International Currency Competition: Are There Alternatives to the US Dollar?

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Outline

1) Definitions and Determinants of International Currency.

2) USD’s Role as Dominant International Currency.

3) Alternatives to USD.

4) Role of Chinese Renminbi.

5) Conclusion.
1. Definitions and Determinants of International Currency
What is an International Currency?

－ ‘An international currency is used extensively by non-residents.’

－ Avinash Persaud (2004):
  “…reserve currencies come and go. They don’t last forever. International currencies in the past have included the Chinese Liang and Greek drachma, coined in the fifth century B.C., the silver punch-marked coins of fourth century India, the Roman denari, the Byzantine solidus and Islamic dinar of the middle-ages, the Venetian ducato of the Renaissance, the seventeenth century Dutch guilder and of course, more recently, sterling and the dollar.”

－ Reserve versus International currency.
## Functions of an International currency

<table>
<thead>
<tr>
<th>Function of money:</th>
<th>Governments</th>
<th>Private actors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Store of value</strong></td>
<td>International reserve holdings</td>
<td>Currency substitution (private dollarization)</td>
</tr>
<tr>
<td><strong>Medium of exchange</strong></td>
<td>Vehicle currency for foreign exchange intervention</td>
<td>Invoicing trade and financial transactions</td>
</tr>
<tr>
<td><strong>Unit of account</strong></td>
<td>Anchor for pegging local currency</td>
<td>Denominating trade and financial transactions</td>
</tr>
</tbody>
</table>

Source: Adapted from Jeffrey Frankel, “The RMB as an International Currency,” January 12th, 2011.
International Reserve Holdings by Emerging Asia, 1990-2010

Source: Authors’ computations from CEIC database.
Network Externalities

- People use a given currency when everyone else is using it, not always because it the most “superior” - Network externalities.

- “Inertial bias” associated with network externalities.

  “(f)ormally, a good exhibits network effects if the demand for the good depends on how many other people purchase it… . If no one adopts a network good, then it has no value, so no one wants it. If there are enough adopters, then the good becomes valuable, so more adopt it—making it even more valuable.” - Hal Varian (2003)
Importance of Network Externalities

- Till the end of 19th century, Britain was the world’s leading trading nation with three-fifth of world trade invoiced and settled in Pound sterling.

- Logically, most of the holdings of foreign exchange reserves were in Pounds Sterling.

- Sterling’s share in reserve holdings stood at just under 65 per cent in 1900 more than twice the total of its nearest competitors, the French franc and the Deutsche mark, and much greater than the USD.
Importance of Network Externalities

- By WW1, US passed UK in GDP (1872), trade (1914) and net international creditor position (1914-19).

- But the USD rivalled Sterling as international currency only by mid 1920s and became dominant one by WW2.

- Creation of Fed – US regained price stability in 1920s while devastation of the other European economies as well as economic decline in UK led to USD breaking the de facto “sterling standard”.

- So dominant position takes time to be eroded. – *But how long and what are the economic factors – trade, GDP, creditor position?*
Empirical Studies on Determinants of Reserve Currencies

**Determinants (apart from thresholds):**

1. Economic Size
2. Financial Size
3. Depth of Financial markets
4. Rate of Return
5. Economic and Financial Openness

**Proxy:**

1. GDP
2. External credit position (NIIP)
3. FX turnover, Bond and Equity market capitalization
4. Inflation, L.R. depreciation
5. Trade, capital and FX controls and Financial Sector Internationalization

“Where are the diplomatic and military considerations that are bound to play a major role in shaping government choices?” (Cohen)
2. USD’s Role as Dominant International Currency
### Share of Major Currencies in Identified FX Reserves of all Central Banks: 1973 – 2011 (%)

<table>
<thead>
<tr>
<th>Year</th>
<th>U.S. Dollars</th>
<th>Pounds Sterling</th>
<th>Japanese Yen</th>
<th>Swiss Francs</th>
<th>Euros</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>90</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>2010</td>
<td>85</td>
<td>10</td>
<td>15</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>2009</td>
<td>80</td>
<td>15</td>
<td>10</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>2008</td>
<td>75</td>
<td>20</td>
<td>15</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>2007</td>
<td>70</td>
<td>25</td>
<td>15</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>2006</td>
<td>65</td>
<td>30</td>
<td>15</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>2005</td>
<td>60</td>
<td>35</td>
<td>15</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>2000</td>
<td>55</td>
<td>40</td>
<td>15</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>1995</td>
<td>50</td>
<td>45</td>
<td>15</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>1991</td>
<td>45</td>
<td>50</td>
<td>15</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>1987</td>
<td>40</td>
<td>55</td>
<td>15</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>1973</td>
<td>35</td>
<td>60</td>
<td>15</td>
<td>5</td>
<td>0</td>
</tr>
</tbody>
</table>

Notes:
2) Data prior to 1995 only available in IMF reports.
3) Data for 2011 is for the First Quarter; Share of Allocated Reserves only. Unallocated reserves refers to reserves who currency composition has not been identified.

