

Monitoring the International Monetary System: Its Development in the West, and Future in the East

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Abstract *The “gold standard” is frequently mentioned in text books, but few without an economics background can fully understand it. This paper thus begins in 1896, when U.S. Presidential candidate William Jennings Bryan declared, “You shall not crucify mankind on a cross of gold.” Since going back to the middle ages, the world has had numerous monetary systems, which are here explained in comprehensible terms. A modern reoccurring idea is to return to some form of the gold standard, while some argue for switching to the Chinese yuan or another international reserve currency, which the International Monetary Fund (IMF) will adopt in their Special Drawing Rights starting in October, 2016. This paper is normative in that it comments on the current international structure, but uses economic principles to support its argument in favor of an internationally strong dollar. It thus traces the history of a topically contentious subject, with a basic regression indicating important predictive factors for the future. It offers that a new gold standard would not be in the world’s interest, interfering with monetary policy, while emerging market countries would be best to import more and financially deepen, which the regression shows was why the Chinese yuan was adopted by the IMF, then looking ahead to other parts of Asia and towards bitcoins.*

Key words Gold standard, International Monetary System, reserve currency, special drawing rights, Chinese yuan

JEL Codes: A20, F02, F33, N10

1. Introduction

In 1896, as the United States was recovering from one of its worst agrarian recessions to that time, sometimes called the “Long Depression” (Murphy 2005). In this “Gilded Age” of “robber barons,” similar to today, presidential candidate William Jennings Bryan declared, in opposing the gold standard, “You shall not crucify mankind on a cross of gold.” This was reportedly the inspiration for L. Frank Baum’s *The Wonderful Wizard of Oz*, with its witches of West and East symbolic of America’s geographic struggle. Since the middle ages and the mercantilists, the world has seen numerous monetary systems, from bimetallism, to the gold standard, to a pegged system, to managed floats recently. An age old question often resurfacing, such as at the last, 2012 Republican National Convention, to currently, is one political leaders and economists alike debate. It is the suggestion that the U.S. return to the gold standard. Meanwhile, some argue for switching to

the Chinese Yuan, also called the renminbi, for a reserve currency. They argue that America is declining and holding U.S. dollars in reserve is more risky, less liquid, and less prestigious, given the rise of China and the developing world.

Veritably, the international monetary system is not monitored by any authority, and instead, it depends upon market forces and governments decisions, aided by international institutions. In the title to the paper, we are “monitoring” it in the sense of following it, as this paper is primarily normative, but uses theoretical economic and social science concepts. Should the United States and/or the world return to the gold standard, or switch to the yuan, special drawing rights, or a broader currency basket? Using mixed-methods, it begins historically by arguing that a significant change would not benefit the world economically, and then uses a simple linear regression showing that trade for goods and levels of financial/economic freedom are several of the primary determinants of government reserves held. Politically and economically, it is not likely that the yuan will become the world reserve currency anytime soon.

2. Literature review

In 1896, U.S. populist and People’s Party presidential candidate William Jennings Bryan famously criticized the gold standard (“Bryan’s Cross of Gold Speech,” 2013). Bryan was a presidential candidate four times, sometimes on the Democratic ticket, with a flair for drama and an appeal to farmers in the U.S. mid-West struggling from price deflation. The federal government could not change monetary policy, by devaluing gold, because it would hurt all holders. Over four score later, populist Representative Ron Paul launched his first run for Congress, inspired by Austrian economics that proclaimed that economic freedom depends on one’s liberation from a powerful central bank, and the ability to exchange fiat money freely. From laymen, to politicians, to scholars, many have opined on this diverse subject, the last group including Robert Triffin in the 1960s, J.C. Ingram (1962), R.I. McKinnon (1963), P.B. Kenen (1969), G. Harberler (1970), Richard N. Cooper (1984), to numerous papers and books by popular global economists Joseph Stiglitz and Paul Krugman (Cheng and Wang, 2011).

The gold standard was one type of exchange system. Internationally, exchange rates are based primarily on supply and demand for goods and asset’s interest rates, such that money follows demand for products and higher interest rates. Money is, then, just like other goods. Supply and demand for goods are in-part determine by the supply and demand of the country’s goods, and depend on consumer’s tastes and preferences, incomes, and returns on investment. In a flexible exchange system, they work by themselves. Under a fixed, or pegged, system, supply and demand continue to function, but the government keeps

currencies fixed to another nation's, such as the U.S. dollar. It does this by buying or selling domestic currency with reserves, or changing its fiscal or monetary policy. The risk is that the government will run out of foreign currency holdings (Grieco and Ikenberry, 2011).

There are many other types of exchange rate systems, such as target zones, crawling pegs, crawling zones, managed floats, linked currencies, and unions. There is a continuum, not absolutes of flexible vs. fixed. Managed floats, or "dirty floats," allow exchange rates to vary day-to-day, but governments intervene long-term. Pegged systems may use crawling bands, where the rate is allowed to change in a band around a mean value, sometimes via a formula. The Mundell-Fleming model, called by Obstfeld the "open-economy trilemma," says the more attention paid to exchange rates, the more problematic monetary policy of central banks, because both domestic interest rates and exchange rates affect growth (Obstfeld, 1998).

