

# Monthly Report

**After the Elections in Slovakia: What Comes Next?**

**Health Along the Escape Route**

**Integration of Migrants from Different Countries of Origin  
in EU Labour Markets**

**Intra-EU Mobility and Push and Pull Factors in EU Labour  
Markets: a Panel VAR Model**





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**wiiw Spring Seminar 2016**  
**Europe's Integration Challenged**

**Thursday, 7 April 2016**

Venue: Oesterreichische Nationalbank  
1090 Vienna, Otto-Wagner-Platz 3, Kassensaal

*Programme*

- 08:30 Registration and coffee
- 09:00 **Welcome Address** ***Doris Ritzberger-Grünwald**  
Director, Economic Analysis Department  
Oesterreichische Nationalbank*
- 9:10 **Introduction to the Seminar** ***Robert Stehrer**  
Designated Scientific Director, wiiw*
- 9:20 **Welcome Address: Introducing the Challenges** ***Hannes Swoboda**  
President wiiw, MEP Ret.*
- 09:35 **Keynote: Europe's Integration Challenged** ***Danuta Hübner**  
Member of European Parliament  
Former European Commissioner*
- 10:45 Coffee break
- 11:15 **The Economic Situation in CESEE** ***Gábor Hunya**  
Senior Economist, wiiw*
- 12:00 **Infrastructure Investment and the Competitiveness of the Economies in the Western Balkans** ***Mario Holzner**  
Deputy Director, wiiw*
- 12:30 Buffet luncheon

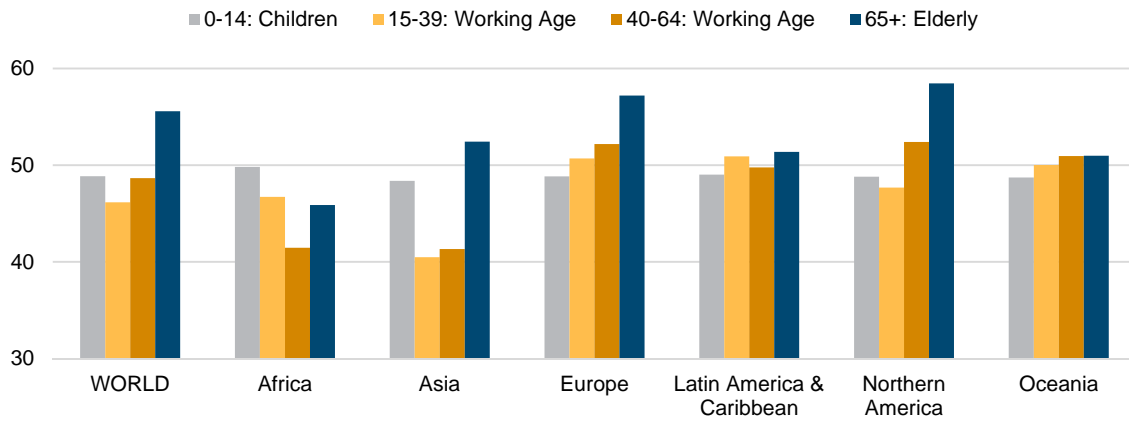
- 13:30 Keynote: **China's Silk Road Strategy** **Peter Nolan**  
*Chong Hua Professor in Chinese Development  
Cambridge University*
- 14:30 **Eurasia and the Silk Road** **Peter Havlik**  
*Senior Economist, wiiw*
- 15:00 Coffee break
- 15:20 **The Role of Financing Constraints on Innovation  
Strategies: Evidence for CEE, SEE and CIS Firms** **Sandra Leitner**  
*Senior Economist, wiiw*
- 16:00 **European Integration and the  
Migration Challenge** **Michael Landesmann**  
*Scientific Director, wiiw*
- 16:40 End of seminar
- 18:00 Informal gathering at a Viennese 'Heurigen' by invitation of wiiw  
Address: 10er Marie, Ottakringer Straße 222, 1160 Vienna

\* \* \*

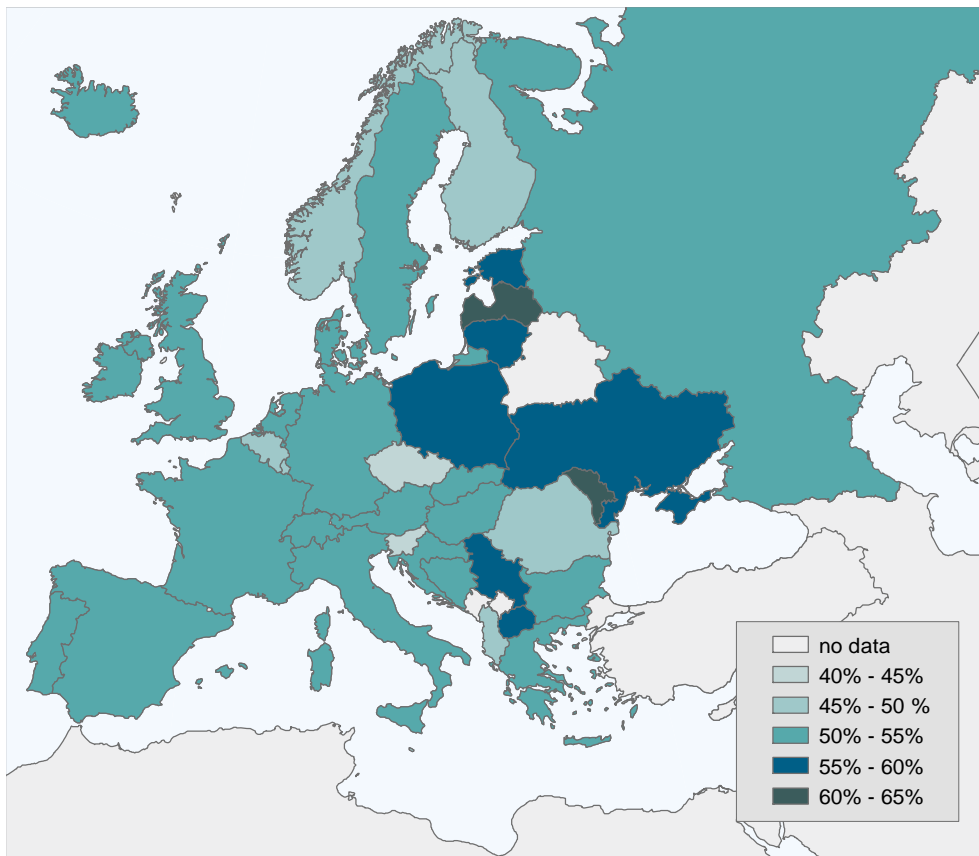
We gratefully acknowledge the sponsoring of this event by Oesterreichische Nationalbank.



**Female migrants as a percentage of the international migrant stock by age group and major area of destination in 2015**



**Female migrants as a percentage of the international migrant stock in Europe in 2015**



Note: International migrants are defined as persons living in a country other than where they were born. Values per age group were calculated by regrouping and averaging over 16 age groups for which data were provided by UNDP.  
 Source: United Nations, Department of Economic and Social Affairs (2015), Trends in International Migrant Stock: Migrants by Age and Sex (United Nations database, POP/DB/MIG/Stock/Rev. 2015).

## Opinion Corner: After the elections in Slovakia: what comes next?

ANSWERED BY DORIS HANZL-WEISS

**On 5 March 2016, parliamentary elections took place in Slovakia. While opinion polls had predicted only a small loss for the ruling SMER party and five to six right-wing conservative parties in parliament, the final outcomes have turned out to be completely different. What have been the major surprises of these election outcomes?**

*In fact, the elections on 5 March have brought about unexpected results, including a large drop in the support for Fico's ruling party SMER-SD ('Direction – Social Democracy') and a reshuffling of parties in the parliament. The support for Fico's SMER-SD dropped from previously 44.4% to only 28.3%, while 35% had been predicted in the latest opinion polls. The second surprise concerns the parties which were able to pass the 5% threshold and those which were not: It had not been predicted that the far-right-wing extremist party of Kotleba's 'People's Party – Our Slovakia' would get into parliament, but in fact it gained 8% of the votes. Kotleba won regional elections in Banská Bystrica in 2013 and became regional governor, following an anti-Roma and anti-EU course. Also, the protest party of businessman Boris Kollár – Sme Rodina ('We Are a Family') – achieved an unexpected 6.6%. In contrast, it had seemed certain that the Christian Democratic Movement (KDH) of Ján Figel would get into parliament, but it won only 4.9% of the votes. The third surprise was the ranking of the parties in parliament (overall, eight parties have passed the 5% threshold). The liberal party 'Freedom and Solidarity' (SaS) of Richard Sulík turned out to be the second strongest party after SMER, while the right-wing conservative Siet' party lost the anticipated support.*

**What does this mean for forming a new government?**

*Against the backdrop of these election results, building a government in Slovakia is becoming extremely difficult. While before the elections it had been assumed that Fico would need only one coalition partner in order to have a majority in the 150-seats parliament, he now needs at least two (the less likely option) or even three partners. A centre-right coalition would need the collaboration of five to six parties. However, more parties in the government will also make it more unstable. The question now arises whether it is possible to form a government at all and, if yes, how long it may stay in office. The latter aspect is especially important as Slovakia will take over the Presidency of the Council of the European Union in July this year. Another option would be the formation of a caretaker government and early elections thereafter.*

**What is the heritage of the outgoing government and what are the main challenges ahead?**

*After the elections in 2012, when Fico's SMER gained 44.4% of the votes, his party was able to govern alone for four years. At the beginning of his legislation period, the famous flat tax – introduced in 2004 with a rate of 19% for all taxes – was withdrawn. In the wake of the budget consolidation a whole range of revenue-based measures were imposed: There was a rise in the income tax rate to 25% for high-*

income earners and, more importantly, the corporate tax increased from 19% to 23%. The basis of the bank levy was extended, a special levy on corporations active in regulated businesses was introduced and shifts from the second pension pillar (compulsory private) to the first (pay-as-you-go) one took place. The budget deficit thus declined from 4.2% in 2011 to about 2.7% of the GDP in 2015 and Slovakia was able to exit the EU's Excessive Deficit Procedure in June 2014. Public debt now stands at about 53% of GDP. Furthermore, the Labour Code was revised, which made the labour market less flexible, and selected investment incentives were granted, mainly to foreign-owned companies in the country. In 2013, for example, an agreement was signed with US Steel, which had threatened to leave its Košice plant.

During the second half of his term, Fico announced three social packages, two of which were implemented. Measures included, for example, free train rides for students and pensioners and a cut in natural gas prices for households. In addition, the VAT was reduced to 10% for selected basic foodstuffs as of 2016, and the minimum wage was raised to EUR 405. The third social package was made public just shortly before the elections, and its fate is now unclear. It promised the creation of 100,000 new jobs, the construction of apartments for young families and teachers, Christmas bonuses for pensioners, the building of roads and security measures.

The government did not touch upon reforms in the healthcare or the education system, the judiciary, the fight against corruption or the integration of the Roma minority. As such, these issues are left for the new government to be tackled with. Further challenges are high unemployment, especially youth unemployment, and the growing regional disparities between the prosperous West and the poor East of Slovakia.

### **How has the state of the economy influenced the election results?**

In fact, the elections have not been influenced by the current economic situation of the country but have been dominated by other topics: the migration crisis as an external threat came first, then protests of teachers and nurses drew attention to domestic problems. In fact, these election results come at a time when the Slovak economy is doing very well: preliminary estimates show that Slovak GDP grew by 3.6% in 2015, the strongest increase in the past four years. In addition, labour market developments have also been very favourable, with a 2% increase in employment in 2015 and a drop in the unemployment rate to 11.5%. Economic growth is forecast at about 3% annually for the period 2016-2018, with a slight upward trend in the later years and backed by domestic demand. A new car plant, built by Jaguar Land Rover, will become the fourth major car producer in the country (besides Volkswagen, Kia and PSA Peugeot-Citroën) and will provide further impetus for growth.

**Table 1 / Final results in detail**

<i>Party</i>	<i>Votes</i>	<i>Mandates</i>
SMEK-SD	28.3 %	49
Freedom and Solidarity (SaS)	12.1 %	21
OL'ANO-NOVA	11.0 %	19
Slovak National Party (SNS)	8.6 %	15
Kotleba's People's Party – Our Slovakia (L'SNS)	8.0 %	14
Sme Rodina/We Are a Family	6.6 %	11
Most-Híd	6.5 %	11
Siet'	5.6 %	10

# Health along the escape route

BY JULIA GRÜBLER

## 'HEALTH IS NOT EVERYTHING'

'*But without it, everything is nothing*', was a conclusion of German philosopher Arthur Schopenhauer in the 19th century. Health plays an essential role for personal well-being, but is also crucially important on the macro level, i.e. for the human and economic development of nations and regions. Therefore, health draws through practically all Sustainable Development Goals (SDGs) that were adopted at the United Nations Sustainable Development Summit taking place in New York from 25 to 27 September 2015.

The most powerful force that hinders progress towards achieving any health target or even blasts achievements of decades is war. The current *Refugee Crisis* shook up Europe, showing quite plainly that in its neighbourhood this devastating force is on the rise again. In this context, this article aims to introduce three groups of countries by means of developments with regards to public health: five main destination countries in the EU, five transit countries on the Balkan Peninsula, and five countries where the majority of asylum seekers arriving in the EU in 2015 have departed from.

## ORIGIN › TRANSIT › DESTINATION: 15 COUNTRIES ALONG THE ESCAPE ROUTE

The UNHCR publishes monthly data on asylum applications for 38 European and six non-European countries<sup>1</sup>, with the latter consisting of Australia, Japan, New Zealand, the Republic of Korea, Turkey and the United States. The latest data available for all destination countries under consideration include October 2015. I therefore compare the first ten months of each year only. For the European Union as a whole, the number of asylum applications increased by more than 30% both in 2013 and 2014 and by more than 100% in 2015, i.e. more than three times as many asylum applications were lodged in the EU-28 in 2015 compared to 2013, or four times as many as in 2012.

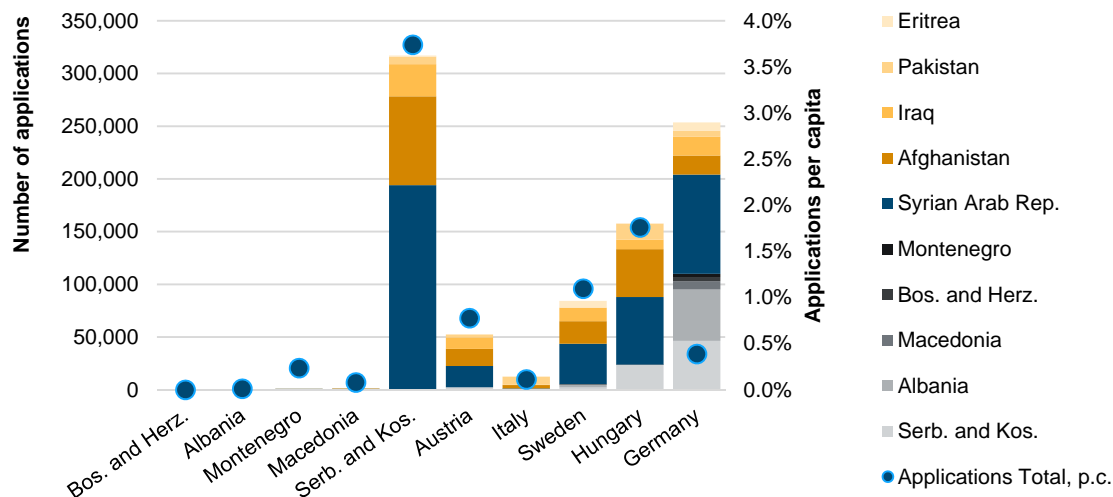
According to the European Agency for the Management of Operational Cooperation at the External Borders of the Member States of the European Union (FRONTEX) there are three major routes via which migrants have *illegally* entered the European Union: (1) the Central Mediterranean route, with migrants coming mainly from Eritrea, Nigeria and other sub-Saharan countries; (2) the Eastern Mediterranean route, with migrants originating mostly from Syria, followed by Afghanistan and Iraq; and (3) the Western Balkan route. The latter is of specific interest, as the Western Balkan states operate as transit countries, but also as destination countries or even as countries of origin.

Figure 1 depicts statistics on asylum applications for a selection of 15 countries: (a) the Top 5 EU destination countries in terms of applications lodged in the first ten months of 2015, comprising Austria,

<sup>1</sup> Database on UNHCR Population Statistics: [http://popstats.unhcr.org/en/asylum\\_seekers\\_monthly](http://popstats.unhcr.org/en/asylum_seekers_monthly)

Germany, Hungary, Italy and Sweden; (b) those Western Balkan countries which are not members of the EU, namely Albania, Bosnia and Herzegovina, Macedonia, Montenegro, Serbia (and Kosovo<sup>2</sup>); and finally (c) the Top 5 non-European countries from which migrants asking for asylum in the EU in 2015 originated, namely Afghanistan, Eritrea, Iraq, Pakistan and notably Syria.

**Figure 1 / Composition of asylum applications per destination country, January – October 2015**



Note: Countries of origin: non-European Top 5 plus five Western Balkan states. Destination countries: EU Top 5 plus five Western Balkan states. No data on applications in Bosnia and Herzegovina.

Data Source: UNHCR (Population Statistics), wiiw calculations.

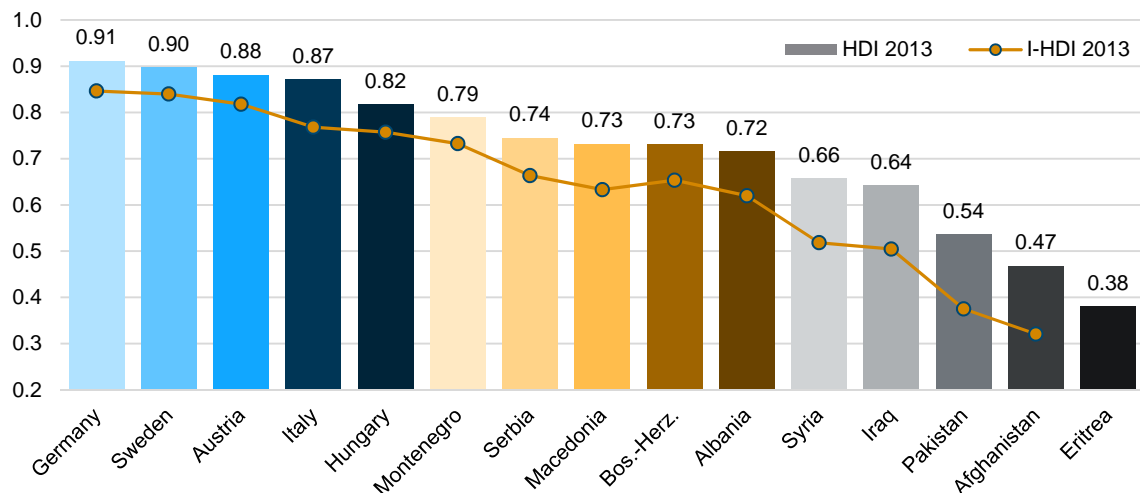
This selection of countries covers 880,763 asylum seekers as reported by UNHCR, i.e. 82% of all applications to the Top 5 EU destinations and Western Balkan states and more than 55% of worldwide asylum applications of 2015 that were lodged between January and October. Several features of Figure 1 catch our attention. First, given the polar focus of the media on Germany and Hungary, it comes as a surprise that Serbia (and Kosovo) shows higher numbers of asylum applications than both of them. It needs to be noted though, that figures were highest for Germany in September 2015 before the barbed wire fence on the Hungarian border to Serbia was erected. Other Western Balkan states report only few applications and there are no data on applications for Bosnia and Herzegovina. Second, people from Serbia and Kosovo as well as Albania feature prominently among the applicants for asylum in the EU, especially in Germany. Thus, while being the destination region for more than 317,000 asylum seekers from the Top 5 extra-European countries of origin, mainly from Syria, Serbia and Kosovo is also the region of origin of more than 74,000 asylum seekers in the EU Top 5 destination countries, mainly in Germany and Hungary. This graph gives the impression of a sequential migration push from the East, with refugees from Asia and East Africa fleeing to (or over) the Western Balkans and people from the Western Balkans migrating to the EU.

