

Monthly Report

Breaking Out from the Middle-Income Trap? Not at any Price!

Why Should We Care about Non-Tariff Measures?

Rising Popularity of Non-Tariff Measures

Non-Tariff Measures and the Quality of Imported Products



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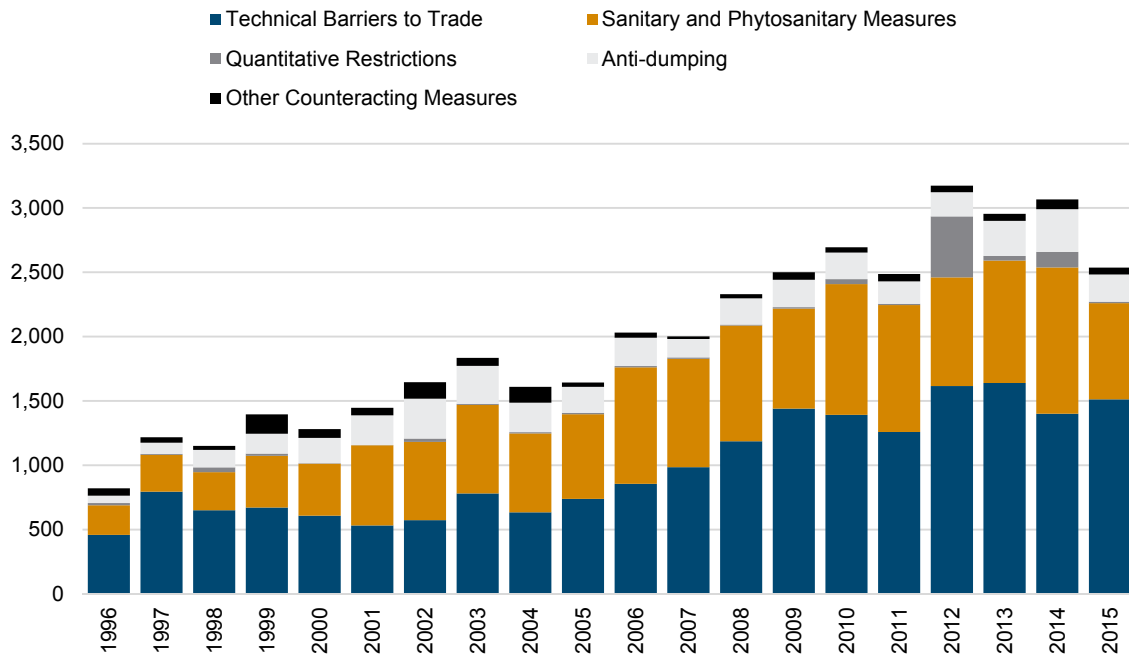
MAHDI GHODSI
JULIA GRÜBLER
LEON PODKAMINER
OLIVER REITER

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Evolution of non-tariff measures

Annual notifications to the WTO



Note: Other counteracting measures include countervailing duties, safeguards and special safeguards.

Data source: WTO I-TIP, wiiw calculations.

Opinion Corner: Breaking out from the middle-income trap? Not at any price!*

ANSWERED BY LEON PODKAMINER

In the course of the last 25 years, Poland – not unlike most of the other Central and East European (CEE) countries – closed a good deal of the income gap with respect to the Western European countries.

In 1995 Poland's per capita Gross Domestic Product (GDP) amounted to 32.8% of the German level. By 2010 that indicator had risen by 18.7 percentage points, to 51.5%. But over the recent five years the advance has moderated. In 2015 Poland's GDP per capita stood at about 56.1% of the German level. It is reasonable to expect a further slowdown of the catch-up with the West in the future. In my opinion, Poland (and other countries of our region) will get stuck in the 'middle-income trap'. Slovenia – until recently the most affluent CEE country – finds itself already trapped. In 2005 the Slovenian GDP per capita stood at 73% of the German level. But by 2015 that indicator had fallen to 68.3%. By the way, also the aspiring countries of Southern Europe appear to have been caught in the 'middle-income trap'. For instance, Spain's GDP per capita in comparison to Germany's deteriorated from 84.7% in 2005 to 73.2% in 2015.

Estimates available from the Maddison Project¹ suggest that the Polish GDP per capita averaged to about 59.1% of the German level between 1870 and 1910. (In 1938 that level was even lower, at only 53.2%, while it was highest, at 77.6%, in 1948.) The remarkable progress achieved during the last quarter of a century – the progress the Poles are rightly proud of – must be seen in a historical perspective. That is, Poland is resuming 'its own' place in the European economy. Unfortunately, this is a peripheral place.

The consideration of the factors behind this state of affairs would take us far beyond the confines of this text. Quite certainly Poland's (and other CEE countries') relative underdevelopment has been rooted in very many intertwined factors: geographical, historical, social and political ones. Due to those factors the natural economic, social and political developments were stopped (or even reversed) in Poland for many centuries – while proceeding (and gathering speed) in the West. Undoubtedly, a fast making-up for the century-long delays – if at all possible – would be a Herculean achievement.

Poland's EU membership has certainly contributed to the progress achieved so far. It has brought many advantages and helped the advance to the current income position. However, I am convinced that things are becoming increasingly difficult down the road. The chances of a 'stumble' (as so painfully experienced by Slovenia and Southern Europe) will increase significantly – especially should Poland

* This is an edited version of the text which appeared in the Polish daily *Rzeczpospolita* on 26 April 2016. It may be construed as a comment on some sentiments that seem currently popular among Poland's economic policy-makers.

¹ <http://www.gqdc.net/maddison/maddison-project/data.htm>

give up its national currency. Nonetheless, by cautiously (and opportunistically) manoeuvring within the limits 'imposed by Brussels', Poland can count on continuing (though possibly unspectacular) improvements. Of course, it would have to conduct a competent policy in many areas. In particular, the country would have to avoid emotionally motivated 'big forward leaps', 'radical policy accelerations' and institutions of grandiloquent 'long-term development plans'.

The strategy of 'clever' (if conservative) accommodation to the actual circumstances may be contrasted with the experience of the East Asian 'tigers'. Starting with post-war Japan, these countries have undergone fantastic transformations. Within a relatively short time they broke out from the 'middle-income trap' (and some of them even from the utterly low-income trap), making up for the centuries-long economic backwardness. Their success has many roots – including state-directed industrial policies (in particular stipulating elaborate protectionism in foreign trade and foreign investment).

For many reasons Poland cannot emulate the East Asian way, and actually it should not even attempt to do so – not only because following that way brings about – due to 'cultural differences' – fatal consequences everywhere outside Asia (e.g. in Latin America). Also, because following that way would necessitate the withdrawal from the EU (which would entail the loss of EU transfer payments and the end to Poles having free access to EU labour markets). The decisive reason is that 'the world has changed'. For strategic reasons the world (i.e. the United States in that case) benevolently tolerated the state-directed protectionism in its East Asian protectorates (long lethally threatened by the spread of aggressive Communism). At present there is no reason to suppose that the EU would passively tolerate Poland's full-scale protectionism. Quite certainly the EU would reciprocate, targeting Polish exports. The ensuing trade war would bring about unimaginable losses to Poland – and only minor ones (if any) to the EU.

Does Poland have only two policy options – either a frenzied solitary attack in expectation of an imminent (or fast) success in achieving affluence comparable with that of the West; or passive accommodation to the constraints 'dictated from Brussels', thus accepting inevitability an 'economic climb' that will be laborious and slow?

Not quite. There is also a possibility of a creative co-determination of the 'constraints dictated by Brussels'. These constraints can support a 'good growth' in Poland (and in the entire EU) – or they can hinder it. Messrs Tusk and Rostowski², while in power, did not make proper use of that possibility. Rather, they made an improper use (e.g. actively supporting economically senseless decisions concerning the EU fiscal policy framework).

To be effective in co-determination of the EU policies one has to be at least polite in one's contacts with the EU partners, or even friendly. As Professor Bartoszewski³ aptly remarked, 'a maiden that is not nice-looking and has no dowry should at least be likeable'.

² Jacek Rostowski acted as Finance Minister and Deputy Prime Minister in Donald Tusk's governments (2007-2014).

³ Władysław Bartoszewski (1922-2015) was twice Poland's Foreign Minister.

Why should we care about non-tariff measures?

BY JULIA GRÜBLER

Over the last decades a general trend towards decreasing tariff rates and an increasing use of non-tariff measures has been observable. The abrupt increase in the number of non-tariff measures (NTMs) notified to the WTO, especially during the recent economic and financial crisis, and its importance in ongoing negotiations of trade agreements spurred discussions about the political economy of using NTMs.

WHAT DO NON-TARIFF MEASURES ACTUALLY LOOK LIKE?

The Integrated Trade Intelligence Portal of the World Trade Organisation (WTO I-TIP) provides a rich data compilation of NTM notifications reported to the WTO. It covers more than 130 NTM imposing WTO members targeting more than 170 countries or territories, allowing to distinguish various types of NTMs. It includes traditional trade policy tools of quantitative restrictions such as licensing, quotas or prohibitions. Yet, today, the most debated NTMs in the EU – especially in the context of the ongoing negotiations of the Transatlantic Trade and Investment Partnership (TTIP) Agreement between the EU and the US – are standard-like measures such as sanitary and phytosanitary measures and technical barriers to trade.

Sanitary and phytosanitary (SPS) measures aim at protecting human or animal life and include e.g. regulations on maximum residue limits of substances such as insecticides and pesticides, measures addressing the assessment of food safety regulations or labelling requirements. For example, a bilateral SPS measure of the EU entered into force in June 2015, suspending imports of dried beans from Nigeria due to pesticide residues at levels largely exceeding the reference dose established by the European Food Safety Authority.¹ However, one single notification may also apply to all trading partners, such as the SPS measure of the EU that entered into force in January 2015, defining import rules for ovine embryos to prevent transmissible spongiform encephalopathies.² SPS measures mainly target product groups of the agri-food sector, i.e. live animals, vegetables, prepared foodstuffs and beverages, but also products of the chemical industry.

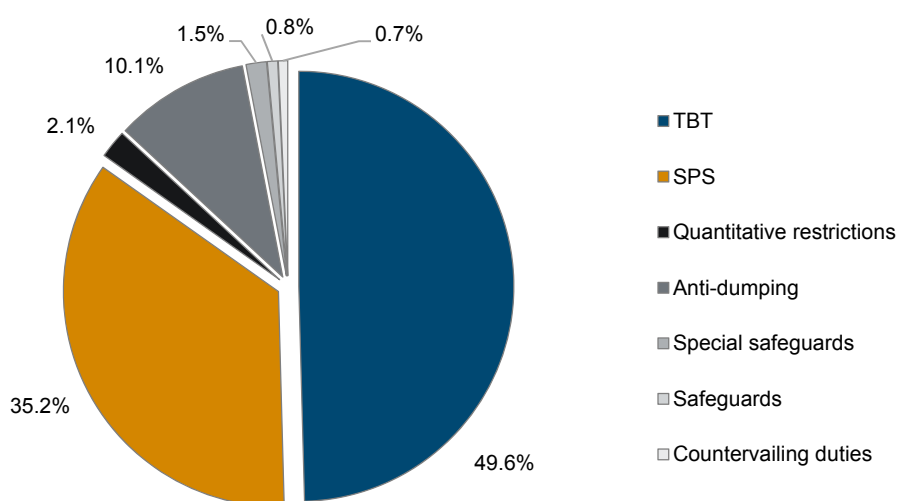
Technical barriers to trade (TBTs) are standards and regulations not covered by SPS measures, such as standards on technical specifications of products and quality requirements. An example is a TBT of the EU, in force since January 2016, that regulates the energy labelling of storage cabinets including those used for refrigeration, with the stated aim of pulling the market towards more environmentally friendly products by providing more information to end-users. TBTs also apply to the agri-food sector, but to a much greater extent to the manufacturing sector, especially to machinery and electrical equipment.

¹ WTO Document: G/SPS/N/EU/131, 29 June 2015.

² WTO Document: G/SPS/N/EU/67, 4 March 2014.

The number of notified SPS measures and TBTs has increased dramatically during the last decade and together they account for more than 80% of all notifications to the WTO (Figure 1). The third largest group of applied NTMs are anti-dumping measures. Anti-dumping measures, countervailing duties and (special) safeguard measures are counteracting measures – i.e. importers are imposing NTMs in response to previous actions taken by the exporters. By definition, they are only temporarily implemented to counteract the negative effects resulting from increasing imports, associated with trade policies of the exporters considered as unfair. Anti-dumping is the most prominent counteracting measure, aiming at combating (predatory) dumping practices – i.e. exporting products either below the price charged in the home market or below its production costs – that cause injury to the domestic industry of the importing country. Countervailing duties target subsidised exports, while safeguard measures apply to a specific product but to all exporters in order to facilitate the adjustment to the increased import influx for the importing country.

Figure 1 / NTMs by type



Note: Total number of notifications (37,982) to the WTO between 1979 and March 2015; Graph excludes 899 specific trade concerns (STCs).

Source: WTO I-TIP, wiiw calculations.

HOW DO THESE MEASURES COMPARE TO TARIFFS?

Given the oppositional developments in the application of tariffs and non-tariff measures, the question arises whether non-tariff measures are implemented as substitutes for tariffs. However, NTMs are very diverse in nature. Therefore, analysing the frequency of their application is not sufficient to answer this question. A way to directly compare the effects of NTMs on trade with the impact of tariffs on trade but also to render the effects of different types of NTMs more comparable is to compute the ad valorem equivalents (AVEs) of NTMs, capturing the impact of non-tariff measures on prices. For example, an AVE of 5% of a TBT imposed by the EU would indicate that domestic prices in the importing EU member country in the presence of this NTM are found to be 5% higher than in the absence of the NTM.

There are basically two approaches to evaluate ad valorem equivalents of NTMs. One method to calculate AVEs is to analyse the price wedge resulting from the implementation of NTMs. The amount of information necessary for this analysis restricts most of the research papers to the analysis of very few – mainly agricultural – products for a small set of countries. The papers by Dean et al. (2009) and Cadot and Gourdon (2015) are rare exceptions. The former, whose analysis was based on city level data for 47 products in 60 countries for the year 2011 with a focus on import quotas, licences, prohibitions and voluntary export restraint arrangements, find very high average AVEs of around 40% and up to 50%. The latter, focusing on quantitative restrictions as well as SPS measures and TBTs for a more recent period, find much lower average price-raising effects of about 8%, arguing for the progressive phasing out of command-and-control trade policy instruments such as quantity control measures, primarily due to the regulation by the WTO³.

The second method to calculate AVEs is to derive them indirectly via quantity-based estimations. This branch of literature has been triggered by a contribution of Kee et al. (2009), who infer the AVEs of NTMs indirectly in a two-step approach. They assess the impact of NTMs on imports with a gravity model. The results are then converted to AVEs using import demand elasticities, which are estimated beforehand. Their research results show that the average AVE over all products affected by NTMs is at around 45%, and 32% when weighted by import values. Furthermore, they report a great variation of AVEs across products and countries, with the highest AVEs – i.e. with the greatest import restricting effects – found for agricultural products and for low-income countries in Africa. Yet, through model restrictions they allowed the effect of the NTMs to be only trade restrictive. However, given market imperfections, more recent literature suggests to acknowledge that NTMs may serve to facilitate trade.

NON-TARIFF MEASURES NEED NOT BE NON-TARIFF BARRIERS!

In contrast to tariffs, there are multiple reasons why the implementation of a new NTM might not decrease but actually increase the import quantities of the NTM imposing country. In particular, it is widely agreed that in the presence of information asymmetries, the imposition of standard-like NTMs can increase consumer trust, decrease transaction costs and promote trade.