Gold standards are also diverse, with disagreements over their names. They include the gold specie standard, which uses gold coins for circulation, the gold bullion standard, which uses gold reserves, and the gold exchange standard, which pegs all currencies to one currency. Each has its origins in the use of gold coins in Turkey and China in the 7th Century B.C.E., the use of coins by Rome, who also used copper, and then the medieval Byzantine Empire, after the conquest of which most countries turned to silver. Both were popular amongst the ancients because of rarity, durability, divisibility, substitutability, and ease of recognition. For hundreds of years, empires pursued gold, which was called mercantilism. It was in 1816 that Great Britain went on a gold specie standard, but did not officially go on a gold bullion standard until 1844. Similarly, the United States dabbled in silver, but did not go onto gold until Congress acted in 1792, and the Independent Treasury Act of 1848 legally separated the money of the accounts of the federal government from the banking system ("Gold standard", 2013).

3. Methodology of research

3.1. Historical Process Tracing

The gold standard, classically from 1880-1914, pegged nations' currency to gold. Under this true gold system, shipments of gold affected the price-specie-flow mechanism: states that have outflows of gold from trade deficits have a falling money supply and prices. Prices follow the species, while encouraging imports and exports to reach equilibrium (Salvatore, 1996). The world succeeded when Britain was king, but only because it acted as a lender of last resort to nations, and let its monetary supply grow enormously ("The gold standard revisited," 1993). The world pegged their currency to the U.K. and gold, fearing being left out of the grand party.

Economist Joseph Schumpeter wrote, the “gold standard remained almost everywhere the ideal to strive for ...” (Timberlake, 2007). The developing world rushed to gold because it facilitated good relations politically, such as with Great Britain, the epicenter of the Victorian or “Gilded” Age, so-named after the obsession with riches and ornate living-styles. Writes Frieden, “countries that had avoided the gold standard flocked to it: Japan and Russia in 1897, Argentina in 1899, Austria-Hungary in 1902, Mexico in 1905, Brazil in 1906, Thailand in 1908” (Frieden, 2006). He continues, “By 1908 China and Persia [now Iran] were the only countries of any import not on gold” (Frieden, 2006). Gold was a status symbol, but it somewhat fixed monetary policies. Despite this, world trade leapt from \$8 billion dollars to \$18 billion dollars over this period (Frieden, 2006), aided in part by technological advances such as steam power.

Under this classical gold standard, adjustment also occurred through short term capital flows and changes in national income, economists now believe, instead of just price changes from gold movements as explained originally by the early economist David Hume (Salvatore, 1996). World War I, when the need for greater speed of money, called liquidity, caused the U.S. and Great Britain to temporarily drop the standard. The interwar years saw numerous changes, and the U.S. returned to gold in 1919, as did Great Britain in 1925. Protecting currency against inflation seemed more important than fighting unemployment (Obsfeld, 1998).

In 1929, the United States’ stock market crashed, and within several years the American unemployment exceeded 25%. Writes Frieden, “no nation was spared” (Frieden, 2006), and it occurred from, in part, deflationary policies from the gold standard (Osterhammel and Petersson, 2006). American policy makers reacted initially by allowing the market to self-correct. In 1930, to make things worse, the U.S. Congress passed the Smoot-Hawley tariff, chastised by economists today. Between 1929 and 1933, the U.S. economy declined 30%. It was an ordinary business cycle, but especially deep: economist John Maynard Keynes would later blame lack of overall demand, while Milton Friedman would blame too small a money supply, Irving Fischer would point to a misunderstanding of inflation premiums on bonds, Hyman Minsky to excessive risk taking, and John Kenneth Galbraith the micro-factor decline in industries like automobiles. By 1934, 1/3 of all US households were behind on mortgage payments, and by 1933, half of American farmers were behind. It seems an historical truism that the land or mortgage industry comes into distress during economic or financial crises (Frieden, 2006).

At the beginning of the Great Depression, an international attempt to restore the gold standard failed. Great Britain then went off of the gold standard in 1931. New York and Paris joined London as financial capitals (Salvatore, 1996). President Herbert Hoover, the crisis’ villain, listened to Treasury Secretary Mellon and kept a

hands-off approach- the use of fiscal policy would only come later, though some of United States President Franklin D. Roosevelt's ideas were borrowed from Hoover, claim some historians. The philosophies of Keynes, an English academic and government official, who wrote that prices and wages can be slow to adjust, quickly became well-known. He also recommended going off the gold standard, which President Roosevelt followed, and the government was able to expand the money supply, increasing prices. With the help of an alphabet soup of programs, by 1938, the economy improved (Frieden, 2006).

The harsh global economic conditions had fueled the rise of autarky around the world. During World War II, which in irony further helped economically, the U.S., under Secretary of State Cordell Hull, returned to its previous free trade policy. In 1944, nearing the end of the war, after which the U.S. emerged the world leader, Keynes and Harry Dexter White, Treasury Secretaries for the U.K. and U.S., respectively, met at Bretton Woods, New Hampshire, and ironed-out for the world would return to a modified form of the gold standard, and create a new agency, the International Monetary Fund (IMF). It would collect funds from wealthier nations, and lend money short-term to hard-strapped ones, as well as monitor exchange rates (Frieden, 2006). This was, in short, "currency stability with flexibility, gold backing without rigidity" (Frieden, 2006). Prior to this, they thought, loans were too political, and too risky for large projects. So, a new World Bank would borrow in private markets at safe, low interest rates, and lend to long-term, private projects (Frieden, 2006).

