

## **Russia-Ukraine conflict: impacts on international agricultural market**

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### **The war in Ukraine, towards new geopolitical arrangements**

Hypothesising now the possible developments of the global scenario in the short and medium term is very complex. The dramatic developments of the war in Ukraine are revolutionising the balances, both geopolitical and economic, that became consolidated over the past decades. Although it is difficult today to predict the outcome of the crisis, it is clear that the future global economic order will be influenced by the measures that governments will take in the coming weeks and months to compensate for the economic shock of the sanctions, to find new sources of raw material supplies, and to restore the logistics channels that already suffered before the conflict. Within this framework, the agricultural economy is called upon to play an extraordinarily important role, to compensate for the interruption of supplies from Russia and Ukraine, which, as is well known, are the world's main producers of cereals.

### **Global GDP slowdown**

The beginning of the new year was characterised by those same uncertainty factors - the soaring price of raw materials, the increase in costs associated with logistics, speculative pressures, the resurgence of the pandemic in some countries - that already manifested themselves with particular prominence in the second half of 2021 and led to a cooling of the world economy. Even before the conflict between Russia and Ukraine, forecasts were already pointing towards a slowdown in growth. Today the IMF estimates that global growth will slow down from 6.0% in 2021 to 3.2% in 2022, to 2.7% in 2023 (IMF estimates), reflecting the deceleration of the three largest economies: China, the US and the EU.

### **The geopolitics of raw materials**

Beyond the consequences on GDP, inflation rate and global trade, the military crisis between Ukraine and Russia has made it even more evident how much the world economy, even in an era of globalisation of markets and supplies, depends on the geographical location of resources and the configuration of trade routes. In the current landscape, it must be noted how the production of raw materials is managed by a few players (the DR of Congo, for example, holds 50% of global cobalt reserves), who use them as leverage in their foreign policy to exert pressure on the international chessboard. The EU today has to import 98% of rare earths from China, 87% of lithium from Australia, 71% of platinum from South America. Overall, China is now the EU's largest supplier of critical raw materials.

### **Russia and Ukraine, a commodity-based economy**

When considered solely in terms of GDP, the weight of Russia and Ukraine in the world economy appears relatively modest. A report released by the OECD in the aftermath of the outbreak of

hostilities quantified the contribution that the two Eastern European countries made to global GDP before the war at just 2 percentage points. The scenario changes radically when one considers the impact that the Russian and Ukrainian production systems have not on the world economic system as a whole, but on the commodity market. The two countries, as is well known, are among the main suppliers of industrial and agricultural raw materials.

### **Industrial raw materials, Russia's leadership**

Data released by the International Energy Agency, the IEA, particularly illustrate Russia's primacy in the global energy market. The country, which in 2021 was the second largest producer of natural gas after the United States and possesses the most abundant reserves on the planet, is in fact the world's leading supplier. Of the 762 billion m<sup>3</sup> of gas produced last year, about one third - i.e. 210 billion m<sup>3</sup> - was exported via pipelines. Russia also has a leading position in the oil sector, where it is among the world's top three producers. Production of crude oil and condensate reached 10.5 million barrels per day in 2021. This volume accounts for 14% of global supplies.

Also in the industrial raw materials sector, Russia is one of the top suppliers of palladium (40% of the world total) - used for the production of catalytic converters - and nickel, a metal that is used for the production of steel but also for the manufacture of batteries. The country, together with Ukraine, is also an important producer of noble gases such as argon and neon, two components of great importance for the semiconductor industry.

