

# Monthly Report

**Why Does the Computer Bug Spectre also Reveal Major Economic Bugs?**

**‘Competition for Talent’: High-Skilled Intra- and Extra-EU-28 Mobility**

**Immigration and Brexit**

**Massive Youth Unemployment in the Western Balkans: Do Remittances Matter?**

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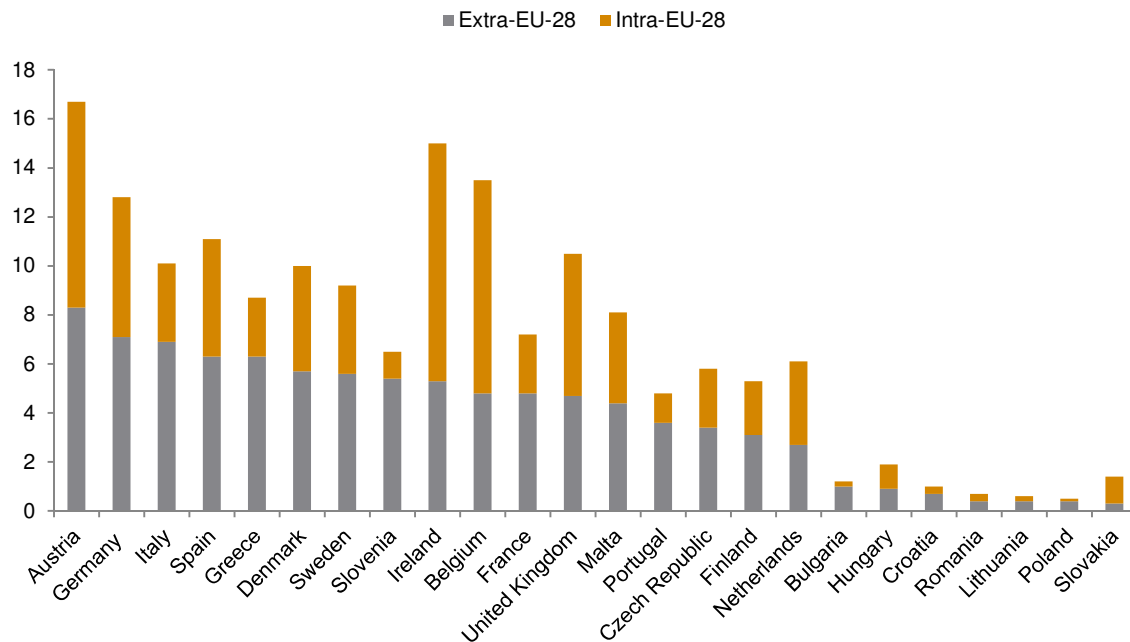


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**Share of working-age migrants in total working-age population, in %, 2016**



Source: Eurostat, Population on 1 January by age group, sex and citizenship [migr\_pop1ctz].

## Opinion Corner: Why does the computer bug Spectre also reveal major economic bugs?

ANSWERED BY ROMAN STÖLLINGER

*The disclosure of existing vulnerabilities of microprocessors at the beginning of the year raised serious concerns about data security. According to experts, launching an attack to exploit Spectre, a security weakness in the architecture of microprocessors, only requires few lines of code and enables hackers to extract data from computers, servers and clouds. While the computer industry will certainly learn from this experience and come up with improved, safer computer chips (earning them additional sales), viewed through economic lenses there are also some lessons to be learned from the incident.*

*The economic issues involved in this matter can be approached by asking a first simple question: How can it be that a mistake in the design of microprocessors is worrying people around the world? With only two firms – Intel and AMD, both headquartered in the US – dominating the global market for modern microprocessors, basically all computer and smartphone users are directly affected by the bug. This is all the more true as the duopolists have entered into a patent cross-licence agreement which fosters the convergences of technological development paths. Obviously, a global duopoly entails considerable market power to the incumbents. This is especially true for the market leader Intel which holds a market share of almost 80% (as of 3<sup>rd</sup> quarter 2017)<sup>1</sup>. But the economic power of Intel and AMD goes far beyond pure market shares as they also control the technological trajectory of the industry and their cross-licence agreement, while an act of cooperation between the two firms, also constitutes an additional entry barrier for potential newcomer firms. Moreover, larger firms have stronger leverage in influencing economic policies such as product standards or intellectual property laws.*

*Importantly, the microprocessor industry is not a unique case. As globalisation and trade liberalisation advance, more and more markets are turned into global oligopolies. This may sound surprising as free trade is generally expected to stiffen global competition among firms worldwide. One reason for this trend is found in technology-related issues such as network effects in platform industries (Rochet and Tirole, 2006). Another, more universal reason is offered in modern trade theory (e.g. Melitz, 2003; Bernard et al., 2007; Melitz and Trefler, 2012) which highlights the heterogeneity of firms. When firms within an industry differ with regard to productivity (and potentially other characteristics) the impact of trade liberalisation tends to be highly asymmetric. More precisely, the theory predicts that trade liberalisation causes some firms – the smallest and least productive ones – to exit the market while the larger, more productive firms can increase their market share. These phenomena are referred to as ‘selection’ and ‘reallocation’ effects, respectively. The mechanism driving these effects is precisely the increased competitive pressures between firms. In other words, as counter-intuitive as it seems, rising competition is not in contrast with enlarged market power of the top firms. On the contrary, heightened competition and market concentration often go hand in hand in global markets. In general (unless ruled*

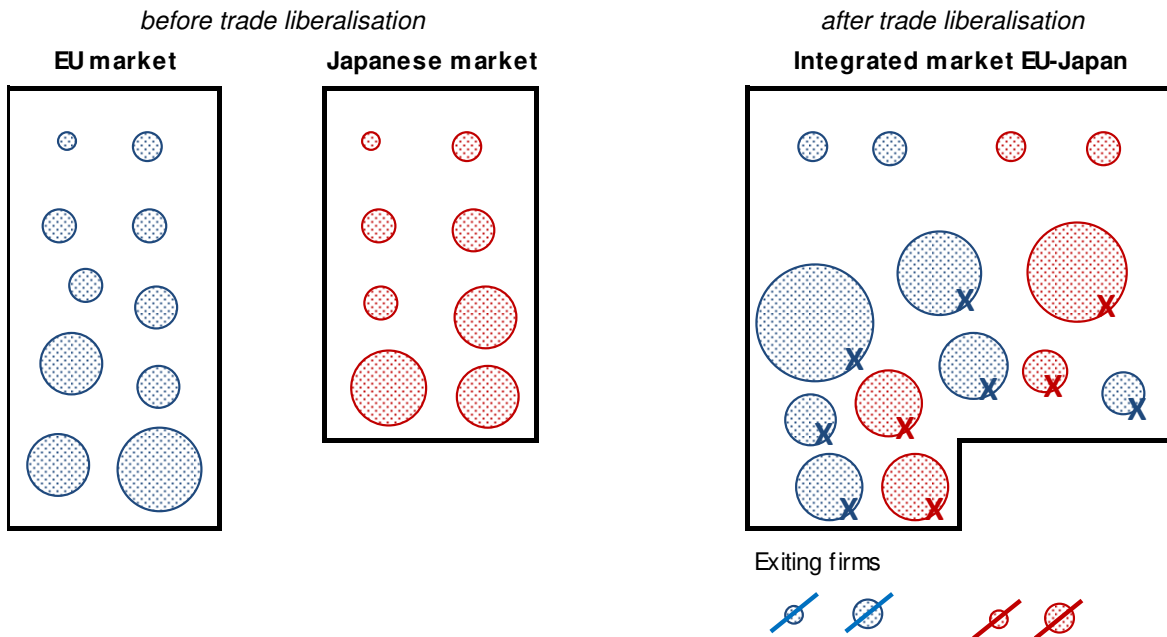
<sup>1</sup> See: Statista, <https://www.statista.com/statistics/735904/worldwide-x86-intel-amd-market-share/>



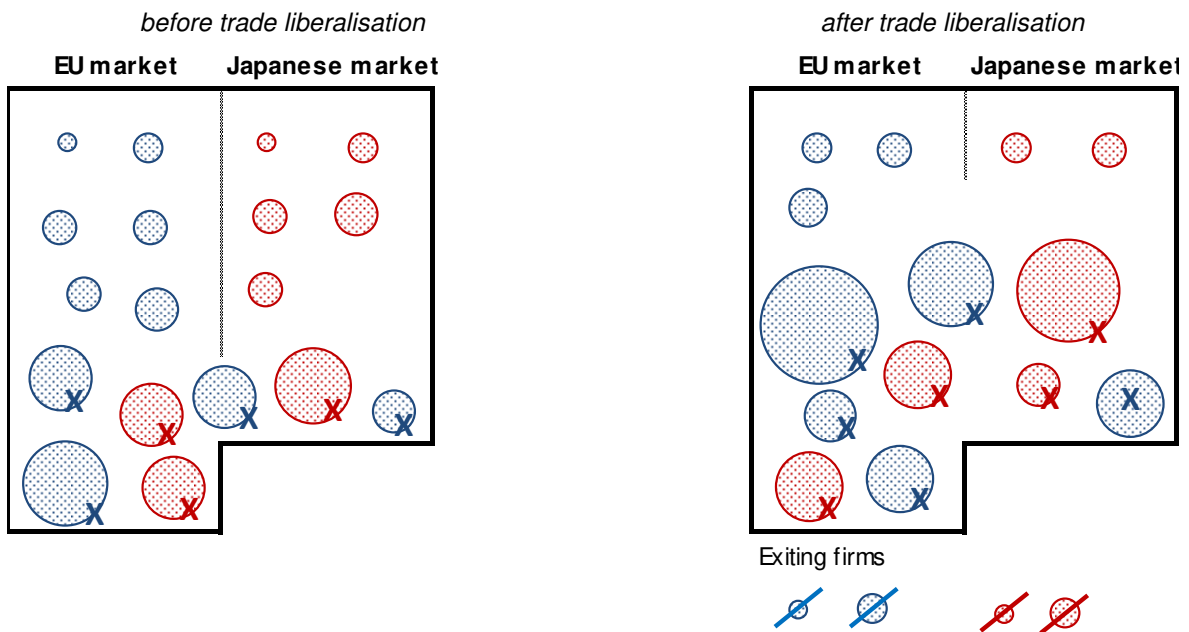
out by assuming fixed price-cost mark-ups in the trade models) with larger firms in the market, profits in the industry will go up as firms can use their market power to extract economic rents.

**Figure 1. / Schematic illustration of the effects of an EU-Japan trade liberalisation**

(a) Drastic liberalisation: from autarky to an integrated market



(b) Incremental trade liberalisation: partial removal of existing (non-prohibitive) trade barriers



Note: Blue circles symbolise EU firms. Red circles symbolise Japanese firms. Circles marked with an 'X' denote exporting firms. Plain circles without 'X' denote firms serving only the domestic market (non-exporters). The dashed line in the lower part of the figure indicates trade barriers (variable trade costs).

Source: Own illustration.

*This leads to a further question: Why has trade theory not warned of these concentration tendencies and the resulting market power of large firms? My take on that is that this 'side effect' of free trade has been neglected for ideological reasons. Instead, the focus is set on the positive aspects of trade liberalisation such as productivity gains induced by the reallocation effect, a higher degree of competition and an increase in the number of firms. But exactly this last point is questionable. An increase in the number of firms can de facto only be argued in case of a drastic liberalisation scenario in which a country moves from an autarky situation to full liberalisation. This is illustrated in the upper part of Figure 1.*

*The argument that the number of firms increases as a result of trade liberalisation rests on a comparison between an autarky situation before trade liberalisation and a fully integrated market after trade liberalisation. Let's take the recently concluded EU-Japan free trade agreement (FTA) to study the implications of trade liberalisation between the two economies. In the example, there were initially 10 active EU firms, symbolised by the blue circles, serving the domestic market. With the FTA in place some of the firms (both EU and Japanese) start exporting (indicated by the 'X'). The selection effect implies that some firms will exit the market. However, because of the export activities, there are now 14 firms (8 from the EU, 6 from Japan) selling in the EU market – four more than in the state of autarky.*

*But how relevant is this example? With 78% of EU industrial exports entering Japan duty-free (as of 2015) and an average tariff rate in Japan for imports from the EU of 1.4% (WTO-ITC-UNCTAD, 2017)<sup>2</sup>, should the EU-Japan FTA really be considered as a move from autarky to free trade? I would argue that the two economies have already been far from autarky before the FTA. Hence, the more relevant model scenario would be one of incremental or gradual liberalisation. This scenario is shown in the lower part of Figure 1. In this case, there are already several firms exporting before the FTA enters into force. Naturally, their number grows as trade liberalisation proceeds. Moreover, as in the previous scenario, the surviving firms become larger (the so-called 'intensive margin' of trade) and some firms are induced to start exporting ('extensive margin' of trade). But it is interesting to see what is happening to the number of firms. In the above example the number of firms serving the EU market declines from 13 to 12 (and from 12 to 11 for the Japanese market). Also, when the combined market of the EU and Japan is considered, the number of firms declines unambiguously. This reasoning is behind the claim that with growing competitive pressures arising from trade liberalisation, market concentration is also increasing.*

*Therefore it is important to highlight that free trade does not automatically result in the textbook situation of atomistic firms competing with each other. Rather, the increased competition and resulting allocative productivity gains come at a cost of growing market power of enlarged firms and rising price-cost mark-ups (McKinsey, 2015; Chen et al., 2017; De Loecker-Eeckhout, 2017). This market concentration also figures prominently among the explanations for the observed decline in the wage share (e.g. De Loecker-Eeckhout, 2017; Caballero et al., 2017) which constitutes a global phenomenon (ILO-OECD, 2015; IMF, 2017; Elsby et al., 2013; Dao et al., 2017). Returning to the issue of market structure, it is important to note that as trade liberalisation proceeds, at some stage the described concentration process will transform the monopolistic competition market into an oligopolistic market with only few firms surviving. Oligopolistic market structures give rise to superstar firms (Autor et al., 2017) which generally earn high economic rents even in a highly competitive environment. Based on the above analysis, the fact that an increasing number of global markets have turned into an oligopoly (see Krugman, 2015; Stiglitz, 2012) is not really surprising. Unfortunately, this continuous concentration of*

<sup>2</sup> Looking at the trade flows in the other direction, one finds that 42% of Japanese industrial exports entering the EU faced a tariff rate of zero, with the average tariff rate amounting to 2.9% (2015).

*market power receives little attention in the debate about free trade and globalisation more generally within the economists' guild.*

*In addition to the potential long-term welfare losses induced by oligopolies and the distributional effects, the Spectre incidence also shows that the reliance of computer users worldwide on the products of just two producers can have serious consequences that go far beyond the economic sphere. Therefore policy-makers should see the Spectre case as a reminder that globalisation is a process that needs to be properly managed in order to reap the full potential benefits. Some recent publications by major economic institutions (IMF/World Bank/WTO, 2017; European Commission, 2017) suggest that 'Harnessing Globalisation' (European Commission, 2017) requires public action. A first important step in this direction would be to recognise the merits of regulations (in the Spectre case this could be the possibility of class-action lawsuits against firms which would make such action also worthwhile for individual users that are negatively affected) instead of viewing them just as non-tariff barriers. Whether the discourse will really shift into this direction remains to be seen. But who knows, maybe a simple computer bug will help remedy the much bigger existing economic bug in the design of globalisation.*

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# 'Competition for talent': high-skilled intra- and extra-EU-28 mobility<sup>1</sup>

BY MICHAEL LANDESMANN AND ISILDA MARA

## HOW SIZEABLE IS OVERALL INTRA- AND EXTRA-EU-28 MOBILITY?

In June 2016, a 'New Skills Agenda for Europe' was adopted by the European Commission.<sup>2</sup> The agenda stresses the 'strong need to nurture skilled workers and reduce brain drain, while facilitating mobility of EU citizens, attracting talent from abroad and making better use of migrants' skills'. The economic crisis has led to further South-North mobility within the EU-28, especially among the highly skilled from Italy, Greece, Portugal or Spain. In the new, looming era of digitalisation there is a further urge for a new set of skills to ensure complementarity between human capital and technology (European Commission, 2016b). In the next decade, new job opportunities will arise for high-skilled workers and labour demand will not be fully met by labour supplied at home and from other EU countries (CEDEFOP, 2017). Therefore, extra-EU-28 migration is another important mechanism for responding to labour demand needs.

Recent mobility patterns suggest an intensification of workers' mobility within the EU-28 region. Between 2014 and 2016, 1.2 million working-age EU-28 citizens moved to another EU-28 country. Accordingly, at the beginning of 2016, 12.4 million EU-28 citizens of working-age resided in another EU-28 country (3.7% of working-age population).<sup>3</sup> The new flow of migrant workers has been quite selective what concerns the destination countries. Germany and the UK were the main destination respectively for 39% and 37% of them. Austria was the principal choice for another 7% of the new contingent. Certainly, the EU enlargement – the 2004, 2007 and 2013 accessions – has contributed to an overall increase in intra-EU mobility (particularly in the case of Poland, Romania, the Baltic states and more recently Croatia). At least for Germany, the main sending countries of the new wave of migrant workers are Romania, Poland, Bulgaria, Hungary and Croatia.

Another stream of mobility generated by extra-EU-28 migrants towards the EU-28 remains important. Recent humanitarian and migratory movements from the Middle East have increased significantly those migrants' presence in the EU-28. Between 2014 and 2016, EU-28 countries attracted an additional 900 thousand working-age non-EU-28 citizens. By 2016, the stock of extra-EU-28 migrants in the EU-28 reached the level of 16 million – representing almost 5% of working-age population.<sup>4</sup> Among the EU-28 countries, Austria is the country with the largest share of working-age migrants, at above 16%, with

<sup>1</sup> Source of the labour force data used for the analysis in this contribution is Eurostat (contract no. 350/2015-CIS); Eurostat has no responsibility for the results and conclusions which are those of the authors.

<sup>2</sup> European Commission (2016a), <http://ec.europa.eu/social/main.jsp?catId=1223>

<sup>3</sup> Source: Eurostat, Population on 1 January by age group, sex and citizenship [migr\_pop1ctz]. Last update 14.09.17. Extracted on 25.01.18

<sup>4</sup> Ibid.

almost equal shares from EU-28 and extra-EU-28 countries (see Graph of the month on p. 1). For a number of EU-28 countries, extra-EU-28 migration is larger than intra-EU-28 mobility – e.g. Germany, Spain, Denmark, Sweden and Slovenia, but also the Czech Republic. For some countries, the share of extra-EU-28 migrants is double the share of intra-EU-28 migrants – e.g. Italy, Greece and France. Differently, intra-EU-28 migrants are predominant in countries such as Ireland, Belgium and the Netherlands, but also Hungary or Slovakia.

The next question we want to investigate is to what extent countries have been attractive to high-skilled (HS) workers from abroad. Figures 1 and Figure 2 aim at providing some evidence to answer this question.

