Money, Land and Housing, General Education Programme, CUHK
UGEC2910

2. How does monetary policy affect housing market?

by Dr Edward CY Yiu
Associate Professor
Dept of Geography and Resource Management, Chinese University of Hong Kong

Expected Outcomes

- Why international money?
  - Why reserve currencies are hegemonic?
  - Why reserve currencies were replaced?
  - Why currency wars?
  - $GDP = C+I+G+(X-M)$
- How does monetary policy affect housing market?

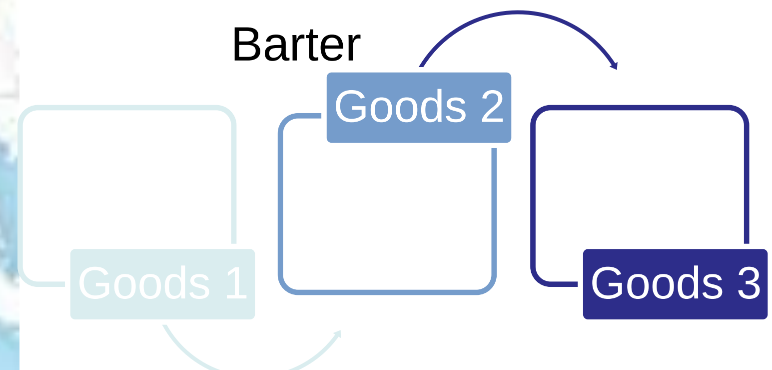
Local and International Money

Why you accept other countries' currencies?
How to fix the exchange rates?

International Trades & Money

Any recognized money for international trades?

Barter



Timeline

Period	International Money System
5th century BC	Drachma, Athens
356 – 323 BC	Gold aureus and silver denarius, Rome (debased coin)
6th – 11th century	Gold solidus coin, Byzantine (debased until 11th century)
7th – 10th century	Arabian dinar, Arab (devaluaed at the end of the 10th century)
13th century	The fiorino, Florence
15th century	Venetian ducato, Venice

