wiiw

Monthly Report

DECEMBER 2017

Do Trade Imbalances Affect Economic Growth?

Trade Effects of EU Integration Arrangements in the Western Balkan Countries

Corruption and Firm-Level Productivity: Greasing or Sanding Effect?

Kyrgyzstan: Suffering from 'Dutch Disease'?

M

The Vienna Institute for International Economic Studies
Wiener Institut für Internationale Wirtschaftsvergleiche

Do Trade Imbalances Affect Economic Growth?

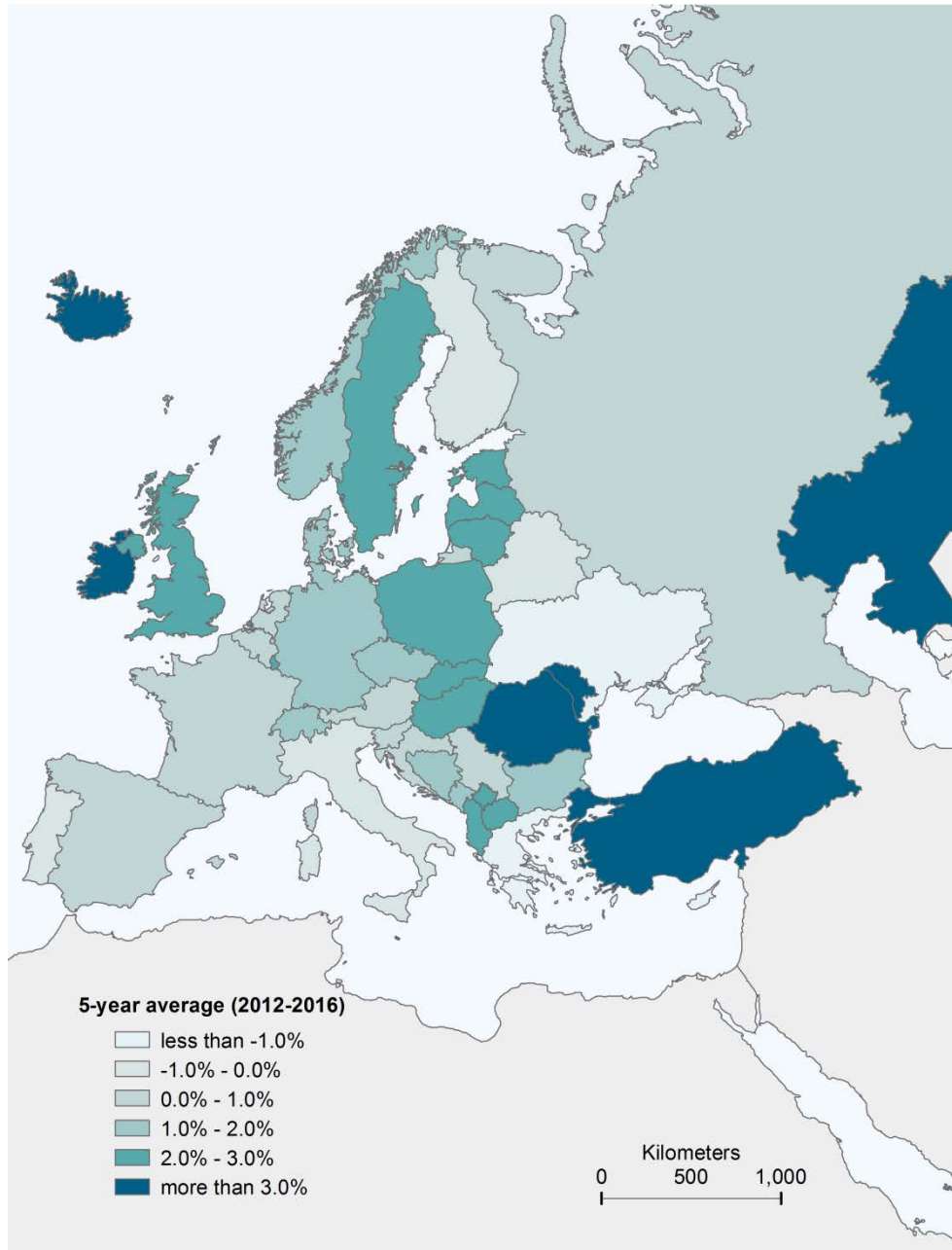# Trade Effects of EU Integration Arrangements in the Western Balkan Countries

Corruption and Firm-Level Productivity: Greasing or Sanding Effect?

Kyrgyzstan: Suffering from 'Dutch Disease'?

VASILY ASTROV
EDWARD BBAALE
LEON PODKAMINER
OLIVER REITER

CONTENTS

Gross domestic product, real growth in %, average 2012-2016

Source: wiiw Annual Database incorporating national and Eurostat statistics.

This map is an excerpt from the newly published **wiiw Handbook of Statistics 2017**. The Handbook contains macroeconomic statistics and key structural indicators for 22 CESEE economies, allowing comparisons across themes, countries and time for the period 1990-2016. It is available in hardcopy for the most recent years and as Excel tables covering the whole period. For details see the news article: 'Just released: wiiw Handbook of Statistics 2017'.

Opinion Corner: Do trade imbalances affect economic growth?

ANSWERED BY LEON PODKAMINER

The last 50 years not only have produced a series of revolutionary technological changes which should have accelerated global growth. These decades have also witnessed a truly revolutionary systemic change (gradual at first, accelerating later on) at the global level. The change started with stepwise internal liberalisations and deregulations in major industrialised countries. The developed countries' socio-economic models, which had sought to balance the interests of labour and business while relying on fiscal and incomes policies, were gradually replaced by neoliberal and monetarists ones. The internal systemic changes have been synchronised with consecutive waves of liberalisation of international economic relations. Trade liberalisations (cuts in tariff levels, progressive removal of many non-tariff barriers to trade) were followed by the wholesale liberalisation of capital flows, to a large degree completing the process of globalisation. The phenomenal rise in international trade has been the most obvious effect of globalisation. But, globalisation – and the globalisation-driven expansion of international trade – appears to have been associated with a slowdown of economic growth at the global level (Podkaminer, 2014, 2016).

According to the classical, neoclassical and contemporary theories of international trade, 'more trade' (and especially more free trade) should bring output gains. Why are such positive effects not showing up in the available data? There may be two major reasons.[1]

Firstly, the expanding internationalisation of production (which has been made possible by the liberalisation of trade and capital flows coupled with advances in transportation technologies) seems to be generating, or at least supporting, the tendency for the global wage shares to decline – and thus for the global profit shares to rise. This development may be closely related to the rise of inequality on the global level. While the impact of globalisation on global inequality remains a controversial issue, there is also a possibility of a reverse impact: from higher inequality to slower growth. The global shift in income distribution from wages to profits can account for the weakening of global growth because such a shift raises the overall saving propensity – without raising the propensity to invest. The tendency for the slowdown of growth of global output could then be an end result of both developments: rising global profit share/profitability and falling propensity to invest.

Secondly, it may be argued that expanding world trade could have been productive on the global scale if output growth in individual countries had been at least approximately balanced most of the time – and

---

[1] The supply-side, or structural, developments cannot be made responsible for the secular global growth slowdown. The natural resources have become more abundant secularly (as it is evidenced by their prices trending downwards in relative – and often absolute – terms). The weakening pace of labour productivity growth is also an unlikely cause of the slowdown of global growth. Rather, the weakening pace of productivity growth is a *consequence* of output growth slowdown rather than its cause (Podkaminer, 2017).

not only sporadically, in response to the severe debt/payments or exchange rate crises.[2] The negative output effects of rising global trade may have been due to the huge and persistent trade imbalances that have developed under progressing globalisation (Figure 1).

Figure 1 / Ratio of global trade surplus* to global output, 1960-2014
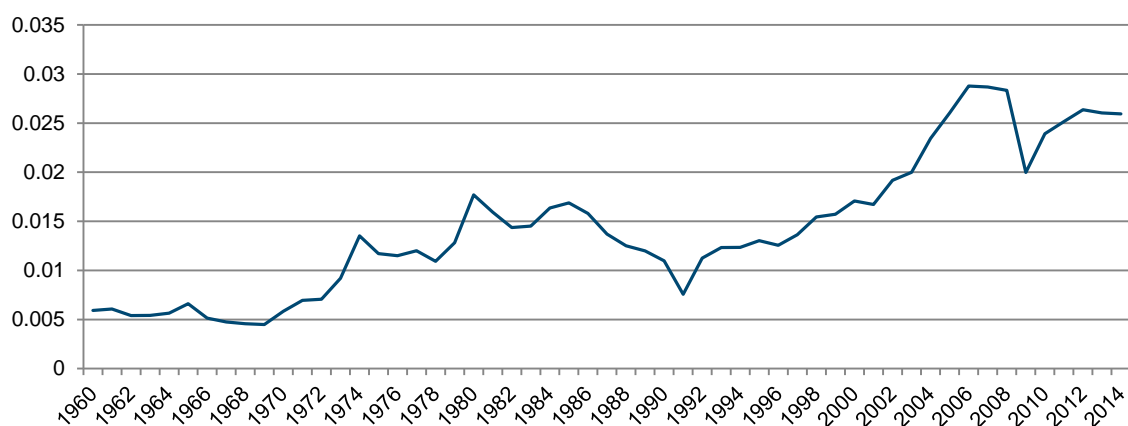
Note: * The global trade surplus is defined as the sum of national trade *surpluses* (positive trade balances) across the world.
Source: Own calculations based on the World Bank's World Development Indicators, WDI (August 2016 edition).

Such imbalances may have acted as brakes on sustained output growth in both the persistent deficit and the persistent surplus countries. Under a different international economic order, somehow enforcing more balanced trade among nations – with major nations not allowed to compensate deficient domestic demand with huge trade surpluses that destabilise their partners – global trade may assume the positive role assigned to it by the conventional trade theories. The classical Bretton Woods system was an example of such international arrangements limiting persistent and large trade imbalances. It is worth remembering that from 1961 through 1973, global output kept rising, in per capita terms, on average by over 3.4% per year. In contrast, the average yearly per capita growth rate for the period 1974-2015 (that is, following the dissolution of the Bretton Woods system) was only 1.5%.

It is true that some countries' economic growth may heavily rely on the expansion of their exports. Moreover, productivity growth (and growth of potential output) in many cases may critically depend on rising imports of capital goods and intermediate inputs. It is equally true that rising net exports may contribute substantially to overall GDP growth in some nations (the performance of the 'East Asian Tigers', including China, over the past decades is a particularly pertinent example). But rising net exports may also be achieved at the cost of domestic growth stagnation, which suppresses imports. This has been the case, for instance, in Germany where high trade surpluses (achieved through the sustained repression of wages and domestic demand) have been associated with secularly anaemic GDP growth. Moreover, it must be remembered that for each country relying for its GDP growth on the improvement of its net exports, there must be some other countries whose net exports necessarily contract as a result

---

[2]   In the neoclassical (and derivative) trade theories countries engage in *barter* trade – very much like the individual 'agents' populating the microeconomics textbooks. The barter trade is assumed to culminate in a Pareto-optimal, *balanced*, equilibrium. But in the real world nations do not engage in barter trade, but in trade involving *money*, or debt. Germany, or China, does not earn export revenues in order to spend them, immediately and completely, for paying for the imports urgently desired.

– thus depressing their GDP growth (as has been the case in e.g. Southern EU Member States). The existence of a club of countries following such 'export-led' growth paths implies the existence of a club of 'import-fed' countries whose GDP growth must sooner or later be held back by a debt or balance-of-payments crisis. Thus, the global economy – being an autarchic system where trade surpluses and deficits of individual countries necessarily sum up to zero – cannot follow the export-led growth path based on trade surpluses.

The final 'policy conclusion' could be that the basic paradigms of the international economic order need to be changed in order to enforce more balanced trade among nations. Under the reformed world economic order the expansion of global trade could then be expected to support global growth rather than suppress it (as has been the case over the past few decades). Of course, the basic paradigms of domestic macroeconomic policy-making in major countries would have to be overhauled too if these countries were to follow the externally balanced growth paths (Laski and Podkaminer, 2012; Podkaminer, 2015). Whether the necessary internal reforms would have a chance to be implemented is another matter.

REFERENCES

Laski, K. and L. Podkaminer (2012), 'The basic paradigms of EU economic policy-making need to be changed', *Cambridge Journal of Economics*, Vol. 36, No. 1, pp. 253-271.

Podkaminer, L. (2014), 'Does trade drive global output growth?', *Bank & Credit*, Vol. 45, No 4, pp. 311-330.

Podkaminer, L. (2016), Has Trade Been Driving Global Economic Growth? *wiiw Working Paper* No. 131, The Vienna Institute for International Economic Studies (wiiw); https://wiiw.ac.at/has-trade-been-driving-global-economic-growth--p-3995.html

Podkaminer, L. (2015), 'The euro area's secular stagnation and what can be done about it. A post-Keynesian perspective', *Real World Economics Review*, Issue 70, pp. 1-16.

Podkaminer, L. (2017), 'Labour productivity growth slowdown: An effect of economic stagnation rather than its cause?', *Acta Oeconomica*, Vol. 67, No. s1, pp. 67-77.

Trade effects of EU integration arrangements in the Western Balkan countries

BY OLIVER REITER

INTRODUCTION

Prior to becoming a member of the European Union, a country is expected to 'associate' itself with the EU. In this process the country runs through a 'Stabilisation and Association Process' (SAP), which, ideally, leads to the signing of a 'Stabilisation and Association Agreement' (SAA). As the signing of a SAA is usually coupled with granting the country easier access to the European Single Market (e.g. through reductions of import quotas and tariffs), an SAA is considered to be a primary stage of EU membership.

All Western Balkan countries are in such an SAP and have already signed SAAs with the EU. These countries are required to implement parts of the current EU legislation to make them ready for EU membership. The implementation of EU law can be considered as a signal of a country's commitment to European norms and standards. So it would be natural to assume that this signal already ex-ante influences trade flows, i.e. encourages firms to access the new market. Then, when a country is considered to have made sufficient progress and fulfils the political preconditions as well, it can become a member of the EU. For our analysis, this means the country becomes a member of the European Single Market, i.e., it can import from and export to all EU countries free of tariff duties.

Table 1 / SAA dates in selected Western Balkan countries[1]

	Albania	Bosnia & Herzegovina	Montenegro	Serbia
SAA/IA[2] signed	2006	2008	2007	2008
SAA/IA in force	2006	2008	2008	2010
SAA in force	2009	2015	2010	2013

Source: European Commission, https://ec.europa.eu/neighbourhood-enlargement/node/37_de

Our research questions are: How does the SAP influence the bilateral trade of the accessing country with the members of the EU? And what effect does EU membership have on bilateral trade?

---

[1]   Macedonia and Kosovo have SAAs with the EU too. However, they signed the SAA before (Macedonia) and after (Kosovo) the time period covered by our data.