<sup>2</sup> UNHCR reports data for 'Serbia and Kosovo (S/RES/1244 (1999))', referring to the Security Council Resolution (S/RES/1244 (1999) on the situation relating to Kosovo.

## LIFE EXPECTANCY

Figure 2 depicts the Human Development Index (HDI) of this country sample calculated for the year 2013, which summarises three dimensions of development: income, education and health. In a worldwide country ranking, the Top 5 EU destination countries are found in the range between ranks 6 and 43. The differences between HDIs calculated for the Western Balkan states are just as large as for the Top 5 EU destinations despite their geographical and historical proximity, ranging from 51 to 95. A huge gap separates the previously mentioned countries from the Top 5 refugee origin countries. They took the ranks 114 for Syria up to rank 182 for Eritrea, out of 187 countries for which the UN calculated the HDI. They all<sup>3</sup> show lower development indices but an improvement in the country ranking when the inequality-adjusted HDI is considered. However, the gaps between the HDI and the inequality-adjusted HDI are greater for countries where refugees emigrate from.

**Figure 2 / (Inequality-adjusted) Human Development Index, 2013**



Data Source: UNDP (2014 Human Development Statistical Tables).

The health dimension of the HDI is captured by a measure called life expectancy at birth (LEX). It is defined as the average number of years that a hypothetical cohort of individuals is expected to live if mortality rates of the year of birth applied throughout their lives. Before discussing developments of life expectancy over time, it is useful to examine the causes of death.

While the share of deaths caused by communicable diseases as well as maternal and neonatal disorders is of marginal size for the ten European countries in the sample, it is of a worrisome magnitude for the main refugee origin countries. In Eritrea, the mentioned diseases/disorders accounted for more than 60% of all deaths in 2013, in Afghanistan and Pakistan for more than 35%. In addition, these countries show the highest shares of injuries induced by traffic accidents, other unintentional accidents or by violence. By contrast, for the countries of the Balkan Peninsula and the EU, cardiovascular diseases are major causes of death.

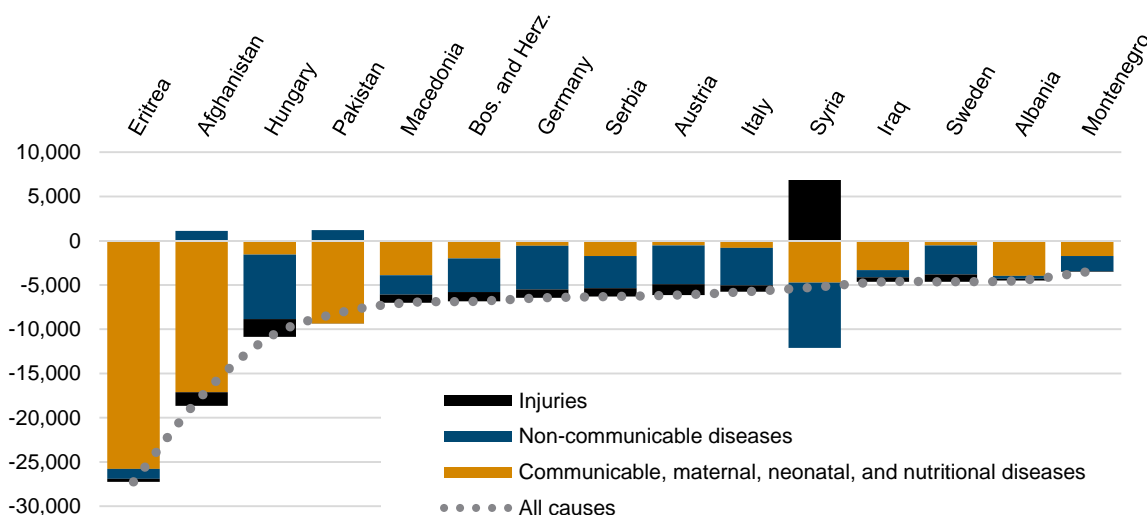
<sup>3</sup> No data on the inequality-adjusted HDI are available for Eritrea.

Looking at life expectancies from the 1950s onwards<sup>4</sup>, steep increases in life expectancy (LEX) can be noticed but at different paces for different countries. With the exception of Iraq, whose life expectancy curve shows a drop during the first Gulf War with Iran, and decreasing figures starting with the invasion by the United States in the early 2000s, it seems that countries follow a converging path, with lower developed countries gaining faster in life expectancy than their more developed counterparts. The refugee origin countries gained impressively, between 24 (Eritrea) and 30 (Iraq) years, within this short period of time. Given the very different starting points for each country, the percentage changes of the latter are even more astonishing: On average the life expectancies of the five EU countries increased by 18%, for the Western Balkan countries by 32% and for the refugee origin countries by 75%. The 29 years gained by Afghanistan correspond to more than a doubling of life expectancy between 1950 and 2010.

Hungary shows a much lower life expectancy figure than its other group members. While it had been closer to the other four EU countries in the 1950s and 1960s, it experienced a stagnation and even slight decline in life expectancy until 1995, when its life expectancy figure eventually started to rise again. Today life expectancy in Hungary is more similar to that in the Western Balkan states, which experienced losses in life expectancy during the Yugoslav wars in the 1990s and early 2000s.

Wars are obvious reasons for losses in life expectancy. The extent to which forces drive changes in life expectancy is less obvious though. Figure 3 makes use of the measure of *years of life lost* (YLL) which is directly linked to life expectancy. It counts the number of deaths and assigns a weight to each of them. This weight is the number of years the person was expected to live, depending on the sex and age of the person at the point of death.<sup>5</sup>

**Figure 3 / Change of years of life lost (YLL) by causes, 1990-2013**



Note: Age-standardised; rate per 100,000; sorted by change in YLL.

Source: Global Burden of Disease 2013 Study.

<sup>4</sup> The United Nations Population Division (UNPD) provides data on five-year averages from 1950 to the present, and estimates for the period 2015 to 2100.

<sup>5</sup> Note: More emphasis is put on deaths of younger people than on deaths of elderly people.

Figure 3 is not dynamic, but rather reports the difference in the age-standardised number of YLL in 1990 in comparison with the same measure for 2013. If the structure of the YLL did not change, it would be zero. Every bar below zero corresponds to an improvement in life expectancy and everything above zero point towards impairment.

It can first be noted that the ordering of countries by YLL is different from the ordering according to the HDI or life expectancy. Despite their higher living standards in 1990, EU members could save more years of life in the 2013-1990 comparison than Montenegro and Albania, indicating an insufficient catching-up process on the part of the latter countries. Surprisingly, out of the fifteen countries in the sample, Hungary is showing the third highest improvement figure.

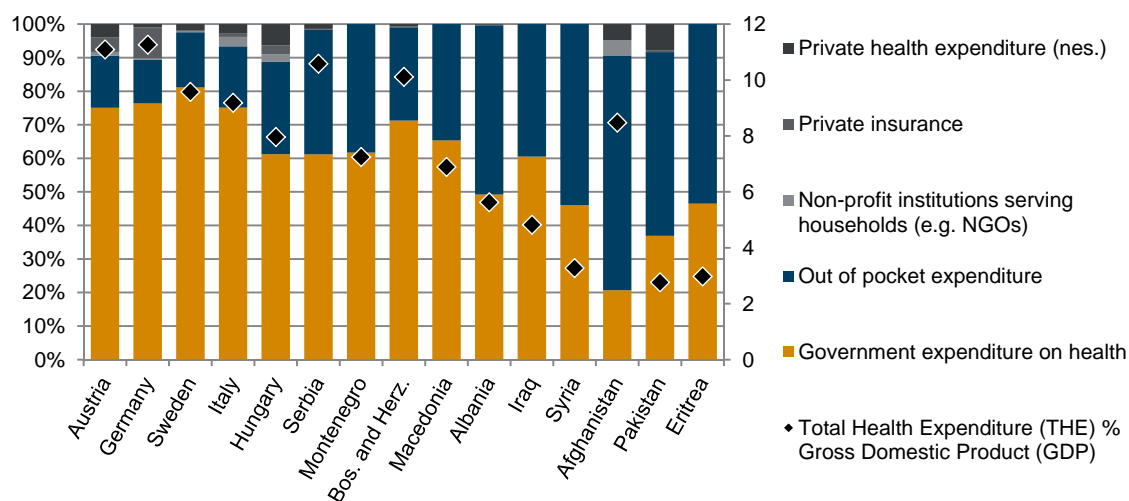
Syria, as a victim of war, clearly stands out. At this point, we should keep in mind that these are figures of 2013 and thus show the situation before the onset of the *European Refugee Crisis*. Violence also plays a role apart from war. For all five refugee origin countries as well as Albania and Montenegro, more years of life were lost due to interpersonal violence in the year 2013 compared to 1990, but the number of unintended injuries and injuries caused by traffic accidents decreased, so that we can see small improvements for injury-induced deaths. Other health conditions being worse in 2013 compared to 1990 were cardiovascular diseases for Afghanistan, Pakistan and Albania, as well as an overall increase in the years of life lost due to diabetes and urogenital, blood and endocrine diseases; the latter can be linked to the demographic change towards an increasing share of elderly people in the population of the European countries in the sample.

Yet, with the exception of the big negative impact of the war in Syria, improvements dominate. Most of the gains in YLL are observable for diarrhoea and other common infectious diseases, most prominently for Eritrea, Afghanistan and Pakistan. The second largest achievements can be observed for cardiovascular diseases, particularly in EU Member States and Western Balkan countries. A substantial decrease in YLL is reported for neonatal disorders. This figure is directly linked to the Millennium Development Goal (MDG) 4 on Child Mortality. By contrast, developments towards achieving MDG 5, which addresses maternal health, are not that obvious.

## WHO IS FINANCING HEALTH?

We now turn to the health system that should be able to cope with public health challenges. More specifically, we draw on information on national health accounts provided by the Global Health Expenditure Database of the WHO. Figure 4 graphically summarises the health accounts information for the year 2012. Countries are sorted in descending order by their health expenditures (in purchasing power parities) per capita. It is not a big surprise that richer countries show higher health expenditures per capita, but despite their higher GDP levels, EU countries also show higher rates of total health expenditures in per cent of their GDP (depicted as black diamonds). Out-of-pocket expenditures are lowest for the richest and highest for the poorest countries. With a disproportionately high share of out-of-pocket health expenditure, households' incomes are more prone to health shocks, which might keep them caught in or push them into poverty.



**Figure 4 / National health accounts, 2012**

Note: Expenditures measured in 2005 PPP per capita, sorted in descending order of total health expenditures per capita.  
Source: WHO (National Health Accounts of the Global Health Expenditure Database); wiiw calculations.

## CONCLUSION

Today, in the midst of the *European Refugee Crisis*, we face hot debates about push and pull factors of migration and increasing support for the distinction between types of migrants: refugees trying to escape war, asylum seekers searching protection from political persecution and oppression, and finally migrants who are considered as so-called 'economic refugees'.

These discussions might get a different flavour when considering public health statistics. Average life expectancy in the Top 5 EU destination countries was 80 years in 2013, compared to 75 years for the sample countries of the Balkan Peninsula and 67 years for the Top 5 refugee origin countries.

Starting in the EU, as we move towards the South-East we see rising gaps in life expectancy, but simultaneously a decrease in total health expenditures in per cent of GDP and increasing shares of out-of-pocket expenditures, associated with a higher poverty risk. In terms of causes of death, we observe a shift from neoplasms over cardiovascular diseases towards communicable diseases and injuries as we go along. And apart from major improvements in preventing deaths from communicable diseases such as diarrhoea, in the poorest countries of the sample the data do not give clear evidence of a converging path since 1990.

Nowadays, development economists reject the notion of the classical 'North-South-Divide' – yet, for the countries along the Western Balkan Escape route, this notion unfortunately seems to be very much appropriate.

## DATA SOURCES

FRONTEX – Frontières extérieures, 'Western Balkan Route',  
<http://frontex.europa.eu/trends-and-routes/western-balkan-route/>

IHME – Institute for Health Metrics and Evaluation (2014), Global Burden of Disease Study 2013 (GBD 2013) Age-Sex Specific All-Cause and Cause-Specific Mortality 1990-2013, Seattle, USA,  
<http://ghdx.healthdata.org/>

UNHCR – The UN Refugee Agency, Population Statistics. Asylum-seekers (monthly data),  
[http://popstats.unhcr.org/en/asylum\\_seekers\\_monthly](http://popstats.unhcr.org/en/asylum_seekers_monthly)

UNDP – United Nations Development Programme (2014), The 2014 Human Development Report – Sustaining Human Progress: Reducing Vulnerabilities and Building Resilience. Human Development Statistical Tables, New York, USA, <http://hdr.undp.org/en/data>

UNPD – United Nations Department of Economic and Social Affairs, Population Division (2015), World Population Prospects: The 2015 Revision, DVD Edition, <http://esa.un.org/unpd/wpp/dvd/>

WHO – World Health Organisation (2015), NHA Indicators. Global Health Expenditure Database,  
<http://apps.who.int/nha/database/SelectIndicators/en>

# Integration of migrants from different countries of origin in EU labour markets

BY STEFAN JESTL AND MICHAEL LANDESMANN

The recent wave of refugees moving from the Middle East to Europe has been a strong reminder that we are in the midst of a 'big shift' in migration flows. While until the refugee crisis, debates in Europe on migration were focused on '*East-West migration*' (i.e. from Central and Eastern European countries to the EU-15), more recently the public and policy-makers have become aware of a different migration challenge which will characterise migration flows much more strongly in the future, i.e. '*South-North migration*'. This refers to migration (and refugee) flows from neighbouring regions in the Middle East, Northern Africa and also parts of sub-Saharan Africa.

Migration experts have pointed for some time to this 'big shift' which will increasingly shape the migration situation in Europe. The recent refugee crisis is the current manifestation of this shift. Behind this shift are basically two factors: (i) an enormous demographic complementarity between Europe as a whole and these non-European neighbouring regions, and (ii) the abysmal record regarding economic development and political stability in these regions. Large sections of these neighbouring countries can be characterised as 'failed states and failed development models' (for more on this see the recent Opinion Corner piece in *wiiw Monthly Report* No. 10, 2015).

As the influx of refugees is a recent phenomenon and it is too early to obtain information directly regarding their employment prospects, we shall in this article look at the labour market performance of existing migrants in the EU. In doing so, we shall distinguish different migrant groups in the EU-15: those from European countries, those from other advanced economies, and those from developing countries. We do not conjecture that the refugee inflow will mimic the labour market performance of existing migrants, but it might be useful to track the particular problems that migrants from developing countries face as compared to those from European or other advanced economies. Given the current shift of migration flows in Europe from 'East-West' to 'South-North', it will be increasingly important to monitor the labour market integration of migrants from developing (non-European) regions.

This article will provide some evidence on labour market integration of these different groups of migrants in the EU. In addition, we shall make two further distinctions: firstly, we shall compare labour market involvement of 'recent migrants' and the 'older stock' of migrants. Secondly, we shall look at labour market performance of migrants with different educational achievement levels.

Our analysis is based on European Union Labour Force Survey (LFS) data. This dataset provides *inter alia* information about the year of birth, country of origin, nationality, level of education, number of years of residence, labour market status (employed/unemployed) and whether an individual is actively seeking employment. The level of education is classified as low (L), medium (M) and high (H), where L refers to educational attainment not going beyond lower secondary schooling, M to having completed upper secondary school and H to having gone through tertiary level education (i.e. having completed a college or university degree). This grouping corresponds to the identification of educational attainment levels according to the ISCED classification.

We shall present a range of labour market indicators for domestic and foreign-born individuals aged 20 to 55. These indicators are calculated as averages over the years 2009-2011<sup>1</sup>. We differentiate migrants by country of birth (i.e. European country, other developed country and developing country<sup>2</sup>), with the exception of Germany where we have to use information about migrants by nationality due to limited data availability. We further distinguish between recently migrated and earlier migrated individuals, with 'recent migrants' being those who migrated between 2003 and 2011, whereas 'earlier migrants' indicate individuals who migrated before 2003.

The following are the three different labour market indicators that have been calculated:

The employment rate (ER) is defined as follows:

$$ER_{i(j)} = \frac{\text{employed people}_{i(j)}}{\text{population of working age}_{i(j)}} * 100 \quad (1)$$

The unemployment rate (UR) is defined as follows:

$$UR_{i(j)} = \frac{\text{work seeking unemployed}_{i(j)}}{\text{employed} + \text{work seeking unemployed}_{i(j)}} * 100 \quad (2)$$

Finally, the activity rate (AR) is defined as follows:

$$AR_{i(j)} = \frac{\text{employed people} + \text{work seeking unemployed}_{i(j)}}{\text{population of working age}_{i(j)}} * 100 \quad (3)$$

where *i* refers to the country/region of origin and *j* indicates the different levels of educational attainment.

In the following we focus on the 'core' group of the labour force for comparisons of different migrant groups, relative to other migrant groups and natives of the EU-15. We define this 'core group' as the age group 20-55, which differs from standard definitions of the above indicators where often the age group 15-65 is taken as the relevant definition of the labour force. The reason we restrict our analysis to the 20-55 age group is that we try to reduce the impact of differences across countries in the length of schooling and education (at the lower end) and of differences in the effective retirement age (at the upper end).

In the following we show the three previously introduced labour market indicators for the different migrant groups as well for natives. We first illustrate figures for the EU-15 as a whole and then present some additional comparisons of four of the more advanced destination economies which are characterised by different traditions in labour market organisation: Austria, Germany, Sweden and the United Kingdom.

