Economic Benefits for Normalisation of Relationship between Ukraine and Russia

This research report describing impact on Russia and Ukraine economic growth of the scenarios of partial normalisation, full normalisation of Russia and Ukraine relationship or a final peace and total normalisation scenario between two countries was published a year ago. Please reach out if you would like to order this report updated.

- In 2014, Russia suffered two external shocks – the sudden decline in the oil price; and the US and EU sanctions regime (in response to inclusion of Crimea and conflict in Donbas), in particular, the closure of international capital markets.
- The shocks impacted an economy that was only slowly recovering from the international financial crisis of 2008.
- The external shocks combined to undermine both Russia's current account and budget position, threatening to push them into destabilising deficit.
- As a consequence, the economy was tipped into a sharp recession at a politically sensitive time following the first political protests since the 1990s. But the positive impact of Crimea inclusion on Vladimir Putin's ratings kept any domestic negative political consequences at a very low level.
- The foreign direct investment in Russia came to halt while Russia made the strategic decision to keep its capital markets open with focus on developing its own bond markets so that despite the financial sanctions some funding opportunities could remain open.
- Ring-fencing certain budget items (in particular, defence and social spending) while sharply cutting spending elsewhere (in particular, education, health care and infrastructure), Russia still has not been able to withstand the failure of its banking system and the closure of international capital markets resulted in a banking crisis with all but one or two of the large Russian private banks nationalised by the government.
- Involvement of international diplomacy and the threat of further strengthening of western sanctions regime have kept the Ukraine-Russia conflict less acute. Left with little other options, and overall probably losing interest in improving relations with Ukraine, Russia relied on a hybrid tactics, gas politics and sanctions.
- Ukraine tried to diversify its exports away from Russia (in the same manner that Georgia did previously), the trade between Russia and Ukraine virtually came to nil, following the tit for tat mutual trade sanctions between the two sister countries, while the impact of mutual sanctions on economies of both countries was underestimated by the policy makers and resulted in the additional economic damage.
- Timing of this study coincides with pandemic of corona virus. Russian GDP is expected to drop 5.5% in 2020 and Ukraine economy is likely to shrink some 7% or even more.
- The remaining structural weaknesses will likely hinder economic recovery and will leave Russia and Ukraine prone to further economic shocks in the future

while the temporal global economic weakness could serve as a catalyst for possible partial or even full normalization of relationship between two countries: Ukraine and Russia.

We consider impact on Russian and Ukraine economy of the outcome of 3 scenarios.

- Partial normalization scenario which assumes that Russia and Ukraine mutually lift sanctions on the most significant trade sectors. It excludes in any case Ukrainian sanctions related to Crimea. In this scenario as a result of increase in exports, consumption, investment and budget revenues GDP will grow additional 0.7% from 2021 to 2025 for Russia. Ukraine GDP will additionally grow by 2.2% to 3.2% in the same period. We estimate that Russian real GDP growth could reach 4.2% in 2021 with growth falling to 2.6% in 2025. Ukraine GDP will grow 5.8% in 2021 and this growth rate will be increased to 6.2% through 2025.
- Full normalisation scenario assumes that all bilateral sanctions are lifted, except those related to Crimea but international sanctions package (Donbas and Crimea) will still be on. In this scenario as result of increase in exports, consumption, investment and budget revenues GDP will grow additional 1.2% per annum from 2021 to 2025 for Russia. Ukraine GDP will additionally grow by 2.6% to 3.8% in the same period. We estimate that Russian real GDP growth could reach 4.8% in 2021 with growth falling to 2.8% in 2025. Ukraine GDP will grow 6.2% in 2021 and this growth rate will be increased to 7% through 2025.
- In the total peace scenario (while we do not need to speculate on the future status of Crimea) we assume that all bilateral sanctions are lifted including Ukrainian ones on Crimea, and international sanctions related to Donbas and Crimea (EU and US) are lifted. In this scenario as result of increase in exports, consumption, investment and budget revenues GDP will grow additional 3.6% pa from 2021 to 2025 for Russia. Ukraine GDP will additionally grow by 8.1% to 11% in the same period. We estimate that Russian real GDP growth could reach 7.2% in 2021 with growth falling to 5.2% in 2025. Ukraine GDP will grow 11.7% in 2021 and this growth rate will be increased to 13% through 2025.

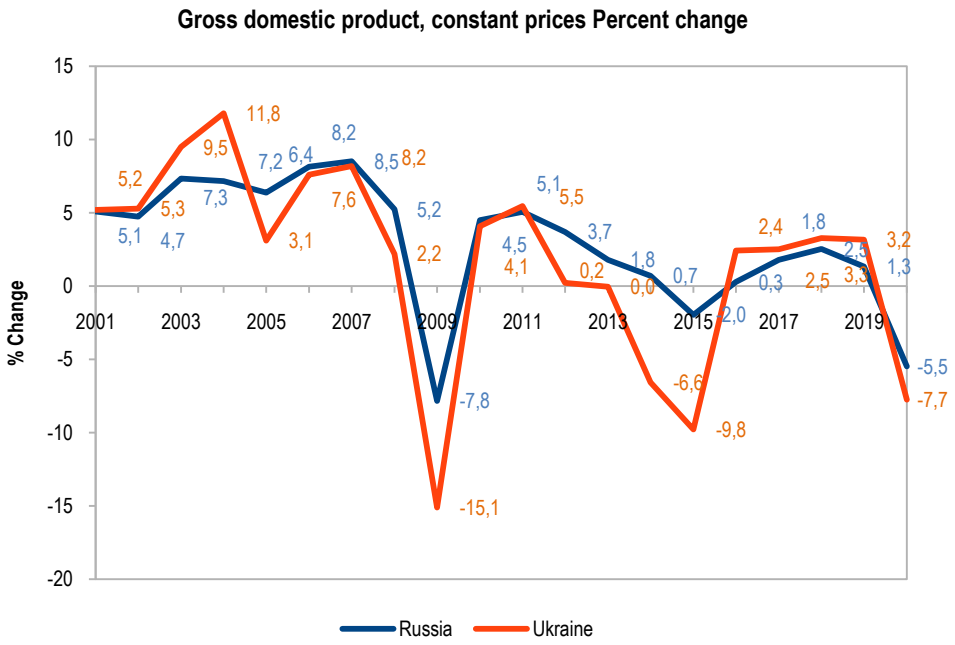
Background Economic crisis – causes and impact

The 2014-16 economic recession was caused by two external shocks which hit Russia more or less simultaneously in the second half of 2014 and at various points throughout 2015. The bigger of the two shocks was the sudden decline in the oil price in late 2014 and again in the second half of 2015. The impact of the oil price shock was exacerbated by the economic and financial sanctions regime which was applied by the US and Europe during the second half of 2014. Either shock alone would have been damaging. Taken together, they catalysed the second economic crisis in a decade.

In 2014 following eruption of conflict with its western sister Russian GDP growth was only 0.7% and only buoyed by strong oil price. It could not sustain further economic pressure of sanctions, rising risk levels reflected in downgrade of sovereign credit ratings. Russian economy surrendered the next year when GDP dropped by 2% in 2015.

Ukrainian economy was affected even harder. It was already in free fall going into 2014 (Ukraine real growth was 5.5% in 2012 and only 0.2% in 2013). Snap elections as a result of protests yielded a leadership change. But the chaos of 2013 has caused Ukrainian economy 6.6% drop in 2014 and another 9.8% drop in 2015. Ukrainian banking system had almost vanished, trade almost halted and loss of territories in Donetsk, Luhansk and Crimea has caused national economic statistics in Ukraine to subtract economic inputs from these territories.

Real GDP Growth % Ukraine and Russia 2001 – 2020 estimate



Source: IMF

Economies prior to 2014

The economic shocks of late 2014 hit economies in two countries still weakened from the economic crisis of 2008-09. In the decade before 2008, the Russian and Ukraine economies had been growing at an average of 5-7% per annum, one of the fastest growth rates globally. Much of the growth had been financed by foreign capital and by expanding capital markets. As a consequence of disruption in access to global capital flows, Russia and Ukraine were among the most impacted countries by the global financial crisis of 2008. Economic growth declined from +8.2% in 2007 to -8.9% in 2009 for Russia and +8.9% in Ukraine in 2007 and to -15% in 2009, the biggest shift of any country globally.

The damage of the 2008 global crisis was still having a lingering impact on the both economies in the run-up to 2014. Disposable incomes growth stagnated, banks' balance sheets remained damaged, and capital markets remained dysfunctional making it difficult to finance investment. Economic recovery was feeble, with growth averaging 1-2%, well below the growth experienced prior to 2008 (see Figure 1). The economies were therefore ill-prepared for the crises of late 2014.

Sanctions impact

In the second half of 2014, the US and the EU imposed a series of economic and financial sanctions on Russia. In the short-term, the most damaging of the sanctions were those blocking the access of Russian banks and corporates to financing offered by the US and Europe. Because of the nature of international finance, the particular sanctions had a general impact of making it difficult for almost all Russian entities to get access to almost all international finances.

The sanctions regime of 2014 had a similar impact on Russia as the 2008-09 international financial crisis in that both effectively cut off Russia from international capital markets. The main difference between the two periods was that Russia had not yet recovered sufficiently by 2014 to have built up large external imbalances. In short, the sanctions regime has meant that Russia, unlike most of its peers, has not been able to access cheap international capital to finance economic recovery.

