

**Western Sanctions on Russia  
Effective?**

**Agricultural Imports from LDCs**

**Green Industries for Europe**

**Determinants of SMEs'  
Funding Obstacles**





**Western Sanctions on Russia Effective?**

**Agricultural Imports from LDCs**

**Green Industries for Europe**

**Determinants of SMEs' Funding Obstacles**

VASILY ASTROV

VLADIMIR GLIGOROV

JULIA GRÜBLER

PETER HAVLIK

MICHAEL LANDESMANN

SANDRA LEITNER

OLGA PINDYUK

MAREK ROJICEK

ROMAN STÖLLINGER

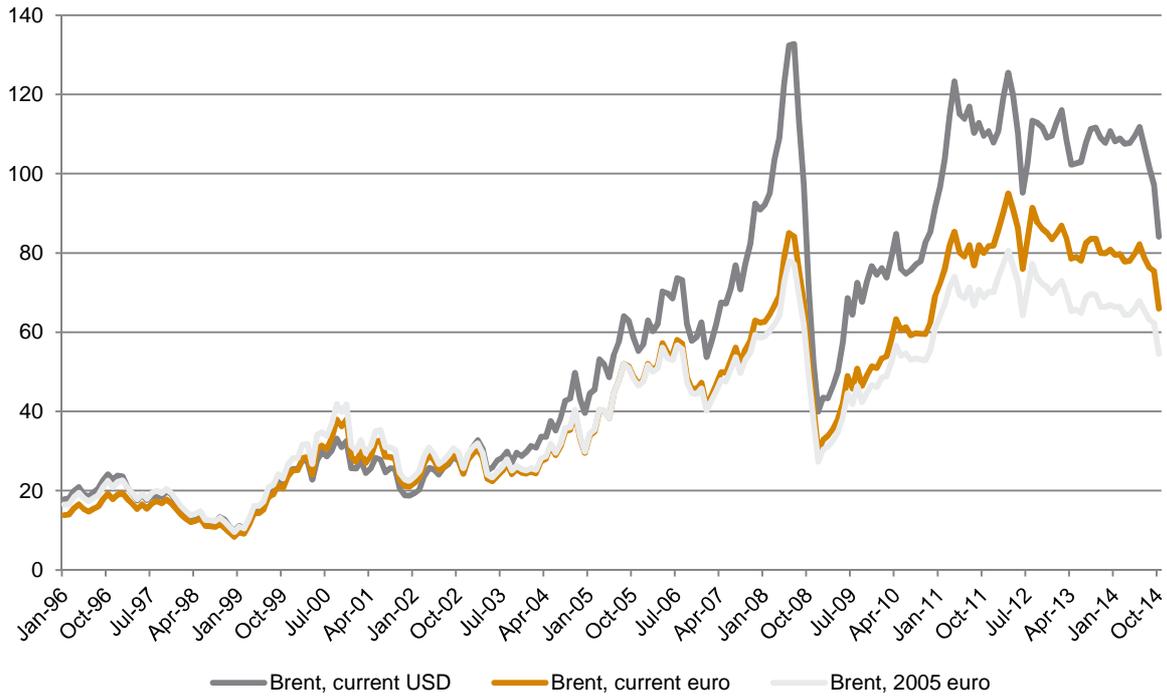


## CONTENTS

Graph of the month: Europe Brent Spot Price, fob per barrel .....	1
Opinion corner: The Russia-Ukraine conflict: do Western sanctions have any effect? .....	2
Agricultural imports from LDCs: a comparison across EU-27 Member States .....	7
Green industries for Europe: mission abandoned .....	13
Determinants of SMEs' funding obstacles – a comparative analysis of EU-15 and NMS-13 countries.....	17
The editors recommend for further reading .....	21
New wiiw Handbook of Statistics forthcoming.....	22
Monthly and quarterly statistics for Central, East and Southeast Europe.....	23
Index of subjects – October 2013 to October 2014 .....	44



**EUROPE BRENT SPOT PRICE, FOB PER BARREL**  
 in current USD and euro and real year 2005 euro (January 1996 – October 2014)



Note: The October 2014 value is proxied by the price of Brent as of 16 October 2014.  
 Source: EIA, Eurostat, wiiw own calculations.

## Opinion corner: The Russia-Ukraine conflict: do Western sanctions have any effect?

ANSWERED BY WIIW EXPERTS VASILY ASTROV, VLADIMIR GLIGOROV, PETER HAVLIK, MICHAEL LANDESMANN AND OLGA PINDYUK

***Astrov:** The whole idea of imposing sanctions on Russia was ill-conceived from the very beginning. To a large extent, the Ukraine crisis is a product of the EU's and Russia's inability to cooperate/integrate with each other, and not necessarily because of Russia's reluctance. Setting up a free trade area (or ideally a 'common economic space from Lisbon to Vladivostok') and a visa-free travel regime between Russia and the EU has been proposed by the Russian leadership – and indeed by the governments of some EU countries – on numerous occasions, and upon Russia's accession to the WTO in 2012 the last formal obstacle to that was removed. However, instead of cooperation, the EU chose a path of increased geopolitical competition with Russia on the post-Soviet space, and particularly in Ukraine. This competition could not but aggravate the already deep cultural and ethnic internal divisions in the latter country, culminating in its virtual break-up which we are witnessing these days.*

*Imposing sanctions on Russia hardly helps to correct these past mistakes. Predictably, they alienate Russia still further, fuelling anti-EU sentiments in the Russian society. It can be discussed whether it were these sentiments which made Russia increase its support to the rebels in Donbass after the Western sanctions had been imposed (early August 2014), or whether other factors played a role as well. What cannot be denied is that the declared targets of the sanctions – to stop Russian involvement in Donbass and to induce Russia to give Crimea back to Ukraine – have not been achieved. On the contrary, there appears to be plenty of evidence that Russian support to the rebels was raised drastically in August. One would face a hard task trying to find any other reason why the rebels, who had been already on the verge of military defeat (with Donetsk and Luhansk encircled by the pro-government troops), suddenly initiated a remarkable counter-offensive and prevailed in the crucial battle of Ilovaysk at the beginning of September, forcing Ukrainian President Poroshenko to accept a ceasefire and grant autonomous preferences to Donbass.*

*Sometimes one can hear the following argument: without the sanctions the Russian involvement in Ukraine would have taken place on a much larger scale, potentially extending to other Russian-speaking regions; so, the sanctions were effective after all. This argument implicitly suggests that the real target of sanctions was different from the 'official' wording, and does not change the fact that the declared targets have not been achieved. In addition, the counter-factual underlying this argument is not even remotely plausible: it is well known that Donetsk and Luhansk were the only Ukrainian provinces (apart from Crimea) where separatist forces succeeded in gaining an upper hand. Elsewhere in the Russian-speaking Southeast of Ukraine – including Odessa, Kharkiv and Dnepropetrovsk – this was not the case. This became clear already in April-May 2014, and the situation has not changed since then. It would be totally unrealistic for Russia to intervene in Ukrainian regions without a critical mass of local support. Even assuming that Russia could do so, the obvious question would be why it did not do it before the Western sanctions were imposed. All in all, speculations about a possible Russian intrusion into other Russian-speaking regions of Ukraine remain highly speculative.*

**Gligorov:** *The direct answer is yes, and mostly as intended, in as much as the sanctions have increased the costs of Russia's policy choices. Though it is not easy to quantify these effects, their sign is not in doubt. Similarly, Russian sanctions have increased the costs of the European Union's policy choices (this will not be commented on here). It can also be safely maintained that the costs to Russia have been higher than those to the EU, as a consequence of the asymmetric economic interdependence, which suggests that Russian countersanctions can hardly blunt the impact of the EU sanctions.*

*Before assessing whether sanctions have also impacted Russian policy choices, it is important to be clear about the aims of the sanctions. For this, the sequence of the events is important. The initial conflict was over Ukraine signing a free trade agreement with the EU or joining the customs union with Russia. The EU was not contemplating trade policy measures if Ukraine decided to enter into a customs union with Russia. Russia, however, resorted first to sanctions and then to claims on Ukrainian territory in retaliation for the political process that would have led to the signing of the free trade agreement with the EU, which Ukraine eventually did sign. Only after the Russian annexation of Crimea, the EU started imposing sanctions, with the aim to deterring Russia from further annexations of the territory of Ukraine.*

*So, have the sanctions had that desired effect on Russia's policy choices? Looking at the developments so far, the answer is yes. Russia has refrained from outright claims on the territory of the so-called New Russia, which is to say large parts of South-eastern Ukraine. This, of course, only establishes that the sanctions have proved costly to Russia and that, perhaps temporarily, further annexations of Ukrainian territories by Russia have not happened. The causal or policy effect remains to be determined.*

*To assess whether it were the EU (and US) sanctions that deterred Russian territorial claims on Ukraine, it is necessary to determine what would have happened had the sanctions not been applied. The difference with what actually happened would be the policy or causal effect. One way to answer that question is to match the case of the Crimean annexation, when sanctions were not yet in place, with that of the other contested territories. This is appropriate because the developments in Donetsk and Luhansk match quite well with those in Crimea prior to the actual annexation. With that counterfactual in mind, it is clear that sanctions made a difference in the outcomes observed and that suggests that they indeed deterred Russia from annexing Donetsk and Luhansk, at least so far. For permanent effects, permanent changes in policy choices are needed.*

*That leads to the final question on what Russia's policy aims are. One way to get an answer to this question is to make sense of Russia's reaction to the free trade agreement of Ukraine with the EU. It is clear that Ukraine's free trade agreement with the EU is not in conflict with the Ukrainian free trade agreement with Russia. It is also clear that Russia does not worry that the so-called deep free trade agreement is detrimental to the economy of Ukraine and thus supports the opponents of that agreement on that ground. That we know because Russia's complaint is that Ukraine will in fact benefit from that agreement in part by becoming a platform for EU investments targeting the Russian market that can be accessed free of tariffs from Ukraine. So, the argument for pushing Ukraine into a customs union with Russia is that it is a measure that protects the Russian economy.<sup>1</sup> That suggests that the cooperative path, often proposed as an alternative, e.g. a three-way free trade agreement (between the EU, Ukraine, and Russia), is not the alternative favoured by the Russian government, at least not as of yet.*

*That extends to Russia's overall political choices. Here, it is necessary to make the assumption that Russia makes its policy choices autonomously, which means that it chooses the targets and the*

---

<sup>1</sup> See e.g. Putin's press conference on 4 March 2014: <http://eng.kremlin.ru/transcripts/6763>

*instruments independently, and does not just react to decisions taken in Kiev, Brussels, and Washington. The alternative assumption would mean that the actions of the Russian government are made, or rather manipulated, in these other three capitals. With the assumption that the Russian government makes its own decisions with a view to its own targets given the instruments at hand, it is reasonable to conclude that Russia has turned away from cooperative, trade and other market, solutions and towards geopolitical ones in Europe.<sup>2</sup> The regime of sanctions can certainly not reverse this policy choice in Moscow.*

*To check that, it is important to notice that the sanctions have deterred Russia from annexing additional Ukrainian territories, but not from intervening militarily in Ukraine and from using geopolitical means to influencing the political developments in Ukraine and beyond. So, Russia's turn towards geopolitics in Europe is an enduring one.*

**Havlik:** *I basically agree with Vasily Astrov's arguments. Just to add my suggestion for a way forward from the current crisis: instead of sanctions, trilateral negotiations between the EU, Ukraine and Russia should be launched. I have been arguing for that kind of negotiations for more than a year, already before the failed Vilnius Eastern Partnership Summit in November 2013 (see wiiw Policy Note No. 11 from 23 November 2013). Now, one year and nearly 4000 deaths later (not to mention other huge economic and other damages, which were outlined in the wiiw Press Conference on 13 October, see <http://wiiw.ac.at/economic-consequences-of-the-ukraine-conflict-n-60.html>), the trilateral agreement between the EU, Ukraine and Russia from 12 September 2014 decided to 'delay the provisional application of the AA/DCFTA ... linked to continuation of the CIS-FTA preferential regime' and to continue with further consultations to 'tackle the perceived negative impacts to the Russian economy'. We are thus back at the start and may ask whether all the losses incurred so far have been worthwhile.*

**Landesmann:** *I interpret the above question to mean: Can we expect Western sanctions to contribute something positive or not?*

*First, it is clear that economic sanctions, as an instrument of pressure, are the only instrument the West could use short of military intervention. Ukraine not being a member of NATO and given the geographic location of the Ukraine-Russia conflict, it was clear that the West would not intervene militarily; which does not mean that the West would not provide training or supply arms to the Ukrainian forces.*

*Second, if one rejects a Chamberlain-type appeasement strategy of 1939, some instrument of pressure had to be used once the blatant infringement of national sovereignty was committed by Russia against Ukraine, first with respect to the annexation of Crimea and then the continued intervention in Eastern Ukraine, although officially denied but clearly obvious.*

*The question, of course, is what impact the sanctions have and might have in the future. I am not qualified to judge the military impact but the argument that the timing and the dosages of sanctions applied did have an impact on the extent of further escalation of military warfare and annexation of*

---

<sup>2</sup> Geopolitics stands for the use of control over a territory to increase political power with a view to gaining political or economic advantages often going under the name of national interests. The term carries negative, almost racist, connotations because ethnic minorities have often been used to justify territorial claims and, in extreme cases, to dismantle a country after declaring it to be an 'artificial state' due to its lack of ethnic homogeneity or strong identity (in terms of blood, language, culture or civilisation) or due to lack of long history of statehood. European security and stability has been increasingly based on post-geopolitical premises, i.e. on the respect for existing borders (with orderly integrations and secessions) and a high level of human rights with the aim of enduring pacification of the continent after the Second World War.

*territory in Eastern Ukraine by the 'rebel forces' and their Russian supporters – as things stand by October 2014 – seem to me convincing.*

*The more interesting question is what the current stalemate of sanctions and counter-sanctions will lead to in the long run. There are many aspects to this question and one's stance on sanctions depends on weighing up these different aspects and evaluating the likelihood of various scenarios which can emerge from the current situation:*

*A quite dominant view is that EU-Russia relationships will not return to the (possibly naive) perception which guided EU policy from the early 1990s onwards; which was that Russia would just be another candidate that could benefit from the EU's 'soft power' and the allure of closer EU-Russia economic cooperation. Developments within Russia and in Russia's relationship to its neighbourhood (conflict with Georgia, the ambition to construct a Eurasian Economic Union, the 'pivot' to Asia and towards China in particular) indicate that the claim to be recognised as a significant regional power with its associated geo-strategic interests are an important drive of Russia's policy.*

*Hence we have to analyse the impact of sanctions in the wake of the Russia-Ukraine conflict in the context of this geo-strategic situation (both with regard to 'the West's' and Russia's strategies). This means accepting that big power games are back on the agenda in Europe and that international developments are not just the sum of decisions by sovereign nations, whether big or small and whatever their geographic position and economic dependencies.*

*However, within this geo-strategic context it is nonetheless important to draw clearly certain red lines with regard to the conduct of international relations. This should include the non-violability of sovereignty over national territory and the right of a country to choose its own trade agreements or deeper forms of market integration with partners of its choosing. It is true that such rules have been violated in other continents (Central America, Africa, etc.) and for a long time also in post-war Eastern Europe. But it is important to put in place more than token gestures of protest to uphold them in post-1989 Europe. There are instances in which it is legitimate that such rules (of territorial integrity) would be violated such as the danger of genocide, but this definitely does not apply to Ukraine.*

*Thus while sanctions might also have counter-productive effects (such as strengthening illiberal forces and whipping up further nationalism in Russia, plus economic costs both for the Russian population and the Western European economy), they are currently the main instrument at disposal to show that at least a significant set of European nations stand for certain rules of international relations. Sanctions do not prevent political negotiations, but political negotiations without having made a forceful and credible stand to uphold such rules will cement the perception of big powers that violations of such rules will de facto be tolerated. One of the main achievements of European integration – and a major point of the attraction of the European Union – is that fundamental rights of countries are not a function of their size or military power. Let us make sure that these principles extend to the whole of Europe and – hopefully – beyond it.*

**Pindyuk:** *In my opinion, it is obvious that the Western sanctions have been having an effect on Russia; the question is rather what kind of an effect it is. The sanctions have been meant not as a retaliation tool, but as an instrument to influence the behaviour of the Russian government that has broken basic European security agreements by annexing the Crimea and supporting the separatists' armed insurgence in East-Ukraine. (Also, the sanctions were targeted at specific individuals and later on the sectors that are closely affiliated with the Russian government – an intention was to avoid hurting the country's population at large.)*

*As the developments of the recent months have shown, the Russian economy has been affected significantly by the sanctions, and (as a consequence) there has been a visible change in the behaviour of the country's government. The war in Eastern Ukraine is now contained to a small region, Russia is apparently not planning on advancing deeper into Ukraine's territory and somewhat scaled down its support to the rebels and overall 'imperial' ambitions. There seems to be a split among the members of Putin's inner circle with regard to his decisions as many oligarchs are not happy with assets freezes, travel bans and lack of access to Western financial markets.*

*At the same time, instead of fully committing to peaceful relations with Ukraine, the Kremlin has become rather active in lobbying the cancellation of the sanctions. In the absence of such a commitment it would be a mistake to abolish the sanctions already. After all, one should not limit the cost and benefit analysis of the sanctions to the economic dimension, as there are more important things at stake in the current conflict – the post-war order and European security.*

# Agricultural imports from LDCs: a comparison across EU-27 Member States

BY JULIA GRÜBLER

Over the past decade, trade in agricultural goods has repeatedly been in the centre of political discussions in the EU, although – *or because* – its share in total trade amounted to only 6% in 2013 (EC, 2014a). After several breakdowns of the Doha ‘Development Round’, the expiry of the envisaged period to achieve the Millennium Development Goals (MDGs) to sharply reduce extreme poverty around the globe until 2015 might be an impetus for a new wave of discussions by the end of 2014.