Later, in 1947, the world's two-dozen largest countries signed the GATT, the General Agreement on Tariffs and Trade, to lower trade barriers, and continue dialogue. In the 1990s, it morphed into the World Trade Organization, or WTO. In addition to this plan, in 1949, U.S. Secretary of State George Marshall and President Harry S. Truman devised an approach to rebuild Europe, the Marshall Plan. Together, the system led to rapid economic growth and stability (Frieden, 2006). From 1948-1958, the world economy grew 5.1% per year, and 6.6% per year until 1970 (Osterhammel and Petersson, 2006). The system continued to evolve, but few nations altered their currencies. Until 1971, Britain devalued only in 1967, France in 1957 and '69, Germany in 1961 and '69, Canada several times, and the US, Japan, and Italy none. Negotiations of GATT in rounds reduced tariffs to 7% nominally by 1971. The IMF continued to increase borrowing amounts across the '50s and '60s (Salvatore, 1996).

Small changes led up to the massive changes in 1971, which were finalized in 1973. The U.S. had run a trade deficit since 1950, averaging \$1 billion per year from 1950-57. This deficit increased to an average of \$3 billion from 1958-70. The U.S. consumed \$13 billion of its gold reserves, due to \$40 billion dollar in outflow, with

saw reserves falling from \$24 to \$11 billion dollars. The U.S. did not think it could devalue, but tried to increase exports, and cut spending. In 1963, it placed a tax on buying foreign securities, and in 1968 put controls on U.S. foreign direct investment. In 1971, massive capital outflows to developing states put pressure on the exchange-rate value of the dollar, linked to gold. Instead of devaluing the dollar, President Nixon took the U.S. off the classical gold standard. This was partially from outflows due to the Vietnam War (Salvatore, 1996). Immediately afterwards, President Nixon tried to impose wage and price controls to fight inflation, and attempted to enact a 10% tariff, but the economy readjusted naturally but slowly (Eichengreen, 2011). The U.S. also imposed a 10% fee on gold convertibility, and had it not taken these steps, it may have run dry on gold reserves. In 1973, the U.S. finally changed to a floating currency with some management (Salvatore, 1996). Whether this contributed to stagflation in the 1970s would pose an interesting historical analysis.

By 1973 and the years following, many nations were using a managed float system. The 1978 Jamaica Accords recognized this but encouraged nations to choose. The current system uses more IMF special drawing right funds (SDRs), and borrowing limits have increased. In 1988, following President Ronald Reagan's policies of fiscal deficits, which require financing, the U.S. became the largest debtor nation in trade. By 1994, 178 IMF countries were using a managed float. The value of SDRs was determined by a basket of the U.S. dollar, British pound, German mark, French franc, and Japanese yen. The IMF has expanded, eased its lending rules, opened up new facilities, and expanded the amount of available credit. In 1979, the European Union formed the European Monetary System, creating a currency from a basket of European currencies. The current international system suffers from exchange rate volatility, but the switch to floats has largely reduced financial crises (Salvatore, 1996).

In terms of research questions, it is dubious whether or not the current system can sustain itself. Former Federal Reserve Chairman Alan Greenspan wrote in his 2007 book that the U.S. account trade deficit, at 6.5% of GDP and \$800 billion in 2006, was merely a larger trend toward globalization. Former President George W. Bush's Treasury Secretary Paul O'Neill said that the current account was "a meaningless concept," and "natural" given advantages in U.S. productivity. Previous Federal Reserve Chairman Ben Bernanke, in 2005, said the US borrowing binge was from a "global savings glut" from emerging Asian markets. Economists Roubini and Setser in 2004 predicted borrowing would cause a sudden meltdown, a drying of reserves. Krugman argued that the current account would shrink, around the same time of his 2008 Noble Prize. Dooley, Folkerts-Landua, and Garber, the "Deutschebank trio," said the account deficit was "just a natural consequence" of the developing world

saving in safe assets. Professor Hausman from Harvard claimed foreign holdings were larger than official estimates (Reinhart and Rogoff, 2009). If Asian nations were to quickly redeem their bonds, the results would equally harm *them*. The United States' global leadership, of using a dollar-based system, to which other countries tie to, will continue despite periodic moderate adjustments.

Throughout American history there has been a populist streak of opposing federal banks. This has ranged from the Jacksonian opposition to the national bank, started by Alexander Hamilton, to the "Know-Nothing Party" of the mid-1800s that claimed Free Masons ran banks, to the farmer populists of the late 1800s, to stark opposition to the Federal Reserve after its creation in 1913. In recent years, there has been talk of returning to some sort of gold standard, such how President Ronald Reagan administration frequently referred to the fact that all civilizations that have gone off of gold have eventually collapsed, which can hardly be true (Wanniski, 1995). President Reagan encouraged his advisers to investigate, and then Treasury Secretary Baker proposed a modified form, linking currency to 22 commodities of which gold would be one component, which was never seriously considered (Evans, 1988).