Sovereign external debt percent of GDP

Source: IMF

The conflict between Russia and Ukraine and mutual sanction affected overall measures of economic performance in two countries and it had a lateral effect on all aspects of economic well being: incomes and consumption suffered, investment levels dropped, exports declined and budget deficits widened, international reserves depleted. Trade between two countries dropped below the levels of 2008-2009 and drifting even lower in the next 6 years.

Traumatised by economic depression, rising risk premium, capital outflows and barred access to international financial markets Russian economy succumbed into a full scale banking crisis. In the aftermath of the crisis Russian taxpayers had pick up a check and government had to spend over 5 trillion rubles for banks bailout with all but one or two large privately owned Russian banks nationalised by the government.

The longer-term impact of public spending decisions

The ring-fencing of certain financing objectives (e.g. debt service and defence) was made at the expense of under-investment into a range of public services, including education, health and infrastructure. While the short-term impact of under-financing is manageable, under-investment will have longer-term implications for economic growth with, ultimately, political consequences. Public sector infrastructure has taken the brunt of decisions aimed at fiscal prudence for over two decades. As a result, Russia has lost a lot of its competitive advantage in education and health care which it enjoyed at the break-up of the Soviet Union. With western sanctions still on and without access to international capital markets longer-term economic growth will be curtailed. Fiscal prudence relying on under-investment in key public services is not sustainable over the longer-term.

The absence of options for private sector financing

A major longer-term negative economic consequence of both the 2008 and the 2014 economic crises were the decreased range of options for financing and the increased role of the state. Prior to 2014, the private sector could access financing from a wide range of sources, including international capital markets, global banks and a number of domestic financial institutions. The combinations of economic crisis and financial sanctions have forced the private sector to turn to state-backed entities for financing, including the CBR, the federal budget and state-owned banks.

The shift in financing sources from the private to the public sector has created two sources of instability. First, the absence of competition amongst financing sources will likely have decreased the both the quantity and the efficiency of capital allocation, causing under-investment and lower growth. Second, the reliance on the public sector will likely lead to implicit public sector obligations (i.e. budget deficit, higher domestic borrowing, higher regional debt levels, and increased burden of social cost on Russian state owned enterprises) which may only be revealed next time there is an economic crisis.

The crises have left the public sector with a bigger role in the Russian economy and with fewer financing options. As a consequence, recovery was slower and Russia is now more vulnerable to economic shocks.

The consequence of the Ukraine and Russia mutual trade sanctions

In March 2020 Russia catalyzed breakdown of OPEC+ agreement on oil production cuts. Russia's was worried about US market share increases in the oil markets and was going incur much economic pain in order to curb US gains in oil output. Just a few years earlier as result of a political spat with Ukraine, Russia lost leadership in trade with this country.

Russian Trade with Ukraine Fraction of Total

Source: CBR

EU countries, China and a handful of other countries steadily gained market share in trade with Ukraine at the expense of Russia. Though Russia remained 1st largest individual country exporter to Ukraine up until 2018. In 2019 Russia was overtaken by China.

But combined exports of EU countries to Ukraine are far larger. EU traded places with Russia in exports to Ukraine market share in 2013 and remained the key exporter to Ukraine with total exports to Ukraine at level of 24$bn in 2019.

While Russia was ready to go to considerable length and losses in crude oil price war, it was unable to keep trading ties with its neighbour. Russia has lost a market share in a market triple the size of Moscow.

Ukraine economy suffered similarly. Ukraine in the manner of Georgia was able to diversify its exports away from Russia. Up until 2013 almost a quarter (24.7% in 2013 or 13.4$bn in money terms) of exports of merchandise of Ukraine was destined to Russia. Ukraine exported only 2.6bn$ worth of goods to Russia in 2019

Ukraine Key Exports to Russia 2019

Exports to Russia mn $	2019
mechanical machines, apparatus	*453*
flat-rolled products of carbon steel	*272*
railway and tram locomotives	*189*
plastics and articles thereof	*162*
electric machines and equipment	*136*
angle bars, structural and special shapes	*122*
inorganic chemicals	*112*
salt, sulphur, plastering materials	*94*
pipes, tubes, and hollow sections	*42*
surface transportation	*40*
pitch and pitch coke	*36*
cocoa and cocoa preparations	*30*
titanium ores and concentrate	*24*
other rods and bars made of carbon steel	*17*
preparations of cereals, flour	*4*
alcoholic and non-alcoholic beverages and vinegar	*3*
animal or vegetable fats and oils	*3*

Source: NBU

Exports of Ukraine to EU prior to 2013 were rarely above 20% of total. But in 2014 exports to EU jumped to 25% of total and steadily increased ever since. Exports to EU in 2019 are 34% of total or 15.5bn in US dollar terms.

This data however doesn't cover Crimea and territories of Luhansk and Donetsk as they are not included into official NBU statistics while product of steel plants in of these territories such as Yenakiyevo steel are widely sold on the Russian market.

While Ukraine trade balance overall skewed towards imports, Ukraine remains large exporter of human workforce. Prior to 2013 Russia was the biggest employer of Ukrainian migrant workers. Ukrainians working in Russia transferred home 1.8bn$ in 2010. This number dropped to just 1.2bn$ in 2019. The largest single country employer of Ukrainian migrant workers was Poland (data from 2019 NBU statistics).

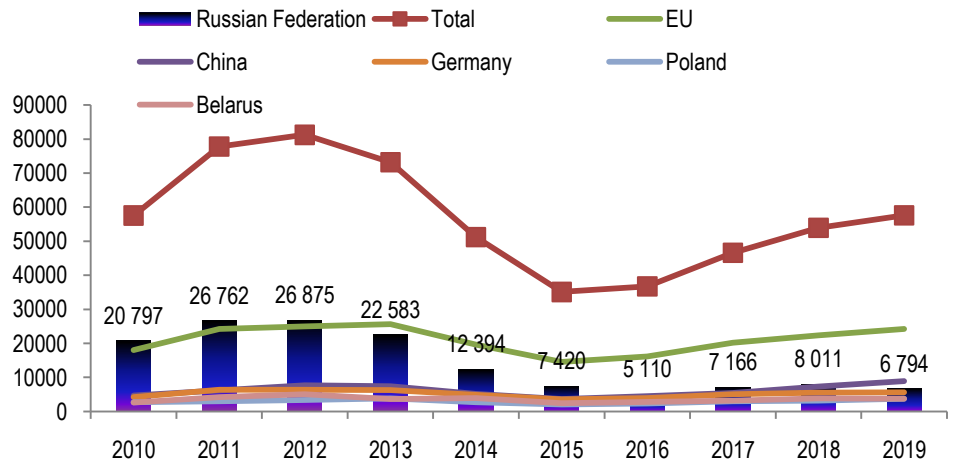
Improving headline numbers in trade with Ukraine as well as reinstating its leadership position as an employer of Ukrainian migrants can become a significant driver for economic growth for Russia. Even a small improvement in trade relationship with Ukraine will positively affect Russian exports, disposable incomes, investment levels and budget revenues

In our model we assume that improving exports to Ukraine will have direct impact on Russian budget revenues through increased production levels of Russian companies - exporters to Ukraine and higher corporate profit tax revenues from these companies. Better economics of exporting companies and their improved balance sheets will have positive impact on their investment levels. Ukraine economy and its exporters will experience similar effects.

Higher imports from Ukraine will have a positive effect on Russian VAT revenues, better pricing efficiencies and benefits for Russian consumer, which could translate into lower inflation rate and subsequent consumer benefits i.e. higher consumption levels and improvement in disposable incomes.

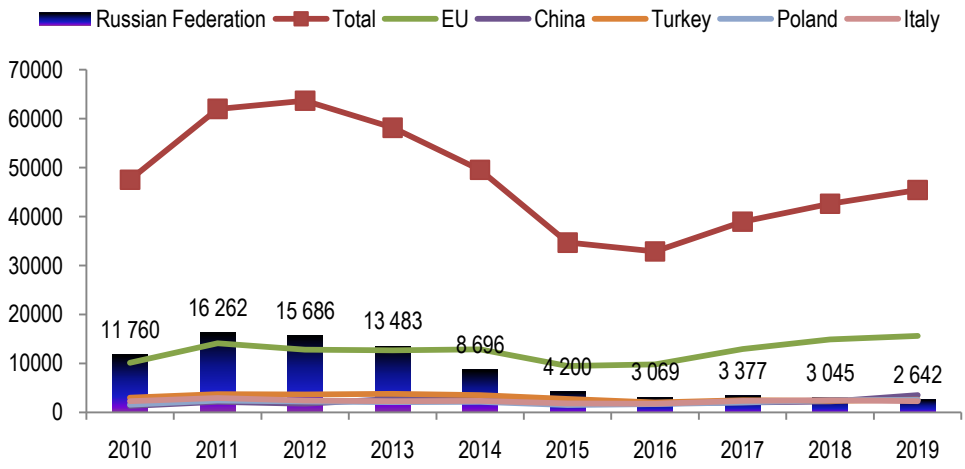
Ever since breakup of the Soviet Union, Russia had always relied on migrant work force amid shrinking population and higher rates of wage inflation. Ukrainian migrant workers represented higher skilled better educated strata of that work force. Disruption in employment of Ukrainian migrant workers ads to Russia's labour deficits in construction, infrastructure, engineering, education and health care sectors, and increases in infrastructure investment costs. Presence of Ukrainian migrants in Russia yields positive small increase in overall consumption levels, better cross border business and intraregional ties.