Acknowledging the EU’s position as the major importer of farm produce from developing countries and the fact that most of the world’s poor are rural farmers, this article presents the evolution of agricultural imports from least developed countries (LDCs) to the EU and compares the different roles that EU-15 members and ‘new’ Member States (NMS) play in this respect.

Globally, the share of duty-free exports in total exports from LDCs to developed countries increased from around 70% in 2000 to 84% in 2012, of which about half of the duty-free treatment is ‘truly’ preferential in nature and not due to MFN<sup>1</sup> treatment (UN, 2014). This figure might be strongly driven by EU policy towards developing countries, more specifically, due to the introduction of the Everything but Arms (EBA) initiative, which was launched in the run-up to the Doha Round in 2001 and allows LDCs – as identified by the United Nations – to export everything except arms and ammunition to the EU duty-free and quota-free (UNCTAD, 2008)<sup>2</sup>.

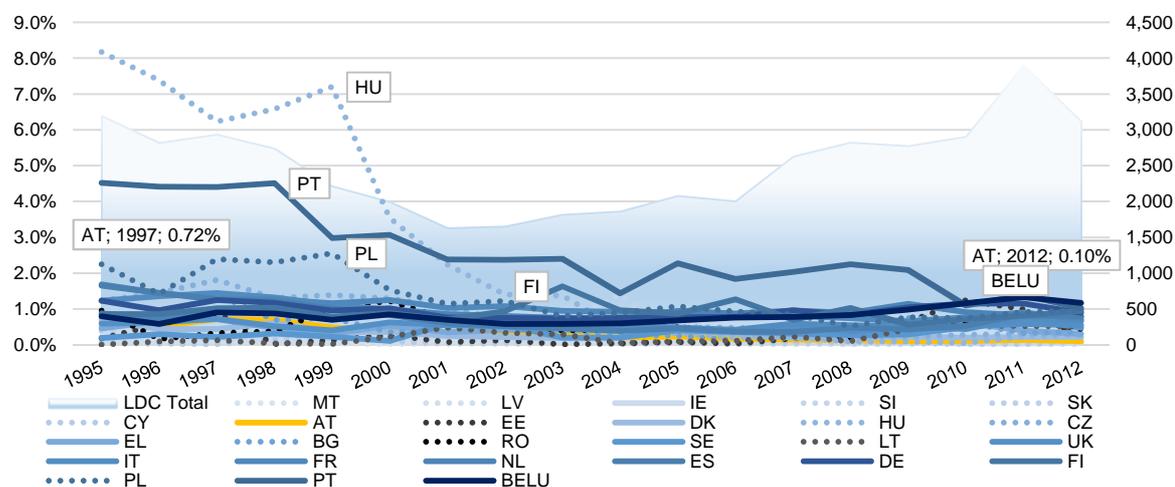
Indeed, when looking at EU-27 imports in agricultural products from LDCs, as depicted in Figure 1, a clear U-shaped pattern can be observed, with its turning point in 2001 and an absolute peak in 2011 (right-hand scale).

As these developments could, however, be solely reflecting price changes, we also take a closer look at the product composition of LDC exports to the EU and on the development of import volumes not in monetary terms but in physical terms, i.e. as tonnes imported. In 2013, half of the agricultural imports from LDCs comprised final goods; commodities made up 30% and intermediates 20%. Raw tobacco and sugar represent more than a third of total agricultural imports from LDCs in monetary terms, with shares of 17% and 14% respectively, followed by cut flowers and plants (7%), vegetables (5%), rice (5%), and fruits and spices (5%) (EC, 2014b). Based on this information, Table 1 reports extra-EU-27 and intra-EU-27 imports in 1000 tonnes for these product groups for the years 2007, 2009 and 2011.

<sup>1</sup> Most-favoured nation treatment under the WTO: ‘Each member treats all the other members equally as “most-favoured” trading partners. If a country improves the benefits that it gives to one trading partner, it has to give the same “best” treatment to all the other WTO members so that they all remain “most-favoured”.’  
See: [http://www.wto.org/english/thewto\\_e/whatis\\_e/tif\\_e/fact2\\_e.htm](http://www.wto.org/english/thewto_e/whatis_e/tif_e/fact2_e.htm)

<sup>2</sup> Transitional periods applied for bananas (2006), rice and sugar (2009).

**Figure 1 / Total agricultural imports from LDCs to EU-27 and their shares per member in world agricultural imports**



Note: Left-hand-scale: agricultural imports from LDCs in per cent of total agricultural imports per EU-27 Member State (lines); right-hand-scale: agricultural imports from LDC's for the EU-27 in million USD (blue shaded area)

Source: UN Comtrade (WITS); own calculations.

**Table 1 / Total agricultural import volumes of the EU-15 and EU-27 in 1000 tonnes by major LDC export products to the EU in 2013**

Product	Extra-EU-27 imports 1000 tonnes				Intra-EU-27 trade based on arrivals, 1000 tonnes			
	2007	2009	2011		2007	2009	2011	
Raw tobacco	621	612	634	↘↗	259	302	257	↗↘
Sugar	3,086	3,096	4,474	↗	3,855	5,209	5,498	↗
Vegetables	1,787	1,769	1,701	↘	10,274	11,077	11,709	↗
Rice	1,453	1,477	1,608	↗	1,583	1,597	1,683	↗
Fruits	7,128	6,732	6,475	↘	13,366	13,519	13,943	↗

Source: EC (2010), EC (2013); Intra-EU trade on the basis of arrivals.

It reveals that intra-EU-27 imports (in tonnes) in all the product groups of great relevance for LDCs increased over time. Extra-EU-27 imports decreased for fruits and vegetables, but increased for rice, tobacco and tremendously for sugar, where 1.4 million tonnes more were imported in 2011 compared to 2007, corresponding to an increase of 45%. Yet, shares of agricultural imports from LDCs in terms of world agricultural imports are decreasing (left-hand scale of Figure 1). This raises the concern of preference erosion for LDCs and subsequent trade diversion, shifting EU import patterns away from a pro-poor path.

Generating a ranking over these shares within the EU returns a very mixed picture for 1996. Both the highest and the lowest import shares could be found among later NMS. For the year 2000, the first places in the ranking would read as follows: (1) Hungary, (2) Portugal, (3) Poland, (4) Czech Republic, (5) France, (6) Romania, and (7) Germany, with all shares above 1%.

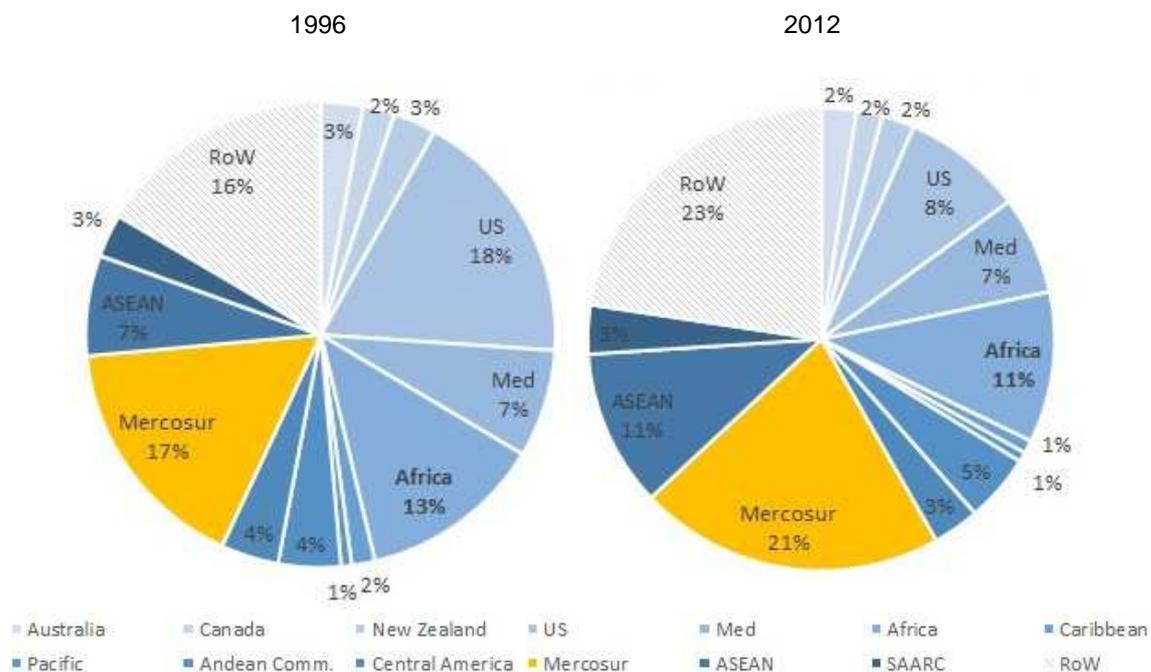
Over time, however, lower rankings (i.e. higher shares) corresponded more and more to EU-15 countries and higher rankings (i.e. lower shares, respectively) to NMS – with three major exceptions: Poland showed only very little variation in ranking, being placed third in 2012 with a maximum share of 2.55% in 1999 and a minimum share of 0.52% in 2008. Concerning EU-15 members, two exceptions stand out: Ireland, whose ‘best’ rank is 20th with a share of 0.12% in 2005 and two major drops in the years 2004 and 2008. The second country worth noticing is Austria, which is also highlighted in Figure 1, as its share continuously decreased over time from a maximum of 0.72% in 1997 to below 0.10% in 2013.

By 2012, Hungary dropped to place 17 and only Poland could be found within the ‘top 10’, led by Belgium-Luxembourg<sup>3</sup> and Portugal as the only countries showing shares slightly above 1%.

If shares of agricultural imports from LDCs are diminishing, where do the increasing import volumes then originate?

Focusing first on extra-EU-27 imports, it is evident that there is a regional re-composition away from Africa, which counts 33 out of 48 LDCs in 2013, and the ‘Big 4’, i.e. Australia, Canada, New Zealand and the United States<sup>4</sup>, towards Brazil and Argentina in Mercosur, Indonesia in ASEAN, and China, captured in RoW.

**Figure 2 / Extra-EU-27 agricultural imports to EU-27 Member States**



Note: Regions according to DG trade classification.

ASEAN: Association of South East Asian Nations; SAARC: South Asian Association for Regional Cooperation;

RoW: Rest of the World.

Source: UN Comtrade (WITS); own calculations.

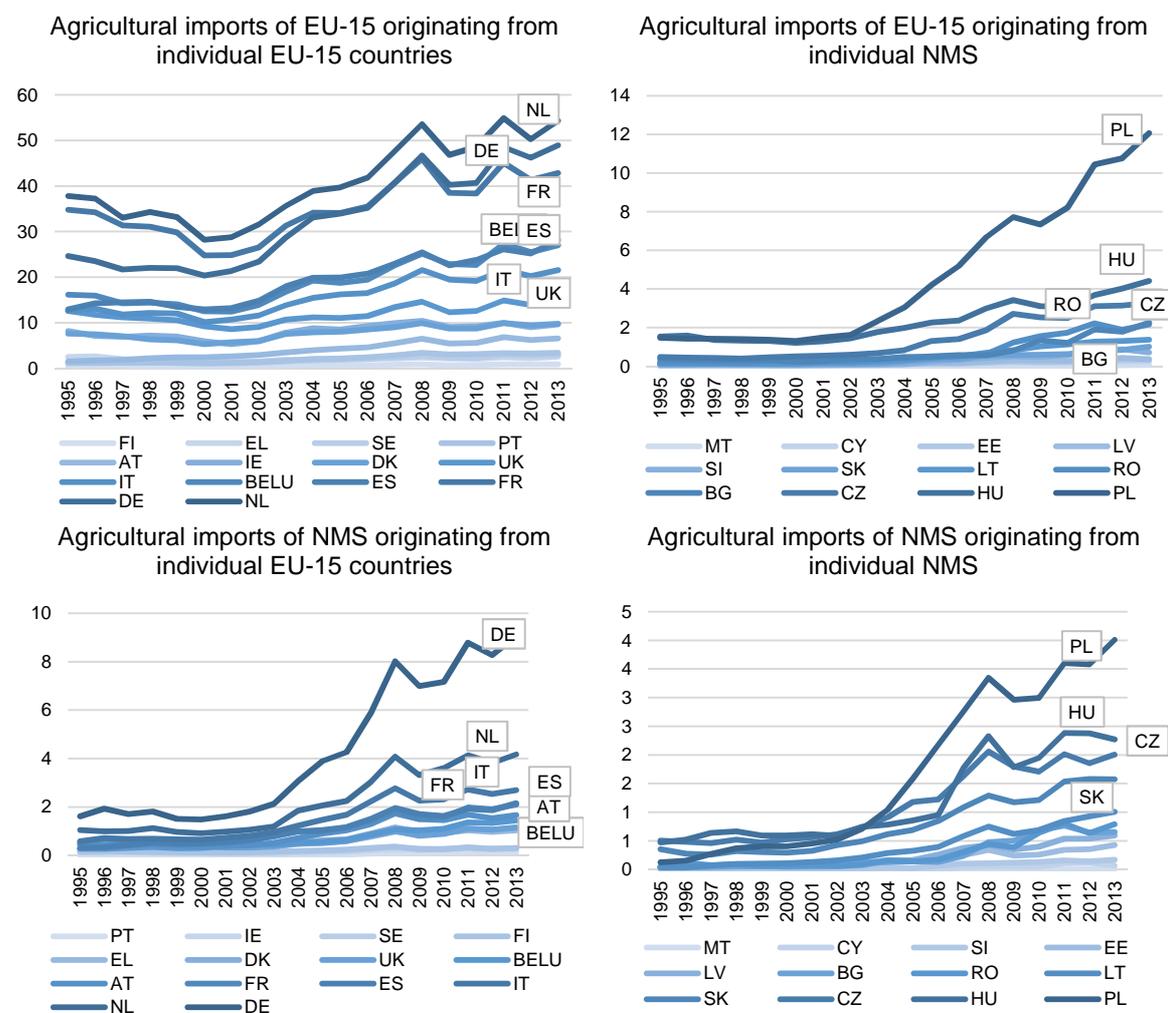
<sup>3</sup> For the selected period, WITS provides trade data for Belgium (BE) and Luxembourg (LU) separately until 1998 and reports the aggregate BELU from 1999 onwards. For comparability purposes, the aggregate BELU was also generated for the period 1995-1998.

<sup>4</sup> Usually, one speaks of the ‘Big 5’. However, regarding agricultural trade flows, Japan plays a minor role and was therefore excluded here.

It needs to be stressed that the change of Mercosur's share from 17% in 1996 to 21% in 2012 corresponds to almost a tripling of nominal import volumes from close to USD 11 billion to more than USD 30 billion in 2012. At first glance, this figure is impressive. Yet, when comparing it to the development of intra-EU-27 trade, it seems rather modest.

In 1996, intra-EU-27 imports of agricultural products made up 69%, with 66.5% attributed to EU-15 members and 2.4% to countries joining the EU later, in 2004 and 2007 respectively (NMS), corresponding to roughly USD 150 billion and USD 5.5 billion respectively. For 2012, this share was higher at 72%, with the EU-15 losing in weight while the NMS accounted for 8.7%. In absolute terms, EU-27 import levels from EU-15 more than doubled between 1996 and 2012, while those from NMS were eight times as high in 2012 compared to 1996 with USD 44 billion. This clearly points to the great impact of the removal of still existing barriers to trade for NMS after their accession to the EU.

**Figure 3 / Agricultural imports**



Source: UN Comtrade (WITS), GDP deflator: World Bank (2005=100); imports in billion USD; own calculations.

Eye-catching are the prominent roles that Germany and Poland play for both the EU-15 and the NMS, especially when taking a glance at indicators representing the economic and political importance of the

domestic agricultural sector. Using data from the World Bank (WDI) on agricultural value added in per cent of GDP, a clear downward trend is visible for both the EU-15 and the NMS. Referring to this indicator, among the later NMS the agricultural sector was most important in Romania, Bulgaria and Latvia in 1996 with shares of 20.6%, 14.6% and 7.4% respectively; this was still the case in 2010, however, with much lower shares of 6.4%, 4.9% and 4.1% respectively. In Poland, agricultural value added amounted to 7.5% in 1996 and decreased to 3.5% in 2010. Among EU-15 members, the highest share is reported for Greece with 3.2% in 2010, followed by Finland and the big agricultural lobbying powers in Europe, i.e. Spain, Portugal, Italy and France. For Germany, which features so prominently in Figure 3, agricultural value added equates to only 0.8% of GDP.

Another indicator of importance is the share of the economically active population in the agricultural sector, which was computed using data from FAOSTAT. Again, a clear decrease in shares is observable. However, here, Poland took the lead for the entire period with a share of 24% in 1996 and 17% in 2010, followed by Romania and Latvia. In 1996, there were only two countries among the later NMS showing shares below 9% (Slovenia and Malta), while among EU-15 members there were only three countries showing shares above 9%, namely Ireland (11%), Portugal (15%) and Greece (19%). For Germany, again, the agricultural sector seems of minor prominence with a share of 3% in 1996 and 1.6% in 2010<sup>5</sup>.