### **Cereals, the primacy of Russia and Ukraine**

Besides the market for industrial raw materials, the two Eastern European countries are of strategic importance for the production and supply of foodstuffs, as documented in a report published by the FAO on 11 March, two weeks after the start of the conflict. The Russian and Ukrainian agricultural systems are specialised above all in cereal crops, a market in which they are known to be leaders. Russia is the world's leading exporter of wheat, while Ukraine is the fifth. Together they account for 19% of the world's barley production, 14% of wheat, 4% of maize and contribute more than a third of global cereal exports. Russia and Ukraine are also leaders in rapeseed, of which they are the main suppliers, and more generally in vegetable oils, providing more than half of the world's sunflower oil needs. Russia also plays a strategic role in the supply of fertilisers, of which it is the world's largest producer. For some European and Asian countries, half of the demand for fertilisers is met by Russian supplies.

### **European dependence**

According to a report published on 16 March by the company Pricepedia, a significant share of European supplies of aluminium (5.5% of total requirements), copper (5.8%) and nickel (15.3%) is supplied by the Russian Federation. Imports from the Federation also play a significant role in the steel sector where, together with Ukraine, they cover 7% of European needs. But it is in the energy sector that the European Union's dependence on Russia is particularly strong. The Confindustria Studies Office estimates that 36% of all natural gas imported into Europe for heating and power generation comes from Russian territory.

### **Commodities, war increases volatility**

The sharp rises in commodity prices recorded in 2021 and the first two months of 2022, i.e. before the military conflict in Ukraine, stemmed from a set of causes, mainly cyclical in nature. The cut in oil production decided by Opec countries generated a strong imbalance between supply and demand, while pandemic outbreaks and extreme weather events caused shortages of some agricultural commodities (palm oil, maize, soya). Finally, economic factors included the disruption of supply chains and the blockage of the Suez Canal, which led to an increase in logistics costs, but also the ecological transition itself, which caused an increase in demand for raw materials used for green technologies. In addition to the cyclical factors, there were speculative mechanisms. Thus, the energy commodity price index was already growing strongly before the invasion of Ukraine: in December 2021 +90% compared to January, and +1,050% compared to April 2020.

Immediately after the invasion of Ukraine by the Russian army, the Western bloc countries and the EU imposed very harsh trade and economic sanctions against Russia, which, together with the continuation of the military conflict, exacerbated tensions on commodity prices. According to the Confindustria Studies Office, in less than two weeks, the price of crude oil rose by 25%, from 99 dollars on 21 February to 133 dollars on 8 March. Similar dynamics also affected natural gas, whose cost rose from 72 to 227 euro per MWh.

### **Electricity at its peak**

In Italy, the record levels reached by the cost of natural gas in the days immediately following the outbreak of the conflict influenced the development of the PUN, the price of electricity, which, as Pricepedia indicates, on 8 March hit a record 588 euro/MWh. Between spring 2020 and spring 2022, the price of energy went through a phase of strong increases. This phase was much more intense and lengthy on the European market due to the gas war pitting Russia against the EU.

Subsequently, first in the US, and then also in the EU, a phase of falling energy prices began. This phase will continue for the foreseeable future. However, we should not expect energy price levels close to those that characterised the first 20 years of this century.

It will be years before there is a return to a gas market situation in Europe where a new equilibrium has been achieved through a significant reduction in gas consumption and a complete substitution of gas from Russian sources.

### **Industrial raw materials also increase**

In parallel to the increases in energy prices, the exit from the most intense phase of the pandemic led to a strong increase in metal prices, supported by both accelerating demand and rising costs. Non-ferrous metals roughly repeat the same dynamics as energy prices. They are linked to these both by the contamination of expectations between the different financial markets and by the effects of the expected energy transition that will support the demand for non-ferrous metals. Moreover, the non-ferrous metals industry is among the most energy-intensive industries, creating a further link between energy prices and non-ferrous metal prices via production costs. For non-

ferrous metals, too, a phase of price reductions began in late spring, bringing them to a level that appears likely to be balanced in the medium to long term by September 2022.