### **WHICH ARE THE EU COUNTRIES MOST ATTRACTIVE TO HIGHLY SKILLED (HS) MIGRANTS?**

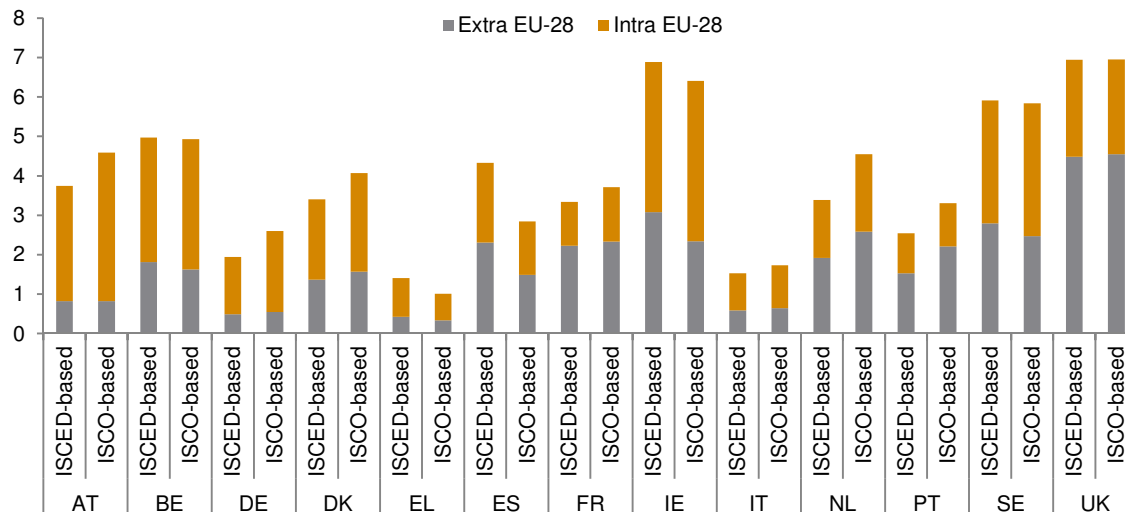
EU Labour Force Survey data have been utilised to investigate the skill composition of HS intra- and extra-EU-28 migrants.<sup>5</sup> We focus our analysis on the share of highly skilled migrants in the main EU receiving countries, which are the EU-13 countries (see Figure 1). The main receiving countries of HS extra-EU-28 and intra-EU-28 migrant workers with respect to their total workforce appear to be the UK, Sweden and Ireland. Countries such as Austria, Belgium and Ireland have mainly attracted HS intra-EU-28 rather than HS extra-EU-28 migrant workers in the total workforce. Particularly in Austria and Belgium, the share of the former is respectively twice and three times as high as the share of the latter. In contrast, the UK, the Netherlands and France are in the group of countries which have succeeded in attracting more HS extra-EU-28 than HS intra-EU-28 workers. Especially in the UK, the share of HS extra-EU-28 is double the share of HS intra-EU-28 migrant workers.

Certainly, such patterns of mobility are not only demand driven, or pulled by higher earnings perspectives in the EU northern countries as well as by characteristics of how their labour market is organised, but are to a large extent explained by the affinities between the particular sending and receiving countries, such as language, migration networks or colonial ties of the past (Tranos et al., 2015). A number of the EU countries have made special efforts to attract, retain and make efficient use of talents. This was confirmed by the recently published Global Competitiveness Report (2017-2018), which indicated that a number of EU-28 countries, such as the UK, Netherlands and Germany, are among the top twenty countries worldwide in attracting talents from abroad.

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<sup>5</sup> The information regarding intra-EU-28 and extra-EU-28 migrants has been extracted from EU Labour Force Surveys (EU LFS) 2004-2015. The 'highly skilled' migrant workers are identified by two indicators: the level of education – represented by ISCED categories 5-8 – and the occupations ('jobs') they carry out – represented by ISCO categories 1-3 (see Annex Table A1 for more details). The comparison between the two indicators allows capturing any mismatches between the level of education and occupations migrants carry out. For example, if the share of HS migrants by education is higher than their share in HS occupations, this suggests that there is a share of migrants with the same (or similar) educational attainment levels as natives which are employed in jobs below their level of education. This phenomenon can be interpreted as 'brain waste'.

**Figure 1 / Share of HS extra-EU-28 and intra-EU-28 migrants in total workforce, ISCED vs ISCO-based<sup>6</sup>, in %, 2015**



Source: LFS, own elaboration.

## HOW SIZEABLE IS THE SHARE OF HIGH-SKILLED AMONGST MIGRANT WORKERS?

Overall, about one fifth of migrant workers – originating from another EU-28 country – in EU-13 countries are highly skilled.<sup>7</sup> Countries such as Austria<sup>8</sup>, Belgium, Germany and Denmark, but also Sweden, have attracted the largest shares of HS intra-EU-28 migrant workers, at above 20% – especially with reference to high-skilled occupations (i.e. by ISCO categories). In contrast, southern EU-28 countries – e.g. Italy, Portugal and Greece – have attracted half of the share of HS intra-EU-28 migrants compared to northern EU-28 countries (see Figure 2a). With regard to highly skilled extra-EU-28 migrants, significant differences emerge among the EU-28 countries. One third of extra-EU-28 migrants in the UK are highly skilled. Portugal, Netherlands and France<sup>9</sup> are also countries of the EU-28 which have attracted a high share of high-skilled extra-EU-28 workers – more than 20% of total migrants fall into the group of the highly skilled (see Figure 2b). In contrast, HS extra-EU-28 workers constitute a very low share in countries such as Austria, Germany and Italy – at around 5% – which suggests that extra-EU migrants are predominantly low or medium skilled.

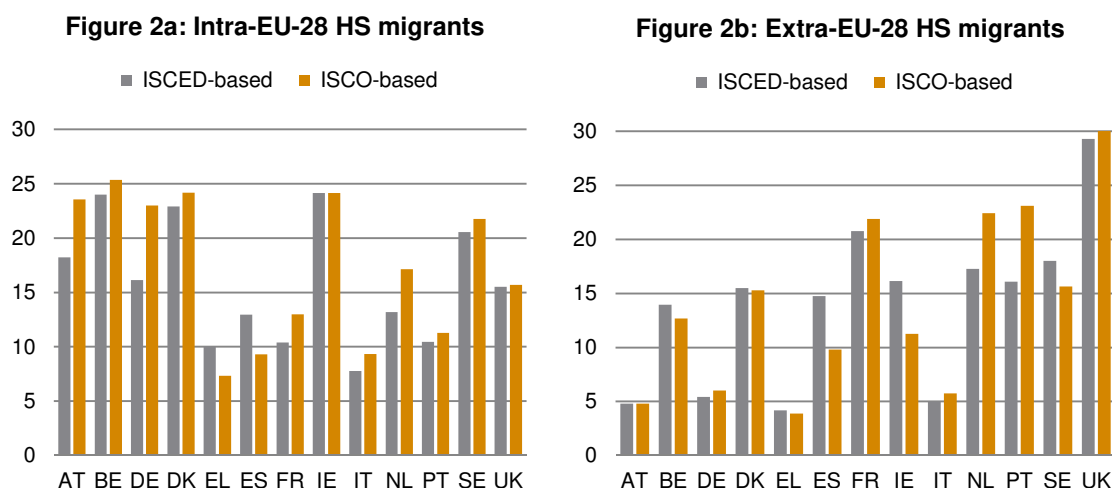
<sup>6</sup> See footnote 5 for ISCED and ISCO.

<sup>7</sup> See footnote 5 above on the definition of HS migrants on the basis of LFS data.

<sup>8</sup> These patterns of intra-EU-28 mobility might be partly explained by language proximity, e.g. Germans in Austria and vice versa.

<sup>9</sup> These patterns of extra-EU-28 mobility might be partly explained with the colonial ties in the past.

**Figure 2 / Share of HS extra-EU-28 and intra-EU-28 migrants in total migrant workforce, ISCED vs ISCO-based, in %, 2015**



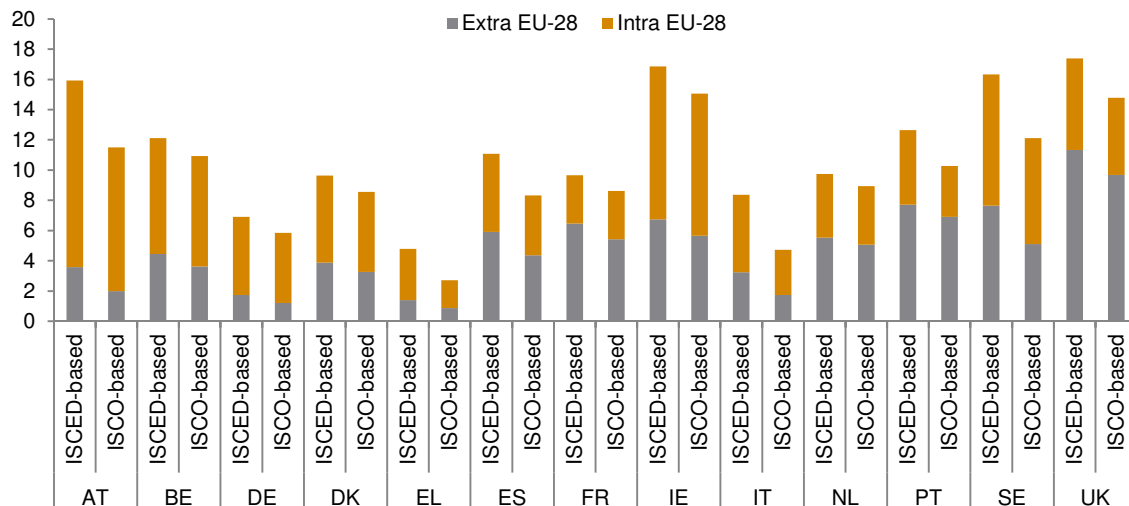
Source: LFS, own elaboration.

## HOW IMPORTANT ARE HIGH-SKILLED MIGRANTS IN THE ENTIRE HIGHLY SKILLED WORKFORCE AND IS BRAIN WASTE SIGNIFICANT?

Despite the important contribution of HS migrants to the total high-skilled workforce, brain waste among HS migrant workers is frequent especially among HS extra-EU-28 migrant workers. Highly skilled migrant workers contribute about 16% to the entire highly skilled workforce in Austria, Ireland and the UK. In Austria, the largest contribution comes from intra-EU-28 countries – at around 12% – while in the UK, the bulk of highly skilled come from extra-EU-28 migrants – at 11% (see Figure 3). The comparison of shares of HS migrants by educational attainment and by occupations (i.e. between ISCED and ISCO categories) suggests that in a number of countries *brain waste* (or ‘brain underutilisation’) is typically the case, e.g. in Austria, Sweden and Spain, but is generally pervasive for all countries. Brain waste appears, furthermore, to be more recurrent among extra-EU-28 than intra-EU-28 migrant workers. From the perspective of the receiving countries, attracting highly skilled migrants can contribute significantly to the human capital of the host economy. Nevertheless, underutilisation of skills is a common phenomenon, reflected in brain waste when HS migrants take up jobs that do not correspond to or are below their educational attainment levels.



**Figure 3 / Share of HS extra-EU-28 and intra-EU-28 migrants in total high-skilled workforce, in %, 2015**



Source: LFS, own elaboration.

## WHICH ARE THE MOST ATTRACTIVE WORKING SECTORS FOR HIGHLY SKILLED MIGRANTS?

The purpose of this section is to identify those sectors of the economy where HS migrants contribute the most. We account for education and occupational skill level and distinguish between intra-EU-28 and extra-EU-28 migrants.<sup>10</sup> The sectors of the economy<sup>11</sup> which host the largest share of HS extra-EU-28 migrants – at around 3 % – tend to be J ‘Financial intermediation’, K ‘Real estate, renting and business activities’,<sup>12</sup> M ‘Education’ and N ‘Health and social work’. HS intra-EU-28 migrant workers contribute to the total workforce – also by 3% – in sectors J, K and M, and slightly less in sector N (see Panels A of Figures 4 and 5).

Coming to Panels B, we see that the sectors where the shares of HS migrants in the overall HS workforce are the highest are H ‘Hotels and restaurants’ and C ‘Mining and quarrying’. However, what is striking is that while for these two sectors the share of migrants is the highest, the gap between educational and occupational skill level is also very high, which we again interpret as under-utilisation of human capital of migrants, i.e. as ‘brain waste’. This phenomenon is quite pervasive across all sectors and both for extra- and intra-EU-28 migrants. There is an exception here for two sectors which do attract a high share of HS migrants: sectors M ‘Education’ and N ‘Health’, where an underrepresentation of highly educated intra-EU-28 migrants in highly-skilled occupations is hardly discernible. This is also the case for two other sectors attractive for EU-28 migrants (J ‘Financial services’ and K ‘Business services’)

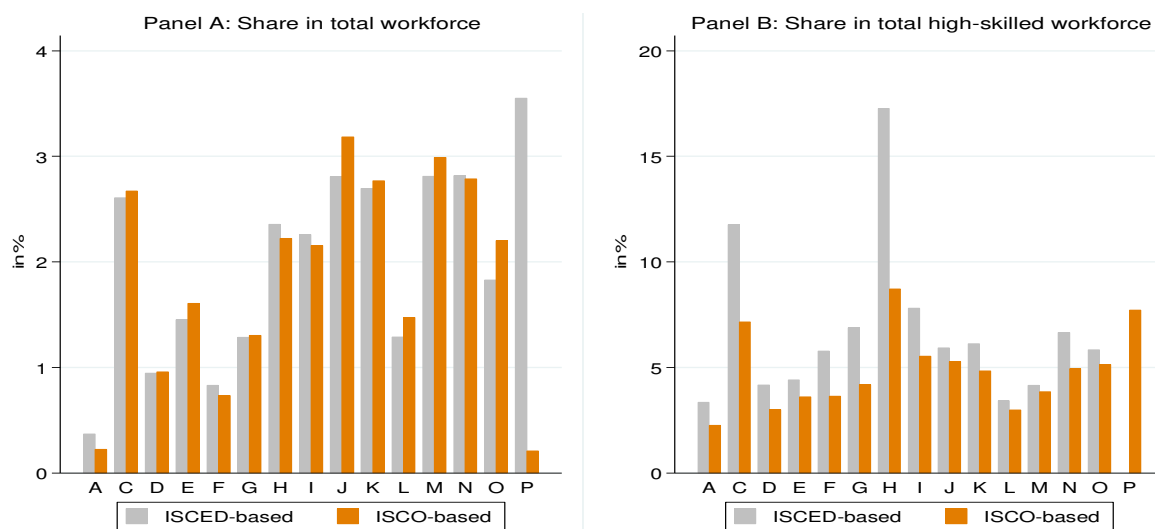
<sup>10</sup> In Figure 4, we compare the share of HS extra-EU-28 migrants in overall employment (Panel A) and the share of HS extra-EU-28 migrants in total high-skilled employed labour force (Panel B). Similarly, we generate Figure 5, with the respective shares of HS intra-EU-28 migrants.

<sup>11</sup> See Annex Table A2 for working sector classifications.

<sup>12</sup> We disregard industry C ‘Mining and quarrying’ as the high presence of HS migrants here is fully accounted for by the importance of HS migrants in the UK’s North Sea oil and gas industry. In absolute numbers the HS migrant labour force in this industry is quite small.

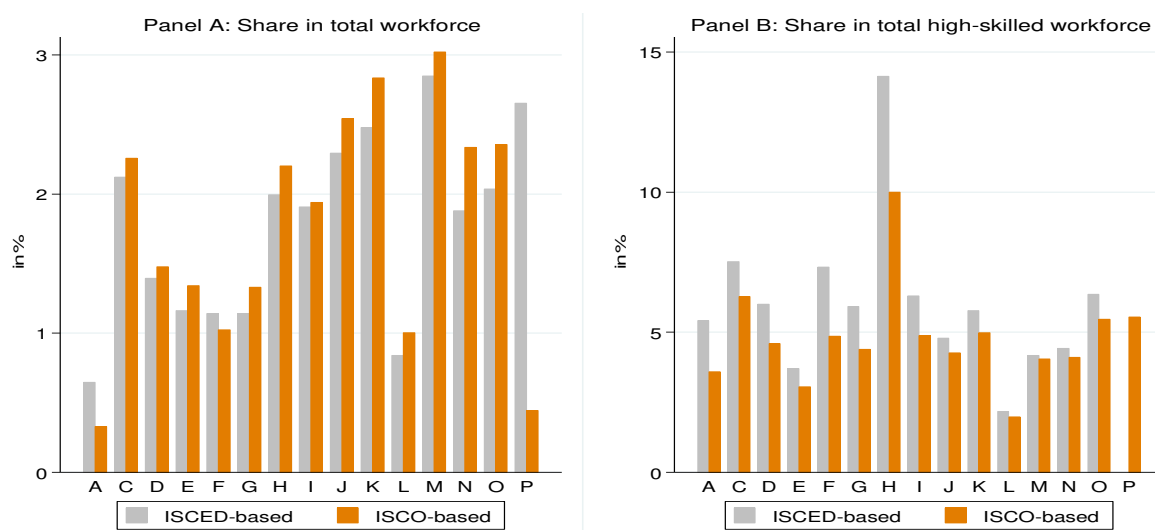
where the incidence of 'brain waste' of EU-28 migrants is very small. For extra-EU migrants this seems to be the case only for financial services (J) and the educational (M) sectors.

**Figure 4 / Share of HS extra-EU-28 migrants in different workforce groups, by industry**



Source: LFS, own elaboration.

**Figure 5 / Share of HS intra-EU-28 migrants in different workforce groups, by industry**



Source: LFS, own elaboration.

## CONCLUSIONS

Recently, intra- and extra-EU-28 mobility has further intensified. Austria, Germany, Ireland, Belgium and the UK are the top five EU-28 countries that host the largest shares of extra-EU-28 and intra-EU-28 working-age migrants. Statistics show that different EU member countries draw to different degrees on intra-EU and extra-EU migrants. Austria has attracted similar shares of extra- and intra-EU-28 migrants. In the UK, Belgium and Ireland, intra-EU-28 mobility has prevailed, while in Germany extra-EU-28 mobility has been predominant. There are differences in the distribution with respect to high-skilled (HS) migrants as well: Ireland and the UK are the two countries where the presence of HS migrants in the overall workforce is the highest. Austria and Germany have been quite successful in attracting high-skilled migrants from other EU-28 countries, but this is not the case for extra-EU-28 migrants. Differently, the UK, the Netherlands, France and Sweden have been the most attractive destinations for HS extra-EU-28 migrant workers. Thus, the data do show that for a number of EU countries extra-EU-28 HS migrant workers are important. Apart from that, evidence suggests that this group of countries has made progress not only in attracting, but also in retaining talents from abroad.<sup>13</sup> While a number of the EU countries have been successful in attracting highly educated migrants ('talents') from abroad, brain waste is quite pervasive. A comparison of migrants' educational attainment levels with their shares in occupations that require higher-level skills shows that high educational attainment cannot always be translated into occupational positions, at least in most cases less than is the case for the native population. This underutilisation of skills/brain waste is a common phenomenon encountered more frequently among extra-EU-28 migrants than intra-EU migrants.

The sectors of the economy benefiting the most from highly skilled extra- and intra-EU migrants tend to be 'Health and social work' and 'Education', as well as 'Financial services' and 'Business services'. Brain waste occurs most prominently in the 'Hotels and restaurants' sector. Again, a difference with respect to general brain waste was found between intra-EU and extra-EU migrants, but this was not or hardly the case in the 'Financial services', 'Business services' and the 'Educational' sectors.

The analysis suggests, given the overall importance of HS migration (intra- and extra-EU) in the European economy, that a proper evaluation should be undertaken of the factors responsible for differentiated attraction of high-skilled migrants to different EU economies as well as of the factors that lead to the underutilisation of migrants' skills. This type of analysis could lead to targeted horizontal or sector-oriented programmes for attracting and retaining high-skilled migrants. Furthermore, targeting specific barriers to labour mobility of HS migrants – particularly with regard to the entry and permanence of third-country nationals – could reduce the incidence of brain waste and facilitate an efficient matching of the supply and demand of advanced skills in European labour markets.

