	1.6	0.7	0.7	4.5	3.5	4.9	5.4	0.5	-5.0	-6.6	-8.4	-7.6	-2.7
Producer, in industry	CMPY	21.8	25.1	24.7	25.7	26.7	26.9	24.7	27.6	33.5	31.5	25.7	17.5	4.3	-7.0	-10.9
Producer, in industry	CCPY	13.1	14.1	24.7	25.2	25.7	26.0	25.7	26.1	27.2	27.8	27.5	26.5	24.3	21.4	-10.9
<b>FOREIGN TRADE<sup>4)5)</sup></b>																
Exports total, cumulated	EUR mn	230143	256765	23273	47038	72449	97939	125306	153477	183359	213588	243620	272569	296530	318033	.
Imports total, cumulated	EUR mn	130190	145738	9384	22617	36644	51774	66341	81548	98560	115256	132665	150782	165867	181469	.
Trade balance, cumulated	EUR mn	99954	111026	13889	24421	35804	46165	58965	71929	84799	98332	110955	121787	130662	136564	.
<b>FOREIGN FINANCE</b>																
Current account, cumulated <sup>6)</sup>	EUR mn	.	55703	.	.	25034	.	.	41348	.	.	59731	.	.	67483	.
<b>EXCHANGE RATE</b>																
RUB/USD, monthly average	nominal	24.474	24.566	24.501	24.535	23.761	23.513	23.730	23.638	23.351	24.135	25.286	26.356	27.311	28.136	31.520
RUB/EUR, monthly average	nominal	35.901	35.796	35.982	36.123	36.786	37.064	36.892	36.799	36.839	36.260	36.340	35.286	34.739	37.993	42.377
USD/RUB, calculated with CPI <sup>7)</sup>	real, Jan04=100	152.3	153.5	156.7	158.0	163.7	166.7	166.2	166.8	168.9	164.7	158.6	155.1	153.8	.	.
USD/RUB, calculated with PPI <sup>7)</sup>	real, Jan04=100	173.9	180.0	181.0	180.2	182.3	189.5	188.6	194.8	202.9	202.8	186.3	176.7	164.0	.	.
EUR/RUB, calculated with CPI <sup>7)</sup>	real, Jan04=100	135.5	136.9	139.6	140.1	138.1	138.4	140.1	141.3	141.9	144.8	145.3	150.9	155.1	143.1	132.2
EUR/RUB, calculated with PPI <sup>7)</sup>	real, Jan04=100	162.8	169.0	169.2	168.5	165.5	169.9	174.1	180.8	188.9	194.3	184.7	180.0	170.8	146.4	.
<b>DOMESTIC FINANCE</b>																
M0, end of period	RUB bn	3373.4	3702.2	3465.7	3487.6	3475.5	3601.4	3656.2	3724.9	3807.2	3887.4	3904.2	3962.2	3793.1	3794.8	.
M1, end of period	RUB bn	7285.8	7974.3	7616.6	7571.1	7716.1	7304.4	7533.2	7814.1	7777.3	7963.2	8005.2	7549.1	7518.1	7591.4	.
M2, end of period	RUB bn	13500.6	14628.0	14365.7	14650.3	14918.3	14851.5	15395.9	15926.6	15760.2	16195.6	16067.8	15460.3	15421.3	16774.7	.
M2, end of period	CMPY	46.2	44.2	45.0	44.0	36.9	32.7	29.5	32.4	30.4	31.1	26.6	21.8	14.2	14.7	.
Refinancing rate (p.a.) <sup>end of period</sup>	%	10.0	10.0	10.0	10.3	10.3	10.5	10.5	10.8	11.0	11.0	11.0	11.0	12.0	13.0	13.0
Refinancing rate (p.a.) <sup>end of period</sup> <sup>8)</sup>	real, %	-9.7	-12.0	-11.8	-12.3	-13.0	-12.9	-11.4	-13.2	-16.9	-15.6	-11.7	-5.5	7.3	21.5	26.9
<b>BUDGET</b>																
Central gov. budget balance, cum.	RUB bn	1824.9	1796.1	300.6	464.0	600.0	1139.2	1311.7	1375.1	2118.9	2347.2	2561.5	2783.4	2511.2	.	.

