Russia Invasion of Ukraine: Five Medium-terms Implications

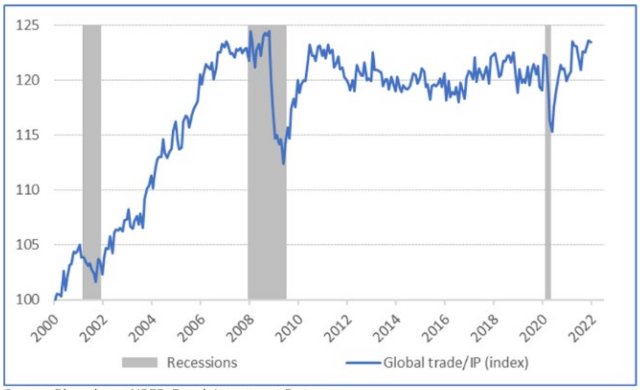
1. **The Ukraine invasion: A third dagger into globalisation and global supply chains**
2. **A new era for Europe: Defense budgets are likely to rise dramatically**
3. **The Weaponization of Money: A turning point away from USD hegemony**
4. **The impact on US growth & inflation: Don't expect the Fed to pause (absent a Lehman-esque tightening of financial conditions)**
5. **Oil, commodities and green energy: The end of "pre-emptive underinvestment"**

The Ukraine Invasion: A third dagger into globalisation & global supply chains

- When history books are written, they will argue the peak of liberal global order occurred in 2001, on China's entry into the WTO
  - Since then, multilateral rules-based system has been atrophying
- To Putin, the EU's economic alliance is as much a threat as NATO's military alliance
  - He wants Ukraine in Russia's economic zone, not the EU's
- The growing schism between Russia and the West is as much a fight about the rules that govern the global economy as it is about military alliances and missile installations
  - While Russia can compete militarily with NATO, it can't compete with the economic, social and cultural appeal of Europe
- Sanctions on Russia: This is the third hit this decade to our reliance on highly efficient but fragile global supply chains
  - The first was increasing tensions with China, and growing anti-trade populism in the US
  - The second was COVID, which initially presented challenges with APIs and PPE, but then more broad-based supply chain constraints & vulnerabilities (especially semis)
  - This third dagger is more focused on fossil fuels and commodities

This trend has implications for inflation (less imported deflation from China) and unit labor costs (higher, as domestic labor's bargaining power improves), as well as corporate margins (tighter) and revenues (less growth abroad).

Figure one: Globalisation peaked in 2008, and has trended sideways since then



Source: Bloomberg, NBER, Epoch Investment Partners

The Invasion Creates a New Era for Europe: Defense budgets are likely to rise dramatically

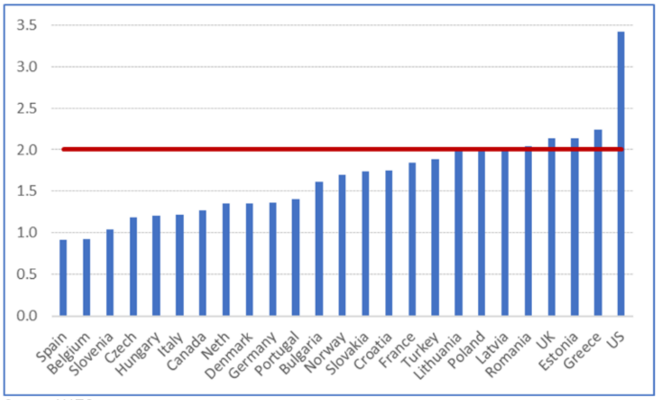
"Inevitably, Putin will ask himself: Who's next? For the reconstruction of the Tsarist empire, which is his life's work, will not stop with the subjugation of Ukraine. NATO will need to get serious, and fast, about bolstering the defences of the Baltic states and Poland."
-- Niall Ferguson, Stanford

- The invasion creates a vast zone of destabilization and insecurity from Estonia to Poland to Romania to Turkey
- This weekend Germany committed to raising defense spending above 2% of GDP by 2024
  - This will not reduce official GDP growth, but will negatively impact productivity and potential growth
- Since 1989 Germany has reduced the number of its battle tanks from 4,700 to 300, the number of warplanes from 390 to 230, and the number of troops from 300k to 180k

- German Chancellor Olaf Scholz announced plans for a massive boost in defense spending
    - Germany will channel 100 bn euros ($113 bn) this year into a fund to modernize the military