In short, the importance of the agricultural sector among EU-27 members decreased sharply over time; by contrast, trade flows practically exploded after 2001, which – as reported in Table 1 – is not simply a result of changing prices but can also clearly be attributed to higher ‘physical’ import volumes, i.e. tonnes imported. For least developed countries the agricultural sector is key for the fight against poverty and hunger and thus for achieving the ambitious Millennium Development Goals (Waage et al., 2010). Yet, although their export volumes to EU-27 members recovered after 2001 – reaching a level in 2012 similar to that of 1995 – and despite the EU’s generous trade preferences under the EBA initiative, they seem not to be able to catch up.

Keeping the patterns in Figure 3 in mind, one might come to the conclusion that stronger EU trade integration – especially with regards to the EU enlargements in 2004 and 2007 – might come at the cost of the least developed countries in the world. Considering the EU-15 Member States, this conclusion seems straightforward, given the removal of the trade barriers with East European countries, for which the domestic agricultural sector played a more important role, economically and politically. Yet, trade diversion effects away from LDCs seem to be proportionally higher for the NMS, for which agricultural imports from other NMS and imports originating from the EU-15 countries show similarly impressive developments.

Given the 10<sup>th</sup> anniversary of the EU enlargement of 2004 and the approaching deadline for MDG achievements for the world’s poor, more empirical evidence from the branch of research on Preferential Trade Agreements can be expected, evaluating and comparing two major effects for LDCs stemming from the EU enlargement: (1) the negative trade diversion effect and (2) the positive preference-granting effect. The former effect refers to the shift of EU-15 agricultural imports from the South to the East, but also to the shift of NMS agricultural imports from developing countries towards other NMS, and – somewhat surprisingly – towards EU-15 Member States. The latter effect refers to the preference-

<sup>5</sup> For both, agricultural value added in % of GDP and economically active population in the agricultural sector, only Belgium-Luxembourg and Great Britain show lower shares than Germany.

generating effect as NMS adopt pro-poor EU policies, treaties and non-reciprocal preferences towards developing countries. For example, the ambitious EBA initiative, which was established in 2001 and back then allowed LDCs to export everything but arms and ammunition quota- and duty-free to the EU-15, is now also valid for the EU-27. Similarly, the preferences under the Generalized System of Preferences (GSP) of the EU – the first scheme was applied in 1971 by its six EU members – are now granted by all 27 EU Member States. Evaluating which of the two effects prevails will allow assessing the EU's attitude towards the world's poorest.

## REFERENCES

European Communities (EC) (2010) (DG for Agriculture and Rural Development), 'Agriculture in the European Union. Statistical and Economic Information', Report 2009, January.

European Communities (EC) (2013) (DG for Agriculture and Rural Development), 'Agriculture in the European Union. Statistical and Economic Information', Report 2013, December.

European Communities (EC) (2014a), 'Factsheet: EU28 Agricultural trade with Extra-EU28' [14-02-2014], [http://ec.europa.eu/agriculture/trade-analysis/statistics/outside-eu/extra-eu28-factsheet\\_en.pdf](http://ec.europa.eu/agriculture/trade-analysis/statistics/outside-eu/extra-eu28-factsheet_en.pdf).

European Communities (EC) (2014b), 'Agricultural trade in 2013: EU gains in commodity exports', Monitoring Agri-trade Policy [MAP 2014-1].

United Nations (UN) (2014), 'The Millennium Development Goals Report 2014', retrieved from <http://www.un.org/en/development/desa/publications/mdg-report-2014.html>.

United Nations Conference on Trade and Development (UNCTAD) (2008), Generalized System of Preferences. Handbook on the scheme of the European Community, United Nations, New York and Geneva, Reference: UNCTAD/ITCD/TSB/Misc.25/Rev.3.

Waage, J., R. Banerji, O. Campbell, E. Chirwa, G. Collender, V. Dieltiens, A. Dorward, P. Godfrey-Faussett, P. Hanvoravongchai, G. Kingdon, A. Little, A. Mills, K. Mulholland, A. Mwinga, A. North, W. Patcharanarumol, C. Poulton, V. Tangcharoensathien and E. Unterhalter (2010), 'The Millennium Development Goals: a cross-sectoral analysis and principles for goal setting after 2015', *The Lancet*, Vol. 376, No. 9745, pp. 991-1023.

# Green industries for Europe: mission abandoned

BY ROMAN STÖLLINGER

Europe needs a coherent and more targeted industrial policy that has a clear long-term objective, provides a strong impetus for Europe's manufacturing sector and serves a commonly accepted societal objective. With the European Commission's removal of the renewable energies target from its suggested energy strategy for 2030, Europe risks missing a millennium opportunity for both environmental protection and for European industry.

In December 2013 the European Commission (rightfully) challenged the exemptions for large and energy-intensive enterprises from the 'EEG surcharge', a surcharge for the financing of renewable energy sources according to the German Renewables Energy Law (*Erneuerbare-Energien-Gesetz*). At the same time the Commission also gave green light to the public support to producers of renewable electricity granted under the EEG Act 2012 in the form of feed-in tariffs and market premia. While the German renewable energies legislation – itself part of the proclaimed German *Energiewende* – was considered to constitute state aid according to EU competition law, it was found to be in line with the 2008 guidelines on state aid for environmental protection<sup>1</sup>. This decision reflects what until recently could have been regarded as a landmark policy of the EU, i.e. the commitment to move away from a predominantly carbon-based economy and towards renewable energy sources. Table 1 shows that support for electricity from renewable energy sources is provided throughout Member States with subsidised feed-in tariffs, i.e. compensation for electricity from renewable energy sources at above market prices, being the most common policy tool.

The commitment to promoting renewable energies was not only enshrined in the EU's environmental policy but was also clearly visible in the Commission's latest industrial policy strategy. In its Industrial Policy Communication from October 2012, the European Commission commits itself to clean production (European Commission, 2012). The Communication defines six priority action lines, five of which are directly related to the challenge of climate change and the degradation of the environment: advanced manufacturing technologies for clean production, bio-based product markets, sustainable raw materials and resource efficiency, clean vehicles and vessels, and smart grids. All priority areas have been confirmed in January 2014 in the Commission's Communication on an industrial renaissance in Europe (European Commission, 2014).

In short, renewable energies and a further 'greening' of the economy seemed to be on the way to become a common European societal objective. Based upon that, an effective industrial policy strategy could be designed. This environmentally-orientated industrial strategy could then be used to support the development of new sustainable and energy-efficient technologies and products. It could simultaneously help to achieve the environmental objectives and strengthen the re-industrialisation process in Europe, providing a positive impetus for Europe's manufacturing sector.

---

<sup>1</sup> See [http://europa.eu/rapid/press-release\\_IP-13-1283\\_de.htm](http://europa.eu/rapid/press-release_IP-13-1283_de.htm).

**Table 1 / Feed-in tariffs for renewable energies across Member States, in euro cent per kWh**

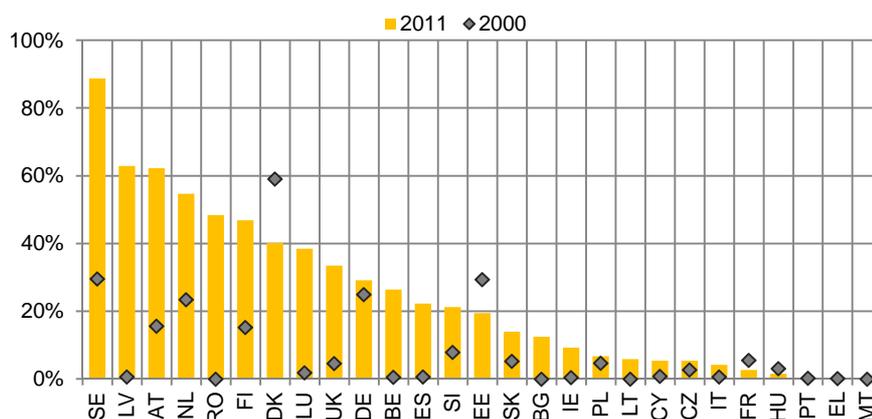
Country	Small hydro	wind onshore	wind offshore	solid biomass	biogas	photovoltaics	geothermal	(unweighted) average
Austria	3.23 - 10.55	9.45		8.90 - 20.00	12.90 - 19.50	16.59 - 18.12	7.43	11.96
Bulgaria	5.00 - 12.30	6.30 - 9.00		8.40 - 12.80	19.80 - 23.20	8.20 - 18.00		12.30
Cyprus		14.50		13.50	11.45	13.80		13.31
Croatia	7.48 - 15.70	9.30 - 9.50		11.80 - 17.00	14.70 - 18.60	21.65 - 34.50	15.80	15.99
Czech Republic	7.80 - 14.70	8.20		8.00 - 14.40	11.00 - 16.00	9.40 - 11.60	12.70	11.23
Denmark	1.00	3.00	5.00 - 14.00	11.00	8.00	5.00 - 8.00	6.90	6.56
Estonia	5.37	7.42	7.42	7.42	7.42	7.42	7.42	7.13
Finland		2.18		2.00	5.00			3.06
France	6.70 - 15.00	2.80 - 8.20	3.00 - 13.00	4.34 - 12.05	8.12 - 13.75	7.55 - 29.10	20.00 - 28.00	12.26
Germany	3.40 - 12.70	4.87 - 8.93	3.50 - 19.00	6.00 - 14.30	6.00 - 25.00	9.47 - 13.68	25.00 - 30.00	12.99
Greece	8.79 - 10.54	8.79 - 25.00		15.00 - 23.00	20.00 - 26.40	9.50 - 12.00	9.95 - 18.00	15.58
Hungary	4.42 - 12.11	4.42 - 12.11		3.54 - 12.11	4.42 - 12.11	4.82 - 10.84	3.54 - 12.11	8.05
Ireland	8.80	5.70 - 5.90	5.70 - 5.90	8.90 - 14.60	8.50 - 15.60			8.84
Italy	10.10 - 30.00	14.90 - 29.10	17.60	18.00 - 25.70	14.00 - 23.60	7.62 - 10.00	13.50	17.52
Lithuania	6.00 - 8.00	8.00 - 10.00		9.00 - 12.00	10.00 - 16.00	14.00 - 21.00		11.40
Luxembourg	8.50 - 10.50	8.27		11.00 - 14.50	12.00 - 15.00	26.40		14.08
Netherlands	6.20 - 15.00	8.75 - 15.30	8.75 - 18.75	6.99 - 14.71	6.99 - 13.35	7.00 - 14.80	6.99 - 8.63	10.87
Portugal	9.10 - 26.00	7.40 - 7.50		10.20 - 11.90	11.50 - 11.70	15.10 - 38.00	27.00	16.87
Slovakia	9.80 - 11.13	7.03		9.21 - 12.61	7.03 - 12.26	9.89	15.51	10.58
Slovenia	8.23 - 10.55	9.54		18.57 - 24.63	12.92 - 16.06	8.55 - 12.26	15.25	13.44
Spain	7.22 - 8.66	6.79 - 8.13		5.95 - 17.63	7.22 - 14.50	12.17 - 26.62	7.22 - 7.65	10.81

Source: RES LEGAL Europe (<http://www.res-legal.eu> as of 2 February 2014), wiiw-calculations.

Note: Belgium, Sweden, the United Kingdom and Poland provide support for renewable energy with a quota regulation in combination with a tradable green certificate (TGC) market. Latvia's feed-in tariff system is on hold. Figures are those for the most recent period available. Support for small hydro includes wave and tidal power stations. Average calculated as unweighted average. For categories with a bandwidth of support the average value is used for the calculation of the overall average.

Against this policy framework a large number of Member States shifted their state aid schemes towards environmental subsidies, including aid for environmental protection, renewable energy and green technologies. For example, most Member States have implemented environmental subsidy schemes including support for feed-in tariffs for renewable energies, subsidies granted to car manufacturers for the development of low emission vehicles or R&D programmes for green technologies. This tendency is also reflected in the European state aid statistics. The share of subsidies devoted to environmental protection and energy saving in the EU has grown to 22% in 2012<sup>2</sup>. While there is still a wide dispersion of the importance of 'green' subsidies in Member States' aid budgets, there is a clear upward tendency (Figure 4). In Sweden, the share of environmental subsidies amounted to almost 90% of total subsidies. Large and strongly growing aid budgets are also recorded for Latvia, Austria and the Netherlands. This development takes place under generally declining state aid spending in EU Member States.

**Figure 1 / Share of environmental aid in total aid (in %) across Member States, 2000 and 2011**



Source: European Commission State Aid Scoreboard, wiiw-calculations.

The EU's environmental targets adopted in 2008, known as the '20-20-20' targets, demand that by 2020 greenhouse gas emissions shrink by 20% (compared to 1990), energy efficiency improves by 20% and the share of renewable energies increases to 20%. Unfortunately, this last target has been dropped in the Commission's suggested '2030 framework for climate and energy'. If this is going to happen, Europe will miss a millennium opportunity to formulate a sufficiently concrete and targeted industrial strategy with three important characteristics: (i) a clear long-term objective, (ii) the potential to provide a strong impetus for European manufacturing, and (iii) a commonly accepted societal objective.

For decades both academics and the business community have been lamenting the missing focus in Europe's R&D-oriented industrial policy. Foresight studies regard this lack of focus as a serious shortcoming of European science and technology policy and suggest a new 'airbus strategy' (European Commission, 2006) which leads to the creation of 'industrial commons' (Pisano and Shih, 2009) and would be based on the development of technological leadership in key industries. Hence, a more targeted and focused policy with a long-term public commitment is called for. The renewables energy objective could have served as the underlying driving force for industrial policy providing the necessary

<sup>2</sup> See: European Commission State Aid Scoreboard ([http://ec.europa.eu/competition/state\\_aid/scoreboard/non\\_crisis\\_en.html](http://ec.europa.eu/competition/state_aid/scoreboard/non_crisis_en.html)).

demand-side support, in the form of public contracts for leading-edge products and development, and regulatory impetus. Both would have supported European industries' various areas, including nanotechnology, new materials, electrical equipment, energy storage, and transport, to name just a few. Finally, the long-term objective for industrial policy could have been embedded in a wider commonly-accepted societal objective, i.e. the protection of the environment and the mitigation of climate change. This last point is crucial as it makes public expenses, which are inextricably linked with any meaningful industrial policy, acceptable by European society without any needs for 'quick wins'. The prime example for the importance of such a societal objective in conducting a successful industrial policy is national defence in the United States. For decades the public opinion in the US accepted national defence as a public good, implying that the government was legitimately providing massive support to the military industry. This support included both large amounts of aid money and strong and reliable demand for new military technologies and products. This latter element was presumably the more important element in US defence-related industrial policy because the huge public procurement contracts for US military firms provided the necessary incentive to invest in long-term R&D programmes and the development of marketable products.

Given the EU's seemingly strong political commitment to environmental protection and the mitigation of climate change, a long-term industrial policy targeted at the development of clean products and clean technologies would be a logical candidate. However, in the current Commission proposal the renewable energies objective is to be dropped and the responsibility for how to achieve the emission reduction targets is being relegated to the Member States. This may jeopardise the legal status of existing support schemes for renewable energies and play into the hands of vested interests that will propagate existing technologies such as nuclear energy and will aggravate the technological lock-in effects which keep Europe trapped in a bad energy-generation equilibrium for decades. Such lock-in effects have been detected, for example, in the technological trajectories of car manufacturers where high-emission patents tend to generate more high-emission innovations (Aghion et al., 2010).

Europe needs a coherent industrial policy strategy also to correct unsustainable technological trajectories – and not only on paper. The elimination of the renewable energies objective is definitely a step in the wrong direction, for both the environment and European industry.

## REFERENCES

Aghion, P., A. Dechezlepretre, D. Hemous, R. Martin and J. Van Reenen (2010), 'Path Dependence in Clean Versus Dirty Innovation: Evidence from the Automotive Industry', unpublished manuscript.

European Commission (2006), Emerging Science and Technology Priorities in Public Research Policies in the EU, the US and Japan, [http://ec.europa.eu/research/social-sciences/pdf/ntw-emerging-report\\_en.pdf](http://ec.europa.eu/research/social-sciences/pdf/ntw-emerging-report_en.pdf).

European Commission, (2012), A Stronger European Industry for Growth and Economic Recovery, Industrial Policy Communication Update, COM(2012)582/3, 10 October.

European Commission (2014), Communication: For a European Industrial Renaissance, Commission Communication, COM(2014)14/2.

Pisano, G. P. and W. C. Shih (2009), 'Restoring American Competitiveness', Harvard Business Review, Vol. 87, July-August, pp. 114-125.

# Determinants of SMEs' funding obstacles – a comparative analysis of EU-15 and NMS-13 countries

BY SANDRA LEITNER AND MAREK ROJICEK\*

## INTRODUCTION

The pecking order theory of financing postulates that due to financial market imperfections, external financing is more expensive than internal financing. Hence, firms prefer internal financing to debt financing and, finally, to equity financing. By and large, empirical evidence corroborates this financing hierarchy but also shows that firms appear to adhere to a particular ordering in debt financing, with bank finance dominating as the single most important external financing source, followed by trade credits and leasing finance, or that trade credits are important substitutes for bank financing for credit-constrained firms.<sup>1</sup>

However, some firms have more difficulties in accessing external finance than others. For instance, small and medium-sized enterprises (SMEs) are found to face strong financing obstacles<sup>2</sup> which stymies their growth. This is important, since SMEs play a significant role in the EU economy. In 2012, they accounted for 99.8% of all non-financial enterprises, provided around 67% of jobs and generated almost 60% of the gross value added in the non-financial business economy (EC, 2013). Moreover, SMEs are important in terms of knowledge generation and research and innovation performance.