As economist Barry Eichengreen pointed out, the gold standard lengthened the Great Depression ("Gold Standard", 2013). Eichengreen's studies show that from 1929-1936, gold-block countries saw their average output fall 14%, much worse than countries that went off gold ("The gold standard revisited", 1993). Other studies, such as by Sushil Wadhvani of Goldman Sachs, have shown that countries off the gold standard recovered more quickly ("The gold standard revisited", 1993). It was Winston Churchill's decision as head of Great Britain's Exchequer, to return to a gold standard in 1925, against Keynes' advice, overvaluing the value of the pound, which was not fully understood, that unleashed a reverse multiplier of contraction (Kitson and Michie, 1993). For the U.S. or the world to return to the gold standard, similarly today, would be a titanic mistake.

Nevertheless, in August of 2011, publisher and former Republican candidate Steve Forbes predicted that the weakening of the dollar would force a return, forcing the government to live within its means. Forbes said that Fed Chairman Bernanke's policies "trash" the dollar, by looking at the increase in gold trading, or hedging, to \$1800 per ounce. But depreciation of the dollar, which is inevitable given the still very shaky U.S. economy, and the need to lower interest rates, has advantages, such as in making exports more attractive, that could reduce the account balance (Other, 1-2). Truthfully, the value of gold may be a bubble, already having corrected from these highs to \$1,243 as of April, 2016 (Shawn, 2016).

Most recently, as already mentioned, many of the last national elections' Republican presidential contenders, including Representative Ron Paul, Governor Jon Huntsman, and Speaker Newt Gingrich, all suggested returning to gold, although

once front-runner Herman Cain dissented. An organization called the APIA, a non-profit branch of Gold Standard 2012, is lobbying Congress. In May of 2011, Utah became the first state to make gold and silver coins minted by the government as legal tender, because Utah happens to have many gold mines. Meanwhile a Montana proposal to require tobacco taxes to be paid in gold was rejected, and a Georgia measure that would have required all taxes and state debt to be paid in gold and silver failed (Eichengreen, 2011). Most interesting of all is Representative Ron Paul, and his son Rand, who bases their philosophies on the Austrian school of economic thought. In particular, Ron stands by “The Road to Serfdom” by Friedrich Hayek, the 1974 Nobel Prize winner, who warned of the dangerous “tyranny” of government decision making, which leads to inflation, and government “intrusion,” taking away citizen’s freedom and power (Eichengreen, 2011).

A gold standard can in fact prevent long-term inflation, but the U.S. and world economy have not had inflation for over thirty years. While the Austrian school advanced the concept of business cycles, Hayek’s view had more to do with antipathy towards the Soviet and Nazi threats, which used gold, but actually used free market policies for economic expansion. Supporters also fail to recognize that inflation is in a way a necessary tool of the government in order to create jobs, realized simply by looking at the Philip’s Curve, the trade-off between the two. Furthermore, policies under a gold standard, as explained earlier, can lead to deflation, which hurts farmers and other union workers (Eichengreen, 2011).

The gold standard had just as many unstable booms and busts as there are now (Eichengreen, 2011), and the 19th C. booms occurred, strangely enough, with the discovery of more gold in South Africa or California (Evans, 1998). Although gold creates a greater sense of freedom, as Representative Paul noted, some government interference in the economy is necessary, which Keynes’ also showed, because supply and demand can be “sticky” and slow to adjust. Also, how many people can actually say they feel the “tyrannical” power of the Federal Reserve working, when most Americans probably do not even know how it works (Eichengreen, 2011). Contrary to the “gold-bugs” believers, economic growth would be slower. Additionally, the gold standard would be more susceptible to attacks on currency, because a government’s could appear weak, with fewer tools (“Gold Standard”, 2013).

The cons to a gold standard are much more pronounced than perceived benefits. Only some 142,000 metric tons of gold have been mined, a value of only \$6 trillion dollars compared to the U.S.’s economy of over \$13.5 trillion per year, not considering the world. While all money would not need to be backed up by gold, because investors would never redeem their dollars at once, a percentage would be required. But, overall, from whence would come the gold? Also, those countries that

have an abundance of gold mines, such as China, Australia, the U.S., South Africa, and Russia would have an unfair economic advantage, one that could hurt the U.S. strategically, especially considering China and Russia (“Gold Standard”, 2013). Monetary policy would be dependent upon the supply of gold mined. Furthermore, gold is impractical and difficult to transport, raising transportation costs, which can hamper governments responding to crises (“Gold Standard”, 2013).

Writes Eichengreen, “Most curious of all is the contention that under twenty-first-century circumstances going back to the gold standard is even possible” (Eichengreen, 2011). According to Kitson and Michie, gold “lumped together countries with different economic conditions and problems” (Kitson and Michie, 1993). As when Britain returned to it briefly in the 1920s, deciding the right amount of dollars to peg it to would be difficult: set it too high, and create the inflation that it is supposed to repeal, while set it too low, and create deflation. It would require a goldilocks decision, especially during times of financial fragility, and devaluations could rattle equity markets (Eichengreen, 2011). Today, we witness greater capital flows, and greater political pressure from groups on both sides (Schwartz, 1998).