Recent literature following the approach of Kee et al. (2009) – e.g. Beghin et al. (2014), Bratt (2014), Grübler et al. (forthcoming) – has therefore allowed for trade promoting effects of NTMs in their analysis. Beghin et al. (2014) find trade-facilitating effects for 39% of all product lines affected by NTMs. Bratt (2014) concludes that, overall, NTMs impede rather than facilitate trade, with a median AVE of 15.7%. However, 46.1% of all AVEs computed show a positive effect on trade. wiiw research reveals 27% more positive AVEs than negative ones, i.e. the share of negative AVEs indicating trade promotion is roughly 45%. Restricting our view to only AVEs for which we observed a significant impact on import quantities, the share of negative AVEs reduces to below 40%. Table 1 shows the mean values calculated as simple averages over all country-specific AVEs over a sample of 118 importers and 5,221 products between 2002 and 2011. AVE averages are shown once for all results and once for binding NTMs, i.e. AVEs statistically impacting import quantities at the 10% significance level.

³ The first paragraph of Article XI of the General Agreement on Tariffs and Trade (GATT) on the General Elimination of Quantitative Restrictions states that 'No prohibitions or restrictions other than duties, taxes or other charges, whether made effective through quotas, import or export licences or other measures, shall be instituted or maintained by any contracting party on the importation of any product of the territory of any other contracting party or on the exportation or sale for export of any product destined for the territory of any other contracting party'.

Table 1 / Average AVEs by NTM type

		SPS	TBT	QRS	ADP	OCA
<i>All AVEs</i>	<i>Mean</i>	1.5	4.1	17.6	14.3	2.5
	<i>Import-weighted Mean</i>	-0.4	0.7	-1.0	1.7	-0.4
<i>Binding AVEs</i>	<i>Mean</i>	3.5	5.2	18.0	15.7	15.5
	<i>Import-weighted Mean</i>	0.4	5.6	0.2	4.3	-0.1

Note: Binding AVEs correspond to AVEs for which the impact of NTMs on import quantities was found to be significant at the 10% level. The import-weighted (i.w.) mean is the simple average over i.w. country-specific AVEs,

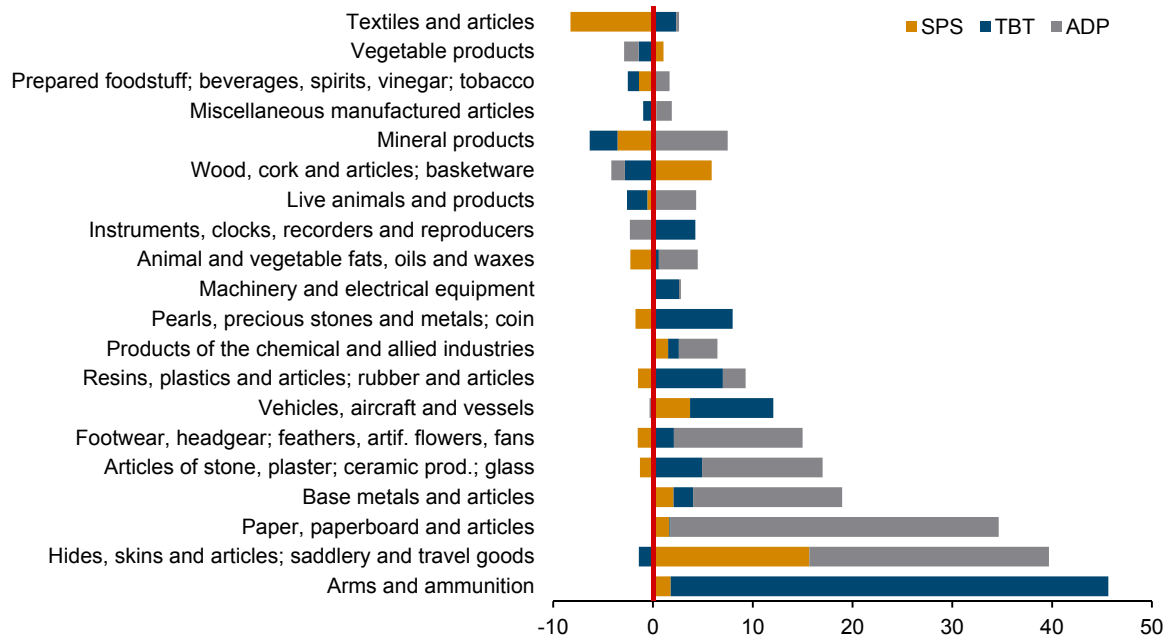
$$\text{i.e. } \sum_i \sum_h \frac{AVE_{ihn} \cdot Imports_{ih}}{Imports_i} / I, \forall n.$$

It clearly shows that traditional trade policy tools (QRS) are still the most trade restricting NTMs, followed by anti-dumping measures, which are by construction import dampening. Focusing on binding AVEs, other counteracting measures (OCA) – summarising countervailing duties and (special) safeguards – are comparable with anti-dumping measures. SPS measures and TBTs, which constitute more than 80% of our NTM notification data, show much lower AVEs, comparable with a 2-5% tariff rate. Using import-weights allows accounting for existing import structures of economies and more strongly emphasises import promoting effects. Yet, if NTMs are indeed trade barriers they would naturally reduce imports. Consequently, using import values as weights for AVEs we likely underestimate the import impeding effects of the use of NTMs. The truth lies probably somewhere in between.

NTM ≠ NTM: EFFECTS DIFFER!

The average effects of different NTM types differ greatly by the NTM imposing country and the targeted product. Regionally, the highest trade impeding effects of TBTs and SPS measures were found for Sub-Saharan Africa, followed by East Asia and Pacific, while the highest AVEs for anti-dumping are associated with Europe and Central Asia as well as Latin America and the Caribbean. A comparison along income levels confirmed that richer countries impose (and report) a higher number of NTMs. However, the highest AVEs – both positive and negative – are found for low- and lower-middle-income countries, while for richer countries, the effects of NTMs on domestic prices converge towards zero.

At the product level, we cannot confirm findings of previous studies which indicated that especially agricultural products are negatively affected by NTMs. Instead, we find some agricultural products among those that experienced import boosts from SPS measures and TBTs. Figure 2 adds up average AVEs of the three most important NTMs – both with respect to their share in total NTM notifications as well as their prominence in trade negotiations. It shows the highest AVEs for arms and ammunition, followed by hides and skins as well as paper products, where TBTs play a key role for the former and anti-dumping measures for the latter two. Splitting up products according to their purpose of use, we find that TBTs as well as SPS measures play a more important role for the manufacturing sector, especially for intermediate goods.

Figure 2 / AVEs by product

Note: Import-weighted (i.w.) mean as the simple average over i.w. country-specific AVEs.

CONCLUSION

SPS measures and TBTs are at the heart of the ongoing negotiations of mega-regional trade agreements such as TTIP. Recent literature has started to acknowledge that non-tariff measures need not necessarily be non-tariff barriers. Especially SPS measures and TBTs bear the potential to increase trade. However, ongoing wiiw research shows that no general conclusions can be drawn for SPS measures and TBTs: their effects differ by the imposing country and the products targeted. Finally, these measures aim at the protection of human, animal and plant life and therefore have implications which are reaching far beyond the impact on international trade but are even more difficult to quantify.

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Rising popularity of non-tariff measures

BY OLIVER REITER

Despite the nearly ubiquitous understanding that trade barriers need to be removed or at least reduced, there are more and more bilateral and multilateral non-tariff measures (NTMs) in effect. Since tariff rates are already relatively low and raising them would be hardly feasible under existing international agreements on trade, NTMs are growing in importance as instruments for trade policy. Recent trade negotiations, such as those on the Transatlantic Trade and Investment Partnership (TTIP), aim to reduce exactly these obstacles to trade.

The WTO administers a database which covers all NTMs that have been imposed by any country since 1995 (i.e. since the establishment of the WTO).¹ wiiw uses this database for several projects in the research area of international trade. Despite the good country coverage and abundance of attributes that are collected with each measure, there is one considerable downside to this database: A large portion of NTMs in the database lack product codes. Without a product code, a trade measure cannot be connected with a bilateral trade flow and an in-depth quantitative analysis of the effect of NTMs is severely restricted. However, wiiw is making serious efforts to improve the product code coverage in the database. Through several steps² we have reduced the fraction of NTMs with missing product codes from 53% (23,782 measures) to 21% (9,306 measures).

This article gives a short descriptive overview of the developments of non-tariff measures during the last two decades.

INTRODUCTION OF NEW NTMS

The graph of the month in this Monthly Report issue shows the number of imposed NTMs in a given year. We can see that each year new and more trade barriers were introduced than in the year before. In 1995, there were 687 new NTMs, whereas in 2014 the number of newly imposed NTMs had risen to 3,110. Overall, 44,450 NTMs were imposed between 1995 and 2015, 39,011 of which are still in force today.

The different types of NTMs we focus on include³:

- › Anti-dumping measures (ADP); countervailing measures (CV); safeguard measures (SG) and special safeguards (SSG): these are aimed to counteract unfair foreign trade policies.
- › Quantitative restrictions (QRs): quantity control measures.
- › Sanitary and phytosanitary (SPS) measures: restriction on substances, ensuring food safety, prevention of diseases.
- › Technical barriers to trade (TBTs): standards on technical specifications and quality requirements.

¹ The WTO database can be found at https://www.wto.org/english/res_e/statis_e/itip_e.htm

² A detailed description would go beyond the scope of this article, but is available upon request.

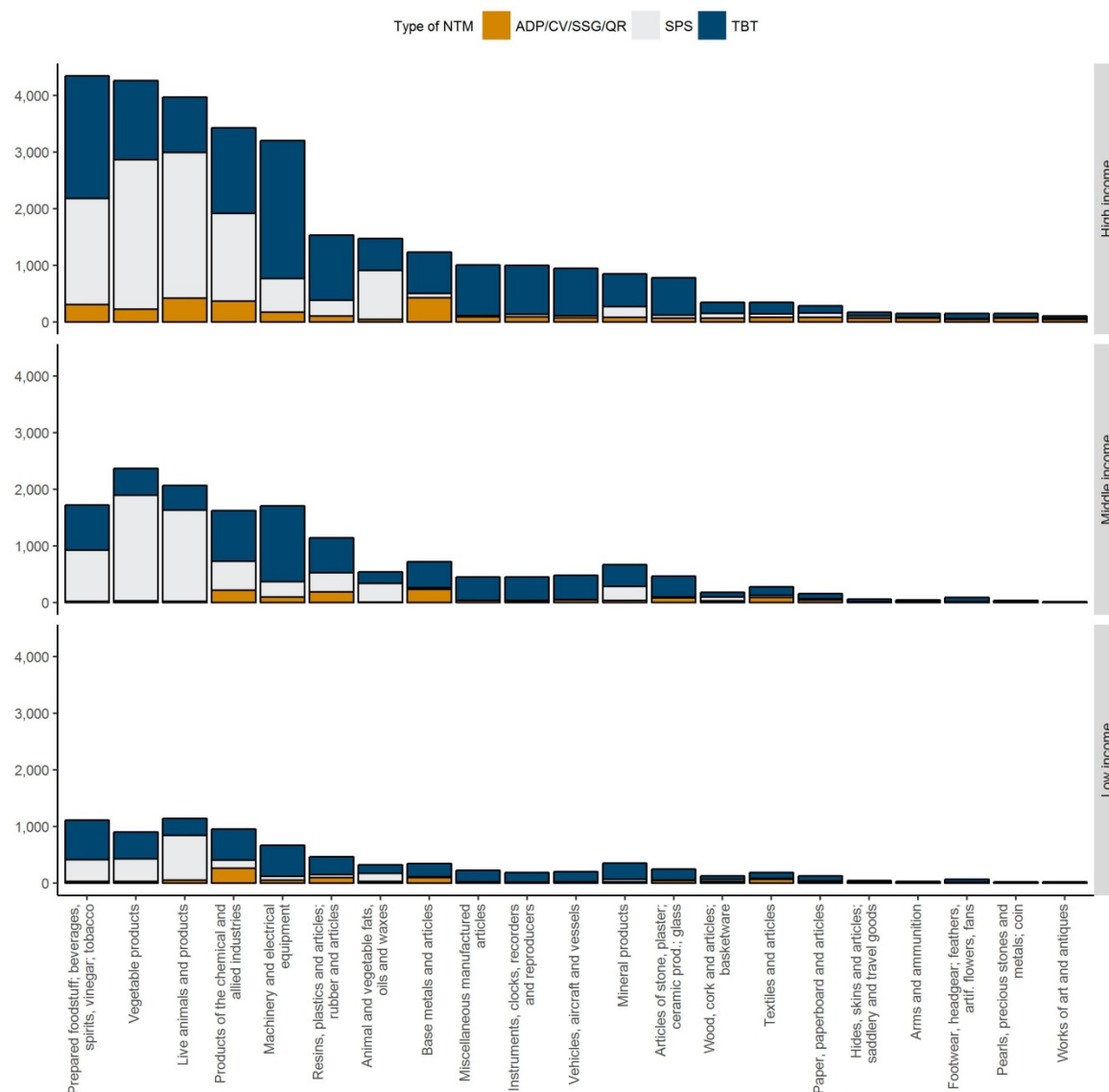
³ A more thorough description of the different measures can be found in UNCTAD (2013).

We can observe that TBTs are the most often imposed variants of a non-tariff measure. The share of TBTs in all NTM notifications is around 50% each year. SPS measures are the second most used type of NTM: their share ranges from 25% to 44%. The rest of the measures are either 'counteracting' measures, such as ADP, CV, SG and SSG, or QR. For the remainder of the text, I will combine the latter five measures and report them as a single category.

AFFECTED PRODUCTS

Figure 1 gives an overview of the products affected by the NTMs in effect in 2015, distinguishing between the income group⁴ of the imposing country.

Figure 1 / Distribution of NTMs by product category and income group of imposing country



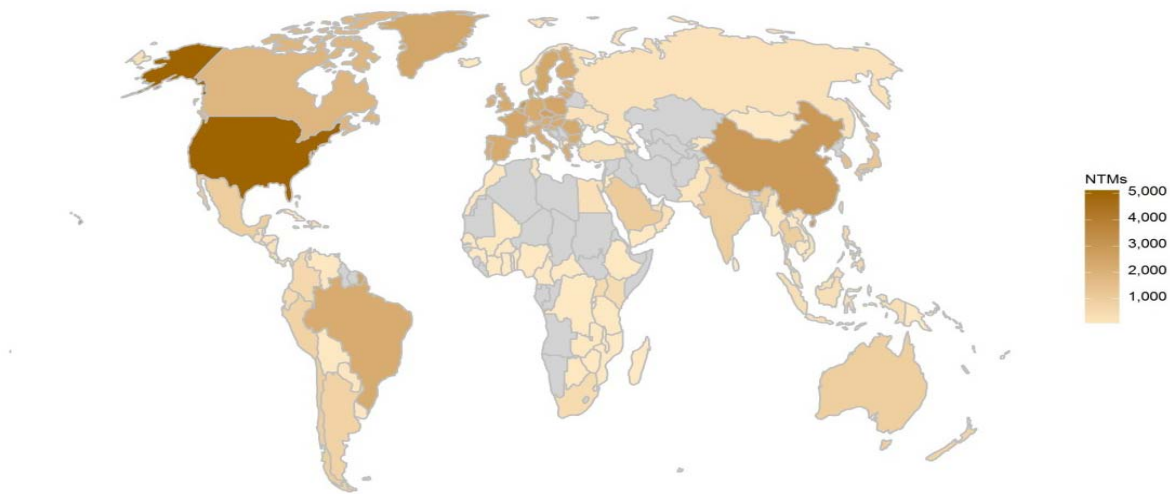
Source: WTO I-TIP; wiiw imputations.