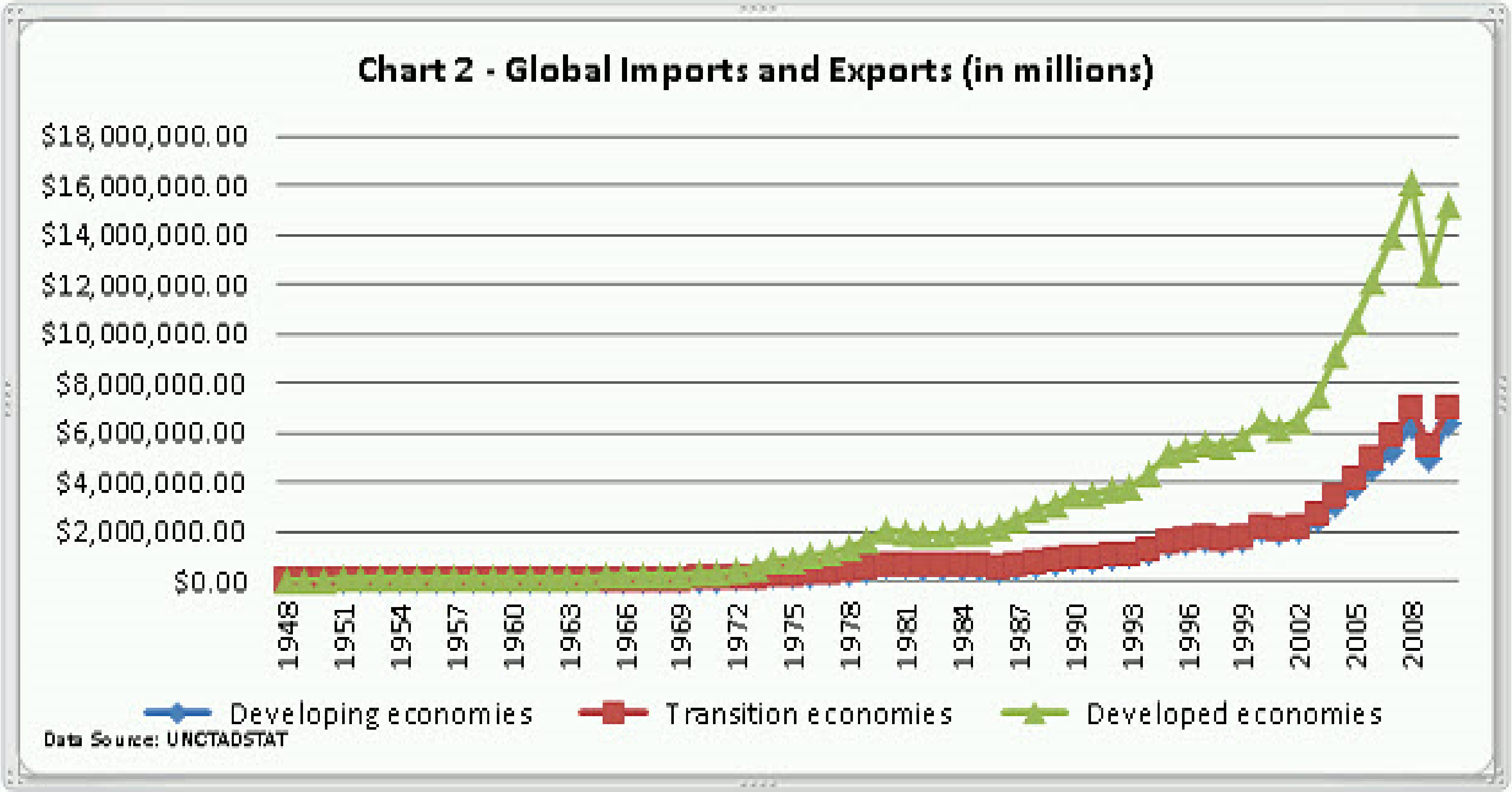
Timeline

Period	International Money System
17^{th} – 18^{th} century	The guilder reigned, Dutch – paper money began (outside China)
19^{th} century	Gold standard, England (Sterling dominated as the intl reserve)
1925	Reestablished gold standard by Britain after WWI, but at prewar levels – greatly overvalued sterling resulting in massive inflation
1930s	Great Depression – abandoned conversion of paper currency into gold

Timeline

Period	International Money System
1944	US$ became intl curr by the Bretton Woods Agreement
1971	Fiat money era – Nixon sever the link to gold, resulting in hyperinflation
1999	Euro was introduced & became the 2nd largest reserve
2007 - 2009	European Sovereign Crisis

Global Trade Amounts 1948 - 2011



http://ajed.assembly.ca.gov/committeerules

Benefits of An International Money

- Existence of a global reserve currency hegemony:
  - The willingness of foreign governments to hold dollar-denominated foreign currency securities had allowed the US to operate under prodigious national and trade deficits.
  - Because of this, the US has had de facto unlimited credit to purchase goods and services from abroad."
  - Hsu, Sara (2013) Financial Crisis, 1929 to the Present

Hegemonic Reserve Currency

http://www.bogleheads.org/forum/viewtopic.php?t=138959&f=10

Hegemonic Reserve Currency

Items	Characteristics	Risk
1	Liquid capital markets	Liquidity risk
2	A relatively stable economic regime	Economic risk
3	A sustainable political regime	Political risk
4	A mighty military force	Counterparty risk