At the end of a different work, “The Denationalization of Money,” Austrian economist Friedrich Hayek actually opposes returning to a gold standard not because of Germany, but for economic reasons, that it would result violent price fluctuations from changes in international demand and supply (Eichengreen, 2011). Had the gold regime lasted longer, it could have spelled greater worldwide income inequality, due to faster growth in stronger countries than much slower growth, deflation, and stagnation in weaker, developing countries (Kitson and Michie, 1993). At gold’s height, the private sector accounted for 90% of national income, whereas today, the public sector, with the defense industry, is one-half of national income, making the burden of economic contraction more harmful to the private sector, because it is spread out over a smaller base (Schwartz, 1998).

In *This Time is Different*, Reinhart and Rogoff point out that economic crises can happen to any country, at any time, especially if leaders assume times are different (Reinhart and Rogoff, 2006). The same arguments were made by Argentina’s currency board before its default in 2001, under a pegged system, and by the supporters of Greece’s entry into the euro before 2010, but both countries went into crisis (Eichengreen, 2011). A good suggestion would be if all countries, including America, would follow simple rules, such as balancing the budget and keeping money supply growth stable (Evans, 1998). Solving our trade deficit means correcting our budget deficit, what economist Joseph Stiglitz and others call the “twin deficit problem”, since they are related (Stiglitz, 2006). The 2016 presidential candidate Donald Trump’s assertion that the budget deficit and debt can be ameliorated through “better trade deals” runs contrary to orthodox economics, which

holds that the relationship is vice-versa since trade requires public and private financing. Trade deficits, and the jobs that are exported with it, can be corrected by ameliorating the budget deficit. Being American, with the benefits of holding the world's reserve currency, this writer is not biased, but a realist. Nations can still collaborate to form joint currency boards, as did Europe, with the euro still defying naysayers who claimed that the continent was not optimal for a unified monetary policy due to country differences.

If a new reserve currency is needed to replace the declining dollar, one might side with Stiglitz that it would not be the euro, currently risky. Greece, Spain, and Portugal still need international support. Using a basket of currencies might be best, to diversify, rather than to put all eggs in one basket. Stiglitz points out that a dual system with the euro would cause competition between the euro and dollar, increasing instability. And, it seems immoral to him that investment money is flowing from the poorest nations of the world to the wealthiest, which he says cannot be sustained. That is why countries like China are calling for reform, as their reserves lose value with dollar declination (Stiglitz, 2006).

With emerging countries claiming lack of fairness, Stiglitz notes that even Keynes theorized about a foreign reserve currency, called the "bancor." It was never implemented at Bretton Woods, perhaps because Keynes thought that surplus nations should be taxed on surpluses, the revenue to aid struggling nations. The apparent aversion is probably because it would be a tariff, or essentially a tax, on consumers. Stiglitz then suggests a system of using SDRs, and use them in a slightly different way as a new global reserve currency, which he renames "global greenbacks." Even investor George Soros praised the idea, and suggested trying it for one year. To this author, it seems that the opposite of the gold standard, because money would be flowing, even more-so than now. Where the money come from? But, Stiglitz says more reserves would go to the emerging world to help fight poverty and environmental harms (Stiglitz, 2006).

Continuing with our question posing, in the future, will China replace the United States as the global power, and if so, will this lead to a change in currencies and reserve currencies? During the 1990s, these questions seemed unlikely. In 2000, Asian countries banded together to form the Chiang Mai Initiative, to exchange reserves between themselves (Stiglitz, 2006). In 2001, China was "[s]o desperate that they joined a capitalist world order, controlled by the United States and the Bretton Woods system" (Beeson, 2009). Today, it is reasonable for myriad reasons. China is bailing out troubled U.S. companies, and financing the U.S. debt, despite its own debt, and it is practicing "state capitalism," enabling it to become an economic power. China supplies the U.S. with an abundance of exports, leading to

the U.S. trade deficit, and has amassed a wealth of foreign currency reserves (Beeson, 2009).

The U.S. still holds a “hegemonic’ position,” but this depends not only on military but material dominance. China’s entry into the WTO, forcing it to abide by Western rules, was a victory for the U.S. But, China now has the most foreign exchange reserves in the world, over \$1.5 trillion dollars. It does not face the liquidity trap problems that Japan did previously, or at least not yet. Any change in Chinese policies could cause a collapse of the U.S. currency and imports. Still, China is discovering owning U.S. currency is risky, because of recent declines in the dollar, making its holdings less valuable (Beeson, 2009). China continues to publically support the dollar, while privately moving into other currencies like the euro. Since 2005, China has moved one-quarter of reserves out of dollars. The Chinese are changing from passive to active investors, despite corruption, realizing that they need to diversify (Stiglitz, 2006). China’s investment bank and high speed rail seem promising, while America’s infrastructure bank has come under criticism from the “right” for choosing “winners and losers.”