Ukraine imports mn $



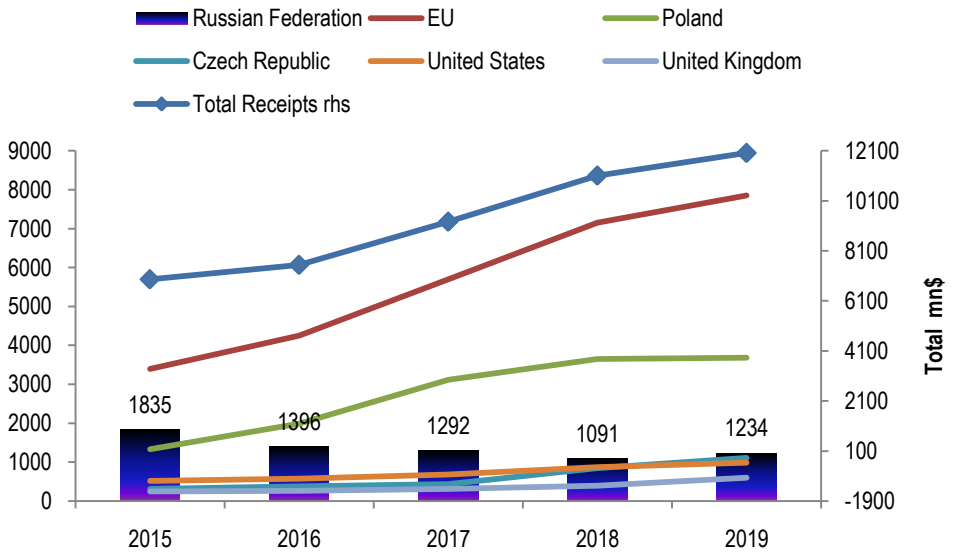
Source: NBU

Ukraine Exports mn $



Source: NBU

Ukraine remittances inflow mn $ (Ukraine is a significant exporter of work force, they send part of their incomes home)



Source: NBU

Effect of normalization on Russian and Ukraine GDP - 3 scenarios

2020 global economic crisis, falling energy prices and demand destruction increase uncertainty in any modelling. But the crisis is also a main driver of change. Economic weakness in EU and China - new emerging export markets for Ukraine – induce Ukraine to refresh its outlook at Russia as an old new trading partner. Similar drivers will affect Russian and EU policy makers; the partners could look for conditions to improve trade and lift sanctions.

In the first scenario of partial resumption of trade we assume that trade volumes increase to pre-crisis levels in 2021-2022. Our assumption (possibly subject to intrinsic positive bias) that mutual trade will increase to the levels 70% of 2012 levels. The headline trade numbers, we assume, will grow 5-10% pa in the subsequent years 2022-2025.
This assumption will be substantiated by facts below.

In the second scenario of full trade normalization we assume that the trade between 2 countries will reach 100% of 2012 level in 2021-22 in key market segments of agriculture, mineral resources, energy, metallurgy and machinery and that the trade will grow at the same rate as in the first scenario in the five years beyond. 2012 was the post 2008 crisis focal point in trade relations between Ukraine and Russia when the trade relations were completely normal. It is a useful benchmark in our study. The assumptions and effects of this scenario will be explained later in this study.

In the third scenario of full trade normalization and lifting international sanctions we make the same assumptions on trade as in the second scenario. But we model positive effects of increased capital flow – increased FDI in sanctioned sectors and overall in Russian and Ukraine economies. The results of this scenario show most positive impact on Russian economic growth. Russia needs flow of international capital for its sustainable development. International sanctions have stopped that flow. The return of foreign investment will have a broad positive impact on Russian economic growth. It will help improve Russia's banks balance sheets, lift barriers for cross border business in financials and fintech sector, increase Russia's weight in international equity and fixed income funds. The flow of capital in to Russian capital markets and banking sector will help with Russian government privatization plans of key state owned companies and the CBR plans of privatization of banks it has accumulated on its balance sheet.

In additions the US and European companies were restricted in industrial and technological cooperation with companies in Russian key sectors such as oil and gas. Some equipment purchases and use of technologies in these sectors were sanctioned. The case of relaxed sanctions and green light for sanctioned technologies to be employed in shelf drilling and elsewhere the Russian oil and gas sector could play major positive role in development of new untapped oil fields, increase in Russian oil production and could coincide with expected price stabilisation in international energy markets.

While Russia will benefit from increased FDI and falling risk premium, Ukraine will benefit from improved Russian investments and it could benefit additionally from larger international projects such as "One Belt one Road". Currently the map published circulated in the media at the launch of the project by China government, showed the transitory path from China to Europe going through from Russia to Belarus. The announcement of the project coincided with Russia Ukraine conflict and therefore the architects of the new Silk Road did not consider a road through Ukraine as an exit from Russia. While if the case the peace conditions are achieved, that might change. While being a distant future project, we think it is nevertheless should be mentioned in the context of most positive scenario in this study.

However, all three growth scenarios are subject to constraints which include currently depressed commodity prices, capacity limitations, capital constraints, poor productivity levels in both countries.

Scenario 1 of Partial Resumption of Trade with Ukraine

In this scenario we assume that some bilateral sanctions are lifted. For example, in 2021 Russia and Ukraine mutually lift sanctions on most significant trade sectors. But Ukrainian sanctions related to Crimea and international sanctions regime remains unchanged.

Lifting mutual sanctions between Russia and Ukraine will result in better trade conditions. While demand destruction of 2020 makes overall headline export and import numbers in any sector significantly lower than 2019 levels.

In our first scenario we assume that mutual trade in most significant sectors could increase in 2021 from current depressed volumes to levels corresponding to 70% of the trade volumes recorded in 2012. The increase in volumes partially could be a result of increased production in these sectors and partially it could be a result of redirection of current trade flows. The model assumes that volumes will grow 10% a year in the following 5 years.

This assumption is subject to intrinsic positive bias, 2012 was the post 2008 crisis focal point in trade relations between Ukraine and Russia when the trade relations were completely normal. It is a useful benchmark in our study.
We think it is important to view the mutual trade potential in historic perspective, as the random factor in assumptions is not welcome in our view and some explanation of how we arrived at these assumptions will follow.

For example - Ukrainian exports to Russia totalled 12,2bn$ in 2007, falling to 7.7$bn in 2009. In 2010 – the first post crisis year exports to Russia increased to 11.7bn$ reaching 15,6bn$ in 2012 – all time maximum.
As hopefully 2021 will be a post crisis year – the volumes of normal post crisis trade could be compared to the trade between Ukraine and Russia in 2010. While partially normal trade volumes will be lower than 2010 levels as we don't assume we only assume that some bilateral sanctions will be lifted. The levels of trade under these assumptions correspond to approximately 70% of the levels recorded in 2012.

Commodity Composition of Exports of Ukraine to the Russian Federation Sorted by 2012 figures

Exports to Russia mn $	2007	2012	2019	2021E
railway and tram locomotives	*1 423*	*2 359*	*189*	*1 651*
mechanical machines, apparatus	*1 534*	*2 270*	*453*	*1 589*
electric machines and equipment	*787*	*1 045*	*136*	*731*
flat-rolled products of carbon steel	*414*	*524*	*272*	*367*
angle bars, structural and special shapes	*478*	*521*	*122*	*364*
plastics and articles thereof	*268*	*477*	*162*	*334*
other rods and bars made of carbon steel	*110*	*467*	*17*	*327*
salt, sulphur, plastering materials	*269*	*464*	*94*	*325*
cocoa and cocoa preparations	*204*	*442*	*30*	*309*
surface transportation	*782*	*424*	*40*	*297*
pipes, tubes, and hollow sections	*560*	*411*	*42*	*288*
dairy produce, bird's eggs, natural honey	*261*	*356*	*0*	*249*
inorganic chemicals	*491*	*294*	*112*	*206*
meat and edible meat offal	*95*	*227*	*0*	*159*
alcoholic and non-alcoholic beverages and vinegar	*329*	*207*	*3*	*145*
preparations of vegetables or fruit	*94*	*170*	*0*	*119*
preparations of cereals, flour	*55*	*138*	*4*	*96*
coke and semi coke of coal	*17*	*116*	*0*	*81*
animal or vegetable fats and oils	*159*	*110*	*3*	*77*
pitch and pitch coke	*52*	*62*	*36*	*44*
titanium ores and concentrate	*22*	*37*	*24*	*26*
coal, anthracite, briquettes	*13*	*35*	*0*	*25*
other	*3861*	*4531*	*905*	*3 172*
Total	***12 278***	***15 686***	***2 642***	***10 980***

Source: NBU, Our Estimates

Although Ukraine key exports are agricultural products (corn, sunflower and wheat) and steel Its export structure to Russia very different. Ukraine key exports to Russia historically were industrial products in railway, engineering and defence sectors, some steel industry products as well as refined and value added (as Russia is Ukraine competitor in sugar, wheat and sunflower oil production) agricultural products and food industry products. For historical reasons rooted in the Soviet economy structure, the Ukraine economy was deeply integrated with Russia and post Soviet Ukraine was able to export to Russia a set of products that Ukraine would sell with difficulty elsewhere in the global trade. Ironically a sizeable portion of producers in these sectors is located in Luhansk and Donetsk region which include Luhansk Locomotive Plant, Luhansk Electrical Equipment Plant and a number of steel and machinery producers in Donetsk region including one of the largest Ukrainian steel plants - Yenakiyevo steel. These producers are located in the separatist Donetsk and Luhansk territories which span small part of Donetsk region and almost the entire Luhansk region (which geographically was one of the smallest Ukrainian regions). Despite that separatist territories are small in size. Their trade with Russia and especially export to Russia is a significant fraction of total Ukraine export. Ukrainian trade statistics doesn't include trade from these territories. But we assume that their producers are still exporting goods to Russia uninterrupted.