Against this backdrop, the analysis uses a unique dataset which differentiates between different degrees of external funding constraints of SMEs located in the EU-28. It takes a comparative approach and analyses the EU-15 and the EU-13 separately. Moreover, the analysis focuses on bank credits and trade loans as the two most important sources of external finance and identifies particular firm and country characteristics that render access to external finance more or less likely. The results demonstrate, among other things, that even though credit-constrained SMEs may in theory resort to trade finance, in practice, some firms – in particular young ones – face similar constraints when trying to access trade credits.

## DATA SOURCE AND CHARACTERISTICS

The analysis uses firm-level data from the survey on the access of finance of small and medium-sized enterprises (SAFE) collected in the EU on behalf of the European Central Bank and the European Commission (DG Enterprise and Industry). The survey has been carried out since 2009 on a bi-annual

---

\* Marek Rojicek is a BA student at the University of Bristol.

<sup>1</sup> See e.g. Beck et al. (2008) for evidence of the pecking theory of financing for a large set of developed and developing countries, or Carbó-Valverde et al. (2013) for evidence of trade credits as a substitute for bank credits among SMEs.

<sup>2</sup> See e.g. Álvarez and Crespi (2011); Beck et al. (2005); Beck and Demirgüç-Kunt (2006); Beck et al. (2006).

basis in a number of selected euro-area countries. Starting from 2009, a more comprehensive survey on all EU members plus some neighbouring countries is carried out every second year. The latest comprehensive survey, conducted between August and October 2013, is used for this analysis which focuses on the group of EU-28 Member States only. Samples in the dataset are stratified by firm size class<sup>3</sup>, economic activity<sup>4</sup> and country.

The SAFE micro-dataset is unique as it allows to differentiate between different degrees of external funding constraints, determined by the extent of financing received relative to the sum requested. In particular, loan or credit applicants are considered (i) to be 'unconstrained' if all of the financing requested was received (100%); (ii) to face 'minor constraints' if they received between 75% and 99% of the requested sum; (iii) to experience 'major constraints' if they received only between 1% and 75% of the requested sum; and (iv) to be 'rejected' if they received nothing.<sup>5</sup> This is in contrast to previous studies which were only able to differentiate between 'approval' and 'rejection'. As such, this unique dataset provides a more detailed insight into the more complex credit application and approval processes which are characterised by distinct funding obstacles previous studies failed to take into account.

All in all, 14,859 firms were interviewed for the survey of which 13,855 are located in the EU-28. Around 32% of all firms in the EU-28 are micro firms, 32% are small firms, around 27% are medium-sized while the remaining 9% are large. For the purpose of the analysis, only funding obstacles of SMEs are analysed, restricting the total sample to 12,666 firms, of which 30% are located in the NMS while the remaining 70% are located in the EU-15. The data show that in general, in the NMS, fewer firms applied for either bank loans or trade credits: in the NMS, around 20% applied for bank loans and 17% applied for trade credits while in the EU-15, around 26% of firms applied for bank loans and 20% applied for trade credits. Moreover, of those who applied, in both the EU-15 and the NMS, around 30% experienced some sort of funding obstacle while the remaining 70% remained unconstrained. Generally, a rejection is more likely for applicants for bank loans than for trade credits, irrespective of the country sample considered: in both the EU-15 and the NMS, around 12% of applicants experienced a rejection of their application for a bank loan while only around 5% experienced a rejection of their application for a trade credit.

Methodologically, given the unordered nature of possible outcomes in the credit application process, ranging from (i) 'unconstrained' to (ii) 'minor constraints', (iii) 'major constraints' and (iv) 'rejected', a multinomial logit approach is applied which uses the scenario of unconstrained access to external funding as a reference. It identifies particular firm and country characteristics which – relative to the base scenario – render the probability of the different possible outcomes more or less likely.

---

<sup>3</sup> The following firm-size classes are used, based on the number of employees: micro firms: 1-9 employees, small firms: 10-49 employees, medium-sized firms: 50-249 employees.

<sup>4</sup> Economic activity is captured by the following four largest sectors, according to NACE Rev. 1.1: industry (mining and quarrying – C, manufacturing – D, electricity, gas and water supply – E); construction (construction – F); trade (wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods – G); services (hotels and restaurants – H, transport, storage and communication – I, real estate, renting and business activities – K, education – M, health and social work – N, and other community, social and personal service activities – O).

<sup>5</sup> The additional option 'applied but refused because cost too high' was set to missing to put a clear focus of the analysis on external constraints.

## ESTIMATION RESULTS (A): FIRM CHARACTERISTICS

As will be demonstrated in Leitner and Stehrer (forthcoming), the analysis points to interesting commonalities in the way firm characteristics affect the probability that SMEs face some kind of external financing constraints. For instance, our findings suggest that longer-standing debtor-creditor relationships which help build trust and a sound reputation with outside creditors are conducive to successful credit application processes. In particular, SMEs with a more long-term bank loan or trade credit history are found to be less likely to have their applications for either bank loans or trade credits rejected, irrespective of the country sample considered.

Moreover, results also point to interesting commonalities between types of external funding sources within country samples and highlight that young age is generally a disadvantage for SMEs which seek access to external funds in the form of either bank loans or trade credits. In the EU-15, younger SMEs (i.e. less than 5 years of age) are generally more likely to experience a rejection of their bank loan or trade credit applications. In the NMS, this negative age effect is less pronounced: young SMEs are more likely to only face minor constraints to both bank credits and trade credits.

We also find interesting differences between the EU-15 and the NMS. For instance, in contrast to SMEs located in the EU-15, those located in the NMS are less likely to experience either a minor bank credit constraint or a rejection of their trade credit application if they are part of a profit-oriented enterprise (for instance, in terms of a subsidiary or branch) and can therefore more easily resort to either internal funds to repay their credits or to larger assets to liquidate their debts. Similarly, in accordance with previous empirical evidence (e.g. Álvarez and Crespi, 2011), small size is more of an impediment for SMEs in the NMS where they are more likely to face minor bank loan constraints.

Furthermore, the gender of the owner appears to matter in the bank loan or trade credit approval process. On the one hand, female owners in the EU-15 are more likely to see their trade credit applications rejected, while female owners in the NMS, on the other hand, are at an advantage as they are less likely to face major bank loan funding obstacles.

Relative to the EU-15, innovators in the NMS face more difficulties in acquiring trade credits. In particular, 'process innovators only' located in the NMS are more likely to have their trade credit applications rejected while 'product and process innovators' are more likely to face major constraints when applying for trade credits. In the EU-15, by contrast, 'process innovators only' are found to be less likely to see their trade credit applications rejected.

We also find evidence of asymmetric responses of banks to a change in the applicant's own capital. In both the EU-15 and the NMS, an improvement in SMEs' own capital renders a rejection of a bank loan application less likely. However, banks respond differently to a deterioration of SMEs' own capital: in the EU-15, SMEs are more likely to experience minor and major constraints but are also more likely to see their applications rejected while in the NMS, SMEs are more likely to face minor constraints only.

## ESTIMATION RESULTS (B): COUNTRY CHARACTERISTICS

The analysis also points to the role of country-level characteristics for bank loan and trade credit constraints. In particular, for the EU-15, there is evidence that SMEs located in countries with higher real

GDP growth rates are less likely to have their bank credit applications rejected or their trade credit applications restricted. No such effect emerges for the NMS, though.

For bank credits, we also tested whether the banking market structure affects the availability of SME financing as SMEs may benefit from the stronger presence of smaller banks in the banking sector which more strongly engage in relationship lending<sup>6</sup> and might therefore be more willing to provide loans to smaller firms. Our results point to interesting differences between the EU-15 and the NMS in this respect. In particular, in the EU-15, a stronger presence of smaller banks in the banking sector renders the rejection of an application for bank credits of SMEs less likely while the opposite is observable in the NMS where SMEs are more likely to see their applications for bank credits rejected if there is a strong presence of smaller banks in the banking sector. Hence, in the NMS, smaller banks appear more reluctant to lend to SMEs.

Finally, our results also highlight that access to both bank loans and trade credits is significantly more difficult for SMEs located in particular countries of the EU-15 or the NMS. More specifically, our analysis shows that SMEs located in the EU-15-South, comprising Greece, Italy, Portugal and Spain, as well as those located in the Baltics, tend to have a harder time getting access to bank loans.

## REFERENCES

- Álvarez, R. and G. Crespi (2011), 'Financing Gaps, Innovation Gaps?: New Evidence from Chile', paper presented at the 2011 Globelics Conference.
- Beck, T., A. Demirgüç-Kunt and V. Maksimovic (2005), 'Financial and Legal Constraints to Firm Growth: Does Firm Size Matter?', *Journal of Finance*, Vol. 60, No. 1, pp. 137–177.
- Beck, T. and A. Demirgüç-Kunt (2006), 'Small and Medium-Size Enterprises: Access to Finance as a Growth Constraint', *Journal of Banking and Finance*, Vol. 30, No. 11, pp. 2931-2943.
- Beck, T., A. Demirgüç-Kunt, L. Laeven and V. Maksimovic (2006), 'The Determinants of Financing Obstacles', *Journal of International Money and Finance*, Vol. 25, No. 6, pp. 932-952.
- Beck, T., A. Demirgüç-Kunt and V. Maksimovic (2008), 'Financing patterns around the world: Are small firms different?', *Journal of Financial Economics*, Vol. 89, No. 3, pp. 467-487.
- Carbó-Valverde, S., F. Rodríguez-Fernández and G. F. Udell (2013), 'Trade credit, the financial crisis, and SME access to finance', paper presented at the 26th Australasian Finance and Banking Conference 2013.
- European Commission (2013), A Recovery on the Horizon? Annual Report on European SMEs 2012/13, Final Report.
- Leitner, S. and R. Stehrer (forthcoming), 'Determinants of SMEs' funding obstacles by type of funding – a comparative analysis of EU-15 and NMS-13 countries', *wiiw Working Paper*.
- Ongena, S. and D. Smith (2000), 'Bank relationships: A survey', in P. Harker and S. A. Zenios (eds), *The Performance of Financial Institutions*, Cambridge University Press.

<sup>6</sup> Describes a credit financing situation characterised by strong ties between firms and banks and a relationship '... that goes beyond the execution of simple, anonymous, financial transactions' (Ongena and Smith, 2000).

## The editors recommend for further reading\*

Ukrainian economy: <http://soberlook.com/2014/09/ukraine-on-brink.html>

Meta analysis on fiscal multipliers: [http://www.boeckler.de/pdf/p\\_imk\\_wp\\_139\\_2014.pdf](http://www.boeckler.de/pdf/p_imk_wp_139_2014.pdf)

Giavazzi and Tabellini on jump-starting the EU economy: <http://www.voxeu.org/article/what-macroeconomic-policies-eurozone>

Draghi explains policy changes: <http://www.ecb.europa.eu/press/pressconf/2014/html/is140904.en.html>

Stephen Williamson on ECB policies and theories of inflation:  
<http://newmonetarism.blogspot.co.at/2014/09/theories-of-inflation-and-european.html>

Going beyond Calvo:  
<http://www.voxeu.org/article/modelling-sticky-prices-and-monetary-shocks>

Acemoglu, Gancia and Zilibotti on offshoring being beneficial all around in the long run:  
<http://www.voxeu.org/article/offshoring-and-skill-biased-technical-change>

Acemoglu, Autor, Dorn, Hanson and Price on China and US manufacturing:  
<http://www.voxeu.org/article/rise-china-and-future-us-manufacturing>

Lance Taylor has compiled a symposium of papers that offer structuralist criticism of Piketty:  
<http://www.economicpolicyresearch.org/index.php/inet-sustainability/1489-structuralist-analysis-of-capital-in-the-twenty-first-century>

Krugman on Keynes and models and still some more:  
[http://krugman.blogs.nytimes.com/2014/09/11/their-own-imaginary-keynes-wonkish/?\\_php=true&\\_type=blogs&module=BlogPost-Title&version=Blog%20Main&contentCollection=Opinion&action=Click&pgtype=Blogs&region=Body&\\_r=0#](http://krugman.blogs.nytimes.com/2014/09/11/their-own-imaginary-keynes-wonkish/?_php=true&_type=blogs&module=BlogPost-Title&version=Blog%20Main&contentCollection=Opinion&action=Click&pgtype=Blogs&region=Body&_r=0#)

Robert J. Gordon on a new way to estimate potential growth: <http://nber.org/papers/w20423>

Straub and Werning on Chamley-Judd being wrong on taxing capital in the long run:  
[https://dl.dropboxusercontent.com/u/125966/reappraisal%20chamley-judd\\_aug.pdf](https://dl.dropboxusercontent.com/u/125966/reappraisal%20chamley-judd_aug.pdf)

Acemoglu and Robinson on strong and weak states: <http://whynationsfail.com/blog/2014/9/18/a-model-of-the-alternative-perspective.html>

On Arab despotism: <http://www.nybooks.com/articles/archives/2014/oct/09/pillars-arab-despotism/?insrc=toc>

An interview with Francis Fukuyama: <http://www.prospectmagazine.co.uk/blogs/jonathan-derbyshire/francis-fukuyama-i-think-were-in-for-a-really-rough-period-over-the-next-few-years>

A review of the new book by Kissinger: [http://www.nytimes.com/2014/09/14/books/review/henry-kissingers-world-order.html?\\_r=0](http://www.nytimes.com/2014/09/14/books/review/henry-kissingers-world-order.html?_r=0)

Cass Sunstein on historical counterfactuals: <http://www.newrepublic.com/article/119357/altered-pasts-reviewed-cass-r-sunstein>

---

\* Recommendation is not necessarily endorsement.

## New wiiw Handbook of Statistics forthcoming

As a wiiw Member you will receive your free copy of the wiiw Handbook of Statistics (including a CD ROM with PDF files of the same content as the book) at the end of November / beginning of December.

By the same date, the **electronic version** of the book will be available. It offers **MS-Excel tables** (on CD-ROM or to be downloaded online) **with longer time series**, from 1990 onwards, permitting a wide range of own analyses according to your needs. (A PDF file with the content of the hardcopy is included).

For subscribers to the new Premium Membership, the electronic version is included in their package.

Upon publication, you may place your order via the internet, [wiiw.ac.at](http://wiiw.ac.at) (> Publications), where you will find a detailed description of the Handbook of Statistics, illustrated by sample tables.

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

Monthly and quarterly statistics for Central, East and Southeast Europe

**NEW: Starting from September 2014 the statistical annex has acquired a new look.**

The annex covers **19 countries** of the CESEE region. The new graphical form of presenting statistical data is intended to facilitate the **analysis of short-term macroeconomic developments**. The set of indicators captures tendencies in the real sector, pictures the situation in the labour market and inflation, reflects fiscal and monetary policy changes, and depicts external sector development.

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

## Conventional signs and abbreviations used

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

The following national currencies are used:

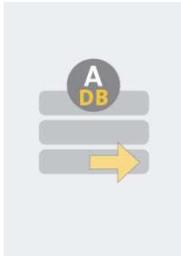
ALL	Albanian lek	HUF	Hungarian forint	RON	Romanian leu
BAM	Bosnian convertible mark	KZT	Kazakh tenge	RSD	Serbian dinar
BGN	Bulgarian lev	LTL	Lithuanian litas	RUB	Russian rouble
CZK	Czech koruna	MKD	Macedonian denar	UAH	Ukrainian
	hryvnia				
HRK	Croatian kuna	PLN	Polish zloty		

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), 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.

Access: **New online database access!** (see overleaf)

### New online database access



**wiiw Annual Database**



**wiiw Monthly Database**



**wiiw FDI Database**

The wiiw databases are now accessible via a simple web interface, with only one password needed to access all databases (and all wiiw publications). We have also relaunched our website with a number of improvements, making our services more easily available to you.

You may access the databases here: <http://data.wiiw.ac.at>.

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

### New service package available

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

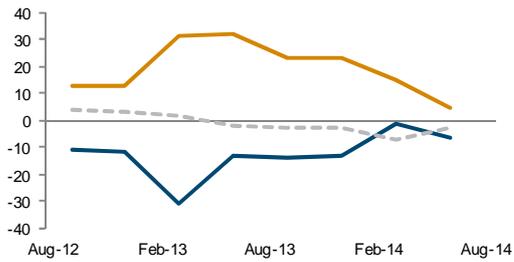
For more information on database access for Members and on Membership conditions, please contact Ms. Gabriele Stanek ([stanek@wiiw.ac.at](mailto:stanek@wiiw.ac.at)), phone: (+43-1) 533 66 10-10.

# Albania

## Real sector development

cumulated annual growth rate in %

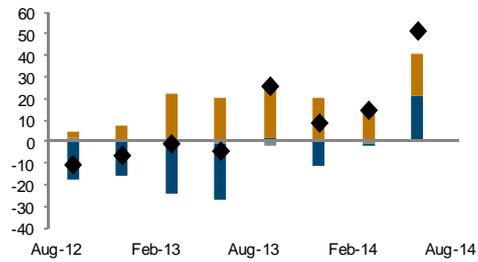
- Industry
- Construction
- - - Employed persons (reg.)