China is the world’s largest exporter, largest creditor, and by some standards, the largest economy. Will it also have the world’s reserve currency, the yuan? Some claim that just as the U.S. dollar replaced the British pound, the yuan could replace the dollar. At the 2008 G-20 Summit (Group of ...), President Hu Jintao responded to financial crises, calling for a “new international financial order that is fair, just, inclusive, and orderly” (Mallaby and Wethington, 2012). China began to push for its currency use in international trade, swaps between banks, and banks and bond issuances in Hong Kong. It is pursuing currency swaps that allow for trading in yuan in the future. The yuan is already accepted as fiat currency in Mongolia, Pakistan, Thailand, and Vietnam. China thereby called for the yuan included in the basket of currencies that make up the IMF’s SDR’s, the IMF’s reserve currency. The nation has plans for Shanghai to become a financial metropolis by 2020. The dollar has lost value, one-quarter since 1973, and four-fifths in its purchasing power, and recently, China has been angered by U.S. quantitative easing, further weakening its reserves, and Congress’ gridlock crises (Mallaby and Wethington, 2012).

Although people assume rising power means internationalization of currency, this has not always been so historically. The United States, Germany, and Japan were all skeptical of using their currencies upon their rise to power. The first concern is competitiveness: when foreigners buy a currency, it appreciates the value, which hurts exports, competitively. Second, a nation’s financial system must be ready for the change. The recent financial crisis resulted in a 2009 decline in demand from Europe and the U.S., and China’s growth rate fell from 10% to 6.2%. China had

bought 7% of the bonds from government lenders like Fannie and Freddie (Mallaby and Wethington, 2012).

The Chinese central bank director has called on greater use of SDR instead of the dollar. Other leaders called for the yuan to be added to the SDR basket. They followed French leaders from the '60s who complained of "exorbitant privilege," the ability of the U.S. to borrow limitlessly. In 2005, China stopped tying the yuan to the dollar, at 8.28 yuan per dollar, and instead tied it to a basket of currencies ("China Floats", 2005). Some in China fear too much reliance on exports, and favor encouraging more domestic consumption. Provincial governors depend on exports to create jobs, so they support a low currency value and more exporting. Some say newer capital regulations are needed, while others support the current state-controlled banking system. Before a currency can be internationalized, a nation needs well-funded and regulated banks and bond markets to absorb swings. Financial systems need to accommodate a myriad of investors, with different time horizons and goals, before it is safe to open to capital flow. China is divided over this between traditionalists and reformers. In 2008, China did start swap financial agreements with 13 countries, but it was mostly symbolic (Mallaby and Wethington, 2012).

To the contrary, however, in 2009, China allowed five provinces to trade with Hong Kong in yuan on a trial basis, which was expanded to 20 regions in 2010. Believing that China's currency will rise against the dollar, any yuan that reach Hong Kong were quickly bought by foreign investors. The yuan in Hong Kong are called CNH, while the mainstream currency is CNY. Chinese currency was being stored, essentially, in Hong Kong, not what the Chinese leaders wanted (Mallaby and Wethington, 2012). The Hong Kong trade is currently relatively small, but historically, remittances from Hong Kong have aided in Chinese growth (Romer, '93). Experts laid out a complex change process, with increased demand in the yuan mostly from East Asian markets. Hong Kong and Taiwan have different systems, but these were able to service as small testing grounds for the mainland. This type of gradual approach posed problems, however, with speculation in the CNH, and flows to the mainland, causing noticeable inflation (Mallaby and Wethington, 2012).

In March, 2009, the Peoples' Bank of China Governor called for a momentous redrawing of the world's financial system, while another official said, "[a]ll nations must sit down to talk about a new global currency reserve system" (Cheng, 2009). In June of 2009, China purchased \$50 billion worth of SDRs, attempting to signal its intentions, following which it became the world's largest exporter (Cheng, 2009). In 2011, Nigeria agreed to convert 5-10% of assets into yuan. However, many of China's trading partners in the Middle East, from which China is receiving oil, still supported the dollar and were not keen to switching ("China looks", 2012). In April,

2012, China mildly widened the range in which it allowed the yuan to float (Chan, 2012). In May 2014, China and Russia signed a rapprochement agreement to “bypass the dollar and pay each other in domestic currencies,” a “small step,” says Professor Michael Klare, “to reduce the primacy of the dollar in international trade” (Pizzi, 2014). The use of the yuan in world trade increased from 1.39% in 2014 to 2.03% in 2015, which the U.S. led at 44.64% for the latter year, followed by the euro, German pound, Japanese yen, and Canadian dollar. Some 50% of multinational executives responded in a survey that their use of the yuan would double in five years. However, the decision to be included in the IMF’s basket occurs only every five years (Leander, 2015).

Taking proactive steps, over the last five years, China began reforming state owned enterprises, making sure that its \$7 trillion credit card payment market and cards were open to other nations, eliminating quotas (or limits) in capital markets, easing restrictions on bonds released by foreign institutions, reducing leverage (liabilities) of companies to limit risk, and standing against protectionism (Tan, 2015). “Most important,” writes *The Economist*, China has tied the yuan’s exchange rate at the start of daily trading to the preceding day’s close, not arbitrarily set by the People’s Bank (“Maiden voyage”, 1-2).