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<sup>13</sup> Global Competitiveness Report (2017–2018).

## ANNEX

Table A1 / ISCED and ISCO classification

Level ISCED 2011	
	0 Early childhood education (01 Early childhood educational development)
	0 Early childhood education (02 Pre-primary education)
	1 Primary education
	2 Lower secondary education
	3 Upper secondary education
	4 Post-secondary non-tertiary education
<b>HS - ISCED</b>	5 Short-cycle tertiary education
<b>HS - ISCED</b>	6 Bachelor or equivalent
<b>HS - ISCED</b>	7 Master or equivalent
<b>HS - ISCED</b>	8 Doctoral or equivalent

Source: UNESCO (2012), International Standard Classification of Education: ISCED 2011, <http://www.uis.unesco.org>

Level ISCO-08 2007	
<b>HS - ISCO</b>	1 Managers
<b>HS - ISCO</b>	2 Professionals
<b>HS - ISCO</b>	3 Technicians and associate professionals
	4 Clerical support workers
	5 Service and sales workers
	6 Skilled agricultural, forestry and fishery workers
	7 Craft and related trades workers
	8 Plant and machine operators, and assemblers
	9 Elementary occupations
	0 Armed forces occupations

Source: <http://www.ilo.org/public/english/bureau/stat/isco/>

Table A2 / NACE Rev. 1.1 classification

A	B	C	D	E	F	G	H	I
Agriculture, hunting and forestry	Fishing	Mining and quarrying	Manufacturing	Electricity, gas and water supply	Construction	Wholesale and retail trade: repair of motor vehicles, motorcycles and personal and household goods	Hotels and restaurants	Transport, storage and communication
J	K	L	M	N	O	P	Q	
Financial intermediation	Real estate, renting and business activities	Public administration and defence; compulsory social security	Education	Health and social work	Other community, social and personal services activities	Activities of private households as employers and undifferentiated production activities of private households	Extraterritorial organisations and bodies	

Source: [http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST\\_CLS\\_DLD&StrNom=NACE\\_1\\_1](http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_CLS_DLD&StrNom=NACE_1_1)

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# Immigration and Brexit

BY RICHARD GRIEVESON

Ever since the Brexit vote, various explanations have been put forward for why the UK voted to leave the EU. These include lashing out at the complacent and distant political class (embodied by the EU), the poor financial situations of households (Liberini et al., 2017), the effects of de-industrialisation (Tomlinson, 2017), Chinese exports (Colantone and Stanig, 2017), the first-past-the-post voting system (Becker et al., 2016), globalisation (Zoega, 2016) and inequality (Bell and Machin, 2017).

There is some truth to many or all of these arguments; clearly Brexit was not just about one thing. However, they are not all equally valid. The British Social Attitude Survey tested two hypotheses with regard to the Brexit vote: (i) that it reflected unhappiness with immigration, and (ii) that it is about a more general public disenchantment with politics. It found more evidence for the first.<sup>1</sup> It appears that a broad-based backlash against immigration (not necessarily related to EU immigration) was the single most important factor driving the vote.

From an EU perspective, if we accept that immigration played a big role in Brexit, it is worth examining whether other countries have similar concerns. Below, we examine the extent to which the UK is an outlier on immigration in Western Europe.

## MIGRATION TO THE UK HAS BEEN NOT PARTICULARLY HIGH HISTORICALLY ...

Historically, net migration to the UK has not been at a very high level compared with most other rich EU countries. As Figure 1 shows, among EU 15 countries only Italy, Greece, Finland, Ireland and Portugal have seen lower net inflows relative to population since 1960, and for each of these five countries there are special circumstances (Finland due to geography, and the rest have been relatively poor and themselves sources of migration for much of the period).<sup>2</sup> Countries with comparable levels of wealth to the UK have seen higher inflows of immigrants relative to the size of their population over the period.

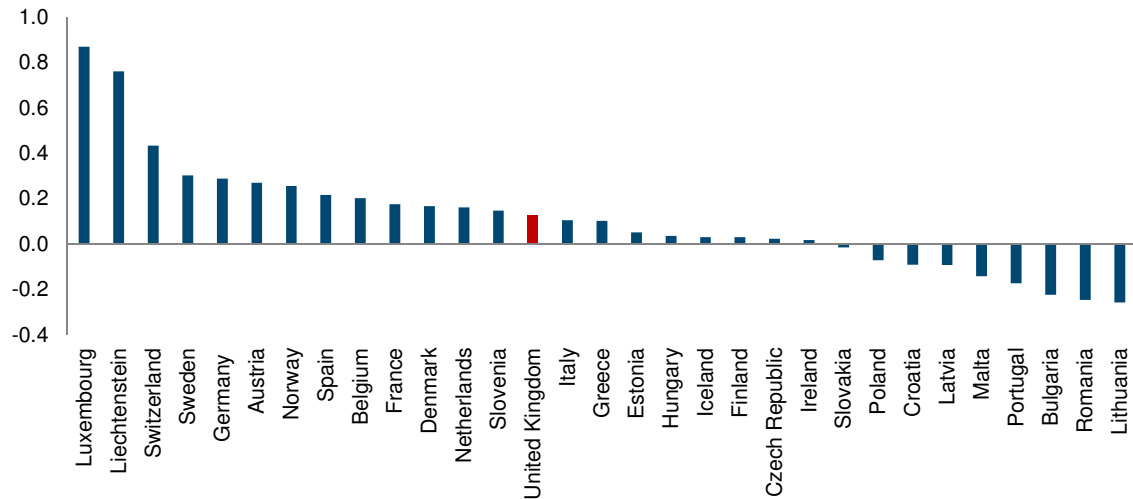
Looking only at net immigration may obscure some of the story. Net immigration figures tell you about the impact on population density, housing and public services, for example. It does not, however, tell you about the cultural impact (something that was regularly brought up during the Brexit debate). For that you need gross immigration. Unfortunately, comparable data on gross immigration for EU countries are not available as far back as that of net immigration. However, at least since 1998, there is no particular indication that the UK is any kind of outlier (see Figure 2). Over this period, gross immigration to the UK

<sup>1</sup> Brexit: Litmus Test or Lighting Rod? British Social Attitudes 34, NatCen Social Research.

<sup>2</sup> Comparable data pre-1960 are not available. For the UK, the government estimates that total net immigration between January 1955 and June 1962 was 472,000, a bit over 60,000 per year on average. Tighter controls on immigration from the Commonwealth were introduced in 1962.

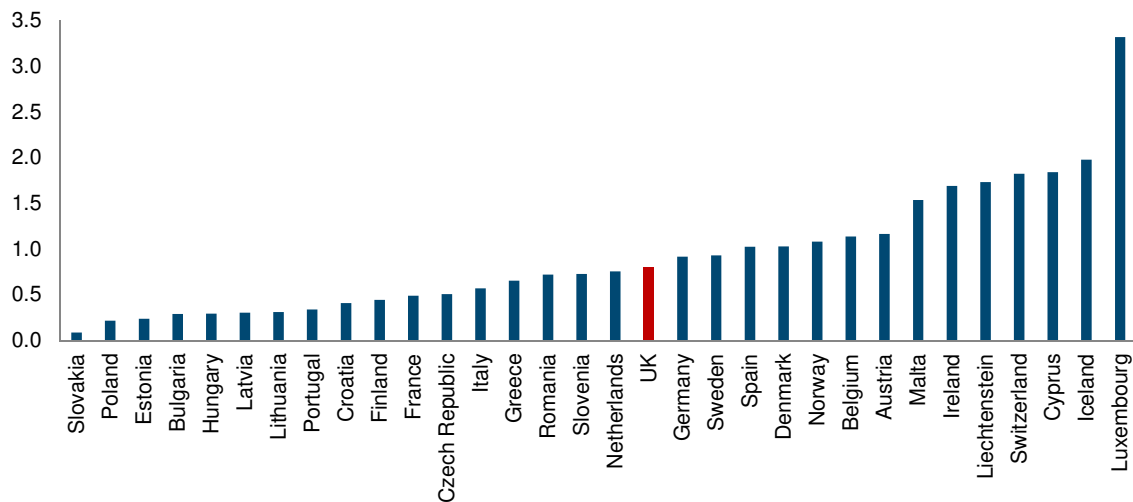
as a share of the population was one of the lowest in Western Europe, in between Netherlands and Germany.

**Figure 1 / Net migration, share of population, %, average 1960-2016**



Source: Eurostat.

**Figure 2 / Gross immigration, share of population, %, average 1998-2015**



Source: Eurostat, own calculations.

## ... BUT SURGED IN THE LAST TWO DECADES

Gross immigration to the UK averaged 305,000 per year in 1991-1997, and 542,000 in 1998-2015. Net immigration was 41,000 per year on average in 1991-1997, but this figure rose to 223,000 in 1998-2015. This is not, it must be said, primarily because of immigration from the EU. In every single year between

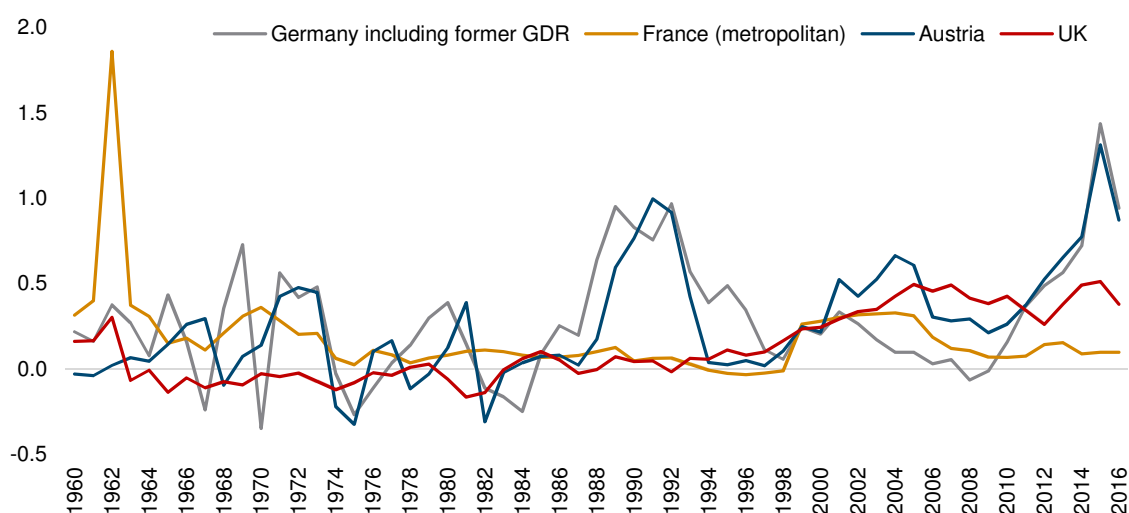
1991 and 2015 (latest available data), net immigration to the UK from outside the EU was higher than that from the EU.

Although there was undoubtedly a surge from the perspective of the UK, even in the last 20 years, the surge was not remarkable compared with, say, Austria (see Figure 3). However, for about a decade after 2000, net immigration to the UK was consistently much higher than in France and Germany. (In the case of Austria, it should be noted that over this period it has consistently had the largest far-right party in Western Europe; the two things may well be partly related.)

Surveys done since the Brexit vote indicate that this ‘surge’ was important for voters, at least at the local level. One study found a strong correlation between the *rate of change* of the foreign-born population in a particular area, and the likelihood of that area voting to leave the EU.<sup>3</sup> (It is important to note here that the *level* of immigration appears to have had little or no bearing on the propensity to vote for Brexit in a particular area.)

‘Surges’ of new arrivals can be a particular issue from the perspective of public services, especially if not properly funded in the first place. This is a notable issue for the UK. Taxes and social contributions averaged 33.8% of GDP in the UK in 1995-2016, the third lowest in the EU 15 after Ireland and Spain, and well below the EU 15 average (39.4%). This has become particularly acute since 2010, when a then Conservative-Liberal Democrat coalition pursued a fairly radical austerity agenda<sup>4</sup>, with the burden falling particularly heavily on local governments. Last year local authorities’ spending was 22% lower than in 2010 in nominal terms according to the Institute for Fiscal Studies.

**Figure 3 / Net migration, share of population, %**



Source: Eurostat, own calculations.

<sup>3</sup> ‘Britain’s Immigration Paradox’, *The Economist*, 8 July 2016, <https://www.economist.com/news/britain/21701950-areas-lots-migrants-voted-mainly-remain-or-did-they-britains-immigration-paradox>

<sup>4</sup> See for example ‘Autumn 2017 Budget: options for easing the squeeze’, Institute for Fiscal Studies, 30 October 2017, <https://www.ifs.org.uk/publications/10010>



Healthcare spending was ring-fenced during this period, but at a relatively low level, making it ill-equipped to deal with rising population pressures. The UK has attempted to maintain a Western European-style healthcare system without funding it properly, and at a time of population ageing, leading to multiple issues.<sup>5</sup> According to the World Bank, in 2014 the UK spent 9.1% of GDP on healthcare, well below the levels for Austria (11.2%), France (11.5%) and Germany (11.3%), with unsurprising results in terms of quality.<sup>6</sup> At a time of surging net immigration, this has become even more problematic, and led many to link higher immigration with a deterioration in public healthcare provision. It is worth noting that in Scotland and Northern Ireland – which both voted to remain in the EU – healthcare spending per capita is much higher than in England and Wales (which voted to leave).<sup>7</sup>

## CONCENTRATION

A notable factor about immigration to the UK is its concentration in certain areas, specifically parts of England. An OECD study found that the UK, along with Canada and the United States, had the highest concentration of the foreign-born population in particular areas of the countries covered.<sup>8</sup> The density of immigrants in London was found to be more than three times higher than the national average, a gap not visible between the capital city and the rest of the country in any of the other states studied.

Other evidence bears out the idea that immigration in the UK is particularly concentrated in parts of England. Scotland accounts for 8.4% of the UK population and 32% of the land mass, but on average took only around 6% of gross immigration to the UK in 1991-2015.<sup>9</sup> Over the same period, 46% of all gross immigration was to London and the South East of England, while only 3% went to the North East of England. Manchester, a mid-sized city in Northern England, has a greater foreign-born population than the whole of Scotland.<sup>10</sup> Bangladeshis in Bradford are the most spatially concentrated migrant population among 36 studies across Europe, and nearly half of all Bangladeshis in London live in one borough (Collier, 2013). Paul Collier recounts in his book *Exodus* an attempt to distribute migrants more evenly across the country (as other states have done). However, when an attempt was made to move some Somali immigrants to Scotland, one was murdered in a racist attack. The scheme was then abandoned (Collier, 2013).

The particular concentration of immigrants in certain areas is related to the previous two points. This will have amplified the sense of a 'surge' in the minds of locals in these areas, as well as creating particular pressures on public services there.

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<sup>5</sup> 'Britain's Unavoidable Healthcare Choice', Bloomberg, 9 January 2018, <https://www.bloomberg.com/view/articles/2018-01-09/britain-s-unavoidable-health-care-choice>

<sup>6</sup> World Bank, [https://data.worldbank.org/indicator/SH.XPD.TOTL.ZS?year\\_high\\_desc=true](https://data.worldbank.org/indicator/SH.XPD.TOTL.ZS?year_high_desc=true)

<sup>7</sup> Nuffield Trust, <https://www.nuffieldtrust.org.uk/chart/health-spending-per-head-by-country-of-the-uk>

<sup>8</sup> OECD, <http://www.oecd.org/cfe/regional-policy/45344744.pdf>

<sup>9</sup> UK Office for National Statistics.

<sup>10</sup> Winder, R, 'After Brexit, England will have to rethink its identity', The Guardian, 8 January 2018, <https://www.theguardian.com/commentisfree/2018/jan/08/brexit-england-rethink-identity-nation>

## INTEGRATION

The process of immigration and assimilation varies greatly across EU countries.<sup>11</sup> In Germany, immigrants are considered as 'temporary guests', and the 'acceptance of the fundamental values and basic principles is enshrined in the German constitution'. They should learn the language, avoid 'excessive' nationalistic and religious behaviour, and either work or attend school depending on their age. The French model, by contrast, goes further, and 'aims at turning immigrants into French citizens'. Religion should be kept in the private sphere, and immigrants should adhere to French values. In return, they are afforded the same rights and opportunities as existing French citizens.

The UK's model of integration of immigrants is different in that it does not explicitly aim at assimilation. Immigrants are generally free to maintain existing cultural and religious practices, in an atmosphere of mutual tolerance. This has been termed 'multiculturalism' or 'pluralistic integration'. Fully examining the implications of these different types of integration is beyond the scope of this paper, but it is possible that the more 'hands off' approach to assimilation in the UK is perceived more negatively by the non-immigrant population, compared with stronger assimilation efforts in other countries.

EU-wide surveys imply that concerns about immigration in the UK before the vote were higher than in many other countries (although this does not prove a specific objection to the prevalent integration policies). In the Spring 2016 Eurobarometer, for example (the last one taken before the Brexit vote), 38% of UK respondents said immigration was one of the two biggest concerns at the national level. This was above the EU average (28%), and even that was skewed higher by countries bearing the brunt of the migration crisis at the time (such as Austria, Germany and Sweden, where levels were in the 40-60% range). The UK's level was far above other countries that were largely unaffected by the migration crisis, such as Ireland (7%), France (14%) or Spain (9%).

## UK HAS CREATED MANY OF ITS OWN MIGRATION PROBLEMS

The data above indicate that, in terms of historic levels of immigration, the UK is in no way a 'special case' in the EU context. Where more of a difference is visible, at least compared with Germany and France, is in the post-1998 'surge' in net immigration. The fact that a surge in net immigration was accompanied by cuts to local government spending, and in the context of an already badly-underfunded healthcare system (compared with other countries of similar wealth in Western Europe), appears to have been a powerful factor driving the Brexit vote. Moreover, the 'surge' in net immigration during the 2000s probably had a lot to do with the UK's decision – in contrast to all other EU-15 countries except Ireland and Sweden – not to impose controls of migrant numbers from new EU Member States in 2004. Therefore, if immigration became a problem in the UK, this was largely self-inflicted.

On integration and concentration of immigrants, the UK may be an unusual case in Western Europe, and this may go some way towards explaining the importance of immigration in the Brexit vote. In addition, other factors, which are less easy to assess quantitatively, are also likely to have been important. The fact that the UK is an island may well matter (although this does not appear to have the same effects in, say, Ireland or Malta). A lack of ID cards, which makes illegal immigration harder to

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<sup>11</sup> For a useful summary see: [https://www.coe.int/t/dg3/migration/archives/documentation/Series\\_Community\\_Relations/Measurement\\_indicators\\_integration\\_en.pdf](https://www.coe.int/t/dg3/migration/archives/documentation/Series_Community_Relations/Measurement_indicators_integration_en.pdf)

control, may be important. Yet a clear factor must also be the media. All countries have tabloids, yet at least some of those in the UK appear both less scrupulous, and more aggressive in their rhetoric, than their continental counterparts. The migration fear index surged just before the Brexit vote, suggesting that the Leave campaign was successful in tying the vote to the migration crisis across Europe at the time.<sup>12</sup> The UK's first-past-the-post voting system could also be important; most other countries in Western Europe have hard- or far-right parties with an explicitly anti-immigration agenda, which provides an outlet for popular discontent on this issue. The UK's system makes it very hard for smaller parties to become established. A final factor is that the UK has generally seen the EU in a very different way to most or all other Member States, and there is perhaps a greater willingness there to attribute problems to Brussels, and to be willing to walk away. As Michael Landesmann argued in 2016, the UK resembles Switzerland more than other EU Member States in the high level of trust the population has in domestic institutions compared with their EU equivalents (Landesmann, 2016).

