

PLAYING JENGA THE RUSSIAN TRADE EDITION

[NB: Check the byline, please and thanks.

/~Rayne]

If you've played Jenga, you know many pieces can be pulled out of the tower of blocks and added to the top before the tower collapses. The trick is knowing how many pieces and which pieces must remain if the tower is to remain standing during its ongoing construction.

Now that Russia's economy is heavily sanctioned, let's play Jenga with Russian commodities. Which export commodities will be most affected? Which importing countries might be most affected?

I've spent a little time looking at Russia's exports, concentrating on those where Russia's products are a large part of the market. The picture is complicated. (It's also not complete here, there are a few gaps which aren't easy to fill.)

Context also matters which this simplistic look doesn't offer. It should give us something to discuss and to consider outcomes.

Look at refined petroleum as an example. Within the last few years the US has been the largest importer at 7.84% of the total global export volume, but the US is also the largest exporter at 12.3%. While refined petroleum means more than one product – including 'Mineral fuels, mineral oils and products of their distillation' as well as 'Oils petroleum, bituminous, distillates' (under Harmonized Tariff Code 271000) – sanctions on Russia's refined petroleum aren't likely to affect export/import of US's refined petroleum products.

Where sanctions will pose more serious challenges: smaller countries which may have relied on Russia because of negotiated finance terms which kept them in Russia's political orbit, sometimes through secondaries. Think Cuba

as one example (for good or ill, it's not an IMF member) and its relationship with Venezuela. These countries may have difficulty obtaining materials in the market if they are crowded out by larger countries with better financing vehicles.

Here are the top products exported by Russia listed in order by total value:

	Largest export product	Value USD	World Rank	Largest Importer
1	Crude Petroleum	121443	2nd – 12.5% 2nd in daily production	(2019 data) 1 – China (\$204B) – 20.7% 2 – United States (\$123B) 3 – India (\$92.7B) 4 – South Korea (\$67.4B) 5 – Japan (\$64B) Note: all EU combined (\$276B, 2017)
2	Refined Petroleum	66887	1st- 9.62%	(2019 data) 1 – United States (\$54B) – 7.84% 2 – Netherlands (\$41.8B) 3 – Singapore (\$41.4B) 4 – Mexico (\$29.3B) 5 – Germany (\$23.5B)

3	Unspecified commodities – Barley – Buckwheat – Oats – Rye	55265	– Barley – 1st – Buckwheat – 1st – Oats – 1st – Rye – 3rd	Barley: 1 – China 10K MT 2 – Saudi Arabia 6K MT 3 – Turkey 2.7K MT 4 – Iran 2.6K MT 5 – EU-27 1.3K MT 6 – Japan 1.2K MT 7 – Thailand 1.2K MT 8 – Libya 850 MT 9 – Jordan 800 MT 10 – Viet Nam 800 MT Buckwheat: TBD Oats: 1 – United States 1.3K MT 2 – China 350 MT 3 – Mexico 150 MT 4 – Peru 50 MT 5 – Switzerland 50 MT 6 – Chile 50 MT 7 – EU-27 50 MT 8 – India 50 MT 9 – Japan 50 MT 10 – South Korea 25 MT Rye: 1 – United States 241 MT 2 – EU-27 60 MT 3 – Israel 30 MT 4 – Japan 20 MT 5 – Turkey 20 MT 6 – Norway 10 MT 7 – Kazakhstan 6 MT 8 – South Korea 5 MT 9 – United Kingdom 5 MT 10 – Belarus 3 MT
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4	Coal	15987	2nd – 14.4% (bituminous, not briquettes)	(2019 data) 1 – Japan (\$19.3B) – 20.3% 2 – China (\$15.8B) 3 – India (\$11B) 4 – South Korea (\$10.3B) 5 – Taiwan (\$5.27B)
5	Petroleum Gas	9501	4th – 8.77%	1 – China (\$47.8B) – 15.9% 2 – Japan (\$42.3B) 3 – South Korea (\$21.8B) 4 – India (\$16.4B) 5 – Italy (\$15.8B)
6	Wheat	6399	3rd	1 – Egypt 13K MT 2 – Turkey 11K MT 3 – Indonesia 11K MT 4 – China 9K MT 5 – Algeria 7.7K MT 6 – Bangladesh 7.4K MT 7 – Iran 7K MT 8 – Brazil 6.5K MT 9 – Philippines 6.5K MT 10 – Nigeria 6.2K MT