[2]   SAA/IA stands for Stabilisation and Association Agreement/Initial Agreement.

DATA

At wiiw, Robert Stehrer and I compiled a new dataset called the 'wiiw Integrated Europe Input-Output Database', which can be used to answer the questions above. We collect data on national supply and use tables from national account statistics (which contain detailed data on what inputs industries use to produce their outputs) for nearly all European countries[3] as well as several major non-European economies, in total 50 countries[4]. After cleaning, standardising and imputing missing data, we combine this dataset with bilateral trade data and derive multi-regional input-output tables for the years 2005 to 2014.

An input-output table can be used in various ways in economic research. Analysing the effect of a trade policy on bilateral trade flows, as we do here, is just one of them. Using input-output data for this research has, however, several advantages:

› The panel is balanced and the trade flows are balanced too (balanced meaning that exports equal imports, which is rarely the case in bilateral trade statistics).

› We have data on *intra*-national trade flows[5] (this is important for theoretical and econometrical consistency with the gravity model).

› We are able to analyse not only gross exports, but also value added exports[6].

› Additionally, we add data on bilateral tariffs to see how they affect the trade flows in our country sample.

Additionally, we add data on bilateral tariffs to see how they affect the trade flows in our country sample.

GRAVITY MODEL[7]

To analyse the trade flows, we use a state-of-the-art gravity model[8]. A gravity model is attractive for several reasons. First, it has an intuitive interpretation: Two countries tend to trade more the bigger their economies are and the less trade friction (such as distance, tariffs) exists between them.[9] Second, it matches the observed trade data usually very well. Third, it has been shown that the gravity equation can be derived from several 'demand-side' consumer-driven or 'supply-side' firm-driven microeconomic settings. Finally, using a gravity model we can estimate the effect of a trade policy change (such as signing an SAA or becoming an EU member) on bilateral trade flows.

---

[3] At the moment, only Belarus, Kosovo and Moldova are missing.

[4] There are 39 European countries plus eleven non-European countries.

[5] Products that are produced and consumed in the same country are called intra-national trade flows. Products that are produced and consumed in different countries are international trade flows.

[6] See Stehrer (2012) for a description of value added exports and how they are calculated.

[7] For a detailed description of the used methodology, see Reiter and Stehrer (forthcoming).

[8] See Yotov et al. (2016) for an overview of the gravity literature and a list of best practices.

[9] Newton's law of gravity states that the gravitational force between two objects is proportional to their masses and inversely proportional to the distance between the two objects.

Econometrically, such a trade policy change (e.g. signing an SAA) is nothing more than a dummy variable that is 1 when an SAA is present for an exporter-importer-year combination and 0 otherwise. For example, for exports from Austria to Albania in 2008, the dummy is 0. It becomes 1 in 2009, when Albania signed its SAA with the EU (and thus also with Austria). A similar specification using a dummy variable is used for EU membership: In the timeframe we consider, Romania and Bulgaria (in 2007) and Croatia (in 2013) became EU members. Thus, the EU member dummy, e.g., between France and Bulgaria is 0 until 2007 and 1 thereafter.

ESTIMATION RESULTS

We use the resulting panel dataset for the 50 countries over the years 2005 to 2014 to see whether the SAAs had an effect on bilateral trade flows. Table 2 provides an overview of our regression results on the national level.

Table 2 / [10] National level regression results

| | Dependent variable: | |
	total exports	value added exports
SAA	25.5%***	24.6%***
EU membership	4.7%**	4.2%**
Tariffs	-3.0%**	-3.7%***

Note: ∗ p<0.1; ∗∗ p<0.05; ∗∗∗ p<0.01.

We can see that all coefficients are significant and have the expected sign. The coefficient for SAA in the first column means that gross export flows tend to be on average 25.5% higher with an SAA than without one. Similarly, the coefficient for EU membership tells us that EU membership, e.g. Romania in 2007, is associated with 4.7% higher gross exports. This rather low result may indicate that the bigger part of the economic gains already occur during the SAP phase. With EU accession, the additional trade gains are not that big anymore. Unsurprisingly, tariffs have a negative effect on trade flows.

Additionally, the second column in Table 2 shows that value added exports behave very similar to gross exports. They show the same strong reaction of trade flows to SAA but rather low results for EU membership. Tariffs have the same negative influence on value added exports as on gross exports.

Table 3 / Industry level regression results

| | Dependent variable: total exports | | |
	Agriculture/Mining	Manufacturing	Services
SAA	36.3%***	30.1%***	14.1%***
EU membership[11]	48.5%***	5.7%*	6.1%**
Tariffs	-14.8%***	-2.5%*	0.8%

Note: ∗ p<0.1; ∗∗ p<0.05; ∗∗∗ p<0.01.

---

[10] The SAA coefficient here refers to SAA/IA in the table 1 above. The results for the other possible dates, such as SAA/IA in force or SAA signed, are similar to the results in table 2 and omitted here for brevity. See Reiter and Stehrer (forthcoming) for a thorough examination of the different dates.

[11] The estimates for the impact of EU membership on industry level are still preliminary.

Furthermore, we disaggregate our data to sectoral level: into agriculture and mining, manufacturing and services. Then we run the same regression as above. Table 3 gives the results.

Table 3 shows that the agriculture and mining sector profits the most from SAAs and EU membership. It is also the sector that benefits the most from tariffs reduction. Agricultural and mining products are usually easily tradable and, hence, price plays an important role. Thus, it is not surprising that tariffs show the strongest effect in agricultural trade.[12] Services, on the other end, are not very tradable (most services are still sold and bought domestically) and show much less elasticity to SAAs and tariffs. Trade in the manufacturing industries is strongly and positively influenced by the signing of an SAA, but much less so by becoming an EU member: the respective coefficient is not only relatively small in magnitude but is also only significant at the 10% level.

CONCLUSION

Using the new wiiw Integrated Europe Input-Output Database we show that signing a Stabilisation and Association Agreement with the EU (which means implementing EU law) leads to increases in bilateral trade flows, *even though* the EU abolished its tariffs on almost all products originating from the Western Balkan countries already in 2000. This means there is a trade facilitation effect in an SAA that acts *on top* of tariff reductions/elimination. This may be due to a signal of commitment to European norms and standards. In turn, EU accession itself tends to have a much smaller impact on trade – with the exception of agriculture and mining, where the impact of EU accession tends to be even greater than that of an SAA.

REFERENCES

Reiter, O. and R. Stehrer, Trade policies and integration in the Wider Europe, *wiiw Working Paper*, forthcoming.

Stehrer, R. (2012), Trade in value added and the valued added in trade, *WIOD Working Paper*.

Yotov, Y.V., R. Piermartini, J. Monteiro and M. Larch (2016), An advanced guide to trade policy analysis: The structural gravity model, World Trade Organisation, Geneva.

---

[12] Note that the EU unilaterally abolished tariffs on nearly all products produced in the Western Balkans already in 2000. The conclusion that lower tariffs lead to higher trade volumes is, however, still valid.

Corruption and firm-level productivity: greasing or sanding effect?

BY EDWARD BBAALE[1]

INTRODUCTION

Corruption was ranked among the top five biggest obstacles affecting the operation of enterprises in Africa and was rated as a severe obstacle by close to 40% of firms participating in the survey reviewed in this article. Consequently, we attempted to establish whether corruption 'greases the wheels of commerce' or 'sands the wheels of commerce'. The proponents of the 'greasing of the wheels' hypothesis argue that payment of a bribe to government officials is a second-best option as it helps to break the red tape that is associated with the otherwise inefficient public sector (Leff, 1964; Huntington, 1968; Leys, 1965; Lui, 1985). Furthermore, corruption can be associated with efficiency gains especially when it mimics a competitive bidding for government contracts with the most profitable and efficient firms able to pay highest bribe (Beck and Maher, 1986; Lien, 1986). Empirically, Vial and Hanoteau (2010) found support for the 'greasing the wheels' hypothesis in the Indonesian manufacturing industry. Conversely, corruption has been argued to 'sand the wheels' of the production space. For example, Myrdal (1968) argues that bureaucratic rigidities are a creation of public officials to incentivise entrepreneurs or households to pay bribes when demanding for public services. Indeed, empirical evidence has argued in favour of corruption propagating efficiency losses (De Rosa et al., 2013; McArthur and Teal, 2002; Meon and Sekkat, 2005).

BRIBE INCIDENCE, 'TIME TAX' AND 'BRIBE TAX'

Non-convergence in the debate regarding the effect of corruption on economic outcomes is the essence of this paper. Using a World Bank Enterprise Survey (WBES) dataset of 26 African countries, this paper explores the effect of corruption on firm productivity. We employed descriptive analysis, OLS and IV 2SLS approaches to lend an empirical regularity to the question whether corruption enhances or retards firm-level productivity. Firm-level productivity was measured by output per worker converted to US dollars using the exchange rate data obtained from the International Financial Statistics (IFS) of the International Monetary Fund (IMF, 2017).

On the other hand, corruption was measured using three indicators. The first indicator is the bribe incidence, which is a binary variable equal to one if a firm has ever paid a bribe and zero otherwise. We note that almost 40% of the firms have ever made informal payments to government officials.

The second measure is the 'time tax' measured as the percentage of top management time spent dealing with government regulations. On average, managers in our sample spend over 7% of their time

---

[1]   School of Economics, Makerere University, Kampala-Uganda.

dealing with the government regulatory requirements. Figure 1 shows the distribution of countries by the average 'time tax' across the two waves/rounds of our data.[2] It is observed that top managers from more countries in our sample spent more time dealing with red tape in wave/round 2 than they did in wave/round 1. This implies that many African countries became more bureaucratic in the second wave than in the first. Countries like Niger, Angola, Cameroon, and Egypt are the worst performers in this group. On the other hand, fewer countries registered an improvement in red tape in the second wave than in the first wave. Countries like Mauritania, Madagascar, Democratic Republic of Congo, and Benin are the best performers in this group.

The third measure is the 'bribe tax', which is the percentage of firm sales paid in bribes. On average, close to 2% of firm sales proceeds were used as informal payments to government officials. Figure 2 shows that the majority of countries paid a lower percentage of their sales in bribes in wave 2 than they did in wave 1. This signifies a reduction in the monetary type of corruption. However, Figures 1 and 2 appear to be to a large extent mirror images of one another. In wave 1 of Figure 1, countries experienced a shorter red tape but at the same time they paid higher bribes (Figure 2, wave 1). This observation seemingly points to a trade-off between bribe payments and the time spent on dealing with the bureaucracy, however, our empirical analysis did not lend support to this view.

Figure 1 / Distribution of African countries by 'time tax'

(% of management time spent on dealing with government regulations)
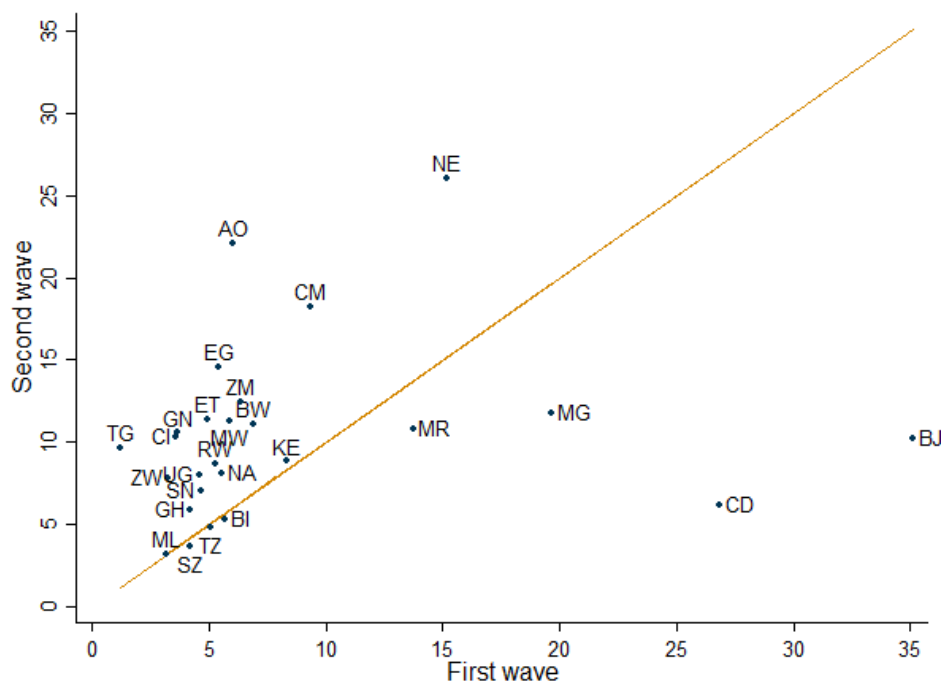
Note: For country acronyms please see Appendix on p. 15.
Source: Own computations based on WBES database.

[2]   The two waves of data refer to the two rounds of World Bank surveys conducted since 2006. However, the exact timing of these waves varies across countries: for instance, the first wave for Uganda refers to 2006, while that for Kenya to 2008, etc.

Figure 2 / Distribution of African countries by 'bribe tax'

(% of sales paid as bribe)
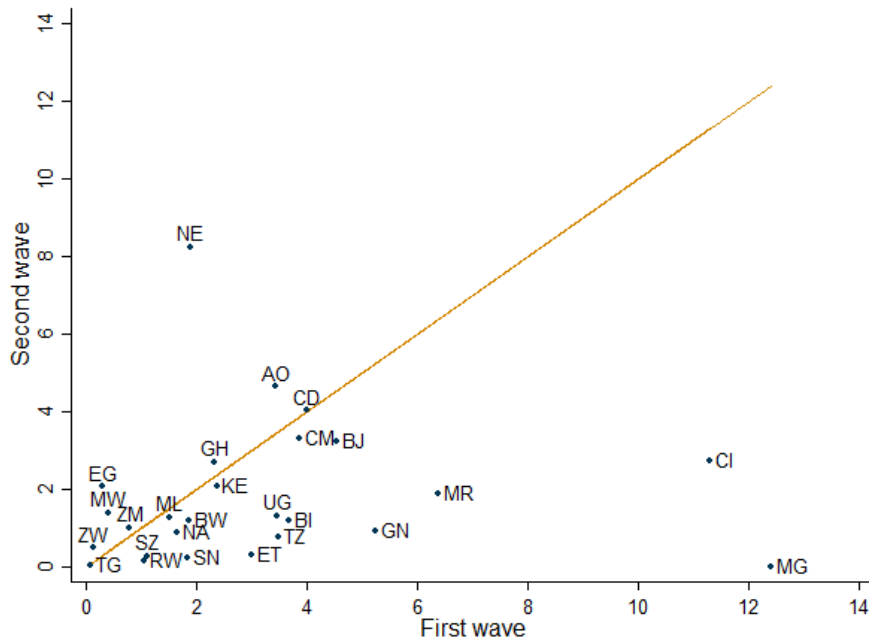
Note: For country acronyms please see Appendix on p. 15.
Source: Own computations based on WBES database.