⁴ Based on a classification of the World Bank. Available under <http://siteresources.worldbank.org/DATASTATISTICS/Resources/CLASS.XLS>

GLOBAL DISTRIBUTION

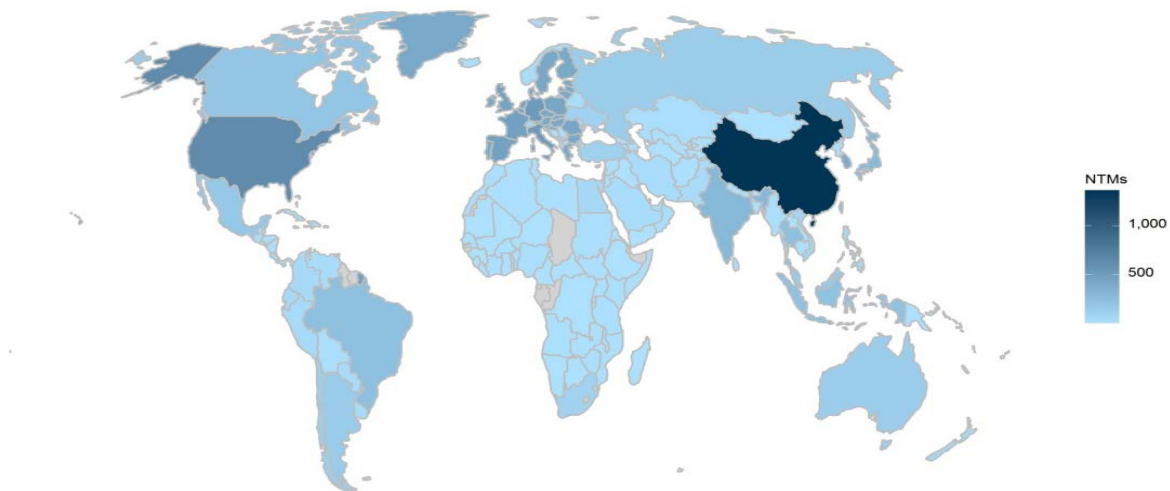
Figure 2 shows the global distribution of trade barriers imposed, whereas Figure 3 plots the countries that are affected by NTMs⁵. We can see that the United States and the EU, as well as China and Brazil, are the countries which imposed the highest number of trade measures. The US has imposed a remarkable 5,023 measures, which constitute more than 10% of the total of 44,450 measures in place. EU and China have only about half that number, while Brazil set 2,226 measures into effect. Interestingly, some central Asian and African countries have not notified a single NTM over the whole period.

Figure 2 / Number of NTMs imposed by a country



Source: WTO I-TIP; wiiw imputations.

Figure 3 / Number of NTMs that affect a country



Source: WTO I-TIP; wiiw imputations.

⁵ Measures that were imposed by the whole EU or that affect the whole EU are added to the individual country's measures of all 28 current members.

We can see that China stands out as the country that is most affected by trade barriers of its trading partners with 1,368 NTMs. It must be noted, however, that by far the largest fraction of NTMs (35,668 of 44,450, i.e. about 80% of all measures) is directed against 'All Members' (of the WTO). Only the rest of the measures are imposed against specific countries. That means that out of 8,782 measures that are attributed to a specific country, 14% are imposed on China alone! The United States is affected by 631 NTMs and the EU by around 400 measures.

IMPLICATIONS

The consequences of current trends in trade policy – away from multilateralism to bilateral agreements and from tariffs to non-tariff barriers – are not yet sufficiently understood. One major reason why the effects of NTMs are not at the heart of trade economists' research agenda is the lack of data. The WTO I-TIP database, complemented by wiiw with product codes, might significantly contribute to understanding patterns in the use of NTMs (e.g. by products, regions, income levels) and spurring further research on the quantitative effects of these measures.

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Non-tariff measures and the quality of imported products^{*}

BY MAHDI GHODSI

INTRODUCTION

Eight multilateral rounds of negotiations under the GATT and international agreements under the WTO have contributed significantly to the reduction of tariffs among WTO members. However, legitimate reasons for the imposition of non-tariff measures (NTMs) within regulations have triggered their extensive use over the years. Aiming at trade liberalisation, protectionist and discriminatory motives for trade policy measures are not permitted by the regulations, while some specific motives are endorsed in good faith behind NTMs. Among these measures, technical barriers to trade (TBTs) and sanitary and phytosanitary (SPS) measures allow countries to impose restrictions on the imports of low-quality products suspected to harm the domestic consumers' health, global environment, safety, etc. Such trade policy instruments may induce higher standards in the import market, in addition to improving the market efficiency by information requirements such as mandatory labelling.

NTMS REVISITED

Classifications of NTMs are mostly based on legal international regulations mandated by the WTO and other organisations. Scholars have additionally classified NTMs according to their nature and implications, distinguishing between two broad categories. One category includes quantitative NTMs such as anti-dumping (ADP), quantitative restrictions (QR), safeguard measures (SG), etc. In spite of having quantitative implications, this broad category of NTMs can be also grounded on some qualitative aspects (e.g. national security, health and environment issues, market adjustments, etc.). The second category refers to so-called 'core NTMs' with qualitative implications. TBTs and SPS measures are usually included in the core NTM category. Irrespective of complex motives behind such trade policy measures – i.e. following good faith and legitimate motives as opposed to discriminative motives – they are basically caused by issues of technology, domestic standards and innovations, as well as health or environmental issues (Ghods, 2015a).

Core NTMs can be aimed at improving the quality of the imported products in order to harmonise the domestic market standards. Standard-based regulations can potentially improve the production procedures or quality of products (Wilson and Otsuki, 2004; Trienekens and Zuurbier, 2008). Using unit-values of imports as a proxy for the quality of the imported products, Ghods (2015b) found evidence for

* This article summarises the preliminary results of an ongoing analysis by Ghods, Jokubauskaite and Stehrer (forthcoming) extending the literature by putting a special focus on the impact of different NTM types on the quality of traded products. In addition to unit-values of traded products as a simple proxy for quality, quality measures such as in Hallak and Schott (2008), Khandelwal (2010) and Feenstra and Romalis (2014) are used in the analysis.

diverse quality improvements through TBT specific trade concerns (STCs) imposed by the EU, the United States and China.

EVALUATING THE EFFECTS ON PRODUCT QUALITY

The quality of a product can be reflected in its price. However, it is difficult to compare the quality of two similar products only by their prices. Only if the costs of production of two identical products are the same (produced and sold in the same places), the difference in prices of the two products can be attributed to the difference in their quality. Assuming higher costs of production for the higher quality, one can disentangle the cost and quality parts of prices. The starting point of the analysis is the model presented in Feenstra and Romalis (2014) providing a framework to disentangle quantity, quality and price effects of exports and imports.

Feenstra and Romalis (2014) make the following assumptions that are suitable for the NTM analysis as well. Quality is increasing with higher specific trade costs. It is related to the 'Washington apples effect' that suggests that products exported to a farther destination should be produced with higher quality in order to maintain a good quality in the destination. Putting it in another manner, if an NTM imposed translates into a trade-specific cost, it might increase the quality of the traded product. Besides, some NTMs can incur fixed costs of exporting that can be afforded mainly by the more productive firms. Efficient firms with higher productivity are producing products with higher quality. Moreover, richer countries import products with higher quality as they can afford more expensive products increasing their utilities. In addition, countries with higher wages and with less efficient labour produce products with lower quality due to higher costs of production.

Based on a theoretical model that takes both the demand and supply side of the production of products with differentiated quality into account, and using the unit-values of trade flows of four-digit SITC products, they distinguish quality and quality-adjusted prices. In a gravity model, we use the Feenstra and Romalis (2014) database and analyse the impact of six types of NTMs on the quality of traded products during 1995-2011.

With respect to non-tariff measures, six different types of NTMs are included: (i) technical barriers to trade (TBTs) and (ii) sanitary and phytosanitary (SPS) measures allow countries to impose restrictions on the imports of low-quality products suspected to harm domestic consumers' health, the environment, etc. It is expected that these core NTMs induce higher quality in the import market, in addition to improving the market efficiency by information requirements such as mandatory labelling. TBTs and SPS measures are usually imposed against the imports from all other countries in the world. In addition, the WTO allows countries to consult other members' regulations within the minutes recording. This provides a reverse notification system to raise specific trade concerns (STCs) on these regulations. Therefore, TBT STCs and SPS STCs are raised by partners facing TBTs and SPS measures. STCs are specific cases of TBTs and SPS measures that are considered as strong trade disturbances by the affected countries. Some of the STCs can be found in the direct notifications on TBTs and SPS measures, therefore they have overlaps with the set of TBTs and SPS measures. However, there are many STC notifications that are not notified by the imposing members directly to the WTO. Hence, we include (iii) TBT STCs and (iv) SPS STCs in addition to the direct notifications.

In the specification also other measures are investigated, notably (v) anti-dumping measures (ADP) and (vi) a set of other quantitative restrictions including safeguard measures (SG), special safeguards (SSG), countervailing duties (CV) and quantitative restrictions (QR). These are combined into one group (QNTM). All these NTMs are count variables indicating the number of a given type of NTM imposed (entering into force) at time t on sector s by the importer country k against trade partner j . Whether the NTM is still in force in the next period is not considered in the analysis, since there is no evident information regarding their withdrawal. Hence, NTMs are counts or hits of measures at the time of imposition. The data on NTMs are collected from the WTO I-TIP database and matched to the trade data (see Ghodsi et al., forthcoming, for details).

RESULTS BY NTM TYPES

Given the methodology discussed above, an estimated coefficient for each NTM can be used to calculate the relative importance of the effect of NTMs on quantity, quality and quality-adjusted prices.

Our analysis indicates that the imposition of SPS measures has a positive impact on the quality of imports rather than on quality-adjusted prices. In spite of observing a statistically significant influence of these core NTMs on quality over the sample of all products, different categories of products are affected diversely by SPS measures. In fact, a quality improvement is observed in trade of food and live animals, mineral fuels, lubricants and related materials, as well as animal and vegetable oils, fats and waxes – which are usually the categories with the most affected SPS lines.

Moreover, SPS measures seem to have a small positive effect on import unit-values, traded quality, and quality-adjusted price of export. However, quality-adjusted import quantity is negatively affected by SPS measures, which indicates lower demand induced by the measure. Overall, a hampering effect on trade values is observed. Export quality is also improved by the SPS measure, showing the impact of the measure on the production in the country of origin. This quality improvement is accompanied by a lower quality-adjusted price and higher export unit-values which are not statistically significant.

However, SPS STCs are shown to have an opposite impact on the quality of products. These bilateral measures are decreasing the quality of traded products and unit-values, inducing larger traded quantities. In fact, trade flows of food and live animals, crude materials (except fuels), and chemicals and related products (covering 81% of affected lines) are increased with SPS STCs. However, major quality improvements by these measures are indicated in other sectors.

For TBTs, one finds a trade-enhancing impact of which about 36% are due to an increase in quantities traded, 25% due to an increase in the quality-adjusted import prices and the remaining 38% due to an increase in the import quality. Doing a similar analysis over the exports values (fob), it can be shown that 6% of the export values increase is attributable to quality-adjusted export prices and 60% to improvements in the quality of exports. This clearly indicates the positive impact of TBTs on the production quality in the country of origin. The trade-improving impact of TBT STCs is associated with higher quantity and higher prices net of quality. In fact, while the quality of exports is not affected by these STCs, the quality of imports is statistically significantly downgraded.

The NTMs collected in the category QNTM have a negative impact on quantities and quality adjusted-price of imports. However, while traded quality is improved by these measures, the overall impact on trade shows the restrictiveness of these quantitative measures.

While QNTMs are trade restrictive, ADP enhances trade values and quantities. ADP is imposed to restrict low pricing of imported products under dumping. If, after an ADP filing, the exporter is obliged to sell to the destination at a higher price, reducing the quality of the exported product can be a good strategy to excuse the low dumping price. This strategy increases the demand for and finally the import values of the product under the ADP, which makes ADP a trade-improving policy instrument rather than a restrictive one. However, this positive impact of ADP on trade flows might be actually due to other reasons. Our coefficients might e.g. capture the effect of dumping rather than the impact of anti-dumping filings. Besides, since ADP filings are imposed against products at a more disaggregated level than SITC 4-digit, the increase in the trade value might be due to the substitution effect of other product groups in a given SITC category.

CONCLUSION

The various causes and motivations behind the impositions of NTMs make these measures' implications hard to interpret. The complex and opaque nature of these trade policy instruments has been emphasised in the literature. Despite the trade-impeding consequences of NTMs, quality improvements of the traded products may point in the direction of legitimate motives behind the measures.

The outcomes of the analysis point to quality improvement of traded products affected by TBTs and by TBT STCs in particular. While the general impact of TBTs on trade flows is positive, traded values and quantities are affected differently depending on the individual product category, which gives insights on the diverse characteristics of products and their final use. In contrast, SPS imposition influences the product quality differently. Our results point to an impeding behaviour of these trade policy instruments in general. On the other hand, SPS STCs are generally enhancing trade of products. For ADP it can be stated that it has a negative impact on the quality of traded products and, in general, does not appear to be a suitable protectionist measure, as the exporters might prefer to adjust their products' quality rather than adjusting their prices.

To conclude, the discriminatory nature and potential trade restrictiveness of NTMs as trade policy instruments are currently studied extensively in the literature. However, a visible gap has remained in the case of analyses studying the impact of these measures on the quality of traded products. With our research we hope to have contributed to filling this gap.

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Wilson, J. S. and T. Otsuki (2004), 'Standards and technical regulations and firms in developing countries: new evidence from a World Bank technical barriers to trade survey', The World Bank, Washington DC.

The editors recommend for further reading*

Brexit

A background guide to Brexit by *The Economist*:

<http://www.economist.com/blogs/graphicdetail/2016/02/graphics-britain-s-referendum-eu-membership>

WTO warns on tortuous Brexit trade talks:

<https://next.ft.com/content/745d0ea2-222d-11e6-9d4d-c11776a5124d>

OECD on the economic consequences of Brexit, with negative effects for the UK increasing over time:

http://www.oecd-ilibrary.org/economics/the-economic-consequences-of-brexit_5jm0lsvdkf6k-en

Implications of Brexit on the UK and/or the EU discussed in articles on CEPR's Policy Portal:

<http://voxeu.org/taxonomy/term/5467> and the Centre for European Policy Studies (CEPS):

<http://www.ceps.eu/sites/all/modules/civicrm/extern/url.php?u=253945&qid=9006973>

See also the statement by wiiw Scientific Director Michael Landesmann in the May issue of the wiiw Monthly Report: <http://wiiw.ac.at/monthly-report-no-5-2016-p-3888.html>

Migration

EU refugee bonds proposed as a measure to help deal with the refugee crisis:

<http://voxeu.org/article/eu-refugee-bonds>

Long-run positive effects of refugee migration for EU economies:

<http://www.worldbulletin.net/world/173070/migration-enormously-positive-for-europe-economies>

When Europeans were refugees during the last mass migration:

<http://news.nationalgeographic.com/2016/04/160424-refugee-migration-immigration-history-eastern-europe-jews-ngbooktalk/>

Inequality

IMF researchers on neoliberal policies and inequality:

www.imf.org/external/pubs/ft/fandd/2016/06/pdf/ostry.pdf

Universal basic income to solve poverty:

<http://www.vox.com/2016/5/31/11819024/universal-basic-income-works>

Russia & Ukraine

On 'Ukraine fatigue' in Europe:

<http://www.euractiv.com/section/europe-s-east/opinion/ukraine-fatigue-is-spreading-in-europe/>

Finnish Institute of International Affairs (FIIA) Report on the Russian strategy in the conflict in Ukraine:

www.fia.fi/assets/publications/FIIAReport45_FogOfFalsehood.pdf

Alexander Motyl on abandoning the Donbas:

<http://www.worldaffairsjournal.org/blog/alexander-j-motyl/answering-critics-donbas-disengagement>

* Recommendation is not necessarily endorsement. The editors are grateful to Vladimir Gligorov, Peter Havlik, Isilda Mara and Galina Vasaros for their contributions.

