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Ukraine's Industrial Sector: Analysis and Latest Trends

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1 Introduction

The industrial sector plays a key role in Ukraine's economy, and its performance is a key driver of socio-economic development. Thus, a deeper understanding of the structure and the trends of the industrial sector is important for policy makers, as this sector has a disproportionate influence on the overall health of the Ukrainian economy, including its export potential.

In this technical note, we want to contribute to a deeper understanding by reviewing the industrial sector performance in Ukraine in more detail, both over time, and also against peer countries.

The note is structured as follows: In the following chapter, we take an aggregate view in order to understand the importance of the sector to the overall economy of Ukraine, and draw some comparisons to other countries in the region. In the third chapter, we take a closer look at the structure of the industrial sector, its sub-sectors and its regional distribution. The fourth chapter is devoted to the description of the latest trends in the sector, which declined by 4.7% in real terms during 2013. Finally, we provide some analysis of the main reasons that may explain this weak performance in chapter five, together with some general recommendations on how the sector's performance might be stimulated.

2 Aggregate view

The industrial sector generally includes all sectors that produce finished, tangible goods, as opposed to services sector. Apart from manufacturing, mining and electricity, gas, steam and air conditioning supply are also commonly included in the industrial sector.[1]

2.1 Contribution to the economy

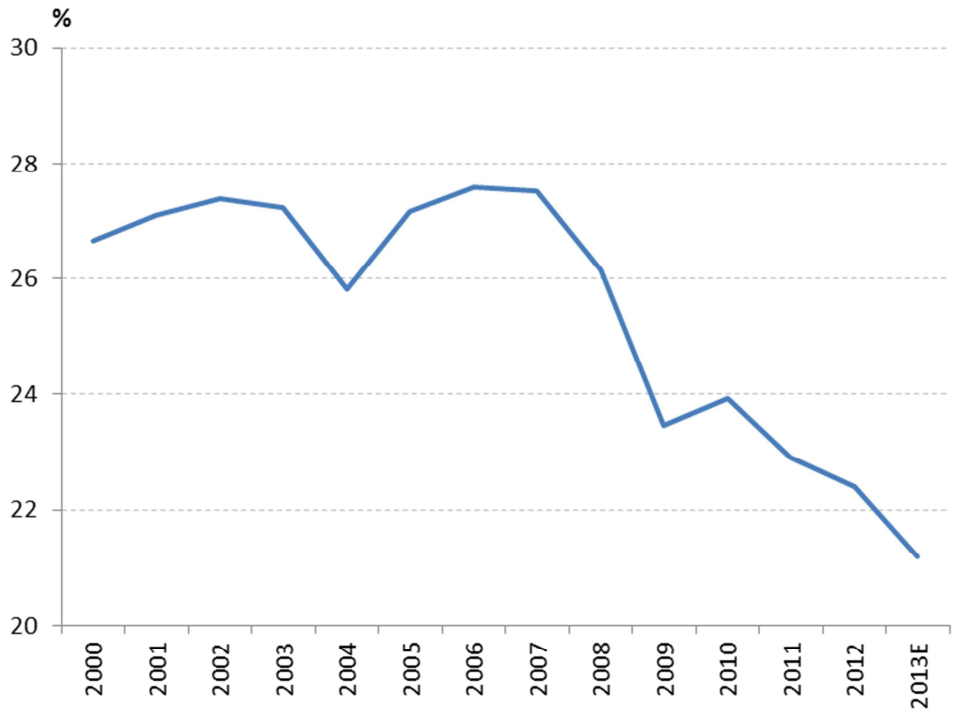
The data suggest that the industrial sector has a significant importance for the Ukrainian economy, as it contributed to around 21% to Ukraine's GDP in 2013. In comparison, agriculture contributed only 8%, while services contributed 58% in 2013.

However, a closer look at the data reveals that the importance of the sector to the economy has declined over the last decade – especially over the last five years – as shown in Figure 1:

[1] We use NACE 2nd revision as this is the standard used by Ukrstat and Eurostat to define sector and sub-sectors.