The IMF agreed in November, 2015 that the yuan was “freely usable,” such that including it in the SDR would make China a “more responsible financial power,” said New York University professor Ann Lee (“IMF approves”, 2015). The date for inclusion is now set for October 1, 2016. Still, China has taken other measures to boost its economy, which could affect the yuan, including lowering bank reserve ratios, increasing its value-added sales tax, using \$245 billion in construction stimulus, and appropriating \$15 billion for the unemployed, which has raised its budget deficit from 2.3% to 3% (Cheng, 2016). It also plans to establish a ChIPS to rival the SWIFT international transactions system (“What the IMF’s”, 2015). China in the end remains a mystery, with massive projections for growth despite rumors of internal problems and struggles. President Xi has admitted China’s poor international communications, and has embraced supply-side economics, while saying “freedom is what order is meant for, order is the guarantee of freedom,” in an attempt to return to traditional Chinese values. Whether China will pursue international integration or “parallel” development is still unclear (Cheng, 2016). Although not having yet labeled China a “currency manipulator” through the WTO, America needs to convince China that strengthening its currency would be in its own best interests, allowing its consumers to buy more and varied products. Write Mallaby and Wethington “the yuan is not going to displace the dollar anytime soon” (Mallaby and Wethington, 2012).

Concerning emerging currencies, India faces many of the same challenges with its rupee. It is a more closed society, with high tariffs, and the world's third largest GDP adjusted for Purchasing Power Parity (CIA World Factbook, 2013), but its trade is mostly in services, not manufacturing (Eichengreen *et al.*, 2010). "Internationalization" means that financial markets would be forced to become more disciplined, there would be more domestic investment, and it would encourage banking efficiency. The downsides are the same: capital flows lead to "surges" that cause cycles, creating imbalances. Without financial controls, banks may face adverse selection and moral hazard. Both China and India, albeit large trading partners, are in competition for foreign direct investment (Gupta and Sathye, 2005). Getting back to the possibility of a global fiat currency, an article entitled, "One world, one currency: exploring the issues" from 2006 by Martha A. Starr, says that, "if the current pace of economic and financial integration continues, a global money may emerge that is better adapted to ... production and exchange - although such a change may be a long time in coming" (Starr, 2006). It says that economists Paul Krugman and Jeffrey Sachs, are skeptical of a world currency, but other economists, like Robert Mundell and Robert Barro, view it as, "an excellent idea that would reduce the extent to which gyrating values of money upset the world economy" (Starr, 2006). Krugman calls one currency "an intellectual fad," saying, to echo Mao Tse-Tung, "let a hundred currencies bloom. Well, maybe 20 or 30" (Starr, 2006). As of 2005, 21% of currencies had an important link to the dollar, 27% were linked to the euro, and 54% were independent, including those in Brazil, China, Japan, and India, but between 1995 and 2004, 80-90% of reserves were in dollars or euros (Starr, 2006).

Starr then traces the idea of a world currency back to Keynes, who, in addition to his "bancor," suggested an "International Clearing Union" that would work as a world *central bank*. And, economist James Tobin suggested a small tax on all international transactions to generate revenues for the developing world, earning him a Nobel Prize, but which seems cumbersome. Who would be on the new bank, how it would be represented among countries? As a lender of last resort, it would have to look towards the "stability of the system as a whole, not necessarily that of a single member nation" (Starr, 2006). The process would require decades of political, economic, and financial integration, especially since the U.S. opposes change.

Another solution to pessimists might be regional currencies, such as how Iceland, with a sluggish economy, has considered switching to the Canadian dollar, which is very strong right now, particularly because of Canada's geographic proximity to America. After the Asian financial crisis in 1997, Asian countries proposed establishing an Asian Monetary Fund, although the proposal failed because the United States opposed it, believing that it would weaken the International Monetary

Fund (IMF) (Wang, 2000). Other Asian nations are starting to diversify their reserves and pegging systems. Scholar Judy Shelton suggests using "Treasury Trust Bonds" that can be redeemed in either dollars or gold, but this seems only slightly better than a gold standard (Shelton, 2012).

Bitcoins, electronic money are another, interesting alternative, especially as to whether they are each a medium of exchange, store of value, and unit of account, the last two in doubt, but they now have been recognized in some U.S. court cases, which would seem a critical step. Recall that black markets have existed since antiquity, particularly during crises. Bitcoins were indeed hacked into in 2010. Founded mysteriously around 2008, they have been accepted by Overstock.com and Microsoft online, and they already have exchange rates based on the cost of electricity needed to run a computer. Despite support from former U.S. Federal Reserve Chairman Ben Bernanke, who praised their efficiency, as well as Britain's counterpart George Osborne, it is unclear if government reserves would be used for purchasing or selling to stabilize values, as they have been banned as such by China, notwithstanding the fact that 80% of world bitcoin trade, some \$1 billion dollars and 100,000 transactions in total, come from this country (Jessup, 2011). Can it become widespread enough that its value is stable, such that there will be little arbitrage, or two separate markets? Each coin is worth very little, so it might be subject to massive inflation. However, if bitcoins remain at a fixed amount, stored in cold computers, or in a new, developing banking system, they may become the next gold standard, bad for all of the reasons discussed. Further study is needed (R.A., 2014).