In our first scenario of trade normalisation we don't make an assumption that political status of these territories will change, so a large portion of Ukraine exports to Russia in the key export sectors according to 2012 ranks will remain in shadow trade and not included into either statistics.

But only a fraction of Ukrainian producers in these sectors reside in the separatist regions, as we do assume, that some increase in trade in these sectors is possible due to the fall of trade sanctions in the first scenario. So we assume that supplies of Ukraine locomotives, machinery and steel products will increase to 70% of 2012 levels.

Commodity Composition of Russia's Exports to Ukraine Sorted by 2012 figures

Exports to Ukraine mn $	2007	2012	2019	2021E
natural gas	*521*	*14 091*	*271*	*9000-14500**
coal, anthracite, briquettes	*980*	*1 654*	*1 641*	*1 158*
petroleum oils, not crude	*1 163*	*1 631*	*1 772*	*1 142*
ferrous metals	*1 320*	*1 101*	*305*	*770*
electric machines and equipment	*375*	*648*	*116*	*454*
unirradiated fuel elements for nuclear reactors	*500*	*563*	*246*	*394*
fertilizers	*218*	*553*	*189*	*387*
surface transportation	*1 151*	*550*	*87*	*385*
plastics and articles thereof	*291*	*402*	*207*	*282*
organic chemicals	*201*	*358*	*107*	*251*
caoutchous, rubber and products	*329*	*302*	*98*	*211*
railway and tram locomotives	*263*	*263*	*82*	*184*
iron ores and concentrates	*180*	*247*	*2*	*173*
crude oil	*4 554*	*214*	*0*	*150*
products made of ferrous metals	*239*	*184*	*74*	*129*
salt, sulphur, soils, and stones	*93*	*179*	*67*	*125*
nickel and products made of it	*129*	*176*	*60*	*123*
optical instruments and apparatus	*147*	*151*	*20*	*106*
aluminium and products made of it	*130*	*137*	*90*	*96*
tobacco and its industrial substitutes	*71*	*105*	*13*	*74*
cocoa and products made of it	*67*	*103*	*1*	*72*
miscellaneous edible preparations	*75*	*94*	*3*	*66*
coke and semi coke of coal	*252*	*8*	*203*	*6*
Other	*2 879*	*3 014*	*1 099*	*2 110*
Total	***16 130***	***26 727***	***6 753***	***18 709***

** Gas exports estimates are volatile and subject to gas pricing changes which we currently estimate at 130$/tcm*

Source: NBU, Our estimates

Despite that we assume in this scenario for a lateral increase in trade across all sectors. It is likely that some sectors will be better adjusted to partial fall in trade sanctions.

For example, trade turnover in agricultural sector could increase to 1.9bn$ in 2021 from just 94$mn in 2019. Ukrainian imports from Russia in this sector include mostly consumer goods - cocoa and products, miscellaneous edible preparations, tobacco and its industrial substitutes. While Russian imports from Ukraine in this sector include a wider range of products – meat, dairy produce, vegetable oils, cocoa products, cereals, flour, fruits, alcoholic and non-alcoholic beverages.

The historic peak in trade in this sector occurred in 2010-2012 while current trade levels are almost nonexistent (see chart)

Ukraine and Russia Agricultural Sector Trade mn $

Source: NBU

Impact on Mineral Sector

Mineral sector is the key sector to consider because besides titanium and coke it includes natural gas, crude oil and gasoline – key merchandise of trade between the two countries.

Ukraine has significantly reduced gas consumption since 2013 as a result of both – economic slowdown and domestic gas pricing reform. In the partial resumption of trade we assume some increases in Russian gas imports to the levels of 50-70% of 2012 levels and overall higher gas consumption versus 2015-2019 levels.

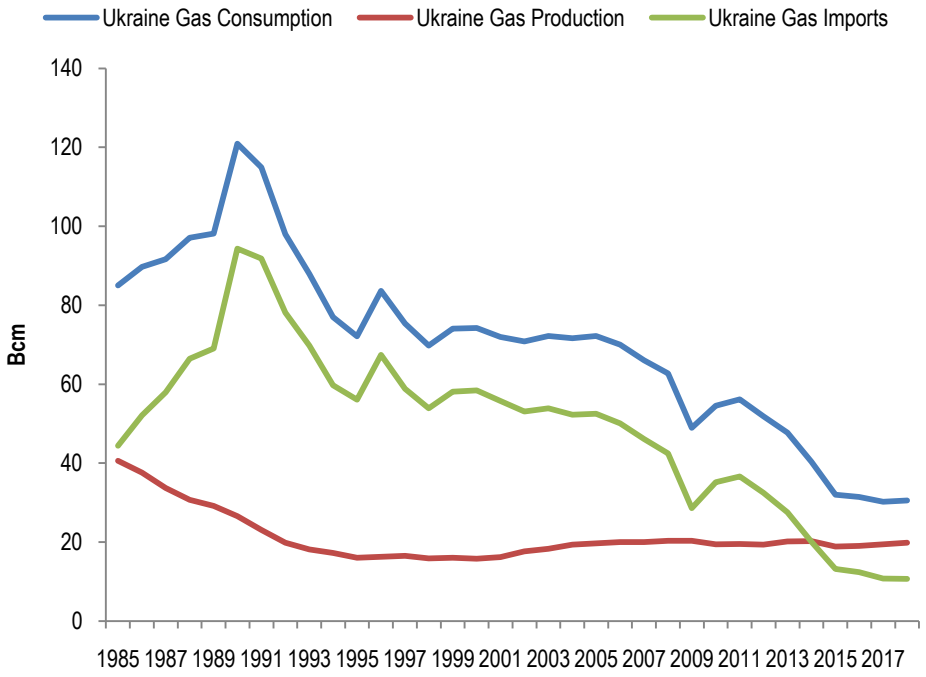
Natural gas

Ukraine has significantly reduced volumes of purchases of Russian natural gas, and to do so was a strategic decision for Ukraine, which Ukraine intends to maintain in a move to diversify its energy imports. Ukraine's current focus is on developing its own gas production which historically was at the levels of 40bcm a year (the level recorded in 1985). According to BP statistical review Ukraine was able to produce 19bcm of gas in 2018 vs. just 15 bcm in 2015.

Ukraine dependence on imported gas continues to decrease according to the same BP survey. But this also reflects effects of depressed economy substitution of gas to coal in industry and rising domestic gas tariffs.

Total gas consumption in Ukraine dropped to 30bcm in 2018 vs. levels of 70bcm in 2001-2008. There is little evidence that Ukraine had actually consumed that much gas in 2001-2008. Most likely the consumption volumes also included volumes of Russian gas that was exported to Europe in shadow schemes. Even the 2011 consumption levels of 56bn bcm probably include some gas that was used in shadow trade.

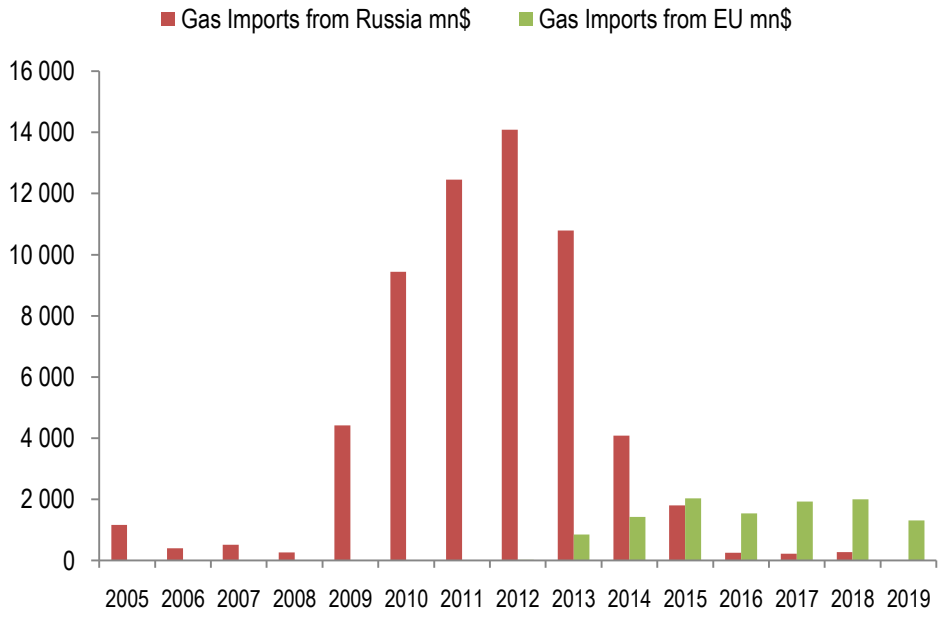
Ukraine Gas Consumption, Imports and Production



Source: BP

Still Ukraine was among the biggest customers to Gazprom in the past. This has changed dramatically in the past 5 years.