Figure 1

Industrial sector share of GDP, 2000-2013E



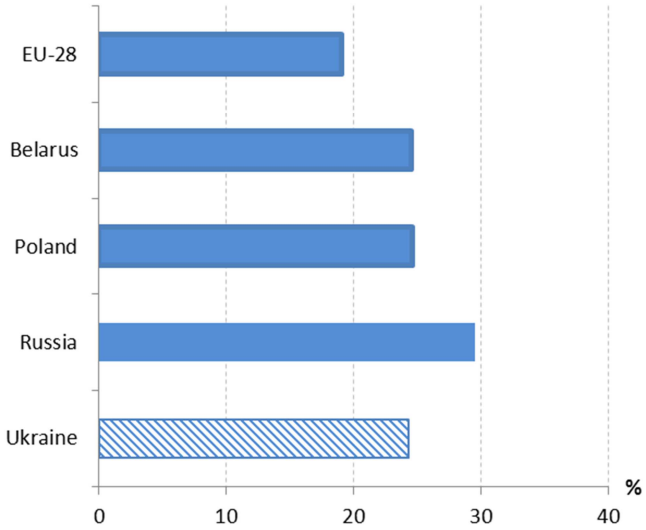
Source: Ukrstat

Indeed, in 2007 – the last year before the global financial crisis of 2008/09 – the share of industrial production in GDP was more than 27%. This share dropped massively during 2009 to a value of a bit more than 23%. Interrupted by a small recovery during 2010, the sector share resumed its long-term decline from 2011 onwards.

Against the backdrop of this decline, how does Ukraine's industrial sector compare internationally? The regional comparison in Figure 2 shows that the industrial sector is still more important than in the EU-28 average, and carries roughly similar economic weights as in neighbouring Poland and Belarus. It is less important than in Russia, whose industrial sector share is inflated by the mining sector.

Figure 2

Industry share of economy (GVA), international comparison, 2012



Source: Eurostat, Ukrstat

Conclusion 1: Even though the share of the industrial sector in Ukraine's GDP is on a longer-term decline, the country is still an important industrial producer in international comparison.

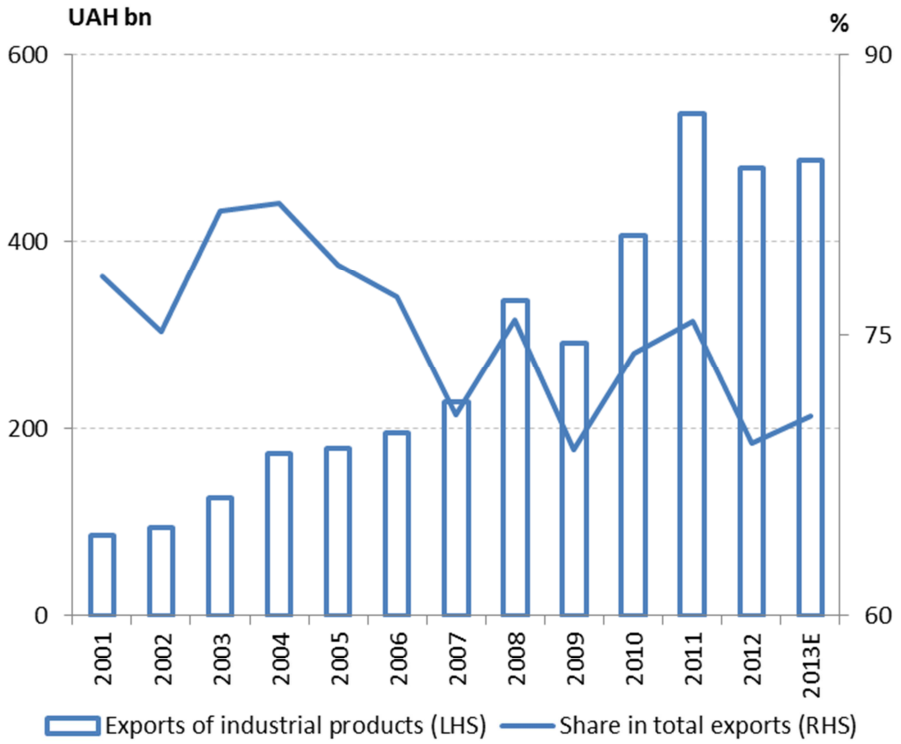
2.2 Contribution to exports

The industrial sector is a major contributor to the exports of Ukraine: While representing only 21% of the economy in 2013, it contributed to about 70% of total exports in the same year. Total exports of industry are estimated at UAH 487 bn (USD 60 bn) in 2013, as the Figure 3 shows below. This is only a small increase of 1.8% in comparison to 2012, the year where industrial goods exports declined by 10% in comparison to the previous year.

Furthermore, the export contribution of the industrial sector is also showing a falling trend in the longer term. While close to, or above 80% during the first half of the last decade, it dropped recently below 70%. Previously, this happened only once before, namely during the global financial crisis, when international trade was severely interrupted.