3.2. Statistical regression

In the end, this author ran a simple linear regression over a 14 year period, since this is approximate the average length of trade rounds, which used percent of current reserves as the dependent, y variable, and for the x variables: gross domestic product of the currency's home country, amount of currency trade for global goods, degree of democracy of the home country as measured by the U.N.'s Human Development Index, (which was the best available going back to 1998) and financial/economic freedom as measured by the Heritage Foundation. The regression that follows is only as significant as it is because this author used the percentages of reserves, nearly 100% of the world's total, in dollars, euros, pounds, and yen, and it required many estimates, averages, and some forecasts; the euro recorded no data for 1998. Individual country regressions lack enough data for significance. Before our findings, future scholars could use a enriched model with more data, such as x variables for financial trade in currencies, foreign direct investment, population changes, distance from trading powers, trade as a % of

world trade, and stability measured by debt, beyond the scope of this economic historian or paper.

Table 1. Model of regression

F model p variable: 0.000

Observations: 23 (triennially from 1998-2013)

R-squared 0.9885

Dependent variable: global reserves as %

X variables	Coefficient	Std. Error	t	p	beta
GDP	0.2743	0.2265	1.21	0.241	.0538
Trade in Goods	0.8243	0.0464	17.75	0.000*	.9386
Democracy	-30.7561	24.56	-1.25	0.227	-0.0384
Fin/Econ Freedom	0.34107	0.1958	1.74	0.099*	0.0583
Constant	-7.4759	28.86	-0.26	0.799	0

* Significant at 10% level, at least

**Trade in goods is in fiat currency levels of the home country

4. Data analysis

The model shows, even using beta coefficients, which determine the strength of each variable compared to each other, that global trade in goods is most important in determining the currency that government reserves are held in. China's currency is being traded more in the financial sphere than for goods, the CNY becoming second in the financial trade in December, 2013 (Li, 2013). But, the CNY, or yuan, were only the 9th most widely traded in 2013 for goods (Triennial Central Bank Survey, 2013). It also shows that the importance of economic freedom of a country, for which China only scored 52.5 out of 100, and 30.0 in the financial category for 2013, in contrast to the initial presumption that financial controls can be positive, but perhaps, using another index, it would be a quadratic relationship, reducing reserves after reaching some point of excess freedom. Gross Domestic Product, by which some measures show that China has surpassed the United States, is important, but China lacks in GDP per capita, given its enormous population. The democracy index, based on the HDI, is actually negative, making this index a poor proxy.

5. Results and conclusions

The best "solution" to the east-west tussle might be what Alan Greenspan, sage one day and villain the next, who, when asked what currency to choose in a "60 Minutes" episode, pithily said: a basket of them. This is what most countries do, to an extent ("Dollar under threat", 2009). To solve America's financial crises, in 2013, American

President Barack Obama floated the idea of having the Treasury Department print a \$1 trillion dollar coin to give the Federal Reserve to cure America's deficit problems and political gridlock, similar to what happens with monetary easing, but refrained ostensibly because of constitutional conflict. The inflation would have been similar to Mr. Trump's "suggestion" of simply "printing money" to inflate the budget deficit, but again, it was not tried. Such approaches and derision weaken the view of the United States in world opinion, as similarly does China's frequent devaluation of the yuan.

The regression seems to indicate that China was able to push the yuan because its trade levels reached enormous levels, and currency is needed to intervene in markets if trade causes currency levels to move beyond managed float levels. India may very well one day become the world's GDP leader, but as it is only near 20th in the world in trade, based on China's experience, the rupee would become a reserve currency only if trade increased 18% [$757 \text{ billion} (1+g)^{10} = 4 \text{ trillion}$] each year for ten years, assuming Chinese trade stays constant, *ceteris paribus*, to reach the level at which they achieved reserve status (Export-Import Bank of India, HTDC Research). This would have to surpass China's average of 10% trade growth from the 1970s-1990s (Breslin, 1998, table 2). To reach Japan, only 1/3 of this growth would be necessary, again assuming no trade growth from the latter. Bitcoin trade would have to grow some 230% per year over the next ten years [$1 \text{ billion} (1+g)^{10} = 4 \text{ trillion}$], possibly conceivable in the computer era. Russia's ruble, ranking near the top 10 in world trade, would ostensibly fail for both democratic and freedom reasons, while Brazil suffers from corruption. As noted, the U.S. financial crisis of 2008 may have played a large role in lessening foreign confidence in its reserves, contributing to searches for a change, and vexing the east-west struggle. Further U.S. trade needs to be balanced and viewed long-term for sustainability, with carefully thought out financial regulations. Although there is a lot of sentimentality and nostalgia for another golden age, or conversely for helping the developing world at all costs, this author sees nothing wrong with the moderate status quo and with using dollars as the basis of the international system, despite the "peaceful development" in the East. Yes, I believe in a strong dollar. Going back to the start of this essay, I would not have crucified Bryan.

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