## Unit labour costs in industry

annual growth rate in %

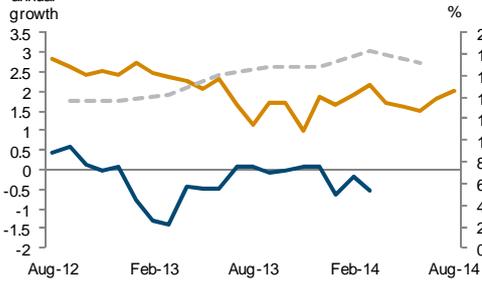
- Wages nominal, gross
- Exchange rate
- Productivity\*
- ◆ Unit labour costs



## Inflation and unemployment

in %

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



## Fiscal and monetary policy

Left scale:

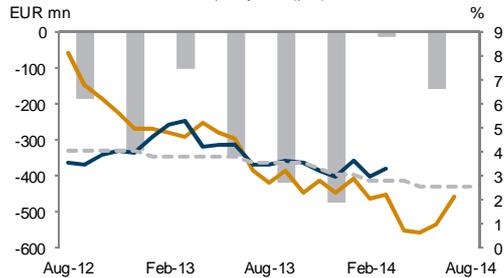
General gov. budget balance, cumulated

Right scale:

M2, annual growth rate

Central bank policy rate (p.a.), real, defl. with annual PPI

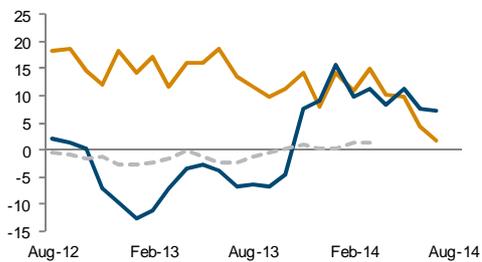
Central bank policy rate (p.a.)



## External sector development

annual growth rate in %

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



## External finance

EUR bn

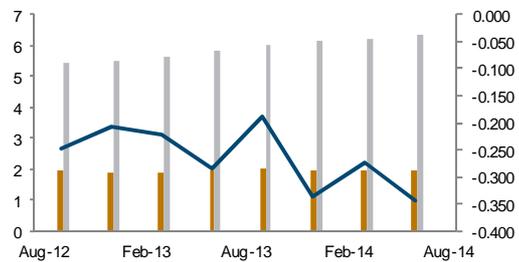
Left scale:

Gross reserves of NB excl. gold

Gross external debt

Right scale:

Current account



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

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

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

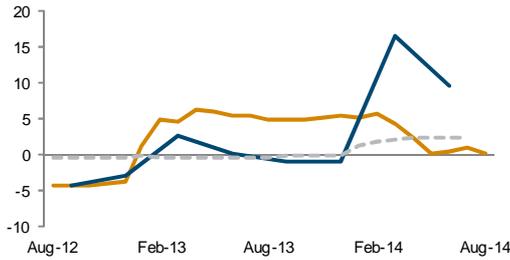
<http://data.wiiw.ac.at/monthly-database.html>

# Bosnia and Herzegovina

## Real sector development

cumulated annual growth rate in %

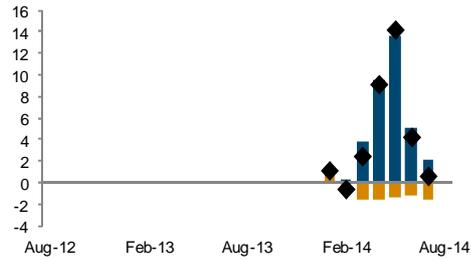
- Industry
- Construction
- - - Employed persons (reg.)



## Unit labour costs in industry

annual growth rate in %

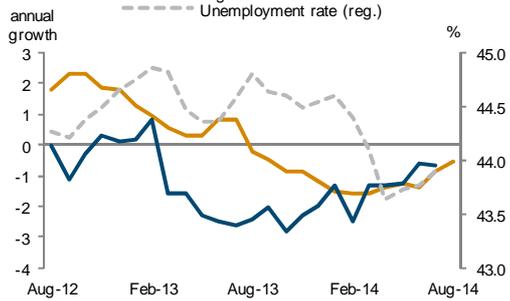
- Wages nominal, gross
- Productivity\*
- ◆ Unit labour costs



## Inflation and unemployment

in %

- Left scale: Consumer prices
- Producer prices in industry
- Right scale: Unemployment rate (reg.)



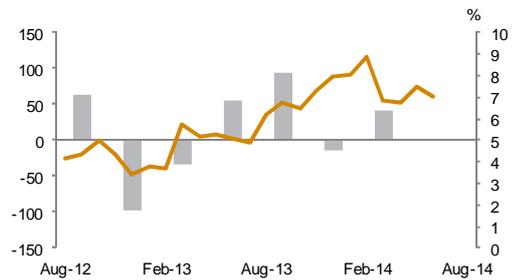
## Fiscal and monetary policy

Left scale:

- General gov. budget balance, cumulated

Right scale:

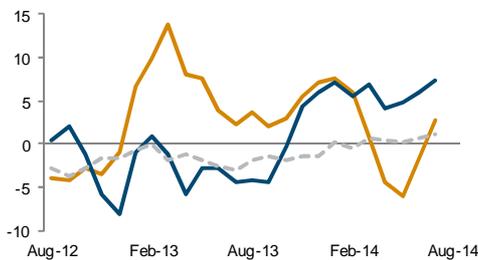
- M2, annual growth rate



## External sector development

annual growth rate in %

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



## External finance

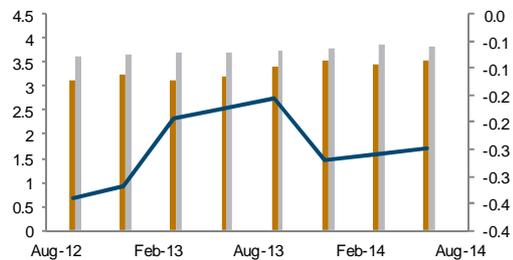
EUR bn

Left scale:

- Gross reserves of NB excl. gold
- Gross external debt (public)

Right scale:

- Current account



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

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

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

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

# Bulgaria

## Real sector development

cumulated annual growth rate in %

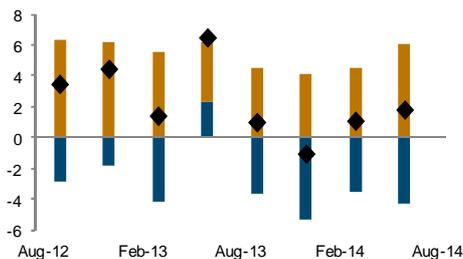
- Industry
- Construction
- - - Employed persons (LFS)



## Unit labour costs in industry

annual growth rate in %

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



## Inflation and unemployment

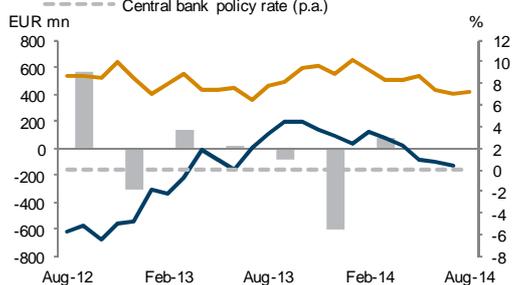
in %

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



## Fiscal and monetary policy

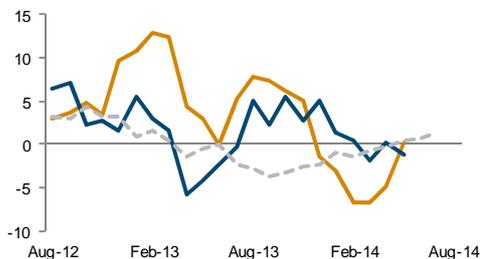
- Left scale: General gov. budget balance, cumulated
- Right scale: Broad money, annual growth rate
- Central bank policy rate (p.a.), real, defl. with annual PPI
- - - Central bank policy rate (p.a.)



## External sector development

annual growth rate in %

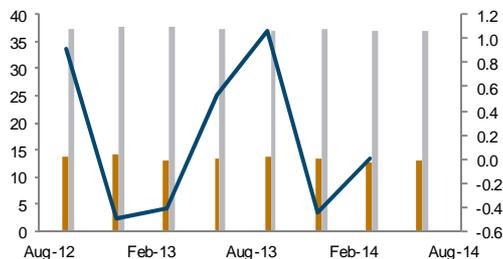
- Exports total, 3-month moving average
- Imports total, 3-month moving average
- - - Real exchange rate EUR/BGN, PPI deflated



## External finance

EUR bn

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



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

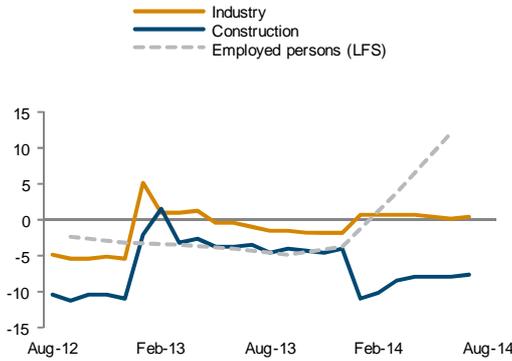
Source: wiiw Monthly Database incorporating Eurostat and national statistics.

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

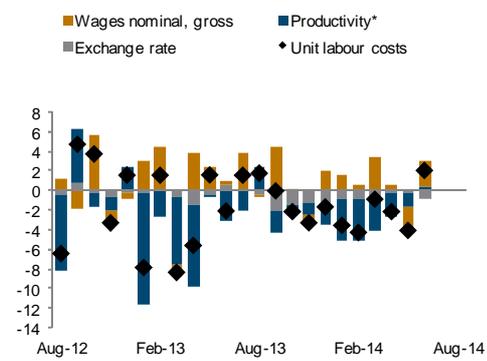
<http://data.wiiw.ac.at/monthly-database.html>

# Croatia

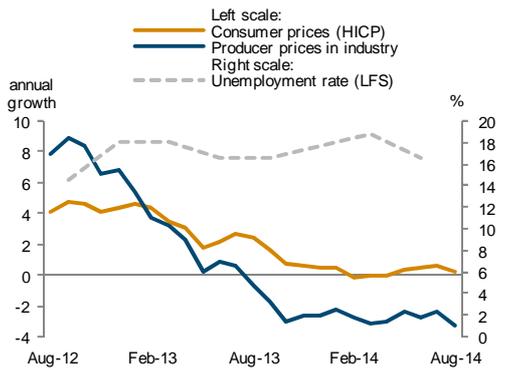
**Real sector development**  
cumulated annual growth rate in %



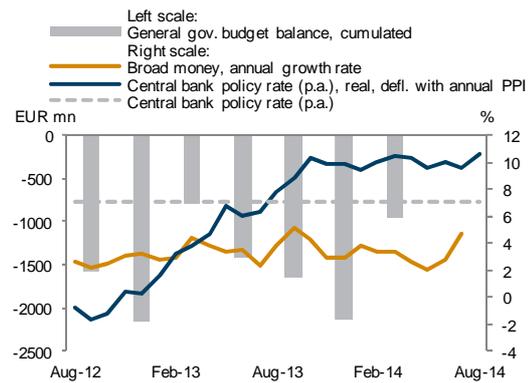
**Unit labour costs in industry**  
annual growth rate in %



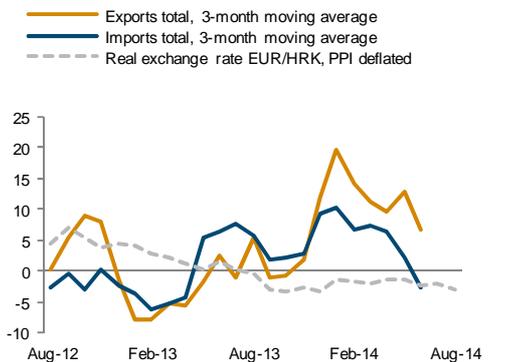
**Inflation and unemployment**  
in %



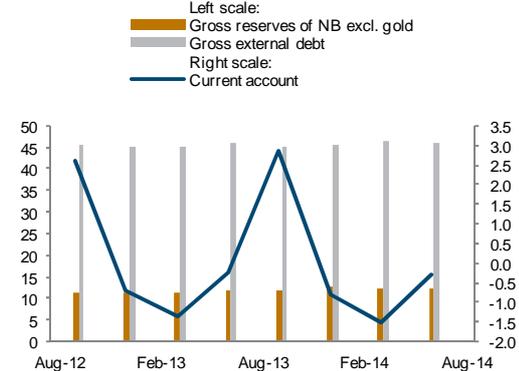
**Fiscal and monetary policy**



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



**External finance**  
EUR bn



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

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

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

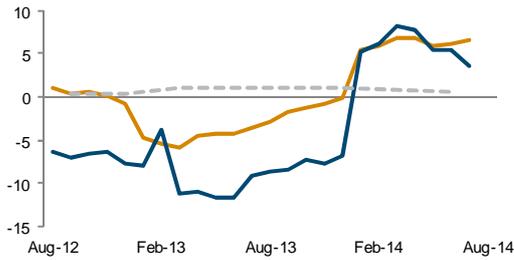
<http://data.wiiw.ac.at/monthly-database.html>

# Czech Republic

## Real sector development

cumulated annual growth rate in %

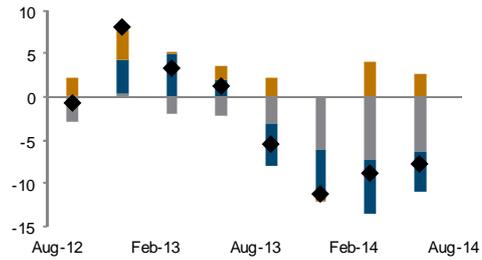
- Industry
- Construction
- Employed persons (LFS)



## Unit labour costs in industry

annual growth rate in %

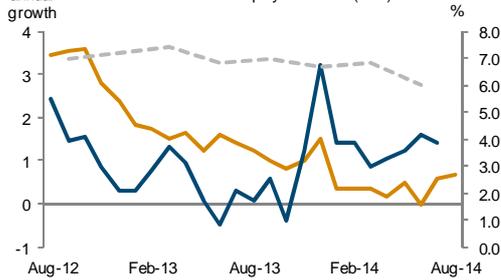
- Wages nominal, gross
- Exchange rate
- Productivity\*
- Unit labour costs



## Inflation and unemployment

in %

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



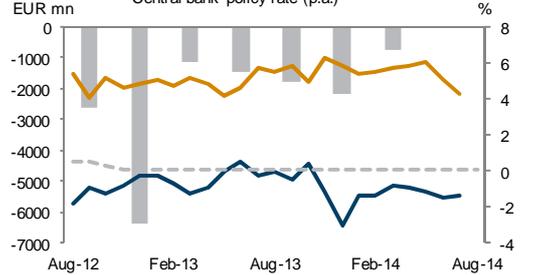
## Fiscal and monetary policy

Left scale: General gov. budget balance, cumulated

Right scale: Broad money, annual growth rate

Central bank policy rate (p.a.), real, defl. with annual PPI

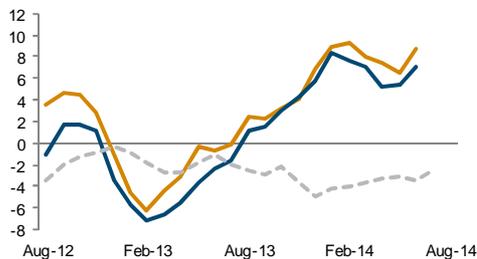
Central bank policy rate (p.a.)



## External sector development

annual growth rate in %

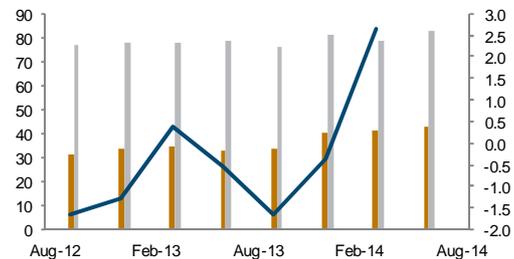
- Exports total, 3-month moving average
- Imports total, 3-month moving average
- Real exchange rate EUR/CZK, PPI deflated



## External finance

EUR bn

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



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

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

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

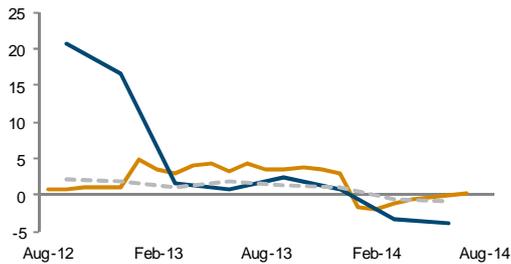
<http://data.wiiw.ac.at/monthly-database.html>

# Estonia

## Real sector development

cumulated annual growth rate in %

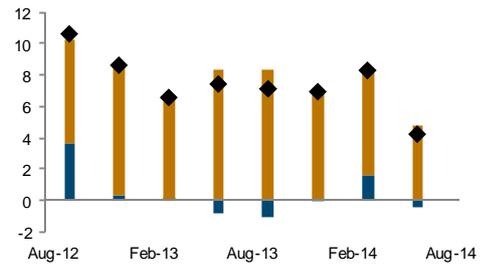
— Industry  
— Construction  
- - - Employed persons (LFS)



