

March 22, 2022

A follow-up from yesterday's note with further thoughts around CB Gold and exploring some "what-if" scenarios that are both fun but also informative. It is well known that CB flows are historically very opaque (besides the monthly stats as reported by the IMF/WGC), but there have a been a few questions around how/what can be done by this sector that's worth considering.

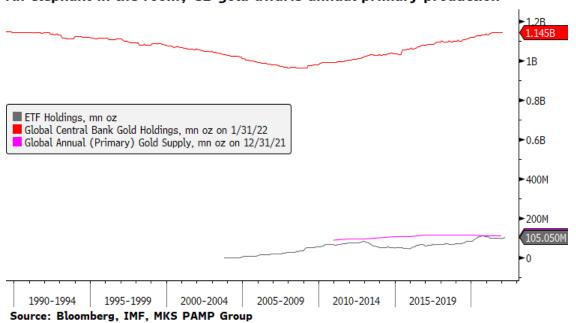
- CBs collectively hold 1.1bn (yes bn!) oz of Gold. That is roughly 10x more than what's sitting in global ETFs (~105mn oz) or annual gold supply (~113mn oz). Graph 1. That stat makes one think twice about hyper focusing on relatively smaller daily ETF/OI flows, when holdings of this size (and associated flows) pass through the OTC market arguably on a daily basis.
- The relatively larger size of holdings also perhaps help explain the unexplained price action at the very least it's a scapegoat. The recent large \$170 pullback in a straight line from \$2070 should not have been so deep & painful; bull markets in other asset classes don't put in moves like that! One can't confirm nor deny any direct CB participation, and price action and context is all we have. However markets should respect that CBs are the largest player, larger than investors or physical flows, at a time when the US\$ is being weaponized and prices are very appealing (not only in US\$ terms but local currencies as well).
- The worlds Central Banks own 1.145bn oz of Gold. Thats currently worth >\$2.1tn, which is 1/6th or 17% the value of all Central Bank FX holdings as estimated by the IMF (graph 2). Collective Gold holdings have been as small as 1/10th (10%) of all FX reserves (2009 post GFC and 2015 –European financial crisis), and as high as 18% of FX reserves (in 2011 and 2020, which is largely due to the higher notional gold prices seen in these periods).
- A global Gold share of 17% of All FX reserves, is just that; it doesn't underscore the fact that Emerging Market CBs largely tend to have a low gold exposure (typically <10% of all FX reserve) while the G-10/Developed Markets CBS are Gold-heavy (typically >50% of FX reserves). So IF those countries deemed Russian friends (email below highlighting they together own 193mn oz of Gold) were to alter their Gold reserves and bring them in line with the current threshold of 17%, collectively they would need to buy an additional ~290mn oz of Gold. That's a whopping 2.6x the size of all ETF holdings. Specifically, China would need to buy ~260mn oz (alone), given the size of its reserves, India +33mn oz and Bangladesh would need to buy 3.9mn oz (the top 3 largest buyers). Kazakhstan would need to sell 9.2mn oz to bring down its gold exposure from 66% of FX reserves to 17%.
- The all-important question of whether CBs now ramp up holdings to de-dollarize further or monetize and sell, is complicated by a few factors. 1) Prices. Arguably Gold is expensive and has put in a US\$ (and local currency for most) peak, 2) inflation and the Feds upcoming rate hiking cycle in which expected higher rates make lending/monetizing Gold more appealing, 3) Sanctions and or threat of (Western) sanctions directly impacting CB Gold holdings; the uncertainty stalls any buying activity not accelerates it. 4) Food inflation and high energy costs / imports. Certainly, diversifying into Gold is de-prioritized at a time when food inflation/scarcity is rampant and a large concern especially for EM nations like India, South East Asian or African countries. Theres



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less political will to be seen to be buying Gold at these prices when the population simply can't buy bread. Typically, food crises and the associated surging inflation is bullish gold, from an investment standpoint, but only to a point. If it severely impacts discretionary income from poorer gold consuming nations (India, South East Asia), not only is consumer demand crimped but Gold holdings/savings could potentially be be unlocked.

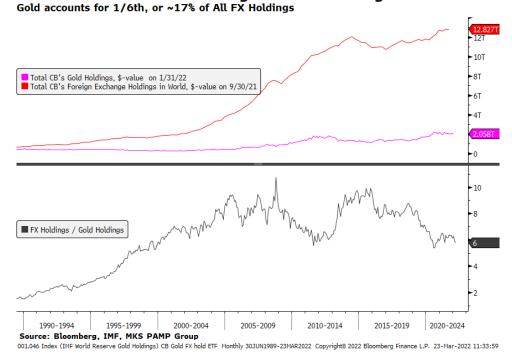
Graph 3 is an update providing some perspective around the value of all CB Gold vs assets and other relevant measures. CB Gold currently valued at \$2.1tn has just pipped the AUM sitting in all cryptocurrencies (\$1.9tn) and is almost as large as the size of the largest commodity company (Saudi Aramco). CB Gold also accounts for over 1/5th of all Gold ever mined.