1) According to NACE C+D+E.

2) Based on labour force survey.

3) Manufacturing industry only (D according to NACE).

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.

8) Deflated with annual PPI.



## U K R A I N E: Selected monthly data on the economic situation 2007 to 2009

(updated end of Feb 2009)

		2007		2008												2009
		Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
<b>PRODUCTION</b>																
Industry, total	real, CMPY	7.9	5.5	5.7	11.5	5.8	8.3	8.3	5.2	5.1	-0.5	-4.5	-19.8	-28.6	-26.6	-34.1
Industry, total	real, CCPY	10.7	10.2	5.7	8.8	7.8	8.0	8.0	7.5	7.3	6.3	5.1	2.2	-0.7	-3.1	-34.1
Industry, total	real, 3MMA	9.0	6.4	7.6	7.7	8.5	7.5	7.3	6.2	3.3	0.0	-8.3	-17.6	-25.0		
Construction, total	real, CCPY	14.7	15.6	-5.0	0.4	1.7	0.0	-1.1	-1.2	-2.1	-2.6	-7.2	-9.6	-13.0	-16.0	-57.6
<b>LABOUR</b>																
Employees <sup>1)</sup>	th. persons	11386	11317	11367	11416	11467	11459	11430	11441	11451	11428	11387	11358	11210	.	.
Employees in industry <sup>1)</sup>	th. persons	3267	3247	3243	3248	3249	3231	3211	3206	3197	3185	3169	3156	3104	.	.
Unemployment, end of period	th. persons	587.0	642.3	662.8	671.1	639.6	611.7	573.0	538.1	518.7	509.5	513.6	530.1	639.9	844.9	900.6
Unemployment rate	%	2.1	2.3	2.4	2.4	2.3	2.2	2.0	1.9	1.8	1.8	1.8	1.9	2.3	3.0	3.2
Labour productivity, industry <sup>1)</sup>	CCPY	13.2	12.6	7.5	10.7	9.7	9.9	9.9	9.5	9.4	8.5	7.3	4.5	1.8	.	.
Unit labour costs, exch.r. adj.(EUR) <sup>1)</sup>	CCPY	4.2	4.6	9.4	8.3	6.9	6.0	6.2	7.3	8.3	10.1	12.9	17.0	19.0	.	.
<b>WAGES, SALARIES<sup>1)</sup></b>																
Total economy, gross	UAH	1485	1675	1521	1633	1702	1735	1774	1883	1930	1872	1916	1917	1823	2001	.
Total economy, gross	real, CMPY	16.7	12.5	14.6	17.3	9.6	8.9	6.0	6.5	7.1	6.3	7.9	5.5	0.4	-2.3	.
Total economy, gross	EUR	201	228	205	220	218	218	229	250	253	257	274	284	238	195	.
Industry, gross	EUR	229	252	237	246	250	248	260	272	284	296	313	313	253	201	.
<b>PRICES</b>																
Consumer	PM	2.2	2.1	2.9	2.7	3.8	3.1	1.3	0.8	-0.5	-0.1	1.1	1.7	1.5	2.1	2.9
Consumer	CMPY	15.2	16.6	19.4	21.9	26.2	30.2	31.1	29.3	26.8	26.0	24.6	23.2	22.3	22.3	22.3
Consumer	CCPY	12.5	12.8	19.4	20.6	22.5	24.4	25.8	26.4	26.4	26.4	26.2	25.8	25.5	25.2	22.3
Producer, in industry	PM	1.0	3.2	2.3	3.0	6.6	6.6	3.7	4.2	3.6	1.8	-1.8	-1.4	-6.5	-0.4	0.2
Producer, in industry	CMPY	20.0	23.2	23.2	25.6	31.7	37.5	39.4	43.7	46.4	47.0	42.7	37.7	27.5	23.0	20.5
Producer, in industry	CCPY	19.1	19.5	23.2	24.4	26.9	29.6	31.7	33.7	35.6	37.1	37.8	37.8	36.8	35.5	20.5
<b>FOREIGN TRADE<sup>2)3)</sup></b>																