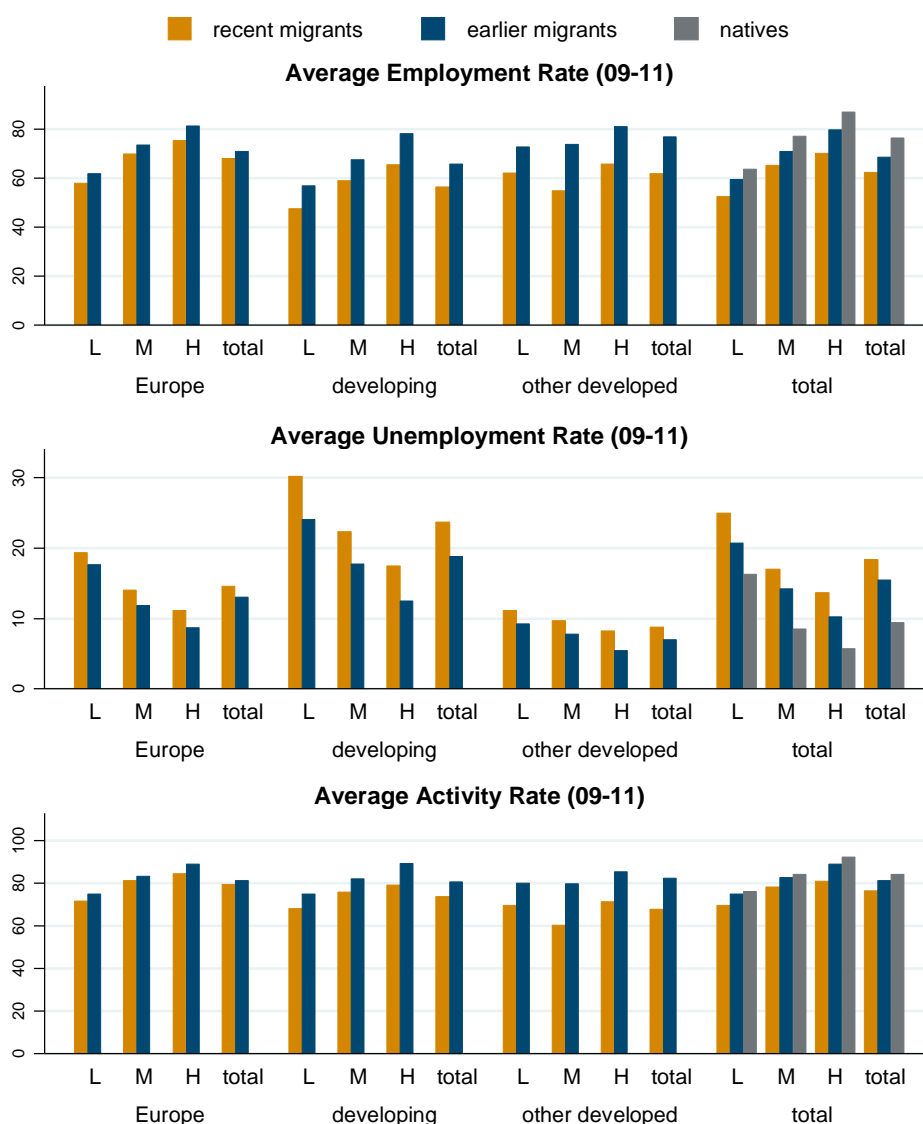
We start with an overview of the indicators for the EU-15 in Figure 1. The first two panels of Figure 1 depict the employment rate and the unemployment rate, respectively. We observe the expected pattern by educational attainment level: there is a clear hierarchy in that employment rates are lower (and unemployment rates are higher) for the low-educated, followed by the medium-educated and eventually

<sup>1</sup> Annual data are derived from averaging over quarterly data.

<sup>2</sup> Europe: other European countries, excluding EFTA countries; other developed countries: North America, Australia, East Asia, Oceania; developing countries: North Africa, other Africa, Central America, Latin America, East and South Asia, near Middle East.

by the highly educated (those with a tertiary degree). Furthermore, the last group of bars in each panel allows for a comparison of migrants (from all countries of origin) with natives, and there we can see a second hierarchy: more recent migrants show the lowest employment rates (and highest unemployment rates), followed by the older stock of migrants (who had more time to integrate into the labour market) and finally by natives.

**Figure 1 / Employment, unemployment and activity rates in the EU-15; natives and migrants from different regions of origin, averages 2009-2011, in %**



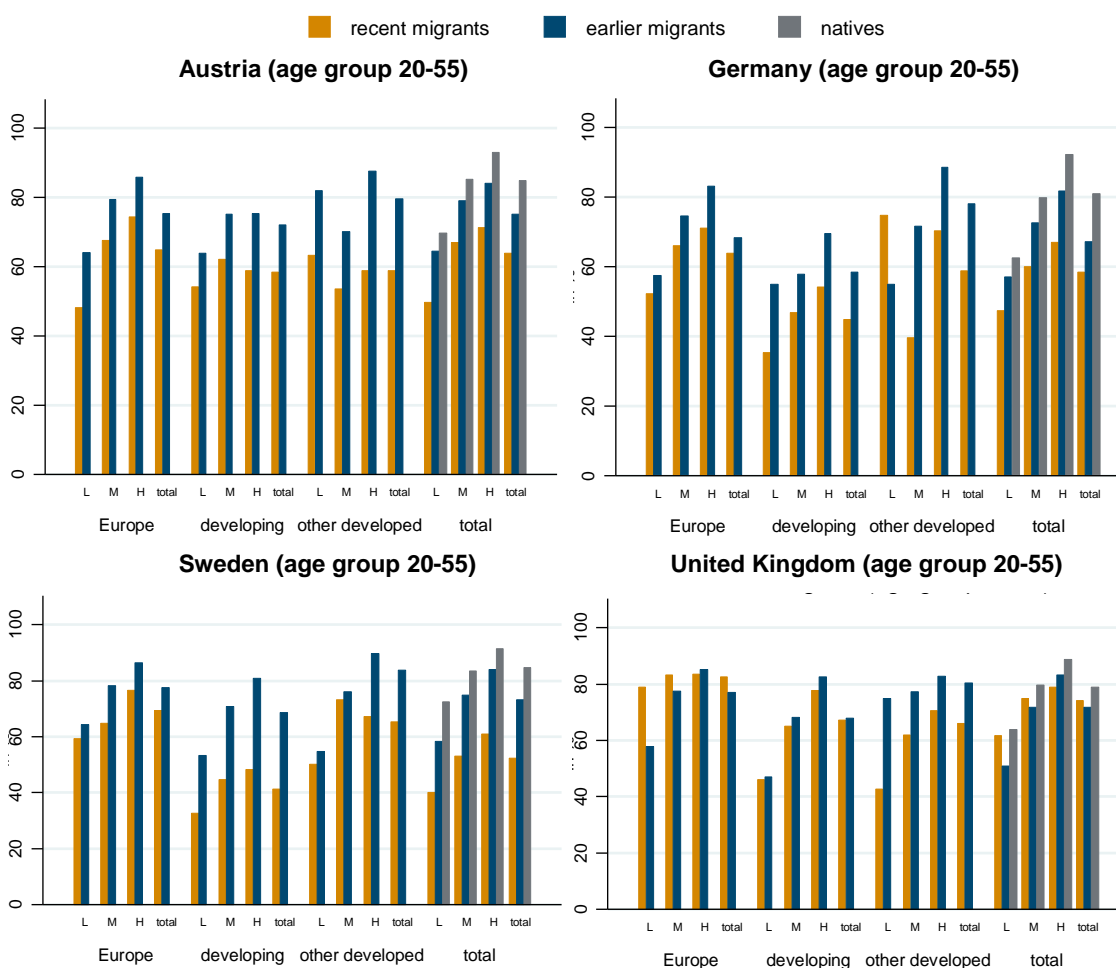
Note: L, M, H = low, medium and high level of educational attainment.  
 Source: LFS, own calculations.

With respect to differences across groups of migrants by country of origin (Europe, other advanced countries, and developing regions) we observe significantly lower unemployment rates for migrants from other advanced economies as compared to those from other European countries and those are again significantly – about 10 percentage points – lower than the unemployment rates of migrants from developing countries. Thus there is a remarkable difference in labour market integration of migrants from

developing countries as compared to migrants from other European countries in EU labour markets. This difference is particularly high for recent migrants but remains evident also for the older stock of migrants; in the latter case, however, it becomes somewhat less pronounced.

Let us now turn to the analysis of the differentiation of migrants' labour market integration across the different countries of destination: in particular, we compare Austria with Germany, Sweden and the United Kingdom.

**Figure 2 / Employment rates of natives and migrants from different regions of origin, in Austria, Germany, Sweden and the United Kingdom, averages 2009-2011, in %**



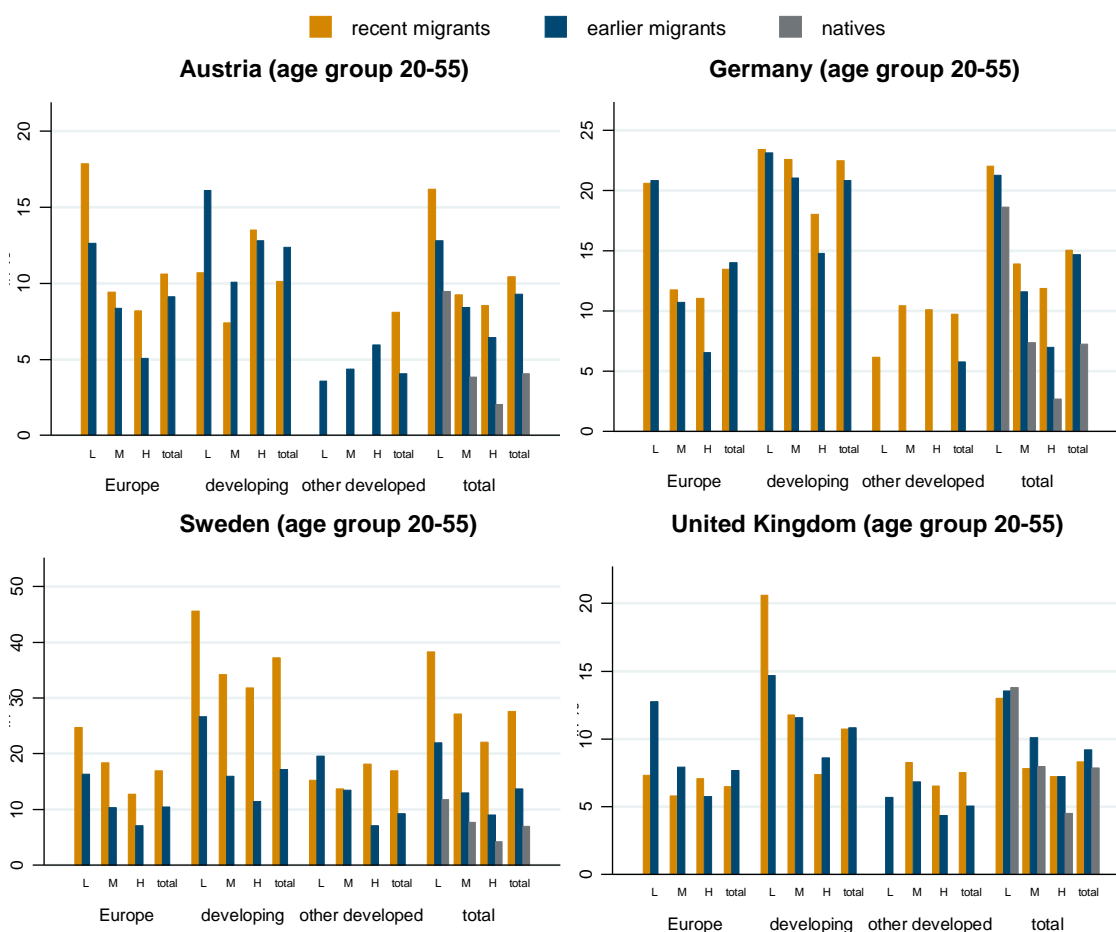
Note: L, M, H = low, medium and high level of educational attainment.

Source: LFS, own calculations.

Figures 2 and 3 present employment rates and unemployment rates for these four economies and the different groups of migrants, respectively. It is interesting to see that over the period 2009-2011 the employment rates of migrants from developing (non-European) countries were particularly low (and unemployment rates high) in Germany and Sweden as well as for the low-educated in the UK compared to the other groups of migrants, while there was less of a difference in Austria. The difference was particularly striking for 'recent migrants'; hence Austria had a relatively good track record in labour market integration of migrants from non-European developing countries over that period.

Where Austria did not so well was in the case of labour market integration of *the most highly educated migrants from non-European developing countries*. Here Austria showed a worse track record as compared to the UK in terms of employment rates and unemployment rates and also as compared to Sweden for the ‘older stock’ of migrants. The difference between Germany and Austria is also less marked for this group of migrants than for the other groups of migrants.

**Figure 3 / Unemployment rates of natives and migrants from different regions of origin, in Austria, Germany, Sweden and the United Kingdom, averages 2009-2011, in %**



Note: L, M, H = low, medium and high level of educational attainment. Due to limited data availability, the figure does not show ‘recent migrants from other developed countries’ in Austria, ‘earlier migrants from other developed countries’ in Germany and ‘recent migrants from other developed countries’ with a low educational attainment level in the UK.

Source: LFS, own calculations.

The comparative exercise thus shows that while comparator countries in Europe (Germany, Sweden, United Kingdom) show significantly lower labour market integration of migrants from non-European developing countries than for other groups of migrants, which is particularly marked for the low-educated, the difference is less pronounced in the case of Austria. However, Austria should improve the integration of highly educated migrants from developing countries in its labour market. This would increase Austria’s attractiveness as a country of destination for highly educated migrants from these regions.

# Intra-EU mobility and push and pull factors in EU labour markets: a panel VAR model

BY MICHAEL LANDESMANN AND SANDRA M. LEITNER

Within Europe, the mobility of workers has intensified significantly during the past two decades: first, because of the impact of the gradual implementation of the Single Market's four freedoms amongst the older members of the EU; second, as a result of the collapse of the Central and Eastern European communist bloc and the disruptions caused by transition, including regional conflicts (such as in ex-Yugoslavia); and third, because of the relaxation of restrictions on the movement of people and workers in the course of the EU enlargements in 2004 and 2007. Nonetheless, the global financial crisis and the subsequent economic recession might have slowed down the flow of migrant workers from countries which joined the EU in and after 2004, and from non-EU countries due to the downturn in general labour demand.

Particularly during the last decade, intra-EU labour mobility has contributed – as a response mechanism to high levels of unemployment – (i) to filling labour market shortages, (ii) to sustaining sectors of economic activity where natives were not willing to work and (iii) to the creation of new jobs in response to technological change. However, the heterogeneity across EU regions, characterised by significant regional differences in terms of income levels, growth, employment opportunities and wages – particularly between new EU Member States (NMS) and old EU Member States (OMS) – has led to diverse patterns of labour mobility in the EU. Moreover, the EU has experienced remarkable changes in employment structures with significant adjustments that have resulted in important shifts within and between economic sectors and in skill structures.

Against this backdrop, we investigate the relationship between labour mobility and labour market adjustments in the EU. In particular, we use a panel Vector Autoregressive Model (pVAR) approach and specify a system of equations to describe and capture the effects of migratory movements on labour market outcomes in terms of relative wage differences, differences in activity rates<sup>1</sup>, labour productivity levels and human capital structures. Conversely, we also identify how changes in labour market structures affect net migration across the EU. The pVAR approach provides two major advantages: first, it allows for the *joint* analysis of both the causes and effects of net migration<sup>2</sup> on host-country labour markets, which past research was unable to address; second, it allows for the identification of the causes and effects of net migration at different points in time and therefore helps to map short-, medium- but also longer-term effects. We focus on the period between 2000 and 2012, which coincides with the accession of the Central and East European new Member States. The analysis is performed for two different country groups, namely (i) for the EU as a whole and (ii) for migration flows from NMS to OMS<sup>3</sup>.

<sup>1</sup> The activity rate is defined as the active population, both employed and unemployed, as a share of the working-age population.

<sup>2</sup> Net migration is defined as the difference between immigration into and emigration from a country or region, with positive net migration indicating that inward migration exceeds outward migration.

<sup>3</sup> OMS are here represented by Austria, Belgium, Denmark, Finland, Germany, Ireland, Italy, the Netherlands, Spain, Sweden and the UK; NMS are represented by Hungary, Lithuania, Poland, Romania, Slovakia and Slovenia.



It therefore analyses the changes and effects which the integration of the new Member States may have caused to the labour market and labour mobility dynamics in old Member States.

Our analysis<sup>4</sup> yields a series of interesting results. In this brief summary of the more detailed study, we report just a sub-set of these. For instance, with respect to **what determines net migration flows** (see impulse-response functions in Figure 1), we find that:

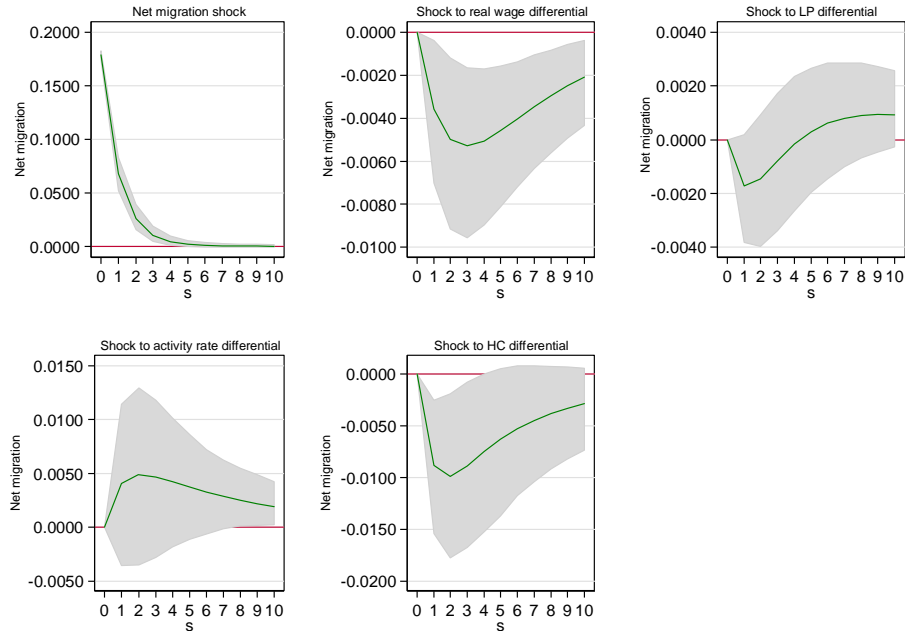
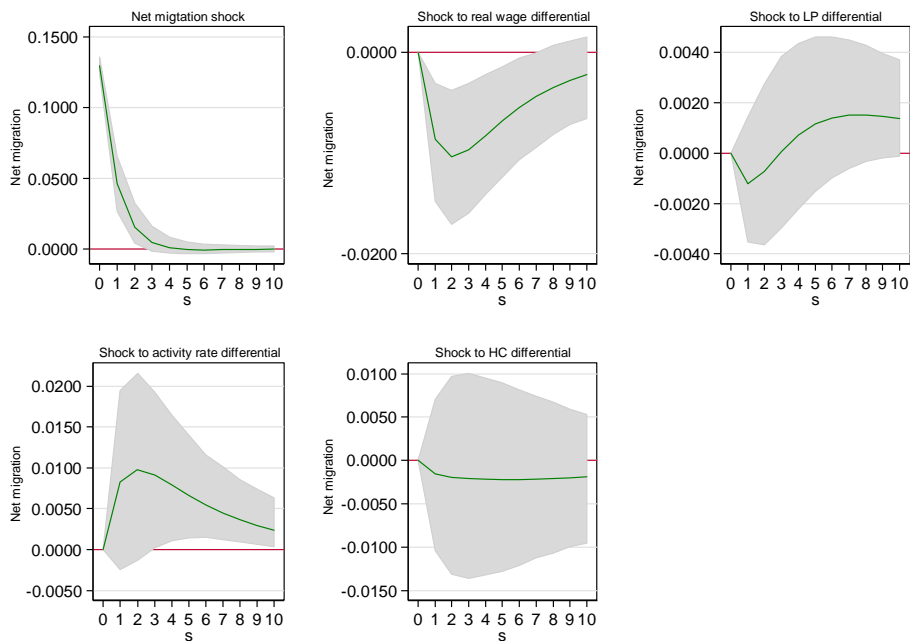
- › 'network effects' matter strongly in the sense that high past net migration in host countries encourages further net migration; the effect tends to decline over time, however;
- › a relative increase in real wages, real labour productivity levels or the human capital index in the sending country as compared to the country of destination discourages net migration and increases the incentive to stay and benefit from these improvements. However, the relative human capital effect only holds for the total sample of EU countries but is absent for the NMS-to-OMS sample, which may be due to rather similar human capital endowments in NMS and OMS;
- › a relative increase in the activity rate in the sending country encourages net migration in the receiving country, which suggests that as the active labour force in the sending country increases there is a stronger influx of migrant workers in the countries of destination to satisfy labour demand. However, effects are not immediate but take time to materialise, which indicates that net migration flows respond only after lags. In particular, while the shock tends to show up significantly relatively late for the total sample (see the wide confidence intervals in Figure 1), it is significant relatively early for the NMS-to-OMS sample (around 2 to 3 years after the shock).

