Global energy and cereals prices and Russia's war against Ukraine – Preliminary first assessment[18]

Die Preisentwicklungen auf wichtigen Rohstoffmärkten (Erdöl, Erdgas, Kohle, Weizen) legen nahe, dass die Beschlüsse der EU-Sanktionen, die Kohle und Erdöl (jedoch nicht Erdgas!) betreffen, bisher keinen merkbaren inflationären Effekt hatten. Hingegen waren die zunehmenden Restriktionen von Erdgasexporten durch Russland schon im Jahr vor dem Kriegsbeginn sowie Russlands Blockade ukrainischer Weizenexporte wesentliche Gründe für zum Teil enorm gestiegene Weltmarktpreise.

Erdölpreise: Vom 18.2.2022, also vor dem Beginn des Kriegs, bis zum 15.7.2022 stieg der Weltmarkt-Erdölpreis um 8%. Nach der Entscheidung Anfang Juni für ein EU-Embargo auf Erdölimporte aus Russland ab Dezember 2022 sank der Weltmarkt-Erdölpreis bis zum 15.7.2022 um 17%. Der Beschluss des EU-Embargos hatte keinen merkbaren erdölpreissteigernden Effekt, während Russlands Ural-Erdöl einen substanziellen preisdämpfenden Effekt hinnehmen musste, sodass sich der Preisabschlag für Ural-Erdöl gegenüber Brent-Erdöl von 4% am 18.2.2022 auf 35% am 15.7.2022 vergrößerte – zum Nutzen der Importländer außerhalb der EU, insbesondere in Asien.

Erdgaspreise: Vom Vor-Pandemie-Niveau Ende 2019 bis zum 18.2.2022 kurz vor Kriegsbeginn stieg der Weltmarkt-Erdgaspreis um etwa 330%, getrieben vom Euroraum-Erdgaspreis (in US-Dollar), der deutlich stärker, um etwa 510% anstieg. Im Gegensatz dazu war der Preisanstieg beim Erdöl wie oben erwähnt in dieser Periode viel geringer und wies kaum einen Unterschied zwischen dem gesamten Weltmarkt und dem Euroraum auf. Russland hat einen Anteil von etwa einem Drittel an den Welt-Erdgasexporten und etwa 70% seiner Erdgasexporte gehen in die EU. Im Jahr 2021 nutzte Russland freie Lieferkapazitäten nicht zur Dämpfung der Preissprünge (und lagerte deutlich weniger Erdgas als in den Vorjahren in der EU ein) und hat dadurch die Erdgaspreisanstiege weiter angetrieben. Russland gab somit seine Rolle als „verlässlicher Versorger" von Erdgas effektiv schon längere Zeit vor dem Kriegsbeginn auf – und nicht erst in Reaktion auf Wirtschaftssanktionen durch EU/G7/Korea aufgrund seines Angriffskrieges. Daher würde auch eine Abschwächung der Sanktionen die Erdgaspreise im Euroraum mit großer Wahrscheinlichkeit nicht zu dämpfen vermögen.

Kohlepreise: Von Ende 2019 bis Ende 2021 stieg der Weltmarkt-Kohlepreis um etwa 125%, während der Euroraum-Kohlepreis (in USD) um etwa 95% anstieg, da Nicht-EU-Volkswirtschaften, insbesondere China und Indien, die wichtigste Triebfeder für den Preisanstieg auf dem Weltmarkt bildeten. Nach der Entscheidung am 8.4.2022 für ein EU-Embargo auf Kohleimporte aus Russland ab August 2022 stieg der Weltmarkt-Kohlepreis zwar weiter an, aber mit geringerem Tempo als während etlicher Wochen vor Kriegsbeginn und erneut stärker als der Euroraum-Kohlepreis (in USD). Zu beachten ist, dass der Anteil der EU-Kohleimporte aus Russland nur etwa 3% des Welt-Kohleimports ausmacht.

Weizenpreise: Im Juli 2021 war der Weltmarkt-Weizenpreis um fast ein Drittel höher als im Juli 2019 und er stieg bis 18.2.2022 um etwa 20% weiter an. Während der Weltmarktpreis vom 18.2.2022 bis zum 15.7.2022 um 3% zurückging, vor allem aufgrund der saisonal vergrößerten Exportkapazitäten auf der Nordhalbkugel, war er noch immer um 16% höher als in der Erntesaison des Jahres 2021. Die FAO stellte in einer Analyse fest: „die Anzahl der Länder, die mit ungewöhnlich hohen Nahrungsmittelpreisen konfrontiert sind, blieb im Juni hoch. … die einschneidende Auswirkung des Kriegs in der Ukraine … bleibt der Hauptgrund insbesondere für Länder, die in hohem Ausmaß von Weizenimporten abhängig sind." Der von Russland verursachte Mangel an Weizenexporten aus der Ukraine verhinderte also, dass der Weizenpreis von Februar bis Juli stärker zurückging, was ein noch höheres saisonales Niveau als das bereits hohe Niveau vom Juli 2021 zur Folge hatte.