Furthermore, we attempt to classify firms by 'bribe' and 'time tax'. It is found that large firms spend a higher percentage of the top management time (over 10%) dealing with government bureaucracy compared to small and medium-sized firms. Similarly, large firms pay a smaller 'bribe tax' (slightly above 1% of their sales) (Figure 3). This might imply large firm are always subject to relatively more government control/regulations compared to counterparts. Also, there might be 'economies of scale' in bribe payments to the extent that large firms pay a lower percentage of their sales in bribes.

Figure 3 / Average percentage of 'time' and 'bribe tax' by firm size
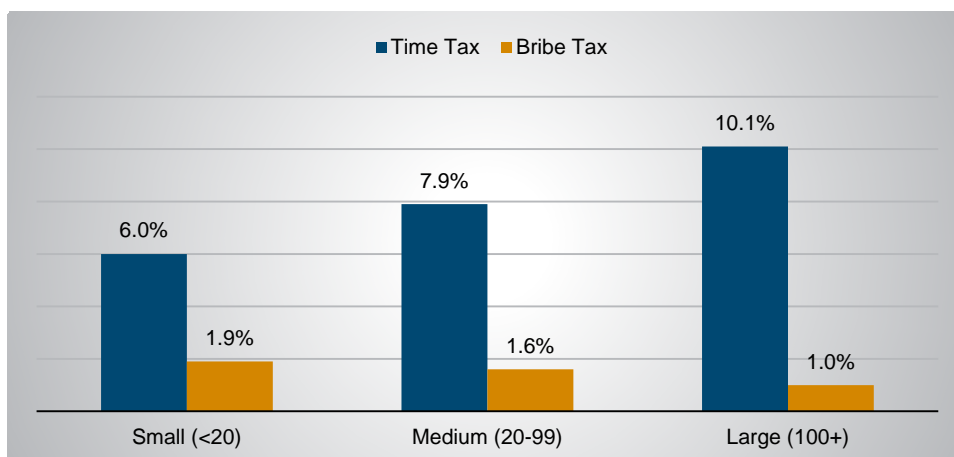
Source: Own calculations based on WBES data.

Figure 4 reveals that foreign-owned firms spend a higher proportion of top management time dealing with government bureaucracy compared to domestically-owned firms. In spite of this, there is no significant difference in the 'bribe tax' paid by foreign-owned firms and domestically owned firms, even though foreign-owned firms pay a slightly higher 'bribe tax'.

Figure 4 / Average percentage of 'time' and 'bribe tax' by firm ownership
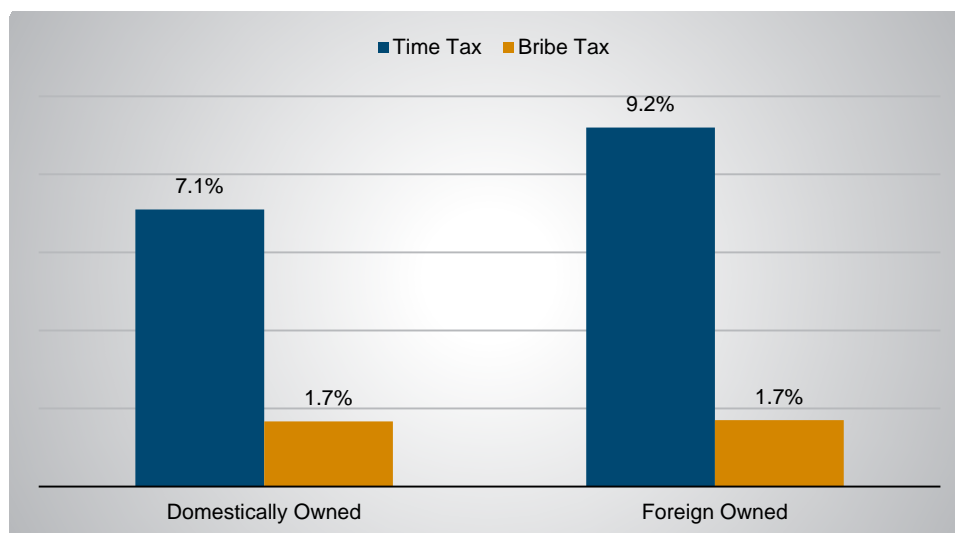
Source: Own calculations based on WBES data.

Figure 5 / Average percentage of 'time' and 'bribe tax' by export orientation
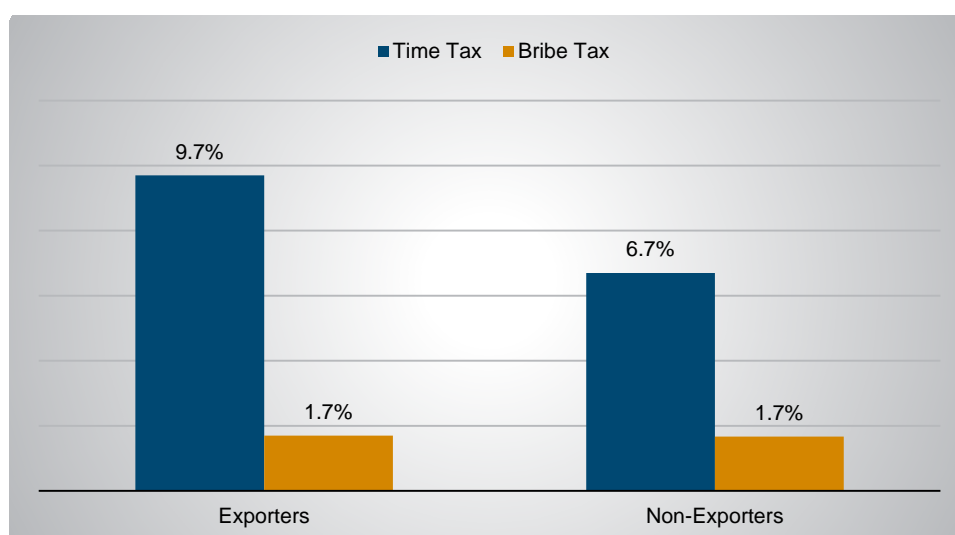
Source: Own calculations based on WBES data.

A similar picture emerges for exporters versus non-exporters (Figure 5). It is indicated that exporters suffer more from red tape compared to non-exporters. However, there is no significant difference in the 'bribe tax' paid by exporters and non-exporters, even though exporting firms pay a slightly higher 'bribe tax'. This result might imply that foreign-owned firms and exporters have a higher ability to pay in terms

of the 'bribe tax' and hence government officials deliberately target them for the bureaucratic engagements.

In terms of firm age, our findings reveal that starters (one year or younger) pay the highest 'time tax' followed by old firms (over 5 years), while young firms (between 1 and 5 years) pay the lowest 'time tax' (Figure 6). Starters also pay a higher proportion of the 'bribe tax' compared to young and old firms. This might imply that firms that have just entered into business go through a lot of bureaucratic engagements with government officials in an attempt to complete the paper work required to operate their businesses and also end up paying a higher proportion of their sales in bribes.

Figure 6 / Average percentage of 'time' and 'bribe tax' by firm age
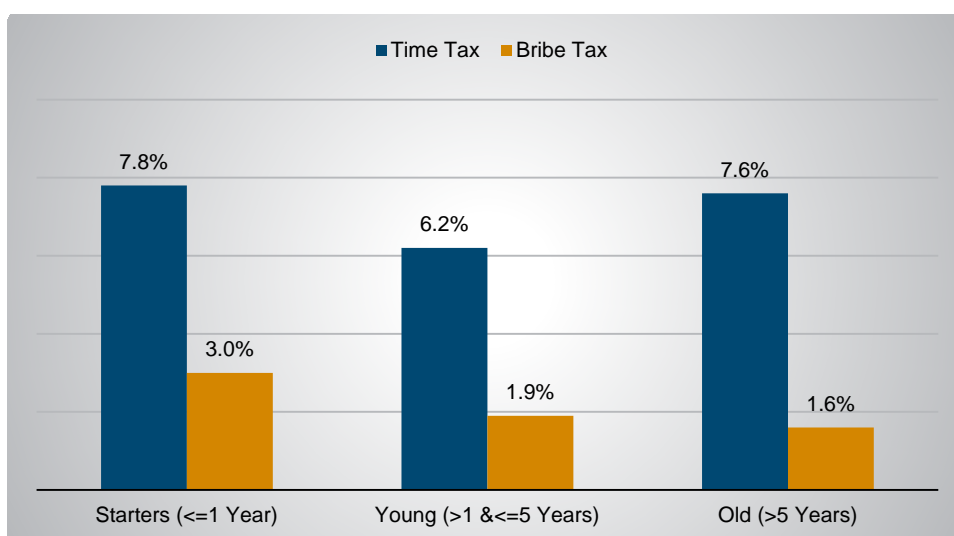
Source: Own calculations based on WBES data.

EFFECT OF CORRUPTION ON FIRM-LEVEL PRODUCTIVITY

Empirically, we observe that bribe incidence is negatively and significantly related to firm-level productivity (Table 1). Firms that pay bribes tend to be over 0.9% less productive compared to counterparts that do not pay bribes. The effect of bribe incidence on firm-level productivity is statistically highly significant at 5% level of significance. Considering the effect of the time tax on firm-level productivity, we find that spending an extra 1% of management time on dealing with government officials reduces firm-level productivity by .014 percentage points (Table 1). This effect is also statistically significant at conventional levels. Additionally, observing the effect of the bribe tax reveals that paying an extra 1% of a firm's sales in the form of bribes reduces firm-level productivity by .02% (Table 1). This effect is also statistically significant at 5% level of significance.

Table 1 / Effect of corruption on firm productivity

VARIABLES	(1) IV 2SLS	(2) IV 2SLS	(3) IV 2SLS
Bribe incidence	-0.965**		
	(0.409)		
'Time tax'		-0.0135***	
		(0.00522)	
'Bribe tax'			-0.0232**
			(0.0100)
Observations	5,039	6,080	5,970
R-squared	0.495	0.546	0.533
Other firm characteristics	YES	YES	YES
Country FE	YES	YES	YES
Year FE	YES	YES	YES
Industry FE	YES	YES	YES
F-statistic	14.5348	128.199	220.488
Durbin (score) (p-value)	0.0083	0.0180	0.0340
Wu-Hausman (p-value)	0.0088	0.0187	0.0351
Sargan (score) (p-value)	0.6863	0.4157	0.7391
Basmann chi2 (p-value)	0.6900	0.4184	0.7407
Cragg-Donald F-statistic	14.5348	128.199	220.488

Note: Standard errors in parentheses; *** $p<0.01$, ** $p<0.05$, * $p<0.1$. Instruments: Country-industry average percentage of management time spent with government officials, country-industry average percentage of sales in informal payments and a dummy variable for female owner.

CONCLUSIONS

These findings lend support to the 'sanding the wheels' hypothesis and invalidate the 'greasing the wheels' hypothesis for the case of African countries, suggesting that corruption dampens firm-level productivity. In line with De Rosa et al. (2013) we find no empirical evidence for a trade-off between bribe payments and red tape even though descriptively Figures 1 and 2 seemed to suggest so.

The implication of our findings is that resource misallocation through bribe payment hurts the firm more than any bureaucratic offers from government officials upon bribe payment. Furthermore, our findings might imply that bribe payments fail to be an alternative to the inefficient red tape. Perhaps firms could through their umbrella organisations in the respective countries pressurise government to strengthen measures to fight corruption.

REFERENCES

Beck, P.J. and M.W. Maher (1986), 'A Comparison of Bribery and Bidding in Thin Markets', *Economics Letters*, Vol. 20, pp. 1-5.

De Rosa, D., N. Gooroochurn and H. Görg (2013), 'Corruption and Productivity: Firm-level Evidence', *Policy Research Working Paper* 5348, The World Bank, Europe and Central Asia Region, Private and Financial Sector Department.

Huntington, S.P. (1968), *Political Order in Changing Societies*, Yale University Press, New Haven.

Leff, N.H. (1964), 'Economic Development through Bureaucratic Corruption', American Behavioral Scientist, Vol. 8, pp. 8-14. Reprinted in: A.J. Heidenheimer, M. Johnston and V.T. LeVine (eds) (1989), *Political corruption: A handbook*, Transaction Books, Oxford, pp. 389-403.

Leys, C. (1965), 'What is the problem about corruption?', *Journal of Modern African Studies*, Vol. 3, pp. 215-230. Reprinted in: A.J. Heidenheimer, M. Johnston and V.T. LeVine (eds) (1989), *Political corruption: A handhook*, Transaction Books, Oxford, pp. 51-66.

Lien, D.H.D. (1986), 'A Note on Competitive Bribery Games'. *Economics Letters*, Vol. 22, pp. 337-341.

Lui. F.T. (1985), 'An Equilibrium Queuing Model of Bribery'. *Journal of Political Economy*, Vol. 93, pp.760-781.

McArthur, J. and F. Teal (2010), 'Corruption and Firm Performance in Africa', CSAE WPS/2002-10, Centre for the Study of African Economies, Department of Economics, University of Oxford, UK.

Meon, P.G. and K. Khalid Sekkat (2005), 'Does Corruption Grease or Sand the Wheels of Growth?', *Public Choice*, Vol. 122, pp. 69-97.

Myrdal, G. (1968), Asian drama: An inquiry into the poverty of nations, Vol 2. New York: The Twentieth Century Fund. Reprinted in: A.J. Heidenheimer. M. Johnston and V.T. LeVine (eds) (1989), *Political corruption: A handhook*, Transaction Books, Oxford, pp. 953-961.

Vial, V. and J. Hanoteau (2010), 'Corruption, Manufacturing Plant Growth, and the Asian Paradox: Indonesian Evidence', *World Development*, Vol. 38, No. 5, pp. 693–705.

APPENDIX

Country	Acronym
Angola	AO
Benin	BJ
Botswana	BW
Burundi	BI
Cameroon	CM
Cote d'Ivoire	CI
Democratic Republic of Congo	CD
Ethiopia	ET
Egypt	EG
Ghana	GH
Guinea	GN
Kenya	KE
Madagascar	MG
Malawi	MW
Mali	ML
Mauritania	MR
Namibia	NA
Niger	NE
Rwanda	RW
Senegal	SN
Swaziland	SZ
Tanzania	TZ
Togo	TG
Uganda	UG
Zambia	ZM
Zimbabwe	ZW

Kyrgyzstan: suffering from 'Dutch disease'?