Figure 3

Industrial sector exports



Source: Ukrstat (input-output tables for 2001 - 2010; external trade digest for 2011-2012), NBU

Conclusion 2: Mirroring the long-term decline of the sector share in GDP, also its export contribution is weakening.

3 Disaggregate view

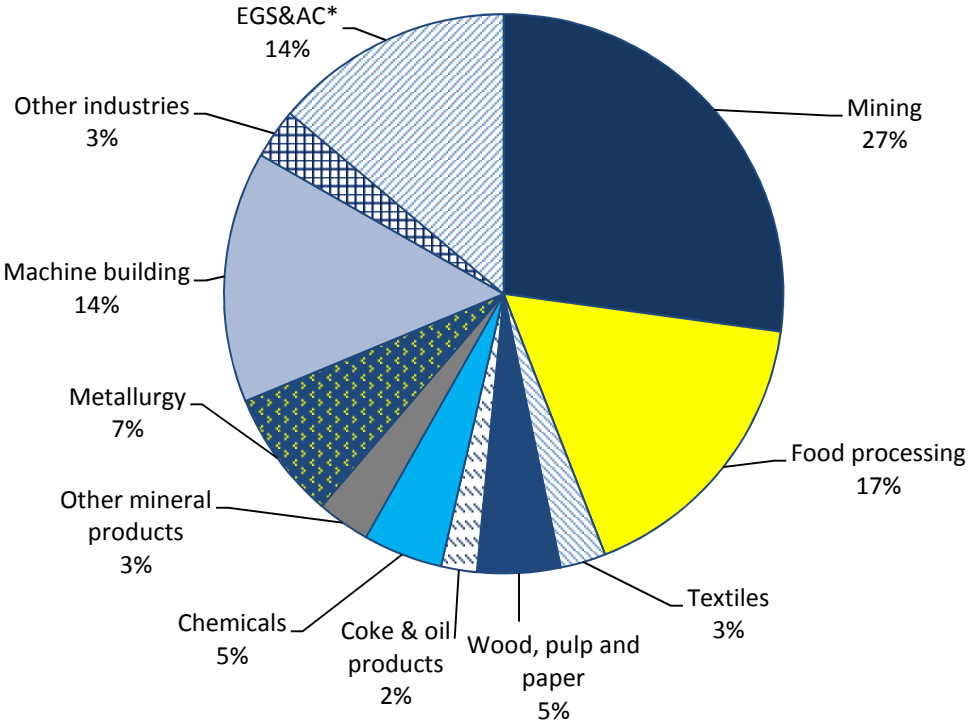
The aggregate view presented above needs to be complemented by a more disaggregate view, i.e. a closer look at individual sub-sectors in order to understand the declining economic and export contribution of the sector.

3.1 Structure of industry by sub-sectors

The following Figure 4 shows the contribution of individual sub-sectors to overall industrial production in Ukraine.

Figure 4

Share of industry sub-sector of total industrial production in 2013



*EGS&AC - electricity, gas, steam and air conditioning supply

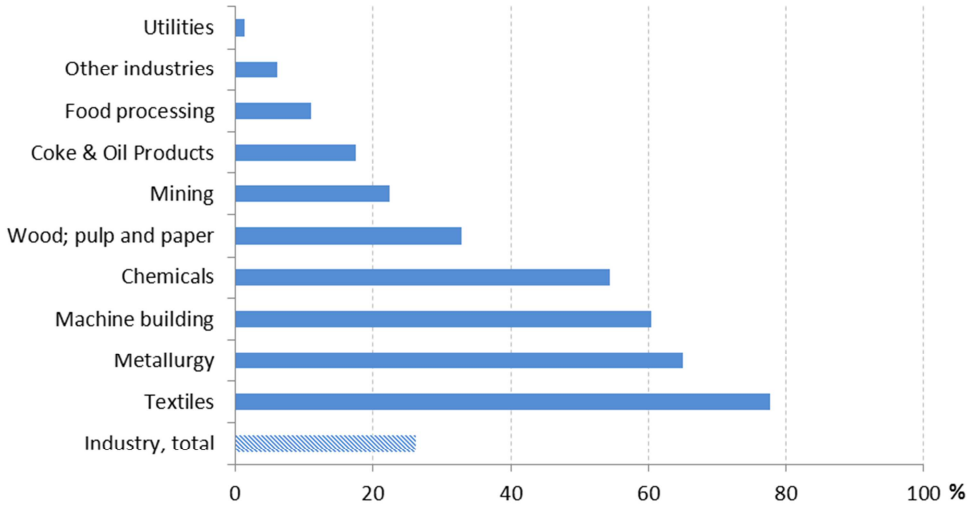
Source: Ukrstat

Mining, food processing are machine building are the dominant sub-sectors of industrial production which contributed jointly to almost 60% to total industry gross value added.