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In July 2022, world prices of energy and cereals in USD were **markedly higher than a year earlier**, as opposed to world prices of iron and non-ferrous metals.

- However, the size of the **annual price increase varied substantially**. For energy it ranged from +38% (oil) to +180% (coal), and for cereals from +7% (corn) to +25% (rice, see Table 1, column 2).
- For these products (except coal), **the clear majority part of the annual price increases took place already prior to the start of Putin's war** against Ukraine (see Table 1, column 3 vs. column 4).
- Moreover, **already in July 2021, commodity prices stood higher, partly substantially higher than before the pandemic** in July 2019. This was true also for iron and non-ferrous metals. For coal and natural gas, the price increases in these 24 months were particularly pronounced (see Table 1, column 1).

Table 1:

World commodity prices, in USD

Percentage changes within the indicated periods

	1	2	3	4
	From 15 July 2019 to 15 July 2021 (24 months)	**From 15 July 2021 to 15 July 2022**		
		Full period (12 months)	**Sub-period before the start of the war** 15 July 21 to 18 Feb 22	**Sub-period after the start of the war** 18 Feb 22 to 15 July 22
Oil	14	38	27	8
Natural Gas	133	135	83	28
Coal	94	180	56	79
Wheat	32	16	19	-3
Rice	11	25	13	11
Corn	28	7	16	-8
Iron	79	-46	-26	-26
Non-ferrous	41	-13	23	-29

Source: CBOT, HWWI (via Macrobond).

Oil prices:

- Early June, the EU took the decision as part of the 6th sanctions package to impose an **embargo on imports of crude oil and oil products from Russia**, entering into force in December 2022 and February 2023, respectively. This embargo excludes imports from Russia via the Druzhba (Friendship) pipeline of the 1960s to CZ, SK and HU (Southern line) and to PL and DE (ex-Eastern Germany) (Northern line).
- Considering the **theoretical impact of this EU embargo on world oil prices**, three points are worth mentioning:
  - Russia's oil exports have a share in world oil exports of about 10% (oil products) and less than 15% (crude oil), respectively. Roughly **half of Russia's oil exports go to the EU** (49% of crude oil, 50% of oil products). Thus, the **share of EU oil imports from Russia (incl. pipeline oil) amounts to about 5% (oil products) and 7% (crude oil) of world oil imports**.

  - The **world oil market's balance of supply and demand** in volume terms does not change if EU oil demand shifts fully to non-Russian exporters and Russia's oil supply shifts fully to non-EU importers.
  - Changes in world oil prices as a result of the EU embargo may be expected ceteris paribus to the extent that (a) **demand or supply shifts are partial** (e.g. due to oil **saving or substitution** measures in the EU or **technical problems** of switching in Russia) and/or (b) **relative pricing power** comes into play (possibly enhanced by **mismatches** between the types of oil demanded and supplied by the various actors).
- **Empirically, from 18 Feb 2022 to 15 July 2022, the world price for oil increased by only 8%** (Table 1, column 4), considerably less than previously and far less than prices for natural gas and coal. Within this period, the oil price increased by 31% from 18 Feb to 10 Jun 2022 but **following the embargo decision it declined by 17% up to 15 July**. Moreover, the **futures price** (Brent, 2nd quarterly position, i.e. 6m ahead) **moved in parallel**. As of mid-July, it stood 8% below the spot price, compared to 3.5% below spot at end-2021 and 7% below spot on 18 Feb 2022. These price developments do not indicate severe future disruptions when the embargo will have entered into force.
- In contrast to the world oil price development, the **price for Russia's Urals oil declined by 26% from 18 Feb 2022 to 15 July 2022**. This implied that the **price discount of Urals versus Brent widened from 4% to 35%** on 15 July 2022.
- While the counterfactual of the world oil price development is unknown, the overall picture emerges that the **EU embargo has not had a discernible oil price-lifting effect**, while Russia's Urals oil has faced a substantial price dampening impact – to the benefit of non-EU importers especially in Asia.

Natural gas prices:

- **From** the pre-pandemic level at **end-2019 to 18 Feb 2022**, just before conflict escalation and start of the war, the **world gas price increased by 3.3 times (330%) to the 4.3-fold level**. However, the **EA gas price in USD increased by 5.1-times (510%) to the 6.1-fold level in that period,** hence far more than the world gas price and **constituting the major driving force for the world gas price increase.**
- **This stood in sharp contrast to the roughly similar size of oil price increases for the euro area and the world** in that period.
- Overall, this reflects the difference between oil and gas concerning the **structure of the world market**, combined with a specific politically driven behavior already before the war.
  - In contrast to oil (see above), Russia's gas exports have a substantial share in world gas exports of about 34%. Roughly **70% of Russia's gas exports go to the EU. Thus, the share of EU gas imports from Russia amounts to about 24% of world gas imports**.
  - Moreover, technically, for EU gas importers, it is far **more difficult to substitute pipeline gas supply from Russia than oil supply**, rendering a high inelasticity of their gas demand to price increases.