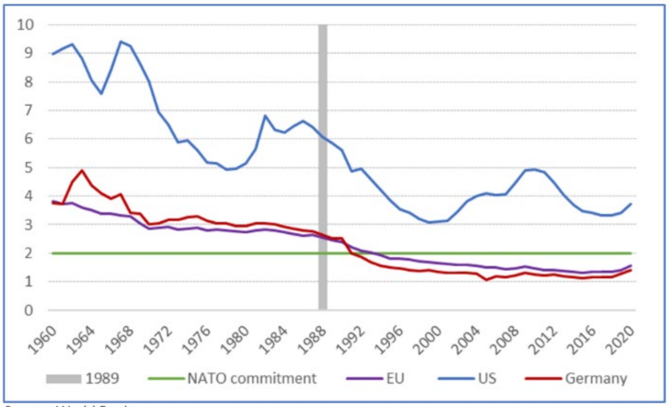
"With the invasion of Ukraine, we are in a new era. On Thursday, President Putin created a new reality with his invasion of Ukraine. This new reality requires a clear response. We have given it."
-- German Chancellor Olaf Scholz

Figure two: Defense spending (% GDP, 2020): American spending has subsidized many rich European countries (Spain, Belgium, Italy, Germany)
NATO guideline: 2.0%, Russia: 4.3%, Ukraine: 4.1%



Source: NATO

Figure three: Military expenditure (% GDP)
Peace dividend in reverse: Defense spending declined dramatically post-1989



Source: World Bank

The Weaponization of Money: A turning point away from USD hegemony

- The world has never seen the weaponization of money on this scale before
- It could represent a turning point: The end of USD hegemony and the acceleration towards a new, more complex monetary order
- Signal sent to international sovereigns: "If push comes to shove and you need access to global financial markets, you'll need our permission"
- For example, China would make it a priority to drastically reduce its exposure to the USD (including SWIFT & US correspondent banks) before potentially moving on Taiwan
    - Over time this should prove bearish for USD
    - [I've included a brief description below of how SWIFT works]

Are we on the brink of all out financial war with Russia?

- America has moved to stop US financial institutions from offering correspondent banking relationships to all major Russian commercial, industrial and policy banks
- Crucially, it extended sanctions to Sberbank, by far the most important Russian bank
- No major bank has ever before been completely shut out of the US correspondent banking network as Sberbank now is
    - It will be completely unable to make or receive international dollar payments

Russia's FX reserves held in G7 central banks have been frozen

- Reserve assets act as a national strategic buffer (this is how they functioned in 2008 and 2014)
    - When Russia's financial system and currency come under pressure, dollars and euros from the reserve can be sold for rubles
    - This supports the ruble and provides time to debtors and importers with foreign currency exposure
    - However, the unprecedented step to sanction the Russian central bank makes a large proportion of Russia's reserves unavailable
- Russia has $463 bn in foreign currency reserves (not counting the $132bn in gold) with 41% in EUR, 21% in USD and 17% in CNY
    - Where are these reserves held? The CRB reports that 18% are held in China, 16% in France, 13% in Japan and 12% in Germany
- Regardless, export earnings (mainly from oil and gas sent to Europe) will support the ruble in 2022
    - Russian exports in 2021 totaled $489.8 bn, with the bulk of that coming from fossil fuels (crude oil: $110.2 bn, oil products: $68.7 bn, NG: $ 61.8 bn)
    - Further, Russia ran a historically-high current account surplus of $120.3 bn, equal to 7% of GDP

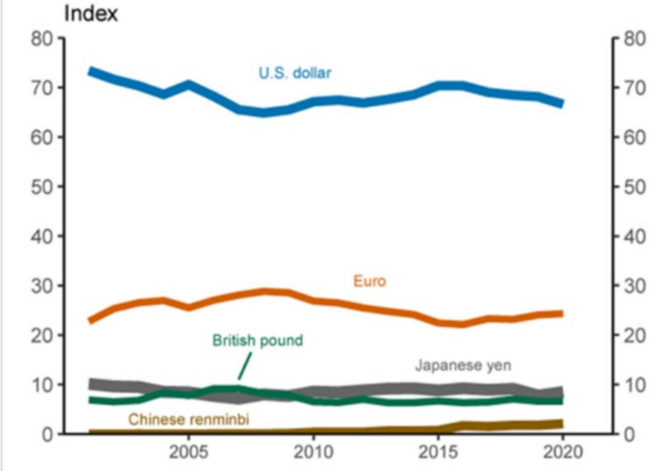
EC release: We, the leaders of the EC, France, Germany, Italy, the UK, Canada, and the US commit to

- Excluding important Russian banks from the SWIFT system
- Banning the transactions of Russia's central bank and freezing all its assets
- And we will target the assets of Russian oligarchs
- [But, of course, Europe still needs your fossil fuels]

https://ec.europa.eu/commission/presscorner/detail/en/statement_22_1423

For a description of the outsized role of the USD, please see: "The International Role of the U.S. Dollar," FRB

Figure four: Index of international currency usage (Figure 10 from FRB Report)



Note: Index is a weighted average of each currency's share of globally disclosed FX reserves (25 percent weight), FX transaction volume (25 percent), foreign currency debt issuance (25 percent), foreign currency and international banking claims (12.5 percent), and foreign currency and international banking liabilities (12.5 percent).