Monthly and quarterly statistics for Central, East and Southeast Europe

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

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

Conventional signs and abbreviations used

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

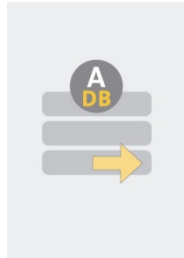
The following national currencies are used:

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

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

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

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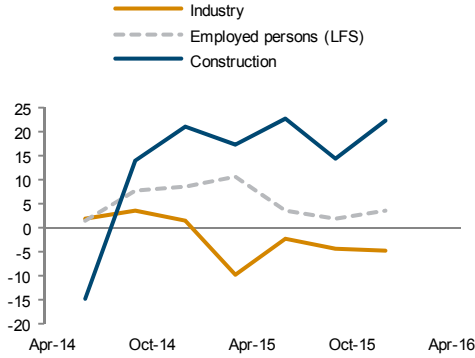
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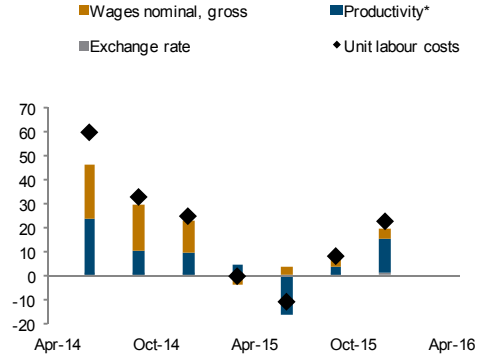
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Albania

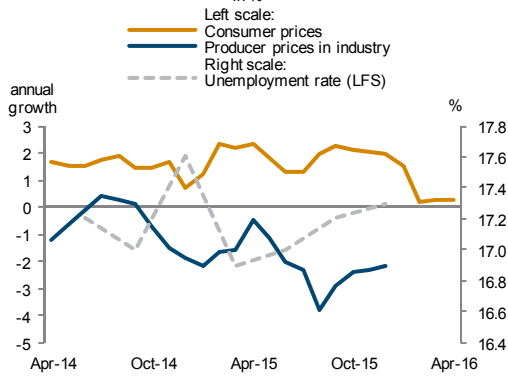
Real sector development
annual growth rate in %



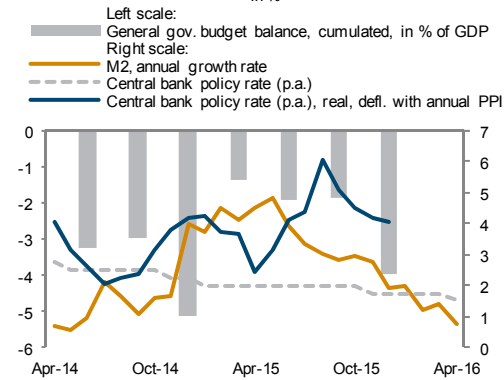
Unit labour costs in industry
annual growth rate in %



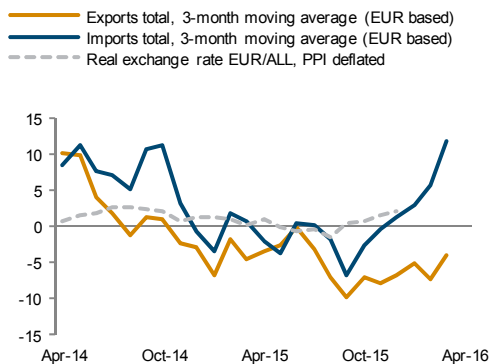
Inflation and unemployment
in %



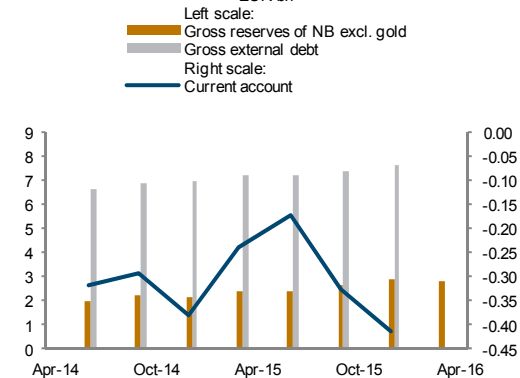
Fiscal and monetary policy
in %



External sector development
annual growth rate in %



External finance
EUR bn



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

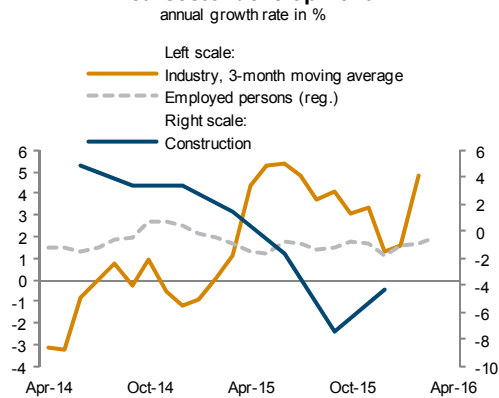
Source: wiiw Monthly Database incorporating Eurostat and national statistics.

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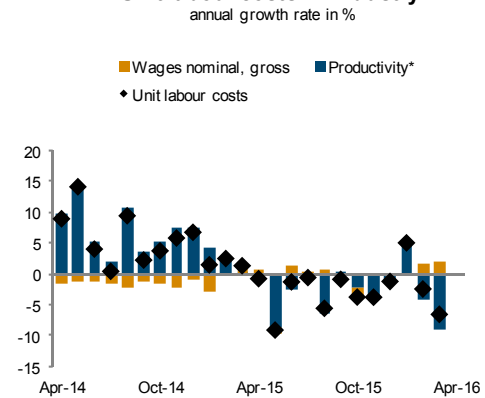
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Bosnia and Herzegovina

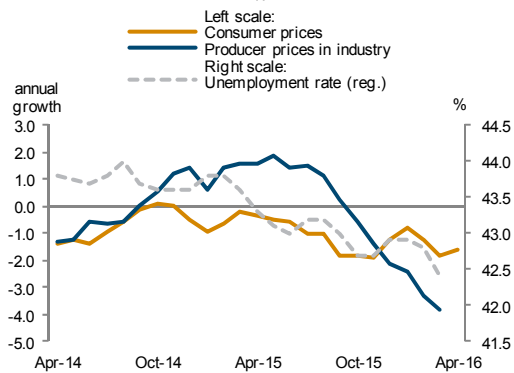
Real sector development



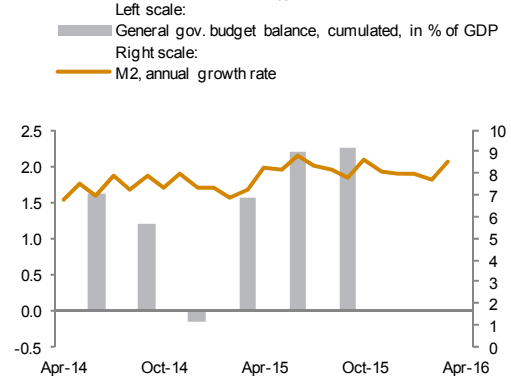
Unit labour costs in industry



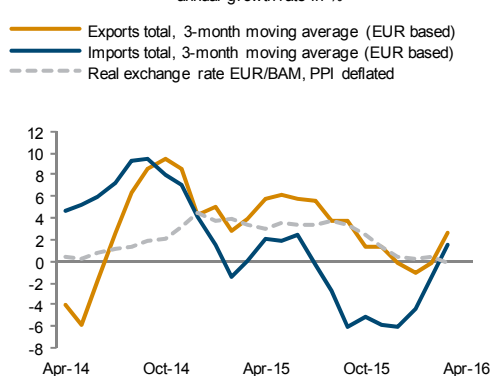
Inflation and unemployment



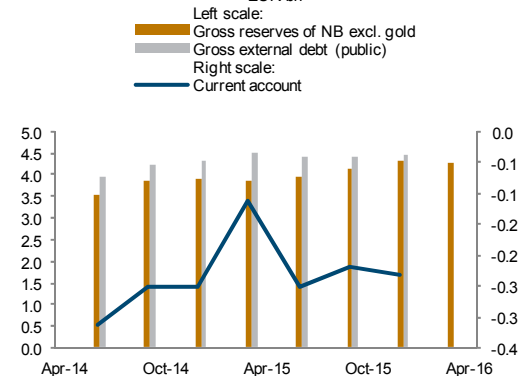
Fiscal and monetary policy



External sector development



External finance



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

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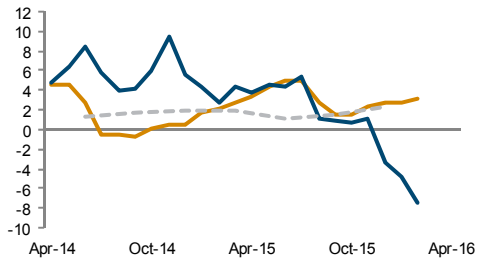
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Bulgaria

Real sector development

annual growth rate in %

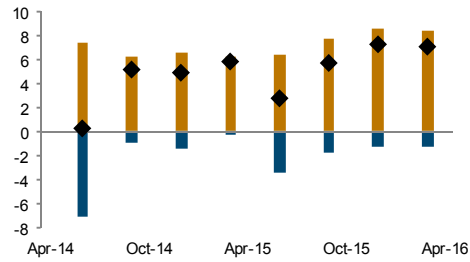
- Industry, 3-month moving average
- Construction, 3-month moving average
- - - Employed persons (LFS)



Unit labour costs in industry

annual growth rate in %

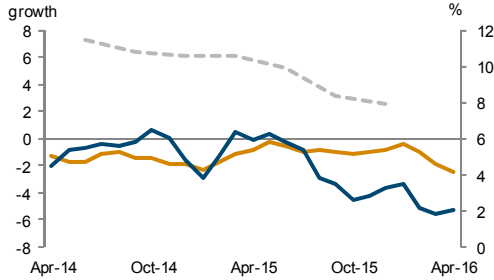
- Wages nominal, gross
- Productivity* ♦ Unit labour costs



Inflation and unemployment

in %

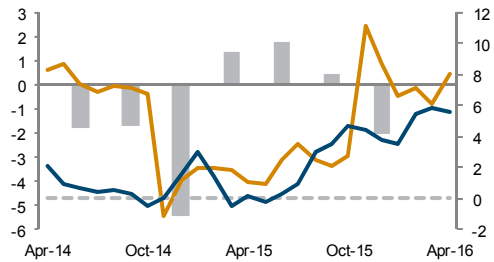
- Left scale:
 - Consumer prices (HICP)
 - Producer prices in industry
- Right scale:
 - - - Unemployment rate (LFS)



Fiscal and monetary policy

in %

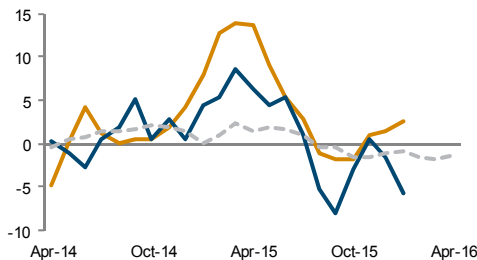
- Left scale:
 - General gov. budget balance, cumulated, in % of GDP
- Right scale:
 - Broad money, annual growth rate
 - - - Central bank policy rate (p.a.)
 - Central bank policy rate (p.a.), real, defl. with annual PPI



External sector development

annual growth rate in %

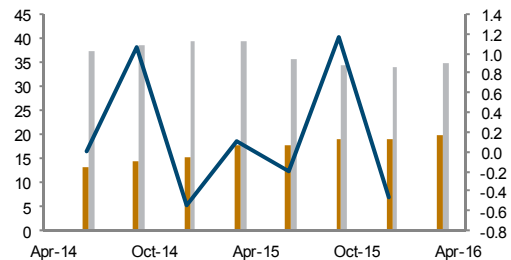
- Exports total, 3-month moving average (EUR based)
- Imports total, 3-month moving average (EUR based)
- - - Real exchange rate EUR/BGN, PPI deflated



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:

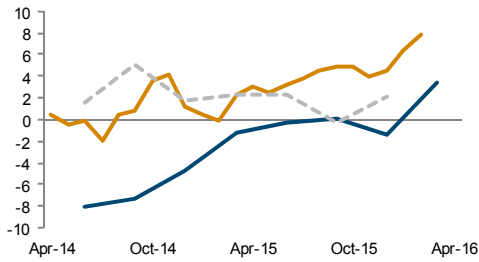
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Croatia

Real sector development

annual growth rate in %

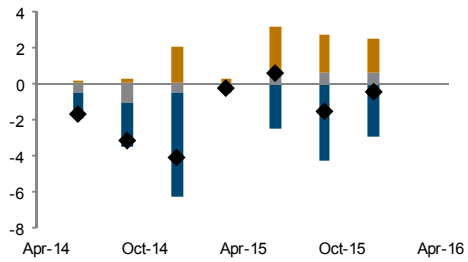
— Industry, 3-month moving average
— Construction, 3-month moving average
- - - Employed persons (LFS)



Unit labour costs in industry

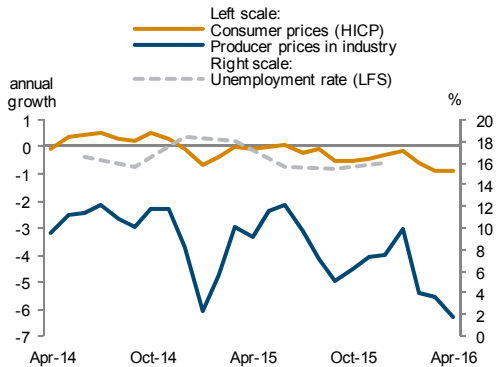
annual growth rate in %

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



Inflation and unemployment

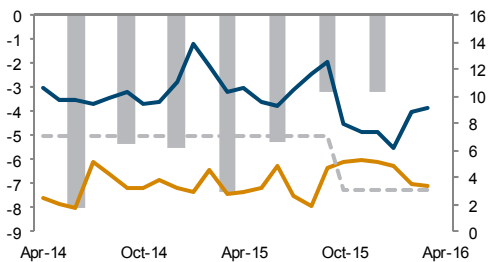
in %



Fiscal and monetary policy

in %

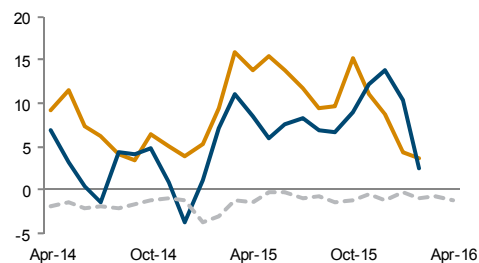
Left scale:
■ General gov. budget balance, cumulated, in % of GDP
Right scale:
— Broad money, annual growth rate
- - - Central bank policy rate (p.a.)
— Central bank policy rate (p.a.), real, defl. with annual PPI



External sector development

annual growth rate in %

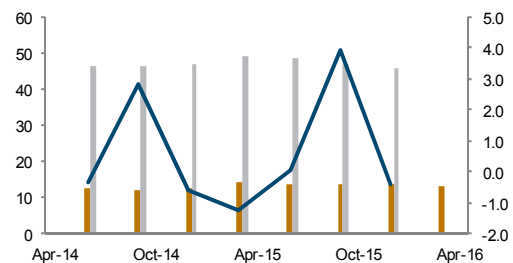
— Exports total, 3-month moving average (EUR based)
— Imports total, 3-month moving average (EUR based)
- - - Real exchange rate EUR/HRK, PPI deflated