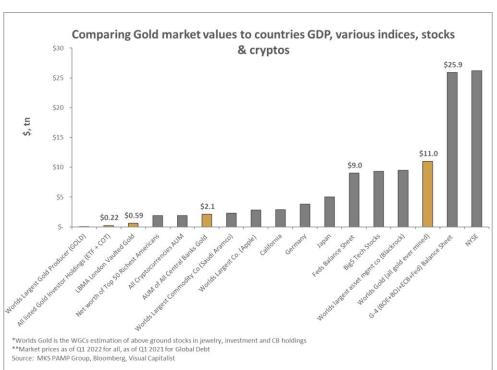
Above Ground Gold stocks of ETF & CB holders An elephant in the room; CB gold dwarfs annual primary production

ETFGTOTL Index (Total Known Gold ETF Holdings) Total CB + ETF holdings Monthly 30JUN1989-23MAR2022 Copyright 2022 Bloomberg Finance L.P. 23-Mar-2022 08:24:02





Central Banks ALL FX Holdings vs Gold Holdings





Part 1:

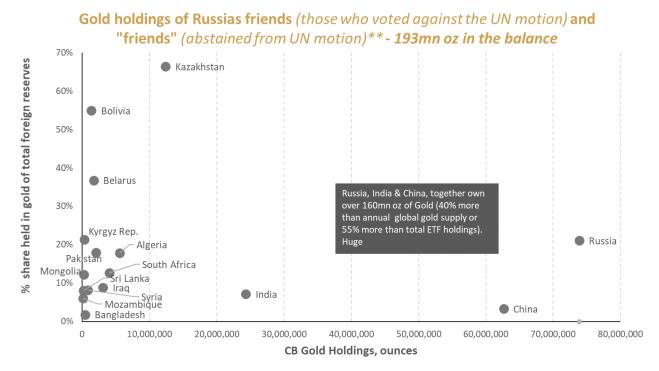
The Global economy has entered a new age of economic conflict – using devastating, arguably to some "indiscriminate" (as Xi called them) financial sanctions, will have far reaching effects. It's economic war in which the US\$ has been weaponized; its upending financial and commodities markets, while raising structural questions around the greenbacks supremacy. Depending whether the West are successful or not, the more they are use or the longer sanctions are imposed, the more other countries will try avoid relying on Western finance, will recalculate any geopolitical costs to war (e: g China invading Taiwan) but more importantly, autocracies are now increasingly nervous over Western pressure to 'fall in line' when they together own \$20tn of reserves and sovereign wealth assets. Put another way, in relevant Gold terms, the countries who either abstained or voted against the recent UN resolution (i.e.: China, India, Belarus etc), collectively own 193mn oz of Gold, or ~\$370bn worth (graph 1). Some broad-based thoughts below as the global monetary order is being reconsidered as investors worry that the non-West may unshackle themselves from the Petro-\$/Western financial system, now that large swathes of reserves (US\$, Gold and other assets) are no longer risk-free assets.

More support than the Western media portrays: The UN General Assembly's resolution earlier this month (demanding that Russia stop its offensive & immediately withdraw all troops) reflects influence and world opinion. The vote saw 141 countries back the motion, with 35 abstaining (China, India, South Africa to name a few) and 5 against (Belarus, North Korea, Syria etc).

- Almost 30% of the world (proxied by these votes), either implicitly or explicitly support Russia; that's 1) far too high, 2) far more than what the media portrays or Id argue markets believe. (yes, the war has been ongoing for 1 month+ with more atrocities on a daily basis, so opinions/votes may have changed)
- Russias "friends" (the 40 abstaining or voting against the UN resolution) collectively own 193mn oz of Gold, that can be monetized and sold off-market (bearish) or ramped up in order to further de-dollarize (bullish) in an effort to reduce reliance on the US\$ and thus the Western banking system.
- In the event of a war over Taiwan (or perhaps simply if China doesn't utilize its influence and take a harder stance against Russia?) the West could freeze China's \$3.3tn reserve pile, the largest in the world. Even India, South Africa and other democracies, who have avoided outright condemning Russia (for various reasons look at history) may worry they are more vulnerable to Western pressure.
- Thus a huge amount of US\$ and Central Bank Gold "lies in the balance" with Russia a top 6 gold holder, India a top 10 & China the 7th largest holder of Gold. Together they own over 160mn oz of Gold (40% more than annual global gold supply or 55% more than total ETF holdings). All 3 countries own large amounts of Gold, but they are also not Gold-heavy; Gold reserves only make up between 3.3% (China) and 21% (Russia) of FX reserves, with the rest sitting in US\$, EUR, SDRS and other currencies, implying there is room for Gold exposure to ramp up as the expense of other fiat currencies.