If we turn to the export share of individual sub-sectors, we see in Figure 5 that four industrial sub-sectors are characterized by a high degree of export share: Textiles (78% of output is exported), metallurgy (65%), machine building (60%) and chemicals (54%) The remaining sectors export less than 40% of their output.

Figure 5

Share of output exported by industry sub-sectors, 2012



Source: Ukrstat

Conclusion 3: The three major sub-sectors (mining, food processing and machine building) account for almost 60% of industrial production. Key export-oriented sub-sectors like textiles, metallurgy, machine building and chemicals ship more than 50% of their output abroad.

3.2 Regional distribution of industry

Industrial activity is not evenly distributed across Ukraine, but concentrated in certain provinces (oblasts), especially in the Eastern part of the country. The clear leader is Donetsk, whose share in Ukraine's total industrial output is 21%, followed by Dnipropetrovsk (19%). This implies that these two oblasts account for 40% of Ukraine's industrial production. If we add Luhansk (8%), Zaporizhia (5%) and Kharkiv (5%), the share of the East increase to almost 60%.

The flipside of this strong concentration are provinces that have a very weak contribution to overall industrial production. Chernivtsi, Ternopil and Volyn, which are located in the West of Ukraine, contribute in each case to less than 1% of total production, if we abstract from the special case of the city of Sebastopol (0.5%).

The following Figure 6 gives a detailed overview of the regional distribution of industrial production.

Figure 6

Regional contribution to industry sector output, 2011



Source: Ukrstat digest "Regions of Ukraine" 2013

Conclusion 4: Industrial activity is heavily concentrated in the country's Eastern provinces, which account together for almost 60% of industrial output.

4 Latest trends

4.1 Real output vs. nominal sales

As we already mentioned in the beginning of this note, 2013 was characterized by a significant decline in real industrial output of 4.7% in comparison to the previous year. The pace of decline accelerated in comparison to 2012 when real industrial output declined by a lesser rate of "only" 0.5% in comparison to 2011. The current weakness can thus be seen as a continuation of a trend that started already some time ago.

However, nominal industrial sector sales for 2013 paint a more positive picture. According to the latest available figures, the value of products sold by the industrial sector increased slightly by 0.6% in 2013 in comparison to 2012. Industrial enterprises managed to increase nominal sales slightly by drawing down inventories of finished goods as well as by increasing prices.

If we focus on sub-sectors, real sales in manufacturing and mining dropped only by an estimated 2.1% in 2013 as opposed to a 5.2% drop in real output in manufacturing and mining. Sales prices increased by 3.3% on average, although performance was very different across industries.[2]

Conclusion 5: Real industrial production is still in decline, but nominal sales increased slightly, as companies depleted their stocks to satisfy demand and increased prices.