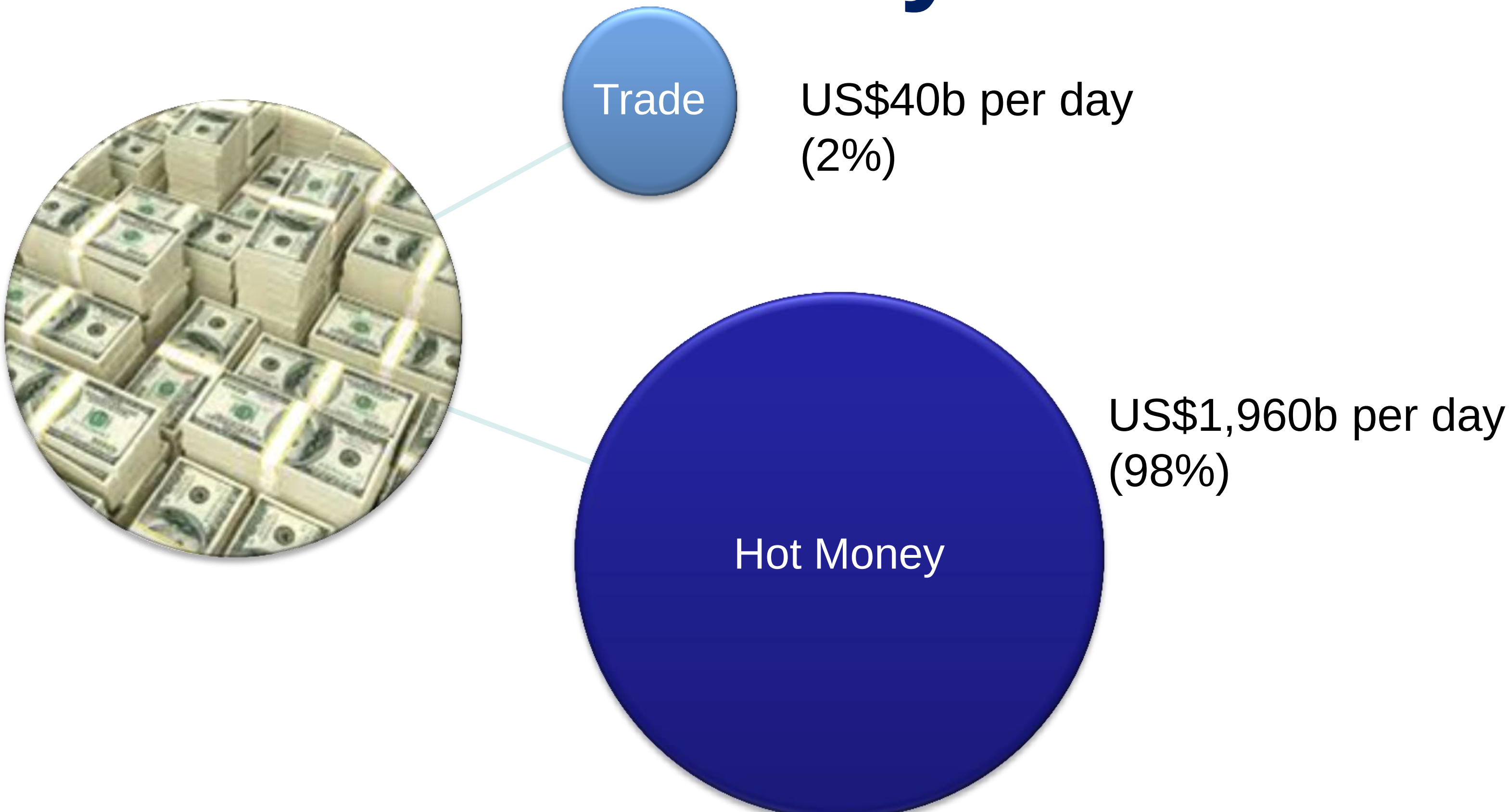
6 necessary ingredients for a dominate international currency

Items	Ingredients
1	Rapid growth in the economic and GDP per capita, promoted by robust production growth
2	A large economy, probably the world's biggest
3	Deep and broad financial markets
4	Free and open financial markets and economy
5	Lack of substitute
6	Credibility in the value of the currency

Reserve Currencies

Periods	Int'l Currency	Proportions
1860s-1914	Pound Sterling	60% of global trade
1976	US$	86.7% of reserve
2009	US$ / Euro	62.8% of reserve in US$
2009?	SDR	? http://ecyyiu.wordpress.com/2014/06/01/what-are-sdrs/