  - **In autumn 2021, Russia was said to comply with its contractual minimum delivery obligations but not to respond to gas price increases by using its free capacities.** According to energy experts, this behavior not only deviated from that of earlier years but also **ran counter to usual business-oriented behavior, suggesting misuse of market power and political motivations**. This led to unusually low levels of gas storage, uncertainty and **further price increases**. Already on 7 October, Fatih Birol, the head of the International Energy Agency (IEA) stated that Russia has the capacity to send substantially more gas to Europe and alleviate the energy crisis gripping the continent (Financial Times, 7 Oct 2021).
  - Moreover, already before the war, **Russian gas export companies held far less storage volumes in the EU** than at the same time in previous years.
  - Thus, **Russia gave up its role as a "reliable supplier" not in response to EU/G7/Korea economic sanctions but already much earlier.**
- In the wake of conflict escalation and start of the war, the world gas price rose further by 28%, in view of **mounting quantity restrictions by the Russian leadership under fixed-price delivery contracts for EU importers.** These restrictions increasingly ignored contractual minimum delivery obligations.

Coal prices:

- From end-2019 to end-2021, the **world coal price increased by about 125%**, while the **EA coal price in USD increased by about 95%,** indicating that the **major driving force for the world coal price increase came from non-EU economies**, especially China and India.
- However, from end-2021 to 18 Feb 2022, that is, already before the war, and from 18 Feb 2022 to 8 April 2022 in the wake of conflict escalation and start of the war, the **world coal price increased less than** the **EA coal price in USD:** 39.5% compared to 42.5% and 32% compared to 40%, respectively. This very likely reflected mounting problems in the euro area with gas prices and gas supply that have intensified in autumn and winter already before the war.
- On 8 April 2022, the EU took the decision as part of the 5th sanctions package to impose an **embargo on imports of coal from Russia**, as from August 2022.
- Following this decision, the coal price continued to rise but to a lesser extent. Moreover, from 8 April 2022 to 15 July 2022, the **world coal price increased again stronger than** the **EA coal price in USD.**
- Overall, it is **very unlikely that the EU embargo on coal imports from Russia has been a significant driving force for the rise of the world coal price**.
  - The **coal price rally started already quite some time before the war**.
  - The **EU embargo decision has not accelerated the coal price rise**.
  - The **structure of the coal market** speaks against a major influence of EU demand:

    Russia's coal exports have a share in world coal exports of about 16%, far lower than Russia's share in the world gas market and roughly equal to Russia's share in the world crude oil market. Moreover, **only about 20% of Russia's coal**

exports go to the EU, as opposed to 70% in the case of gas and about 50% in the case of crude oil and oil products. **Thus, the share of EU coal imports from Russia amounts to only about 3% of world coal imports**.

Wheat prices:

- In **July 2021**, wheat prices were almost **a third higher than two years earlier, in July 2019**, amidst the most recent pre-pandemic Northern harvesting season (Table 1, column 1). From July 2021 to 18 Feb 2022, wheat prices rose further by about 20% (Table 1, column 3).

- **From 18 Feb 2022 to 15 July 2022, world prices for wheat decreased by 3%** (Table 1, column 4), after having risen substantially before. **Within this period, the wheat price was on a roller coaster:**
  - In an immediate shock reaction from 18 Feb 2022, before the start of the war, to early March, the wheat price **jumped by almost 80% to a historical high** since 1977.
  - Next, until early April, the wheat price declined substantially but remained about 30% higher than just before the war.
  - In the **first half of May**, wheat prices **increased sharply again** to 60% above the immediate pre-war level. According to FAO analysis, this price increase happened *"in response to **India's announcement of a wheat export ban**, amid global supply concerns fueled by reduced 2022 production prospects as well as disruptions to shipments due to the war in Ukraine".*
  - Then, **from mid-May to mid-July, the wheat price declined by almost 40%**, landing 3% below the immediate pre-war level. However, this reflected primarily **seasonally increased availabilities of wheat of Northern Hemisphere** exporters/exporting countries.

- **Notably, on 15 July 2022, the wheat price was still higher by 16% than in the same Northern harvesting season a year earlier** (Table 1, column 2). The futures price for wheat (No.2 soft red, July 2023) stood 4% above the spot price of 15 July 2022.
  - FAO analysis indicated that *"the number of countries facing abnormally elevated levels of food prices remained high in June. While reduced domestic supplies, national macroeconomic difficulties and/or localized insecurity remain the underlying drivers of the high prices in many cases, the disruptive impact of the war in Ukraine … remains a major cause especially for countries highly dependent on imported wheat".*
  - Thus, the **lack of wheat exports from Ukraine** since the start of the war has not contributed to a further increase of the wheat price but it **prevented the wheat price from declining more substantially from Feb to July 2022.** Hence, the price decline failed to offset the preceding price increase since the previous Northern harvest season. **As a result, in July 2022, the wheat price stood at an even higher seasonal level than the already elevated level in July 2021**.