• Note, of the 40 countries that either abstained or voted against the US resolution, only 38% of them have reported their gold holdings in the last 6 months. So over 60% (some of whom are known to hold gold) do not report their holdings publicly to the IMF, just underscoring how difficult it is in understanding official sectors flows and/or unexplained Gold price action.



** Note, the following countries who abstained or voted against from the UN resolution, either have not reported their gold holdings to the IMF in the last 6 months, or are known to hold gold but they do not report their holdings publicly to either the IMF (and thus the the WGC) --> Angola, Armenia, Burundi, CAR, Congo, Cuba, El Salvadore, Eritrea, Iran, Kyrgyzstan, Lao PDR, Madagascar, Mali, Namibia, Nicaragua, North Korea, Senegal, South Sudan, Sudan, Tajikistan, Tanzania, Uganda, Vietnam, Zimbabwe.

Source: MKS PAMP Group, World Gold Council, IMF

Graph 2: US\$ dominance; there are growing threats to the dollars supremacy, but still no viable option/alternative.

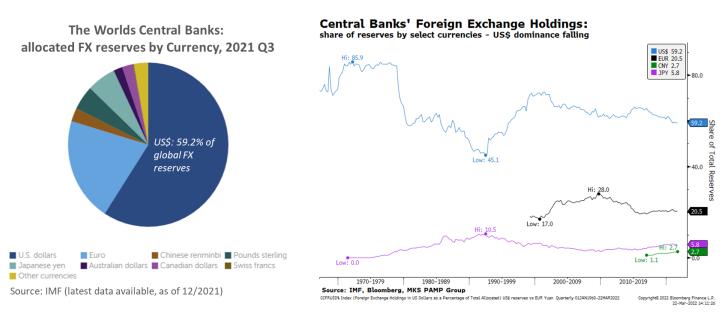
• The US dollars share of currency reserves has been rather steady at ~60% and still remains the largest held currency reserve by Central Banks. Its closest rival is the Euro, (~20% of reserves), with the JPY at ~6% and yuan at almost 3%. **Obviously theres been a re-think around the security/risk of holding US\$s especially for**



nonWestern countries given the US' heavy-handed approach in weaponizing its currency when it froze the Russian CBs holdings.

- Talk of the US\$ demise has been ongoing for decades; it ramped up after the GFC in 2008, especially after QE, but its remained dominant, a reserve currency and strong (its share did fall from ~65% of global reserves in 2009 to currently 59.2%). In addition to the US\$ making up around 60% of Central Bank foreign-exchange reserves, nearly 90% of trades in the daily \$6.6tn FX market still involve the greenback (BIS).
- There are non-stop efforts to create challengers or alternatives to the dollar, especially from the East. Technological changes could create a new payments network bypassing the Western banking system (China's digital-currency trial has over 260m user compared to today where the yuan's share of payments over SWIFT is only 3% vs 40% for the US\$ and 37% for the EUR).
- There are current alternatives, but none *currently* match the US\$ in size, depth and respect. 1) China continues its efforts to internationalize the yuan, but the issue is its an emerging market with capital controls that has yet to build the infrastructure to become a financial powerhouse, 2) The EUR remains a viable choice but its more a concept than a traditional government back currency, is too close to the fire/war, and is damaged from the Eurozone crisis which showed up bureaucracy/cracks in the system, 3) Cryptocurrencies, are outside of system/government and fiat shackles, but are too new, niche, underdeveloped and volatile. 4) Gold is impractical and too small of a market.
- Increasing more money will be parked outside Western financial markets and away from the US\$ as countries seek to diversify their reserves by investing more elsewhere. Its just not the demise of the US\$ now but a slow de-dollarization; superpowers aren't built in a day and don't collapse in 1 war.