## WILL VOTERS GET WHAT THEY WANT?

If Brexit was indeed about immigration, voters may well get what they wanted. The latest data show quite sharp falls in the level of net immigration into the UK. However, while immigration may fall, deeper problems which probably were at the root cause of many voters' dissatisfaction – including an underfunding of public services and healthcare – will persist, and may even be exacerbated by a fall in EU immigration (EU immigrants are net contributors to state finances).

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<sup>12</sup> Economic Policy Uncertainty, Migration Fear Index, [http://www.policyuncertainty.com/immigration\\_fear.html](http://www.policyuncertainty.com/immigration_fear.html)

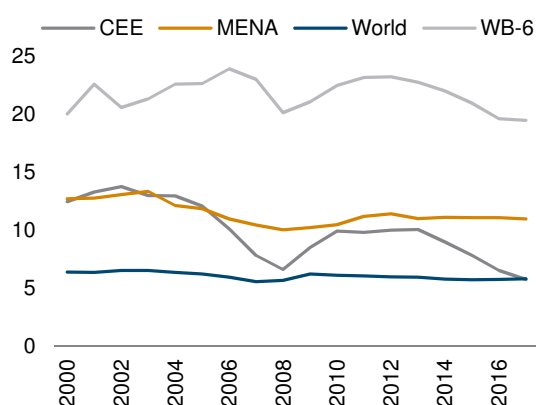
# Massive youth unemployment in the Western Balkans: Do remittances matter?

BY ISILDA MARA

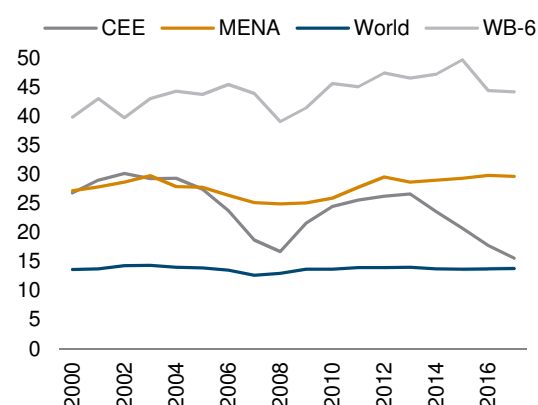
## TRENDS IN REMITTANCES AND UNEMPLOYMENT

Structural problems in the labour market, which are persistent over time, are often preventing unemployment rates from falling, especially in the Western Balkan (WB) countries (Albania, Bosnia and Herzegovina, Kosovo, Macedonia, Montenegro, and Serbia). The overall unemployment rates in the WB<sup>1</sup> tend to be higher not only than in Central and Eastern European (CEE) countries, but also in the Middle East and North African (MENA) countries (see Figure 1a). Before the international financial crisis of 2008-2009, the unemployment rate<sup>2</sup> in the WB stood on average at almost 20%, twice as high as in the CEE countries. Thereafter, both groups of countries experienced increasing unemployment rates. The trend reversed starting from 2012. By 2017, the unemployment rate had dropped to close to 6% on average in CEE, but got stuck at the level of 2000, almost 19%, in the WB countries.

**Figure 1a / Unemployment rate, in %**



**Figure 1b / Youth unemployment, in %**



Notes: WB-6 = six Western Balkan countries, EU-15 = old EU Member States, CEE = Central and East European countries, MENA = Middle East and North African countries.

Source: Own elaboration, World Bank World Development Indicators (WDI) database, Maddison Project Database (2018).

The differences in these trends are even more striking if we look at youth unemployment rates. In comparison with CEE countries, or countries in the MENA region, youth unemployment rates (age 15-24) are among the highest in the WB region (see Figure 1b). The pre-crisis period had seen some slight decline in youth unemployment rates in the WB region. Nevertheless, along with the crisis, that positive trend was reversed, both for the WB and CEE region. In CEE, the youth unemployment rate

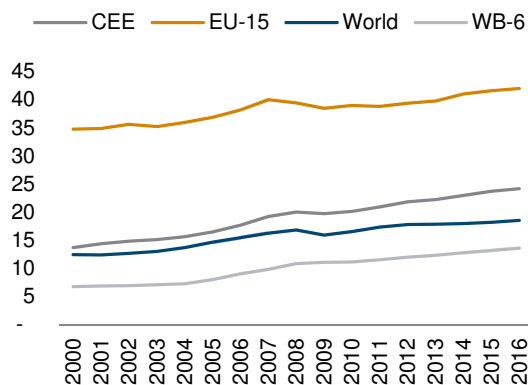
<sup>1</sup> See World Bank (2017).

<sup>2</sup> Unemployment, total (% of total labour force) (ILO definition).

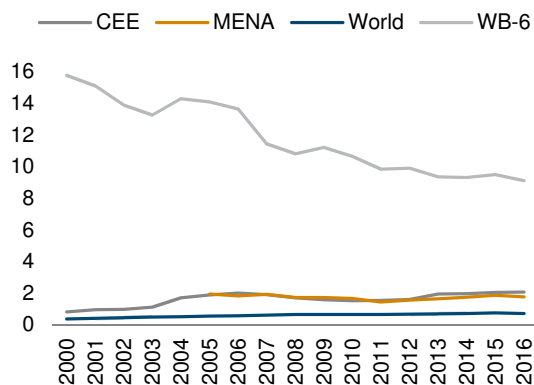
started to drop only in 2013. By 2017, it stood below the pre-crisis period, at 16%. In contrast, in the WB countries the decline in youth unemployment arrived later, starting only in 2015. Despite falling to the pre-crisis level, youth unemployment in the WB is still quite high, at 44%, almost three times higher than in CEE.

In terms of income levels, the WB countries are slightly above the world average level but substantially below the EU-15 and the CEE average (see Figure 2a). In this context emigration and remittances have been playing a crucial role in smoothing labour market tensions, alleviating social vulnerability and poverty (see Mara et al., 2012). By 2017, cumulated emigration from the WB region has hiked to 4.5 million (UNSD, 2018)<sup>3</sup>; thus, one fourth of the region's current population resides abroad. Remittance inflows as a share of GDP in the WB are among the highest worldwide, amounting to 15% of GDP before the crisis, and still to 10% in 2017 (see Figure 2b).

**Figure 2a / GDP per capita, in thousand US dollars**



**Figure 2b / Personal remittances, received (% of GDP)**



Note: Real GDP per capita is provided in US dollars at 2011 PPPs. Data source for the GDP per capita statistics is the Maddison Project Database (2018). Data source for personal remittances and unemployment rates is the World Bank's WDI database.

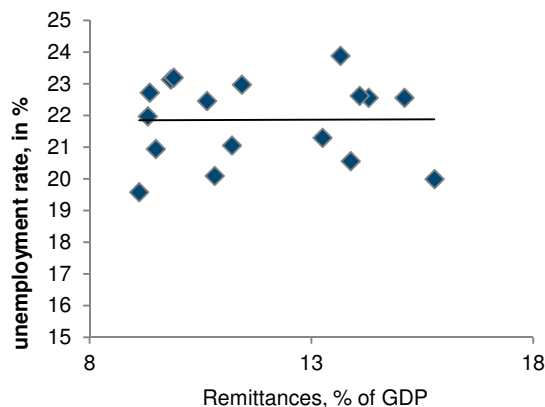
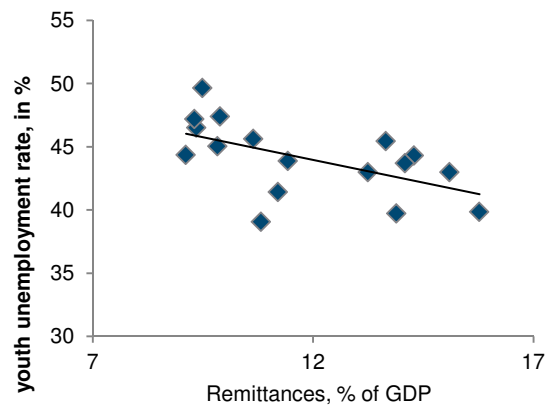
Source: Own elaboration, World Bank World Development Indicators (WDI) database, Maddison Project Database (2018).

Interestingly, with the start of the crisis, for a number of countries, the drop in remittances was accompanied by increases in unemployment rates (Moldova was one example). In a number of other occasions (e.g. in Georgia or the Kyrgyz Republic) there has been a rise in remittances followed by a drop in unemployment rates.<sup>4</sup> In the WB countries, remittances dropped sharply, but in CEE only slightly. In parallel, the unemployment rate, both total youth unemployment, rose during the same period in both groups of countries. Nevertheless, a negative relationship in the WB can be observed only between remittances and youth unemployment, not between remittances and the total unemployment rate (see Figures 3a-3b).

While we observe a certain patterns of remittances and unemployment rates, what does the existing literature suggest about their relationship?

<sup>3</sup> <http://www.un.org/en/development/desa/population/migration/data/index.shtml>

<sup>4</sup> <http://blogs.worldbank.org/peoplemove/global-economic-crisis-and-the-remittance-unemployment-riddle>

**Figure 3a / Total unemployment and remittances****Figure 3b / Youth unemployment and remittances**

Note: Figures 3a and 3b refer to the WB-6 average over the years 2000-2016.

Source: Own elaboration, World Bank World Development Indicators (WDI) database, Maddison Project Database (2018).

## REMITTANCES AND THEIR EFFECT ON LABOUR SUPPLY

Most theoretical and empirical studies dealing with the effect of remittances on labour supply argue that if remittances are perceived as a reservation wage, its impact on the labour supply of recipients might be negative. Such an effect is called ‘income effect’ of remittances. On the other hand, if remittances reduce the credit constraints, households but also firms might channel such financial sources into investments – e.g. creation of new jobs. Such an effect might produce a positive effect on labour supply, but also a reduction in unemployment, because of the rise in labour demand (Haas, 2010). This effect is recognised as ‘investment effect’ of remittances. Whether the income effect will prevail over the investment effect, or vice versa, will determine the net effect of remittances on labour supply (Drinkwater et al., 2003).

Using bilateral remittance inflows for 125 developing countries for 1990-2015, Azizi (2017) found that remittances may positively affect labour supply through an increase in human capital if remittances are allocated for education purposes. Drinkwater et al. (2003) empirically proved the existence of the investment effect. Furthermore, its impact is found to be different for men and women. In contrast, Salman (2016) shows that in Nigeria – another important country of emigration and a net receiver of remittances – engagement in self-employment is 28% lower among receivers of remittances, suggesting a negative effect of remittances on labour supply. An IMF (2014)<sup>5</sup> study points out that for the WB countries, remittances might negatively affect particularly long-term unemployment. Petreski (2015) finds, however, that in Macedonia, the likelihood that young people engage in self-employment is much higher among receivers of remittances than their counterparts who are non-receivers. Baga (2008) suggests that there is a negative relationship between remittances and inactivity among Albanians who are recipients of remittances. Nevertheless, after controlling for the effect of enrolment in education, this relationship does not hold. While different responses are identified, controlling for gender and education level, the impact on different age cohorts is left unaddressed. Rudi (2014), in the context of Kosovo – a

<sup>5</sup> IMF (2014), <https://www.imf.org/external/pubs/ft/wp/2014/wp1416.pdf>

country where remittances amount to more than 15% of GDP – showed that among the unemployed, efforts at finding a job tend to correlate negatively with receiving remittances.

Thus, overall the literature suggests that remittances matter, but there is no consensus about its impact on labour supply. Besides, the impact can be different for different age cohorts, and vary by gender or education level. Accordingly, what we aim at in this contribution is to analyse the determinants of unemployment and estimate empirically the effect of remittances on unemployment, separately for the total and the age group 15-24.

### REDUCED FORM UNEMPLOYMENT EQUATION ESTIMATION

For reconciling the remittances–unemployment relationship with what the empirical and theoretical literature suggests we followed Drinkwater (2003). We tested empirically two specifications: the first has as a dependent variable the total unemployment rate, the second has as dependent variable the youth unemployment rate. The reduced form equation of the unemployment rate is as follows:

$$u_{it} = \beta x_{it} + \delta R_{it} + \varepsilon_{it}$$

where  $u_{it}$  is the youth/total unemployment rate,  $R_{it}$  is the remittances as a share of GDP received by country  $i$  at time  $t$ .  $x_{it}$  include a number of other determinants which are expected to affect unemployment in the country which is a receiver of remittances. The period of time  $t$  runs between 2000 and 2016. The number of countries ( $i$ ) includes six WB and eight CEE countries.<sup>6</sup> We estimate the regression separately for the WB and the CEE countries, using fixed effects models with unbalanced panel data. The factors which are expected to have an impact on the unemployment rate are a number of supply- and demand-related determinants selected following the suggestions in the literature.<sup>7</sup> The determinants of  $u_{it}$ , which are included in  $x_{it}$ , are presented in Table 1.

**Table 1 / Factors affecting unemployment<sup>8</sup>**

Supply-related variables		Demand-related variables		Labour market-related variables	Other determinants	
Share of youth to overall population (expected sign: negative)	Gross enrolment rate to secondary education as a proxy for the education level of the young age group (expected sign: negative)	Real GDP growth rate (expected sign: negative)	Level of development proxied by real GDP per capita (expected sign: negative)	Job creation ability proxied by employment to population ratio (expected sign: negative)	Personal remittances received as a share of GDP (expected sign: ?)	Degree of urbanisation (expected sign: positive)

### ESTIMATION RESULTS, MAIN FINDINGS AND IMPLICATIONS

<sup>6</sup> Bulgaria, Croatia, Czech Republic, Hungary, Poland, Romania, Slovakia, and Slovenia.

<sup>7</sup> See Bassanini and Duval (2006).

<sup>8</sup> The indicators/determinants included in the table above have been taken from the World Development Indicators database.

The estimation results are presented in Table 2, distinguishing between WB and CEE countries, and between total and youth unemployment. We have estimated the specifications controlling for years fixed effects. The first column shows that youth unemployment in the WB has a negative relationship with employment creation ability and remittances. In both cases, the coefficients are statistically significant, but the size of the former is higher. A similar result is confirmed for the total unemployment rate (column 3).

**Table 2 / Fixed effects estimation of determinants of unemployment in the WB and CEE countries**

	Youth unemployment, % WB 2000-2015	Youth unemployment, % CEE 2000-2015	Total unemployment, % WB 2000-2015	Total unemployment, % CEE 2000-2015
Youth population share	0.934 (0.600)	0.492 (0.387)	0.131 (0.232)	0.328* (0.176)
Real GDP growth rate	0.171 (0.268)	-0.203 (0.179)	0.0801 (0.101)	-0.0967 (0.0802)
Per capita GDP	-15.22 (23.36)	-13.76** (5.076)	-12.19 (8.803)	-9.082*** (2.315)
Employment creation ability (employment to population ratio, age 15-25, ILO definition)	-1.465*** (0.233)	-0.995*** (0.0944)		
Degree of urbanisation	-0.0491 (0.874)	0.745** (0.279)	-0.379 (0.314)	0.415** (0.126)
Remittances as a share of GDP	-0.459** (0.141)	0.278 (0.344)	-0.113* (0.0523)	0.248 (0.153)
Employment creation ability, employment to population ratio total			-1.281*** (0.106)	-0.720*** (0.0692)
_cons	82.65 (58.65)	35.67 (24.68)	115.7*** (23.21)	39.07*** (11.32)
<i>N</i>	62	112	62	112
<i>R</i> <sup>2</sup>	0.707	0.833	0.861	0.849
FE, time dummies included				

Note: Robust standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1.

Source: Own calculations.

The effect of the remittances is similar to the effect of the ability of the economy to generate new jobs, but its effect is of a smaller size. Such results suggest a positive effect of remittances on labour supply in the WB countries.

The estimation results for the sample of CEE countries presented in columns 2 and 4 show that the level of development, employment creation ability and the degree of urbanisation are all significant determinants of the unemployment rate, both for youth and total unemployment. At the same time, remittances appear not to matter in the CEE countries as the coefficient is not significant.



## CONCLUSIONS

To summarise, these findings suggest that for the Western Balkan countries – where unemployment and particularly youth unemployment tend to be very high – employment creation ability is one of the main factors which negatively affect unemployment. Besides, the results suggest that inflows of remittances in the WB-6 countries might contribute to a lower rate of unemployment. One interpretation is that in developing countries – characterised by very high unemployment rates and high remittance inflow – the investment effect tends to prevail over the income effect. Nevertheless, further investigation would be required for a better understanding of the transmission channels from remittances to labour supply.

In conclusion, an important policy implication for the WB countries would be that the governments should introduce new instruments or policies which can boost the investment effect of remittances and facilitate their efficient allocation into more productive activities.

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## The editors recommend for further reading\*

### Is the EU bad for Central Europe?

Thomas Piketty on GDP vs GNI in Central Europe:

<http://piketty.blog.lemonde.fr/2018/01/16/2018-the-year-of-europe/>

Alternative views on this:

[https://www.bloomberg.com/amp/view/articles/2018-02-09/piketty-thinks-the-eu-is-bad-for-eastern-europe-he-s-half-right?twitter\\_impression=true](https://www.bloomberg.com/amp/view/articles/2018-02-09/piketty-thinks-the-eu-is-bad-for-eastern-europe-he-s-half-right?twitter_impression=true)

<http://bruegel.org/2018/02/what-is-the-financial-balance-of-eu-membership-for-central-europe/>

### Populism

Dani Rodrik on populism: <https://www.project-syndicate.org/videos/can-economic-populism-preempt-political-populism>

Dalibor Rohac on Hungary and Poland: <http://foreignpolicy.com/2018/02/05/hungary-and-poland-arent-democratic-theyre-authoritarian/>

NY Times on Hungary: <https://www.nytimes.com/2018/02/10/world/europe/hungary-orban-democracy-far-right.html?mtrref=www.nytimes.com>

### Russia

Russians' mixed attitude towards reform: [http://carnegie.ru/2018/02/06/perils-of-change-russians-mixed-attitudes-toward-reform-pub-75436?mkt\\_tok=eyJpIjoiWXPVeE5qSXhaRFEyWkdZeilsInQiOiJHOVwvVGJMbEdrUUlwZnNobDZZcJYYVRBcUFCsXBlaXR5TIN4eUdmV1Qxd1BHZXFkU3BLVW5xaUJpdWIYNGNMa2M0OHpucFRUcFZMRm1MSXdtdEw4NHVxbGJja1wwMXluWINjeFdXQWYrYlptbm00SzBkVTNNdGllWldVejJnZithIn0%3D](http://carnegie.ru/2018/02/06/perils-of-change-russians-mixed-attitudes-toward-reform-pub-75436?mkt_tok=eyJpIjoiWXPVeE5qSXhaRFEyWkdZeilsInQiOiJHOVwvVGJMbEdrUUlwZnNobDZZcJYYVRBcUFCsXBlaXR5TIN4eUdmV1Qxd1BHZXFkU3BLVW5xaUJpdWIYNGNMa2M0OHpucFRUcFZMRm1MSXdtdEw4NHVxbGJja1wwMXluWINjeFdXQWYrYlptbm00SzBkVTNNdGllWldVejJnZithIn0%3D)

On Putin: <http://www.nybooks.com/daily/2018/02/01/putin-from-oligarch-to-kleptocrat/>

Russian rich people abroad:

<https://www.the-american-interest.com/2018/02/09/russias-rich-exiles-gone-good/>

### Balkans

Florian Bieber on EU Balkan Strategy: <https://www.foreignaffairs.com/articles/baltics/2018-02-06/way-forward-balkans?cid=int-fls&pgtype=hpg>.