BY VASILY ASTROV[*]

POLITICAL LANDSCAPE: VOLATILE DEMOCRACY

Ever since its independence in 1991, Kyrgyzstan has been arguably the most democratic country in the Central Asian region, with a substantial degree of pluralism in politics (reflecting not least competition between various ethnic clans), albeit also plagued by corruption and nepotism. Precisely because the country has been relatively democratic, it has been also the least politically stable in the region. During the 1990s, Kyrgyzstan was a front-runner in terms of market reforms (price and foreign trade liberalisation, privatisation, and de-regulation), and was the 'darling' of international financial organisations such as the IMF and the World Bank (IMF, 1999). However, in a protest against the flawed parliamentary elections and rising corruption, March 2005 witnessed a popular (bloodless) uprising which came to be known as the 'Tulip Revolution', forcing President Askar Akayev (in office 1991-2005) to flee the country to Russia. However, things hardly improved and arguably became even worse under Mr Akayev's successor, Kurmanbek Bakiyev (2005-2010), with corruption and nepotism making further inroads. In addition, the persistent political stalemate between the president and the parliament over the balance of power and the constitution diverted the authorities' efforts from other pressing problems. As a result, in spring 2010 Kyrgyzstan witnessed another revolution, this time accompanied by violent clashes between the demonstrators and the police with 77 death casualties. President Bakiyev fled to Belarus, and a new constitution was adopted via a popular referendum held in June 2010. It provided the parliament with considerable powers at the expense of the president – a novelty for Central Asia.

The government of the next president, Almazbek Atambayev (2011-2017), put its efforts into continuing liberal reforms, reducing the scope of government involvement in the economy, cutting the number of licences and jobs in the public sector, etc. However, the new (parliamentary-presidential) political system proved costly in terms of stability, with fragile coalitions frequently falling apart and governments succeeding one another. On top of that, the disputes over the sharing of power between the president and the parliament have resumed, now over the constitutional amendments proposed by the president. These disagreements led to the collapse of the ruling coalition in October 2016 and the resignation of the cabinet. Another constitutional referendum was held in December 2016, and constitutional amendments shifted power further from the presidency to the parliament and the prime minister. The most recent presidential elections, held on 15 October 2017, were won by Sooronbay Jeenbekov, who enjoyed the support of the former president. The election, though not without flaws, was Central Asia's first ever competitive election and the first time in Kyrgyzstan's recent history as an independent state that the power was transferred in a peaceful way.

LOW COMPETITIVENESS DESPITE ECONOMIC OPENNESS

With a GDP per capita of just USD 3,600 (at PPP), Kyrgyzstan is the second poorest country in Central Asia (after Tajikistan) and is lagging far behind its regional peers: for instance, it is seven times poorer than neighbouring Kazakhstan and twice as poor as Ukraine (the poorest CESEE country regularly covered by wiiw). Also, its economy is by all accounts 'small and open': its GDP stands at less than USD 7 billion, while exports and imports of goods and services combined account for 111% of GDP. The latter figure makes Kyrgyzstan one of the countries with the world's highest trade openness ratios. However, most of this is accounted for by imports: exports stand at only 35% of GDP and have been highly volatile during the past years. This is a rather low ratio, especially taking into consideration that the country enjoys duty-free access to the markets of the EAEU (Eurasian Economic Union, which apart from Kyrgyzstan also includes Armenia, Belarus, Russia, and Kazakhstan) and is a beneficiary of preferential trade schemes of the EU, Japan and the Unites States.

The low level of exports is a reflection of Kyrgyzstan's weak industrial capacity, as well as the highly restrictive nature of non-tariff barriers in the way of its agricultural exports – the sector which accounts for 15% of Kyrgyz GDP. For instance, inadequate sanitary and phytosanitary (SPS) control measures for agricultural goods are the most significant obstacle for exports to both the EU and the EAEU. On the other hand, official statistics almost certainly underestimates the true volume of both exports and imports. Anecdotal evidence suggests that a lot of cross-border trade with the neighbouring countries is part of the informal economy; there are also big deviations between the Kyrgyz trade statistics and the 'mirror' Chinese statistics. In addition, considerable revenues are reportedly derived from drug (opiate) trafficking via the so-called 'northern route' from nearby Afghanistan.

Kyrgyzstan's export weaknesses can be hardly explained by its lack of openness to trade and investment. Integration into the global economy has enjoyed high priority ever since Kyrgyzstan's independence and was seen as part of a broader package of liberal market reforms. Kyrgyzstan became the first CIS country to join the WTO in 1998. Also, in terms of the 'Trading across Borders' Index of the World Bank[1] (84th place worldwide), it ranks not only better than its neighbours in Central Asia, but also better than many of the low-middle-income countries and even China. It does not rank particularly badly in terms of investment climate either; for instance, it occupies the 77th place in the World Bank's 'Ease of Doing Business' ranking[2] – comparable to e.g. China and Vietnam. The accumulated stock of FDI per capita in Kyrgyzstan (USD 839 as of end-2016) is triple of those in Tajikistan and Uzbekistan (although it lags far behind energy-rich Kazakhstan and Turkmenistan).

Still, despite being relatively open to trade and investment, Kyrgyzstan scores poorly in terms of competitiveness. For instance, the Global Competitiveness Index of the World Economic Forum, which is compiled on the basis of business surveys, puts the country on 102nd place in the world.[3] One important reason for this is the poor quality of infrastructure: according to the World Bank's Logistics Performance Index, Kyrgyzstan ranks 150th on this account.[4] Another reason is high corruption and the low effectiveness of government in general: for both indicators, Kyrgyzstan ranks in the 20th percentile of 'bottom' countries.

---

[1]   http://www.doingbusiness.org/Rankings

[2]   ibid.

[3]   https://widgets.weforum.org/global-competitiveness-report-2017/

[4]   https://lpi.worldbank.org/international/global

Kyrgyzstan's most significant recent integration effort, in August 2015, was accession to the EAEU, which accounts for some 20% of Kyrgyzstan's exports. Even more importantly, it greatly facilitated the access for Kyrgyz citizens to the Russian labour market, and the monthly flow of Kyrgyz migrants to Russia went up by 20% as a result (IMF, 2016). However, other benefits of EAEU accession for Kyrgyzstan have hardly materialised so far. Although it greatly reduced the need for customs declarations and inspections in intra-EAEU trade, this advantage has been offset by the economic crisis in both Russia and Kazakhstan, leading to a reduction in demand for imports from Kyrgyzstan. In addition, the adoption of the Common External Tariff of the EAEU led to a sharp increase in tariffs for imports from third countries (from 5.1% to 10.4%, on a trade-weighted basis), although the government has secured transitional exemptions up until 2020 for some 200 'sensitive' products accounting for 14% of Kyrgyzstan's imports from non-EAEU countries (Dragneva and Wolczuk, 2017). Higher import duties boosted government revenues, but they also effectively put an end to hitherto profitable re-exports of many Chinese goods to EAEU markets, which used to be an important source of incomes and employment.

GROWTH AFFECTED BY THE VOLATILITY OF GOLD PRODUCTION

The Kyrgyz economy suffered strongly after the collapse of the USSR. This was due to multiple negative shocks: the disruption of trade flows between individual republics, the breakdown of Soviet payment mechanisms, general economic decline in the Central Asian region, and – last but not least – the withdrawal of the Soviet Union's subsidies which accounted for an estimated 10% of Kyrgyz GDP in the late 1980s (Williamson, 1993). In addition, Kyrgyzstan had only limited own energy resources (mainly hydropower) and was land-locked, making it more difficult to reorient exports to new markets. Another negative shock was the sizeable outward migration of the generally highly-skilled non-Kyrgyz ethnic minorities: between 1991 and 2000, 618,000 left the country, including 378,000 ethnic Russians (ADB, 2014). All in all, Kyrgyz GDP almost halved during the years following the USSR collapse. It was not until 1996 that economic recovery finally set in, greatly facilitated by the start of operation of the Kumtor gold mine in 1997.

Figure 1 / Gross industrial output and gold production, real growth in %
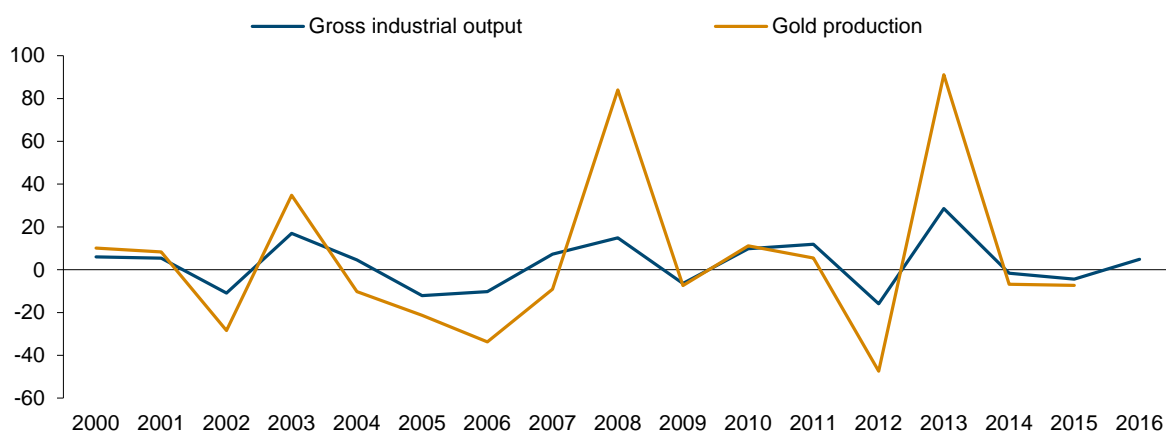
Source: National Statistical Committee of the Kyrgyz Republic; for gold production, own calculations based on the Kumtor Gold Company data.

Over the past two decades, Kyrgyzstan's economic growth was reasonably high (4.5% p.a. on average), but also highly volatile, not least because of recurrent political instability. During both revolutionary episodes (in 2005 and 2010), growth virtually came to a halt, whereas in some other years the economy expanded at double-digit or close to double-digit rates (in 2013, for instance, it grew by 10.9%). Another important factor has been the volatility of gold production, partly due to geological and technical factors, but also reflecting the volatility of gold prices (Figure 1). Gold production has been the backbone of Kyrgyzstan's economy: in individual years, it accounted for more than 40% of total industrial production and exports, and 12% of GDP. Kyrgyzstan currently exports some 16-17 tonnes of gold annually, almost all of it to Switzerland.

Still, over the past three years (2014-2016), economic growth proved surprisingly robust, hovering between 3.5% and 4% – above the world and regional average. This growth performance appears all the more surprising against the background of the strong reduction in exports, which fell by nearly half during this time period (partly due to the declining gold prices since their peak in 2012), and the impact of the Russian crisis, which spilled over mainly via the reduction in private remittances to Kyrgyzstan. As a result, household consumption was hit sharply and even declined in 2015, but its weakness was offset by a strong rebound of investments (in 2014) and net exports (in 2015). The latter became possible thanks to the depreciation of the exchange rate, which absorbed the negative external shocks: between 2013 and 2016, the Kyrgyz som fell by some 40% against the US dollar. As a result, imports became less affordable and dropped more than exports, so that the current account deficit improved markedly: from -18% of GDP in 2014 to -10% in 2016 (Figure 2). Thus, it can be argued that Kyrgyzstan's economy fared reasonably well under the crisis circumstances. However, the flexible exchange rate is a double-edged sword. In particular, the recent strengthening of the Kyrgyz currency on the back of the recovery of remittances puts pressure on external competitiveness. It may further aggravate the long-standing problem of the Kyrgyz growth model, which has been characterised by chronically high trade deficits (e.g. last year, the trade deficit reached some 40% of GDP).

Figure 2 / External sector development
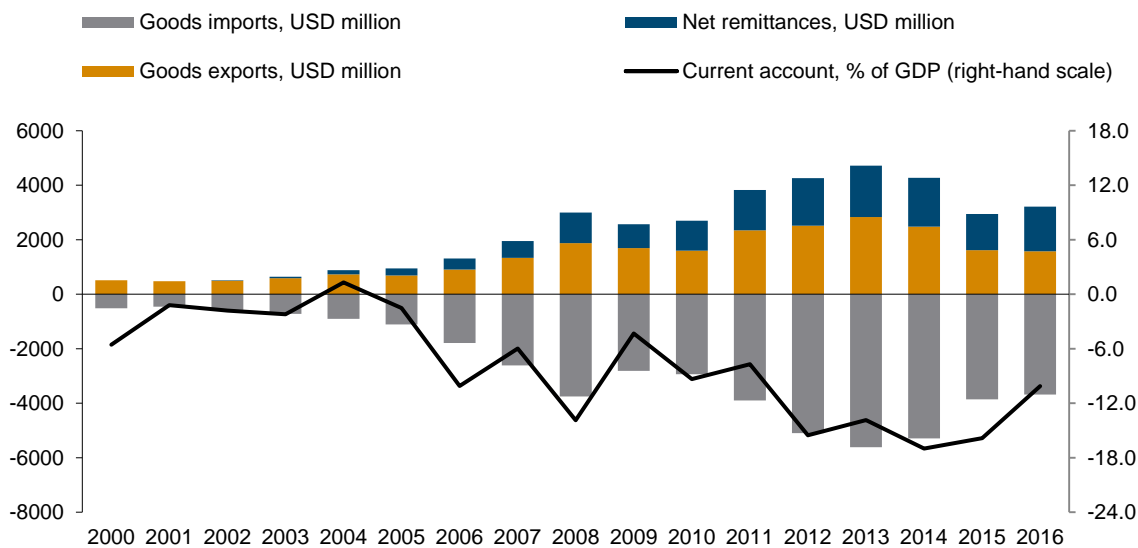
Source: World Bank WDI Database, National Bank of the Kyrgyz Republic.

On the other hand, an encouraging feature of the Kyrgyz economic growth model has been the vibrant investment growth during the past decade. Starting from 2006, the investment ratio went up dramatically, exceeding in some years 30% of GDP, although the sectoral composition of fixed capital investments underwent a profound shift in the process: from services (especially transport and communications) before the 2009 crisis to mining (especially gold mining) during the post-crisis years. The relatively high levels of investment suggest that the financial system, however rudimentary[5], has not been the main obstacle to economic growth. In fact, investments are almost exclusively financed from retained profits and private savings rather than by taking credit. Instead, it is the low productivity of investments which appears to be the main problem. For instance, the Asian Development Bank found that the marginal product of capital in Kyrgyzstan (which averaged 0.16 in 2003-2013, with declining trend over time) was lagging far behind the world average (0.3) and was below the respective indicator in many other low-middle-income countries (ADB, 2014).

STRONG OUTWARD MIGRATION KEEPS UNEMPLOYMENT AT BAY

Economic growth in Kyrgyzstan over the past two decades was not only reasonably high, but also generally inclusive, benefiting those at the bottom of the income ladder most. Between 2005 and 2015, the Gini coefficient of consumption – which is arguably the best measure of living standards inequality – decreased from 0.29 to 0.23, making Kyrgyzstan one of the most equal countries in the world. The Gini coefficient of income inequality initially improved, too, but after the crisis of 2009-2010 it started rising again and reached 0.42 by 2012 (ADB, 2014). Still, globally Kyrgyzstan is in the 96th percentile with respect to the share of total income held by the poorest 10% of the population (4% of total income). Also poverty has declined markedly; for instance, absolute poverty measured at the national poverty line fell from 66% of the population in 2005 to 32% in 2016, and extreme poverty measured using the international poverty line (i.e. the share of population living on less than USD 1.90 a day at 2011 PPP) from 15.4% to just 1.3% during the same period (World Bank, 2016).