## Unit labour costs in industry

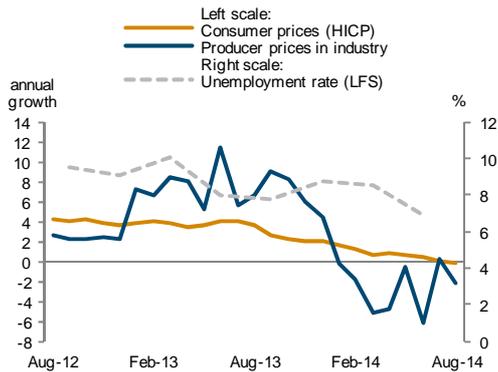
annual growth rate in %

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

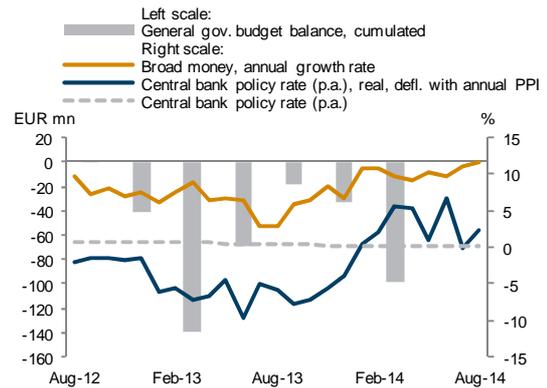


## Inflation and unemployment

in %



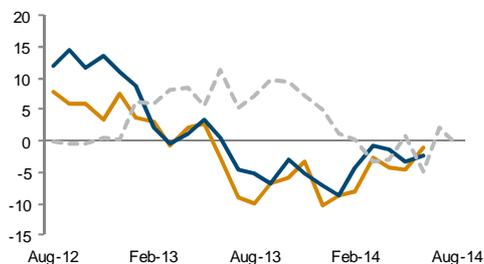
## Fiscal and monetary policy



## External sector development

annual growth rate in %

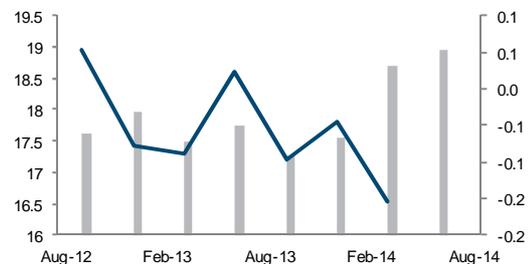
— Exports total, 3-month moving average  
— Imports total, 3-month moving average  
- - - Real exchange rate EUR/EUR, PPI deflated



## External finance

EUR bn

Left scale:  
■ Gross external debt  
Right scale:  
— Current account



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

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

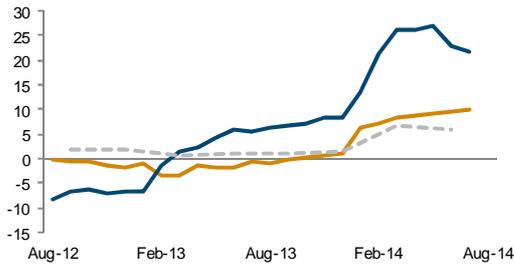
Baseline data, country-specific definitions and methodological breaks in time series are available under:  
<http://data.wiiw.ac.at/monthly-database.html>

# Hungary

## Real sector development

cumulated annual growth rate in %

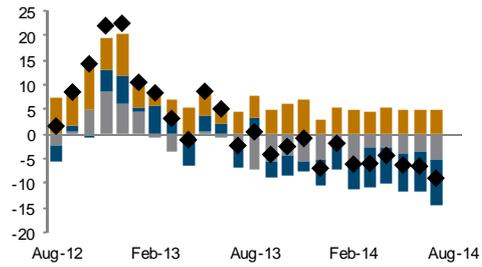
- Industry
- Construction
- - - Employed persons (LFS)



## Unit labour costs in industry

annual growth rate in %

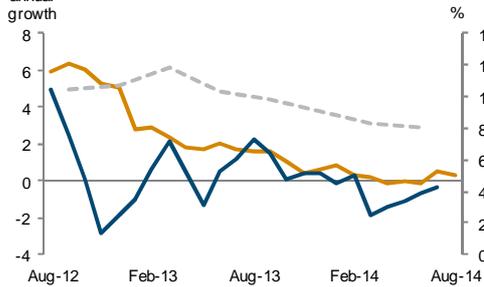
- Wages nominal, gross
- Exchange rate
- Productivity\*
- ◆ Unit labour costs



## Inflation and unemployment

in %

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



## Fiscal and monetary policy

Left scale:

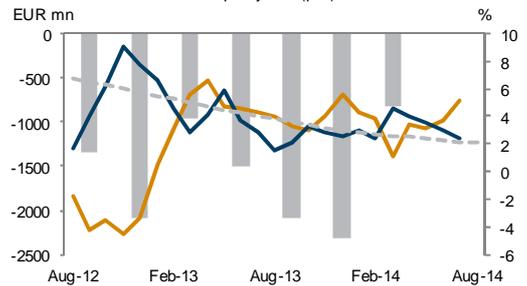
General gov. budget balance, cumulated

Right scale:

Broad money, annual growth rate

Central bank policy rate (p.a.), real, defl. with annual PPI

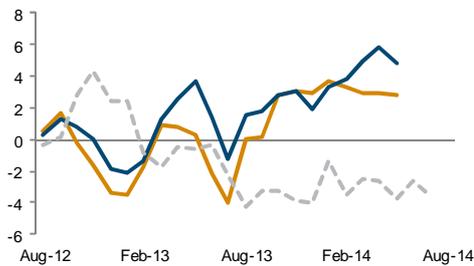
Central bank policy rate (p.a.)



## External sector development

annual growth rate in %

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



## External finance

EUR bn

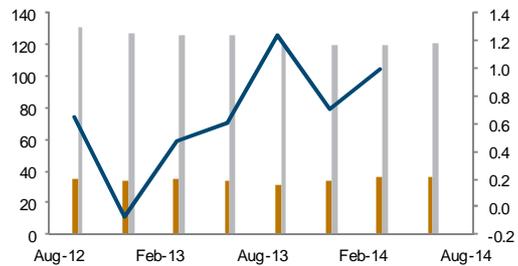
Left scale:

Gross reserves of NB excl. gold

Gross external debt

Right scale:

Current account



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

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

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

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

# Kazakhstan

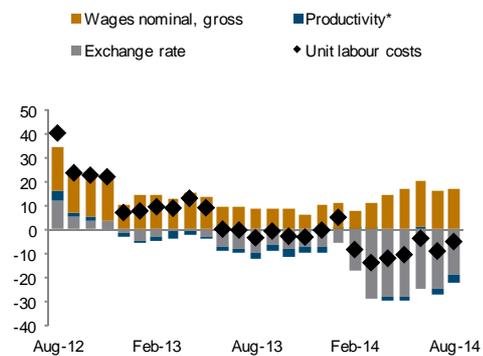
## Real sector development

cumulated annual growth rate in %



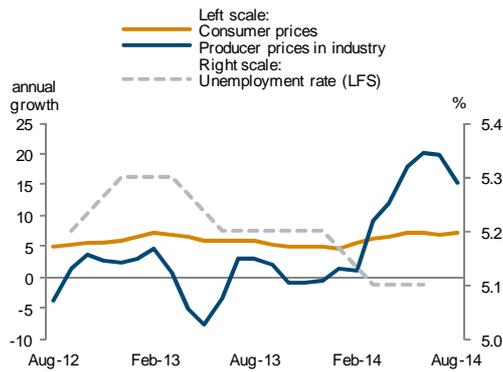
## Unit labour costs in industry

annual growth rate in %

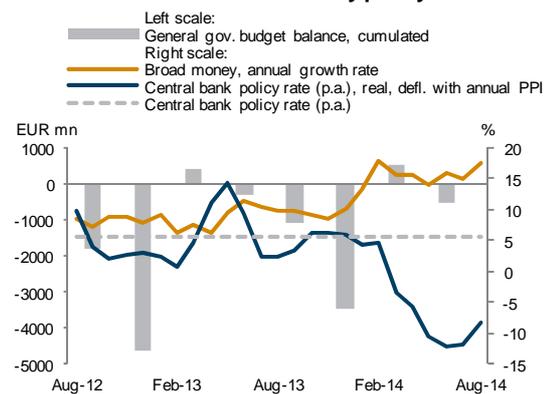


## Inflation and unemployment

in %

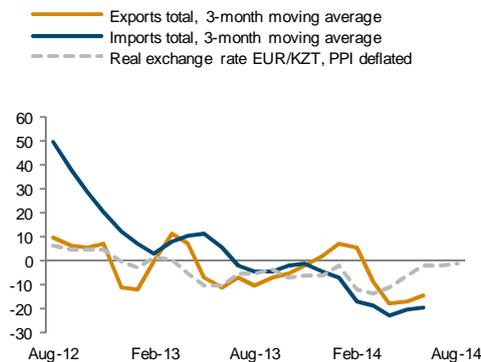


## Fiscal and monetary policy



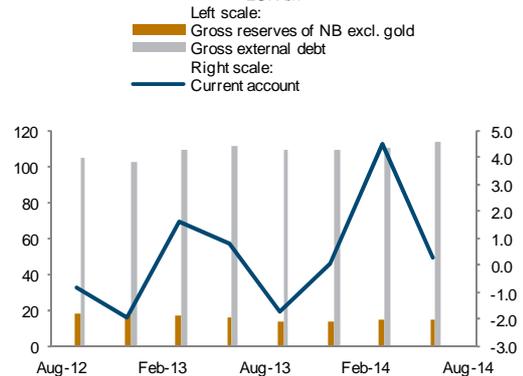
## External sector development

annual growth rate in %



## External finance

EUR bn



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

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

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

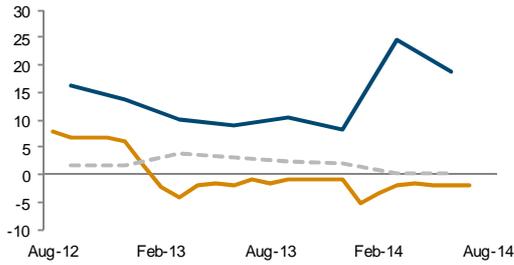
<http://data.wiiw.ac.at/monthly-database.html>

# Latvia

## Real sector development

accumulated annual growth rate in %

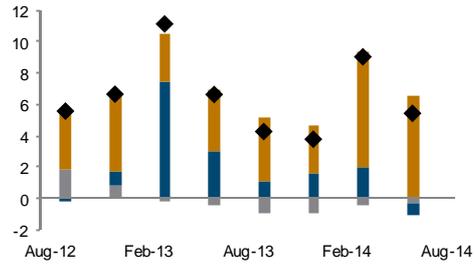
- Industry
- Construction
- Employed persons (LFS)



## Unit labour costs in industry

annual growth rate in %

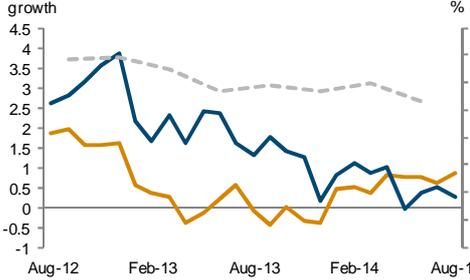
- Wages nominal, gross
- Productivity\*
- Exchange rate
- Unit labour costs



## Inflation and unemployment

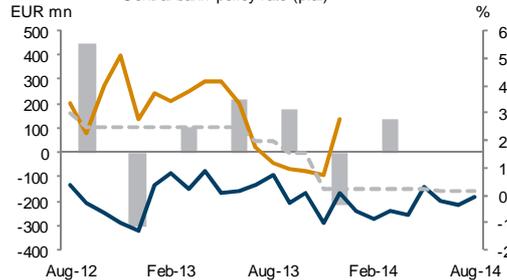
in %

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



## Fiscal and monetary policy

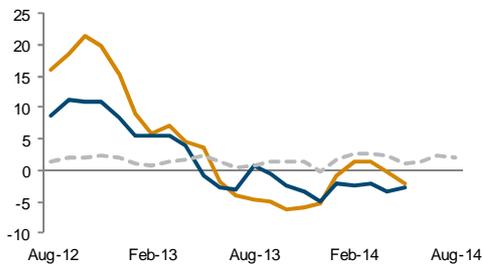
- Left scale:
  - General gov. budget balance, cumulated
- Right scale:
  - Broad money, annual growth rate
  - Central bank policy rate (p.a.), real, defl. with annual PPI
  - Central bank policy rate (p.a.)



## External sector development

annual growth rate in %

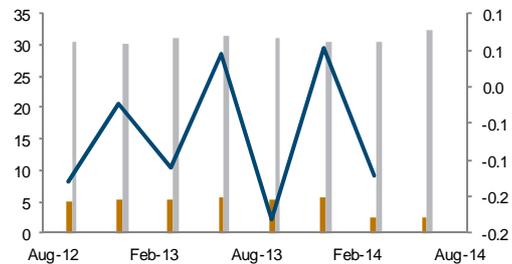
- Exports total, 3-month moving average
- Imports total, 3-month moving average
- Real exchange rate EUR/EUR-LVL, PPI deflated



## External finance

EUR bn

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



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

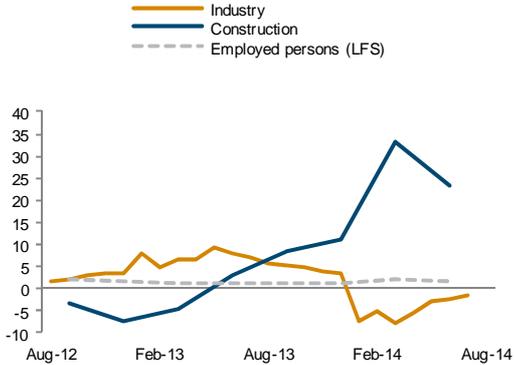
Source: wiiw Monthly Database incorporating Eurostat and national statistics.

Baseline data, country-specific definitions and methodological breaks in time series are available under:  
<http://data.wiiw.ac.at/monthly-database.html>

# Lithuania

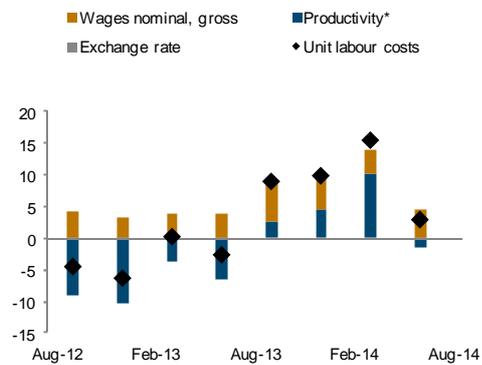
## Real sector development

cumulated annual growth rate in %



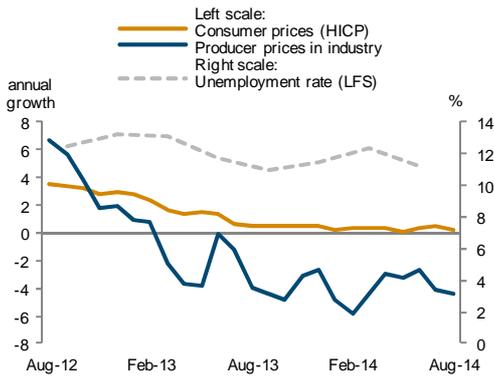
## Unit labour costs in industry

annual growth rate in %

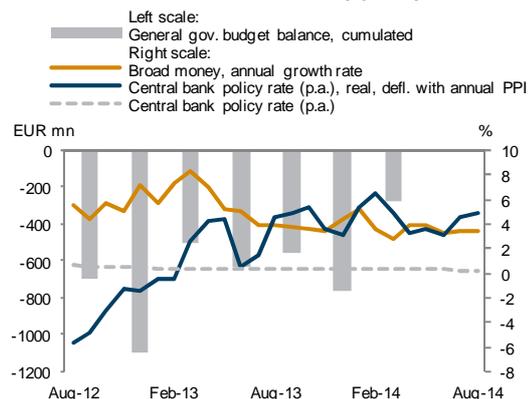


## Inflation and unemployment

in %

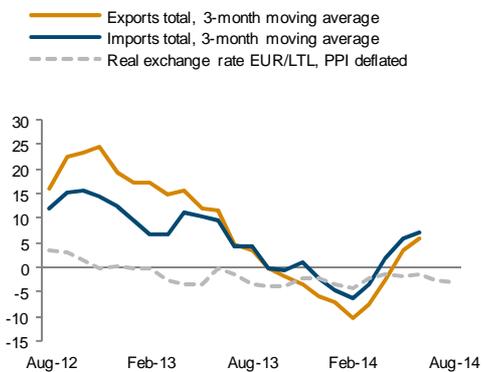


## Fiscal and monetary policy



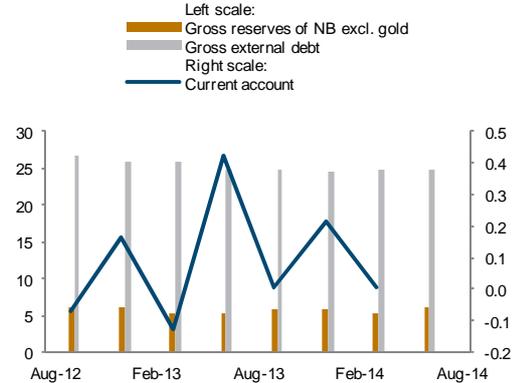
## External sector development

annual growth rate in %



## External finance

EUR bn



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

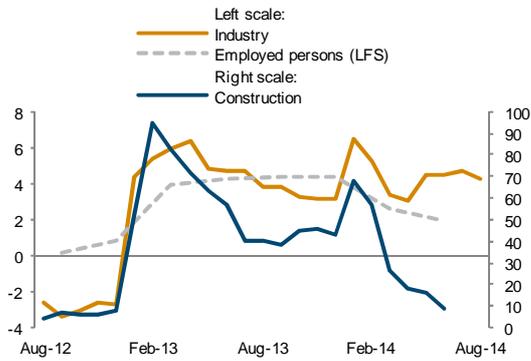
Source: wiiw Monthly Database incorporating Eurostat and national statistics.