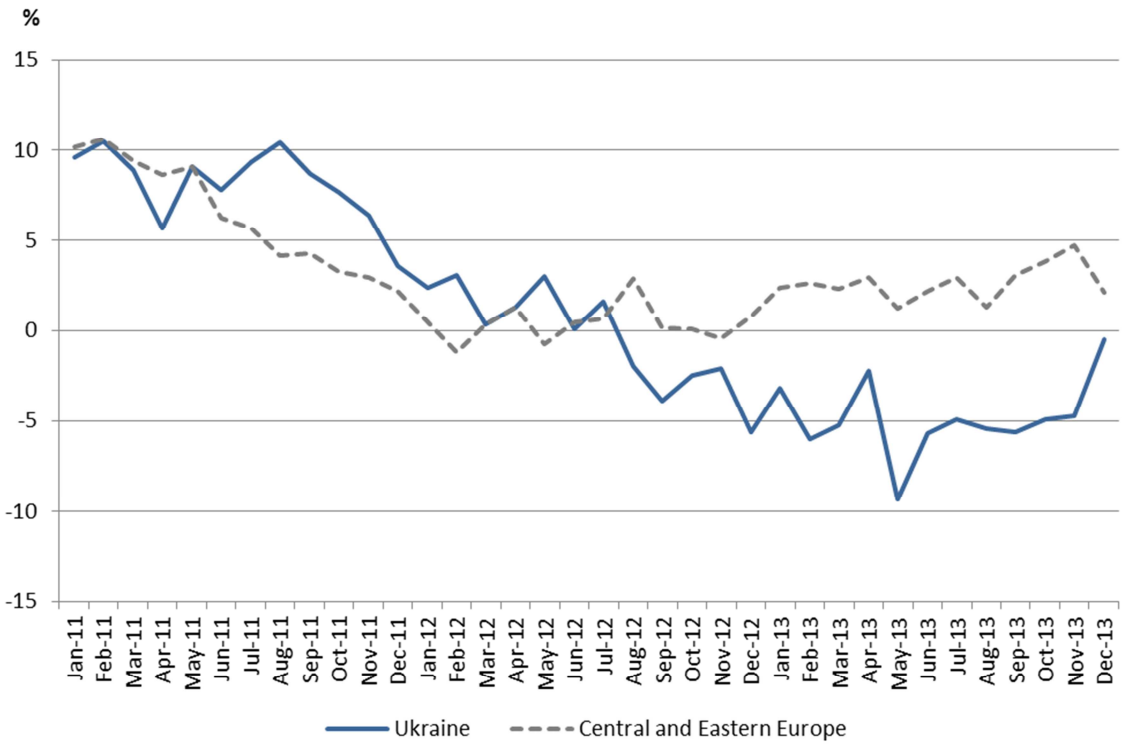
4.2 Monthly numbers

However, a more thorough dynamic analysis should be based on monthly numbers, which can give more precise signals about intra-year turning points and trend reversals. Indeed, if we look at the monthly dynamics of the last three years in Figure 7, there is some indication that a certain bottom in the decline of industrial production was reached in May 2013. Since then, the long-term decline was halted and to some extent reversed, as in December 2013, the decline was only 0.5% yoy. This recent improvement is due to several factors, among them base effects, calendar effects (i.e. more workdays) as well as genuine improvements in several sectors.

[2] It should be noted that the deflator of industrial sales differs from the producer price index (which fell by 1.1% in 2013 for manufacturing and mining) due to different weighting of calendar periods and industries.

Figure 7

Real annual growth of industrial production, Ukraine vs. Central and Eastern Europe



Source: Ukrstat, own analysis

In order to get a wider international picture, we plotted in Figure 7 Ukraine's industrial performance against a peer group consisting of Central and Eastern European countries. Until mid-2012, the downturn in industry was quite similar, and to a significant degree synchronised, but started then to diverge. While Ukraine's decline continued until mid-2013, the peer countries' industrial performance stabilised and embarked on a slight upward trend, which is fragile though.

It is clear that the sub-sector performance can diver quite substantially from the aggregate dynamics, an observation which is supported by Table 1:

Table 1

Breakdown of industrial sub-sectors performance, 2012-2013

%	Annual growth in 2012	Annual growth in 2013	Growth contribution in 2013
Mining	1.9%	0.4%	0.1%
Food processing	1.0%	-5.5%	-0.9%
Textiles	-6.6%	-6.2%	-0.2%
Wood, pulp and paper	0.9%	2.6%	0.1%
Coke & oil products	-18.4%	-11.2%	-0.2%
Chemicals	-3.8%	-17.5%	-0.8%
Other mineral products	-8.0%	-5.1%	-0.1%
Metallurgy	-3.6%	-5.8%	-0.4%
Machine building	-3.3%	-13.8%	-1.9%
Other industries	8.0%	-8.9%	-0.2%
EGS&AC	2.0%	-1.3%	-0.2%
Industry, total	*-0.5%*	*-4.7%*	*-4.7%*

Source: Ukrstat, own estimations

Export-oriented chemicals and machine building, as well as coke and oil products showed the steepest decline in their output, in all cases falling at double-digit rates.

In addition to the annual growth rates of the individual sub-sectors it is also insightful to see how much they added to the overall 4.7% decline of the industry sector. Here the data show that machine building was the main (negative) contributor with a negative growth contribution of 1.9 pp followed by food processing chopped 0.9 pp off the growth rate and chemicals with another 0.8 pp.

Conclusion 6: The decline in industrial performance accelerated in 2013, even though some stabilisation seems to be at work since the middle of the year.

5 Assessment of weak performance in 2013

An obvious question relates to the reasons behind Ukraine's weak industrial performance, especially during 2013. In this regard, a number of external and internal reasons can be identified.