External finance

EUR bn

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



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

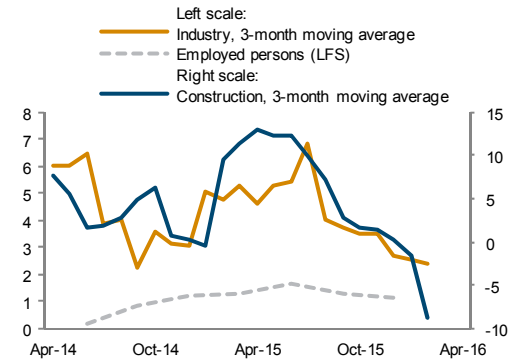
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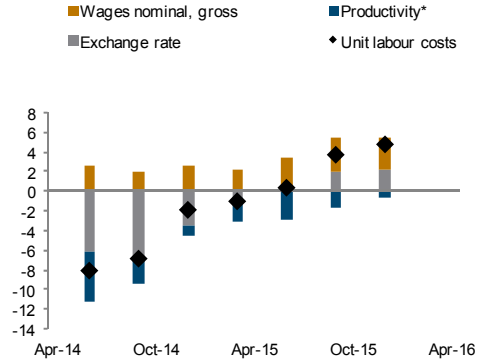
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Czech Republic

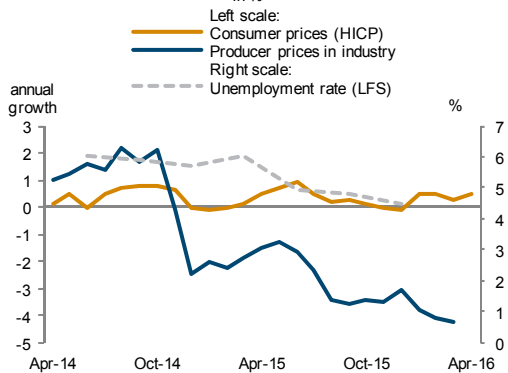
Real sector development
annual growth rate in %



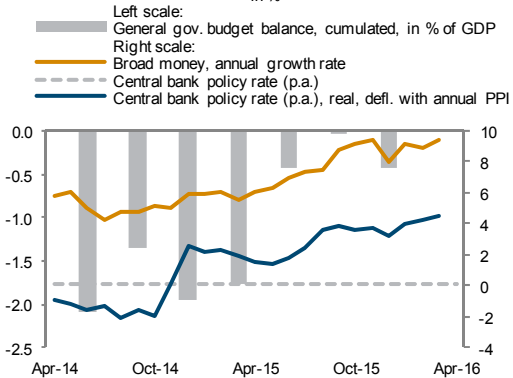
Unit labour costs in industry
annual growth rate in %



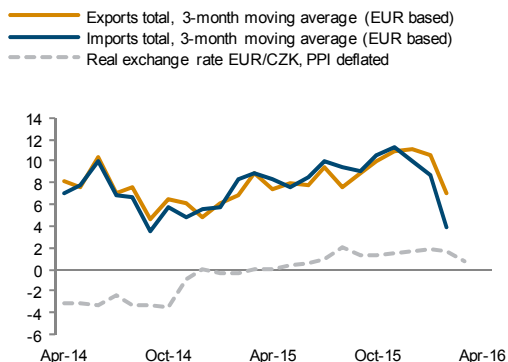
Inflation and unemployment
in %



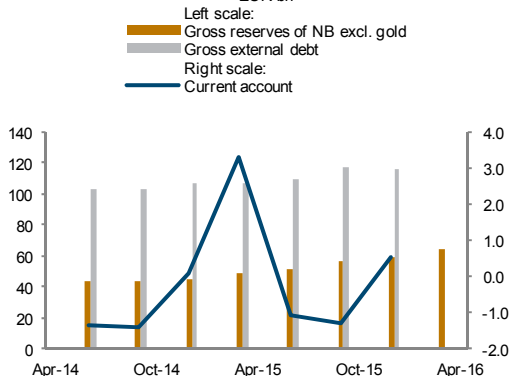
Fiscal and monetary policy
in %



External sector development
annual growth rate in %



External finance
EUR bn



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

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

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

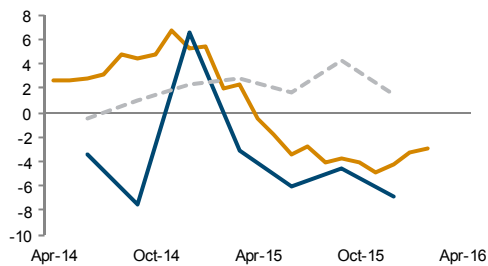
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Estonia

Real sector development

annual growth rate in %

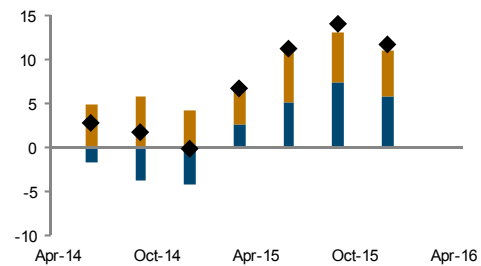
— Industry, 3-month moving average
— Construction
- - - Employed persons (LFS)



Unit labour costs in industry

annual growth rate in %

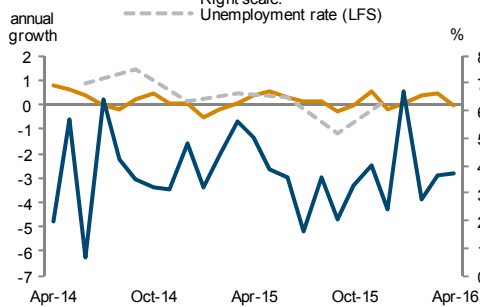
■ Wages nominal, gross ■ Productivity*
◆ Unit labour costs



Inflation and unemployment

in %

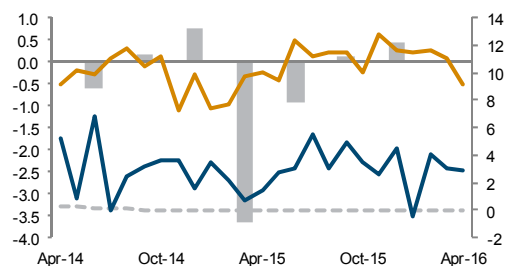
Left scale:
— Consumer prices (HICP)
— Producer prices in industry
Right scale:
- - - Unemployment rate (LFS)



Fiscal and monetary policy

in %

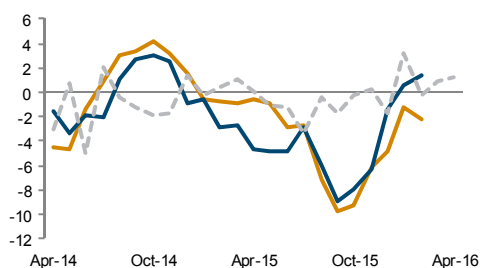
Left scale:
■ General gov. budget balance, cumulated, in % of GDP
Right scale:
— Broad money, annual growth rate
- - - Central bank policy rate (p.a.)
— Central bank policy rate (p.a.), real, defl. with annual PPI



External sector development

annual growth rate in %

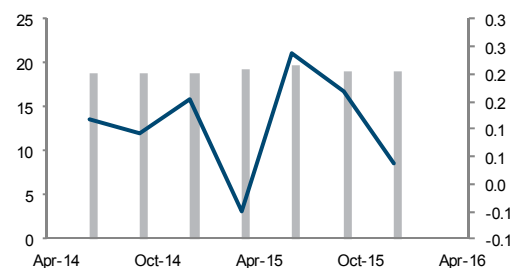
— Exports total, 3-month moving average (EUR based)
— Imports total, 3-month moving average (EUR based)
- - - Real exchange rate EUR/EUR, PPI deflated



External finance

EUR bn

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



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

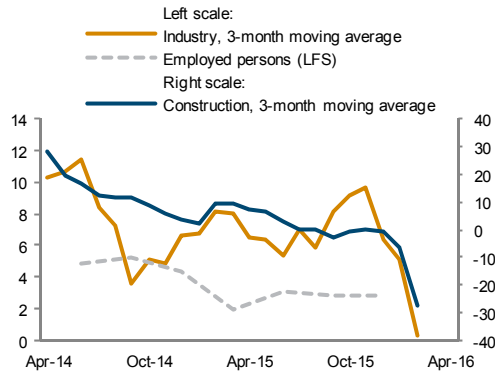
Source: wiiw Monthly Database incorporating Eurostat and national statistics.

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

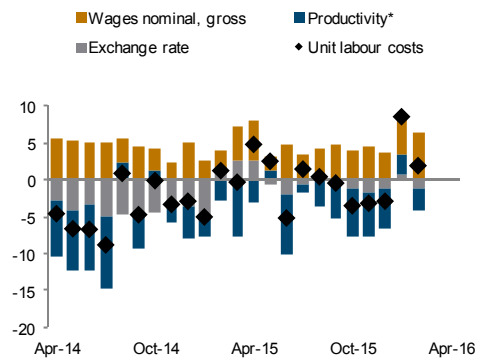
<http://data.wiiw.ac.at/monthly-database.html>

Hungary

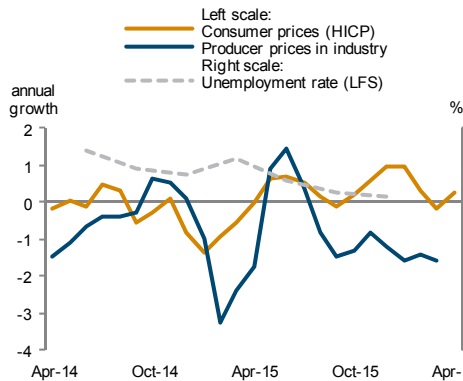
Real sector development
annual growth rate in %



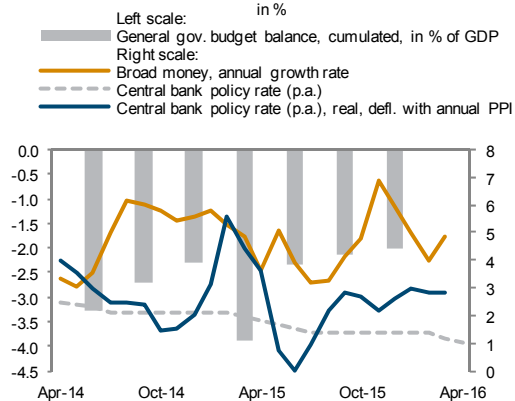
Unit labour costs in industry
annual growth rate in %



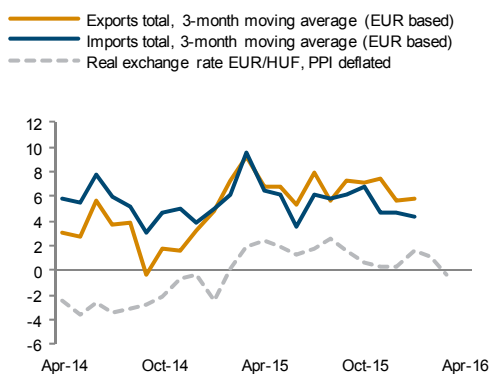
Inflation and unemployment
in %



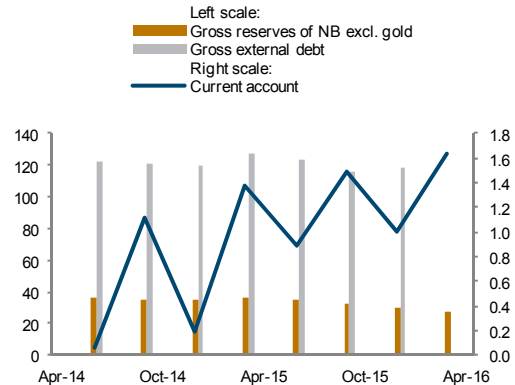
Fiscal and monetary policy
in %



External sector development
annual growth rate in %



External finance
EUR bn



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

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

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

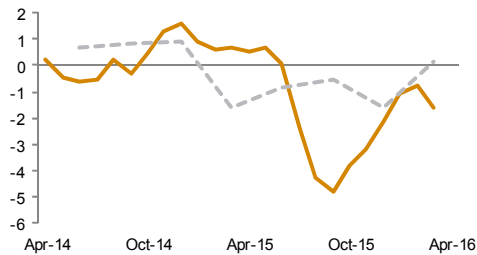
<http://data.wiiw.ac.at/monthly-database.html>

Kazakhstan

Real sector development

annual growth rate in %

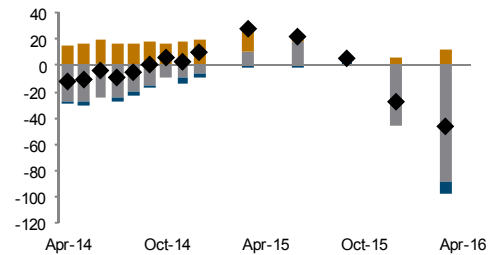
— Industry, 3-month moving average
- - - Employed persons (LFS)



Unit labour costs in industry

annual growth rate in %

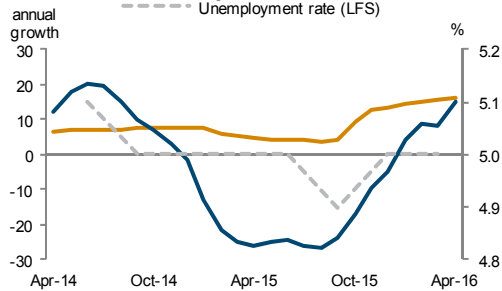
■ Wages nominal, gross ■ Productivity*
■ Exchange rate ◆ Unit labour costs



Inflation and unemployment

in %

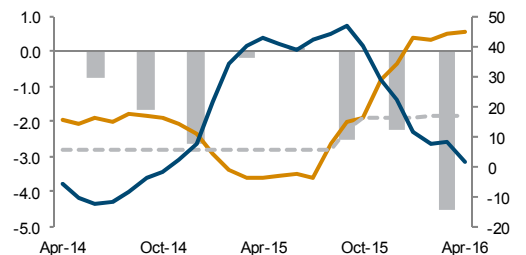
Left scale:
— Consumer prices
— Producer prices in industry
Right scale:
- - - Unemployment rate (LFS)



Fiscal and monetary policy

in %

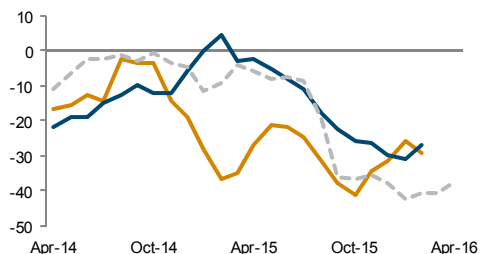
Left scale:
■ General gov. budget balance, cumulated, in % of GDP
Right scale:
— Broad money, annual growth rate
- - - Central bank policy rate (p.a.)
— Central bank policy rate (p.a.), real, defl. with annual PPI



External sector development

annual growth rate in %

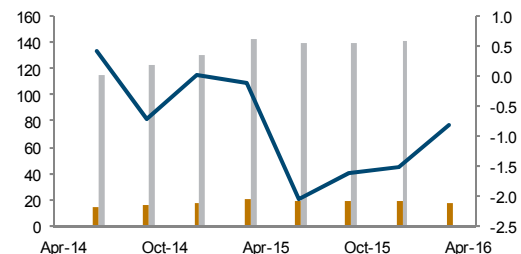
— Exports total, 3-month moving average (EUR based)
— Imports total, 3-month moving average (EUR based)
- - - Real exchange rate EUR/KZT, PPI deflated



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.

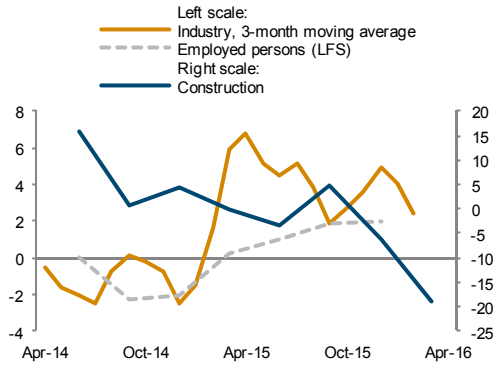
Source: wiiw Monthly Database incorporating Eurostat and national statistics.