Share of Major Currencies in Identified FX Reserves of Central Banks of Advanced Economies: 1999 – 2011 (%)

Notes:
1) Data for 2011 is for the First Quarter.
2) Share of Allocated Reserves only. Unallocated reserves refers to reserves who currency composition has not been identified.
Share of Major Currencies in Identified FX Reserves of Central Banks of Emerging Economies: 1999 – 2011 (%)

Notes:
1) Data for 2011 is for the First Quarter.
2) Share of Allocated Reserves only. Unallocated reserves refers to reserves who currency composition has not been identified.
USD Share of Allocated Reserves (%)

Source: COFER, IMF.
USD’s share of global (allocated) central bank foreign exchange reserve holdings peaked at almost 85 per cent in the early 1970s.

- Gradual decline from 70-75 per cent in 1999 to 60 per cent recently (especially among emerging markets).

- Beginning of the end of the USD supremacy as the world’s reserve currency?
  - What are the alternatives and what about network externalities?

- USD supremacy questioned again after the S&P downgrade of US Treasury Securities.
Ever since breakdown of Bretton Woods system (centered on the USD) several other occasions when sustainability of the de facto USD standard has been questioned:

- In the 1980s when Japan was a rising star.
- In the late 1990s when the Euro came into existence.
- Following the global financial crisis of 2008-09.

Each time the USD’s role as the global reserve currency has proven to be quite resilient especially as the “safe haven”

- Even post Lehman Brothers bankruptcy several investors flocked to US T-bills -- “flight to safety”.
- Greek and Euro crisis post SFR intervention (mid September, 2011).
Importance of the US Dollar in Global Transactions

- US Share of World GDP
- Sales of Debt Securities
- Cross-border Bank Loans
- Cross-border Bank Deposits
- International Reserves
- Foreign Exchange Transactions

Note: As of November 2010.
Source: Adapted from the Economist, November 2010, available at www.economist.com/node/17414511
USD still acts an exchange-rate anchor for over 60 countries (many others manage against USD) in comparison to less than 30 countries that have their currencies pegged to the Euro (including the euro members).

Source: Adapted from the Economist, August 2011, available at [www.economist.com/node/21525923](http://www.economist.com/node/21525923)
But major concerns:
- Medium and long-term decline in USD.
- Anemic growth in the US economy over the medium-term.
- Unprecedented buildup of US government debt and sustainability of policies.

- Intensified search for an alternative to the USD.

- Pro-active push by China to internationalize RMB and liberalize capital account.
USD Structural Decline

REER and NEER of the US Dollar (1970-2011)

Note: NEER/REER Narrow Indices – 27 countries;
Source: BIS Effective Exchange Rate Database.
Implications of a Depreciating USD to the US

- Boost in export competitiveness.

- Rise in net exports could not only erase mounting CAD, but also act as domestic stimulus to resuscitate a weak economy without adding to national debt.

- Little to no inflation pass-through (USD invoicing).

- Improvement in NIIP (external indebtedness) position.

- Likely greater repatriation of profits by US companies.
Implications of a Depreciating USD to R.O.W.

- Reduced margins for foreign exporters – search for an alternative invoicing currency.

- Loss of principal on USD assets – reserves and private sector. *(France and other faced “Sterling trap” in 1920s).*
Ownership of US Treasury Securities

Note: Domestic Official Holdings include federal reserve holdings and State & Local governments purchases; Domestic Private Holdings also include U.S. Savings bonds, Private, State & Local governments’ pension funds and mutual funds.
Source: US Treasury International Corporation (TIC)
Countries with Largest Holdings of Treasury Securities (As of June 2010)