Politico summarises the new EU Balkan strategy:

<https://www.politico.eu/article/europe-balkan-membership-new-strategy-tough-love/>

### China

The rise of China and the fall of the 'free trade myth': <https://mobile.nytimes.com/2018/02/07/magazine/the-rise-of-china-and-the-fall-of-the-free-trade-myth.html?referer=https://t.co/ppZgcZFCiL?amp=1>

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\* Recommendation is not necessarily endorsement. The editors are grateful to Mario Holzner, Vladimir Gligorov and Stefan Jest for their 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 trends in the real and monetary sectors of the economy, in the labour market, as well as in the financial and external sectors.

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: <https://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

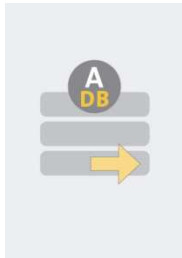
%	per cent
ER	exchange rate
GDP	Gross Domestic Product
HICP	Harmonized Index of Consumer Prices (for new EU Member States)
LFS	Labour Force Survey
NPISHs	Non-profit institutions serving households
p.a.	per annum
PPI	Producer Price Index
reg.	registered

The following national currencies are used:

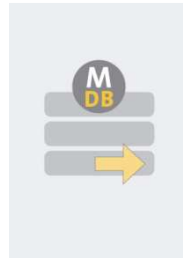
ALL	Albanian lek	HUF	Hungarian forint	RSD	Serbian dinar
BAM	Bosnian convertible mark	KZT	Kazakh tenge	RUB	Russian rouble
BGN	Bulgarian lev	MKD	Macedonian denar	TRY	Turkish lira
CZK	Czech koruna	PLN	Polish zloty	UAH	Ukrainian hryvnia
HRK	Croatian kuna	RON	Romanian leu		
EUR	euro – national currency for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

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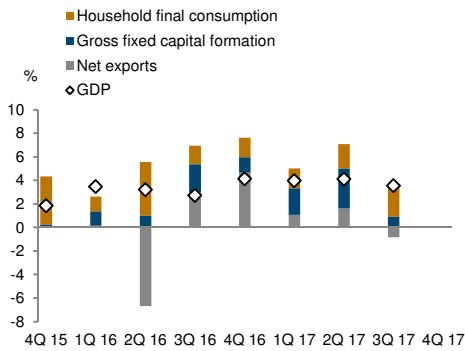
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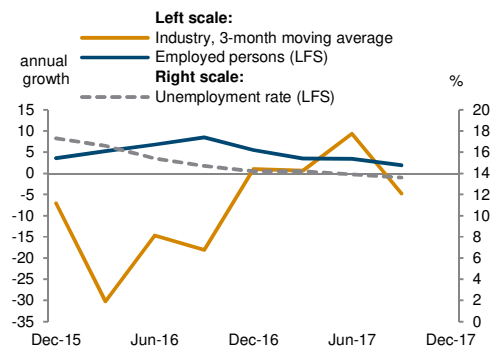
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# Albania

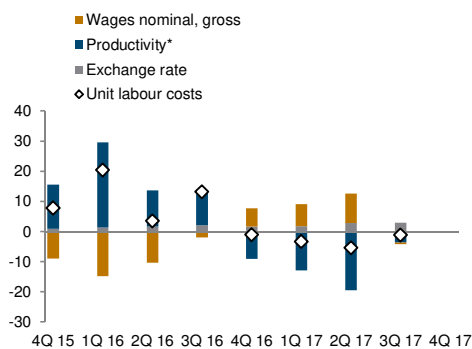
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year-on-year



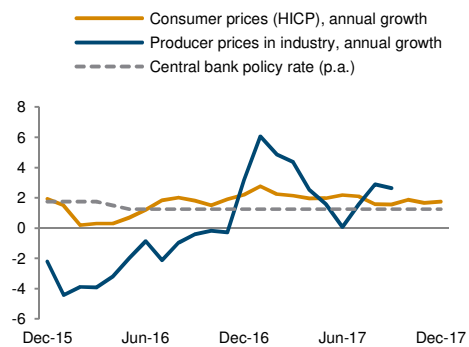
**Real sector development**  
in %



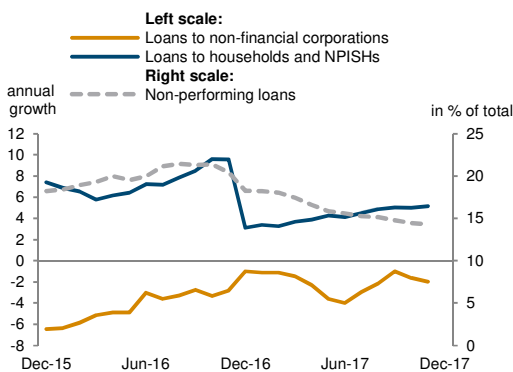
**Unit labour costs in industry**  
annual growth rate in %



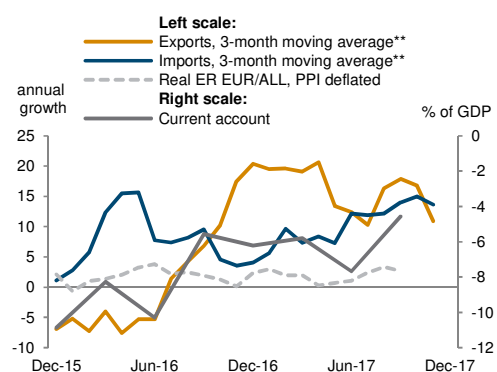
**Inflation and policy rate**  
in %



**Financial indicators**  
in %



**External sector development**  
in %



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

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

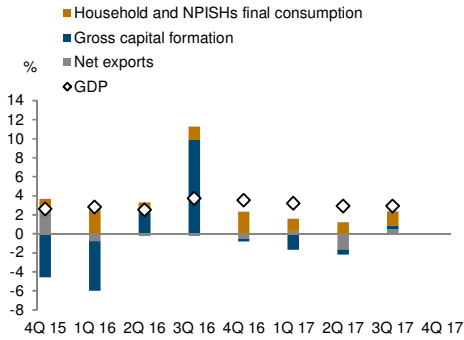
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# Bosnia and Herzegovina

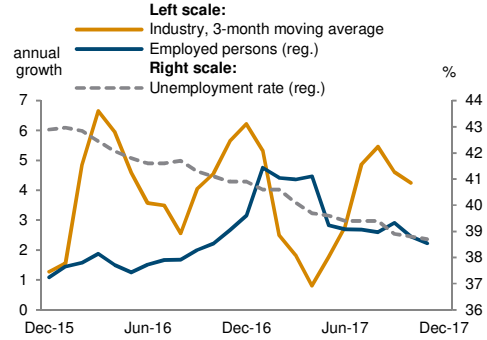
### Real GDP growth and contributions

year-on-year



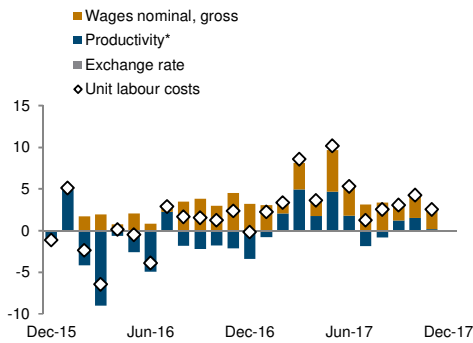
### Real sector development

in %



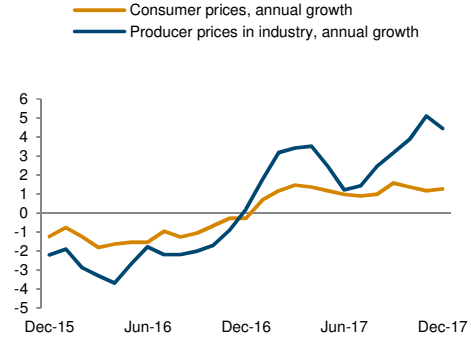
### Unit labour costs in industry

annual growth rate in %



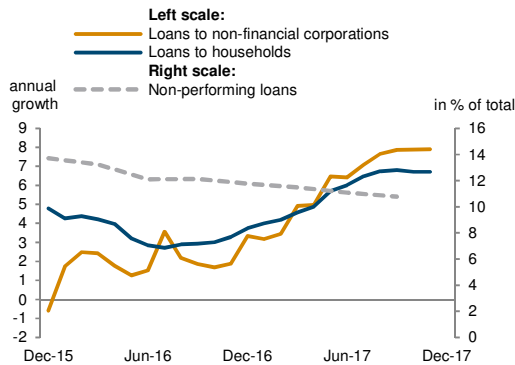
### Inflation

in %



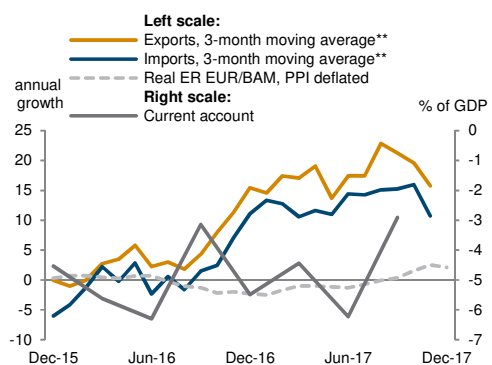
### Financial indicators

in %



### External sector development

in %



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

\*\*EUR based.

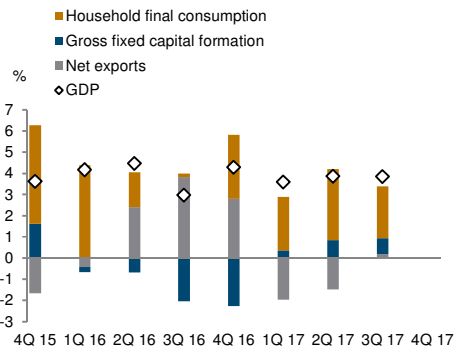
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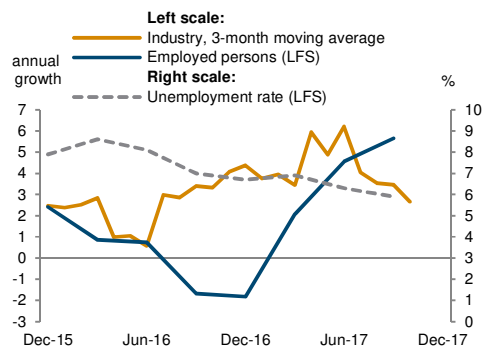
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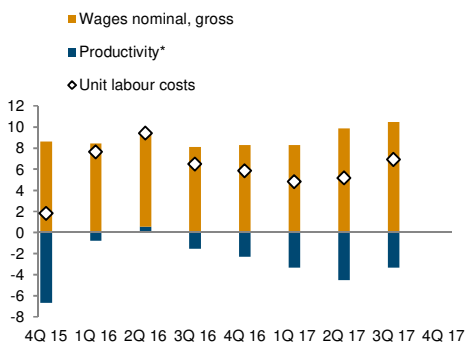
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year-on-year



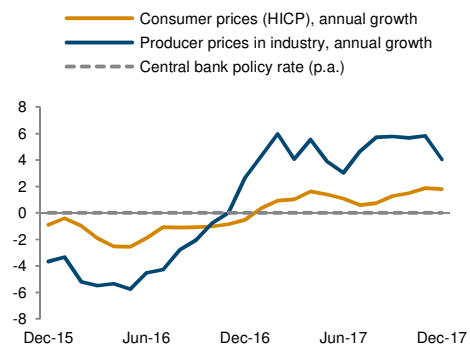
**Real sector development**  
in %



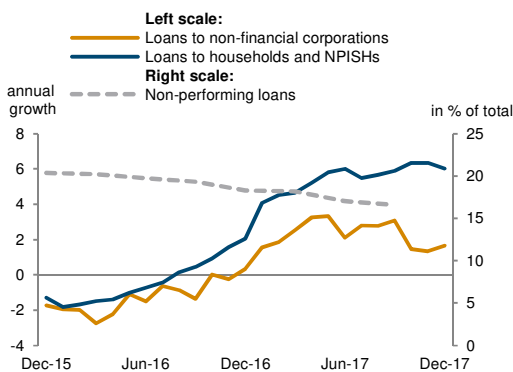
**Unit labour costs in industry**  
annual growth rate in %



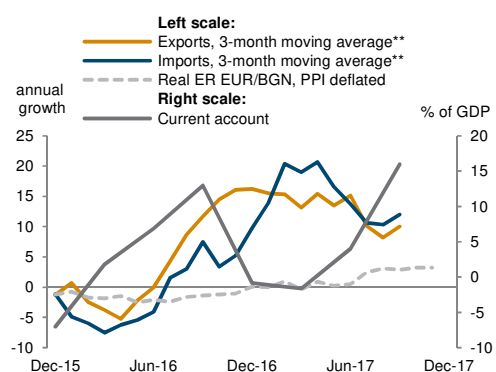
**Inflation and policy rate**  
in %



**Financial indicators**  
in %



**External sector development**  
in %



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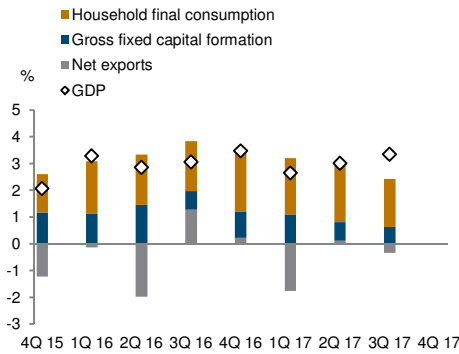
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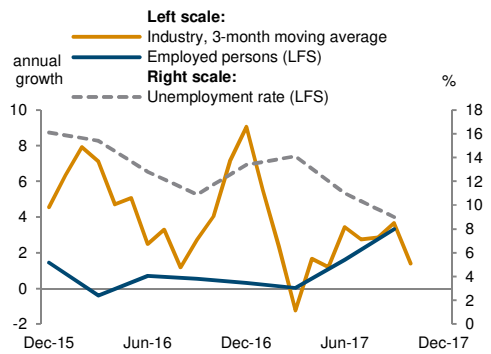
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# Croatia

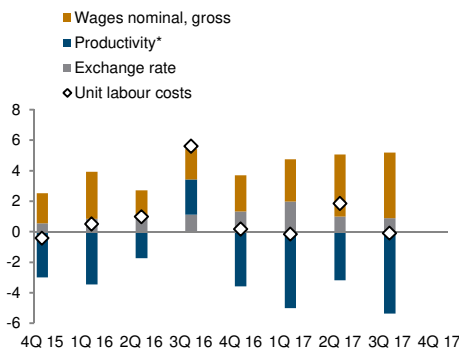
**Real GDP growth and contributions**  
year-on-year



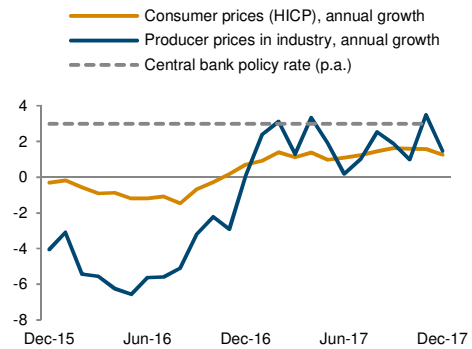
**Real sector development**  
in %



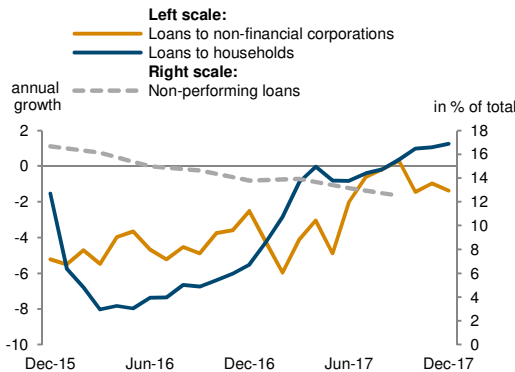
**Unit labour costs in industry**  
annual growth rate in %



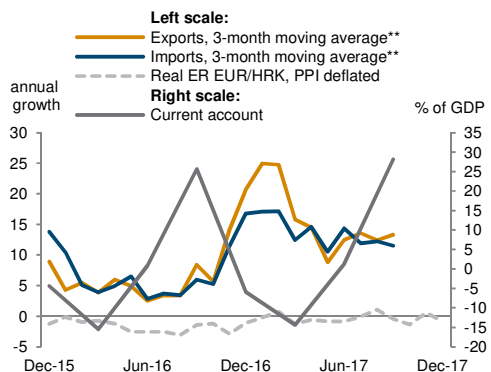
**Inflation and policy rate**  
in %



**Financial indicators**  
in %



**External sector development**  
in %



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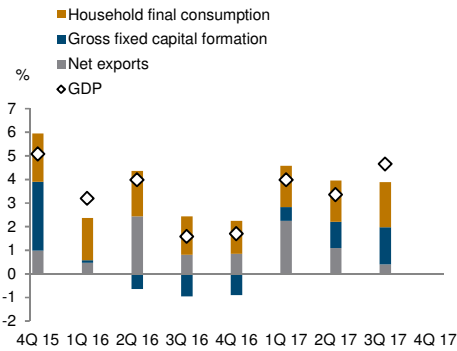
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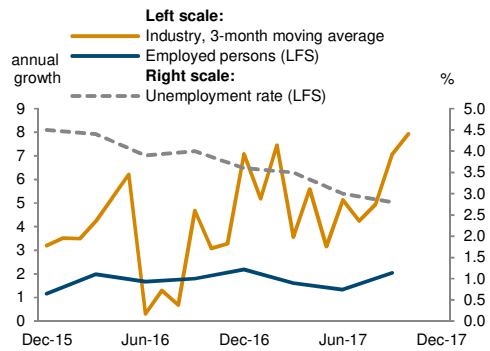


# Czech Republic

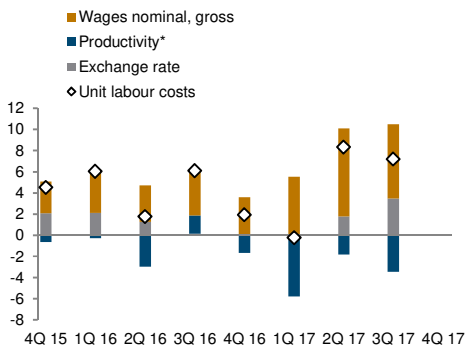
**Real GDP growth and contributions**  
year-on-year



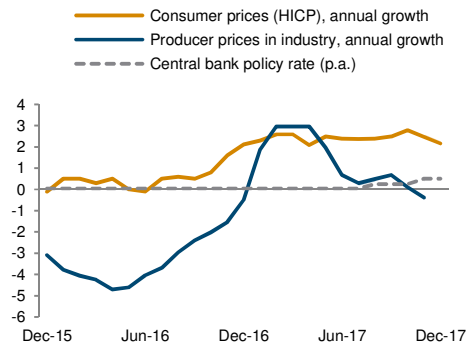
**Real sector development**  
in %



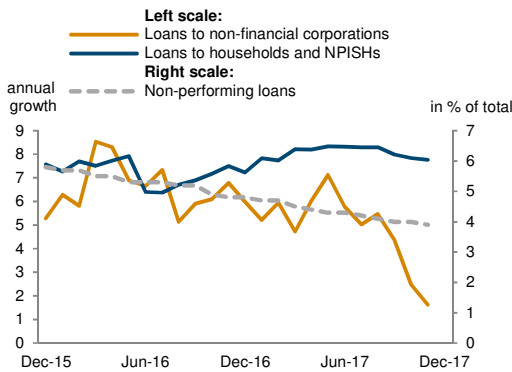
**Unit labour costs in industry**  
annual growth rate in %