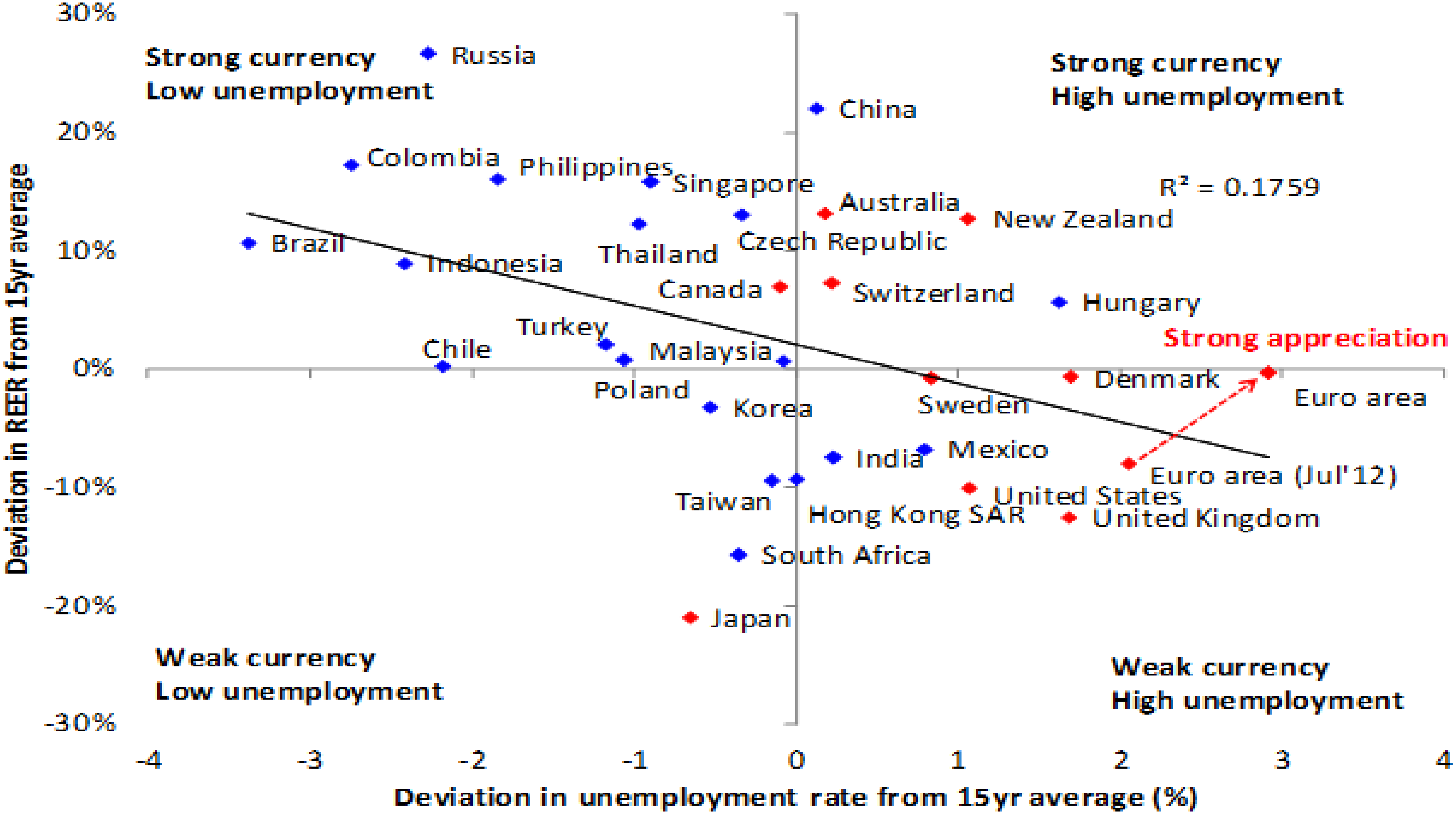
Hot Money



98% of all currency transactions are related to capital flows, hedging and other activities that are not directly linked to trade.

Source: BIS (2010) Triennial Central Bank Survey on global foreign ex trans.

Currency Wars



http://www.voxeu.org/article/currency-wars-and-euro

Timeline (Stable Periods)

Period	International Money System
1870 – 1914	Classical Gold Standard* Period
1944 - 1971	Bretton Woods Gold-backed Dollar Period
1982 - 2008	Strong Dollar Period

* Classical gold standard was firstly implemented by the Bank of England since 1694, when gold was used as the sole medium for international trades. There was virtually no inflation in this period.

Classical Gold Standard 1870-1914

Currencies were used within a country only. All international trades were transacted based on gold.
Country B could buy foreign products only when they had gold.
Country A kept the gold as reserve, and could buy foreign products in the future.
If gold supply is fixed, then product price would not be affected by monetary policy.