Regarding **effects of net migration flows on labour market outcomes** (see impulse-response functions in Figure 2), our results show that:

- › higher net migration leads to a reduction of prevailing real wage as well as of real labour productivity differentials, but only between NMS and OMS countries. This confirms that labour mobility helps to reduce real wage differentials and underlying labour market disequilibria and is supportive of Borjas' (2001) 'greasing of the wheels' effect of labour mobility in an integrated market environment. The reduction of the aggregate real labour productivity differential between the NMS and OMS is limited to the initial years following the shock and this points to a temporary adjustment process that needs to take place in the course of absorbing larger pools of foreign workers in the OMS economies.
- › higher net migration leads to an increase in activity rate and human capital differentials between receiving and sending countries; these effects differ across country samples. The widening of the activity rate differential is only observable in the NMS-to-OMS sample (and a limited specification) and suggests that higher net migration of NMS citizens to OMS leads to significantly higher activity rates in the OMS host countries, which is probably due to the compositional effect of recent migrants from NMS. In contrast, the widening of the human capital differential is only observable for the total sample and indicates the impact of net migration in the direction of either attracting skilled migrants (relative to the overall stock of the labour force in the destination countries) and/or an incentive effect to upgrade human capital structures of the domestic population in light of actual or expected migration from other EU economies.

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<sup>4</sup> For a detailed discussion of results and a series of robustness checks see Landesmann and Leitner (2015).

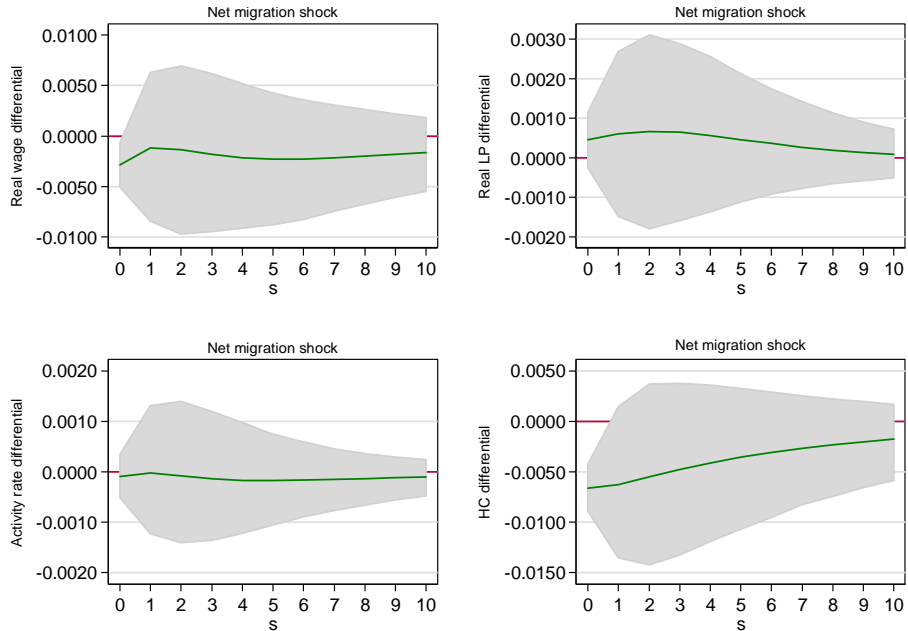
**Figure 1 / Response of net migration to shocks in labour market indicators****Total sample****NMS-to-OMS sample**

Source: Own calculations.

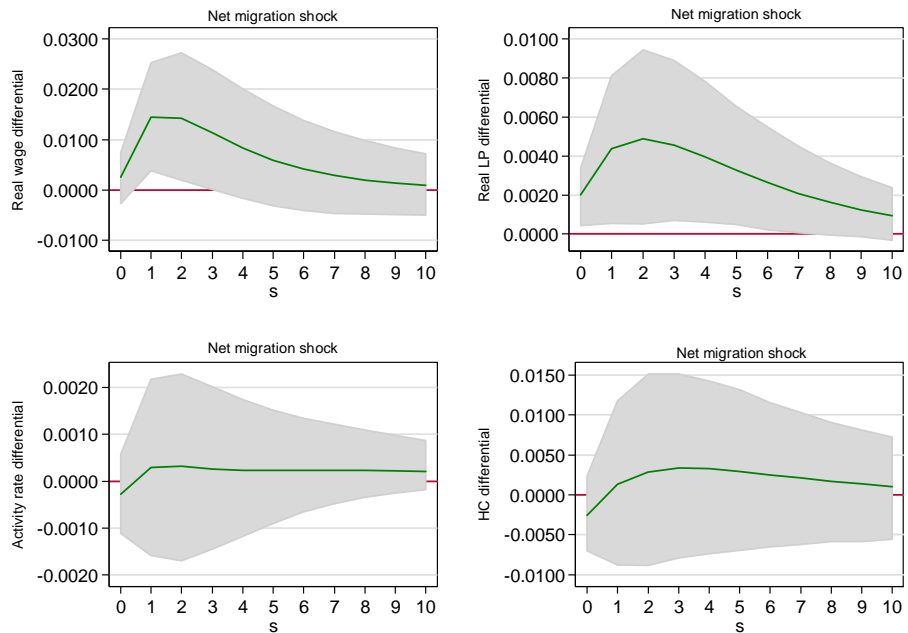
Note: The green line refers to the impulse response and shows the impact of a one-time positive shock to each of the labour market indicators to net migration. The grey area indicates the 95% confidence interval around the estimates; errors are generated by Monte Carlo simulation with 1000 repetitions. Net migration is defined as the difference between immigration and emigration. Differentials are defined as the difference between the sending country and the receiving country. HC refers to the Human Capital Index. LP refers to labour productivity measured as GDP per employee.

**Figure 2 / Response of labour market indicators to shocks in net migration**

**Total sample**



**NMS-to-OMS sample**



Source: Own calculations.

Note: The green line refers to the impulse response and shows the impact of a one-time positive shock to net migration to each of the labour market indicators. The grey area indicates the 95% confidence interval around the estimates; errors are generated by Monte Carlo simulation with 1000 repetitions. Net migration is defined as the difference between immigration and emigration. Differentials are defined as the difference between the sending country and the receiving country. HC refers to the Human Capital Index. LP refers to labour productivity measured as GDP per employee.

Hence, the analysis shows distinct and interesting features of the determinants of net migration patterns, on the one hand, and of the impact of net migration flows on labour market outcomes, on the other. It demonstrates that differentials in labour market structures among EU Member States have pushed forward intra-EU mobility but, at the same time, that differentials between EU labour market structures have themselves been significantly affected by intra-EU mobility. Hence, intra-EU labour mobility is an important and significant factor in labour market dynamics across the EU. Our results highlight that NMS-to-OMS mobility has helped to close prevailing real wage differentials as well as real labour productivity gaps between OMS and NMS; it also did not contribute to any widening of human capital gaps between these two sets of economies (as would be expected if there were a persistent 'brain drain').

## REFERENCES

Borjas, G. (2001), 'Does Immigration Grease the Wheels of the Labour Market?', *Brookings Papers on Economic Activity*, Vol. 1, pp. 1-51.

Landesmann, M. and S. M. Leitner (2015), 'Intra-EU Mobility and Push and Pull Factors in EU Labour Markets: Estimating a Panel VAR Model', *wiiw Working Paper No. 120*.

## The editors recommend for further reading\*

### Inequality

Martin Ravallion on the changing debates on poverty and the challenge to enforce anti-poverty policies:

<http://www.voxeu.org/article/economics-poverty>

An interview of Lance Taylor on economists' denial of what is driving inequality:

<http://ineteconomics.org/ideas-papers/blog/are-economists-in-denial-about-whats-driving-the-inequality-trainwreck>

On the measurement of income inequality, using lifetime spending power:

<http://www.bloombergview.com/articles/2016-02-05/the-true-measure-of-inequality>

Branko Milanovic on the structural aspects of inequality: <http://glineq.blogspot.co.at/2016/02/inequality-structural-aspects.html> and the relationship of growth and inequality in the long run:

<http://www.voxeu.org/article/introducing-kuznets-waves-income-inequality>

### Elections in the United States

Results and interpretations of the Super Tuesday primary elections: <http://fivethirtyeight.com/live-blog/super-tuesday-primaries-presidential-election-2016/?#livepress-update-17469274>

Thomas Piketty on the US presidential candidate Bernie Sanders and a new political era:

<http://www.theguardian.com/us-news/commentisfree/2016/feb/16/thomas-piketty-bernie-sanders-us-election-2016>

Paul Krugman on Bernie Sanders, Hillary Clinton and degrees of realism:

<http://krugman.blogs.nytimes.com/2016/02/16/my-unicorn-problem/?module=BlogPost-Title&version=Blog%20Main&contentCollection=Opinion&action=Click&pgtype=Blogs&region=Body&r=0>

as well as on Republican 'Con Artists' in *The New York Times*:

<http://www.nytimes.com/2016/03/04/opinion/clash-of-republican-con-artists.html?ref=opinion>

An article by Michael Tomasky in *The New York Review of Books* on 'The Dangerous Election':

<http://www.nybooks.com/articles/2016/03/24/the-dangerous-election/>

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\* Recommendation is not necessarily endorsement. The editors are grateful to Vladimir Gligorov for his valuable contribution to this section.

# Monthly and quarterly statistics for Central, East and Southeast Europe

The monthly and quarterly statistics cover **20 countries** of the CESEE region. The graphical form of presenting statistical data is intended to facilitate the **analysis of short-term macroeconomic developments**. The set of indicators captures tendencies in the real sector, pictures the situation in the labour market and inflation, reflects fiscal and monetary policy changes, and depicts external sector development.

Baseline data and a variety of other monthly and quarterly statistics, **country-specific** definitions of indicators and **methodological information** on particular time series are **available in the wiiw Monthly Database** under: <http://data.wiiw.ac.at/monthly-database.html>. Users regularly interested in a certain set of indicators may create a personalised query which can then be quickly downloaded for updates each month.

## Conventional signs and abbreviations used

%	per cent
GDP	Gross Domestic Product
LFS	Labour Force Survey
HICP	Harmonized Index of Consumer Prices (for new EU Member States)
PPI	Producer Price Index
M1	Currency outside banks + demand deposits / narrow money (ECB definition)
M2	M1 + quasi-money / intermediate money (ECB definition)
p.a.	per annum
mn	million (10 <sup>6</sup> )
bn	billion (10 <sup>9</sup> )

The following national currencies are used:

ALL	Albanian lek	HUF	Hungarian forint	RSD	Serbian dinar
BAM	Bosnian convertible mark	KZT	Kazakh tenge	RUB	Russian rouble
BGN	Bulgarian lev	MKD	Macedonian denar	TRY	Turkish lira
CZK	Czech koruna	PLN	Polish zloty	UAH	Ukrainian hryvnia
HRK	Croatian kuna	RON	Romanian leu		

EUR euro – national currency for Montenegro and for the euro-area countries Estonia (from January 2011, euro-fixed before), Latvia (from January 2014, euro-fixed before), Lithuania (from January 2015, euro-fixed before), Slovakia (from January 2009, euro-fixed before) and Slovenia (from January 2007, euro-fixed before).

Sources of statistical data: Eurostat, National Statistical Offices, Central Banks and Public Employment Services; wiiw estimates.

### Online database access



**wiiw Annual Database**



**wiiw Monthly Database**



**wiiw FDI Database**

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If you have not yet registered, you can do so here: <http://wiiw.ac.at/register.html>.

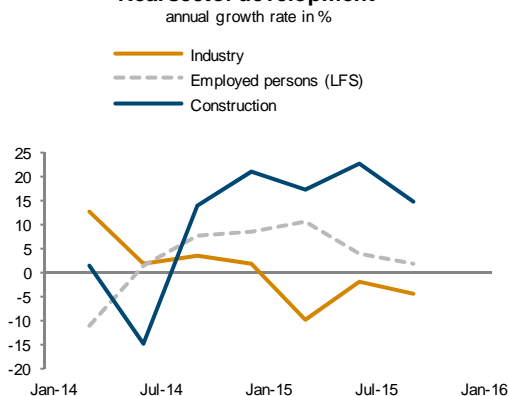
### New service package available

Starting from January 2014, we offer an additional service package that allows you to access all databases – a Premium Membership, at a price of €2,300 (instead of €2,000 as for the Basic Membership). Your usual package will, of course, remain available as well.

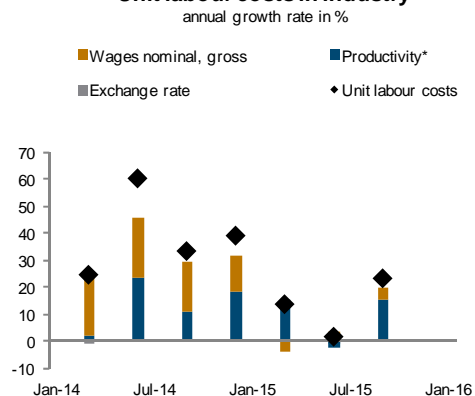
For more information on database access for Members and on Membership conditions, please contact Ms. Gabriele Stanek ([stanek@wiiw.ac.at](mailto:stanek@wiiw.ac.at)), phone: (+43-1) 533 66 10-10.

# Albania

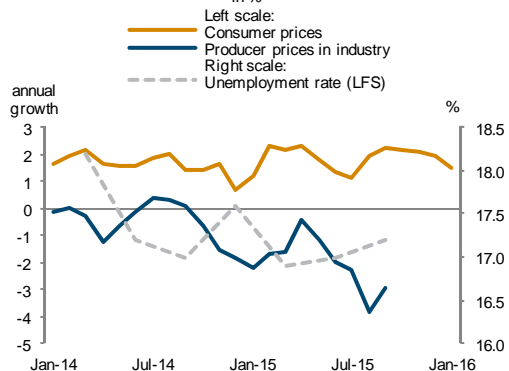
## Real sector development



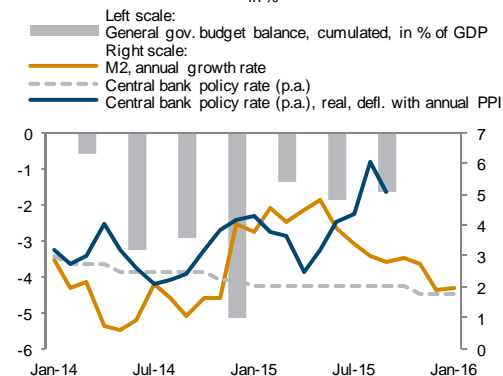
## Unit labour costs in industry



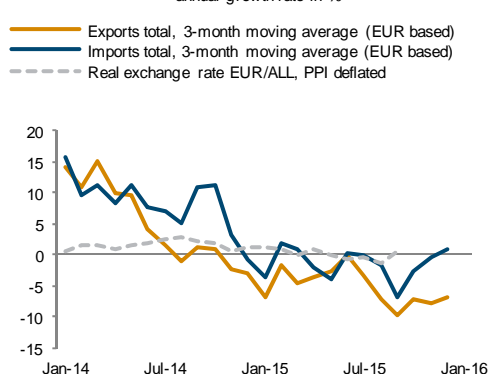
## Inflation and unemployment



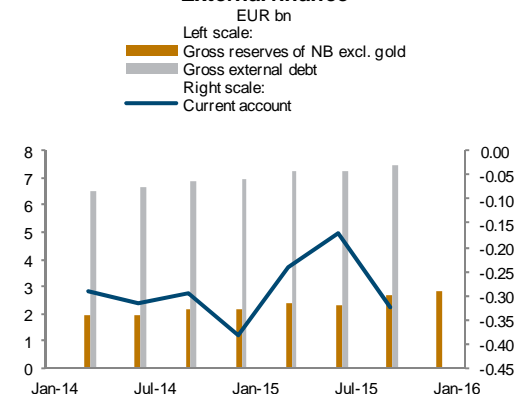
## Fiscal and monetary policy



## External sector development



## External finance



\*Positive values of the productivity component on the graph reflect decline in productivity and vice versa.

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

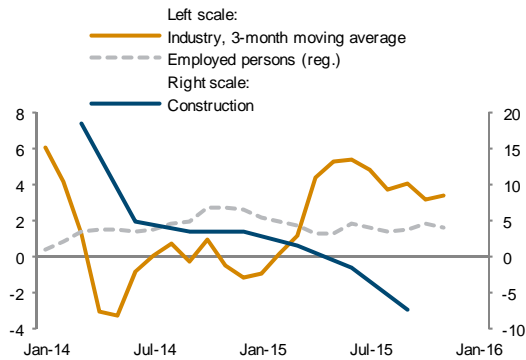
Baseline data, country-specific definitions and methodological breaks in time series are available under:

<http://data.wiiw.ac.at/monthly-database.html>

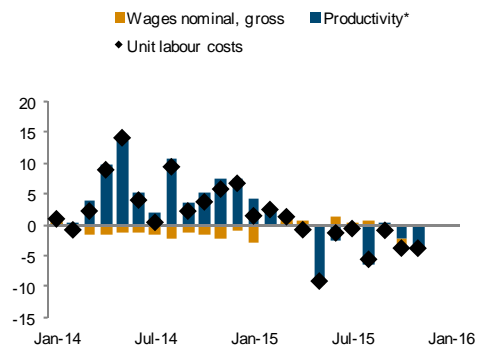


# Bosnia and Herzegovina

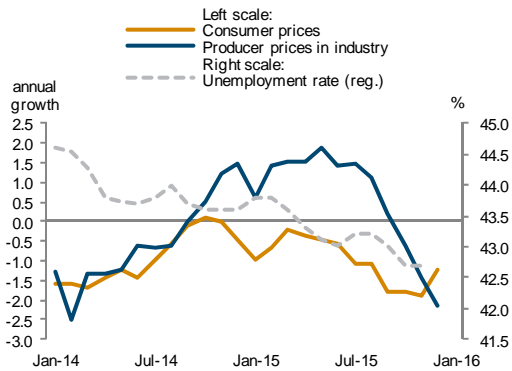
**Real sector development**  
annual growth rate in %



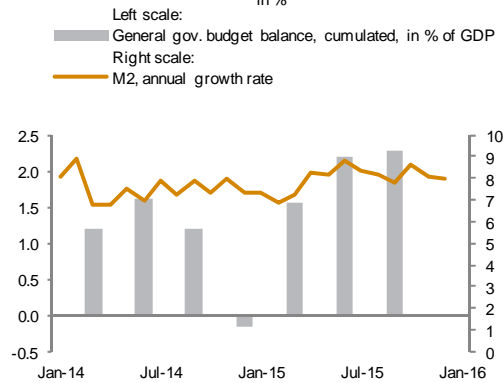
**Unit labour costs in industry**  
annual growth rate in %



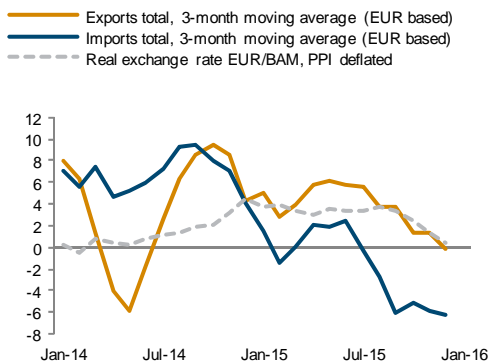
**Inflation and unemployment**  
in %



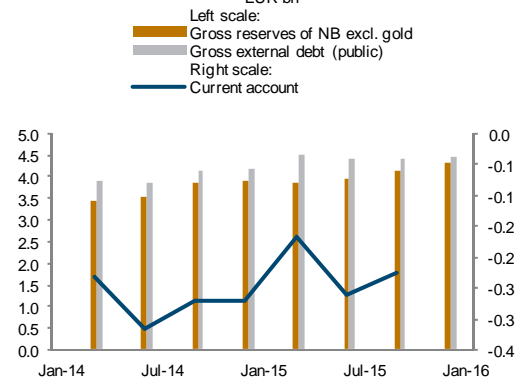
**Fiscal and monetary policy**  
in %



**External sector development**  
annual growth rate in %



**External finance**  
EUR bn



\*Positive values of the productivity component on the graph reflect decline in productivity and vice versa.