### Foreign Holdings of US Treasury Securities - Emerging Asia (as of June 2010)

<table>
<thead>
<tr>
<th>Country</th>
<th>Share of Total World (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>27.22</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>3.35</td>
</tr>
<tr>
<td>India</td>
<td>0.87</td>
</tr>
<tr>
<td>Indonesia</td>
<td>0.66</td>
</tr>
<tr>
<td>Japan</td>
<td>19.58</td>
</tr>
<tr>
<td>South Korea</td>
<td>0.90</td>
</tr>
<tr>
<td>Malaysia</td>
<td>0.27</td>
</tr>
<tr>
<td>Philippines</td>
<td>0.49</td>
</tr>
<tr>
<td>Singapore</td>
<td>1.31</td>
</tr>
<tr>
<td>Taiwan</td>
<td>3.72</td>
</tr>
<tr>
<td>Thailand</td>
<td>0.87</td>
</tr>
<tr>
<td><strong>Emerging Asia</strong></td>
<td><strong>59.24</strong></td>
</tr>
<tr>
<td><strong>TOTAL WORLD</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Compiled from US Treasury Securities Database.
3. Alternatives to the USD
Percentage Share of Real World GDP: 1969-2009

Notes: Real historical GDP (2005 prices).
Euro

- International use of the Euro by central banks have remained fairly constant hovering around 25% over the last five years or so. (Not much different from aggregate share of DM and FF per Euro).

- Euro experienced dramatic expansion only in issuance of debt securities while the hold of USD is quite dominant in cross-border foreign exchange or banking transactions.

- Internationalization of Euro has been very geographically concentrated within the Eurozone region.
Euro

- Number of “structural” factors have held back the rise of the Euro as a dominant reserve currency.
  - High transaction costs (compared to the USD) due to the inability of the EMU to supply an instrument on par with the US Treasury Bill, that would have ensured liquidity and convenience.
  - Euro functioned as a “currency without a state” – No counterpart to the Federal Government in Washington.

- Onset of severe sovereign debt crisis that has engulfed the region now.
Japanese Yen

- In heyday of Japanese economy in 1970s and 1980s Yen’s share of global reserves peaked at 9 per cent in 1991 and there was a concomitant decline of the USD’s share.
  - But in 2010 the share has fallen to less than 4 per cent.

- But Yen’s global use hindered due to its underdeveloped financial markets and reluctance to internationalize.

- Mid and late 1990s - the economy stagnated and its financial sector became burdened by inefficiencies and NPLs.

- Long-term concerns: Adverse demography and high and growing debt-to-GDP ratio (internal now maybe external in future).

- Japan’s bank based financial system has precluded the country from developing as deep and liquid financial and capital markets as available in the US or Western Europe.
Special Drawing Rights (SDR)

- SDR is an international reserve asset created by the IMF to supplement existing reserves. It is valued on the basis of a basket of four currencies and can be exchanged for freely usable currencies.

- After the G20 summit in April 2009, China’s central bank Governor Zhou Xiaochuan called for a “super-sovereign reserve currency” based on the SDR floated by the IMF.

- The SDR proposal is not new, dating back to Keynes in the 1940s (“Bancor”) - a currency based on the value of 30 commodities including gold.
SDR

- At present, the magnitude of SDRs constitutes only about 5 per cent of global reserves.

- The SDR is not a “normal” currency.
  - Only central banks use SDRs to exchange claims and it is not used in transactions between the government and private sector.
  - No national constituency; central bank to back it up.

- 80 per cent of the basket that constitute the SDR is represented by the combined share of the USD and Euro.
  - Defeats the purpose of a SDR as an alternative currency.
  - Inclusion of RMB and other BRIC currencies in SDR basket will help.
The SDR is defined as Fixed Amounts of USD, EUR, GBP and JPY.
## Share of SDR: 1981-2015

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</tr>
</thead>
<tbody>
<tr>
<td>US Dollar</td>
<td>42%</td>
<td>42%</td>
<td>40%</td>
<td>39%</td>
<td>39%</td>
<td>44%</td>
<td>44%</td>
<td>41.9%</td>
</tr>
<tr>
<td>Euro</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>32%</td>
<td>31%</td>
<td>34%</td>
<td>37.4%</td>
</tr>
<tr>
<td>Japanese Yen</td>
<td>13%</td>
<td>15%</td>
<td>17%</td>
<td>18%</td>
<td>18%</td>
<td>14%</td>
<td>11%</td>
<td>9.4%</td>
</tr>
<tr>
<td>British Pound</td>
<td>13%</td>
<td>12%</td>
<td>11%</td>
<td>11%</td>
<td>11%</td>
<td>11%</td>
<td>11%</td>
<td>11.3%</td>
</tr>
<tr>
<td>German Mark</td>
<td>19%</td>
<td>19%</td>
<td>21%</td>
<td>21%</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>French Franc</td>
<td>13%</td>
<td>12%</td>
<td>11%</td>
<td>11%</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

Source: Compiled from Pacific Exchange Rates Database
Gold

- Demand for gold rising since 2009:
  - The PBoC, RBI and other Asian central banks bought gold to diversify their reserves.
  - Use as private store of value rising but limited stock and not medium of exchange.
Leading Countries with Major Gold Reserves, Aug 2011
(Gold as a % of Total Reserves of the Country)

Indian Rupee (INR)

- Daily trading of the INR stood at US$37 billion in the foreign exchange market in April 2010.