The impact on US growth & inflation: Don't expect the Fed to pause (absent a Lehman-esque tightening of financial conditions)

- The supply-side shock, through higher energy prices, is likely to be marginally inflationary and negative for growth
  - Further, productivity could be adversely affected by cold war containment and rising defense expenditure

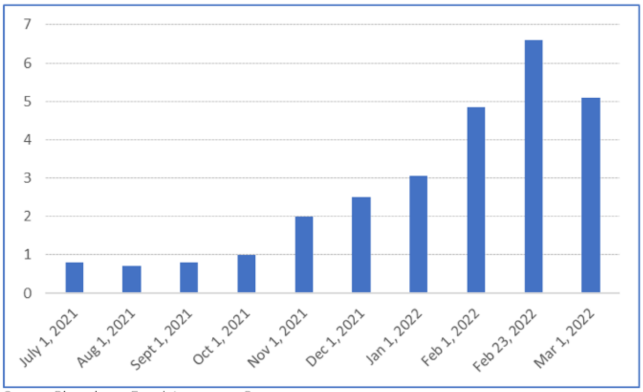
Energy prices, growth and inflation

- A $10/bbl increase in the price of oil typically boosts US core inflation by 3.5bp and headline inflation by 20bp, but lowers GDP growth by 0.1ppt

Financial conditions

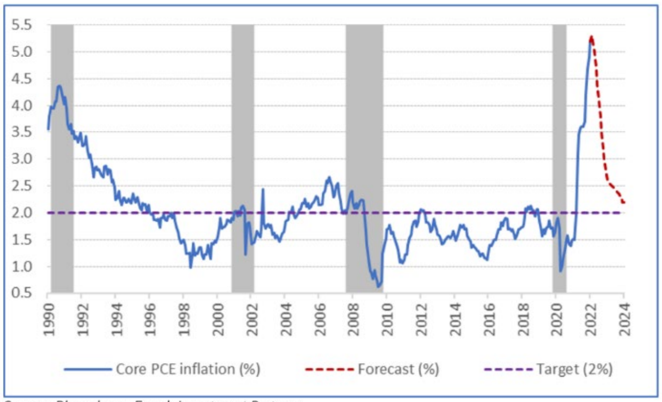
- The growth hit from a rise in oil prices could be larger if financial conditions tighten materially
- Past geopolitical risk events have only rarely been followed by a meaningful tightening in US financial conditions – which is critical to global risk assets
  - Key risk: Could sanctions and the weaponization of money result in Lehman-esque financial contagion?

Figure five: Market pricing: # of Fed hikes by end-2022. With the invasion of Ukraine, the market is now pricing five hikes this year



Source: Bloomberg, Epoch Investment Partners

Figure six: The Fed is leagues behind the curve: The consensus inflation glide path remains too optimistic



Source: Bloomberg, Epoch Investment Partners

Oil, commodities & green energy: The end of "pre-emptive underinvestment"

This implication is broadly bullish for energy & select commodities, as well as capex in both brown & green energy. It is also positive for ex-RUB commodity currencies (AUD, ZAR, CAD, CLP)

- Putin chose the invasion's timing well: Oil & NG markets are very tight
- Russia produces about 10 mn barrels of oil a day
  - In recent years, it has supplied Europe with 40% of its NG imports and 25% of its oil imports
- Fifty years ago the US imported 60% of its oil, now it is a net exporter
  - And US production this year will probably increase by about a million bpd

- **The world has moved too quickly away from fossil fuels production**
- Demand for oil & NG is still growing, and green energy supply is decades from catching up
- There isn't a lot of spare capacity in the world for extra oil production to come from right now
    - S Arabia and the UAE have the bulk of it -- there undoubtedly is some pretty intense diplomacy going on now
- Europe needs to think more about near- and middle-term energy security, as well as climate goals
    - It is just within the last month that Germany closed down its last two nuclear power plants
- Not paying enough attention to energy security has made Europe vulnerable to disruptions, which will make it harder to achieve its climate goals