Ukraine Gas Imports from Russia and EU



Source: BP

With Ukraine switching to buy more gas from its EU partners which is most likely again just Russian gas that is exported to EU and then imported back to Ukraine in the trade practices which rise additional tensions between Gazprom and Ukraine. On the sidelines of November 2019 BRICS summit, Vladimir Putin publicly criticized Ukraine purchases of so called “reversed gas from EU” by Ukraine, saying that this gas comes from Russia and

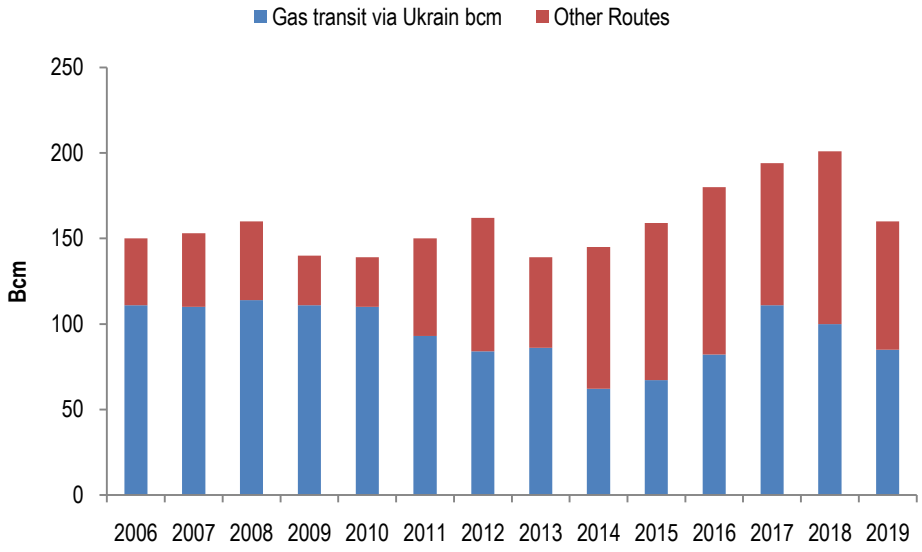
actually never actually leaves Ukraine, and only accounted by Ukraine as being imported from EU. Putin called these practices – schemes.

Gas trade remains the key potential export product of Russia to Ukraine despite minimal gas purchases in 2019 and it was the first sector where some post 2014 cooperation was reached with Ukraine, as will be explained later, with 2019 new transit contract execution. The scenario of partial normalization assumes that Russia will start selling increased volumes of gas to Ukraine from 2021.

The relationship of Ukraine with Gazprom was a painful experience for all parties including those who dependent on transit of Russian gas through Ukraine. The pipeline politics was in the centre of relationship between Russia and Ukraine and Russia and EU and Russia and Turkey stimulating alternative pipeline routes Nordstream 1, Turk Stream, Nordstream 2.

Ukraine historically transported 80-100 bcm of Gas to Europe. The last contract for transit between Ukraine and Gazprom ended in 2019, and there was a question of whether new contract will be signed in light of possible launch of Nordstream 2 pipeline that was planned in the end of 2019. But the new US sanctions on Nordstream 2 and current halt in construction of this pipeline pushed Russia to seek a new transit deal with Ukraine and an extension to an old contract was signed which will be in effect in 2020-2024. The signing of the contract required restructuring of the Ukraine gas monopoly and a spinoff of GTSOU essential Ukraine pipeline infrastructure.

Russian Gas Transit



Source: S&P, Reuters

According to the contract Russia will pay for transit of 64bcm in 2020 and for 40bcm per year in 2021-2024.

Gas transit fees were significant source of revenues for Ukraine in the past. In the new contract Ukraine will receive 7.2$bn from Gazprom for its transit services of combined 224bcm which is a 2% per tcm of transported gas increase from 2009-2019 contract levels (according to Oxford Energy).

Ukraine Gas Transit Revenues

Source: EE Gas, Estimates

But overall the combined transit volumes are expected to shrink and the combined transit revenues for Ukraine are also record significant cut over 5 year period of 2020-2024, despite the 2% rise in tcm transported.

In the end of 2019 deal between Russia and Ukraine new gas transit agreement was completely unexpected and was the first bilateral trade agreement executed at top level since the breakdown of the relationship in 2013 and is viewed by many as extremely positive event. It could be viewed as a step of the partial improvement of trade scenario, and there is room to further improve natural gas trade with Ukraine for Russia. In the scenario of partial normalization we assume that starting from 2021 Ukraine could start buying 15-20 bcm pa of gas from Russia albeit at depressed prices due to gas price corrections in the COVID crisis.

If gas prices remain low in 2021 it will bring additional benefits to Ukraine, and could decrease its trade deficit with Russia in the scenario of some improvement in trade relations with Ukraine.

Crude oil and gasoline imports

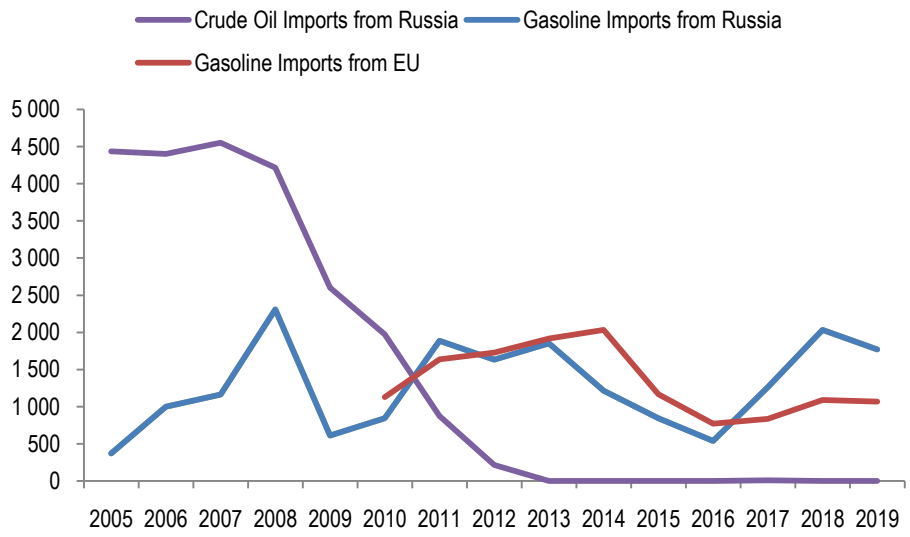
Other assumptions in scenario of partially improved trade include lifting ban on crude oil exports to Ukraine, better volumes of gasoline produced in Ukraine, and volumes in crude oil and gasoline trade reverting to levels of 50-70% of 2012 levels.
Starting from 2011 Ukraine switched to importing gasoline, rather than crude oil. Most of the Ukrainian oil refining plants (which were mostly owned by Russian oil majors) were shut down. Only two out of 6 Ukrainian refining plants is currently in operation and only at a fraction of their capacity. In 2012 Ukraine only purchased 214$mln worth of crude from Russia compared to 1.9bn$ worth of crude in 2010.

Ukraine stopped producing its own gasoline and switched to gasoline purchases from EU for missing supply. Gasoline trade remained one of the unsanctioned sectors in trade with Russia, and Ukraine gasoline purchases from Russian remained flat even under the current sanction.

It is unclear what will be the future of the refining industry in Ukraine, which might require

bn $ in capex to be restarted. Therefore we do not make any assumptions on improving crude exports to Ukraine from Russia. But we do assume that gasoline trade will insignificantly improve in 2021 possibly growing higher if Russia relationship with Ukraine improves.

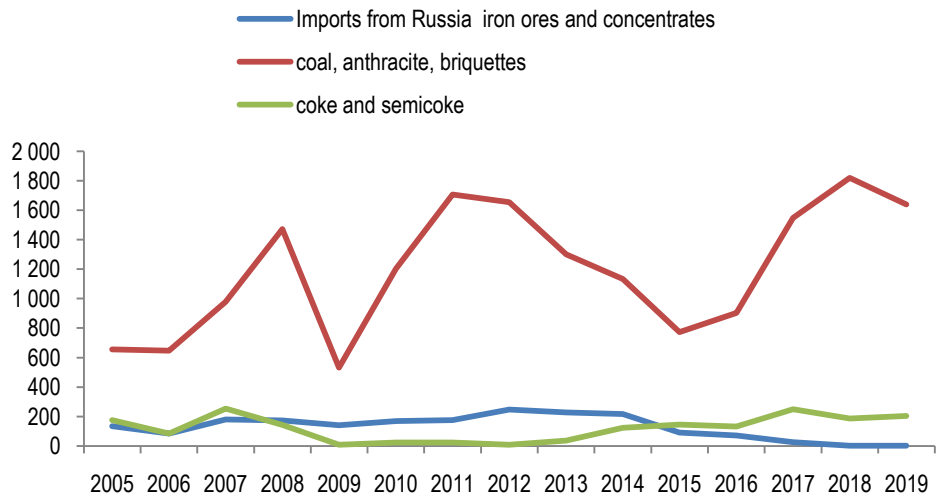
Crude oil and gasoline imports from Russia and EU mn $