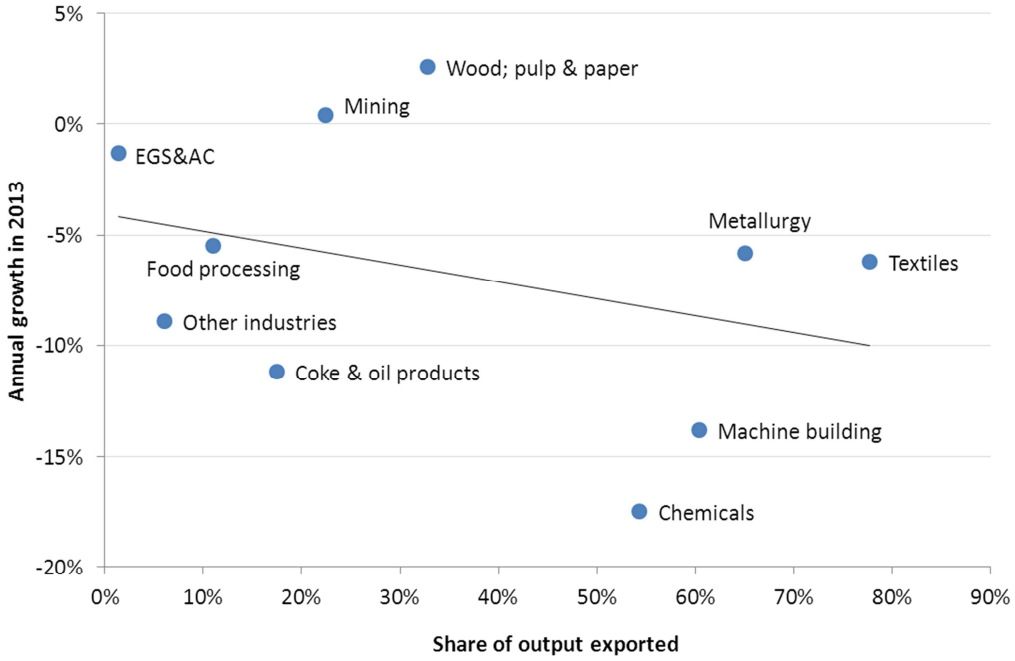
- Weak external demand

It is apparent that especially those sectors suffered output declines which rely on export demand. Figure 8 supports this notion. It shows that those sectors which exported a high share of their production suffered the largest output decline in 2013. For example, the machine building sector, which relies on exports markets for 64% of its sales, saw a massive 15% decline in real output in 2013. The mining as well as the wood & paper sectors, which both export between 20% and 30% of their production, even had positive growth.

With weak export demand one of the main reasons for the decline there is the question why industrial producers failed to sell goods to their foreign clients.

Figure 8

Sector growth vs. export share

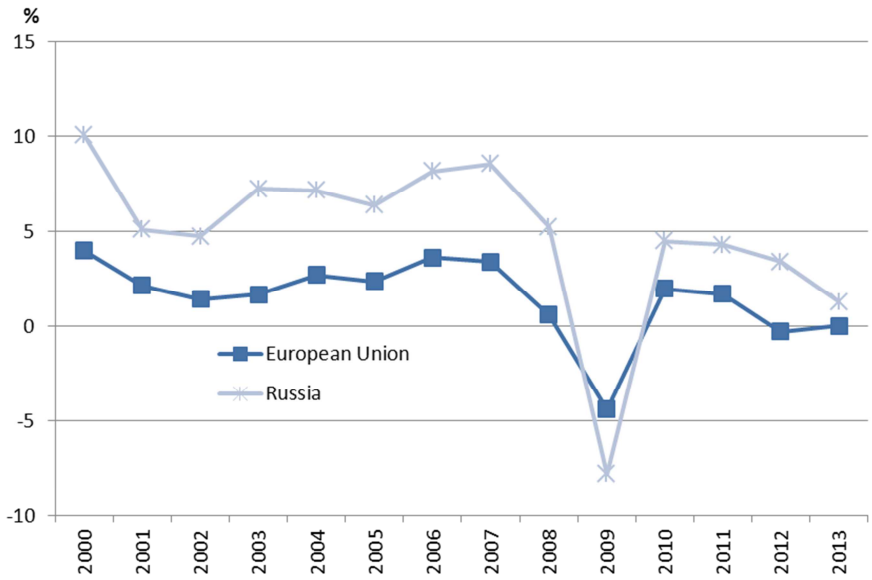


Sources: Ukrstat, Eurostat

One reason may obviously be the economic slowdown in Ukraine's main export markets, namely Russia and the EU. Indeed, as Figure 9 below indicates both trade regions suffer from anaemic economic growth. While the EU still battles the economic ramifications from the euro crisis with 0.1% annual GDP growth in 2013, Russia's economy also showed increasing signs of a cooling-off. Indeed, annual real GDP growth slowed to only 1.3% in 2013, after 3.4% in 2012.