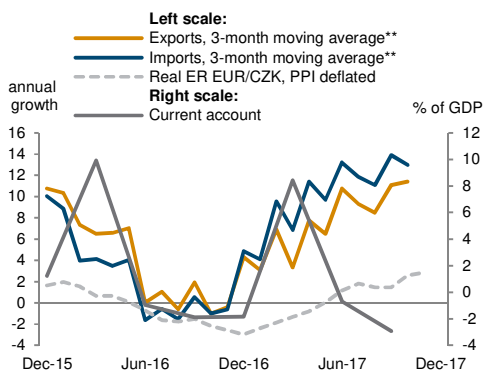
**Inflation and policy rate**  
in %



**Financial indicators**  
in %



**External sector development**  
in %



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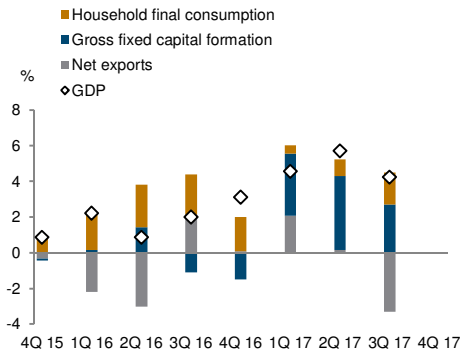
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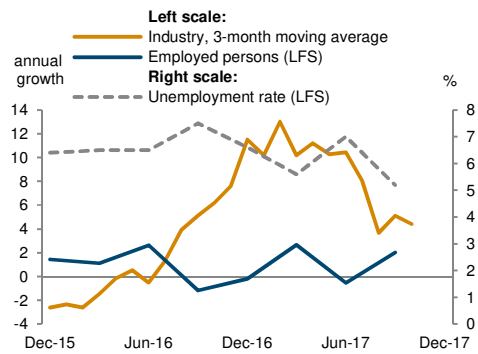
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## Estonia

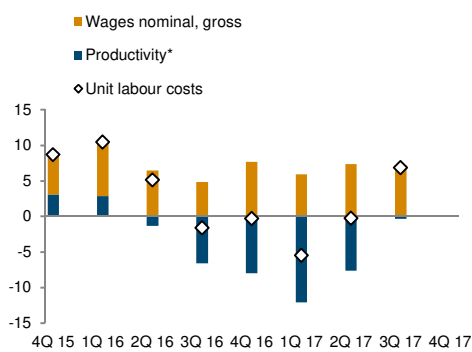
**Real GDP growth and contributions**  
year-on-year



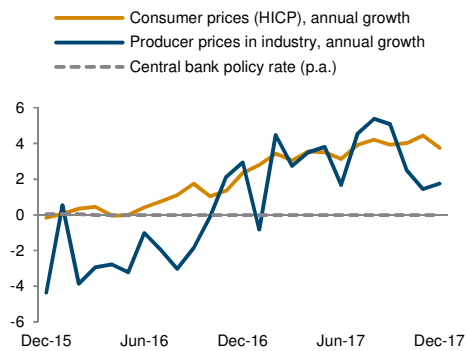
**Real sector development**  
in %



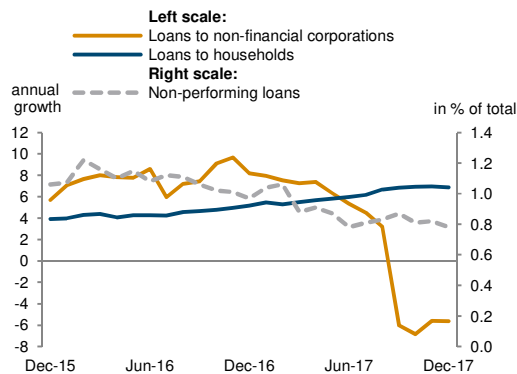
**Unit labour costs in industry**  
annual growth rate in %



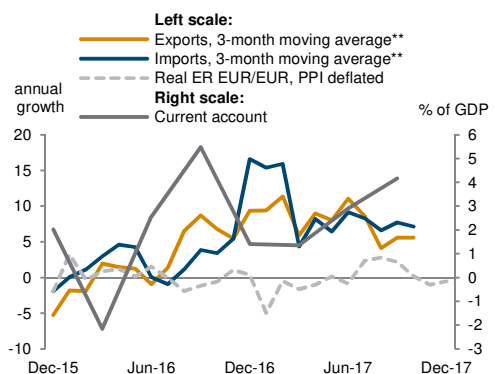
**Inflation and policy rate**  
in %



**Financial indicators**  
in %



**External sector development**  
in %



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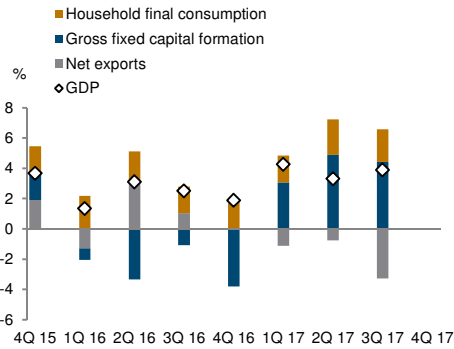
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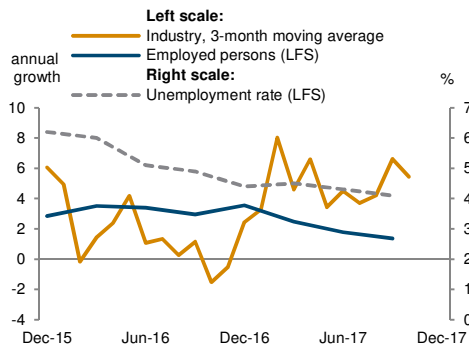
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# Hungary

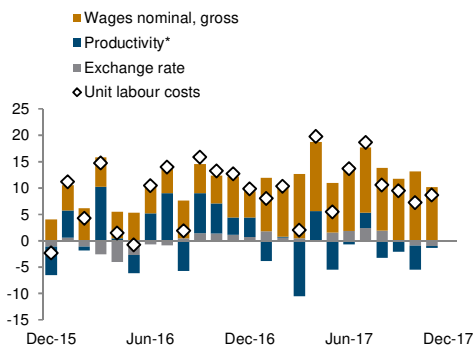
**Real GDP growth and contributions**  
year-on-year



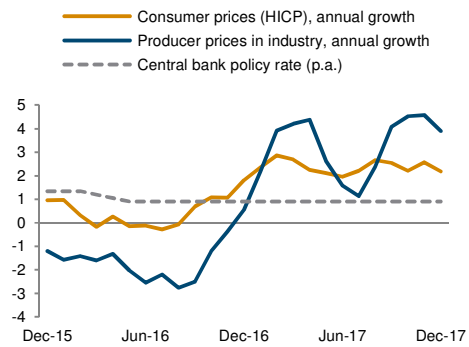
**Real sector development**  
in %



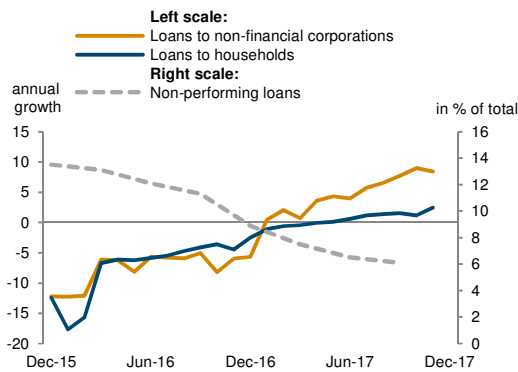
**Unit labour costs in industry**  
annual growth rate in %



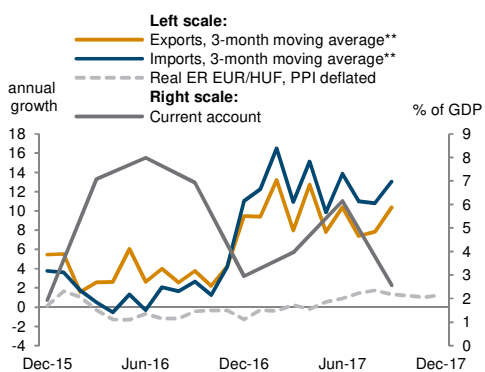
**Inflation and policy rate**  
in %



**Financial indicators**  
in %



**External sector development**  
in %



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

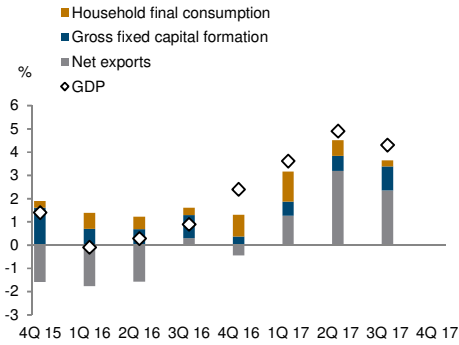
Source: wiiw Monthly Database incorporating Eurostat and national statistics.

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

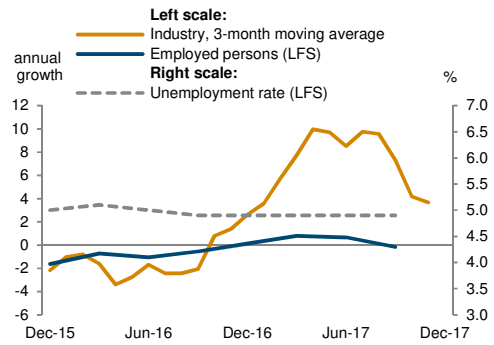
<https://data.wiiw.ac.at/monthly-database.html>

# Kazakhstan

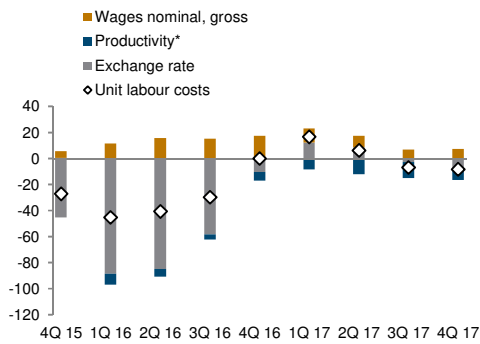
**Real GDP growth and contributions**  
year-on-year



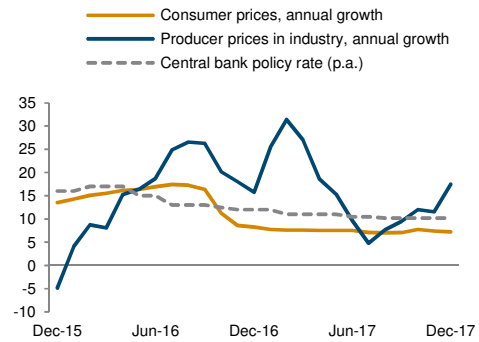
**Real sector development**  
in %



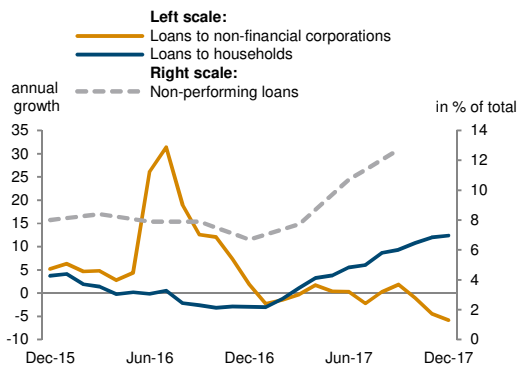
**Unit labour costs in industry**  
annual growth rate in %



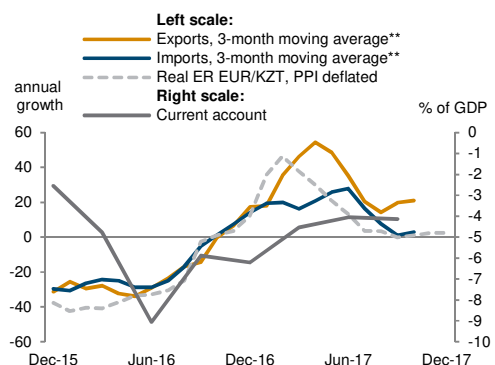
**Inflation and policy rate**  
in %



**Financial indicators**  
in %



**External sector development**  
in %



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

\*\*EUR based.

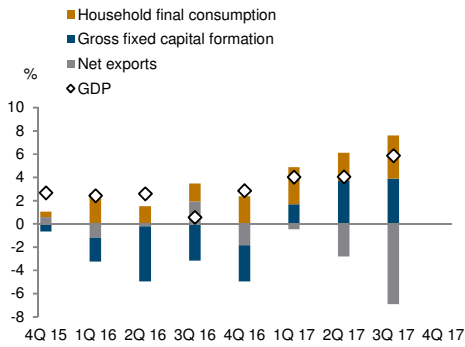
Source: wiiw Monthly Database incorporating Eurostat and national statistics.

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

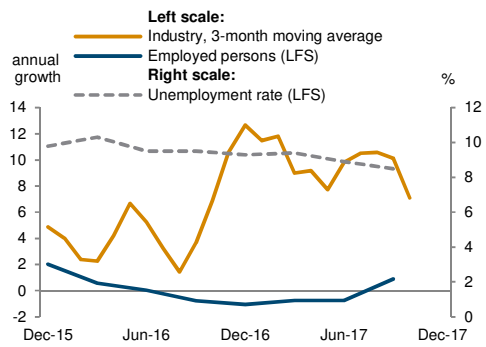
<https://data.wiiw.ac.at/monthly-database.html>

# Latvia

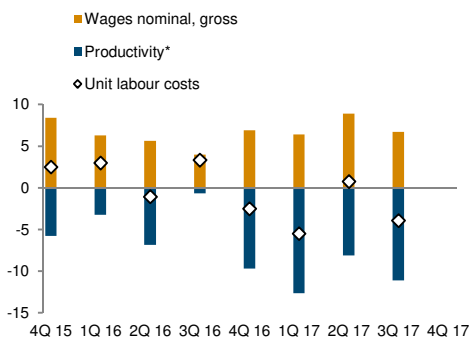
**Real GDP growth and contributions**  
year-on-year



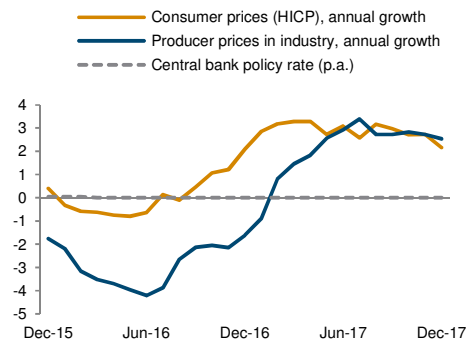
**Real sector development**  
in %



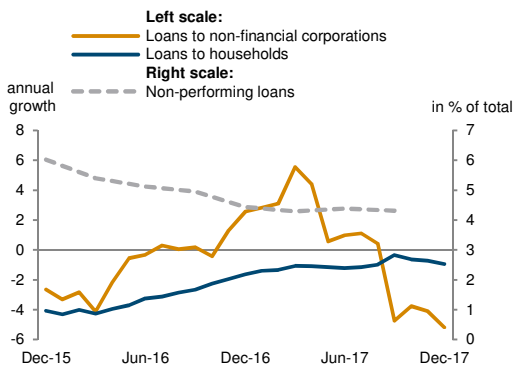
**Unit labour costs in industry**  
annual growth rate in %



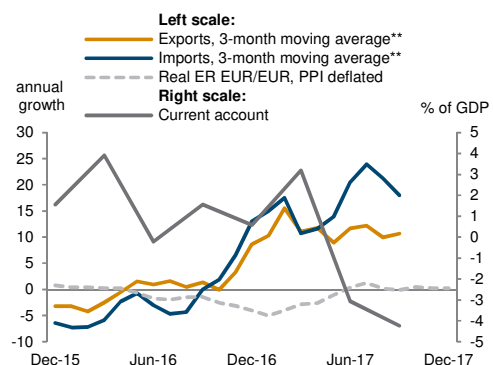
**Inflation and policy rate**  
in %



**Financial indicators**  
in %



**External sector development**  
in %



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

\*\*EUR based.

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

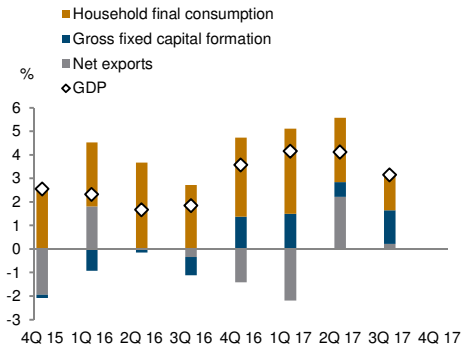
Baseline data, country-specific definitions and methodological breaks in time series are available under:

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

# Lithuania

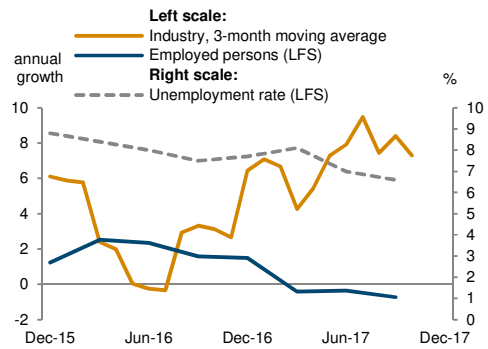
### Real GDP growth and contributions

year-on-year



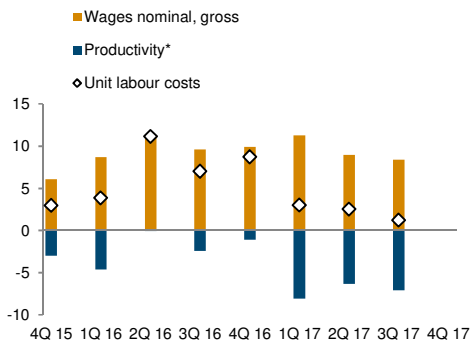
### Real sector development

in %



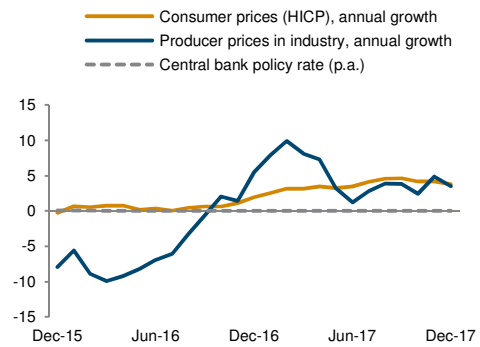
### Unit labour costs in industry

annual growth rate in %



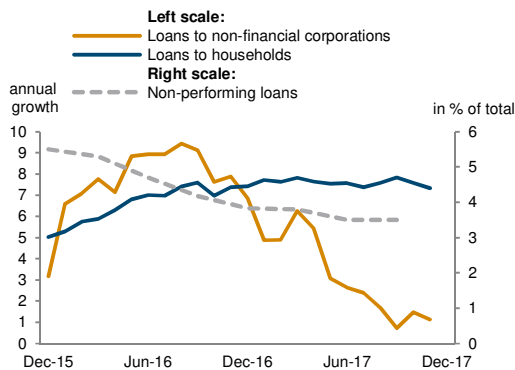
### Inflation and policy rate

in %



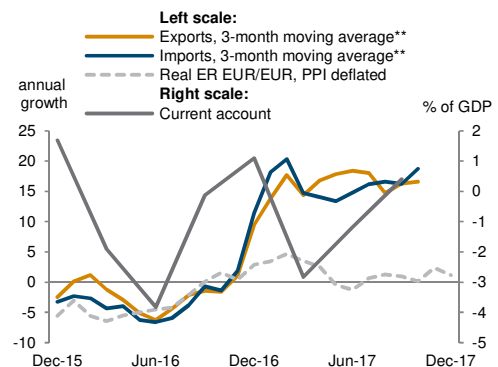
### Financial indicators

in %



### External sector development

in %



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

\*\*EUR based.