Source: NBU

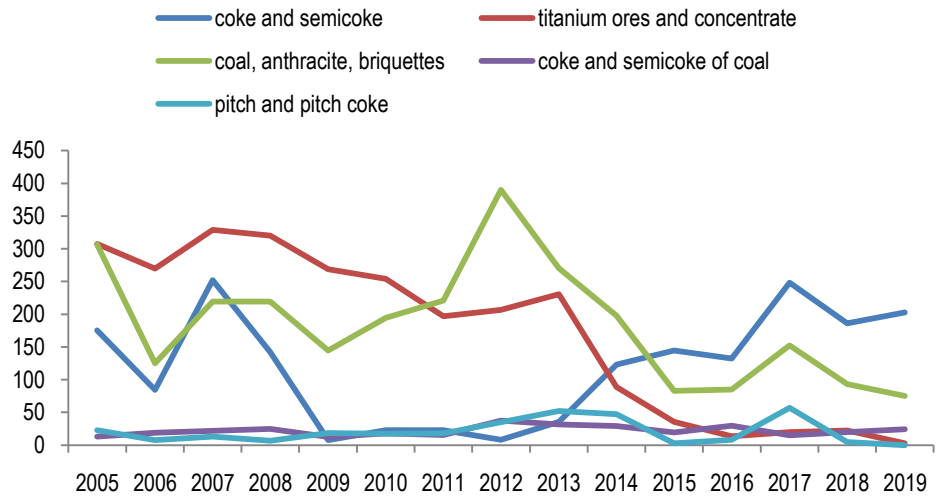
Other mineral sector trade products include iron ore, coal and its products here we again assume trade levels increasing to the levels of 70% of 2012 levels. On the assumptions that were explained earlier in the introduction section to the scenario of partial normalisation

Imports from Russia



Source: NBU

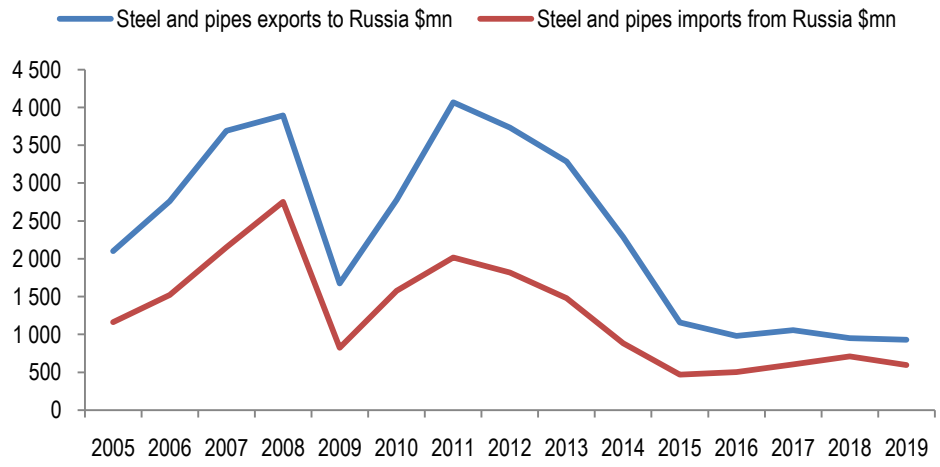
Exports to Russia



Source: NBU

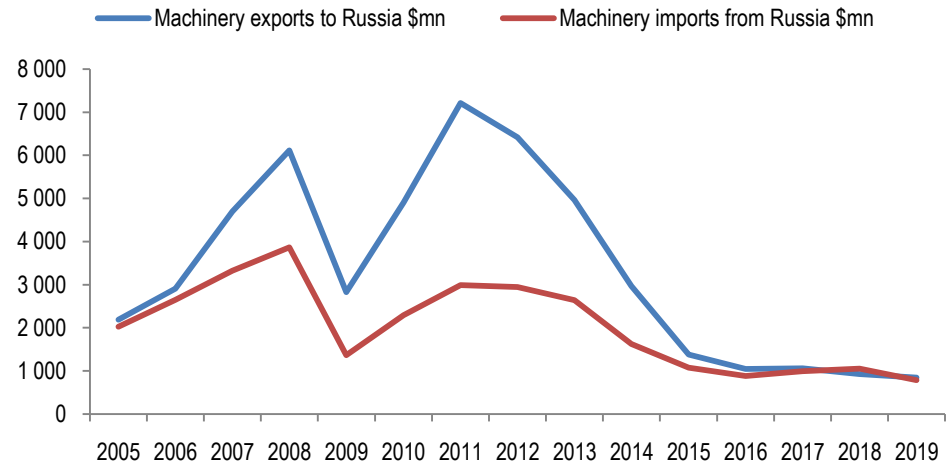
We make the same assumption of partial trade resumptions in the steel and pipes sector to the 70% level of 2012 trade levels. On the assumptions that were explained earlier in the introduction section to the scenario of partial normalisation

Steel and pipes sector



Source: NBU

Machinery Sector



Source: NBU

Russian banks in Ukraine

Ukraine imposed sanctions on Russian banks amid fighting in eastern Ukraine and Russia's inclusion of Crimea in 2014. In September, a Ukrainian court froze the subsidiaries' assets and shares of Russian state owned banks, after Ukrainian companies won a claim for compensation for assets lost from the inclusion.

Since then Russian banks assets in Ukraine were under pressure: Sberbank has tried to sell its Ukrainian assets, but the central bank blocked the sale because the bids did not comply with Ukrainian law. VEB's subsidiary noted that a court of appeal in Kiev had overturned the September 2018 freeze on its assets. In 2018, the Ukrainian central bank declared the subsidiary of Russia's VTB bank insolvent and put it under the control of a state guarantee fund, where its depositors, protected by law, would be paid out.

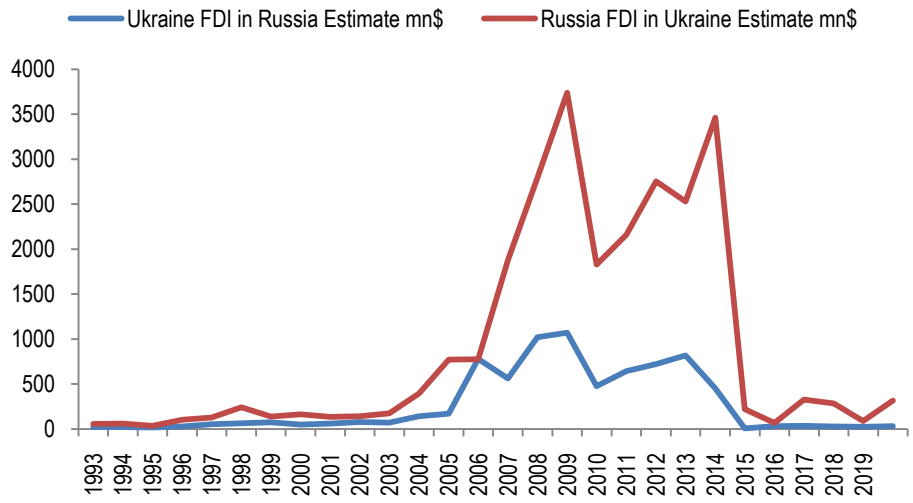
All three banks Russia banks before 2014 were among the top 15 biggest lenders in Ukraine.

We assume policy makers will lift barriers to business in the banking sector and mutual banking sector revenues will increase to 70% of pre 2014 crisis levels.

Impact on FDI

One of the key assumptions that we make is in cross border FDI between two countries. In the partial normalization scenario we don't assume big impact on Russian overall FDI levels. Only in the 3d scenario where international sanctions on Russia are lifted we see a big impact on overall Russian FDI levels, but we do assume some increase in mutual FDI levels between 2 countries when some mutual trade sanctions are lifted.

Russian and Ukraine FDI



Source: World Bank, Estimates

Methodology

In our methodology the impact of increase in trade on key economic components translates into increases in net exports, consumption, budget revenues and investment.

Increase trade initially translates into large revenues for key exporting companies, which positively affects budget revenues. Depending on the sector, an increase in revenues of companies translates into roughly 1.5%-2% in income tax increase and 20% in VAT increase. Although the VAT increase is not applicable for exporters, still the VAT is collected when the imported goods are sold in the destination country. On our estimates each 1$ increase in trade translates into approximately 5-7 cents of additional increase in budget revenues.

Further in the cash flow chain higher revenues translate into larger cash flows and positively affect fixed investments. Depending on the sector the level of capital expenditures ranges from 6% to 20% of revenues. Increased trade also requires logistics infrastructure improvements in the destination country and some level of direct cross border investment, stimulates capital markets activity and credit expansion. On our estimates 100$ increase in revenues translates into 10$ increase in fixed investment.

Increased imports directly feed into consumption. Although they do put additional pressure on local producers, the competitive pricing forces act in the benefit of consumers and improve consumption levels. In our model we assume that 100$ increase in imports translates into 100$ increase in consumption. Additional benefits for consumption part of the GDP f come from increase in tourists and migrants expenditures in the destination countries.

Finally the increase in net exports also has a direct broad effect on the GDP. But in the case of Russia and Ukraine historically the trade deficit was skewed in favour of Russia. However the remittances of Ukrainian migrants helped to remedy the trade deficit with Russia on capital account level. So the net effect will be small trade deficit for Ukraine and small improvement in Russia’s net exports.

Effects on economic growth in the scenario of partial normalization

By the methodology explained earlier, in this scenario as result of increase in exports, consumption, investment and budget revenues GDP will grow additional 0.7% from 2021 to 2025 for Russia. Ukraine GDP will additionally grow by 2.2% to 3.2% in the same period. Taking IMF forecast for Russia and Ukraine real GDP growth in 2021-2025 we estimate that Russian real GDP growth could reach 4.2% in 2021 with growth falling to 2.6% in 2025. Ukraine GDP will grow 5.8% in 2021 and this growth rate will be increased to 6.2% through 2025.