Gold Standard, Low Inflation

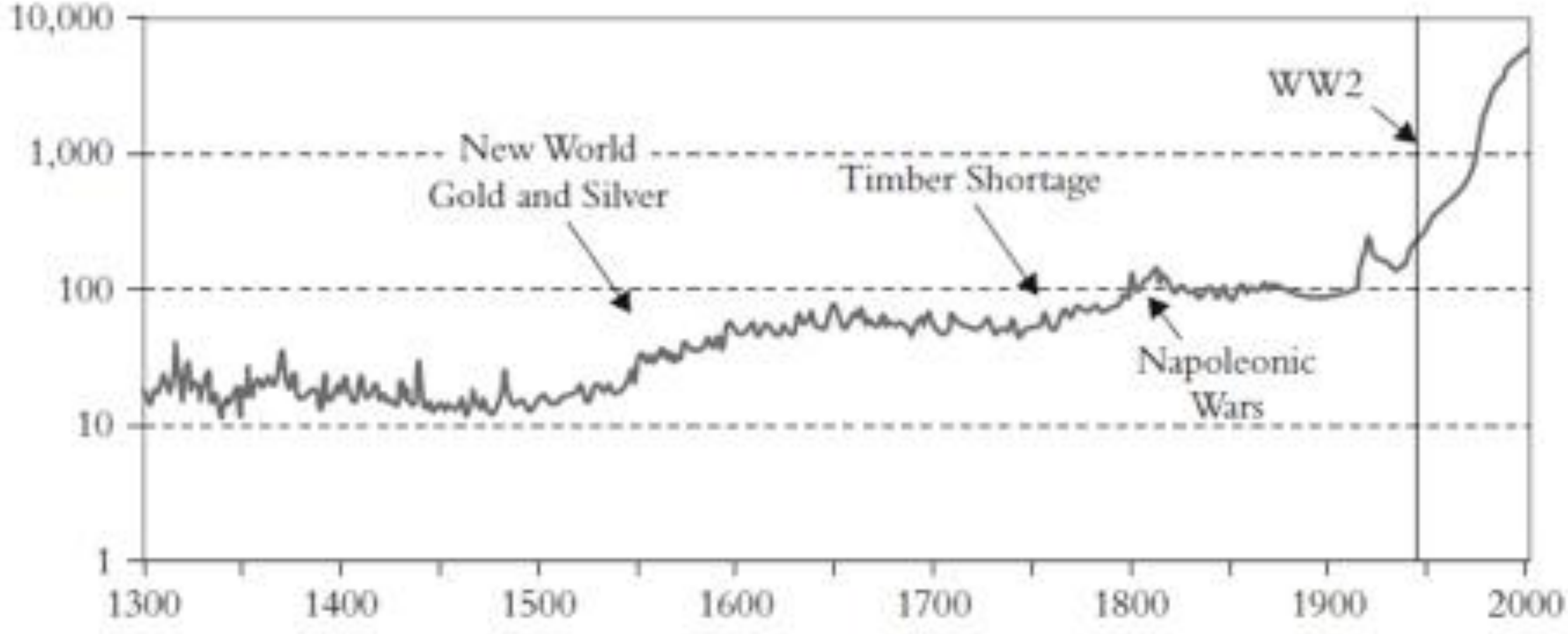


Figure 8.3 U.K. Inflation through the Ages (log-scale index)
SOURCE: Societe Generale, Phelps-Brown & Hopkins.

Timeline (Currency Wars)

Period	Currency War
1921 - 1936	Currency War 1
1967 – 1987	Currency War 2
2010 –	Currency War 3

* James Rickards (2012) Currency Wars: The Making of the Next Global Crisis, NY: Penguin.

CW1 Timeline

Period	Descriptions
1914	Nations abandoned gold standard to finance WWI by fiat money*
1922-29	Genoa Conf 1922, Dawes Plan 1924, Young Plan 1929
1925	Britain reestablished gold std at about pre-war levels
1920s-30	Beggar-thy-neighbor devaluation
1921	Weimar hyperinflation
1929	Great Depression
1933	Franklin D. Roosevelt banned the convertibility of dollar into gold by US citizens
1936	Tripartite Agreement (UK, US, France – fixed ex rates)

*Fiat money is a currency which derives its value by government regulations and laws, there is no commodity as the base of the currency.

Why Devaluation of Currency?

Growth Definition:

- GDP (Gross Domestic Products)
- C (Consumption), I (Investment), G (Government Spending),
- X (Export), M (Import)

$$C + I + G + X-M = GDP$$

When an economy is in distress:

- C is either stagnant or in decline cos unemployment and excessive debt;
- I is also largely stopped, cos expected income drops;
- G can be expanded independently (Keynesian-style economics), but
- Government income relies on taxes or borrowing, both would impose negative impacts if income drops.
- Theoretically, G cannot be expanded by printing fiat money, as inflation will be reflected in GDP.
- Thus, the promotion of exports (X) through a devalued currency becomes the growth engine of last resort.
- However, a devalued currency would also attract hot money inflows.