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

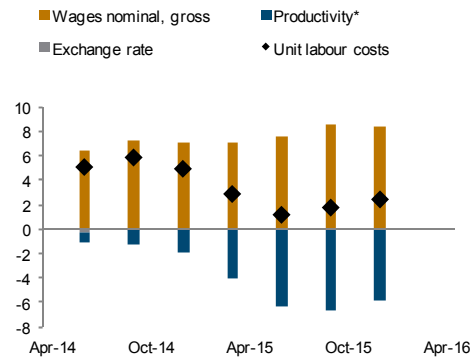
<http://data.wiiw.ac.at/monthly-database.html>

Latvia

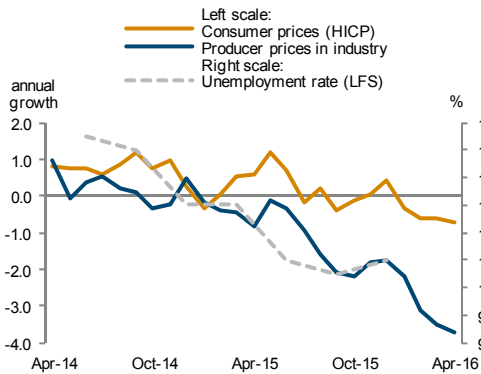
Real sector development
annual growth rate in %



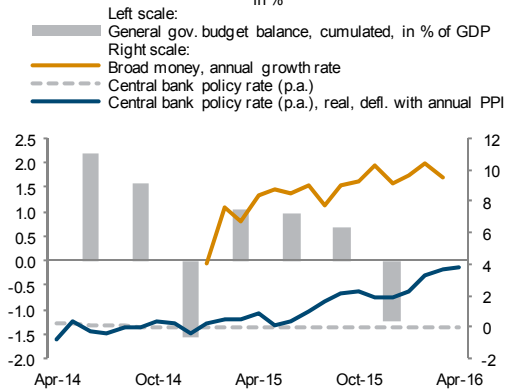
Unit labour costs in industry
annual growth rate in %



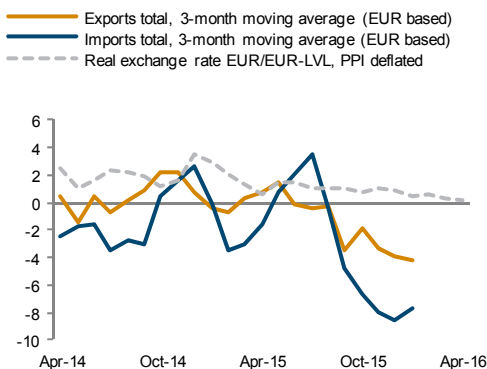
Inflation and unemployment
in %



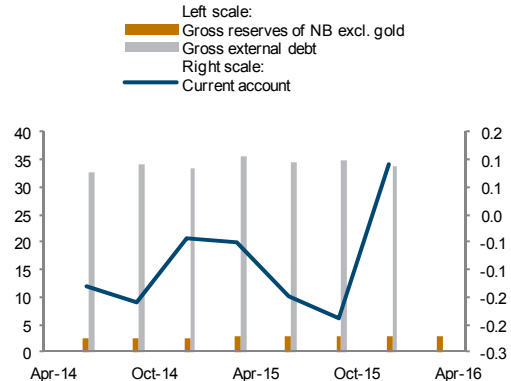
Fiscal and monetary policy
in %



External sector development
annual growth rate in %



External finance
EUR bn



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

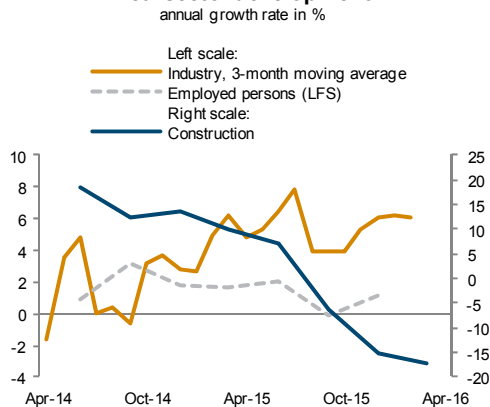
Source: wiiw Monthly Database incorporating Eurostat and national statistics.

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

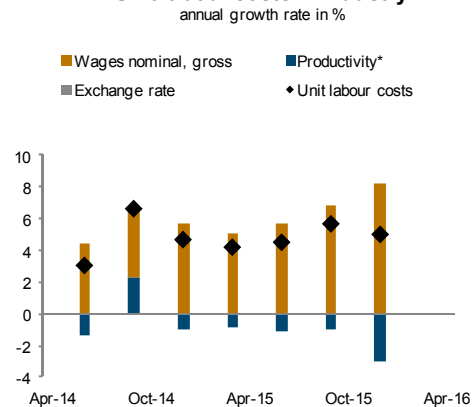
<http://data.wiiw.ac.at/monthly-database.html>

Lithuania

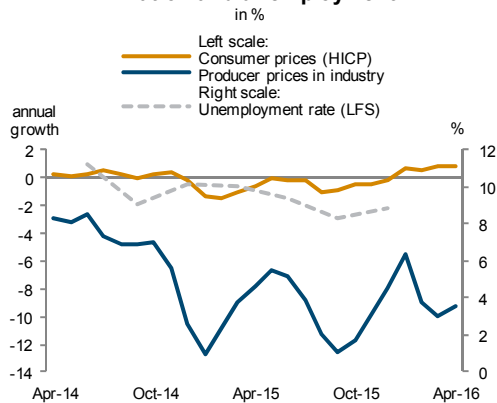
Real sector development



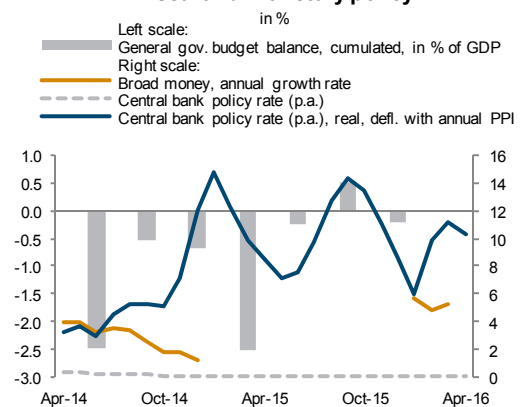
Unit labour costs in industry



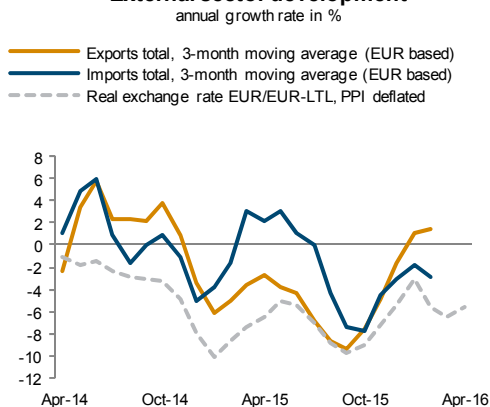
Inflation and unemployment



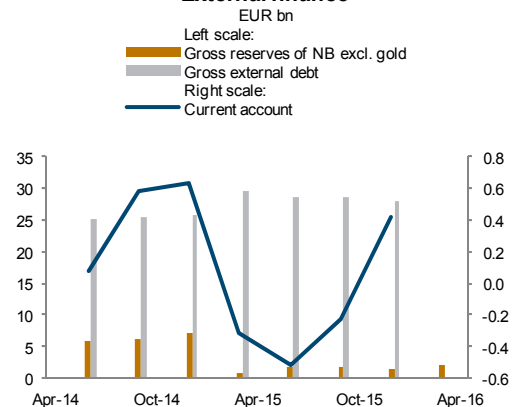
Fiscal and monetary policy



External sector development



External finance



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

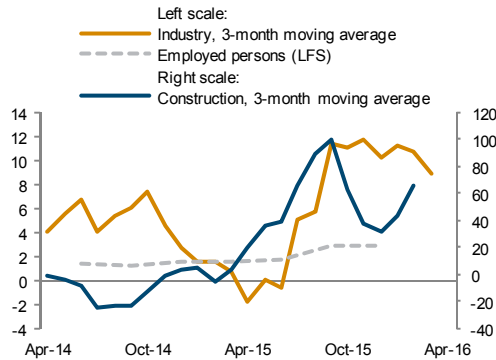
Source: wiiw Monthly Database incorporating Eurostat and national statistics.

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

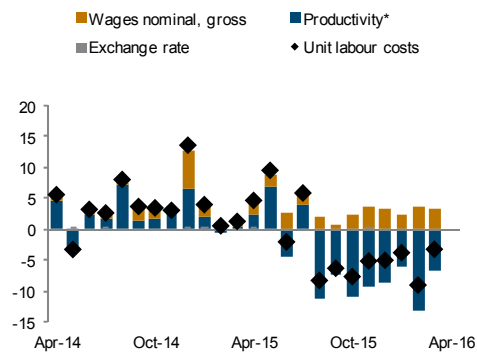
<http://data.wiiw.ac.at/monthly-database.html>

Macedonia

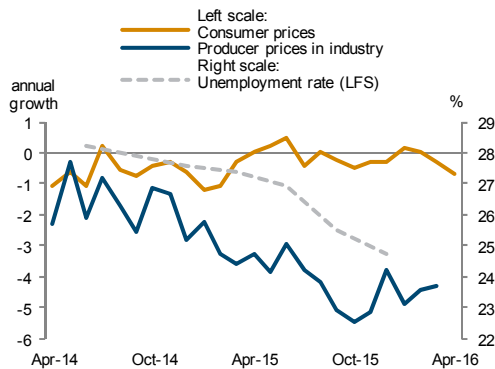
Real sector development
annual growth rate in %



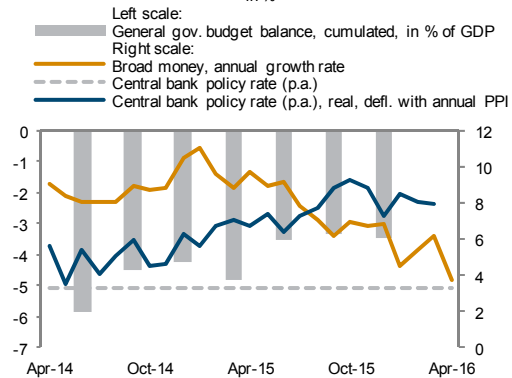
Unit labour costs in industry
annual growth rate in %



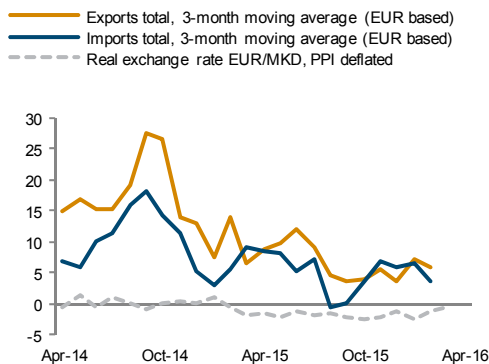
Inflation and unemployment
in %



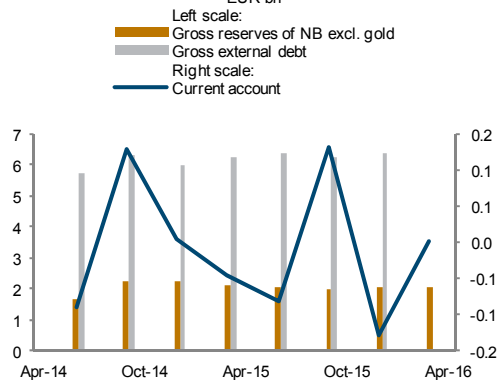
Fiscal and monetary policy
in %



External sector development
annual growth rate in %



External finance
EUR bn



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

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

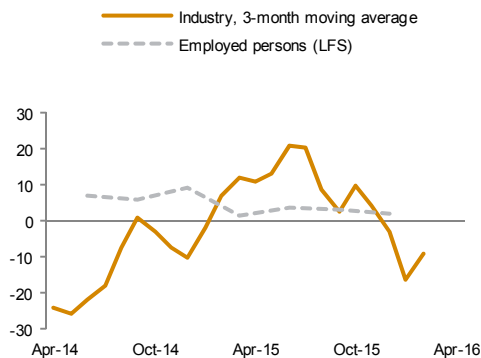
Baseline data, country-specific definitions and methodological breaks in time series are available under:

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

Montenegro

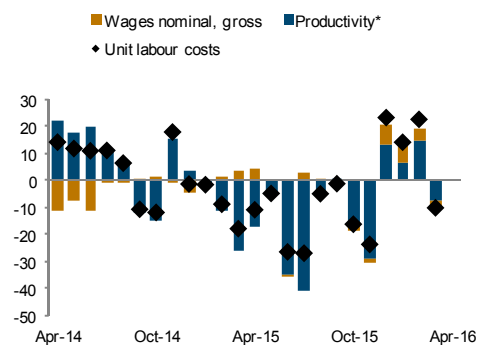
Real sector development

annual growth rate in %



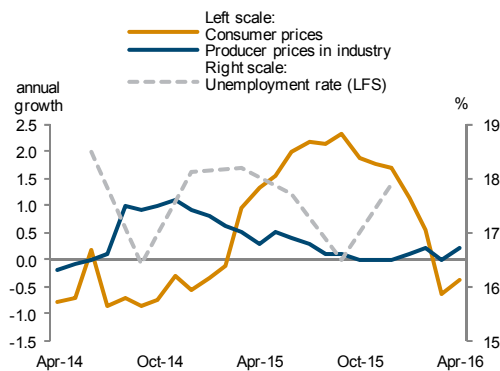
Unit labour costs in industry

annual growth rate in %



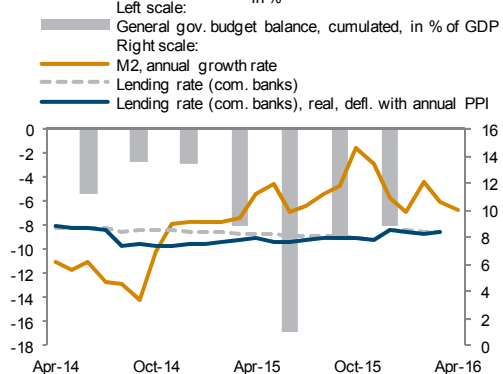
Inflation and unemployment

in %



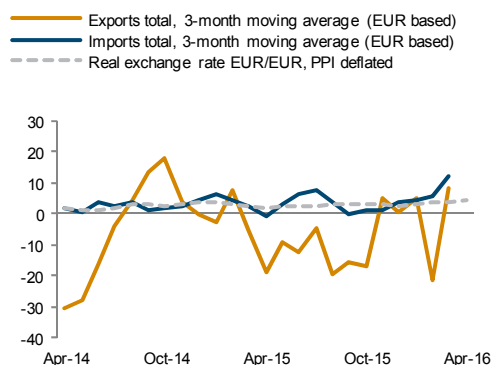
Fiscal and monetary policy

in %



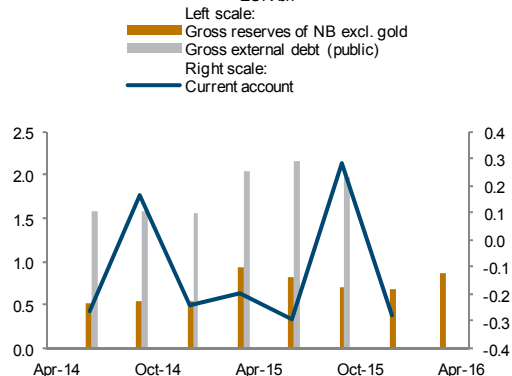
External sector development

annual growth rate in %



External finance

EUR bn



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

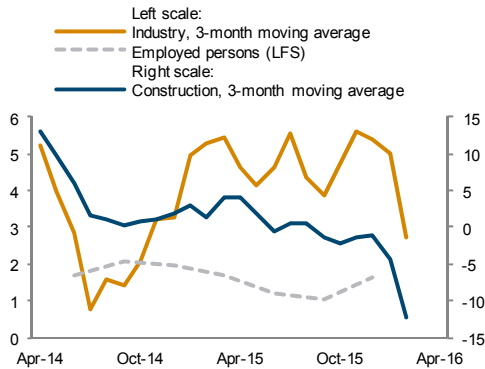
Source: wiiw Monthly Database incorporating Eurostat and national statistics.