### **The risks for the agricultural economy**

In 2021, buoyed by growing demand, the agricultural economy experienced a good performance in wheat and rice production, and saw an increase in overall cereal production, estimated by FAO to be up by 1 per cent, to around 2,800 million tonnes produced. The new year was set to confirm the positive trend that emerged in the previous one. A report published at the beginning of March by the FAO, which did not yet take into account the impact of the war between Russia and Ukraine, predicted a further increase in wheat production to 790 million tonnes in 2022, and an increase in maize production - especially in Brazil - where it was estimated to reach a record volume of 112 million tonnes.

The war in Ukraine is a clear risk factor for global production. In a context of high price volatility, further increases in production costs (energy and fertilisers), which are already very high, put pressure on the world agricultural system. Over the next decade, cereal production is expected to increase by 336 Mt, reflecting gains made primarily in major grain-producing countries. More than 50% of the global production increase in wheat will come from India, the Russian Federation (hereafter 'Russia'), and Ukraine.

### **Agricultural commodities under pressure**

The cost of agricultural commodities had been rising since the second half of 2020. The increase in global demand and the rise in production costs, in particular energy and fertiliser costs, led to double-digit price increases for wheat and barley (+31%) and for some vegetable oils, such as rapeseed oil and sunflower oil, which rose by +60% over the past year. With the outbreak of hostilities in Eastern Europe, prices soared again. Agricultural products are the only prices that continue the growth phase that started in late 2020. Crop food prices have also started increasing again. The slowdown in the global economic cycle and higher inflation has had no effect, so far, on global food demand. It is likely that some effect may begin to appear in the near future, especially if agricultural commodity prices remain at their current historically high levels. These factors could have the effect of weakening demand, but not significantly. Prices will continue to be predominantly supply-driven. In the face of less adverse weather conditions and agreements allowing Ukraine and Russia to place their agricultural production on world markets, supply could gradually improve, leading to a phase of slow price declines.

### **Agricultural machinery, the scenario worsens.**

The global agricultural machinery market, as is well known, closed 2021 with strong sales increases in all major countries. In the case of Europe, growth was also fuelled by the Green Deal policy guidelines and the Next Generation EU funds that promoted the renewal of the machinery fleet.

The invasion of Ukraine also marks a significant worsening of the scenario for the agri-mechanical market, as per the detailed snapshots based on the findings of the Committee of European Manufacturers - CEMA.

### **The raw materials emergency is even more acute**

For agricultural machinery, the main risk factors are associated not so much with business losses in the countries more or less directly involved in the conflict, but with a resurgence of the raw material crisis. Belarus, Russia and Ukraine account for only 5% of the total turnover of European manufacturers, a share that the industries themselves expect to offset in the markets of North and South America, Western Europe, Australia and New Zealand. The raw materials emergency, on the other hand, appears far more penalising for our sector. The war in Ukraine has exacerbated the raw materials crisis, worsening supply difficulties and triggering further significant price increases.

### **A challenge for policy-makers**

The military conflict in Eastern Europe radically changed the economic and geopolitical arrangements that consolidated over the past decades, and dictated certain priorities of intervention for public decision-makers. First and foremost, Europe's energy policy is to be revised along lines that envisage a gradual emancipation from Russian supplies. The new strategic lines in the field of energy call into question the ambitious goals that Europe set itself in terms of decarbonisation and the exploitation of RES, while the debate on the reactivation of coal-fired power stations and investment in the latest generation of nuclear power is back on the agenda. This requires huge investments and allocations of public resources that will have to be diverted from other sectors.

Within this framework of profound changes, the agricultural economy is of highly strategic importance. The war in Ukraine poses a serious threat to global food security but - above all - of those countries most dependent on Russian and Ukrainian exports. It therefore does not seem far-fetched to already foresee a new geography of crops. In this scenario, agricultural machinery is called upon to play an increasingly central role because the issue of food security and the selection of supplier countries makes it extremely urgent to intensify the production capacity of individual countries.

The change of scenario can only be addressed by defining new intervention strategies in both the short and long term, which are also aimed at mitigating the costs associated with what can be considered to all intents and purposes as a new transition, the geopolitical transition.