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

Baseline data, country-specific definitions and methodological breaks in time series are available under:

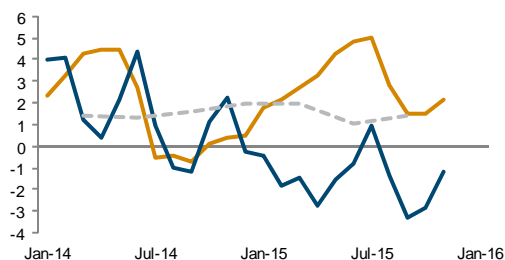
<http://data.wiiw.ac.at/monthly-database.html>

# Bulgaria

## Real sector development

annual growth rate in %

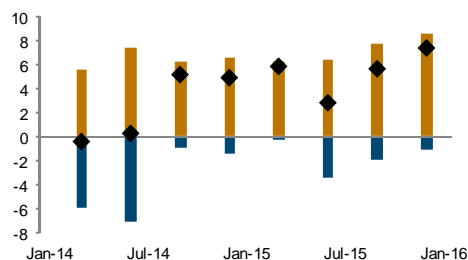
- Industry, 3-month moving average
- Construction, 3-month moving average
- - - Employed persons (LFS)



## Unit labour costs in industry

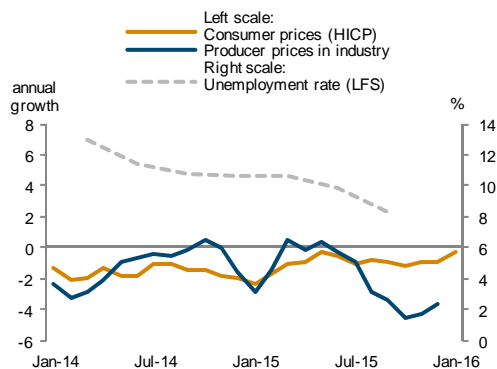
annual growth rate in %

- Wages nominal, gross
- Productivity\*
- ◆ Unit labour costs



## Inflation and unemployment

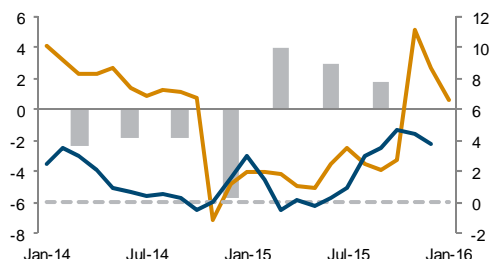
in %



## Fiscal and monetary policy

in %

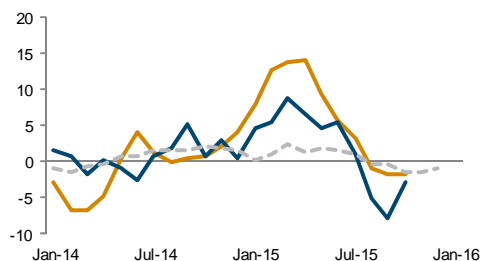
- Left scale:
- General gov. budget balance, cumulated, in % of GDP
- Right scale:
- Broad money, annual growth rate
- - - Central bank policy rate (p.a.)
- Central bank policy rate (p.a.), real, defl. with annual CPI



## External sector development

annual growth rate in %

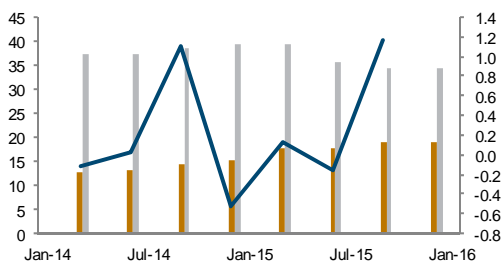
- Exports total, 3-month moving average (EUR based)
- Imports total, 3-month moving average (EUR based)
- - - Real exchange rate EUR/BGN, PPI deflated



## External finance

EUR bn

- Left scale:
- Gross reserves of NB excl. gold
- Gross external debt
- Right scale:
- Current account



\*Positive values of the productivity component on the graph reflect decline in productivity and vice versa.

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

Baseline data, country-specific definitions and methodological breaks in time series are available under:

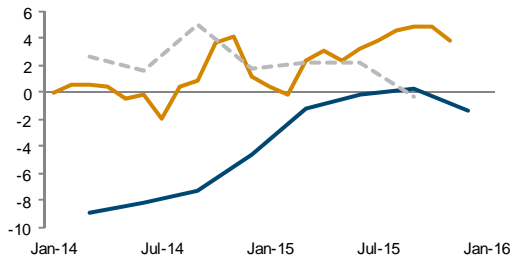
<http://data.wiiw.ac.at/monthly-database.html>

# Croatia

## Real sector development

annual growth rate in %

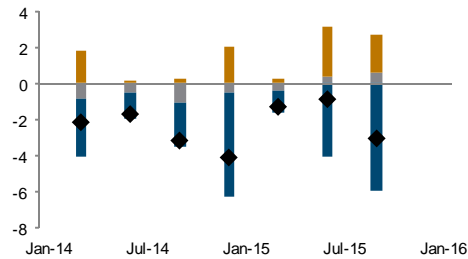
- Industry, 3-month moving average
- Construction, 3-month moving average
- - - Employed persons (LFS)



## Unit labour costs in industry

annual growth rate in %

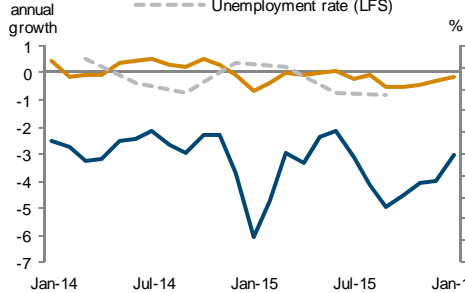
- Wages nominal, gross
- Exchange rate
- Productivity\*
- ◆ Unit labour costs



## Inflation and unemployment

in %

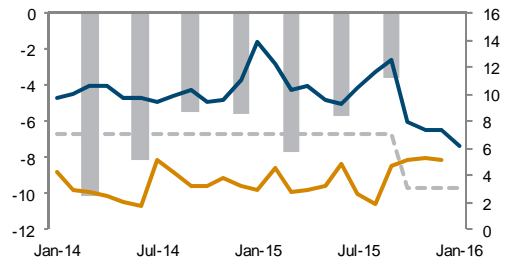
- Left scale: Consumer prices (HICP)
- Producer prices in industry
- Right scale: Unemployment rate (LFS)



## Fiscal and monetary policy

in %

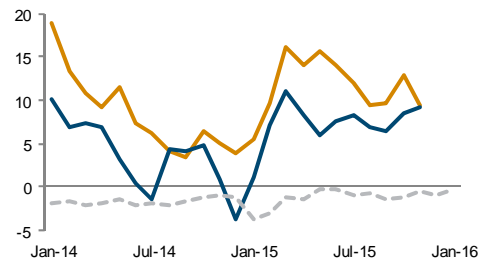
- Left scale: General gov. budget balance, cumulated, in % of GDP
- Right scale: Broad money, annual growth rate
- Central bank policy rate (p.a.)
- Central bank policy rate (p.a.), real, defl. with annual PPI



## External sector development

annual growth rate in %

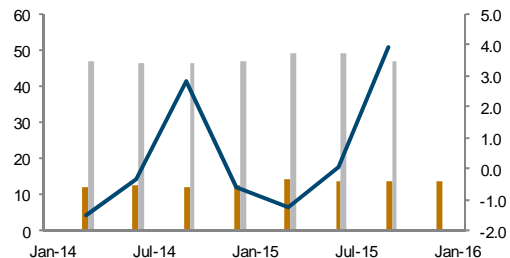
- Exports total, 3-month moving average (EUR based)
- Imports total, 3-month moving average (EUR based)
- - - Real exchange rate EUR/HRK, PPI deflated



## External finance

EUR bn

- Left scale: Gross reserves of NB excl. gold
- Gross external debt
- Right scale: Current account



\*Positive values of the productivity component on the graph reflect decline in productivity and vice versa.

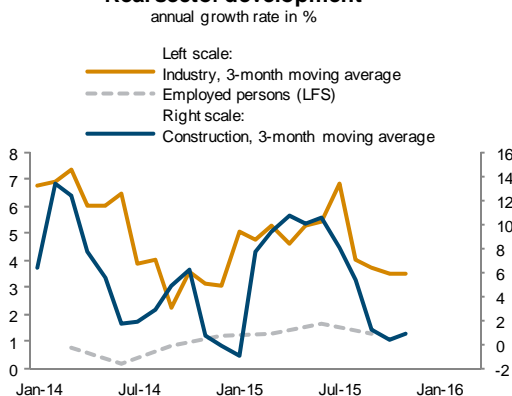
Source: wiiw Monthly Database incorporating Eurostat and national statistics.

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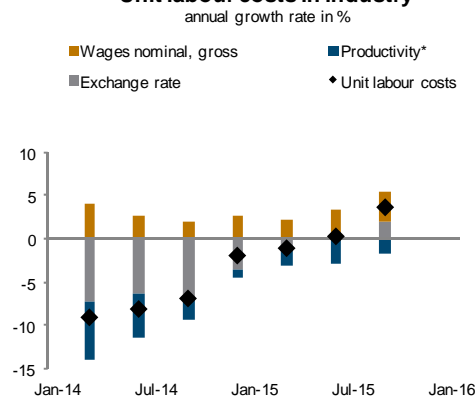
<http://data.wiiw.ac.at/monthly-database.html>

# Czech Republic

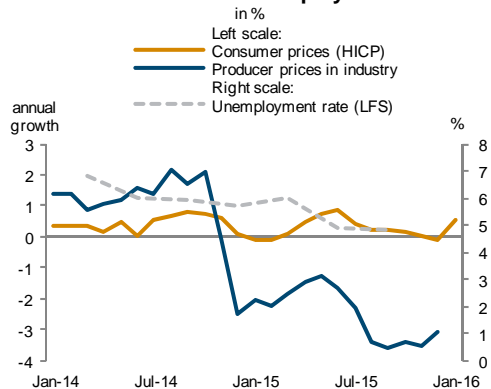
## Real sector development



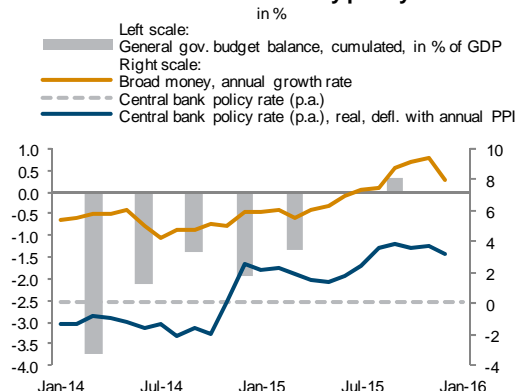
## Unit labour costs in industry



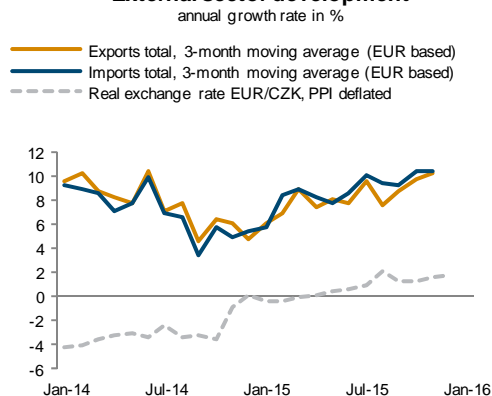
## Inflation and unemployment



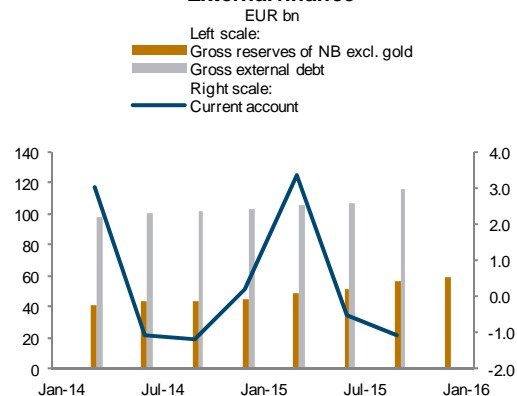
## Fiscal and monetary policy



## External sector development



## External finance



\*Positive values of the productivity component on the graph reflect decline in productivity and vice versa.

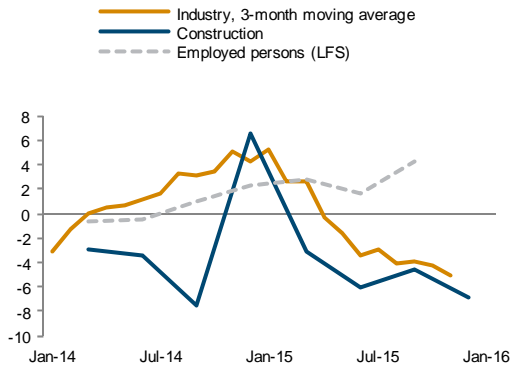
Source: wiiw Monthly Database incorporating Eurostat and national statistics.

Baseline data, country-specific definitions and methodological breaks in time series are available under:

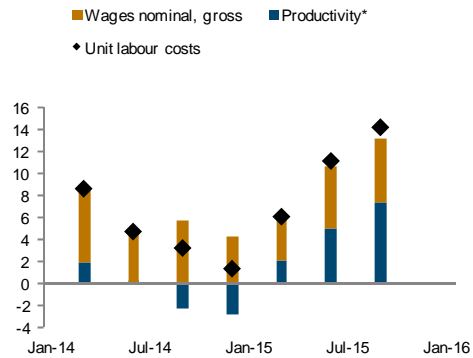
<http://data.wiiw.ac.at/monthly-database.html>

# Estonia

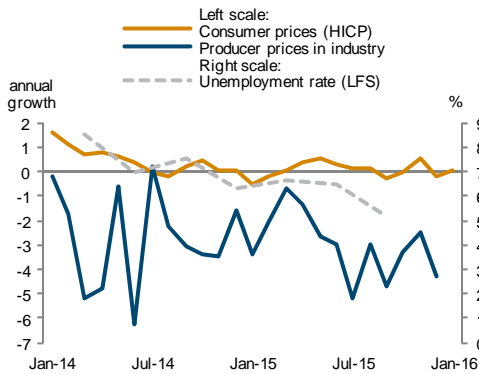
**Real sector development**  
annual growth rate in %



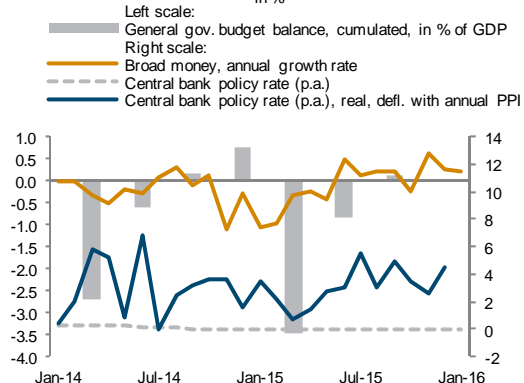
**Unit labour costs in industry**  
annual growth rate in %



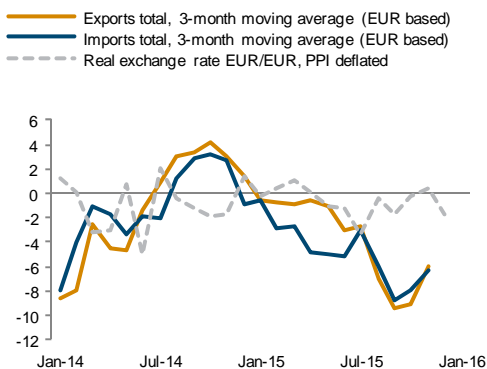
**Inflation and unemployment**  
in %



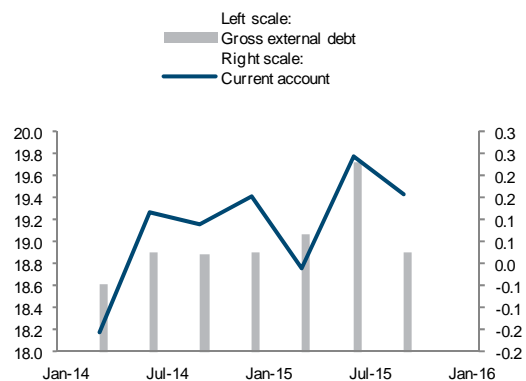
**Fiscal and monetary policy**  
in %



**External sector development**  
annual growth rate in %



**External finance**  
EUR bn



\*Positive values of the productivity component on the graph reflect decline in productivity and vice versa.

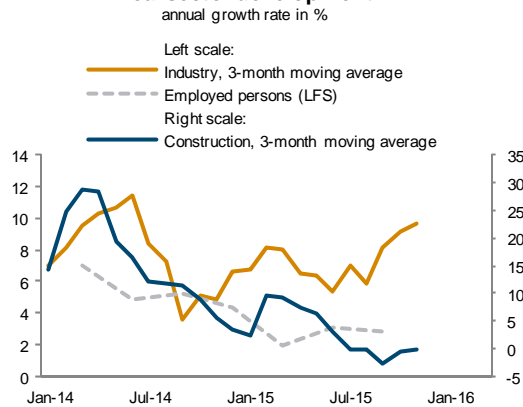
Source: wiiw Monthly Database incorporating Eurostat and national statistics.