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

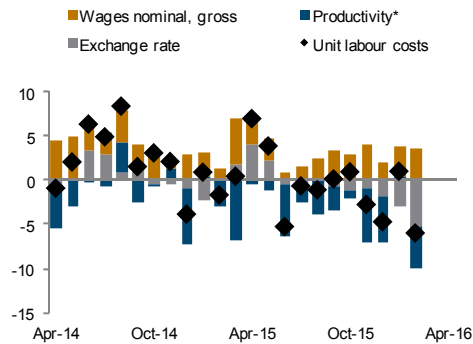
<http://data.wiiw.ac.at/monthly-database.html>

Poland

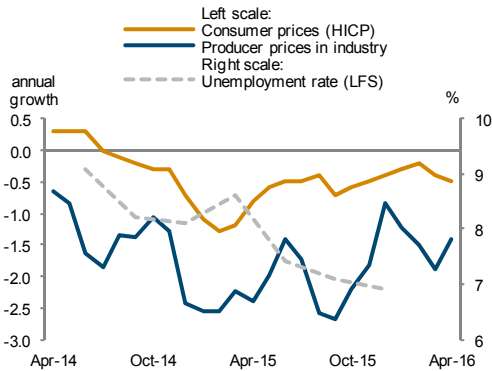
Real sector development
annual growth rate in %



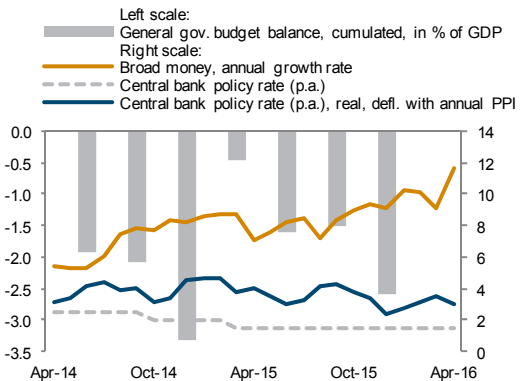
Unit labour costs in industry
annual growth rate in %



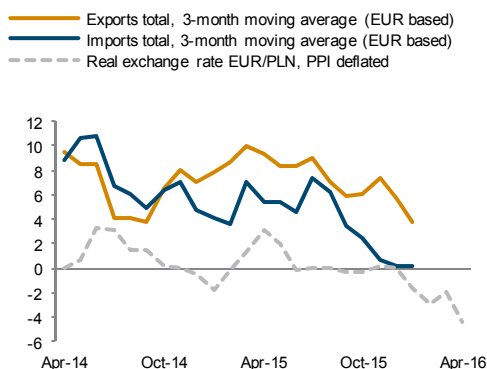
Inflation and unemployment
in %



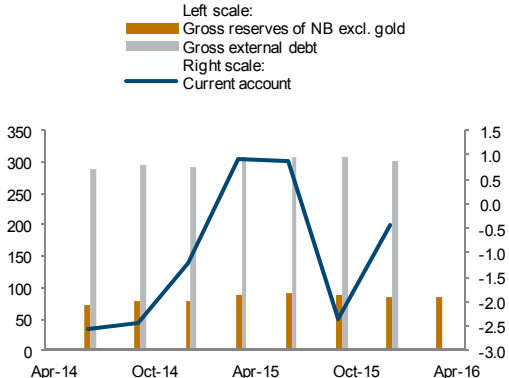
Fiscal and monetary policy
in %



External sector development
annual growth rate in %



External finance
EUR bn



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

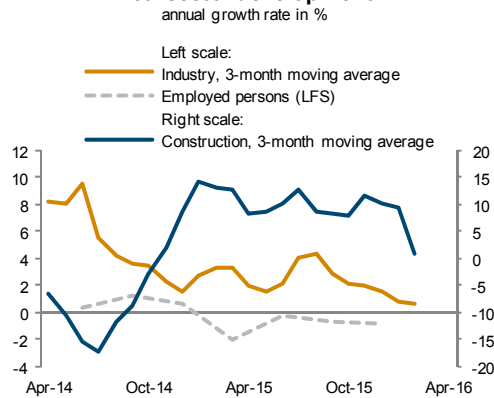
Source: wiiw Monthly Database incorporating Eurostat and national statistics.

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

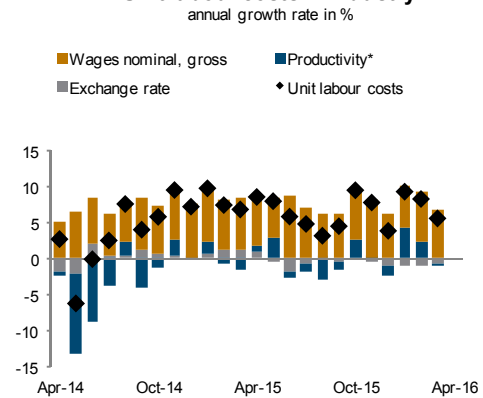
<http://data.wiiw.ac.at/monthly-database.html>

Romania

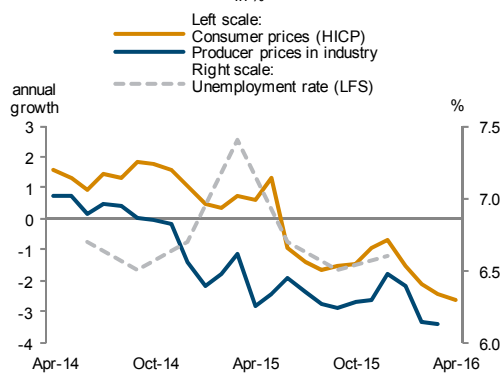
Real sector development



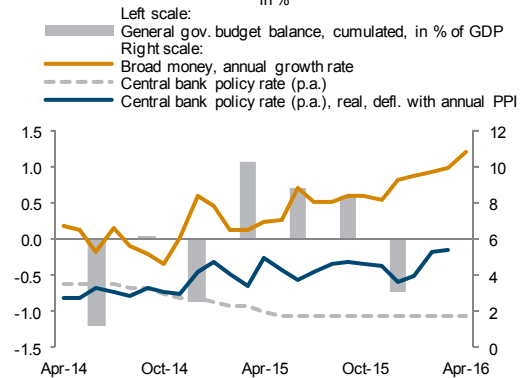
Unit labour costs in industry



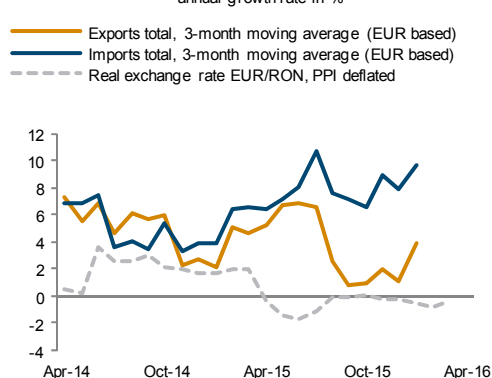
Inflation and unemployment



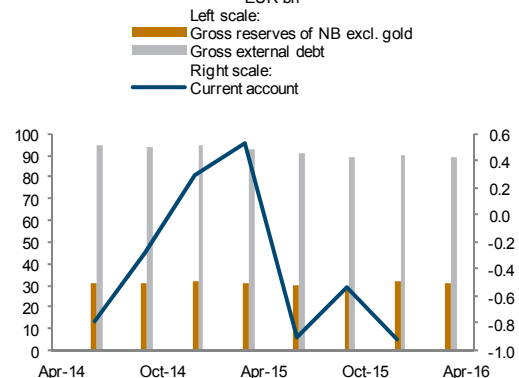
Fiscal and monetary policy



External sector development



External finance



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

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

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

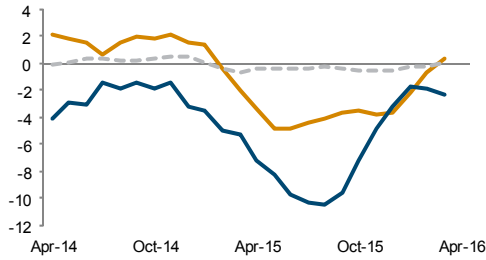
<http://data.wiiw.ac.at/monthly-database.html>

Russia

Real sector development

annual growth rate in %

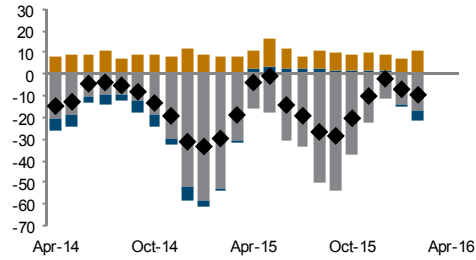
- Industry, 3-month moving average
- Construction, 3-month moving average
- - - Employed persons (LFS)



Unit labour costs in industry

annual growth rate in %

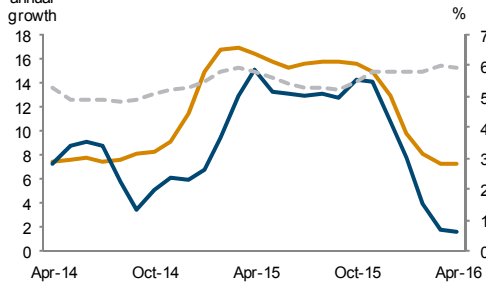
- Wages nominal, manuf., gross
- Exchange rate
- Productivity*
- ◆ Unit labour costs



Inflation and unemployment

in %

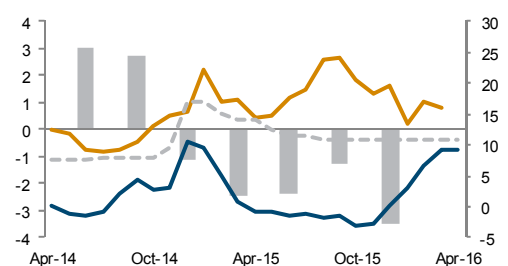
- Left scale:
 - Consumer prices
 - Producer prices in industry
- Right scale:
 - - - Unemployment rate (LFS)



Fiscal and monetary policy

in %

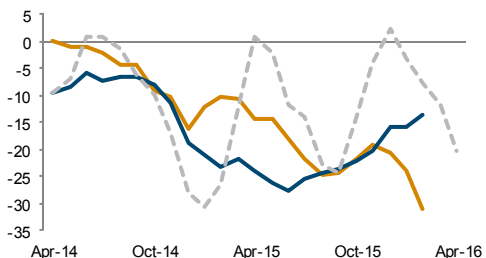
- Left scale:
 - General gov. budget balance, cumulated, in % of GDP
- Right scale:
 - M2, annual growth rate
 - - - Central bank policy rate (p.a.)
 - Central bank policy rate (p.a.), real, defl. with annual PPI



External sector development

annual growth rate in %

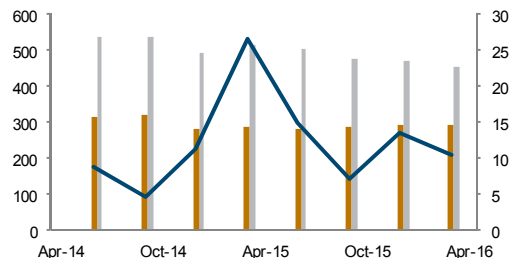
- Exports total, 3-month moving average (EUR based)
- Imports total, 3-month moving average (EUR based)
- - - Real exchange rate EUR/RUB, PPI deflated



External finance

EUR bn

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



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

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

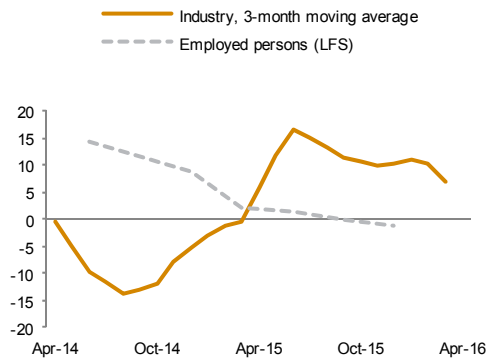
Baseline data, country-specific definitions and methodological breaks in time series are available under:

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

Serbia

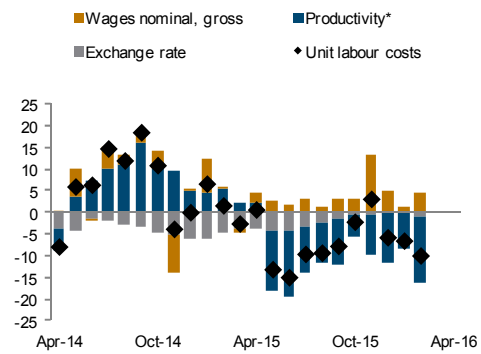
Real sector development

annual growth rate in %



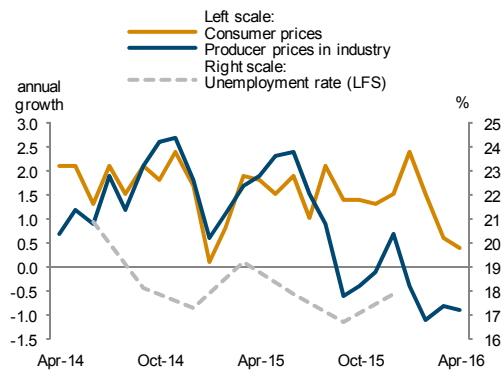
Unit labour costs in industry

annual growth rate in %



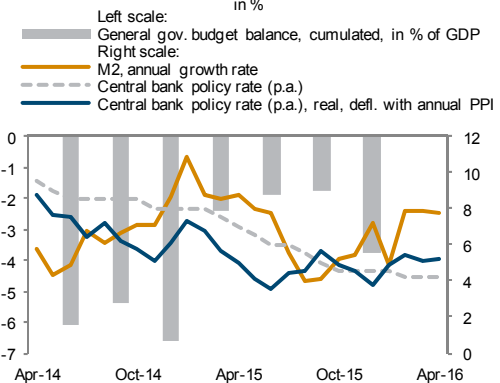
Inflation and unemployment

in %



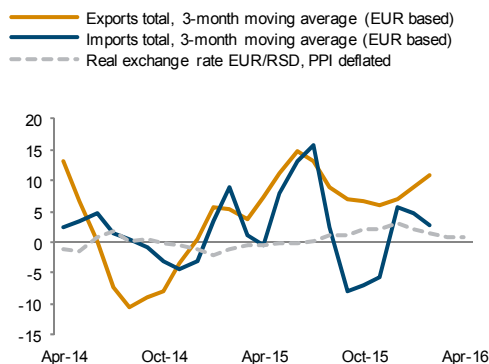
Fiscal and monetary policy

in %



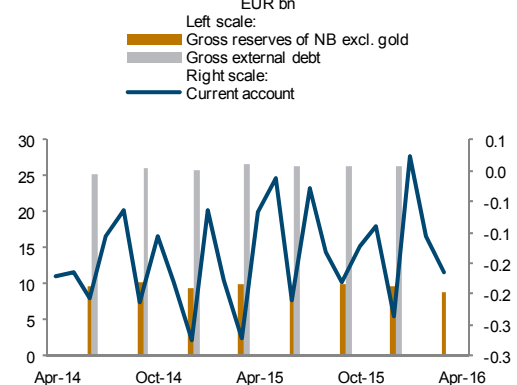
External sector development

annual growth rate in %



External finance

EUR bn



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

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

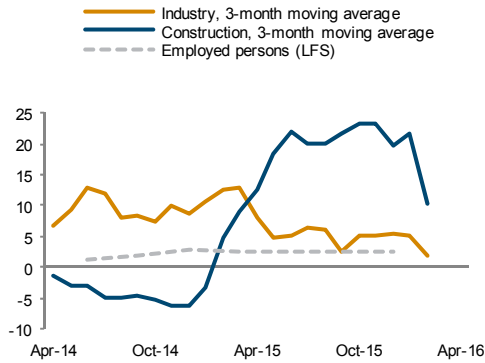
Baseline data, country-specific definitions and methodological breaks in time series are available under:

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

Slovakia

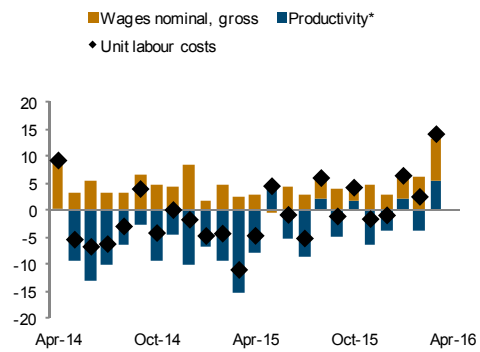
Real sector development

annual growth rate in %



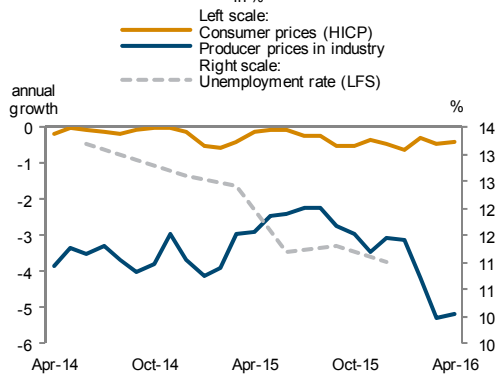
Unit labour costs in industry

annual growth rate in %



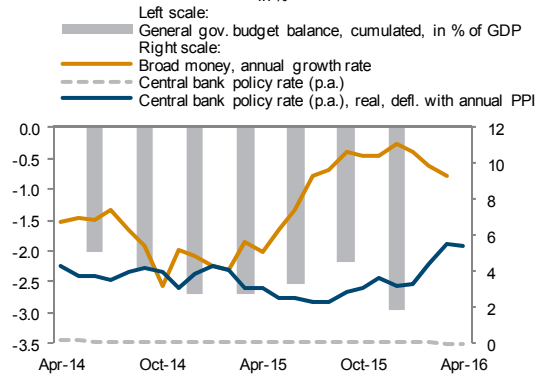
Inflation and unemployment

in %



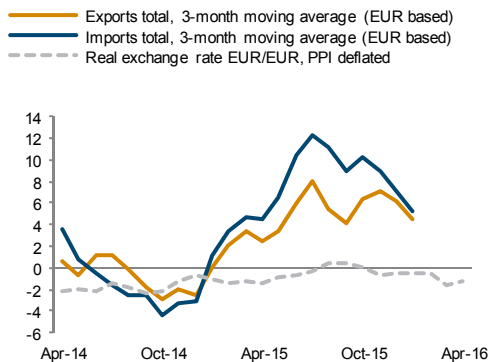
Fiscal and monetary policy

in %



External sector development

annual growth rate in %



External finance

EUR bn



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

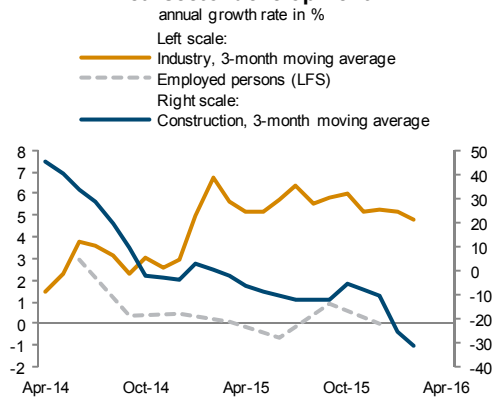
Source: wiiw Monthly Database incorporating Eurostat and national statistics.

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

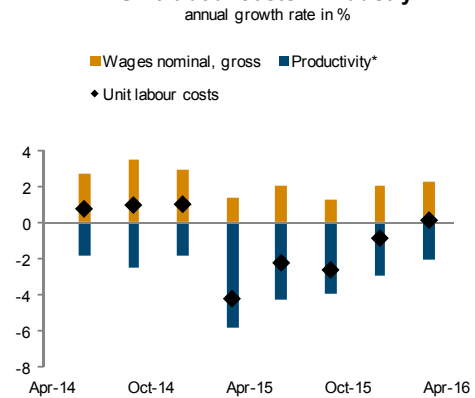
<http://data.wiiw.ac.at/monthly-database.html>

Slovenia

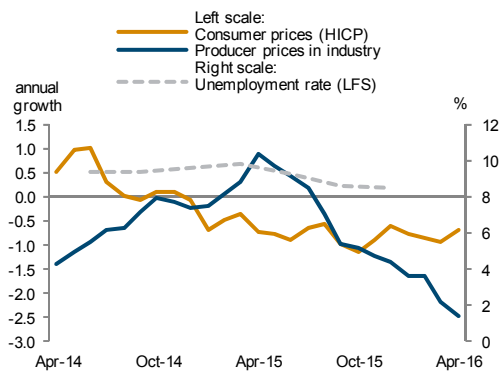
Real sector development



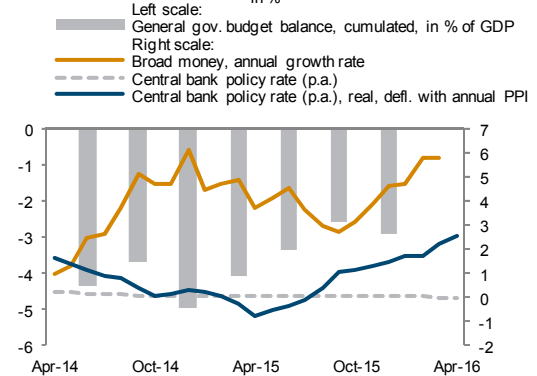
Unit labour costs in industry



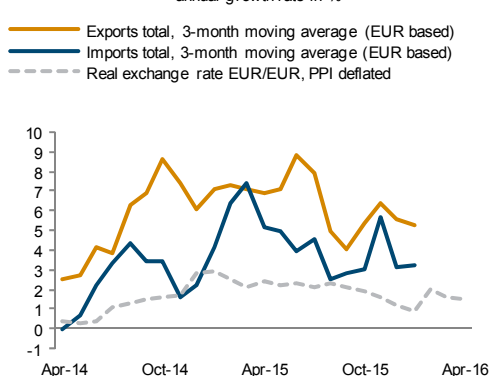
Inflation and unemployment



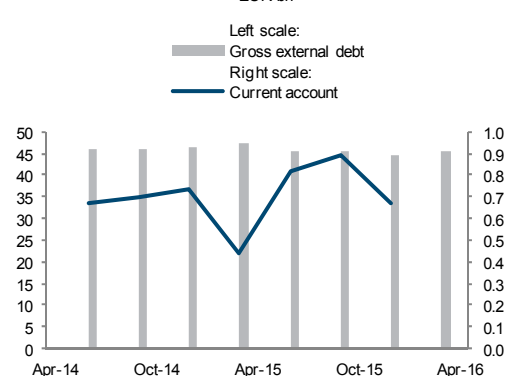
Fiscal and monetary policy



External sector development



External finance



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

Source: wiiw Monthly Database incorporating Eurostat and national statistics.

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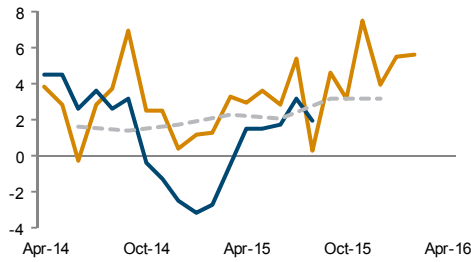
<http://data.wiiw.ac.at/monthly-database.html>

Turkey

Real sector development

annual growth rate in %

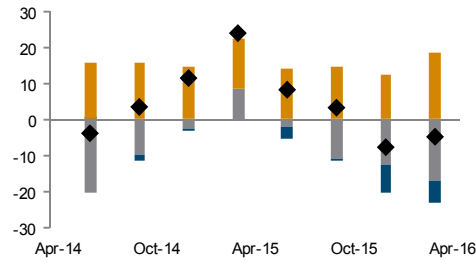
- Industry, 3-month moving average
- Construction, 3-month moving average
- - - Employed persons (LFS)



Unit labour costs in industry

annual growth rate in %

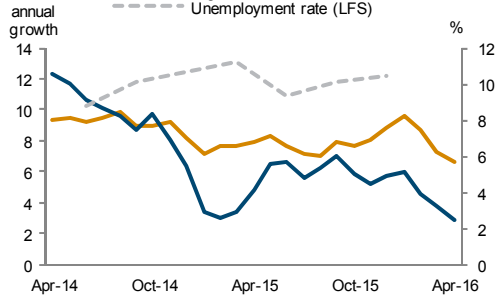
- Wages nominal, gross
- Exchange rate
- Productivity*
- ◆ Unit labour costs



Inflation and unemployment

in %

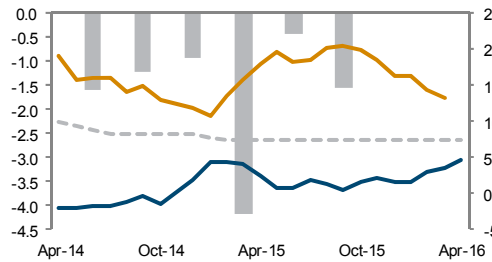
- Left scale: Consumer prices (HICP)
- Producer prices in industry
- Right scale: Unemployment rate (LFS)



Fiscal and monetary policy

in %

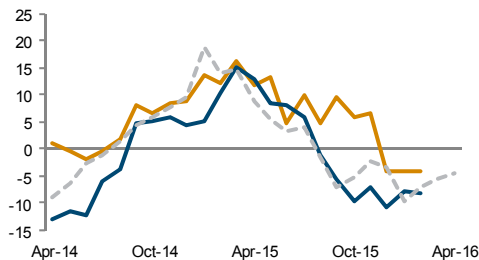
- Left scale: General gov. budget balance, cumulated, in % of GDP
- Right scale: Broad money, annual growth rate
- - - Central bank policy rate (p.a.)
- Central bank policy rate (p.a.), real, defl. with annual PPI



External sector development

annual growth rate in %

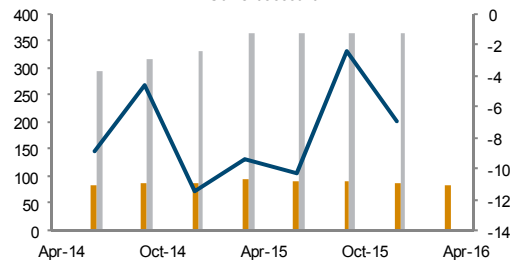
- Exports total, 3-month moving average (EUR based)
- Imports total, 3-month moving average (EUR based)
- - - Real exchange rate EUR/TRY, PPI deflated



External finance

EUR bn

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



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

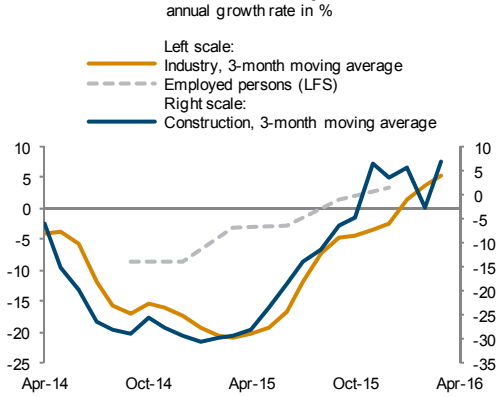
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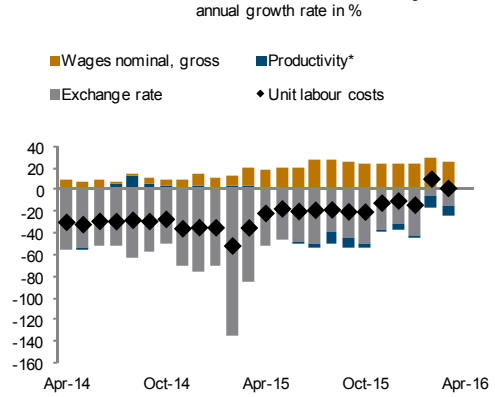
<http://data.wiiw.ac.at/monthly-database.html>

Ukraine

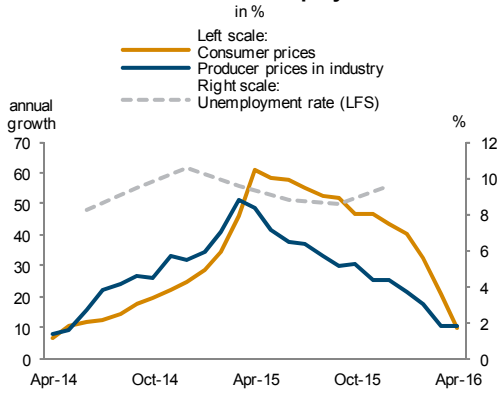
Real sector development



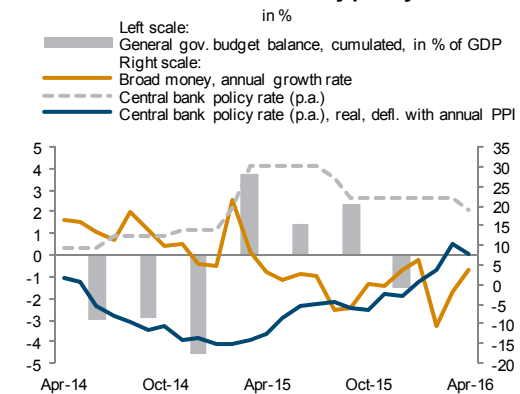
Unit labour costs in industry



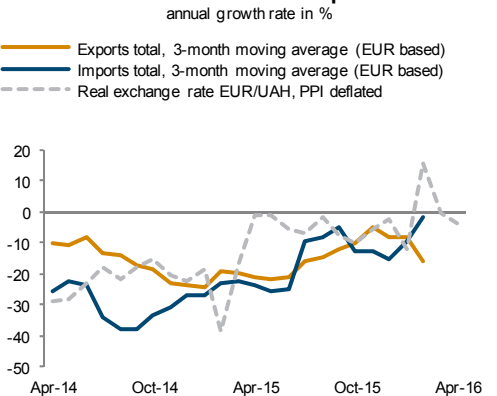
Inflation and unemployment



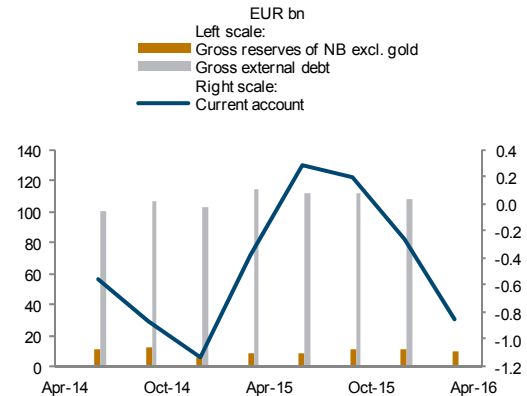
Fiscal and monetary policy



External sector development



External finance



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