7	Semi-Finished Iron	6090	1st – 27.1%	(2019 data) 1 – United States (\$2.79B) – 10.8% 2 – Taiwan (\$2.22B) 3 – Indonesia (\$1.7B) 4 – South Korea (\$67.4B) 5 – Egypt (\$1.62B)
8	Gold	5740	less than 7%	(2019 data) 1 – United Kingdom (\$65B) – 19% 2 – Switzerland (\$63.5B) 3 – China (\$41.5B) 4 – India (\$33.8B) 5 – United Arab Emirates (\$31.8B)
9	Platinum	5121	1st – 16%	(2019 data) 1 – United Kingdom (\$6.83B) – 16.8% 2 – United States (\$6.69B) 3 – Germany (\$6.01B) 4 – Japan (\$4.22B) 5 – China (\$2.78B)

10	Raw Aluminum	4640	2nd – 10.1%	(2019) 1 – United States (\$8.63B) – 16.8% 2 – Japan (\$4.44B) 3 – Germany (\$4.44B) 4 – Netherlands (\$3.36B) 5 – South Korea (\$2.9B)
11	Sawn Wood	4506	2nd – 12.4%	(2019 data) 1 – China (\$7.36B) – 20% 2 – United States (\$6.01B) 3 – Japan (\$2.03B) 4 – United Kingdom (\$1.95B) 5 – Germany (\$1.45B)
12	Oils	4458	TBD	TBD
13	Copper	4137	less than 3% (copper bars)	(2019 data) 1 – China (\$474M) – 9.17% 2 – Germany (\$438M) 3 – United States (\$395M) 4 – Italy (\$392M) 5 – France (\$226M)

14	Diamonds	3768	less than 4% (all diamond types)	(2019 data) 1 – India (\$21.4B) – 20.7% 2 – Hong Kong (\$18.6B) 3 – United States (\$17.9B) 4 – Belgium (\$12B) 5 – United Arab Emirates (\$9.56B)
15	Chemical Fertilizers – Nitrogen – Phosphorus – Potassium	3165	– Nitrogen – 1st – Phosphorus – TBD – Potassium – 2nd (potassic fertilizers)	Nitrogen TBD Phosphorus TBD Potassic fertilizers (2019) 1 – Brazil (\$2.98B) – 18.4% 2 – United States (\$2.81B) 3 – China (\$2.34B) 4 – India (\$1.25B) 5 – Indonesia (\$716M)
16	Nitrogenous Fertilizers	2896	1st – 12.9%	(2019 data) 1 – India (\$2.71B) – 11.4% 2 – Brazil (\$2.36B) 3 – United States (\$2.17B) 4 – France (\$1.14B) 5 – Turkey (\$808M)

17	Frozen Fish	2497	11th (fillets) – 2.48%	(2019 data) 1 – United States (\$3.02B) – 19.1% 2 – Japan (\$1.98B) 3 – Germany (\$1.42B) 4 – United Kingdom (\$930M) 5 – France (\$855M)
18	Hot-Rolled Iron	2462	6th – 5.25%	(2019 data) 1 – Italy (\$3.35B) – 6.82% 2 – Vietnam (\$3.24B) 3 – Germany (\$2.86B) 4 – South Korea (\$2.19B) 5 – Turkey (\$2.1B)
19	Gas Turbines	2352	less than 2% of global total	(2019 data) 1 – United States (\$36.5B) – 22.9% 2 – Germany (\$11.2B) 3 – China (\$9.44B) 4 – Singapore (\$8.37B) 5 – France (\$8.14B)
20	Potassic Fertilizers	2337	3rd – 15.1%	(2019 data) 1 – Brazil (\$2.98B) – 18.4% 2 – United States (\$2.81B) 3 – China (\$2.34B) 4 – India (\$1.25B) 5 – Indonesia (\$716M)

Here are export products besides those in the list above for which Russia is among the top five exporters in the world.

Vegetables

	Largest export product	Value	World Rank	Largest Importer
	Cabbage and other brassicas	TBD	3rd	TBD
	Chickpea	TBD	3rd	TBD
	Potatoes	TBD	3rd	TBD
	Carrots and turnips	TBD	3rd	TBD
	Pumpkin, squash, and gourds	TBD	3rd	TBD
	Safflower	TBD	3rd	TBD
	Sunflower seed	TBD	2nd	TBD