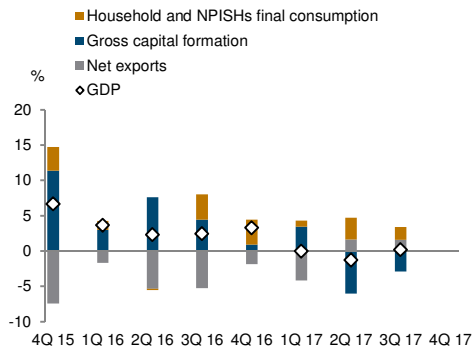
Source: wiiw Monthly Database incorporating Eurostat and national statistics.

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

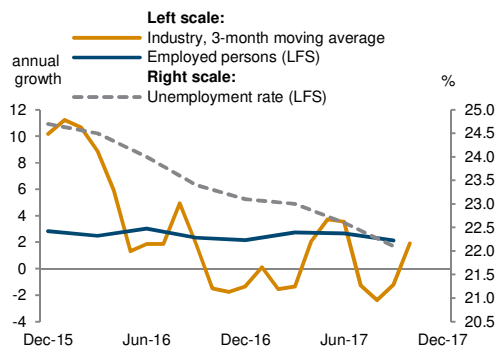
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# Macedonia

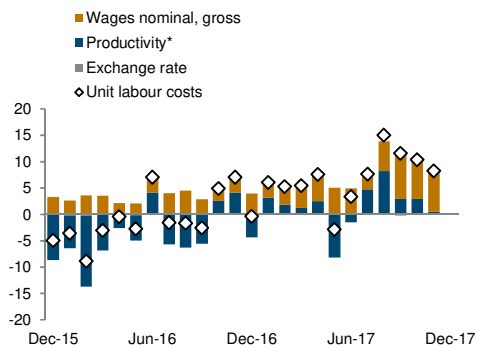
**Real GDP growth and contributions**  
year-on-year



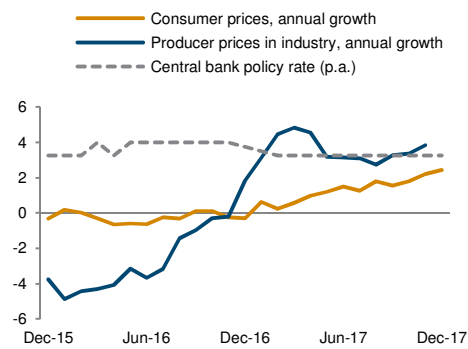
**Real sector development**  
in %



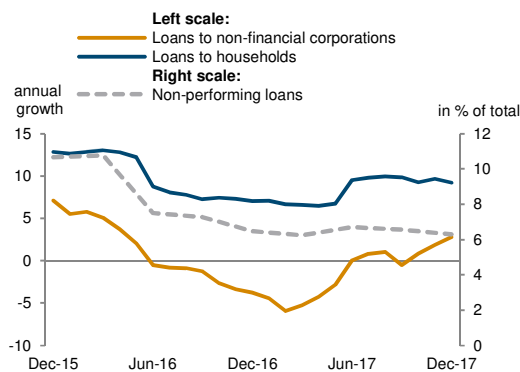
**Unit labour costs in industry**  
annual growth rate in %



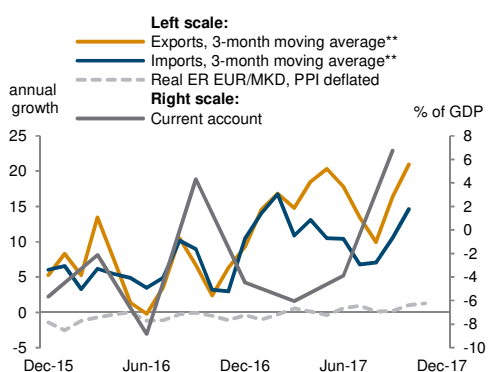
**Inflation and policy rate**  
in %



**Financial indicators**  
in %



**External sector development**  
in %



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

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

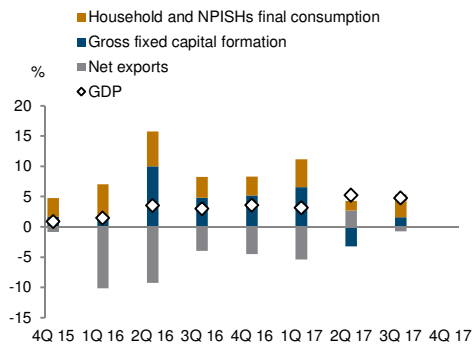
Baseline data, country-specific definitions and methodological breaks in time series are available under:

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

# Montenegro

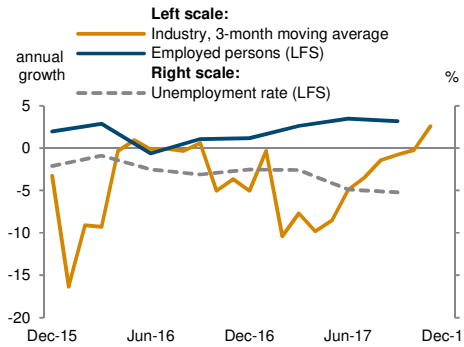
### Real GDP growth and contributions

year-on-year



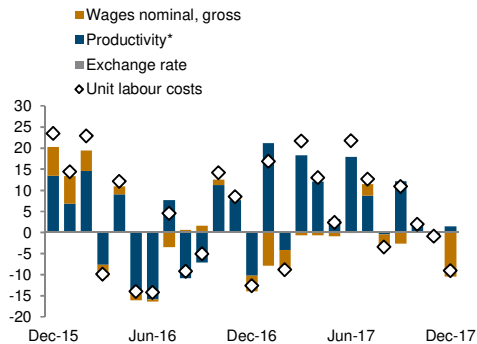
### Real sector development

in %



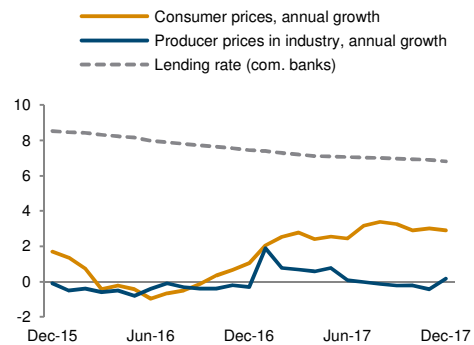
### Unit labour costs in industry

annual growth rate in %



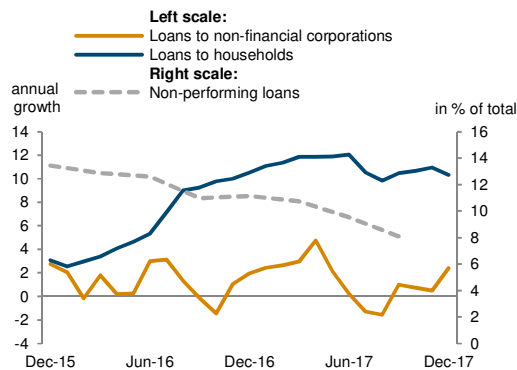
### Inflation and lending rate

in %



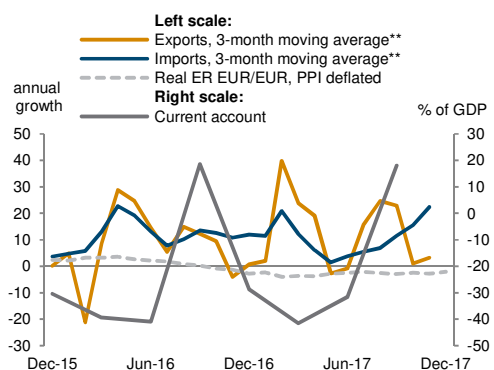
### Financial indicators

in %



### External sector development

in %



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

\*\*EUR based.

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

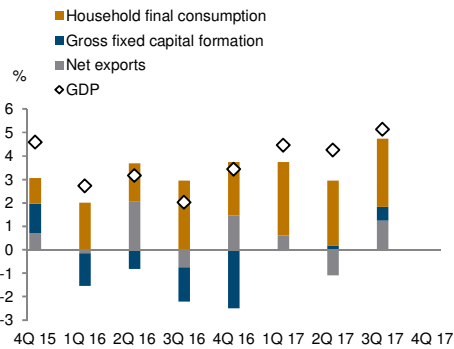
Baseline data, country-specific definitions and methodological breaks in time series are available under:

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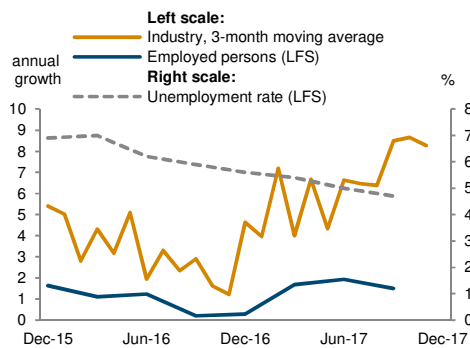


# Poland

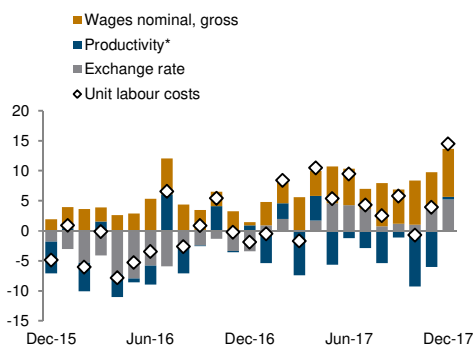
**Real GDP growth and contributions**  
year-on-year



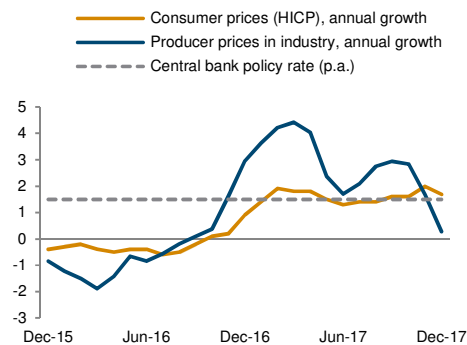
**Real sector development**  
in %



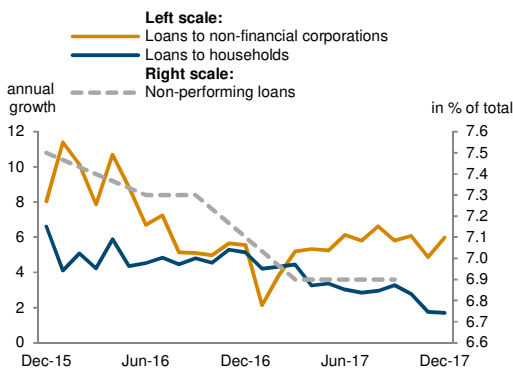
**Unit labour costs in industry**  
annual growth rate in %



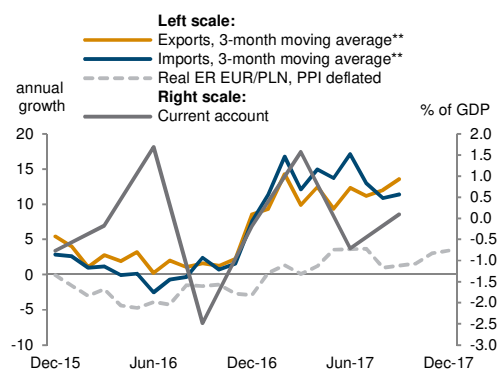
**Inflation and policy rate**  
in %



**Financial indicators**  
in %



**External sector development**  
in %



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

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

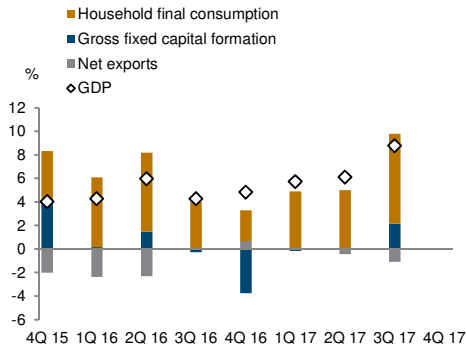
Baseline data, country-specific definitions and methodological breaks in time series are available under:

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

# Romania

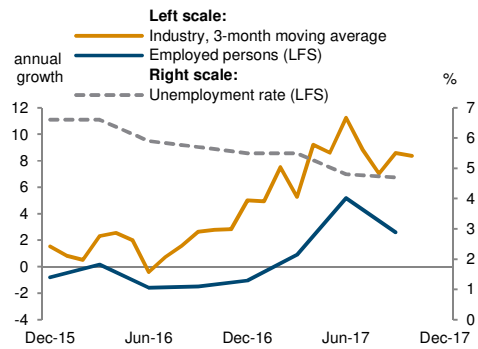
### Real GDP growth and contributions

year-on-year



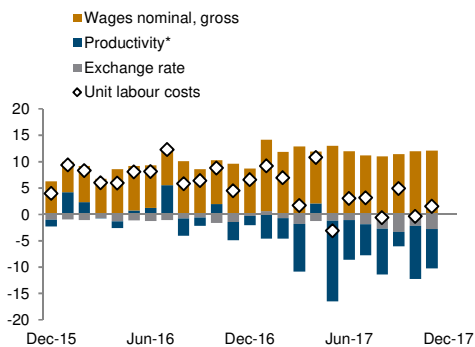
### Real sector development

in %



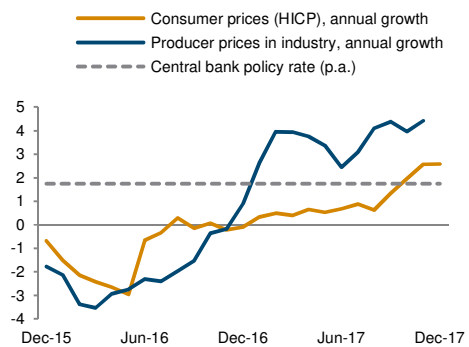
### Unit labour costs in industry

annual growth rate in %



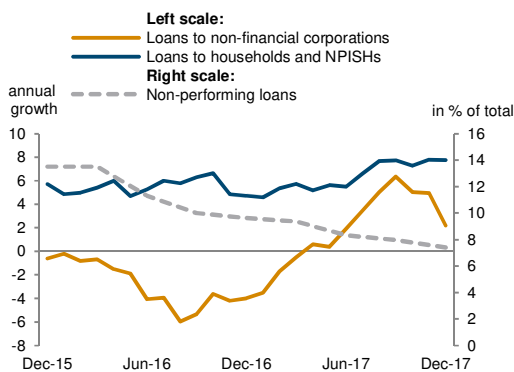
### Inflation and policy rate

in %



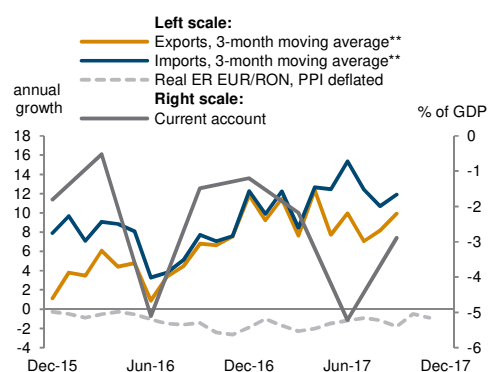
### Financial indicators

in %



### External sector development

in %



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

\*\*EUR based.

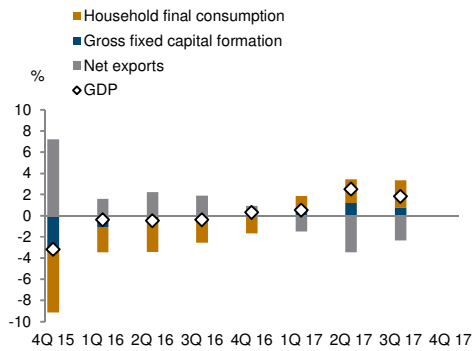
Source: wiiw Monthly Database incorporating Eurostat and national statistics.

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

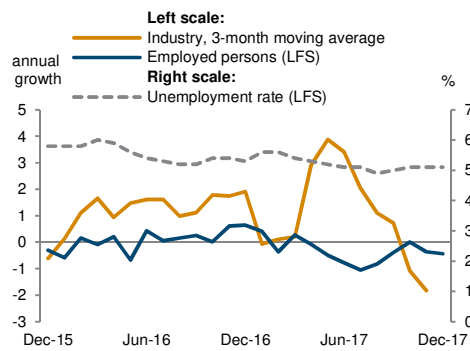
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# Russia

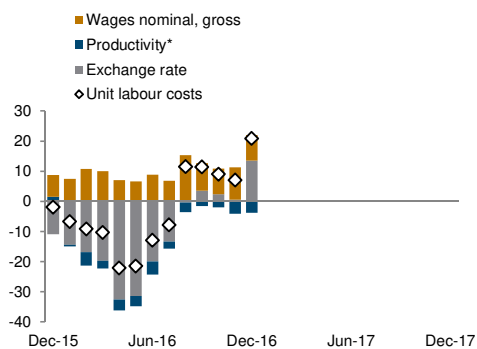
**Real GDP growth and contributions**  
year-on-year



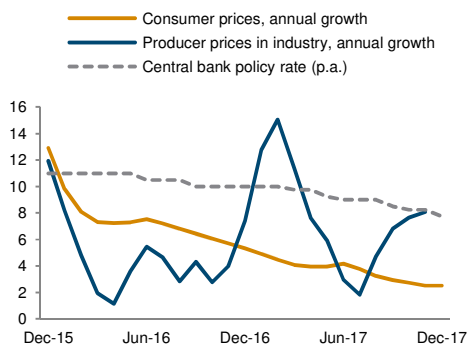
**Real sector development**  
in %



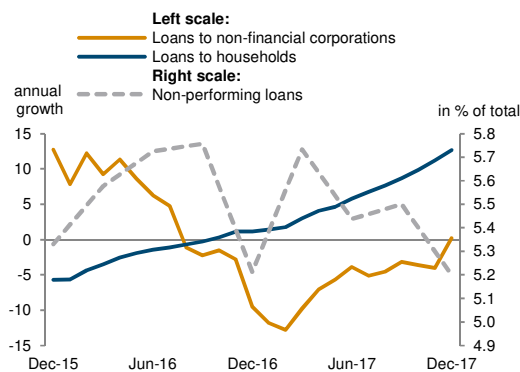
**Unit labour costs in industry**  
annual growth rate in %



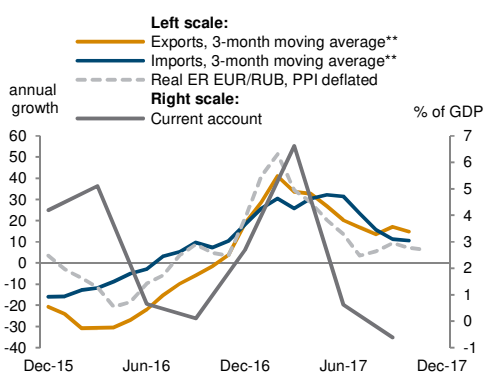
**Inflation and policy rate**  
in %



**Financial indicators**  
in %



**External sector development**  
in %



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

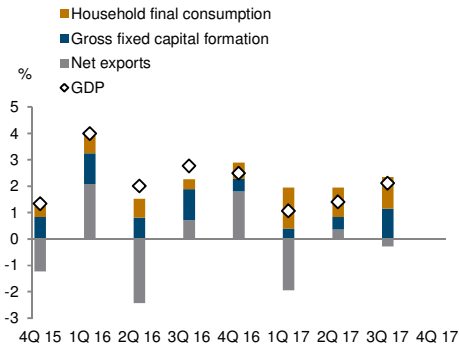
Source: wiiw Monthly Database incorporating Eurostat and national statistics.