However, economic growth has not been sufficiently strong to generate enough jobs to absorb the ever growing labour force. The population of Kyrgyzstan was growing strongly, at some 2.5% p.a., and the average family size went up during the past decade. Children under the age of 15 currently make up one third of the country's population, placing Kyrgyzstan among the top 20 countries of the world in this respect, and are increasingly joining the labour force. Demographic growth coupled with insufficient job opportunities at home have been the main 'push' factors for Kyrgyz citizens seeking employment abroad. According to government estimates, up to 1 million Kyrgyz citizens (that is, 16% of the country's population and 25% of its labour force) are currently working abroad, most of them in Russia where wages and living standards tend to be much higher. In addition, it has been easy to migrate: Kyrgyz citizens already enjoyed de facto access to the Russian labour market over the past decades thanks to the visa-free regime. Once Kyrgyzstan became a full-fledged EAEU member in 2015, labour market access was formalised and became even easier. Kyrgyz citizens no longer have to obtain work permits, do medical exams, or pass language tests in order to find employment in Russia and other EAEU member states (IMF, 2016). In the past few years, private remittances – mostly from Russia – accounted for some 25-30% of Kyrgyzstan's GDP, making it the second most remittance-dependent country in the world (behind Tajikistan), and have been the main source of finance of the high trade deficit.

---

[5] Domestic credit stands at only some 20% of GDP.

Figure 3 / Wages and labour productivity, growth rate in %
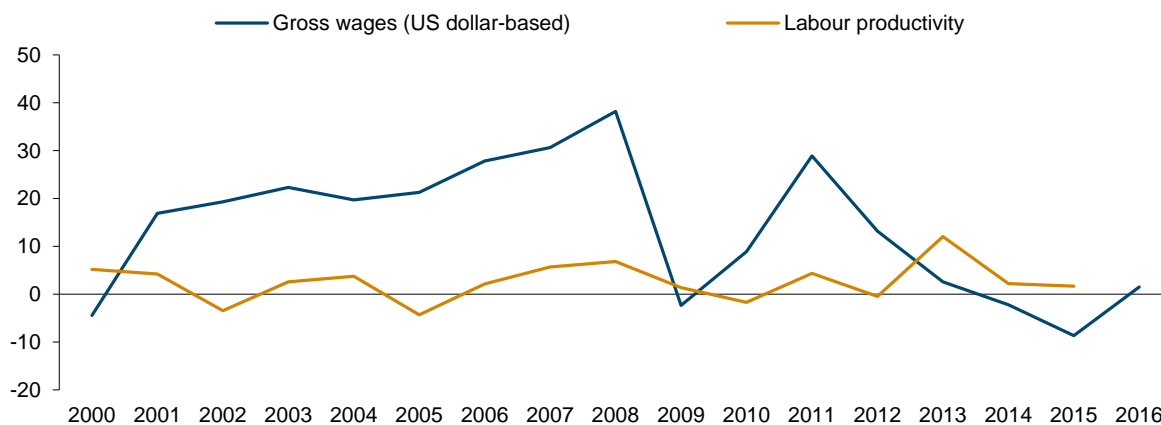
Source: National Statistical Committee of the Kyrgyz Republic.

Although the massive outflow of labour force from Kyrgyzstan has not brought about any radical improvement in the labour market (the unemployment rate was stuck at around 8%, with a temporary spike during the 2009-2010 crisis), at least it has prevented its further deterioration. Also, via increased remittances, which were primarily channelled into services and construction, it has contributed towards strong upward wage pressures. Since 2005, real wages have been growing on average by 10% per year – about double the rate of growth of labour productivity (World Bank, 2016). Figure 3 illustrates that up until 2013, the growth of *dollar* wages almost constantly outpaced that of labour productivity, resulting in rising unit labour costs and making the country a more expensive location for export-oriented production. Thus, it can be argued that massive inflows of remittances have possibly given rise to a kind of 'Dutch disease' phenomenon in Kyrgyzstan. At around USD 200 per month, the average wage in Kyrgyzstan does not come across as particularly impressive. However, it is arguably not justified by the levels of labour productivity and per capita GDP. The issue of cost competitiveness may become all the more important in the medium and long run, as the Kumtor gold deposit may not last all that long and the country will be in need of new investments relatively soon.

REFERENCES

ADB (2014), The Kyrgyz Republic: Strategic assessment of the economy – Promoting inclusive growth, Asian Development Bank, Mandaluyong City, Philippines.

Dragneva, R. and K. Wolczuk (2017), The Eurasian Economic Union: Deals, Rules and the Exercise of Power, Chatham House Research Paper, May.

IMF (1999), 'Economic Reforms in Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan', International Monetary Fund Occasional Paper No. 183, August.

IMF (2016), 'Kyrgyz Republic: Selected issues', International Monetary Fund Country Report No. 16/56, February.

Williamson, J. (1993), 'Economic Consequences of Soviet Disintegration', Institute for International Economics, Washington DC.

World Bank (2016), 'Kyrgyz Republic: From Vulnerability to Prosperity', Systematic country diagnostic concept note, November.

The editors recommend for further reading[*]

European Union

On EU enlargement: http://www.euractiv.com/section/enlargement/news/most-eu-hopefuls-might-not-be-ready-to-join-before-2050-study-finds/

On the EU Eastern Partnership summit: https://www.ceps.eu/publications/fifth-eastern-partnership-summit-between-hyperbole-and-understatement

On the eurozone: https://www.politico.eu/article/jean-claude-juncker-tries-to-get-ahead-of-france-germany-on-eurozone-debate/

On the UK-Irish border issue: https://www.the-american-interest.com/2017/12/04/future-northern-ireland-brexit-eu-borders/

China and CESEE

On China's investments in CESEE: http://www.euractiv.com/section/economy-jobs/news/at-budapest-summit-china-strengthens-its-grip-on-central-europe-and-balkans/

China's role in CESEE is arguably marginal:
http://carnegieeurope.eu/strategiceurope/74844?lang=en&utm_source=carnegiethisweek&utm_medium=email&utm_campaign=CTW11300017&mkt_tok=eyJpIjoiTVRKaE9HSmxOVE0yT0RjNCIsInQiOiJ4ZldPNTBqaWM4YWJQbFJDY05vaU5FQUtmdGowTm5Jd0Z6S2x3SEp2RkZBbFFNVVlER2gzdnV4QmJReUlxOElppbThIYmhUWmxcL05Kb0xaNDJZblBZRVhuSEZIcTRjN081ZldFWFwvNHF2dWwzNVVZTUlWWlJZSnhWZHNsMHQ0dTMzIn0%3D

Miscellaneous

Transition economies and a new growth model: http://www.ebrd.com/news/2017/transition-economies-need-new-growth-model-ebrd-report-says.html

On the coup d'état in the 'Luhansk People's Republic': http://carnegie.ru/commentary/74864

---

[*] Recommendation is not necessarily endorsement. The editors are grateful to Vladimir Gligorov and Peter Havlik for their valuable contribution to this section.

New wiiw Handbook of Statistics forthcoming

As a wiiw Member you will soon receive your free copy of the wiiw Handbook of Statistics (including a CD ROM with PDF files of the same content as the book).

The **electronic version** of the book has already been made 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 Premium Membership, the electronic version is included in their package.

You may place your order via the internet, https://wiiw.ac.at/wiiw-handbook-of-statistics-2017-central-east-and-southeast-europe-p-4321.html, 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

The monthly and quarterly statistics cover **20 countries** of the CESEE region. The graphical form of presenting statistical data is intended to facilitate the **analysis of short-term macroeconomic developments**. The set of indicators captures trends in the real and monetary sectors of the economy, in the labour market, as well as in the financial and external sectors.

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

Conventional signs and abbreviations used

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

The following national currencies are used:

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

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

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

Online database access
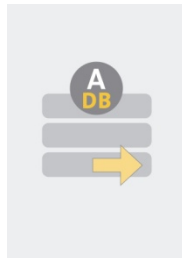
wiiw Annual Database   **wiiw Monthly Database**   **wiiw FDI Database**

The wiiw databases are accessible via a simple web interface, with only one password needed to access all databases (and all wiiw publications).

You may access the databases here: https://data.wiiw.ac.at.

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

Service package available

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), phone: (+43-1) 533 66 10-10.

Albania

Real GDP growth and contributions
year-on-year
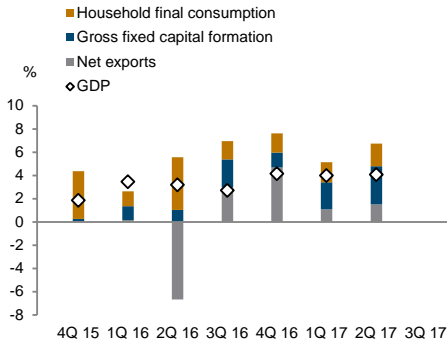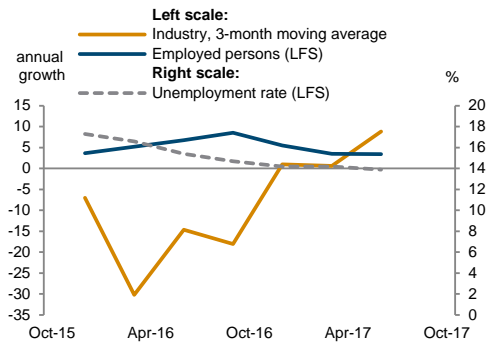
- Household final consumption
- Gross fixed capital formation
- Net exports
- ◇ GDP

Real sector development
in %

Left scale:
- Industry, 3-month moving average
- Employed persons (LFS)

Right scale:
- Unemployment rate (LFS)

Unit labour costs in industry
annual growth rate in %

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

Inflation and policy rate
in %

- Consumer prices (HICP), annual growth
- Producer prices in industry, annual growth
- Central bank policy rate (p.a.)

Financial indicators
in %

Left scale:
- Loans to non-financial corporations
- Loans to households and NPISHs

Right scale:
- Non-performing loans

External sector development
in %

Left scale:
- Exports, 3-month moving average**
- Imports, 3-month moving average**
- Real ER EUR/ALL, PPI deflated

Right scale:
- Current account
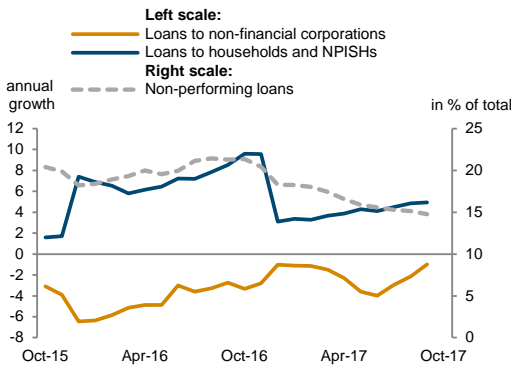
*Positive values of the productivity component on the graph reflect decline in productivity and vice versa.
**EUR based.
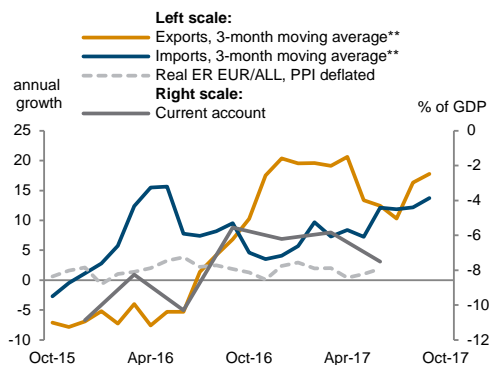
Source: wiiw Monthly Database incorporating Eurostat and national statistics.
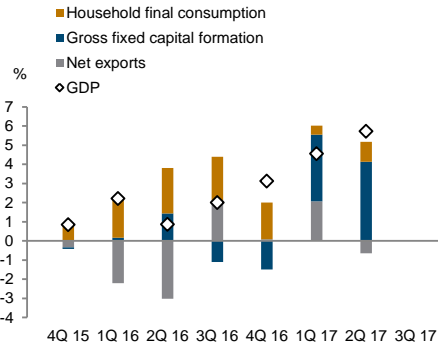Baseline data, country-specific definitions and methodological breaks in time series are available under:
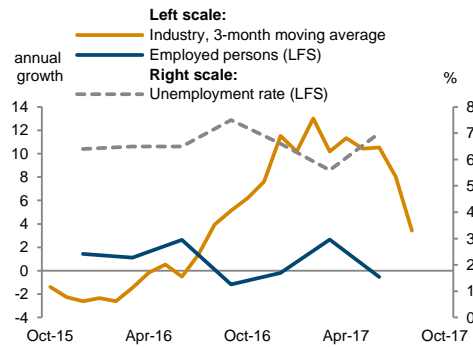https://data.wiiw.ac.at/monthly-database.html

Bosnia and Herzegovina

Real GDP growth and contributions
year-on-year
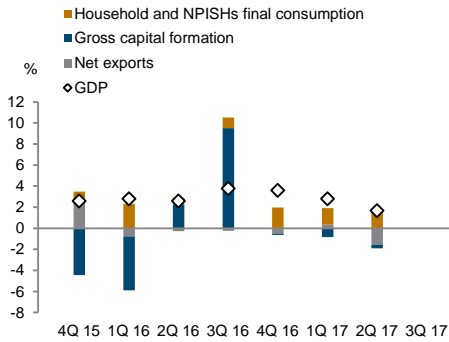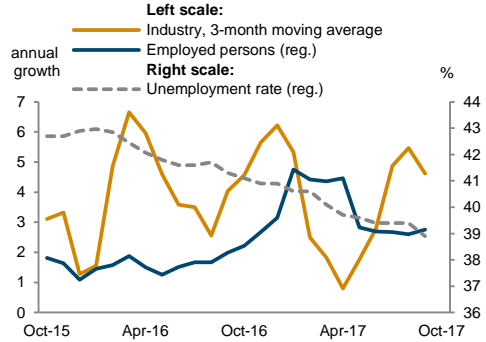
- Household and NPISHs final consumption
- Gross capital formation
- Net exports
- GDP

Real sector development
in %

Left scale:
- Industry, 3-month moving average
- Employed persons (reg.)

Right scale:
- Unemployment rate (reg.)