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

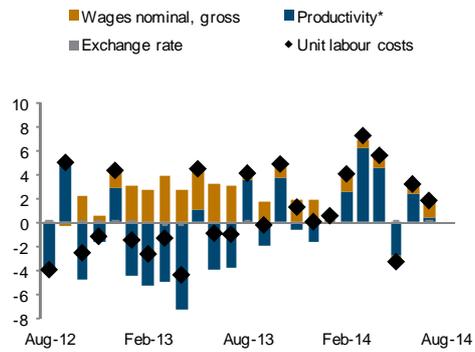
<http://data.wiiw.ac.at/monthly-database.html>

# Macedonia

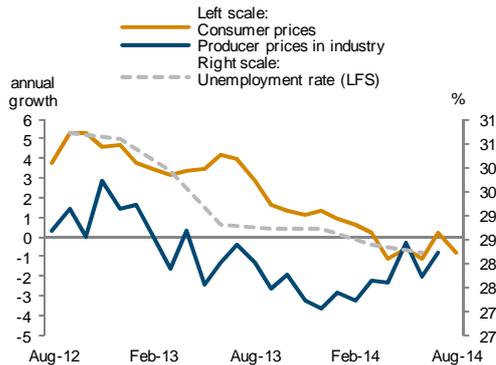
**Real sector development**  
cumulated annual growth rate in %



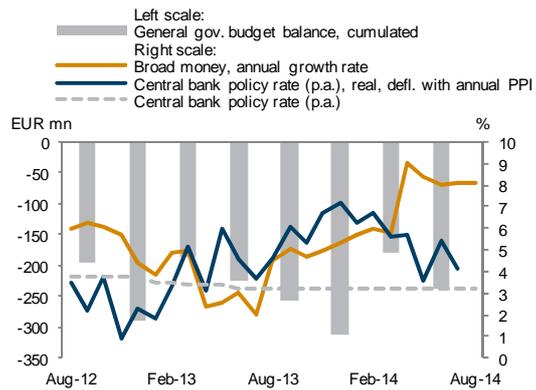
**Unit labour costs in industry**  
annual growth rate in %



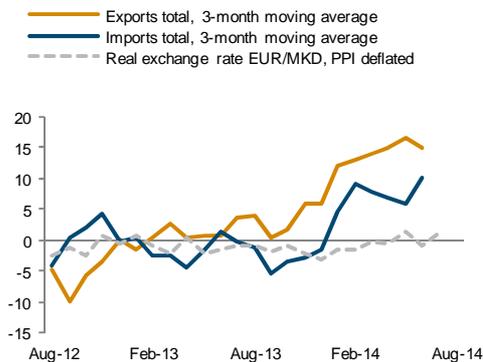
**Inflation and unemployment**  
in %



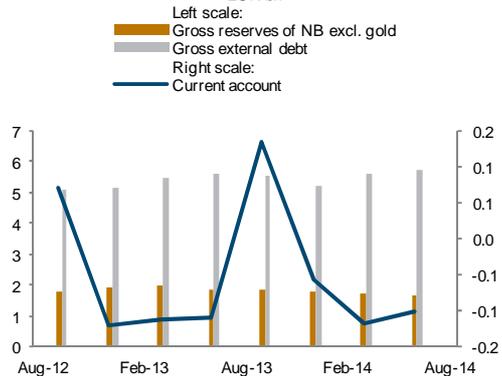
**Fiscal and monetary policy**



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



**External finance**  
EUR bn



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

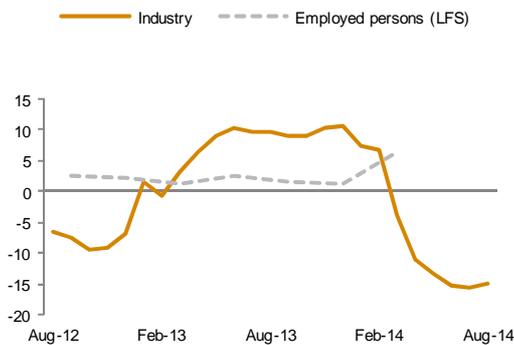
Source: wiiw Monthly Database incorporating Eurostat and national statistics.

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

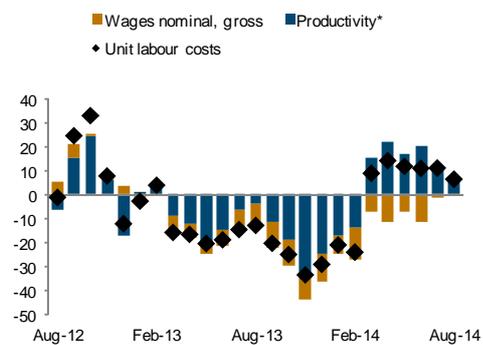
<http://data.wiiw.ac.at/monthly-database.html>

# Montenegro

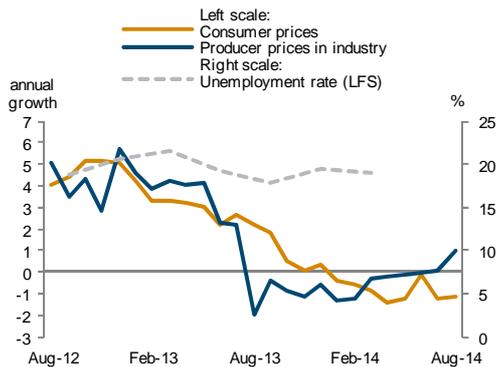
**Real sector development**  
cumulated annual growth rate in %



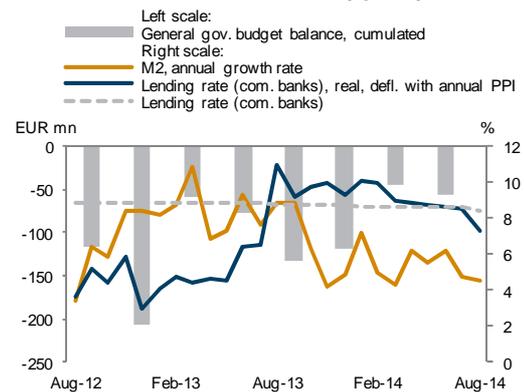
**Unit labour costs in industry**  
annual growth rate in %



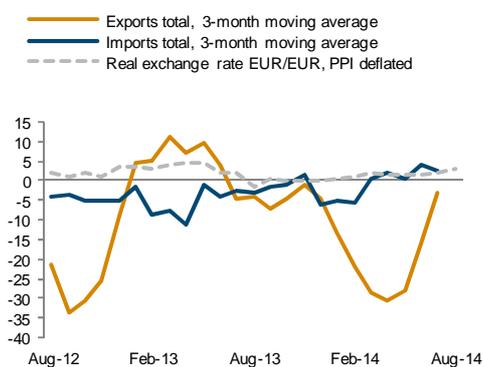
**Inflation and unemployment**  
in %



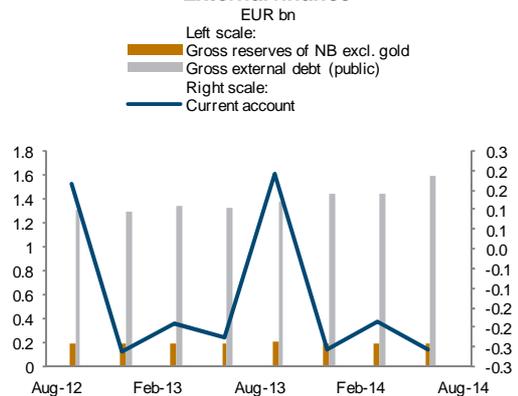
**Fiscal and monetary policy**



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



**External finance**



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

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

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

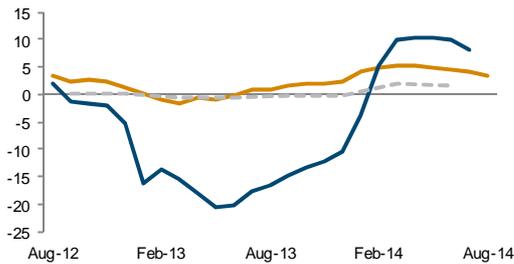
<http://data.wiiw.ac.at/monthly-database.html>

# Poland

## Real sector development

cumulated annual growth rate in %

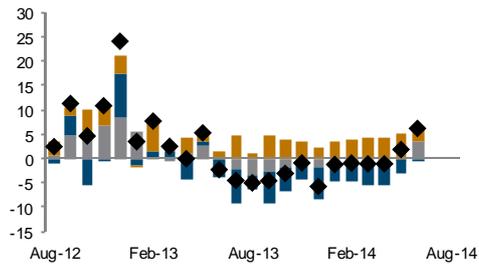
- Industry
- Construction
- - - Employed persons (LFS)



## Unit labour costs in industry

annual growth rate in %

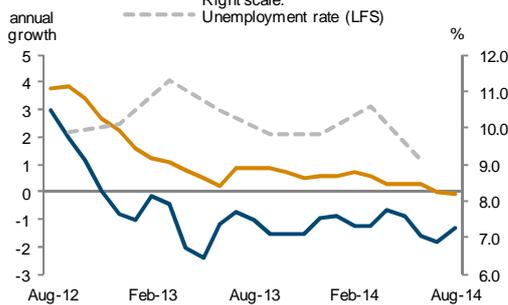
- Wages nominal, gross
- Exchange rate
- Productivity\*
- ◆ Unit labour costs



## Inflation and unemployment

in %

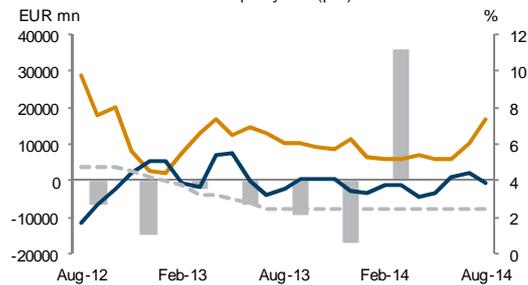
- Left scale:
  - Consumer prices (HICP)
  - Producer prices in industry
- Right scale:
  - - - Unemployment rate (LFS)



## Fiscal and monetary policy

Left scale:

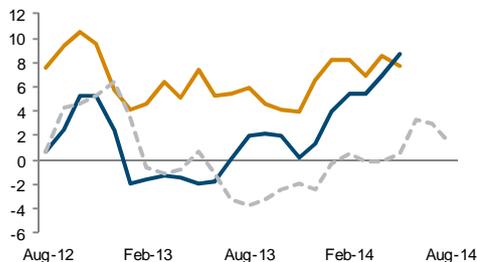
- General gov. budget balance, cumulated
- Right scale:
  - Broad money, annual growth rate
  - Central bank policy rate (p.a.), real, defl. with annual PPI
  - - - Central bank policy rate (p.a.)



## External sector development

annual growth rate in %

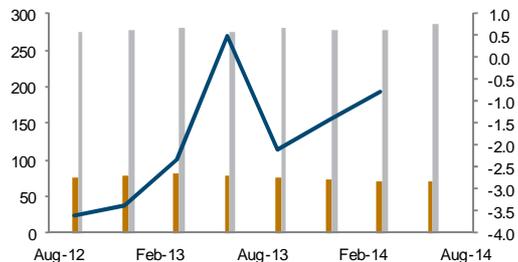
- Exports total, 3-month moving average
- Imports total, 3-month moving average
- - - Real exchange rate EUR/PLN, PPI deflated



## External finance

EUR bn

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



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

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

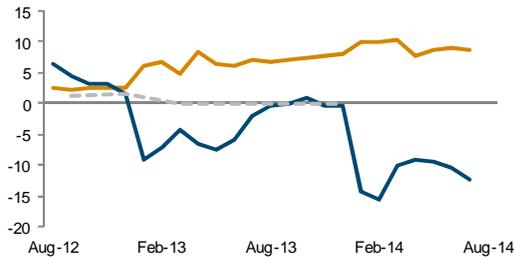
Baseline data, country-specific definitions and methodological breaks in time series are available under: <http://data.wiiw.ac.at/monthly-database.html>

# Romania

## Real sector development

cumulated annual growth rate in %

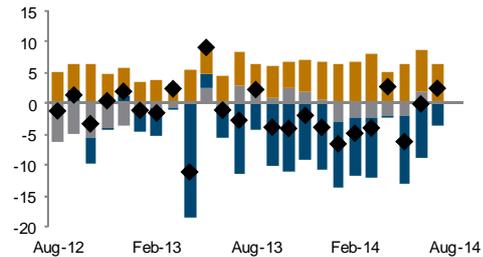
— Industry  
— Construction  
- - - Employed persons (LFS)



## Unit labour costs in industry

annual growth rate in %

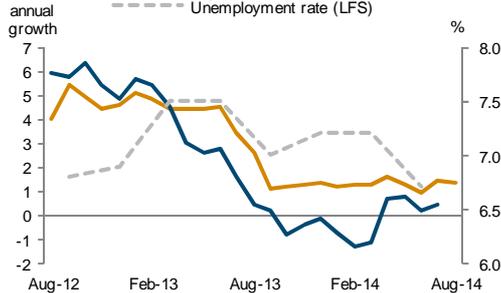
■ Wages nominal, gross ■ Productivity\*  
■ Exchange rate ◆ Unit labour costs



## Inflation and unemployment

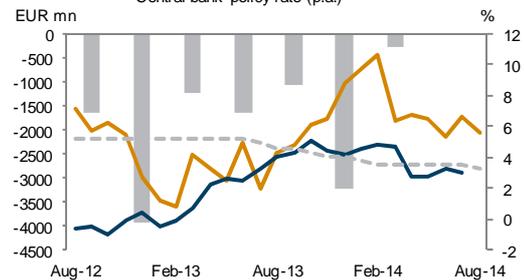
in %

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



## Fiscal and monetary policy

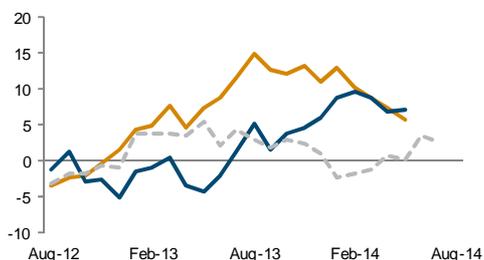
Left scale:  
■ General gov. budget balance, cumulated  
Right scale:  
— Broad money, annual growth rate  
— Central bank policy rate (p.a.), real, defl. with annual PPI  
- - - Central bank policy rate (p.a.)



## External sector development

annual growth rate in %

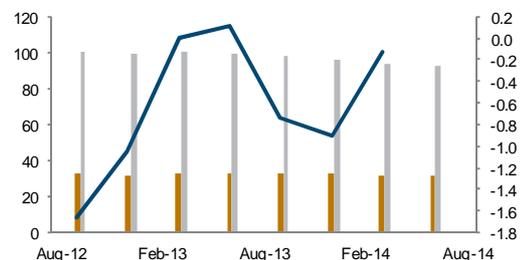
— Exports total, 3-month moving average  
— Imports total, 3-month moving average  
- - - Real exchange rate EUR/RON, PPI deflated



## External finance

EUR bn

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



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

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

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

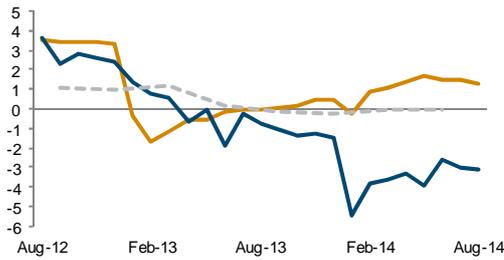
<http://data.wiiw.ac.at/monthly-database.html>

# Russia

## Real sector development

cumulated annual growth rate in %

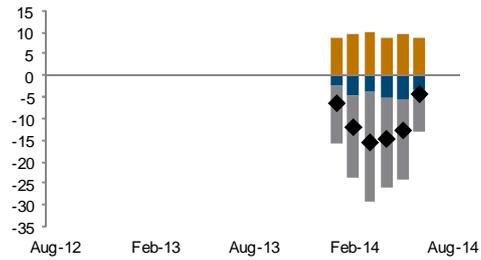
- Industry
- Construction
- - - Employed persons (LFS)



## Unit labour costs in industry

annual growth rate in %

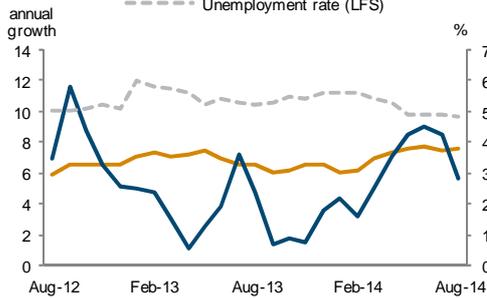
- Exchange rate
- Productivity\*
- Wages nominal, manuf., gross
- ◆ Unit labour costs



## Inflation and unemployment

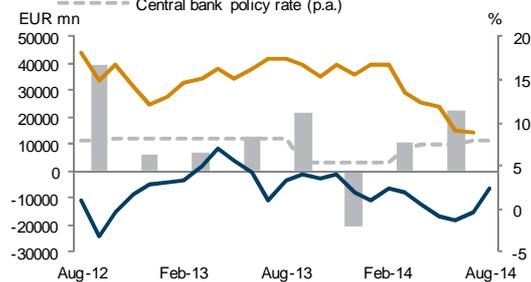
in %

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



## Fiscal and monetary policy

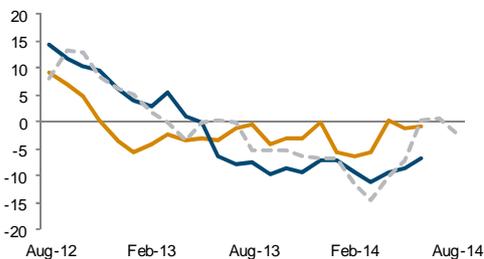
- Left scale: General gov. budget balance, cumulated
- Right scale: M2, annual growth rate
- Central bank policy rate (p.a.), real, defl. with annual PPI
- - - Central bank policy rate (p.a.)