Figure 9

Real annual GDP growth Russia and European Union



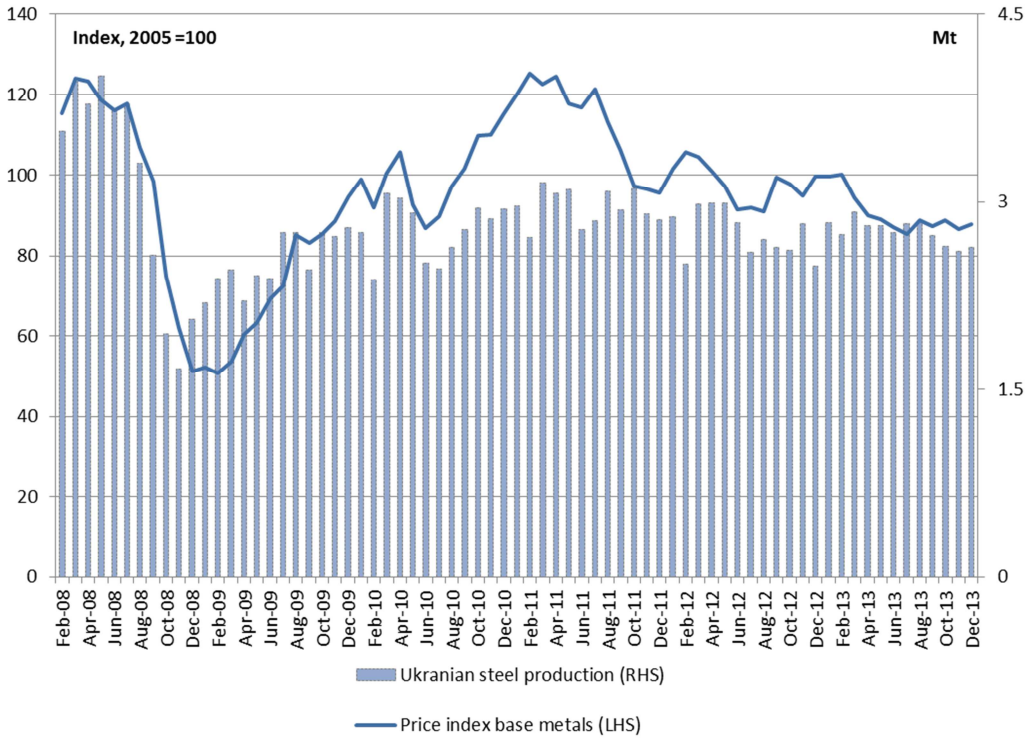
Source: World Bank, Eurostat

- Negative Terms-of-Trade shock

During the recent past, Ukraine was also subject to negative terms-of-trade developments, as the prices of major export items (steel, chemicals) developed rather weakly, while energy import prices continued to be strong. The negative impact of the steel price on the steel output in Ukraine can be seen in Figure 10 below.

Figure 10

Relationship between global steel prices and steel output in Ukraine



Sources: World Bank, Ukrstat

- Russia trade sanctions

During the summer, access to the key Russian market was temporarily restricted, which created problems for many exporters, including industrial companies. Furthermore, individual companies where subject to export embargoes, or faced similar problems. While this phenomenon cannot be easily detected on the aggregate macroeconomic level, it may be a further reason for the weak performance.