Unit labour costs in industry
annual growth rate in %

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

Inflation
in %

- Consumer prices, annual growth
- Producer prices in industry, annual growth

Financial indicators
in %

Left scale:
- Loans to non-financial corporations
- Loans to households

Right scale:
- Non-performing loans

External sector development
in %

Left scale:
- Exports, 3-month moving average**
- Imports, 3-month moving average**
- Real ER EUR/BAM, PPI deflated

Right scale:
- Current account
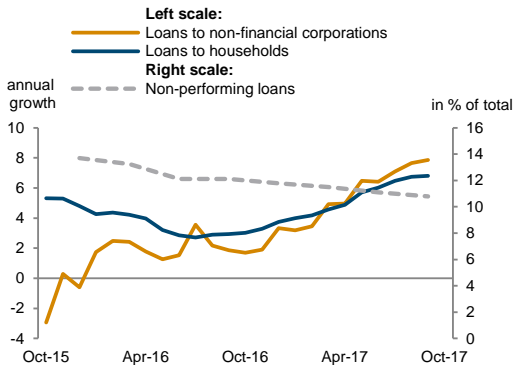
*Positive values of the productivity component on the graph reflect decline in productivity and vice versa.
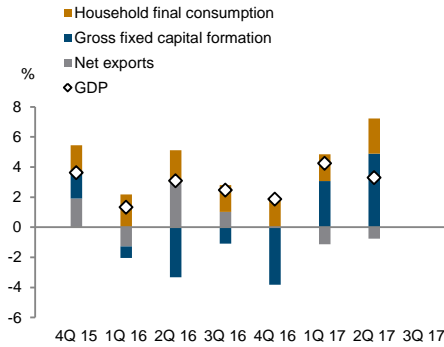**EUR based.
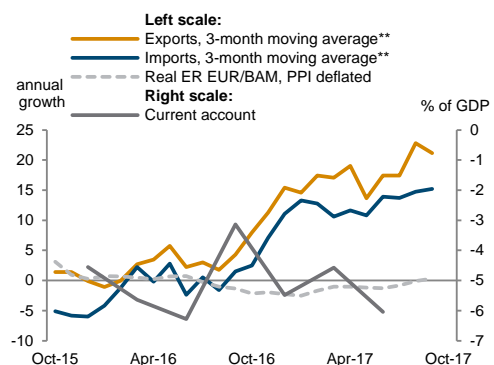
Source: wiiw Monthly Database incorporating Eurostat and national statistics.
Baseline data, country-specific definitions and methodological breaks in time series are available under:
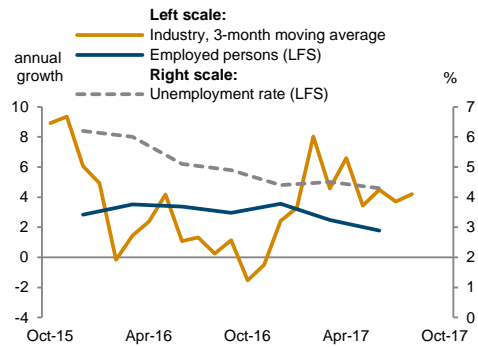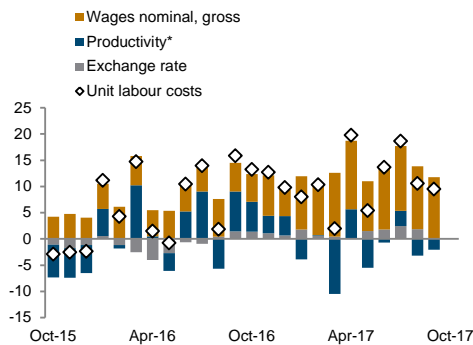https://data.wiiw.ac.at/monthly-database.html

Bulgaria

Real GDP growth and contributions
year-on-year

- Household final consumption
- Gross fixed capital formation
- Net exports
- ◇ GDP

Real sector development
in %

Left scale:
- Industry, 3-month moving average
- Employed persons (LFS)

Right scale:
- Unemployment rate (LFS)

Unit labour costs in industry
annual growth rate in %

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

Inflation and policy rate
in %

- Consumer prices (HICP), annual growth
- Producer prices in industry, annual growth
- Central bank policy rate (p.a.)

Financial indicators
in %

Left scale:
- Loans to non-financial corporations
- Loans to households and NPISHs

Right scale:
- Non-performing loans

External sector development
in %

Left scale:
- Exports, 3-month moving average**
- Imports, 3-month moving average**
- Real ER EUR/BGN, PPI deflated

Right scale:
- Current account

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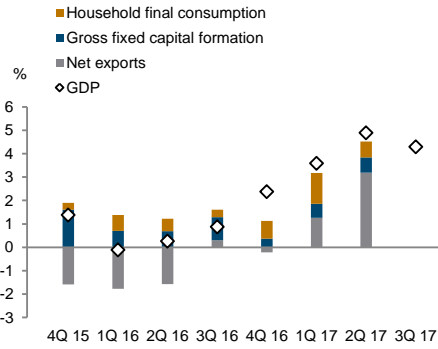**EUR based.

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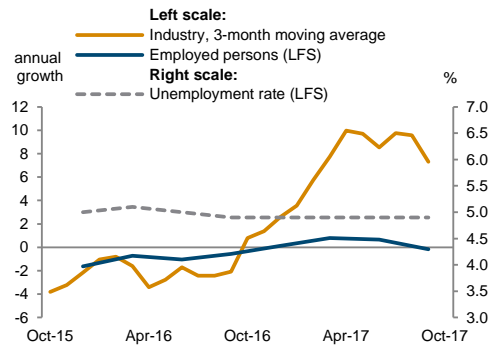Baseline data, country-specific definitions and methodological breaks in time series are available under:
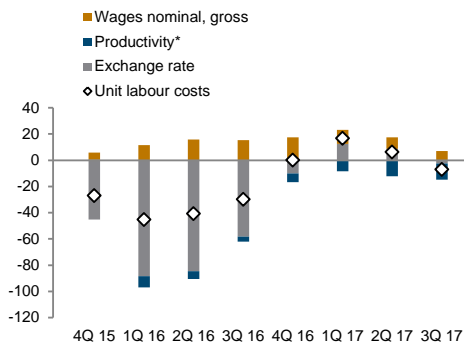https://data.wiiw.ac.at/monthly-database.html

Croatia

Real GDP growth and contributions
year-on-year

- Household final consumption
- Gross fixed capital formation
- Net exports
- ◇ GDP

Real sector development
in %

Left scale:
- Industry, 3-month moving average
- Employed persons (LFS)

Right scale:
- Unemployment rate (LFS)

Unit labour costs in industry
annual growth rate in %

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

Inflation and policy rate
in %

- Consumer prices (HICP), annual growth
- Producer prices in industry, annual growth
- Central bank policy rate (p.a.)

Financial indicators
in %

Left scale:
- Loans to non-financial corporations
- Loans to households

Right scale:
- Non-performing loans

External sector development
in %

Left scale:
- Exports, 3-month moving average**
- Imports, 3-month moving average**
- Real ER EUR/HRK, PPI deflated

Right scale:
- Current account

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

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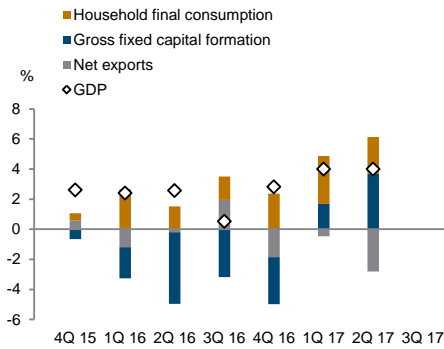Baseline data, country-specific definitions and methodological breaks in time series are available under:
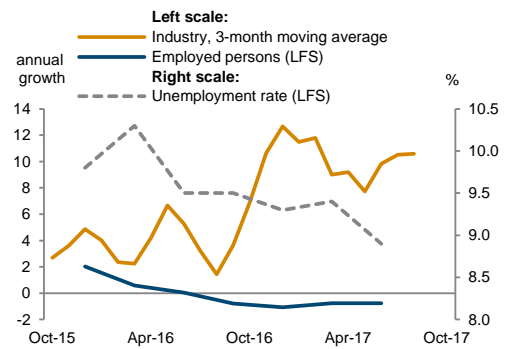https://data.wiiw.ac.at/monthly-database.html

Czech Republic

Real GDP growth and contributions
year-on-year

- ■ Household final consumption
- ■ Gross fixed capital formation
- ■ Net exports
- ◇ GDP

Real sector development
in %

Left scale:
- Industry, 3-month moving average
- Employed persons (LFS)

Right scale:
- Unemployment rate (LFS)

Unit labour costs in industry
annual growth rate in %

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

Inflation and policy rate
in %

- Consumer prices (HICP), annual growth
- Producer prices in industry, annual growth
- Central bank policy rate (p.a.)

Financial indicators
in %

Left scale:
- Loans to non-financial corporations
- Loans to households and NPISHs

Right scale:
- Non-performing loans

External sector development
in %

Left scale:
- Exports, 3-month moving average**
- Imports, 3-month moving average**
- Real ER EUR/CZK, PPI deflated

Right scale:
- Current account

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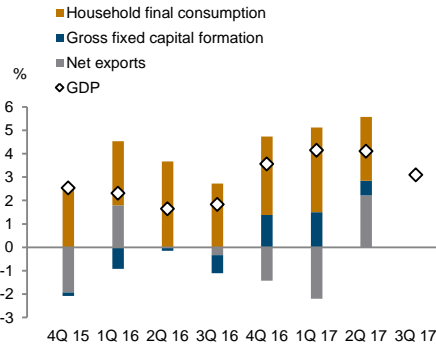**EUR based.

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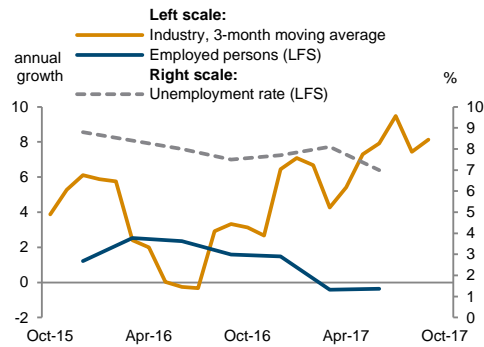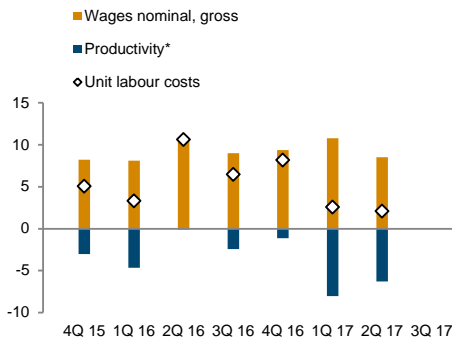https://data.wiiw.ac.at/monthly-database.html

Estonia

Real GDP growth and contributions
year-on-year

- Household final consumption
- Gross fixed capital formation
- Net exports
- ◇ GDP

Real sector development
in %

Left scale:
- Industry, 3-month moving average
- Employed persons (LFS)

Right scale:
- Unemployment rate (LFS)

annual growth

Unit labour costs in industry
annual growth rate in %

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

Inflation and policy rate
in %

- Consumer prices (HICP), annual growth
- Producer prices in industry, annual growth
- Central bank policy rate (p.a.)

Financial indicators
in %

Left scale:
- Loans to non-financial corporations
- Loans to households

Right scale:
- Non-performing loans

annual growth

in % of total

External sector development
in %

Left scale:
- Exports, 3-month moving average**
- Imports, 3-month moving average**
- Real ER EUR/EUR, PPI deflated

Right scale:
- Current account

annual growth

% of GDP

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

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

Hungary
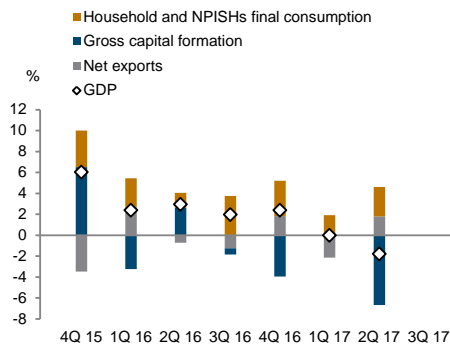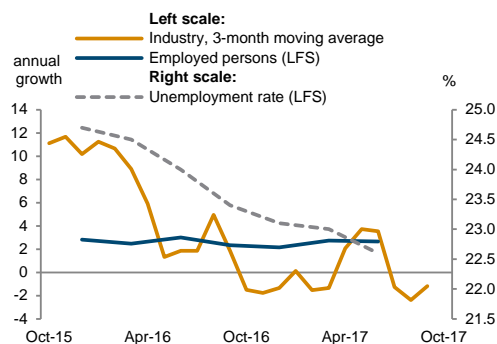
Real GDP growth and contributions
year-on-year

- Household final consumption
- Gross fixed capital formation
- Net exports
- ◇ GDP

Real sector development
in %

Left scale:
- Industry, 3-month moving average
- Employed persons (LFS)

Right scale:
- Unemployment rate (LFS)

Unit labour costs in industry
annual growth rate in %

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

Inflation and policy rate
in %

- Consumer prices (HICP), annual growth
- Producer prices in industry, annual growth
- Central bank policy rate (p.a.)

Financial indicators
in %

Left scale:
- Loans to non-financial corporations
- Loans to households

Right scale:
- Non-performing loans

External sector development
in %

Left scale:
- Exports, 3-month moving average**
- Imports, 3-month moving average**
- Real ER EUR/HUF, PPI deflated

Right scale:
- Current account
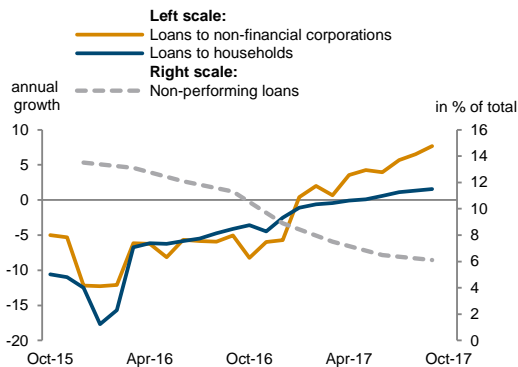
*Positive values of the productivity component on the graph reflect decline in productivity and vice versa.
**EUR based.
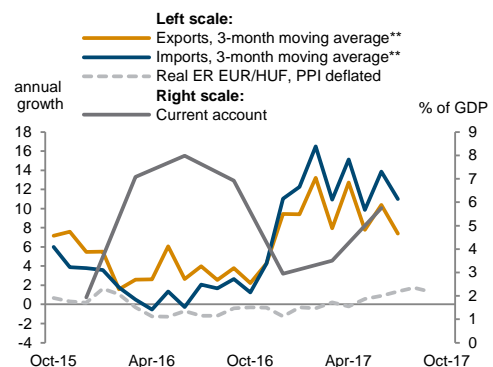
Source: wiiw Monthly Database incorporating Eurostat and national statistics.
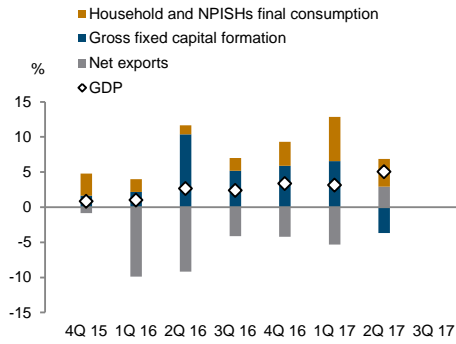Baseline data, country-specific definitions and methodological breaks in time series are available under:
https://data.wiiw.ac.at/monthly-database.html

Kazakhstan

Real GDP growth and contributions
year-on-year

- Household final consumption
- Gross fixed capital formation
- Net exports
- GDP

Real sector development
in %

Left scale:
- Industry, 3-month moving average
- Employed persons (LFS)

Right scale:
- Unemployment rate (LFS)

Unit labour costs in industry
annual growth rate in %

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

Inflation and policy rate
in %

- Consumer prices, annual growth
- Producer prices in industry, annual growth
- Central bank policy rate (p.a.)