Baseline data, country-specific definitions and methodological breaks in time series are available under:

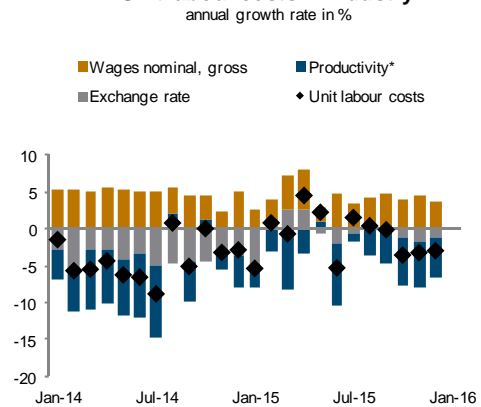
<http://data.wiiw.ac.at/monthly-database.html>

# Hungary

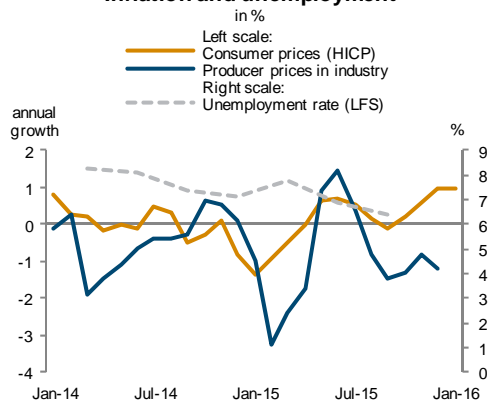
## Real sector development



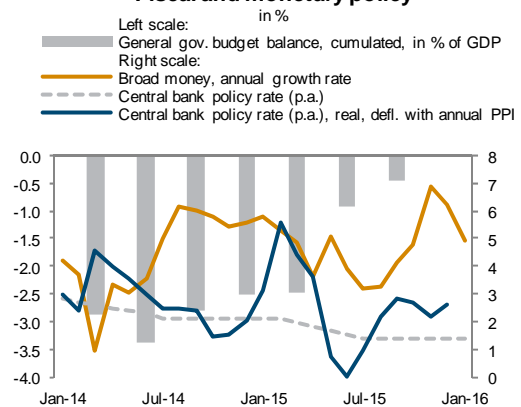
## Unit labour costs in industry



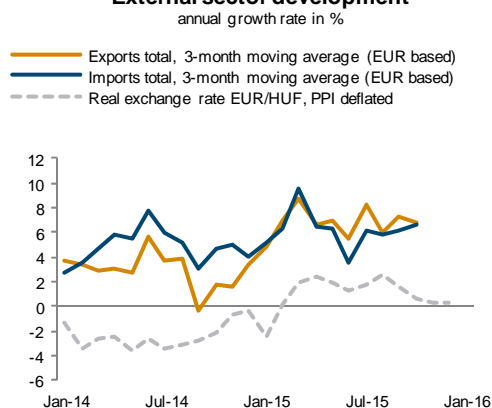
## Inflation and unemployment



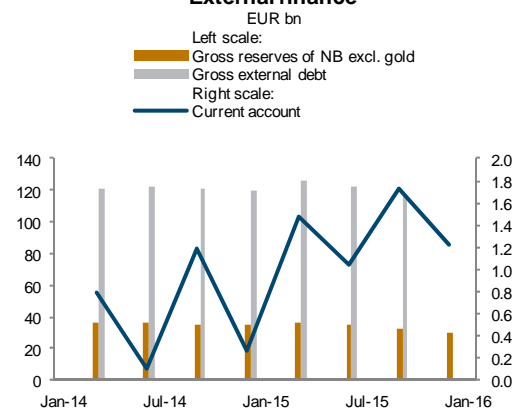
## Fiscal and monetary policy



## External sector development



## External finance



\*Positive values of the productivity component on the graph reflect decline in productivity and vice versa.

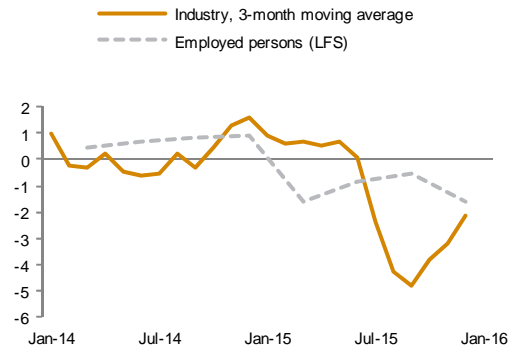
Source: wiiw Monthly Database incorporating Eurostat and national statistics.

Baseline data, country-specific definitions and methodological breaks in time series are available under:

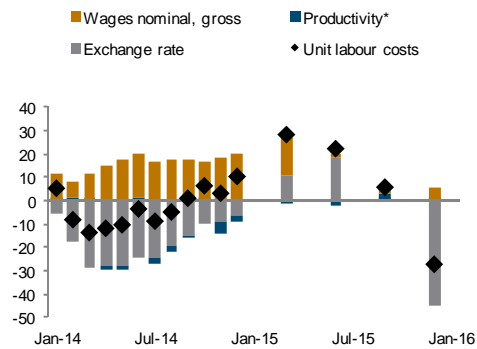
<http://data.wiiw.ac.at/monthly-database.html>

# Kazakhstan

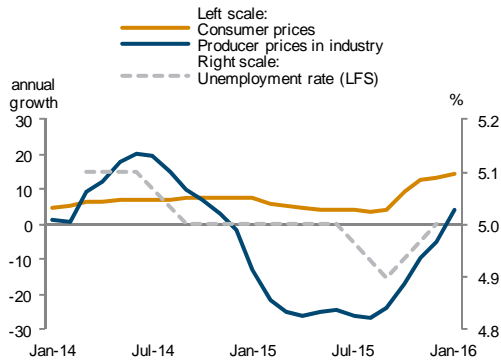
**Real sector development**  
annual growth rate in %



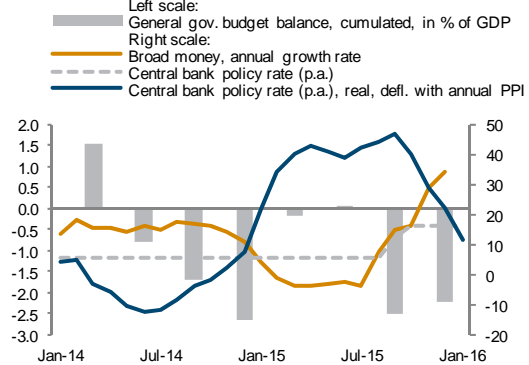
**Unit labour costs in industry**  
annual growth rate in %



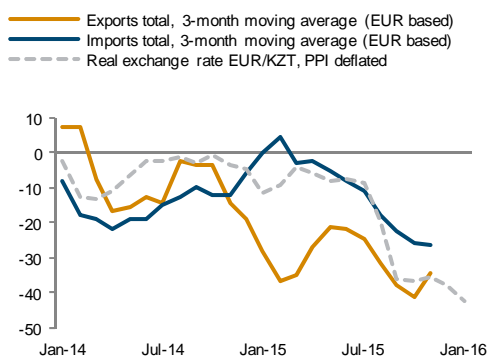
**Inflation and unemployment**  
in %



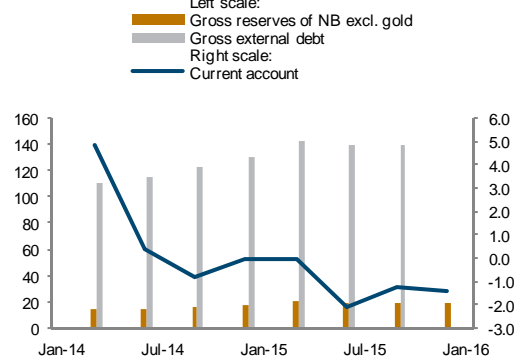
**Fiscal and monetary policy**  
in %



**External sector development**  
annual growth rate in %



**External finance**  
EUR bn



\*Positive values of the productivity component on the graph reflect decline in productivity and vice versa.

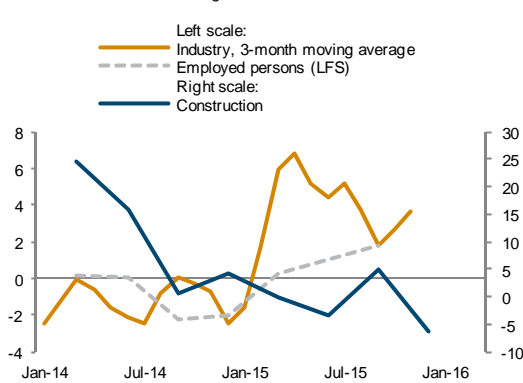
Source: wiiw Monthly Database incorporating Eurostat and national statistics.

Baseline data, country-specific definitions and methodological breaks in time series are available under:

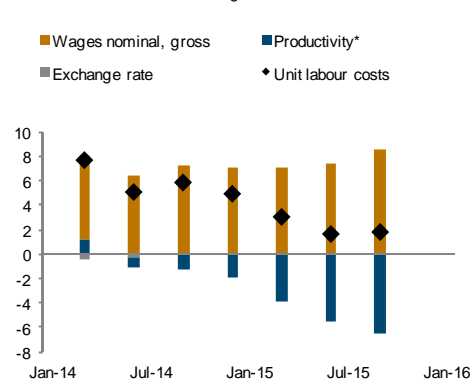
<http://data.wiiw.ac.at/monthly-database.html>

# Latvia

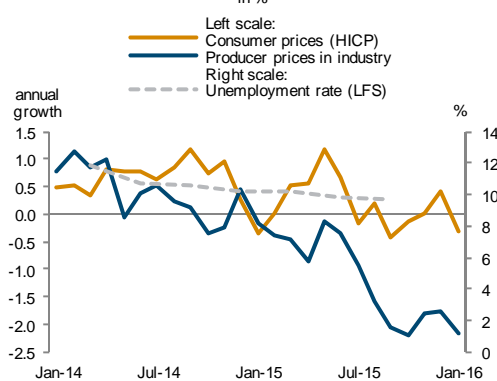
## Real sector development



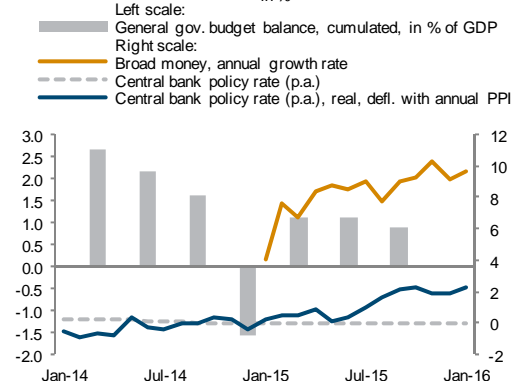
## Unit labour costs in industry



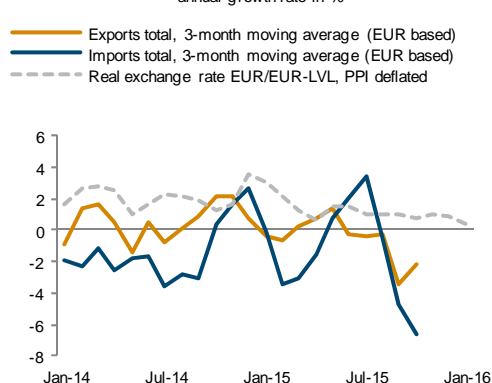
## Inflation and unemployment



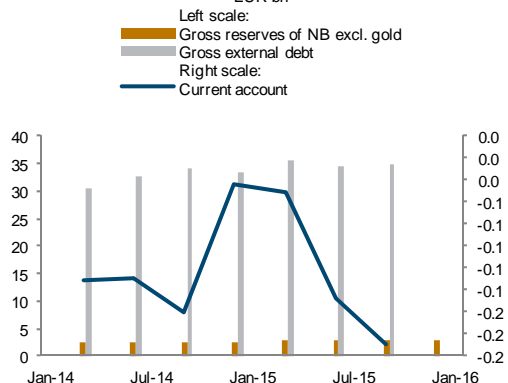
## Fiscal and monetary policy



## External sector development



## External finance



\*Positive values of the productivity component on the graph reflect decline in productivity and vice versa.

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

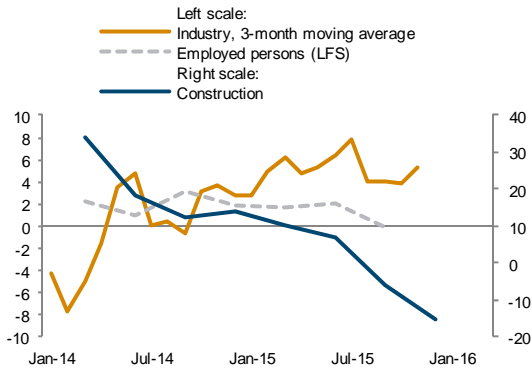
Baseline data, country-specific definitions and methodological breaks in time series are available under:

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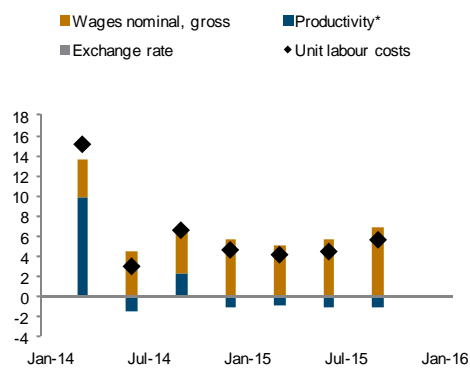


# Lithuania

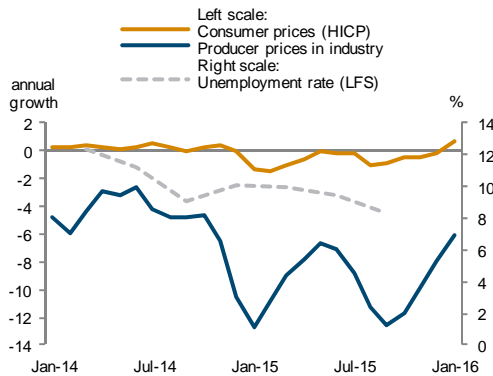
**Real sector development**  
annual growth rate in %



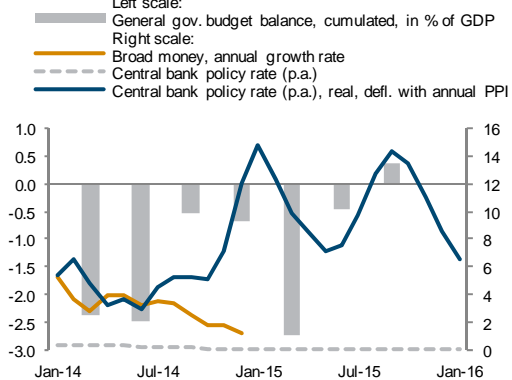
**Unit labour costs in industry**  
annual growth rate in %



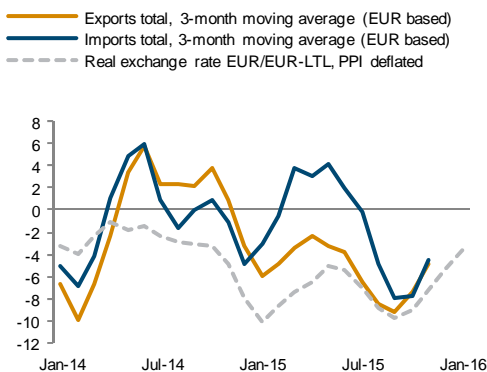
**Inflation and unemployment**  
in %



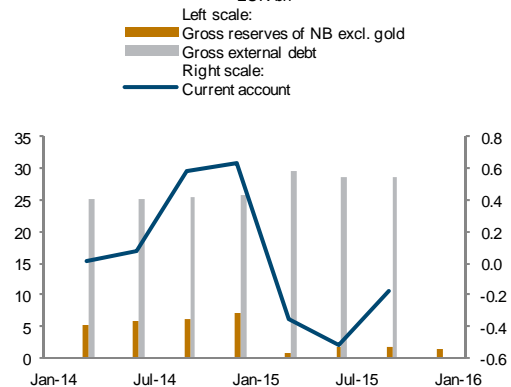
**Fiscal and monetary policy**  
in %



**External sector development**  
annual growth rate in %



**External finance**  
EUR bn



\*Positive values of the productivity component on the graph reflect decline in productivity and vice versa.

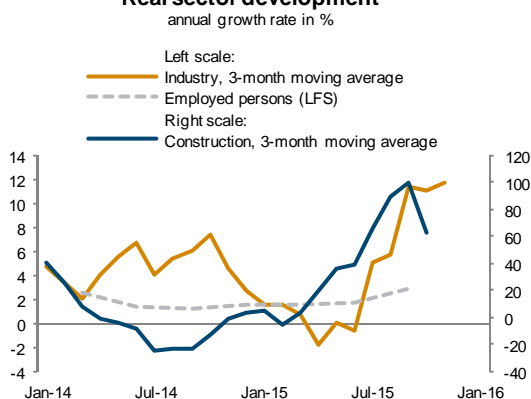
Source: wiiw Monthly Database incorporating Eurostat and national statistics.

Baseline data, country-specific definitions and methodological breaks in time series are available under:

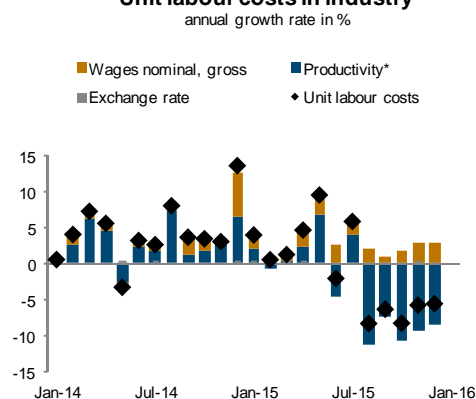
<http://data.wiiw.ac.at/monthly-database.html>

# Macedonia

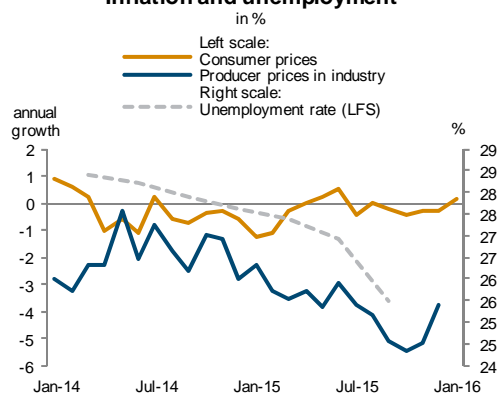
## Real sector development



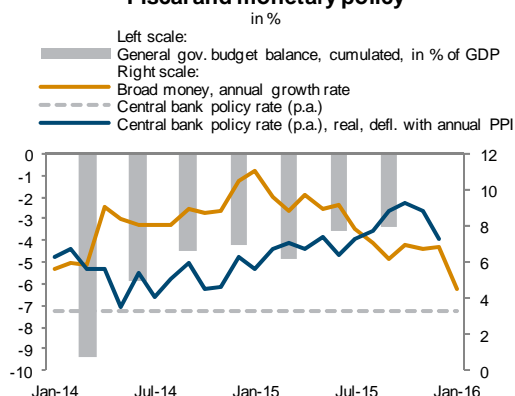
## Unit labour costs in industry



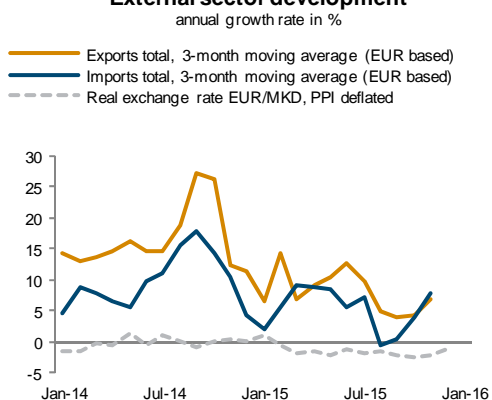
## Inflation and unemployment



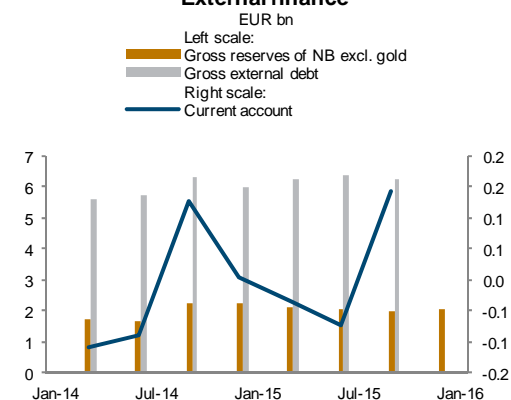
## Fiscal and monetary policy



## External sector development



## External finance



\*Positive values of the productivity component on the graph reflect decline in productivity and vice versa.