## External sector development

annual growth rate in %

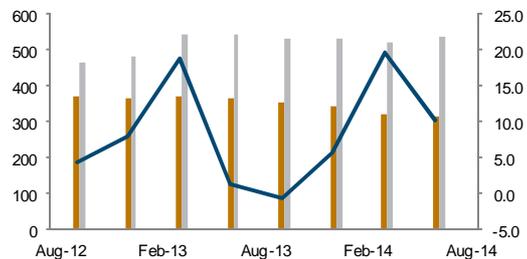
- Exports total, 3-month moving average
- Imports total, 3-month moving average
- - - Real exchange rate EUR/RUB PPI deflated



## External finance

EUR bn

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



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

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

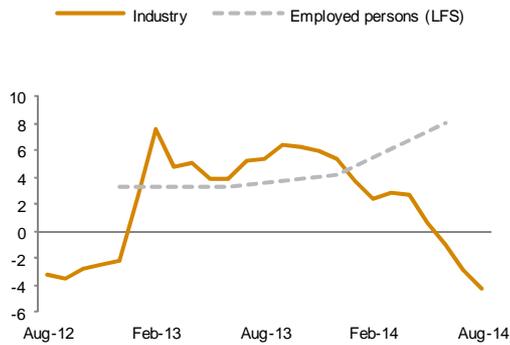
Baseline data, country-specific definitions and methodological breaks in time series are available under:

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

# Serbia

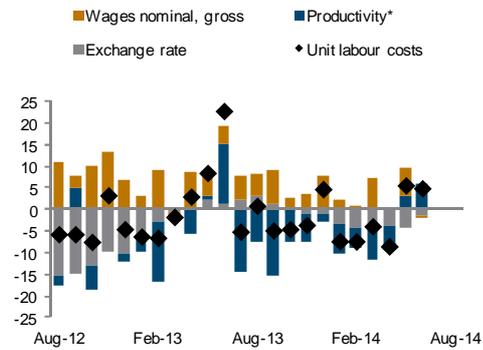
## Real sector development

cumulated annual growth rate in %



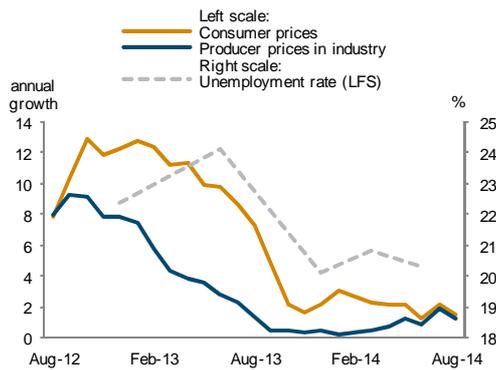
## Unit labour costs in industry

annual growth rate in %

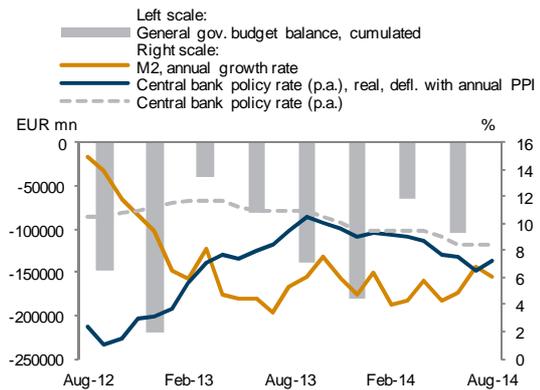


## Inflation and unemployment

in %

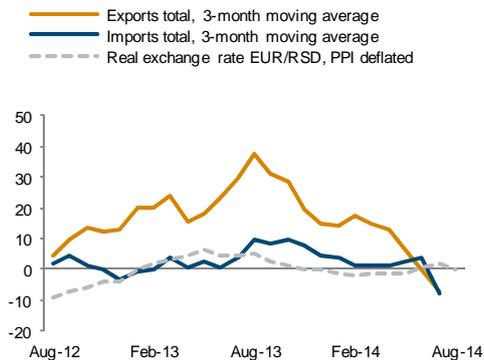


## Fiscal and monetary policy



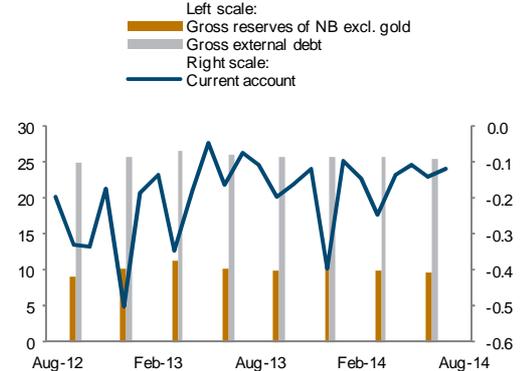
## External sector development

annual growth rate in %



## External finance

EUR bn



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

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

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

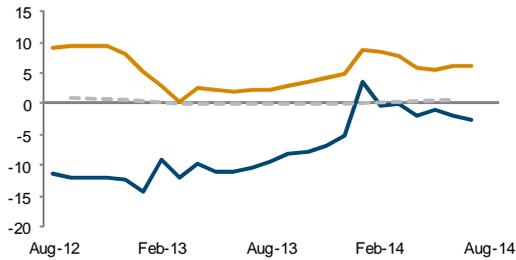
<http://data.wiiw.ac.at/monthly-database.html>

# Slovakia

## Real sector development

cumulated annual growth rate in %

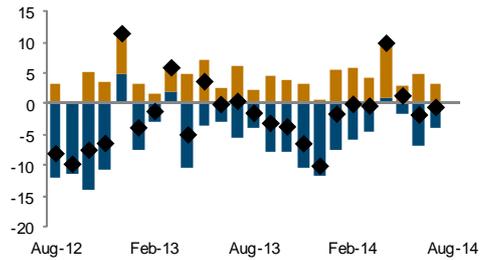
- Industry
- Construction
- Employed persons (LFS)



## Unit labour costs in industry

annual growth rate in %

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



## Inflation and unemployment

in %

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



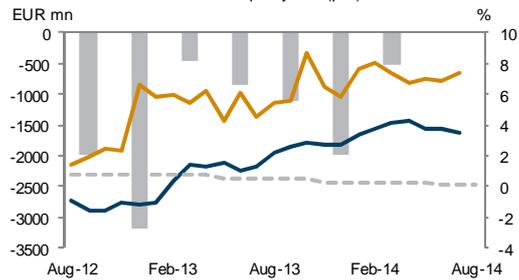
## Fiscal and monetary policy

Left scale:

General gov. budget balance, cumulated

Right scale:

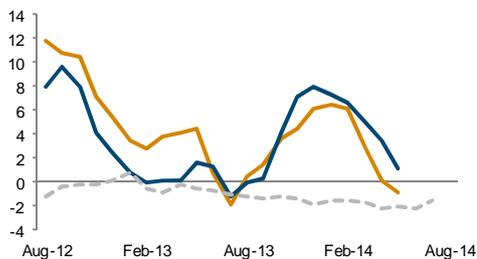
- Broad money, annual growth rate
- Central bank policy rate (p.a.), real, defl. with annual PPI
- Central bank policy rate (p.a.)



## External sector development

annual growth rate in %

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



## External finance

EUR bn

Left scale:

Gross external debt

Right scale:

Current account



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

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

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

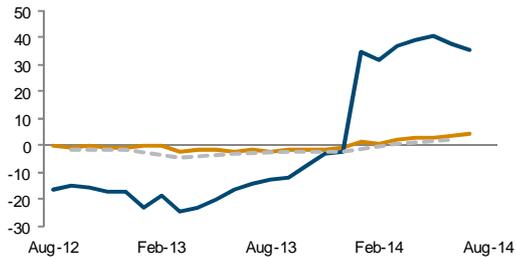
<http://data.wiiw.ac.at/monthly-database.html>

# Slovenia

## Real sector development

cumulated annual growth rate in %

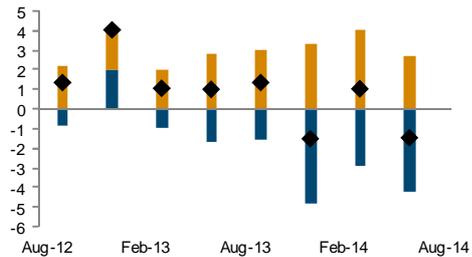
— Industry  
— Construction  
- - - Employed persons (LFS)



## Unit labour costs in industry

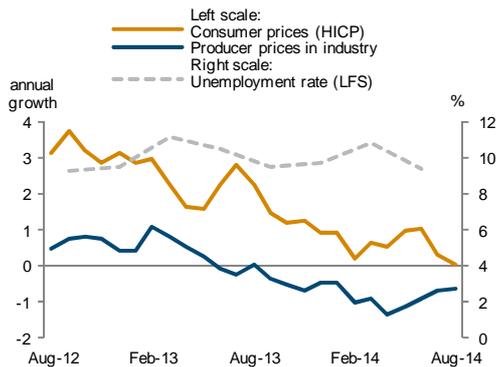
annual growth rate in %

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

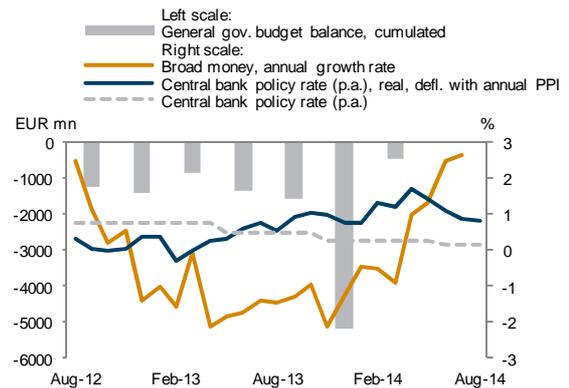


## Inflation and unemployment

in %



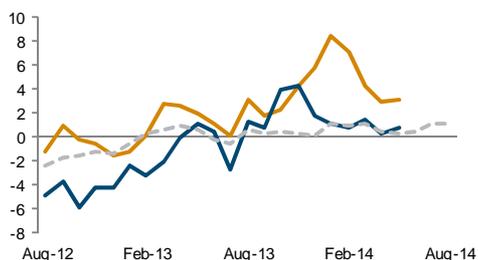
## Fiscal and monetary policy



## External sector development

annual growth rate in %

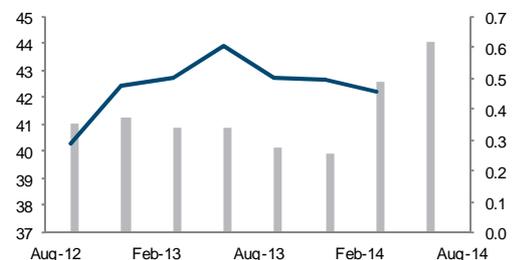
— Exports total, 3-month moving average  
— Imports total, 3-month moving average  
- - - Real exchange rate EUR/EUR, PPI deflated



## External finance

EUR bn

Left scale:  
■ Gross external debt  
Right scale:  
— Current account



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

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

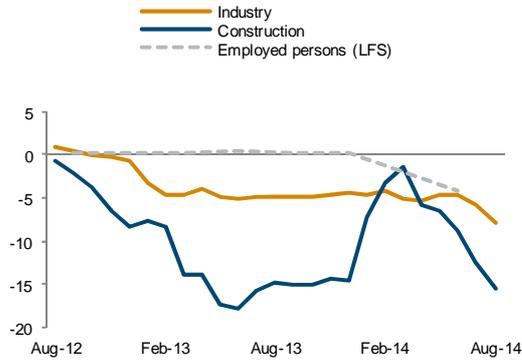
Baseline data, country-specific definitions and methodological breaks in time series are available under:

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

# Ukraine

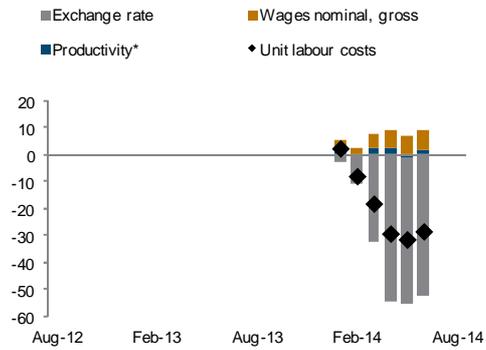
## Real sector development

cumulated annual growth rate in %



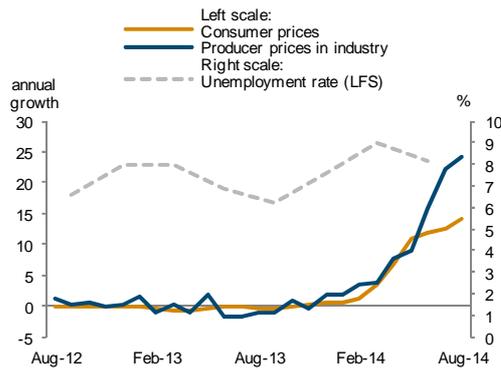
## Unit labour costs in industry

annual growth rate in %

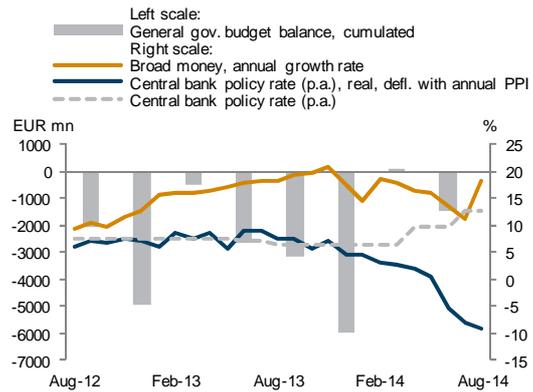


## Inflation and unemployment

in %

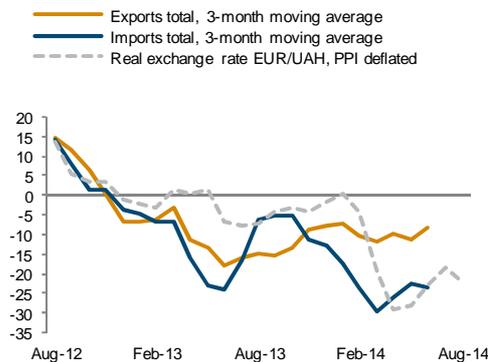


## Fiscal and monetary policy



## External sector development

annual growth rate in %



## External finance

EUR bn



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

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

Baseline data, country-specific definitions and methodological breaks in time series are available under:  
<http://data.wiiw.ac.at/monthly-database.html>

## Index of subjects – October 2013 to October 2014

<b>Albania</b>	economic situation.....	2014/7-8; 2013/11
<b>Bosnia and Herzegovina</b>	economic situation.....	2014/7-8; 2013/11
<b>Bulgaria</b>	economic situation.....	2014/7-8; 2013/10
	migration.....	2014/4
	impact of the Russia–Ukraine conflict.....	2014/5
<b>Croatia</b>	economic situation.....	2014/7-8; 2013/10
<b>Czech Republic</b>	economic situation.....	2014/7-8; 2013/10
<b>Estonia</b>	economic situation.....	2014/7-8; 2013/10
	EU cohesion policy.....	2014/1
<b>Hungary</b>	economic situation.....	2014/7-8; 2013/10
<b>Germany</b>	economic growth, R&D investment, trade.....	2014/2
<b>Kazakhstan</b>	economic situation.....	2013/11
<b>Kosovo</b>	economic situation.....	2014/7-8; 2013/11
<b>Latvia</b>	economic situation.....	2014/7-8; 2013/10
<b>Lithuania</b>	economic situation.....	2014/7-8; 2013/10
<b>Macedonia</b>	economic situation.....	2014/7-8; 2013/11
<b>Montenegro</b>	economic situation.....	2014/7-8; 2013/11
<b>Poland</b>	economic situation.....	2014/7-8; 2013/10
	migration.....	2014/4
<b>Romania</b>	economic situation.....	2014/7-8; 2013/10
	migration.....	2014/4
	impact of the Russia–Ukraine conflict.....	2014/5
<b>Russia</b>	economic situation.....	2014/7-8; 2013/11
<b>Serbia</b>	economic situation.....	2014/7-8; 2013/11
	migration.....	2014/4
<b>Slovakia</b>	economic situation.....	2014/7-8; 2013/10
<b>Slovenia</b>	economic situation.....	2014/7-8; 2013/10
<b>Turkey</b>	economic conundrum.....	2014/9
	EU accession prospects.....	2014/9
	migration to Austria.....	2014/9
	regional disparities.....	2014/9
<b>Ukraine</b>	economic situation.....	2014/7-8; 2013/11
	foreign trade.....	2014/1
	politics and the economy.....	2014/3
<b>Regional (EU, Eastern Europe, CIS) multi-country articles and statistical overviews</b>	CESEE economic situation.....	2013/11
	corporatism and wage share.....	2014/6
	EU agricultural imports from LDCs.....	2014/10
	EU convergence.....	2014/6
	EU Common Agricultural Policy.....	2014/1
	European financial policy.....	2013/12
	green industries for Europe.....	2014/10
	impact of the Fed's tapering.....	2014/2
	migration and mobility patterns.....	2014/4
	NMS automotive industry.....	2014/2
	NMS import elasticities.....	2013/12
	Russia and Ukraine.....	2014/1
	R&D investment.....	2014/2
	sources of economic growth.....	2014/2
	services trade.....	2014/2
	SMEs' funding obstacles.....	2014/10
	South Stream pipeline.....	2014/5
	trade and employment.....	2014/3
	trade between Bulgaria and Romania.....	2014/5
	vertical trade.....	2014/3
	wages and employment in the Balkans.....	2014/6

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

Economics editors: Mario Holzner, Sándor Richter

## IMPRESSUM

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

ZVR-Zahl: 329995655

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

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

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



[wiiw.ac.at](http://wiiw.ac.at)