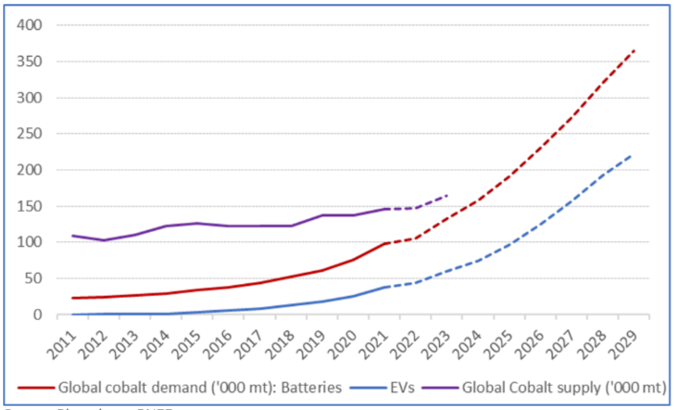
Russia

#1 producer of palladium

#2 producer of oil, cobalt & platinum

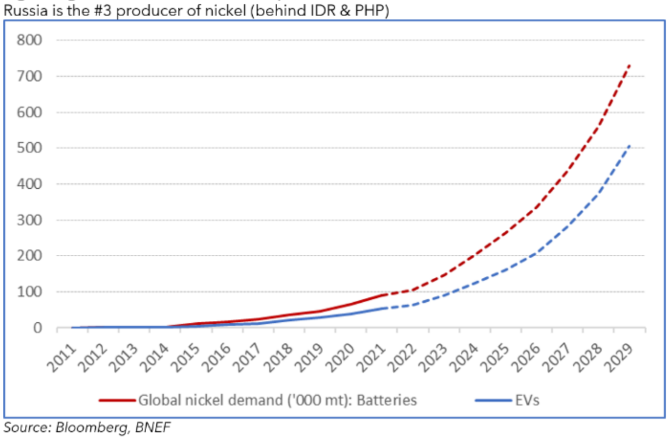
#3 producer of aluminum & nickel

Figure seven: Cobalt demand expected to soar with EVs
Russia is the #2 producer of cobalt (behind the DRC)



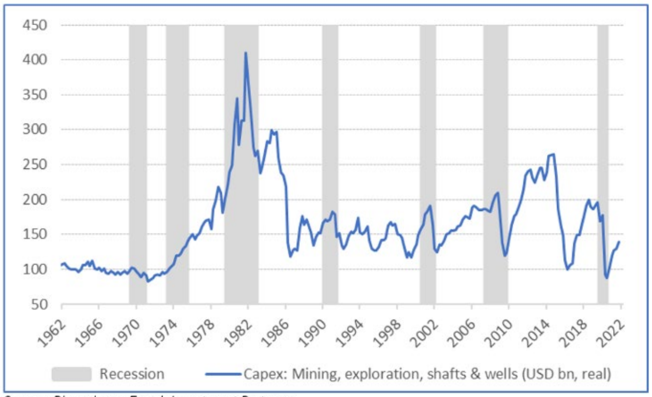
Source: Bloomberg, BNEF

Figure eight: Nickel demand is also expected to soar with EVs
Russia is the #3 producer of nickel (behind IDR & PHP)



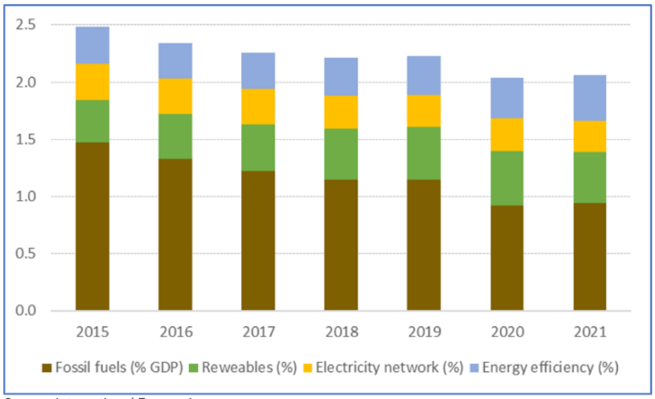
Source: Bloomberg, BNEF

Figure nine: US private investment in oil & NG: real spending is at same level as 1975



Source: Bloomberg, Epoch Investment Partners

Figure ten: World Energy Investment has declined: green spending hasn't picked up enough to offset the decline in fossil fuel investments