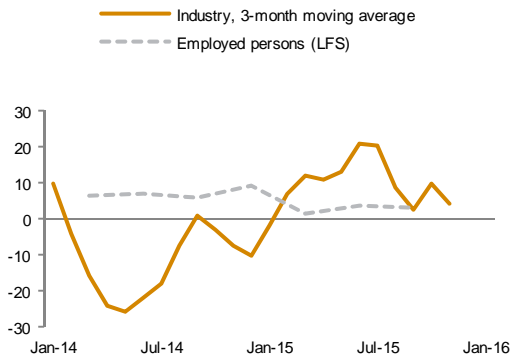
Source: wiiw Monthly Database incorporating Eurostat and national statistics.

Baseline data, country-specific definitions and methodological breaks in time series are available under:

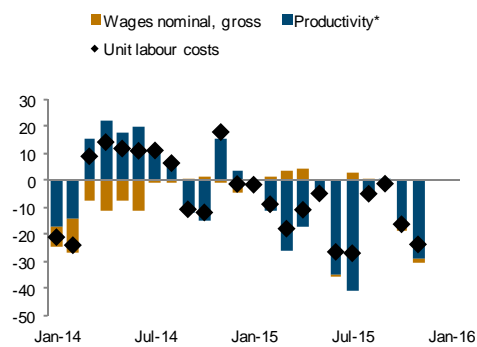
<http://data.wiiw.ac.at/monthly-database.html>

# Montenegro

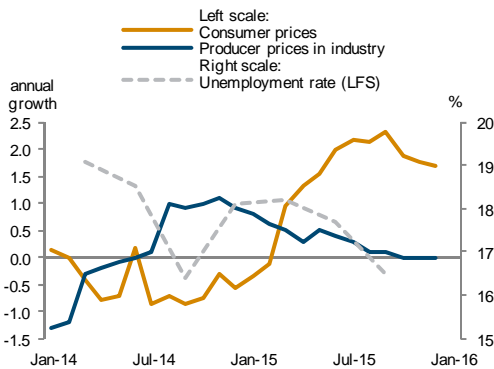
**Real sector development**  
annual growth rate in %



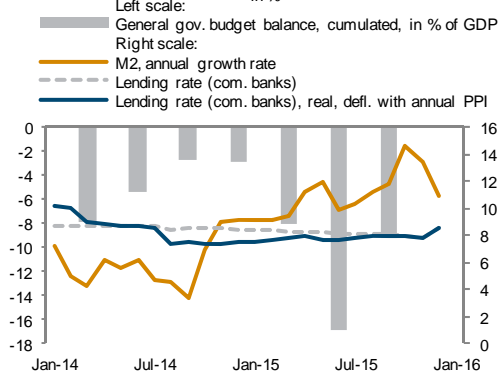
**Unit labour costs in industry**  
annual growth rate in %



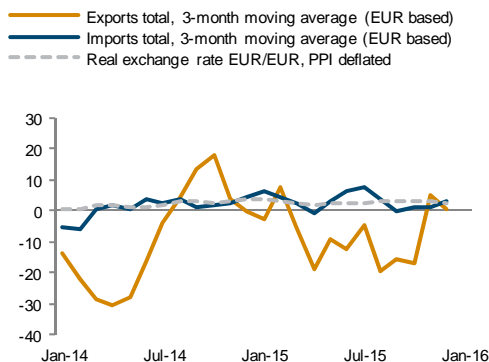
**Inflation and unemployment**  
in %



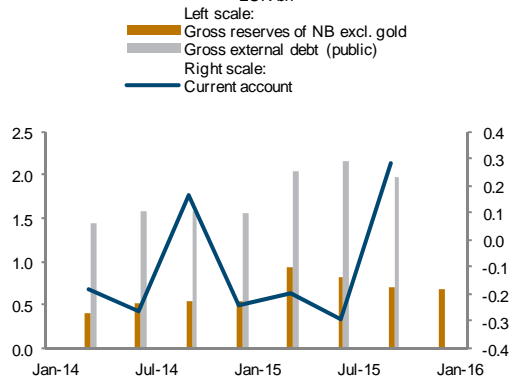
**Fiscal and monetary policy**  
in %



**External sector development**  
annual growth rate in %



**External finance**  
EUR bn



\*Positive values of the productivity component on the graph reflect decline in productivity and vice versa.

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

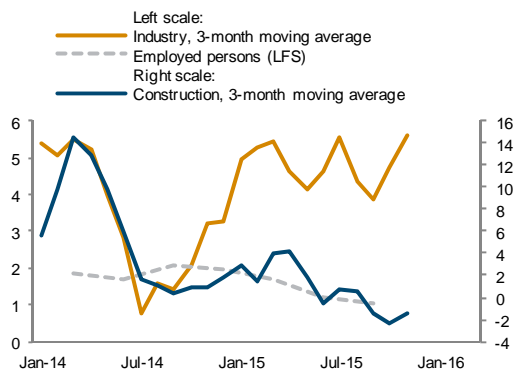
Baseline data, country-specific definitions and methodological breaks in time series are available under:

<http://data.wiiw.ac.at/monthly-database.html>

# Poland

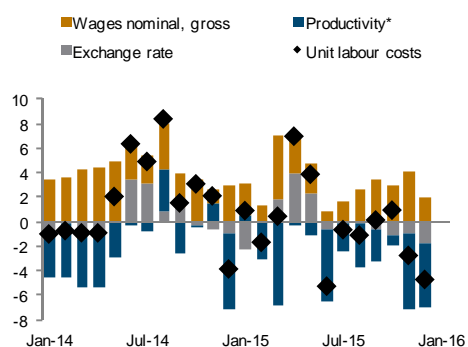
## Real sector development

annual growth rate in %



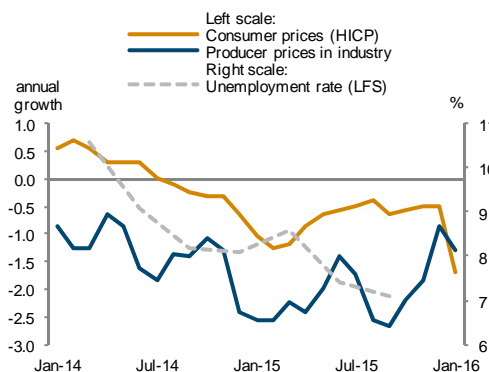
## Unit labour costs in industry

annual growth rate in %



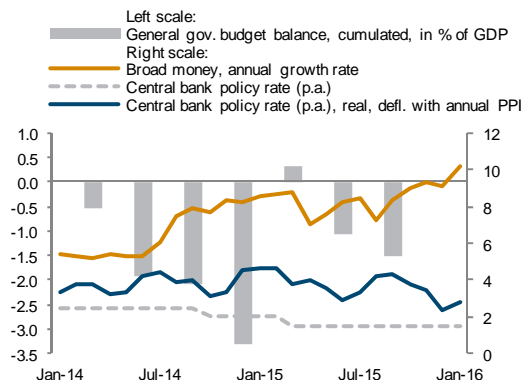
## Inflation and unemployment

in %



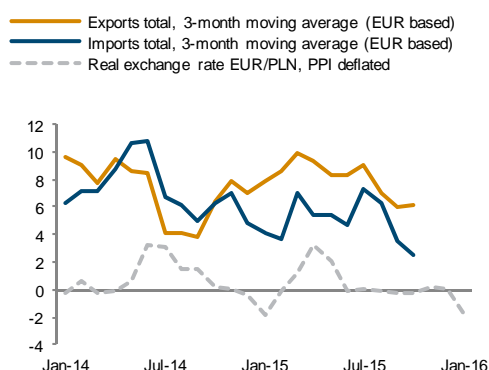
## Fiscal and monetary policy

in %



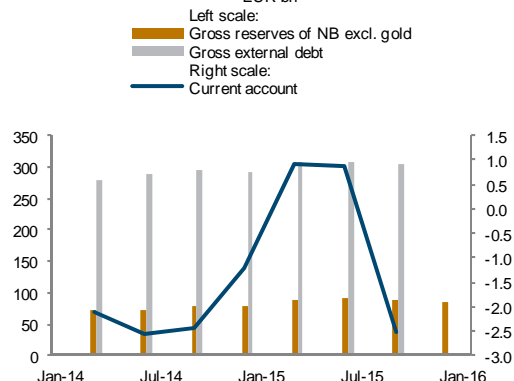
## External sector development

annual growth rate in %



## External finance

EUR bn



\*Positive values of the productivity component on the graph reflect decline in productivity and vice versa.

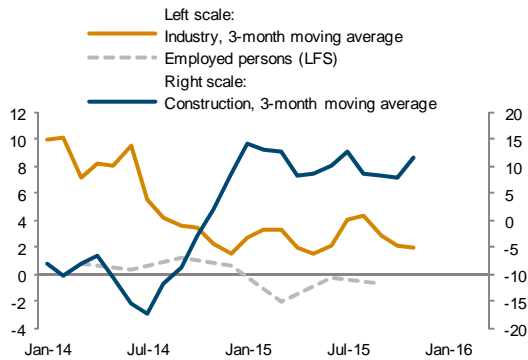
Source: wiiw Monthly Database incorporating Eurostat and national statistics.

Baseline data, country-specific definitions and methodological breaks in time series are available under:

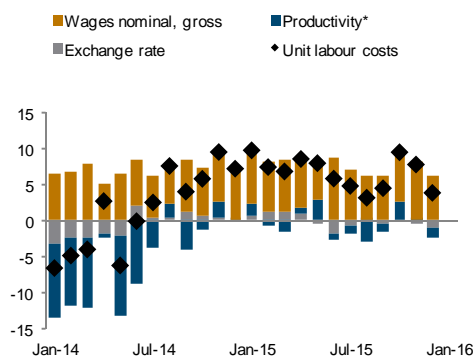
<http://data.wiiw.ac.at/monthly-database.html>

# Romania

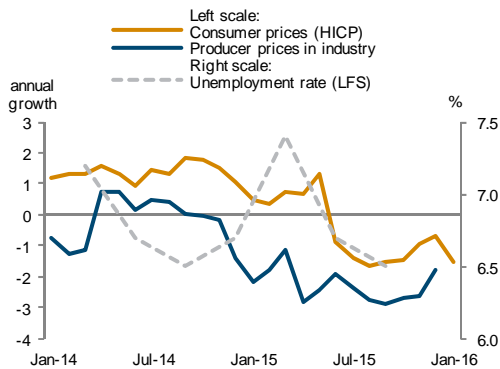
**Real sector development**  
annual growth rate in %



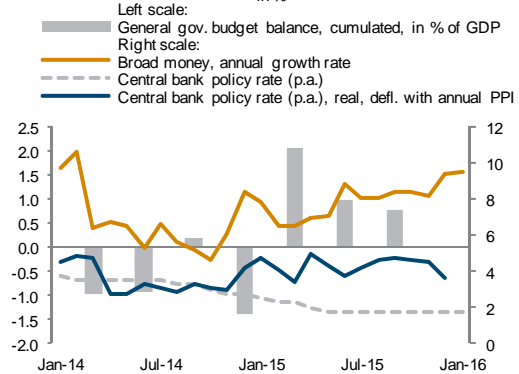
**Unit labour costs in industry**  
annual growth rate in %



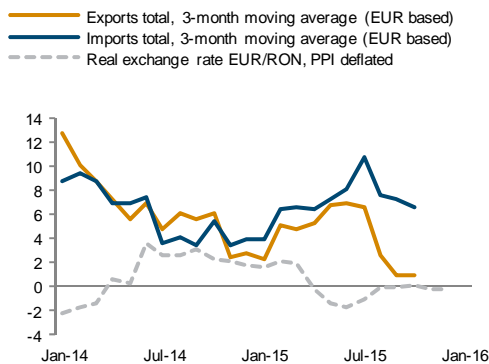
**Inflation and unemployment**  
in %



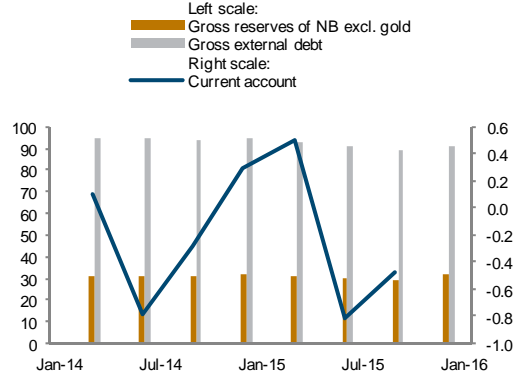
**Fiscal and monetary policy**  
in %



**External sector development**  
annual growth rate in %



**External finance**  
EUR bn



\*Positive values of the productivity component on the graph reflect decline in productivity and vice versa.

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

Baseline data, country-specific definitions and methodological breaks in time series are available under:

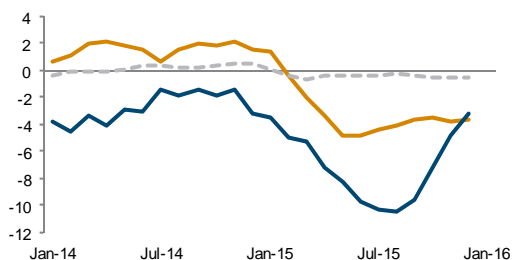
<http://data.wiiw.ac.at/monthly-database.html>

# Russia

## Real sector development

annual growth rate in %

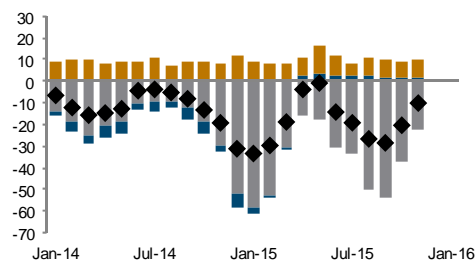
— Industry, 3-month moving average  
— Construction, 3-month moving average  
- - - Employed persons (LFS)



## Unit labour costs in industry

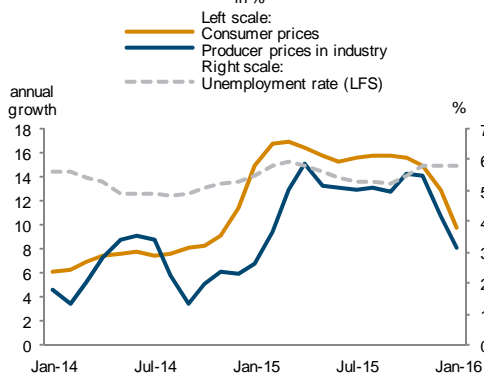
annual growth rate in %

■ Wages nominal, manuf., gross  
■ Exchange rate  
◆ Productivity\*  
◆ Unit labour costs



## Inflation and unemployment

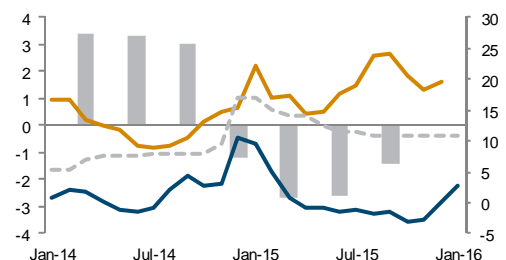
in %



## Fiscal and monetary policy

in %

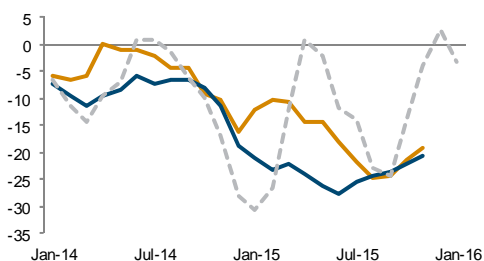
Left scale:  
■ General gov. budget balance, cumulated, in % of GDP  
Right scale:  
— M2, annual growth rate  
- - - Central bank policy rate (p.a.)  
— Central bank policy rate (p.a.), real, defl. with annual PPI



## External sector development

annual growth rate in %

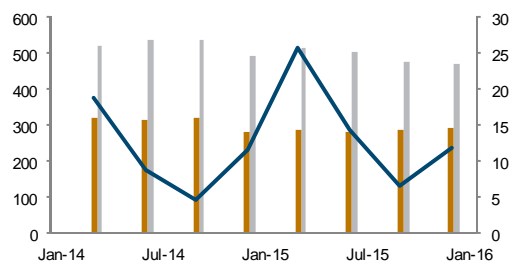
— Exports total, 3-month moving average (EUR based)  
— Imports total, 3-month moving average (EUR based)  
- - - Real exchange rate EUR/RUB, PPI deflated



## External finance

EUR bn

Left scale:  
■ Gross reserves of NB excl. gold  
■ Gross external debt  
Right scale:  
— Current account



\*Positive values of the productivity component on the graph reflect decline in productivity and vice versa.

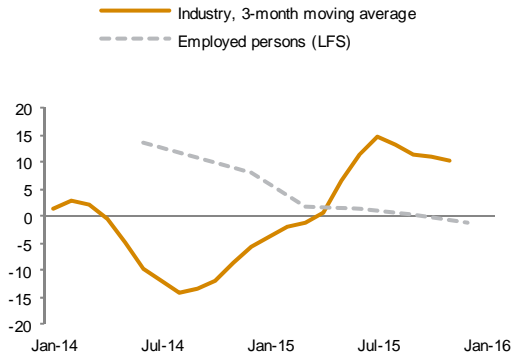
Source: wiiw Monthly Database incorporating Eurostat and national statistics.

Baseline data, country-specific definitions and methodological breaks in time series are available under:

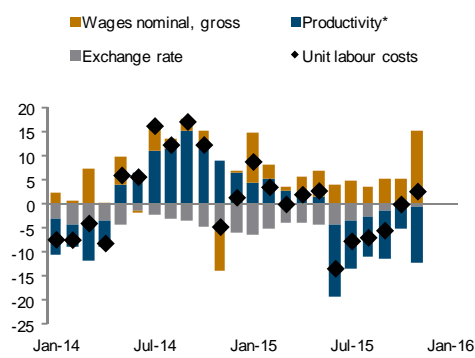
<http://data.wiiw.ac.at/monthly-database.html>

# Serbia

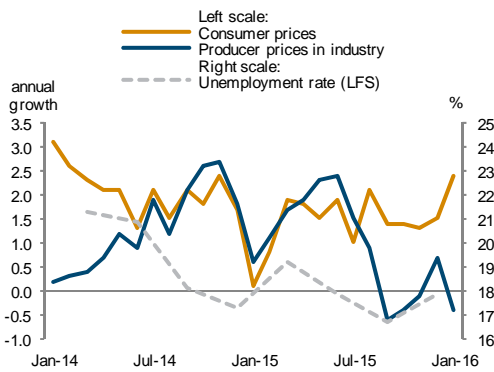
**Real sector development**  
annual growth rate in %



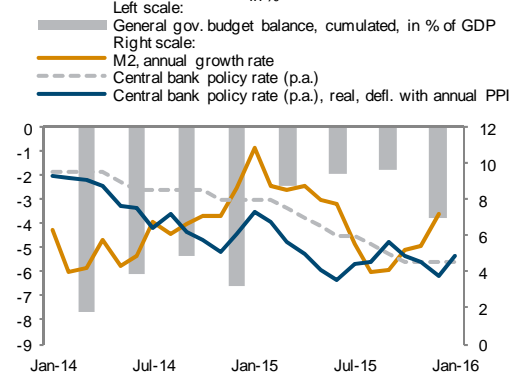
**Unit labour costs in industry**  
annual growth rate in %



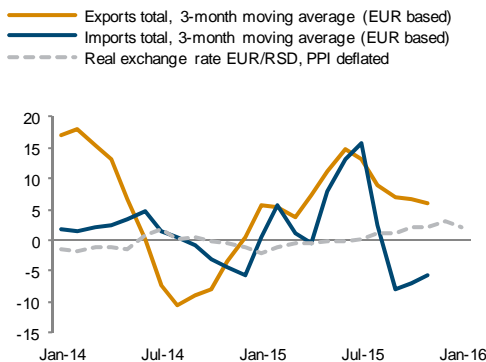
**Inflation and unemployment**  
in %



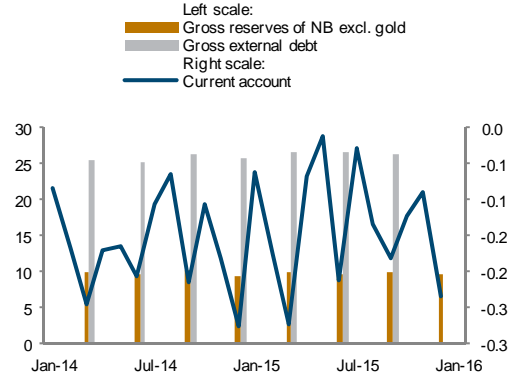
**Fiscal and monetary policy**  
in %



**External sector development**  
annual growth rate in %



**External finance**  
EUR bn



\*Positive values of the productivity component on the graph reflect decline in productivity and vice versa.