Impact on Russia Model in 1st scenario of partial normalisation

Partial resumption USD mn	**2021E**	**2022E**	**2023E**	**2024E**	**2025E**
Trade					
Agri sector exports to Russia	1401	1541	1696	1865	2052
Agri sector imports from Russia	512	563	619	681	749
Minerals sector exports to Russia	273	300	330	363	400
Minerals sector imports from Russia	12558	13814	15196	16715	18387
Metallurgical exports to Russia	2613	2875	3162	3478	3826
Metallurgical imports from Russia	1273	1400	1540	1694	1864
Revenues for Russian Banks in Ukraine	2000	2200	2420	2662	2928
Revenues for Ukrainian Banks in Rusia	500	550	605	666	732
Tourist traveling from Russia to Ukraine	300	330	363	399	439
Tourist traveling from Ukraine to Russia	400	440	484	532	586
Ukraine Gas purchases from Russia	3900	4290	4719	5191	5710
Ukraine Petrol products purchases from Russia	2000	2200	2420	2662	2928
Gas transit fees through Ukraine	3500	3850	4235	4659	5124
Oil transit fees to Ukraine	700	770	847	932	1025
Migrant workers additional remitances from Russia	600	660	726	799	878
Russian FDI in Ukraine per year	700	770	847	932	1025
Ukraine FDI in Russia	250	275	303	333	366
Impact on Russian Budget Balance as a result of improvement of relations with Ukraine					
Increase in revenues	821	903	993	1093	1202
Additional impact from capital markets activities in local bond markets	8572	8910	9293	9702	10090
Impact on Russian Investment Levels	**250**	**275**	**303**	**333**	**366**
Impact on Consumption	**2074**	**2282**	**2510**	**2761**	**3037**
Impact on Net Exports	**400**	**440**	**484**	**532**	**586**
Total impact on GDP nominal $ mn	12117	12810	13583	14421	15280
Russia Nominal GDP (IMF estimate) $bn	1714.313	1782.057	1858.609	1940.442	2018
Impact of partial trade normalisation as % of GDP base IMF estimate for Russian GDP nominal in $	0.71%	0.72%	0.73%	0.74%	0.76%
Russian GDP growth estimate with effects of partial normalistaion scenario %	4.2%	2.8%	2.7%	2.6%	2.6%
Impact on Ukraine Budget Balance as a result of improvement of relations with Ukraine					
Increase in revenues	214	236	259	285	314
additional impact from capital markets activities	1305.71	904.89	933.13	1121.25	1308.57
Impact on Ukraine Investment Levels	700	770	847	932	1025
Impact on Consumption	**912**	**1003**	**1103**	**1214**	**1335**
Impact on Net Exports	-150	-150	-150	-150	-150
Total impact on GDP nominal $ mn	2982	2764	2993	3402	3832
Ukraine Nominal GDP (IMF estimate) $bn	130.571	90.489	93.313	112.125	130.857
Impact of partial trade normalisation as % of GDP base IMF estimate for Ukraine GDP nominal in $	2.28%	3.05%	3.21%	3.03%	2.93%
Ukraine GDP growth estimate with effects of partial normalistaion scenario %	5.8%	6.2%	6.5%	6.3%	6.2%

Source: IMF, NBU, CBR, Estimates

Scenario of full resumption of trade with Ukraine

Complete resumption of trade and lifting mutual sanctions between Russia and Ukraine will result in better trade conditions. In our second scenario we assume that all bilateral sanctions are lifted, except those related to Crimea but international sanctions package (Donbas and Crimea) are still on.

We assume that mutual trade in most significant sectors could increase in 2021 from current depressed volumes to levels corresponding to 100% of the trade volumes recorded in 2012. Again, the increase in volumes partially could be a result of increased production in these sectors and partially it could be a result of redirection of current trade flows. The model assumes that volumes will grow 10% a year in the following 5 years corresponding to the levels in trade dynamics of pre-crisis data. This assumption is again a subject to intrinsic positive bias, 2012 was the post 2008 crisis maximum and it is a useful benchmark in our study. We think it is important to view the mutual trade potential in historic perspective.

We assume that trade will grow to full 2012 levels, while mutual FDI will increase by 20-40% levels from levels in scenario 1. In this scenario we our methodology of economic impact, which was explained earlier in preamble to the previous scenario, as result of increase in exports, consumption, investment and budget revenues GDP will grow additional 1.2% pa from 2021 to 2025 for Russia. Ukraine GDP will additionally grow by 2.6% to 3.8% in the same period. Taking IMF forecast for Russia and Ukraine real GDP growth in 2021-2025 we estimate that Russian real GDP growth could reach 4.8% in 2021 with growth falling to 2.8% in 2025. Ukraine GDP will grow 6.2% in 2021 and this growth rate will be increased to 7% through 2025.

Impact on Russia Model in 2nd scenario of full normalisation

2nd Scenario USD mn	2021E	2022E	2023E	2024E	2025E
Trade					
Agri sector exports to Russia	1982	2180	2398	2638	2902
Agri sector imports from Russia	724	796	876	963	1060
Minerals sector exports to Russia	386	425	467	514	565
Minerals sector imports from Russia	17761	19537	21491	23640	26004
Metallurgical exports to Russia	3696	4066	4472	4919	5411
Metallurgical imports from Russia	1800	1980	2178	2396	2636
Revenues for Russian Banks in Ukraine	2000	2200	2420	2662	2928
Revenues for Ukrainian Banks in Rusia	500	550	605	666	732
Tourist traveling from Russia to Ukraine	300	330	363	399	439
Tourist traveling from Ukraine to Russia	400	440	484	532	586
Ukraine Gas purchases from Russia	3900	4290	4719	5191	5710
Ukraine Petrol products purchases from Russia	2000	2200	2420	2662	2928
Gas transit fees through Ukraine	3500	3850	4235	4659	5124
Oil transit fees to Ukraine	700	770	847	932	1025
Migrant w orkers additional remitances from Russia	600	660	726	799	878
Russian FDI in Ukraine per year	910	1001	1101	1211	1332
Ukraine FDI in Russia	325	358	393	433	476
Impact on Russian Budget Balance as a result of improvement of relations w ith Ukraine					
Increase in revenues	1153	1268	1395	1534	1688
Additional impact from capital markets activities in local bond markets	17143	17821	18586	19404	20180
Impact on Russian Investment Levels	325	358	393	433	476
Impact on Consumption	2768	3044	3349	3684	4052
Impact on Net Exports	400	440	484	532	586
Total impact on GDP nominal $ mn	21788	22930	24207	25587	26981
Russia Nominal GDP (IMF estimate) $bn	1714.313	1782.057	1858.609	1940.442	2018
Impact of partial trade normalisation as % of GDP base IMF estimate for Russian GDP nominal in $	1.27%	1.29%	1.30%	1.32%	1.34%
Russian GDP grow th estimate w ith effects of partial normalistaion scenario %	4.8%	3.3%	3.2%	3.2%	3.2%
Impact on Ukraine Budget Balance as a result of improvement of relations w ith Ukraine					
Increase in revenues	303	334	367	404	444
additional impact from capital markets activities	1305.71	904.89	933.13	1121.25	1308.57
Impact on Ukraine Investment Levels	910	1001	1101	1211	1332
Impact on Consumption	**1124**	**1236**	**1360**	**1496**	**1645**
Impact on Net Exports	-150	-150	-150	-150	-150
Total impact on GDP nominal $ mn	3493	3326	3611	4082	4580
Ukraine Nominal GDP (IMF estimate) $bn	130.571	90.489	93.313	112.125	130.857
Impact of partial trade normalisation as % of GDP base IMF estimate for Ukraine GDP nominal in $	2.67%	3.68%	3.87%	3.64%	3.50%
Ukraine GDP grow th estimate w ith effects of partial normalistaion scenario %	6.2%	6.9%	7.2%	7.0%	6.8%

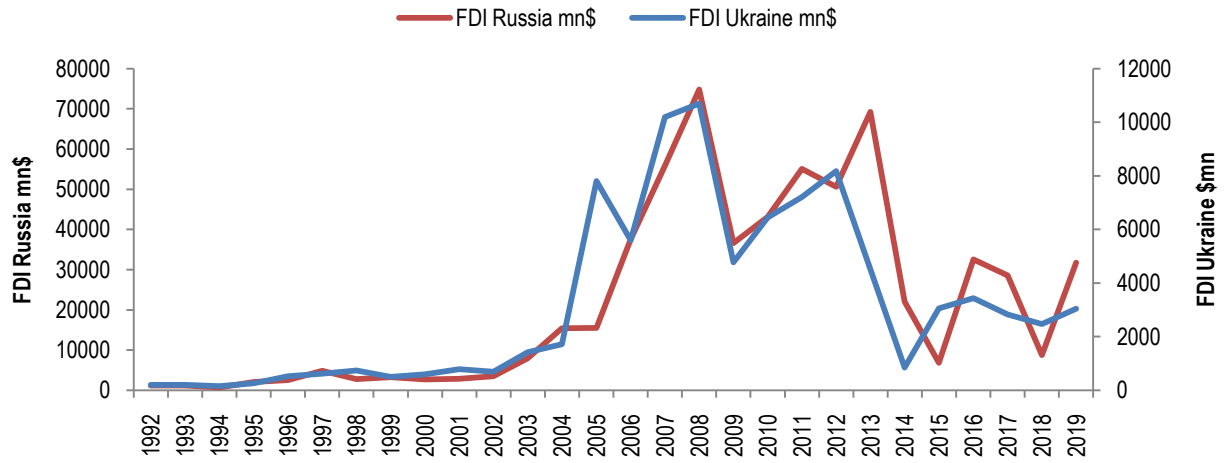
Source: IMF, NBU, CBR, Estimates

Full resumption of trade and Peace with Ukraine Scenario

In the scenario of full normalization we do not need to speculate on the future status of Crimea. But we assume that all bilateral sanctions are lifted including Ukrainian ones on Crimea as well as international sanctions related to Donbas and Crimea (EU and US) are also lifted.