Financial indicators
in %

Left scale:
- Loans to non-financial corporations
- Loans to households

Right scale:
- Non-performing loans

External sector development
in %

Left scale:
- Exports, 3-month moving average**
- Imports, 3-month moving average**
- Real ER EUR/KZT, PPI deflated

Right scale:
- Current account

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

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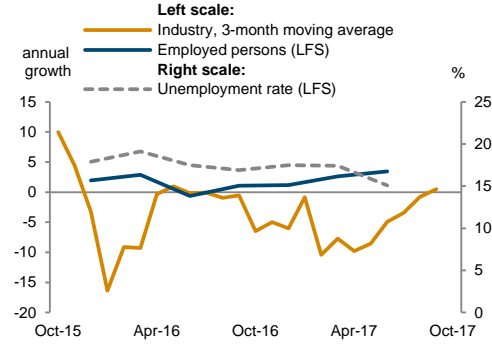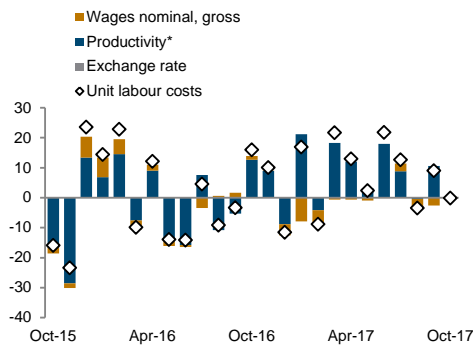https://data.wiiw.ac.at/monthly-database.html

Latvia

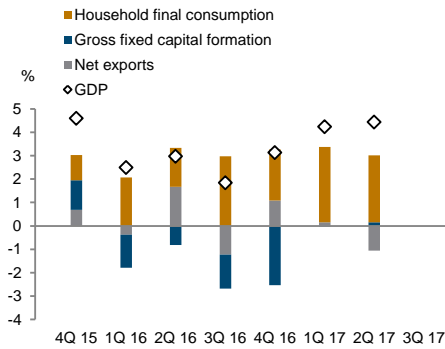### Real GDP growth and contributions
year-on-year

- Household final consumption
- Gross fixed capital formation
- Net exports
- ◇ GDP

Real sector development
in %

Left scale:
- Industry, 3-month moving average
- Employed persons (LFS)

Right scale:
- Unemployment rate (LFS)

annual growth

Unit labour costs in industry
annual growth rate in %

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

Inflation and policy rate
in %

- Consumer prices (HICP), annual growth
- Producer prices in industry, annual growth
- Central bank policy rate (p.a.)

Financial indicators
in %

Left scale:
- Loans to non-financial corporations
- Loans to households

Right scale:
- Non-performing loans

annual growth

in % of total

External sector development
in %

Left scale:
- Exports, 3-month moving average**
- Imports, 3-month moving average**
- Real ER EUR/EUR, PPI deflated

Right scale:
- Current account

annual growth

% of GDP

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

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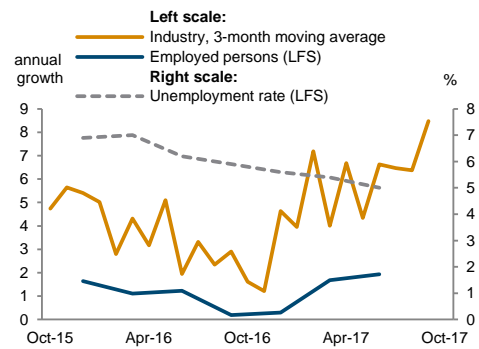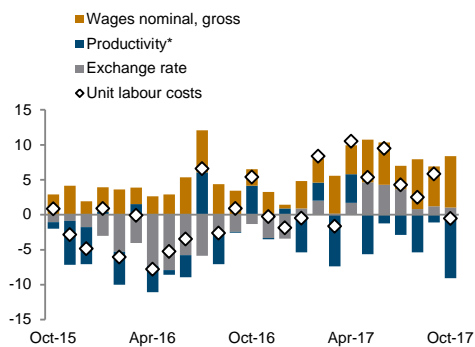Baseline data, country-specific definitions and methodological breaks in time series are available under:
https://data.wiiw.ac.at/monthly-database.html

Lithuania

Real GDP growth and contributions
year-on-year

- Household final consumption
- Gross fixed capital formation
- Net exports
- ◇ GDP

Real sector development
in %

Left scale:
- Industry, 3-month moving average
- Employed persons (LFS)

Right scale:
- Unemployment rate (LFS)

Unit labour costs in industry
annual growth rate in %

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

Inflation and policy rate
in %

- Consumer prices (HICP), annual growth
- Producer prices in industry, annual growth
- Central bank policy rate (p.a.)

Financial indicators
in %

Left scale:
- Loans to non-financial corporations
- Loans to households

Right scale:
- Non-performing loans

External sector development
in %

Left scale:
- Exports, 3-month moving average**
- Imports, 3-month moving average**
- Real ER EUR/EUR, PPI deflated

Right scale:
- Current account

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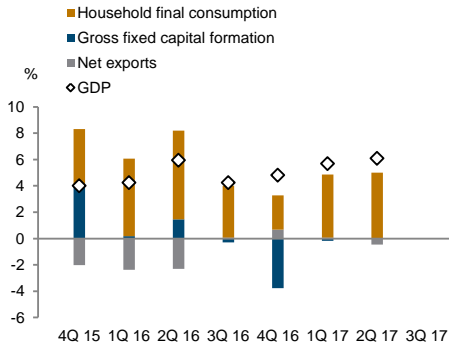**EUR based.

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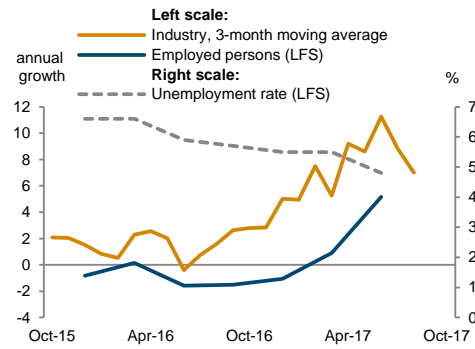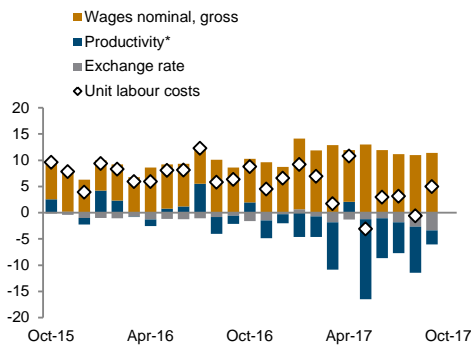https://data.wiiw.ac.at/monthly-database.html

Macedonia

Real GDP growth and contributions
year-on-year

- Household and NPISHs final consumption
- Gross capital formation
- Net exports
- ◇ GDP

Real sector development
in %

Left scale:
- Industry, 3-month moving average
- Employed persons (LFS)

Right scale:
- Unemployment rate (LFS)

Unit labour costs in industry
annual growth rate in %

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

Inflation and policy rate
in %

- Consumer prices, annual growth
- Producer prices in industry, annual growth
- Central bank policy rate (p.a.)

Financial indicators
in %

Left scale:
- Loans to non-financial corporations
- Loans to households

Right scale:
- Non-performing loans

External sector development
in %

Left scale:
- Exports, 3-month moving average**
- Imports, 3-month moving average**
- Real ER EUR/MKD, PPI deflated

Right scale:
- Current account

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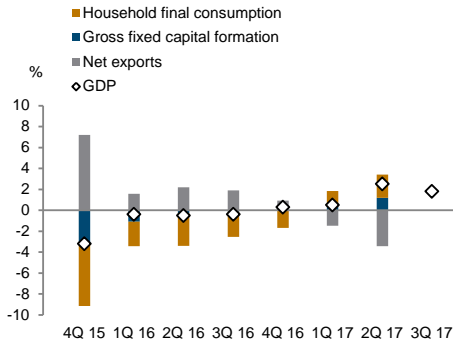**EUR based.

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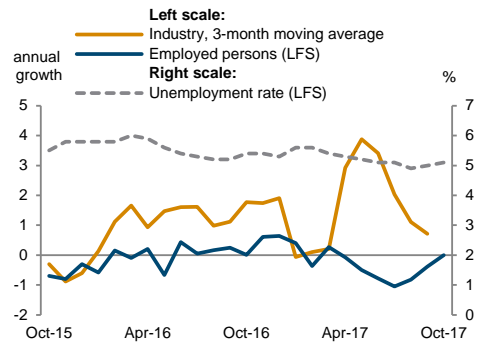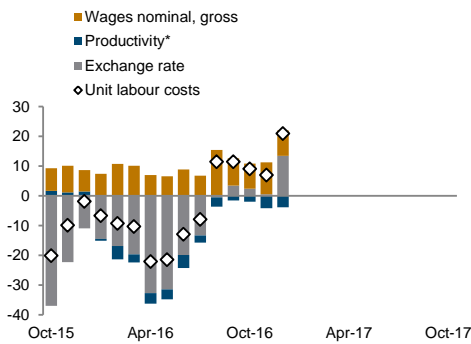https://data.wiiw.ac.at/monthly-database.html

Montenegro

Real GDP growth and contributions
year-on-year

- Household and NPISHs final consumption
- Gross fixed capital formation
- Net exports
- ◇ GDP

Real sector development
in %

Left scale:
- Industry, 3-month moving average
- Employed persons (LFS)

Right scale:
- Unemployment rate (LFS)

Unit labour costs in industry
annual growth rate in %

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

Inflation and lending rate
in %
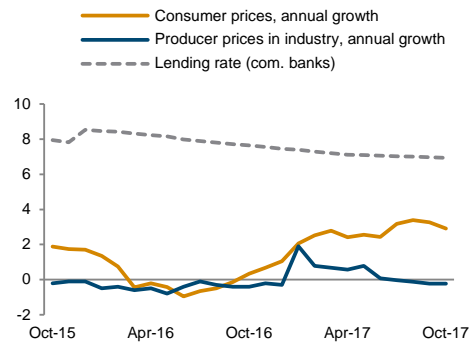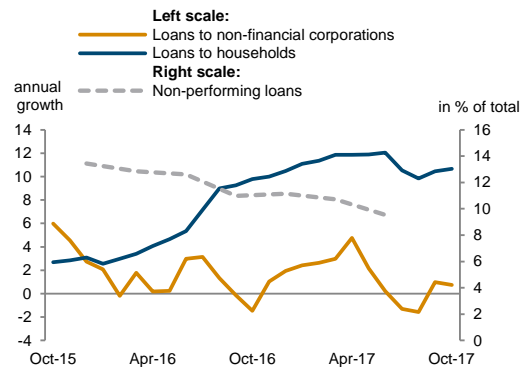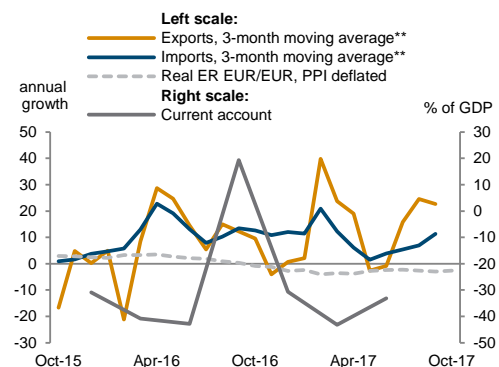
- Consumer prices, annual growth
- Producer prices in industry, annual growth
- Lending rate (com. banks)

Financial indicators
in %

Left scale:
- Loans to non-financial corporations
- Loans to households

Right scale:
- Non-performing loans

External sector development
in %

Left scale:
- Exports, 3-month moving average**
- Imports, 3-month moving average**
- Real ER EUR/EUR, PPI deflated

Right scale:
- Current account

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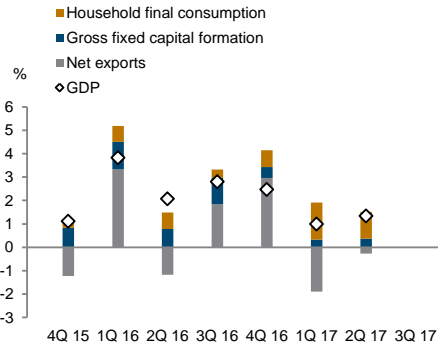**EUR based.

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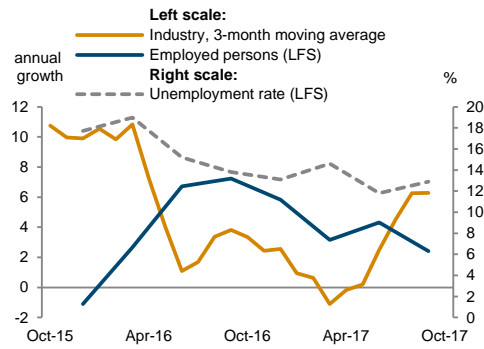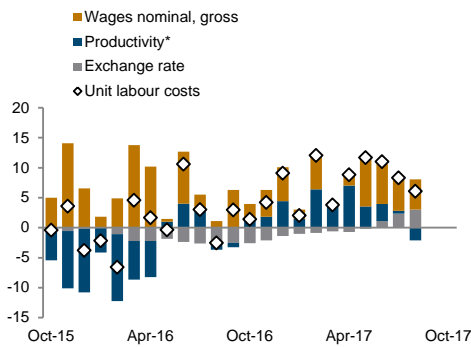https://data.wiiw.ac.at/monthly-database.html

Poland

Real GDP growth and contributions
year-on-year

- Household final consumption
- Gross fixed capital formation
- Net exports
- ◇ GDP

Real sector development
in %

Left scale:
- Industry, 3-month moving average
- Employed persons (LFS)

Right scale:
- Unemployment rate (LFS)

Unit labour costs in industry
annual growth rate in %

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

Inflation and policy rate
in %

- Consumer prices (HICP), annual growth
- Producer prices in industry, annual growth
- Central bank policy rate (p.a.)