CW2 Timeline

Period	Descriptions
1941-1945	WWII
1944	Bretton Woods Agreement
1971	Nixon’s abandonment of Bretton Woods gold std – suspended the convertibility of dollar into gold by sovereign nations
1970s-80s	Repeated devaluation of US$ resulting in hyperinflation
1974	Paul Volcker’s tight credit – high interest rate policy -> a strong dollar period

Bretton Woods Agreement 1944

- US$ became the international currency, and is the only currency that is gold-backed (because after WWII, US owned most of the gold).
- Thus, a currency peg with the US$ is virtually equivalent to a gold standard, if US$ is truly fixed and based on gold.
- But then US$ becomes the Global Reserve Currency

CW3 Timeline

Period	Descriptions
1985 - 87	Plaza Accord 1985, Louvre Accord 1987
1990s	Bubbling Period : Japan’s lost decade, Mexico Crisis, Asian FC, Russian FC, Brazilian FC, Argentina Crisis…
1999	Euro was introduced and became the 2^{nd} largest reserve
2000s	Low interest rate period (dot-com bubble, millennium bug, 9/11)
2006	US Sub-prime Crisis
2008	Global FC, Great Recession, European Sovereginty Crisis
2009	G20 Summits
2010	Brazil financial minister Guido Mantega declared, “We are in the midst of an int’l currency war”

CW3: G20 Summits & SDR*

Date	G20 decisions
Nov. 2008	G20 Summit Washington
Apr. 2009	G20 Summit London
Sep. 2009	G20 Summit Pittsburgh - rebalancing global growth, and issued $294b SDRs
rebalance	Stronger euro, stronger yuan, weaker US$

SDR (Special Drawing Rights) is an international reserve currency issued by IMF. It is virtually a fiat international money based on IMF's rules.

Causes of Currency Wars

CW	Causes
CW1	Abandonment of the Gold Standard, Money became Fiat – resulting in hyperinflation
CW2	Abandonment of the Bretton Woods Agreement, Money became Fiat – resulting in very high inflation
CW3	Substantial increase of money supply & SDRs*, and long period of excessively low interest rate – resulting in high inflation in Emerging Countries

* “The next financial panic will be addressed with liquidity not from the central banks, but from the IMF in the form of massive printing of SDRs.” But since SDR is also a fiat money, it will fail.

Fiat Money and Asset Bubbles

When money is fiat, there is no checking balance force to contain money and credit supply. Printing too much money and/or too low interest rate would cause “too much money chasing too few commodities”, thus asset bubbles.

When official money is fiat, only assets are real and assets become unofficial money for storing wealth.