Both Ukraine and Russia will experience major benefits from political normalisation conditions.

Russian FDI lhs (mn $), Ukraine FDI lhs (mn $)



Source: World Bank

The key change in this scenario vs. the scenario 1 and 2 is that FDI for Russia reverts to pre- crisis levels and will add additional 50bn$ pa. We also assume that Russia FDI in Ukraine will increase to $6-8bn in 2021. In this with methodology explained in preamble to first scenario as result of increase in exports, consumption, investment and budget revenues GDP will grow additional 3.6% pa from 2021 to 2025 for Russia. Ukraine GDP will additionally grow by 8.1% to 11% in the same period. Taking IMF forecast for Russia and Ukraine real GDP growth in 2021-2025 we estimate that Russian real GDP growth could reach 7.2% in 2021 with growth falling to 5.2% in 2025. Ukraine GDP will grow 11.7% in 2021 and this growth rate will be increased to 13% through 2025.

Impact on Russia Model in 3d scenario of full peace

Full Peace USD mn	2021E	2022E	2023E	2024E	2025E
Trade					
Agri sector exports to Russia	1982	2180	2398	2638	2902
Agri sector imports from Russia	724	796	876	963	1060
Minerals sector exports to Russia	386	425	467	514	565
Minerals sector imports from Russia	17761	19537	21491	23640	26004
Metallurgical exports to Russia	3696	4066	4472	4919	5411
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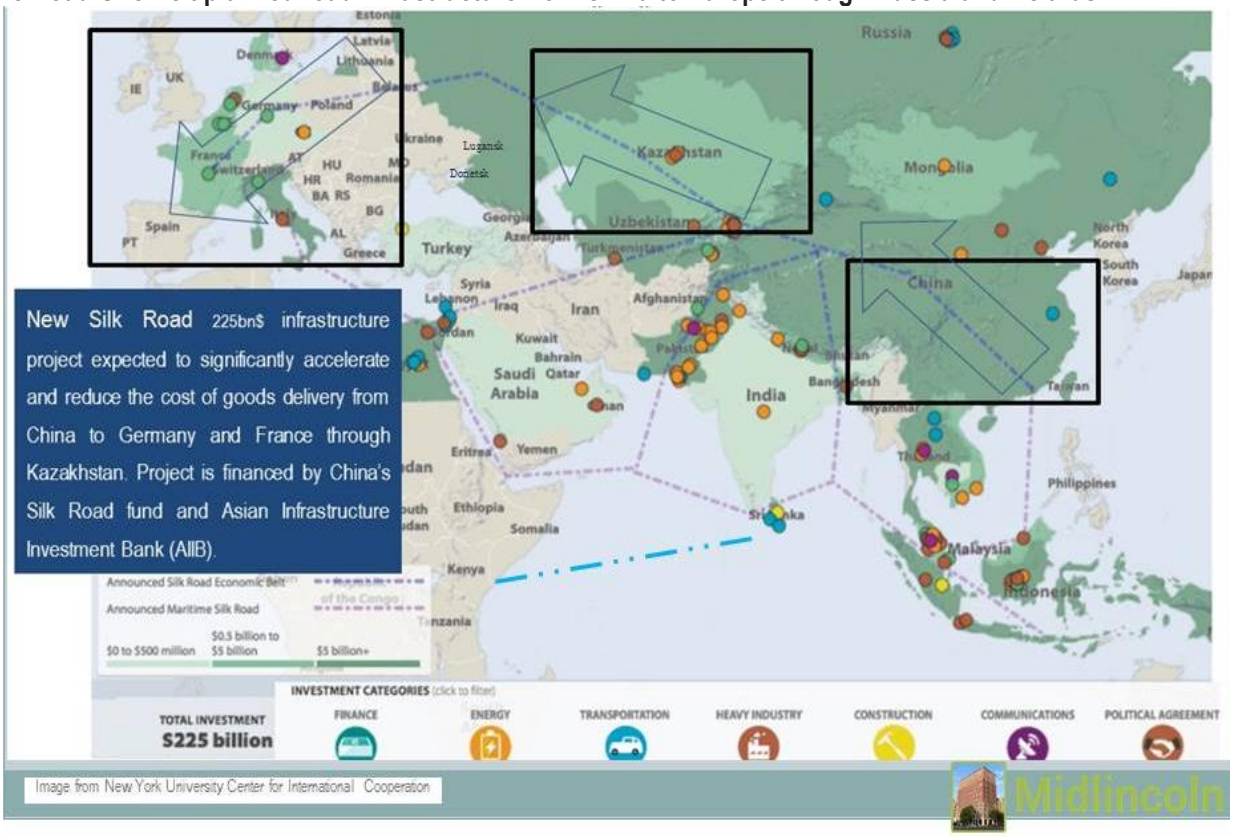
Gas transit fees through Ukraine	3500	3850	4235	4659	5124
Oil transit fees to Ukraine	700	770	847	932	1025
Migrant workers additional remitances from Russia	600	660	726	799	878
Russian FDI in Ukraine per year	8000	8400	8820	9261	9724
Ukraine FDI in Russia	325	358	393	433	476
Additional Russian FDI from lifting sanctions	50000	50000	50000	50000	50000
Impact on Russian Budget Balance as a result of improvement of relations with Ukraine					
Increase in revenues	1153	1268	1395	1534	1688
Additional impact from capital markets activities in local bond markets	8572	8910	9293	9702	10090
Impact on Russian Investment Levels	50325	50358	50393	50433	50476
Impact on Consumption	2768	3044	3349	3684	4052
Impact on Net Exports	400	440	484	532	586
Total impact on GDP nominal $ mn	63217	64020	64914	65885	66891
Russia Nominal GDP (IMF estimate) $bn	1714.313	1782.057	1858.609	1940.442	2018
Impact of partial trade normalisation as % of GDP base IMF estimate for Russian GDP nominal in $	3.69%	3.59%	3.49%	3.40%	3.31%
Russian GDP growth estimate with effects of partial normalistaion scenario %	7.2%	5.6%	5.4%	5.2%	5.2%
Impact on Ukraine Budget Balance as a result of improvement of relations with Ukraine					
Increase in revenues	303	334	367	404	444
additional impact from capital markets activities	1305.71	904.89	933.13	1121.25	1308.57
Impact on Ukraine Investment Levels	8000	8400	8820	9261	9724
Impact on Consumption	**1124**	**1236**	**1360**	**1496**	**1645**
Impact on Net Exports	-150	-150	-150	-150	-150
Total impact on GDP nominal $ mn	10583	10725	11330	12132	12972
Ukraine Nominal GDP (IMF estimate) $bn	130.571	90.489	93.313	112.125	130.857
Impact of partial trade normalisation as % of GDP base IMF estimate for Ukraine GDP nominal in $	8.10%	11.85%	12.14%	10.82%	9.91%
Ukraine GDP growth estimate with effects of partial normalistaion scenario %	11.7%	15.0%	15.5%	14.1%	13.2%

Source: IMF, NBU, CBR, Estimates

While in this scenario Russia will benefit from increased FDI and falling risk premium, Ukraine will benefit from improved Russian investments. But Ukraine could also benefit additionally from larger international projects such as “One Belt one Road”. Where

currently the map circulated in the media at the launch of the project by China government, showed the transitory path from China to Europe going through Russia and Belarus. It doesn't go through Ukraine. The announcement of the project coincided with Russia Ukraine conflict and therefore the architects of the new Silk Road did not consider a road through Ukraine as an exit from Russia. While if the case the peace conditions are achieved, that might change. While being a quire distant future project, we think it is nevertheless should be mentioned in the context of most positive scenario in this study.

One Road One Belt planned road infrastructure from China to Europe through Russia and Belarus



Source: NYU Center for International Cooperation

Conclusion

In the past 5 years since the beginning of crisis Ukraine has been able to successfully diversify its exports and imports away from Russia while this was possible at the expense of economic growth. While mutual trade sanctions on Russia and Ukraine exerted additional economic obstacles and had cost 1%-3% of real GDP growth for both countries. In addition international sanctions regime installed by the west on Russia, has put additional pressure on Russian economy. Fragile state of economies due to current global economic crisis and poor economic growth prospects could become a significant additional driving factor for both countries seeking mutual trade improvement. Despite that previously in the Ukraine-Russia relationship economic wins hand been sacrificed to politics, there is reason to consider that in the wake of the current economic chrisis of corona virus it will be different. Economic a*dvantages* for the *two countries*, expressed in terms of real GDP growth in the next five years are very substantial and transparent.

Russia had long opposed Ukraine fearing the Ukrainian liaisons with the US, Europe and with NATO. Politics had always played the major part in Russia Ukraine relationship and economic benefits were rarely previously been considered as far more inferior factor in the relationship of two countries. This time however it could be different. The extremely harsh global economic conditions caused by COVID crisis can serve as a catalyst for beginning of a new dialog between parties directly involved into the conflict. The future economic developments in both countries are seen as bleak in the absence of new tones in the dialog and imply depressed levels of economic growth, poor economic stability and consequential political problems.