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

Baseline data, country-specific definitions and methodological breaks in time series are available under:

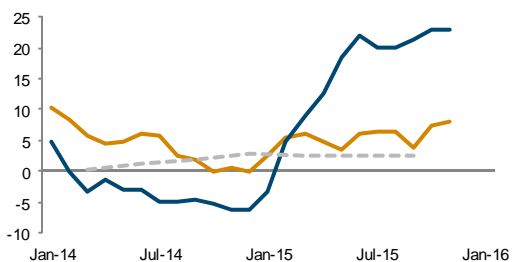
<http://data.wiiw.ac.at/monthly-database.html>

# Slovakia

## Real sector development

annual growth rate in %

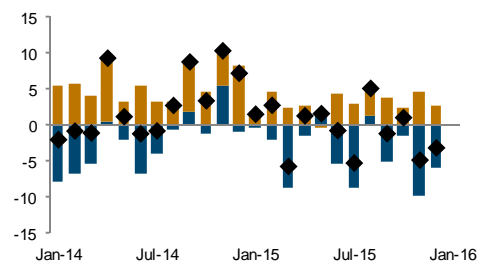
- Industry, 3-month moving average
- Construction, 3-month moving average
- - - Employed persons (LFS)



## Unit labour costs in industry

annual growth rate in %

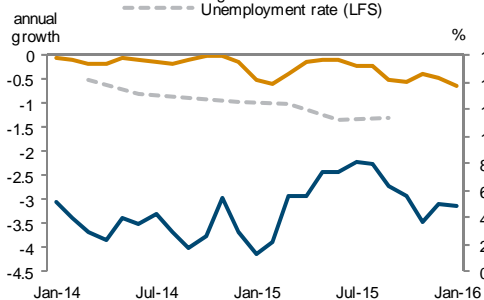
- Wages nominal, gross
- Productivity\*
- ◆ Unit labour costs



## Inflation and unemployment

in %

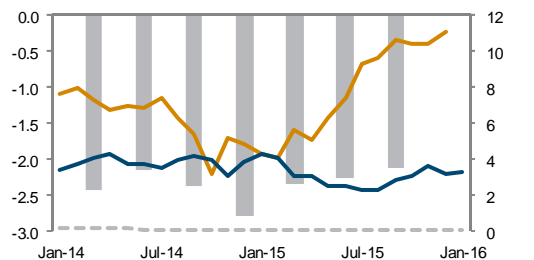
- Left scale: Consumer prices (HICP)
- Producer prices in industry
- Right scale: Unemployment rate (LFS)



## Fiscal and monetary policy

in %

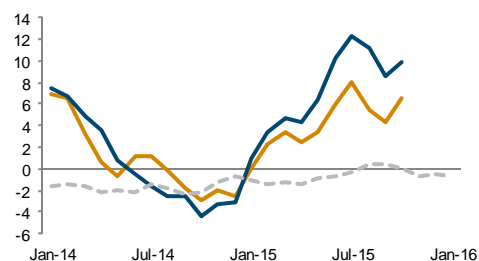
- Left scale: General gov. budget balance, cumulated, in % of GDP
- Right scale: Broad money, annual growth rate
- Central bank policy rate (p.a.)
- Central bank policy rate (p.a.), real, defl. with annual PPI



## External sector development

annual growth rate in %

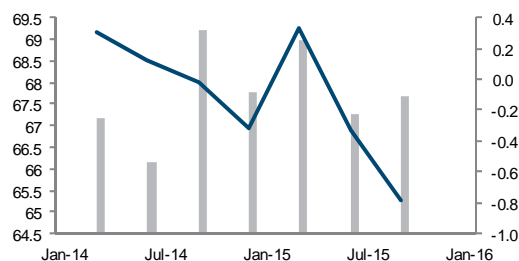
- Exports total, 3-month moving average (EUR based)
- Imports total, 3-month moving average (EUR based)
- - - Real exchange rate EUR/EUR, PPI deflated



## External finance

EUR bn

- Left scale: Gross external debt
- Right scale: Current account



\*Positive values of the productivity component on the graph reflect decline in productivity and vice versa.

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

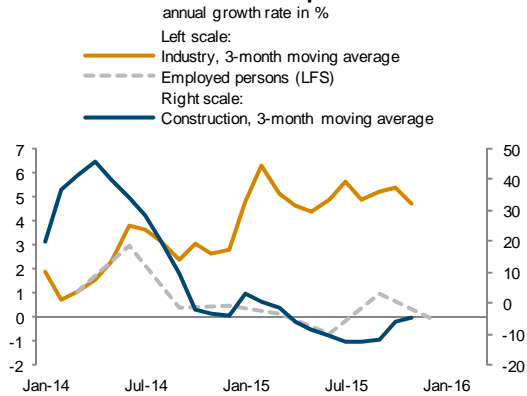
Baseline data, country-specific definitions and methodological breaks in time series are available under:

<http://data.wiiw.ac.at/monthly-database.html>

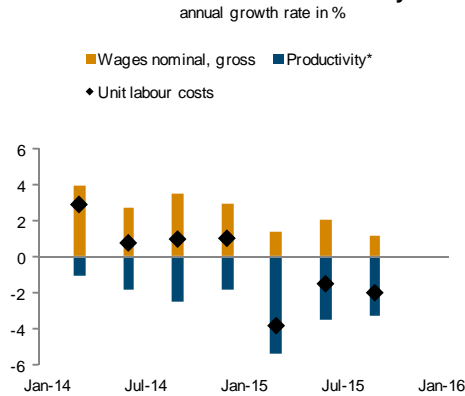


# Slovenia

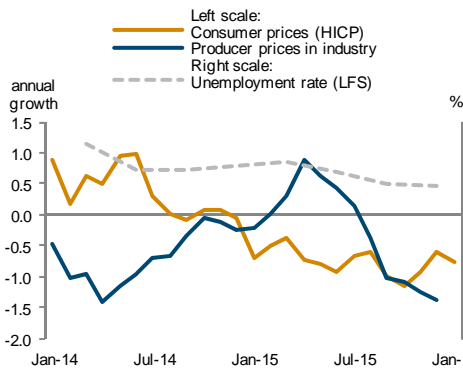
## Real sector development



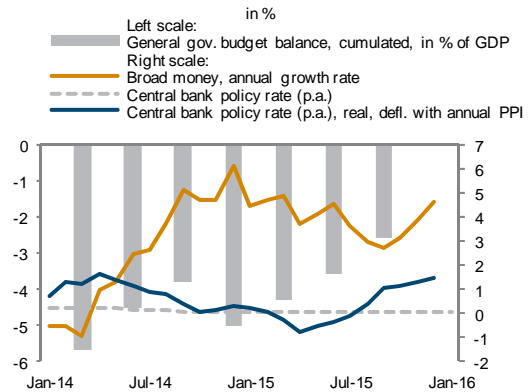
## Unit labour costs in industry



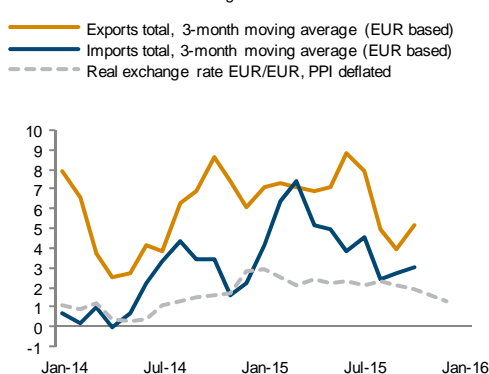
## Inflation and unemployment



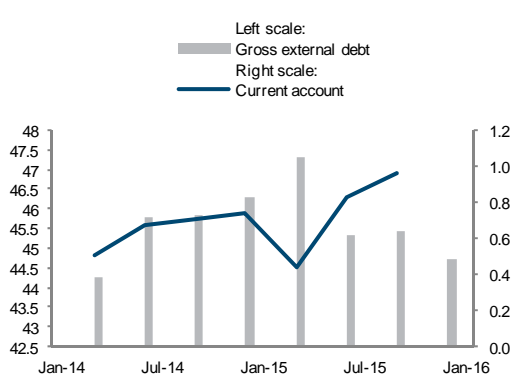
## Fiscal and monetary policy



## External sector development



## External finance



\*Positive values of the productivity component on the graph reflect decline in productivity and vice versa.

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

Baseline data, country-specific definitions and methodological breaks in time series are available under:

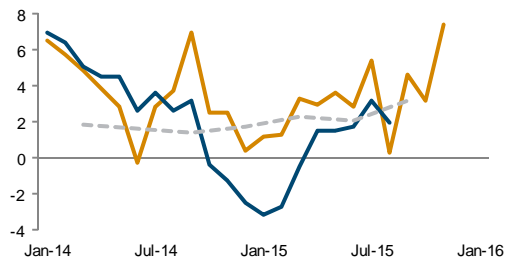
<http://data.wiiw.ac.at/monthly-database.html>

# Turkey

## Real sector development

annual growth rate in %

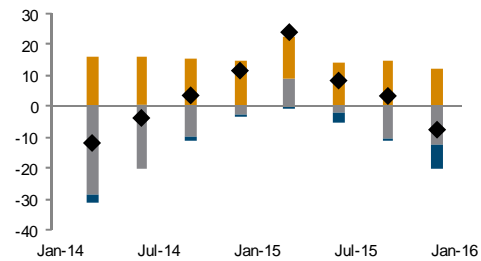
— Industry, 3-month moving average  
— Construction, 3-month moving average  
- - - Employed persons (LFS)



## Unit labour costs in industry

annual growth rate in %

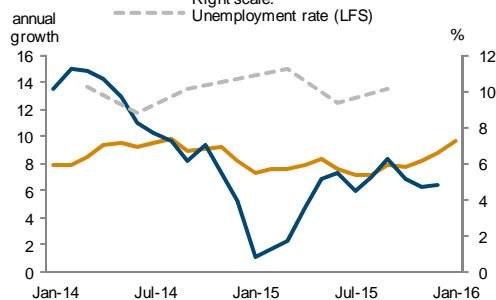
■ Wages nominal, gross      ■ Productivity\*  
■ Exchange rate      ♦ Unit labour costs



## Inflation and unemployment

in %

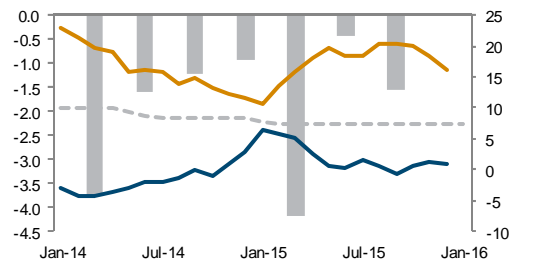
— Left scale:  
— Consumer prices (HICP)  
— Producer prices in industry  
— Right scale:  
- - - Unemployment rate (LFS)



## Fiscal and monetary policy

in %

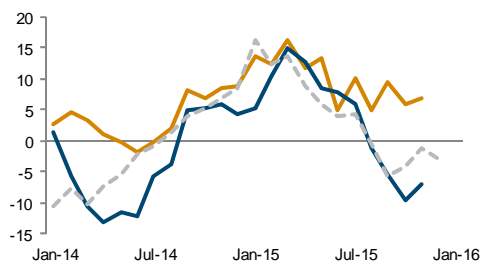
— Left scale:  
— General gov. budget balance, cumulated, in % of GDP  
— Right scale:  
— Broad money, annual growth rate  
— Central bank policy rate (p.a.)  
— Central bank policy rate (p.a.), real, defl. with annual PPI



## External sector development

annual growth rate in %

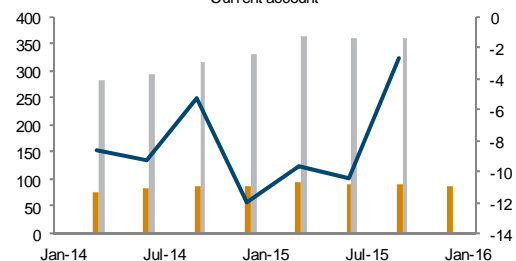
— Exports total, 3-month moving average (EUR based)  
— Imports total, 3-month moving average (EUR based)  
- - - Real exchange rate EUR/TRY, PPI deflated



## External finance

EUR bn

— Left scale:  
— Gross reserves of NB excl. gold  
— Gross external debt  
— Right scale:  
— Current account



\*Positive values of the productivity component on the graph reflect decline in productivity and vice versa.

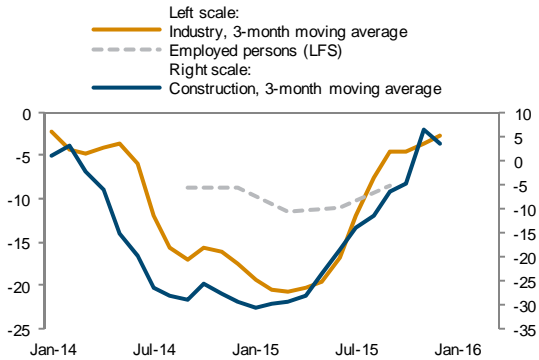
Source: wiiw Monthly Database incorporating Eurostat and national statistics.

Baseline data, country-specific definitions and methodological breaks in time series are available under:

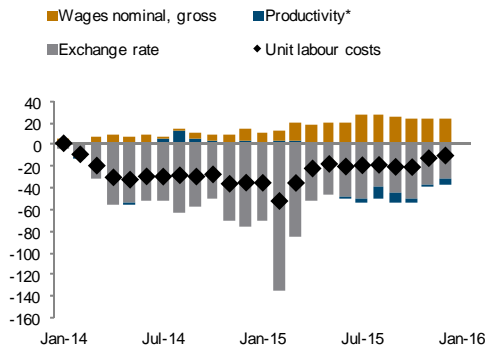
<http://data.wiiw.ac.at/monthly-database.html>

# Ukraine

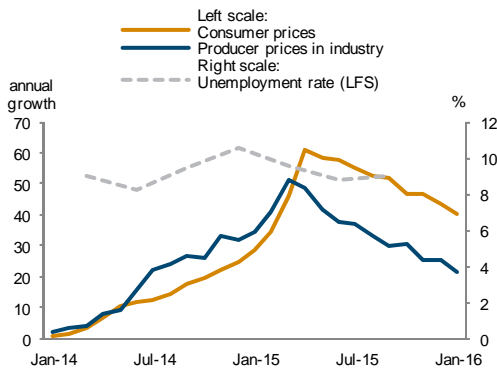
**Real sector development**  
annual growth rate in %



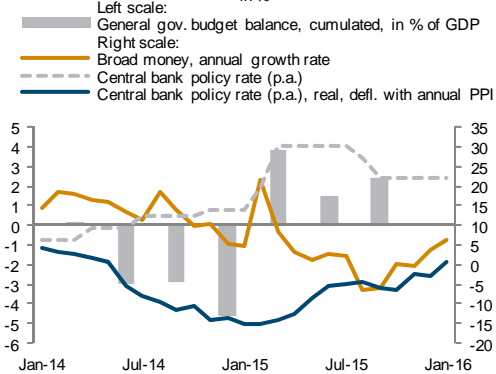
**Unit labour costs in industry**  
annual growth rate in %



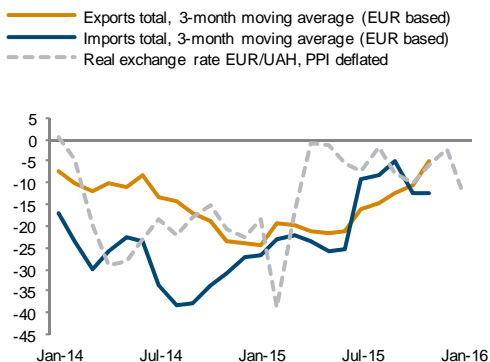
**Inflation and unemployment**  
in %



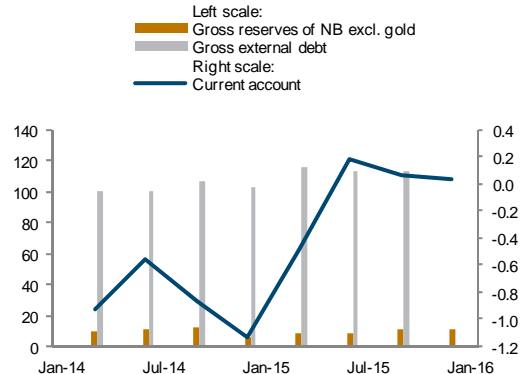
**Fiscal and monetary policy**  
in %



**External sector development**  
annual growth rate in %



**External finance**  
EUR bn



\*Positive values of the productivity component on the graph reflect decline in productivity and vice versa.

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Economics editors: Julia Grübler, Sándor Richter

## IMPRESSUM

Herausgeber, Verleger, Eigentümer und Hersteller:  
Verein „Wiener Institut für Internationale Wirtschaftsvergleiche“ (wiiw),  
Wien 6, Rahlgasse 3

ZVR-Zahl: 329995655

Postanschrift: A 1060 Wien, Rahlgasse 3, Tel: [+431] 533 66 10, Telefax: [+431] 533 66 10 50  
Internet Homepage: [www.wiiw.ac.at](http://www.wiiw.ac.at)

Nachdruck nur auszugsweise und mit genauer Quellenangabe gestattet.  
P.b.b. Verlagspostamt 1060 Wien

Offenlegung nach § 25 Mediengesetz: Medieninhaber (Verleger): Verein "Wiener Institut für Internationale Wirtschaftsvergleiche", A 1060 Wien, Rahlgasse 3. Vereinszweck: Analyse der wirtschaftlichen Entwicklung der zentral- und osteuropäischen Länder sowie anderer Transformationswirtschaften sowohl mittels empirischer als auch theoretischer Studien und ihre Veröffentlichung; Erbringung von Beratungsleistungen für Regierungs- und Verwaltungsstellen, Firmen und Institutionen.



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