- India does not allow its currency to be used for international transactions, with Nepal and Bhutan being the only exceptions, and there remain severe restrictions for non-residents to hold INR denominated assets as well.

- India’s capital account is still relatively closed.

- Given the risk-averse nature of India’s central bank and the potential susceptibility of India’s balance of payments to volatile capital movements, the Indian authorities do not appear to harbour any obvious ambitions regarding currency internationalization on a global scale anytime soon.
4. Role of the Chinese Renminbi (RMB)
Chinese Renminbi (RMB)

- The only currency that could pose a credible long-term threat to the USD as a reserve currency is the RMB.

- Based on China’s economic prowess (current and projected).

- The Chinese economy would represent just over 18 per cent (US$ 19 trillion) of the world total in 2016 up from around 14 per cent (US$ 11 trillion) in 2011. – IMF.

- China world’s largest merchandise exporter and second largest merchandise importer (third in commercial services trade).
Chinese Renminbi (RMB)
Some central banks starting to hold RMB - E.g.. Malaysia/Nigeria.

Nigeria’s central bank plans to diversify its foreign exchange reserves away from the USD by converting a tenth of its FX reserves into RMB.

- Nigerian central bank governor Lamido Sanusi: “We are looking at anything to start with from 5 to 10 % of our reserves... (we are) not abandoning the dollar and euro.. they are going to remain an important part of our holdings.”

China encouraging bilateral swap arrangements (CMIM) in RMB and local currencies (even externally e.g. Belarus).
RMB

- Despite actual and potential economic size, some concern.

- RMB’s financial markets “immature.” Equity and bond markets underdeveloped (but growing).
  - China’s equity markets capitalization as share of world’s equity markets – 5.9 per cent.
  - China’s bond markets capitalization as share of world’s bonds markets – 2.4 per cent.

- Capital controls in China and RMB is not freely convertible.
  - Links between convertibility and internationalization?
    - Capital flows but no offshore trading / use.
    - Capital controls but offshore trading allowed.
RMB

- China has been allowing gradual capital deregulation.

- Internationalization -- Mainland is placing emphasis on Hong Kong to make it an offshore RMB trading hub since 2004.
  - Two-pronged approach of developing RMB as:
    - a unit of account for private trade transactions (invoicing and settlement);
    - investment vehicle – RMB currency deposits and RMB financial products.

- RMB deposit accounts in Hong Kong growing exponentially.
RMB

- Foreign investors allowed to invest in RMB-denominated bonds known as the "dim sum bond" in Hong Kong.

- The first RMB-dominated IPO outside mainland China opened in Hong Kong in April 2011.

- Chinese enterprises can remit RMB outside Mainland for OFDI. (Note: combination of capital a/c liberalization and internationalization)

- The number of participating banks in Hong Kong’s RMB clearing platform stood at 180 at the end of June 2011
  - Helping create a RMB payment and settlement network covering over 30 countries globally.
Increasing Importance of RMB

March 25:
China’s State Council announces goal to make Shanghai an international financial center by 2020

April 2:
President Hu Jintao questions the dollar’s role as a global reserve currency at the London G20 Summit

April 8:
The State Council announces a pilot program for using RMB as a clearance currency for foreign trade.

April 24:
China boosts its gold reserves to 1,054 tons

September 4:
China uses Yuan, not dollars, to buy up to USD 50 billion in International Monetary Fund (IMF) issued bonds

September 11:
The volume of international trade settled by the Yuan in 2009 reaches RMB 70 million.

September 28:
China begins offering Yuan-denominated government bonds for the first time in Hong Kong.

History and Possible Timeline of Future Reserve Currency Transition, 1870-2022

5. Conclusion
Eichengreen (2011) -- “the United States no longer dominates the world economy to the extent that it did in the past. It makes sense that the international monetary system should follow the global economy in becoming more multipolar. Just as the US now has to share the world stage with other economies, the dollar will have to make room for other international currencies.”

USD denominated but gradually more fragmented or multipolar system (USD, Euro, RMB maybe INR).

- Unknowns – Policy trajectories (good and bad) and alternatives.
- Inertia effects due to Network externalities -- what pace? – policy actions can slow process.
- Political and Institutional issues in China and BRICs.

Given limited good reserve assets, currency competition good for smaller Asian economies.

- Allows for diversification without liquidity trade-off.
- May ensure greater policy discipline by powers.
Thank You.