- Inappropriate Monetary and Exchange Rate Policy

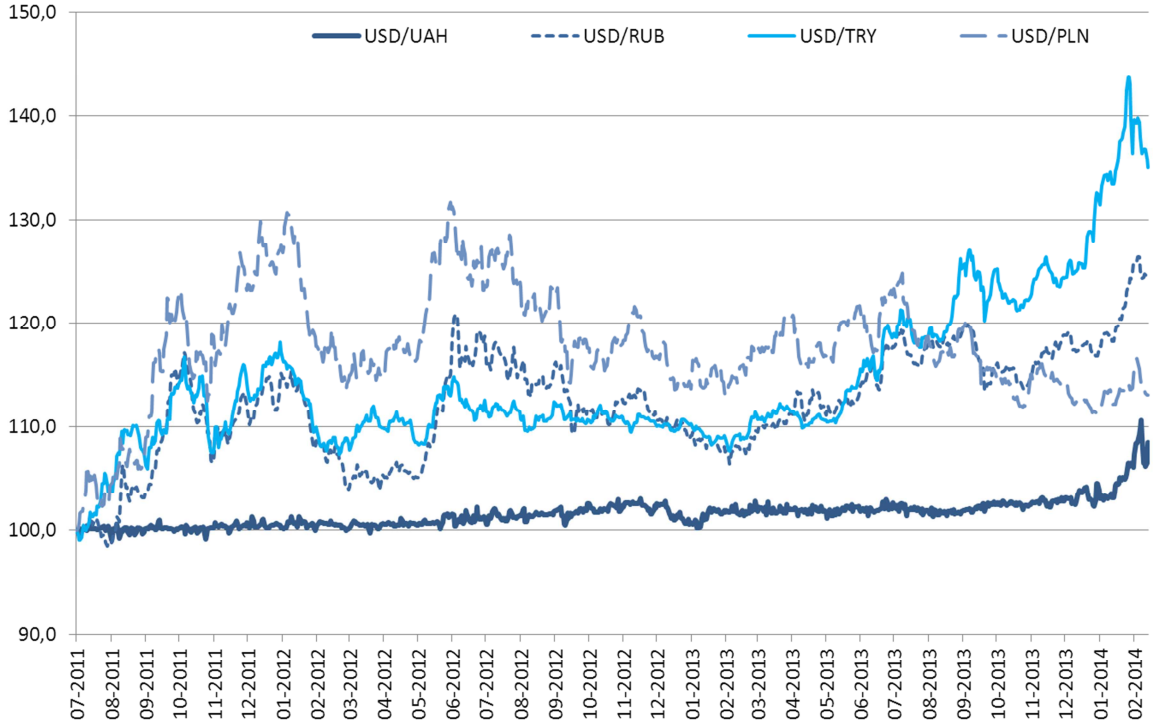
Another domestic factor which explains the weak demand is Ukraine's monetary and exchange rate policy. With the UAH fixed against the USD, Ukraine's producers have increasingly lost international competitiveness against their international competitors such as Russia, Turkey and Poland, to name just a few.

Figure 11 shows the extent of this loss in competitiveness. It displays how the exchange rates of Ukraine, Russia, Turkey and Poland have fared against the US Dollar since mid-2011. While the UAH/USD exchange rate was more or less fixed over that period (apart from the recent depreciation) the competitors currencies were significantly more flexible against the dollar. The Turkish Lira, for example, has depreciated by more than 30% against the Dollar during that period. That means its goods have become over 30% cheaper on the international market. A similar picture is true – though to a lesser extent – for the Polish Zloty and the Russian Ruble which also depreciated substantially.

Even if Ukrainian producers manage to decrease the production costs – which the producer price index suggest they did over the last years – they will find it impossible to catch up with their Turkish or Russian competitors which enjoy a competitive advantage of about 15% and 30% due to the depreciation of their domestic currencies. It is likely that this loss in international competitiveness is one of the main reasons for the output decline of Ukraine's industrial sector.

Figure 11

Comparison UAH/USD exchange rate with main industrial competitors



Source: OANDA.com

Direct consequences of the fixed USD/UAH exchange rate peg are the very tight monetary conditions in the country. In order to support the peg under adverse external conditions, the National Bank of Ukraine was forced to conduct a very tight monetary policy stance which resulted in very high interest rates. Currently, real corporate lending rates are at the level of about 14%, which is an enormous level in international comparison.

High interest rates have resulted in low demand for the industrial sector for a number of reasons. First, they dampen investments - for example in machinery - and consumption of durables, thus undermining output for the industrial sector. In addition – although this will not affect demand for the industrial sector immediately- high interest rates will deter investments in the much needed modernisation of the industrial sector. The consequence may be a further loss in international competitiveness which will eventually be visible in falling external and domestic demand for the industrial sector.

Conclusion 7: Both external and domestic factors contributed to the decline in real industrial production during 2013. Regarding external factors, weak foreign demand, negative terms-of-trade effects, as well as Russian trade sanctions played a role. A negative domestic factor was the continuation of the exchange rate fixation in a situation where major competitors devalued. This fixation also kept monetary conditions overly tight, resulting in weak investment and durable demand.

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