Graph 3: Western sanctions have been weak up until now; its a new economic weapon effective but one that should be used smartly

- The world is fragmenting; theres trade de-globalization and now financial de-globalization as even more sanctions are being applied than the past two decades, pushing more countries to sever from the Western-led financial system. If that continues then the threat of being sanctioned/'excluded' is simply less powerful in future crises.
- Graph 3 shows American sanctions affect around ~10,000 firms or people, covering 50 countries and accounting
 for roughly 27% of world GDP. The trend has been steadily higher the past 2 decades. However, very few
 thought the West would ever apply max force on such a large and natural resource rich economy (at a time of
 commodity inflation); past measures (Iran, Venezuela) were crippling for the local, but not international
 economies.
- We've been here before. The trade embargoes, isolationism in the 1930s led to autocracies and dictatorships. But there are more relevant, near-term threats: economic (food security, or lack therefore, energy crises, global inflation), humanitarian (refugees) before political ones are considered. Nevertheless, these devastating and wide reaching sanctions should be reserved for the worst acts of war; it's a new economic weapon the West has deployed and if its not used smartly, it can put the global economy on a path to economic calamity.



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The Economist

Aggression again	CAMEROON	FINLAND			SAUDI ARABIA	
ALBANIA	CANADA	FRANCE	KYRGYZSTAN	- NETHERLANDS	SENEGAL	UNITED ARAB EMIR
ALGERIA	CENTRAL AFR REP	GABON	XLAO PDR	NEW ZEALAND	SERBIA	UNITED KINGDOM
ANDORRA	HCHAD	GAMBIA	ELATVIA	XNICARAGUA	ESEVCHELLES	XUNITED REP TANZA
ANGOLA	+ CHILE	GEORGIA	ELEBANON	NIGER	SIERRA LEONE	UNITED STATES
ANTIGUA-BARBUDA	XCHINA	GERMANY	LESOTHO	INIGERIA	SINGAPORE	
ARGENTINA	COLOMBIA	GHANA	LIBERIA	NORTH MACEDONIA	+ SLOVAKIA	UZBEKISTAN
ARMENIA	COMOROS	GREECE		NORWAY	SLOVENIA	TVANUATU
AUSTRALIA	XCONGO	GRENADA	H LIECHTENSTEIN	OMAN	SOLOMON ISLANDS	VENEZUELA
AUSTRIA	COSTA RICA	GUATEMALA	LITHUANIA	XPAKISTAN	SOMALIA	XVIET NAM
AZERBAUAN	COTE D'IVOIRE	GUINEA	LUXEMBOURG	PALAU	SOUTH AFRICA	H YEMEN
BAHAMAS	CROATIA	GUINEA-BISSAU	MADAGASCAR	PANAMA	X SOUTH SUDAN	ZAMBIA
BAHRAIN	XCUBA	GUYANA	MALAWI	PAPUA NEW GUINEA	SPAIN	ZIMBABWE
BANGLADESH	CYPRUS	HAITI	MALAYSIA	PARAGUAY	SRI LANKA	
BARBADOS	CZECH REPUBLIC	HONDURAS	MALDIVES	E PERU	SUDAN	
BELARUS	DEM PR OF KOREA	HUNGARY	MALI	PHILIPPINES	SURINAME	
BELGIUM	DEM REP OF THE C		MALTA	POLAND	SWEDEN	
BELIZE	DENMARK	XINDIA	MARSHALL ISLANDS	PORTUGAL	SWITZERLAND	
BENIN		HINDONESIA	MAURITANIA	T QATAR	SYRIAN ARAB REP	
BHUTAN	DOMINICA	KIRAN (ISLAMIC REP		REP OF KOREA	XTAJIKISTAN	
BOLIVIA	DOMINICAN REP	XIRAQ	MEXICO	REP OF MOLDOVA	THAILAND	
BOSNIA-HERZEGOVI	ECUADOR	TIRELAND	MICRONESIA (FS)	ROMANIA	TIMOR-LESTE	
BOTSWANA	EGYPT	ISRAEL	MONACO	RUSSIAN FED	TOGO	
BRAZIL	XEL SALVADOR	HITALY	MONGOLIA	RWANDA	TONGA	
BRUNEI DARUSSAL	EQUATORIAL GUINEA		MONTENEGRO	SAINT KITTS-NEVIS	TRINIDAD-TOBAGO	
BULGARIA	ERITREA	H JAPAN	MOROCCO	SAINT LUCIA	TUNISIA	
BURKINA FASO	ESTONIA	H JORDAN	MOZAMBIQUE	BAINT VINCENT-GR	TURKEY	
BURUNDI	ESWATINI	X KAZAKHSTAN	MYANMAR	SAMOA	TURKMENISTAN	
CABO VERDE	ETHIOPIA	KENYA	× NAMIBIA	SAN MARINO	TUVALU	
CAMBODIA	🗄 FUI	H KIRIBATI		SAO TOME-PRINCIPE	XUGANDA	



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