Financial indicators
in %

Left scale:
- Loans to non-financial corporations
- Loans to households

Right scale:
- Non-performing loans

External sector development
in %

Left scale:
- Exports, 3-month moving average**
- Imports, 3-month moving average**
- Real ER EUR/PLN, PPI deflated

Right scale:
- Current account

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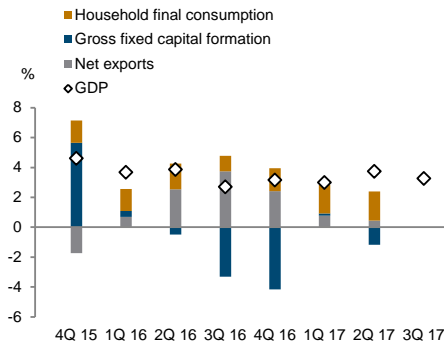**EUR based.

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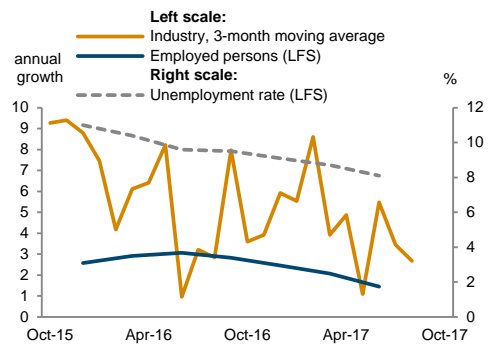Baseline data, country-specific definitions and methodological breaks in time series are available under:
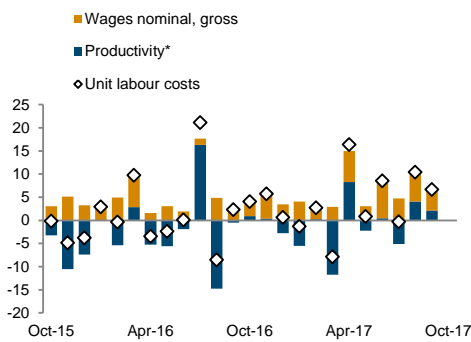https://data.wiiw.ac.at/monthly-database.html

Romania

Real GDP growth and contributions
year-on-year

- Household final consumption
- Gross fixed capital formation
- Net exports
- ◇ GDP

Real sector development
in %

Left scale:
- Industry, 3-month moving average
- Employed persons (LFS)

Right scale:
- Unemployment rate (LFS)

Unit labour costs in industry
annual growth rate in %

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

Inflation and policy rate
in %

- Consumer prices (HICP), annual growth
- Producer prices in industry, annual growth
- Central bank policy rate (p.a.)

Financial indicators
in %

Left scale:
- Loans to non-financial corporations
- Loans to households and NPISHs

Right scale:
- Non-performing loans

External sector development
in %

Left scale:
- Exports, 3-month moving average**
- Imports, 3-month moving average**
- Real ER EUR/RON, PPI deflated

Right scale:
- Current account

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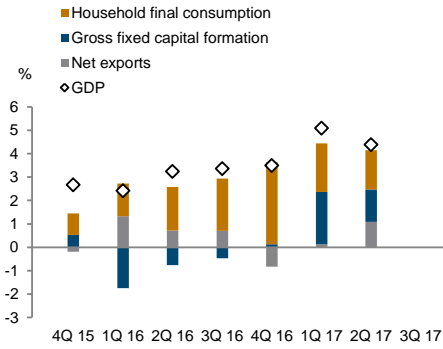**EUR based.

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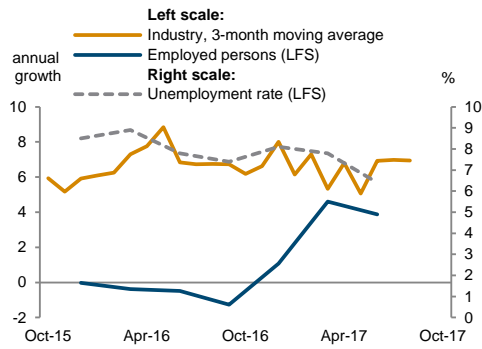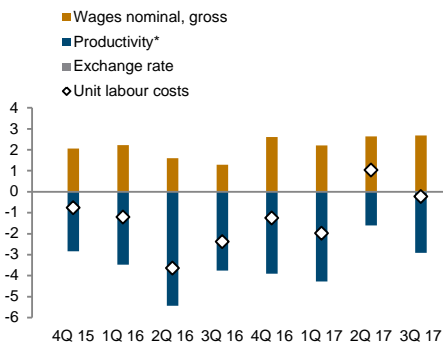https://data.wiiw.ac.at/monthly-database.html

Russia

Real GDP growth and contributions
year-on-year

- Household final consumption
- Gross fixed capital formation
- Net exports
- ◇ GDP

Real sector development
in %

Left scale:
- Industry, 3-month moving average
- Employed persons (LFS)

Right scale:
- Unemployment rate (LFS)

Unit labour costs in industry
annual growth rate in %

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

Inflation and policy rate
in %

- Consumer prices, annual growth
- Producer prices in industry, annual growth
- Central bank policy rate (p.a.)

Financial indicators
in %

Left scale:
- Loans to non-financial corporations
- Loans to households

Right scale:
- Non-performing loans

External sector development
in %

Left scale:
- Exports, 3-month moving average**
- Imports, 3-month moving average**
- Real ER EUR/RUB, PPI deflated

Right scale:
- Current account

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

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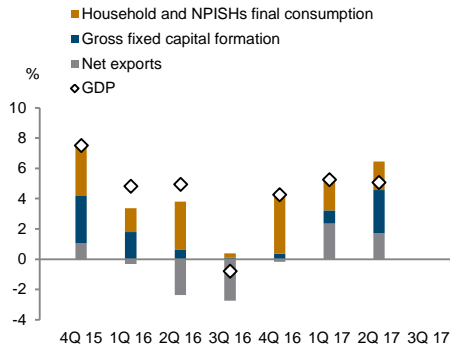Baseline data, country-specific definitions and methodological breaks in time series are available under:
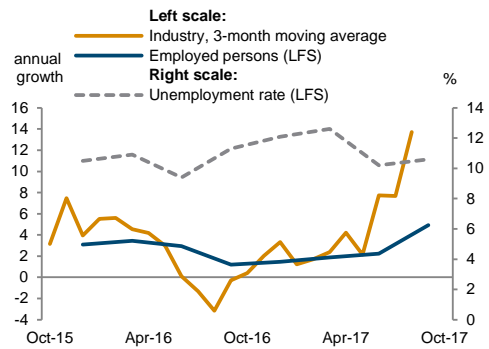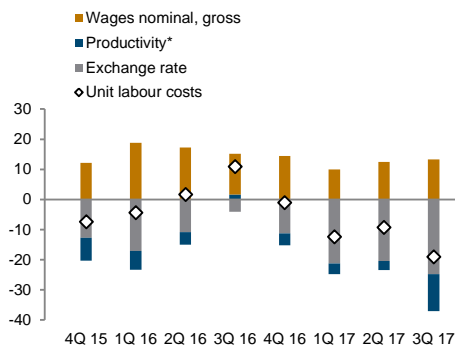https://data.wiiw.ac.at/monthly-database.html

Serbia

Real GDP growth and contributions
year-on-year

- Household final consumption
- Gross fixed capital formation
- Net exports
- ◇ GDP

Real sector development
in %

Left scale:
- Industry, 3-month moving average
- Employed persons (LFS)

Right scale:
- Unemployment rate (LFS)

Unit labour costs in industry
annual growth rate in %

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

Inflation and policy rate
in %

- Consumer prices, annual growth
- Producer prices in industry, annual growth
- Central bank policy rate (p.a.)

Financial indicators
in %

Left scale:
- Loans to non-financial corporations
- Loans to households

Right scale:
- Non-performing loans

External sector development
in %

Left scale:
- Exports, 3-month moving average**
- Imports, 3-month moving average**
- Real ER EUR/RSD, PPI deflated

Right scale:
- Current account

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

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

Slovakia
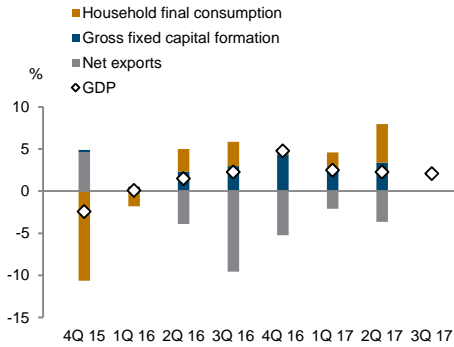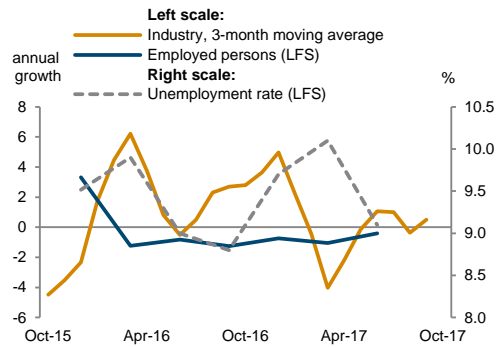
Real GDP growth and contributions
year-on-year

- Household final consumption
- Gross fixed capital formation
- Net exports
- ◇ GDP

Real sector development
in %

Left scale:
- Industry, 3-month moving average
- Employed persons (LFS)

Right scale:
- Unemployment rate (LFS)

Unit labour costs in industry
annual growth rate in %

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

Inflation and policy rate
in %

- Consumer prices (HICP), annual growth
- Producer prices in industry, annual growth
- Central bank policy rate (p.a.)

Financial indicators
in %

Left scale:
- Loans to non-financial corporations
- Loans to households and NPISHs

Right scale:
- Non-performing loans

External sector development
in %

Left scale:
- Exports, 3-month moving average**
- Imports, 3-month moving average**
- Real ER EUR/EUR, PPI deflated

Right scale:
- Current account

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

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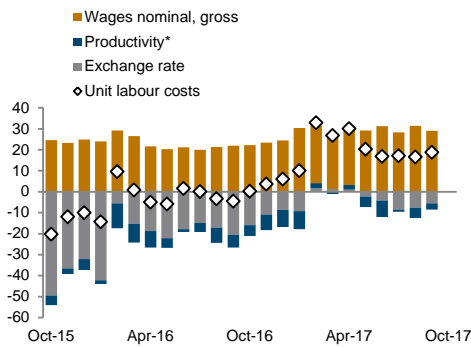Baseline data, country-specific definitions and methodological breaks in time series are available under:
https://data.wiiw.ac.at/monthly-database.html

Slovenia

Real GDP growth and contributions
year-on-year

- Household final consumption
- Gross fixed capital formation
- Net exports
- GDP

Real sector development
in %

Left scale:
- Industry, 3-month moving average
- Employed persons (LFS)

Right scale:
- Unemployment rate (LFS)

annual growth

Unit labour costs in industry
annual growth rate in %

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

Inflation and policy rate
in %

- Consumer prices (HICP), annual growth
- Producer prices in industry, annual growth
- Central bank policy rate (p.a.)

Financial indicators
in %

Left scale:
- Loans to non-financial corporations
- Loans to households

Right scale:
- Non-performing loans

annual growth

in % of total

External sector development
in %

Left scale:
- Exports, 3-month moving average**
- Imports, 3-month moving average**
- Real ER EUR/EUR, PPI deflated

Right scale:
- Current account

annual growth

% of GDP

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

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

Turkey

Real GDP growth and contributions
year-on-year

- ■ Household and NPISHs final consumption
- ■ Gross fixed capital formation
- ■ Net exports
- ◇ GDP

Real sector development
in %

Left scale:
- Industry, 3-month moving average
- Employed persons (LFS)

Right scale:
- Unemployment rate (LFS)

Unit labour costs in industry
annual growth rate in %

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

Inflation and policy rate
in %

- Consumer prices (HICP), annual growth
- Producer prices in industry, annual growth
- Central bank policy rate (p.a.)

Financial indicators
in %

Left scale:
- Loans to non-financial corporations
- Loans to households

Right scale:
- Non-performing loans

External sector development
in %

Left scale:
- Exports, 3-month moving average**
- Imports, 3-month moving average**
- Real ER EUR/TRY, PPI deflated

Right scale:
- Current account

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

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

Ukraine

Real GDP growth and contributions
year-on-year

- Household final consumption
- Gross fixed capital formation
- Net exports
- ◇ GDP

Real sector development
in %

Left scale:
- Industry, 3-month moving average
- Employed persons (LFS)

Right scale:
- Unemployment rate (LFS)

annual growth

Unit labour costs in industry
annual growth rate in %

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

Inflation and policy rate
in %

- Consumer prices (HICP), annual growth
- Producer prices in industry, annual growth
- Central bank policy rate (p.a.)

Financial indicators
in %

Left scale:
- Loans to non-financial corporations
- Loans to households

Right scale:
- Non-performing loans

annual growth

in % of total

External sector development
in %

Left scale:
- Exports, 3-month moving average**
- Imports, 3-month moving average**
- Real ER EUR/UAH, PPI deflated

Right scale:
- Current account

annual growth

% of GDP
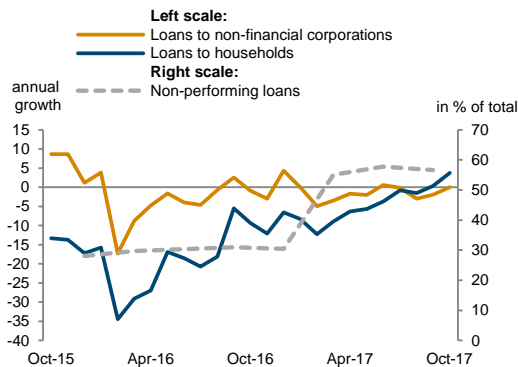
*Positive values of the productivity component on the graph reflect decline in productivity and vice versa.
**EUR based.
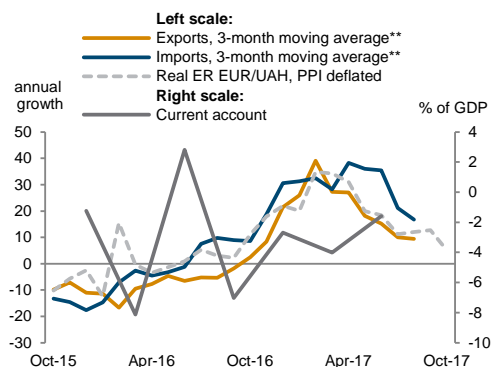
Source: wiiw Monthly Database incorporating Eurostat and national statistics.
Baseline data, country-specific definitions and methodological breaks in time series are available under:
https://data.wiiw.ac.at/monthly-database.html

Index of subjects – December 2016 to December 2017