Fruits

	Gooseberries	TBD	1st	TBD
	Raspberries	TBD	1st	TBD
	Currants	TBD	1st	TBD

Meat

	Chicken	TBD	4th	Chicken meat: 1 – Japan 1K MT 2 – Mexico 940 MT 3 – China 800 MT 4 – United Kingdom 675 MT 5 – EU-27 635 MT 6 – Saudi Arabia 625 MT 7 – United Arab Emirates 445 MT 8 – Philippines 400 MT 9 – Iraq 375 MT 10 – South Africa 370 MT
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Fibers

	Bast fibre	TBD	2nd	TBD
	Flax	TBD	4th	TBD

Wood

	Sawnwood (sawn wood and dimensional lumber)	See above	See above	See above
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	Wood-based panels (plywood, particleboard, fiberboard, and veneer sheets)	TBD	3rd – 9.31%	(2019 data) 1 – United States (\$2.47B) – 16.7% 2 – Japan (\$1.38B) 3 – Germany (\$982M) 4 – South Korea (\$714M) 5 – United Kingdom (\$682M)
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It's easy to discount some of these commodities as inconveniences if they aren't readily available. But for a country like Germany for which more than 40% of its GDP relies on exports which in turn require raw material imports, it's not as easy to say a gooseberry or cabbage shortage is no big deal when it exports a lot of jam or kraut. That iron whether semi-finished or hot-rolled may be short is a problem for a country whose largest industry is automotive with one in ten Germans working for that industry.

25.5% of Russia's GDP relies on exports with much of the volume and income consisting of fossil fuels. In years when fossil fuels have been volatile, other commodities like agricultural products have kept GDP elevated. With the sanctions Russia's GDP is already taken a beating. It could try to sell to neutral countries, but some of them may not have the financing or come with other risks. What could Venezuela offer, for example, when more than 80% of its own exports are fossil fuels in direct competition with Russia's? Venezuela isn't likely to want rubles even if it did have something to offer Russia.

Russia could trade with Mexico which has declared its neutrality. But efforts to increase trade would come at the expense of Mexico's relationship with the US which buys more than 75% of Mexico's exports in comparison with less than 3% Mexico exports to Russia.

The more immediate problem for Russia isn't just

that its industries are forced to scramble to find alternative buyers while imports needed for production are substantially more expensive now that rubles have lost most of their buying power. Or that their workers are or will be very unhappy with their wages which have also lost buying power.

It's that they can't make enough materiel fast enough to replace what has been destroyed in its 21 days of war on Ukraine. There won't be enough electronics without some sort of submission on the part of Russia to China, in the same submissiveness exhibited by asking China for MREs for its troops.

There will be tectonic shifts in the marketplace because of the sanctions. India may play a much bigger role in filling the world's wheat demand, as Dr. Sarah Taber noted in a Twitter thread this week. But it's going to take time to ramp up a sustained place for India in the wheat market, and the amount of time is damned hard to predict when talking about a country which still plants, harvests, processes, and packages a considerable amount of its wheat using methods predating the 20th century. India is trying to scale up its seaports, but its largest seaport Port of Kandla is the size of Corpus Christi, TX. The changes are necessary immediately, not another crop season away even if India has a longer, more versatile growing season.

The upside to India as a wheat exporter is the physical location of Port of Kandla and its proximity to the markets which will need it most and urgently in the Middle East and Northern Africa.

And none of this figures COVID's impact on agricultural labor. We're kidding ourselves this is not a contributing factor to Russia's problematic military deployment when we can see it's a problem in our US labor force. It will be a problem in other countries which are now looked to as alternatives to Russian exports and we haven't yet seen the worst of Omicron subvariant BA.2.

What are the other short-term challenges sanctions on Russia and war on Ukraine will cause? Pull another Jenga piece...in addition to all the damage wreaked on Ukraine, roughly 10% of its exports went to Russia. Ukraine may not miss the rubles for now, but they'll need trade to replace that once the war is over.

Let's hope military adviser to Ukraine's President Zelenskyy is right in his prediction this won't be a protracted war.

Zelensky's excellent military advisor Arestovich predicted yesterday that Ukraine could win the war in two weeks time unless something extraordinary happened. Russian troops can be expelled from the whole of Ukraine. The new US military supplies might cause the end of the war.

– Anders Åslund (@anders_aslund) March 17, 2022

Sources:

Wikipedia:

https://en.wikipedia.org/wiki/List_of_largest_producing_countries_of_agricultural_commodities

https://en.wikipedia.org/wiki/List_of_exports_of_Russia

Index Mundi:

<https://www.indexmundi.com/agriculture/?commodity=chicken-meat&graph=imports>

Observatory of Economic Complexity:

<https://oec.world/en/legacy>

<https://oec.world/en/profile/hs92/petroleum-gas> (2019)