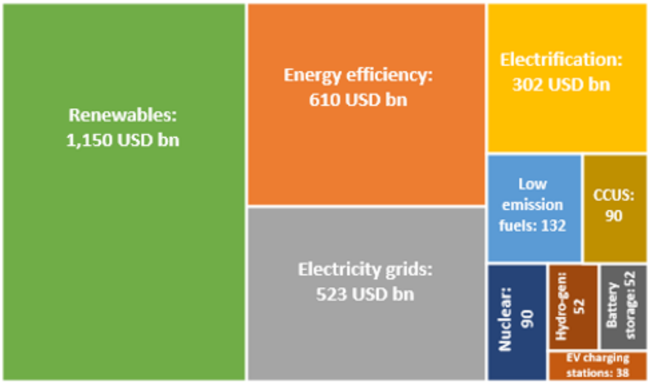


Source: International Energy Agency

The world isn't investing in zero-carbon energy fast enough to pick up the slack

- In 2021, the world put only $755bn into the energy transition, huge by historical standards
- However, it must increase this to $3tn/yr this decade to meet net zero (and $4tn/yr next decade), according to IEA

Figure eleven: Green capex – annual investment required this decade to achieve Net Zero (USD bn)



Source: IEA, OECD

Appendix

A1. An Overwhelming Majority of Ukrainians Support Membership in NATO (64%) and the EU (75%)
A2. Who does Ukraine and Russia trade with, and what do they export?
A3. How does SWIFT work?

A1. An Overwhelming Majority of Ukrainians Support Membership in NATO (64%) and EU (75%)

Reasons For Wanting To Join NATO

I want Ukraine to join NATO because	% Ukrainian Adults' First Answer Choice
It would make Ukraine more secure	49%
It would protect Ukraine from Russia	19%
It would allow for peace instead of war by securing Ukraine	9%
It would benefit Ukraine economically	4%
It would be good for Ukraine's future	4%

Source: A mid-Feb 2022 survey of 4,000 Ukrainian adults commissioned by Yalta European Strategy
https://yes-ukraine.org/2022/2022_Ukrainian_Security_Study_2022-02-21.pdf

A2. Who does Ukraine and Russia trade with, and what do they export?

Ukraine's GDP ranks 56 in the world

- Top exports: Corn ($4.8B), Seed Oils ($3.8B), Iron Ore ($3.4B), Wheat ($3.1B), and Semi-Finished Iron ($2.6B)
- Top export destinations: Russia ($4.7B), China ($3.9B), Germany ($3.1B), Poland ($2.8B), and Italy ($2.6B)
- #6 producer of titanium
- #9 producer of wheat

Source: ***https://oec.world/en/profile/country/ukr***

Russia is a much bigger deal, being the 11th biggest economy

- Top exports: Crude Petroleum ($123.0B), Refined Petroleum ($66.2B), Petroleum Gas ($26.3B), Coal ($17.6B), and Wheat ($8.14B)
  - #1 exporter in the world of wheat, semi-finished iron, raw nickel & nitrogenous fertilizer
  - #1 producer of palladium
  - #2 producer of oil, cobalt & platinum
  - #3 producer of aluminum, nickel & wheat
- Top export markets: China ($58.1B), Netherlands ($41.7B), Belarus ($20.5B), Germany ($18.9B), and Italy ($16.7B)
- Top imports: Cars ($11B), Packaged Medicaments ($10.2B), Vehicle Parts ($8.21B), Broadcasting Equipment ($6.75B), and Planes ($4.81B)

Source: ***https://oec.world/en/profile/country/rus***

A3. How does SWIFT work?

SWIFT is a messaging system (that is secure, but also very slow, cumbersome and 50 years out of date)

- Every cross border transaction must be cleared by the central bank of the country whose currency it is in
- Given that 88% of global transactions are in USD, the Fed has a huge involvement with settlement of global trade
  - SWIFT handles over 40 mn communications per day to a total value of $5 tn

To illustrate, if you want to send USD from Chase NY to TD Toronto here's the process:

1) Chase sends a message via SWIFT instructing where the funds are to be sent
2) Chase sends the USD to the Fed via Fedwire
3) Fed collects all payments sent to it and sorts them by country destination
4) On the basis of the SWIFT instructions in (1), the Bank of Canada makes a claim at the Fed
5) When the amount given to the Fed destined for Canada matches the amount claimed by the BoC, the Fed transfers the fund
6) The BoC sends the aggregate owed to each chartered bank to that bank
7) Each bank uses the SWIFT messages it received to allocate the money to each of the correct accounts

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