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

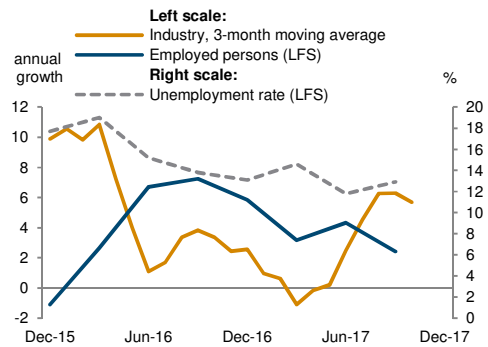
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## Serbia

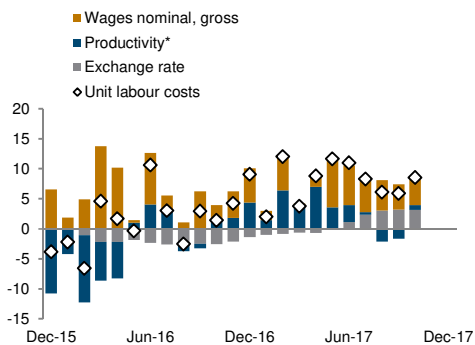
**Real GDP growth and contributions**  
year-on-year



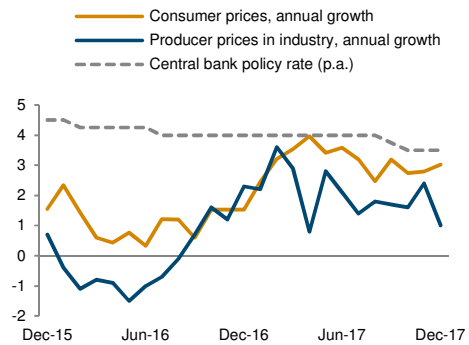
**Real sector development**  
in %



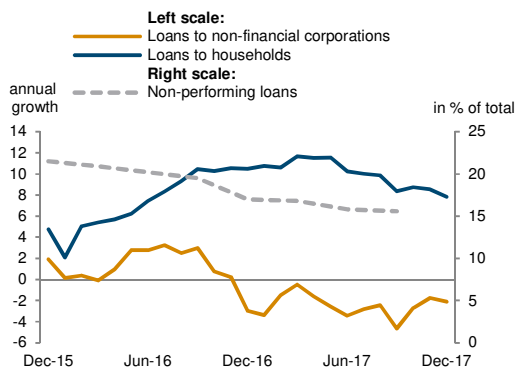
**Unit labour costs in industry**  
annual growth rate in %



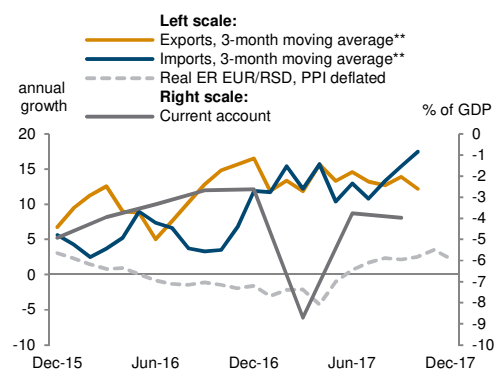
**Inflation and policy rate**  
in %



**Financial indicators**  
in %



**External sector development**  
in %



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

\*\*EUR based.

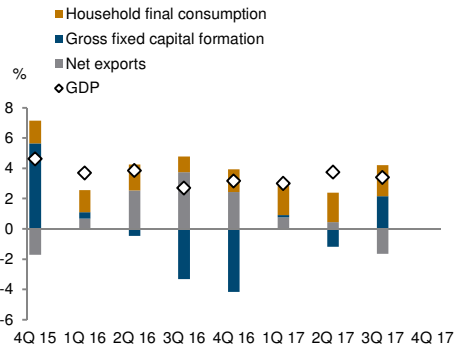
Source: wiiw Monthly Database incorporating Eurostat and national statistics.

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

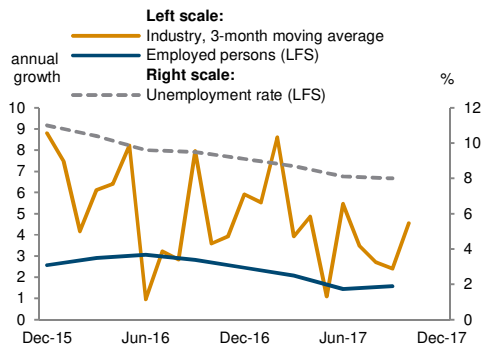
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# Slovakia

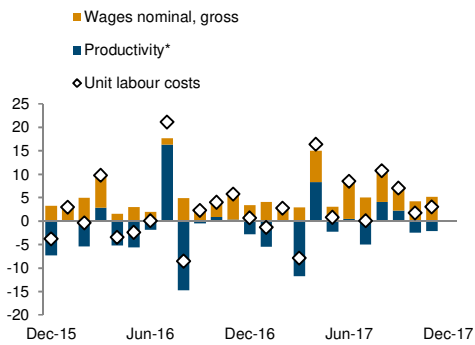
**Real GDP growth and contributions**  
year-on-year



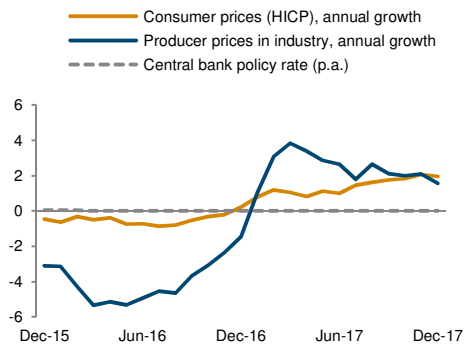
**Real sector development**  
in %



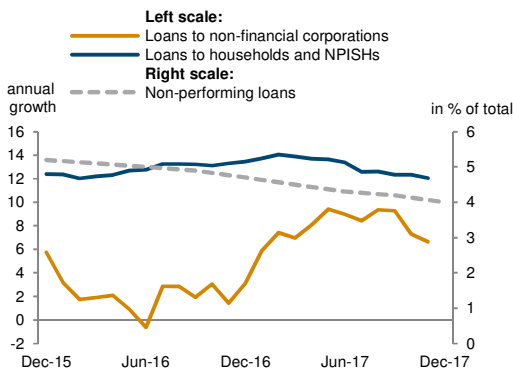
**Unit labour costs in industry**  
annual growth rate in %



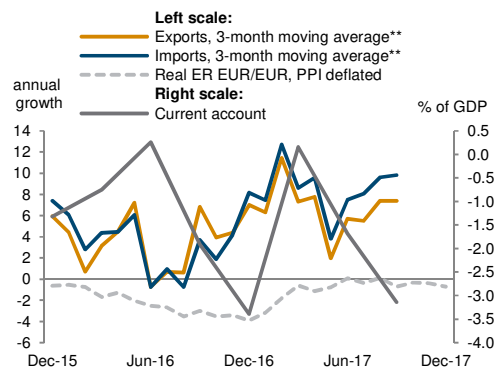
**Inflation and policy rate**  
in %



**Financial indicators**  
in %



**External sector development**  
in %



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

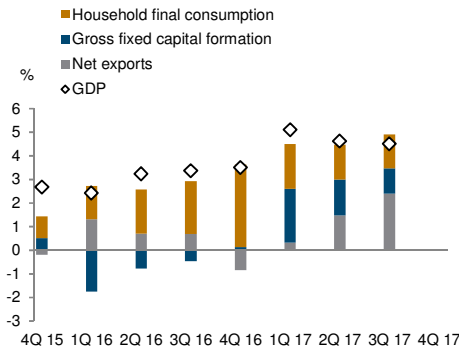
Source: wiiw Monthly Database incorporating Eurostat and national statistics.

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

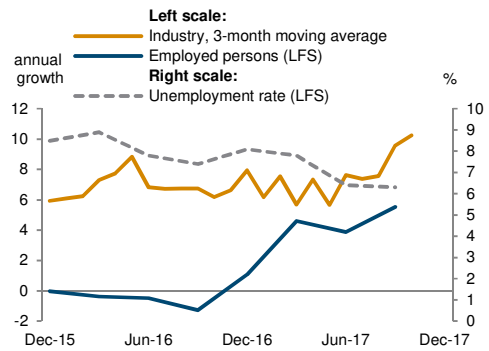
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# Slovenia

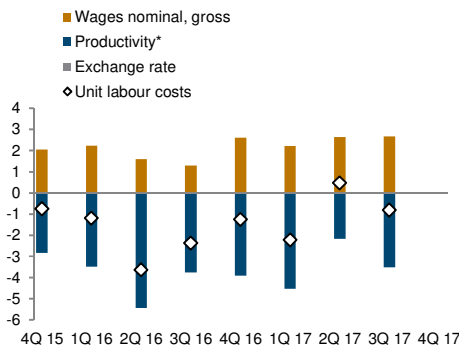
**Real GDP growth and contributions**  
year-on-year



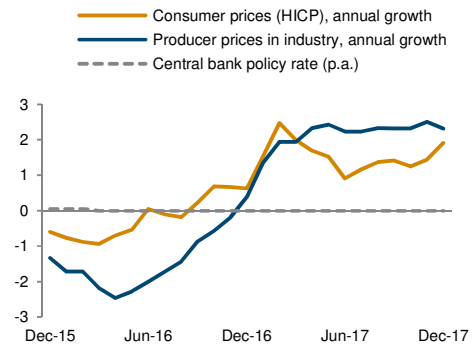
**Real sector development**  
in %



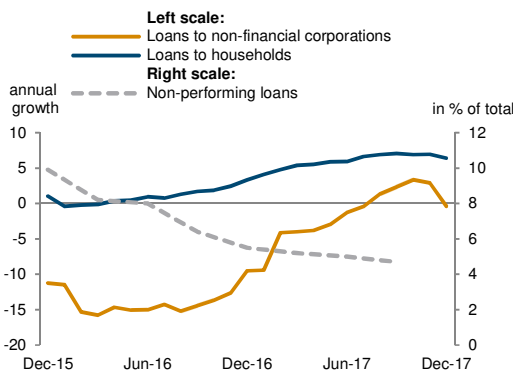
**Unit labour costs in industry**  
annual growth rate in %



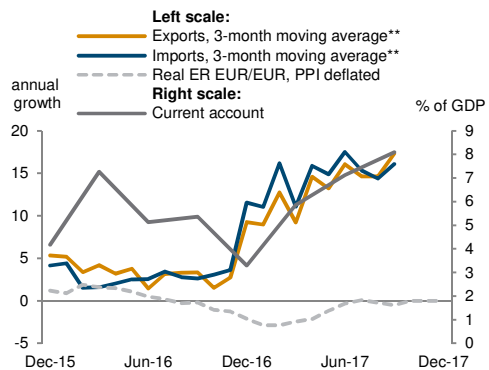
**Inflation and policy rate**  
in %



**Financial indicators**  
in %



**External sector development**  
in %

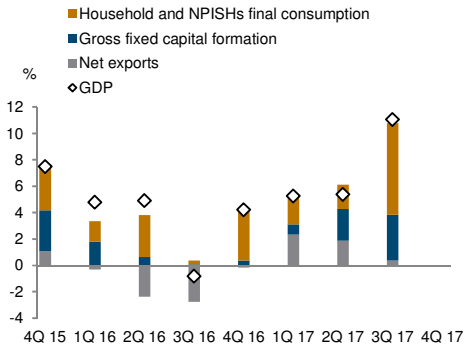


\*Positive values of the productivity component on the graph reflect decline in productivity and vice versa.  
\*\*EUR based.

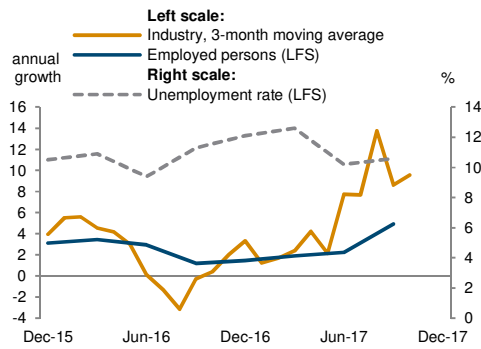
Source: wiiw Monthly Database incorporating Eurostat and national statistics.  
Baseline data, country-specific definitions and methodological breaks in time series are available under:  
<https://data.wiiw.ac.at/monthly-database.html>

# Turkey

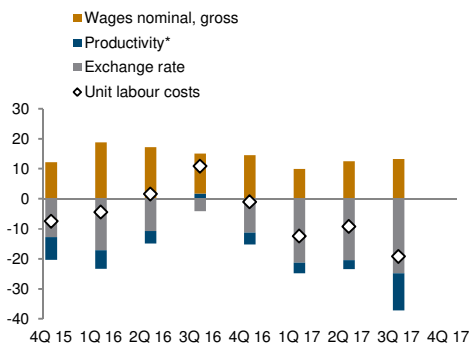
**Real GDP growth and contributions**  
year-on-year



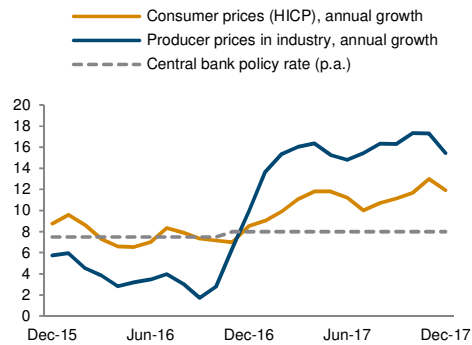
**Real sector development**  
in %



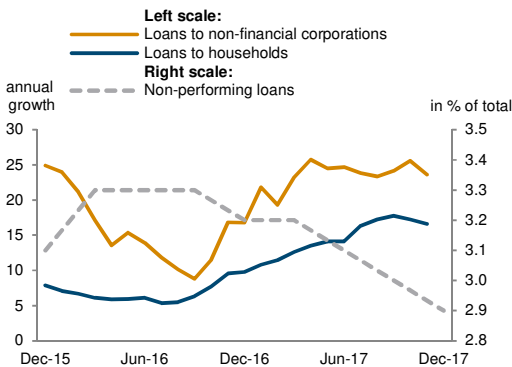
**Unit labour costs in industry**  
annual growth rate in %



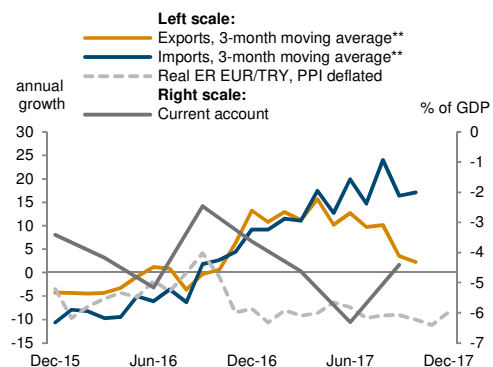
**Inflation and policy rate**  
in %



**Financial indicators**  
in %



**External sector development**  
in %



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

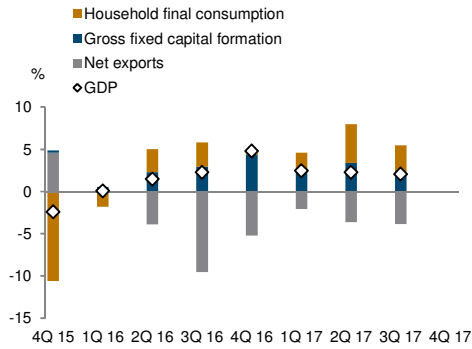
Source: wiiw Monthly Database incorporating Eurostat and national statistics.

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

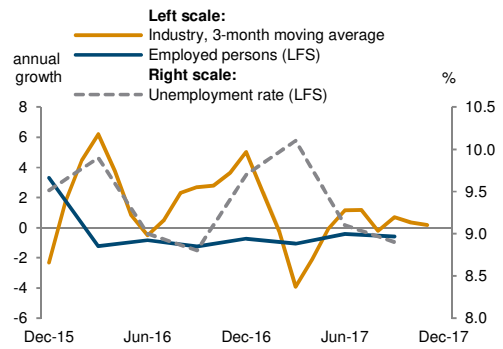
<https://data.wiiw.ac.at/monthly-database.html>

# Ukraine

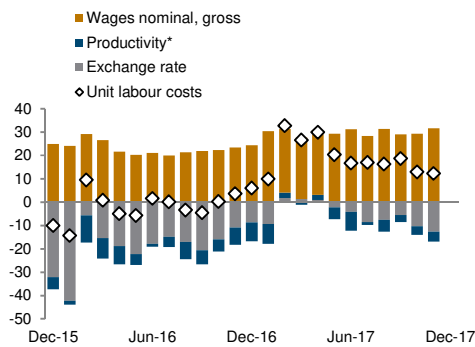
**Real GDP growth and contributions**  
year-on-year



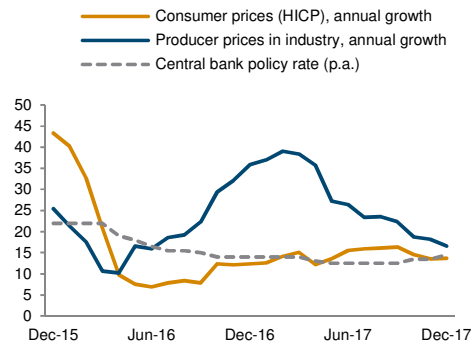
**Real sector development**  
in %



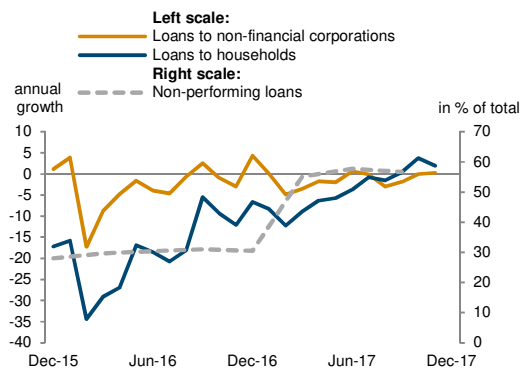
**Unit labour costs in industry**  
annual growth rate in %



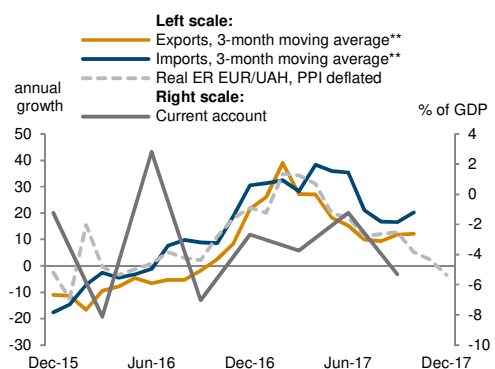
**Inflation and policy rate**  
in %



**Financial indicators**  
in %



**External sector development**  
in %



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

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