Exports total (fob), cumulated	EUR mn	32616	35931	2484	5667	9195	12750	16806	21257	26120	30589	35195	39539	42540	45561	.
Imports total (cif), cumulated	EUR mn	39655	44264	2557	6425	10824	17610	22577	27688	33308	38738	44580	50231	54491	58163	.
Trade balance, cumulated	EUR mn	-7039	-8333	-72	-758	-1629	-4860	-5771	-6431	-7188	-8150	-9385	-10692	-11950	-12602	.
<b>FOREIGN FINANCE</b>																
Current account, cumulated <sup>4)</sup>	EUR mn	.	-3849	.	.	-2407	.	.	-4344	.	.	5413	-6984	-7912	.	.
<b>EXCHANGE RATE</b>																
UAH/USD, monthly average	nominal	5.050	5.050	5.050	5.050	5.050	5.050	4.986	4.852	4.843	4.845	4.853	5.043	6.004	7.581	7.700
UAH/EUR, monthly average	nominal	7.404	7.358	7.427	7.436	7.813	7.962	7.757	7.535	7.641	7.291	6.985	6.755	7.651	10.242	10.290
USD/UAH, calculated with CPI <sup>6)</sup>	real, Jan04=100	144.6	147.8	151.4	155.1	159.6	163.6	166.5	170.7	169.3	169.8	171.5	169.6	147.4	.	.
USD/UAH, calculated with PPP <sup>6)</sup>	real, Jan04=100	152.1	157.3	158.8	162.0	168.0	176.2	179.7	188.6	191.2	200.0	198.6	199.4	164.5	.	.
EUR/UAH, calculated with CPI <sup>6)</sup>	real, Jan04=100	128.8	131.8	134.7	137.5	134.7	135.8	140.3	145.0	142.4	149.1	156.9	165.0	148.4	113.4	116.8
EUR/UAH, calculated with PPP <sup>6)</sup>	real, Jan04=100	142.5	147.7	148.3	151.4	152.6	158.0	165.8	175.5	177.9	191.2	196.6	203.2	171.0	129.0	.
<b>DOMESTIC FINANCE</b>																
M0, end of period	UAH bn	101.5	111.1	105.4	106.9	109.8	116.1	118.8	124.7	130.9	134.0	133.6	146.3	141.3	154.8	.
M1, end of period	UAH bn	168.6	181.7	173.4	174.5	183.7	188.6	189.0	201.1	207.8	212.6	214.8	217.2	209.3	225.1	.
Broad money, end of period	UAH bn	365.6	396.2	391.3	398.1	416.0	429.6	429.7	450.6	467.2	474.9	477.7	481.1	483.8	515.7	.
Broad money, end of period	CMPY	49.8	51.7	52.7	52.3	52.7	52.2	49.1	48.7	47.4	44.4	37.2	35.8	32.3	30.2	.
Refinancing rate (p.a.) <sub>end of period</sub>	%	8.0	8.0	10.0	10.0	10.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Refinancing rate (p.a.) <sub>end of period</sub> <sup>5)</sup>	real, %	-10.0	-12.4	-10.7	-12.4	-16.5	-18.6	-19.7	-22.1	-23.5	-23.8	-21.5	-18.7	-12.1	-9.0	-7.1
<b>BUDGET</b>																
General gov.budget balance, cum.	UAH mn	5925	-7671	3974	5823	5670	5360	11843	6544	6643	14415	11762	7348	5558	-14183	.

1) Excluding small firms.

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

3) Cumulation starting January and ending December each year.

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

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

6) Deflated with annual PPI.

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