Weimar Germany

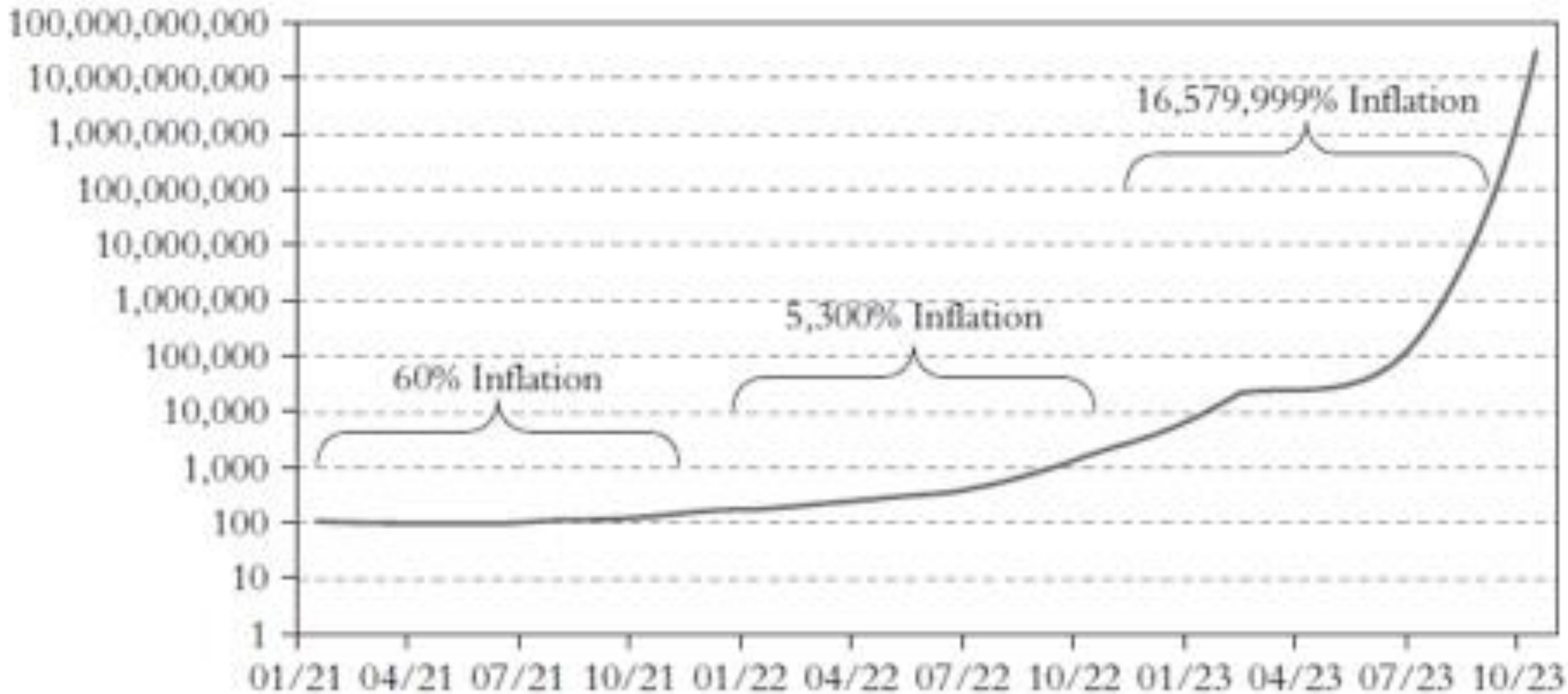


Figure 8.4 Weimar Germany CPI (log scale; inflation per annum)

SOURCE: Societe Generale, "Popular Delusions: Some Useful Things I've Learned about Germany's Hyperinflation," February 26, 2010, Bresciani-Turroni (1931), SG Cross Asset Research.

http://www.marketoracle.co.uk/Article26882.html

Hyperinflations

Table 8.1 Hyperinflations in History

Country	Year	Highest Inflation per Month %	Country	Year	Highest Inflation per Month %
Argentina	1989/90	196	Hungary	1945/46	$1.295 * 10^{16}$
Armenia	1993/94	438	Kazakhstan	1994	57
Austria	1921/22	124	Kyrgyzstan	1992	157
Azerbaijan	1991/94	118	Nicaragua	1986/89	127
Belarus	1994	53	Peru	1921/24	114
Bolivia	1984/86	120	Poland	1989/90	188
Brazil	1989/93	84	Poland	1992/94	77
Bulgaria	1997	242	Serbia	1922/24	309,000,000
China	1947/49	4,209	Soviet Union	1945/49	279
Congo (Zaire)	1991/94	225	Taiwan	1995	399
France	1789/96	143	Tajikistan	1993/96	78
Georgia	1993/94	197	Turkmenistan	1992/94	63
Germany	1920/23	29,500	Ukraine	1990	249
Greece	1942/45	11,288	Yugoslavia		59
Hungary	1923/24	82			

SOURCE: Peter Bernholz, *Monetary Regimes and Inflation: History, Economic and Political Relationships* (Edward Elgar Publishing, March 27, 2006).

Why Financial Crises are Frequent?

- Money supply is unlimited (easy to increase supply)
- Cost of borrowing is virtually zero (no cost)
- Moral hazard is well expected (no risk)
- Yet, it is a Ponzi scheme (cos resources are limited)

Why the world needs a financial crash?

- Toporowski, Jan (2010) Why the World Economy Needs a Financial Crash, London: Anthem Press.
- If rising housing price is taken for granted
- It turns the housing market into a giant Ponzi scheme
  - The condition for the realization of extraordinary capital gains by the asset rich is the willingness of those entering the market to indebt themselves more and more.
  - Those entering the market with huge debts can console themselves with the prospect of corresponding huge capital gains if they can survive the purgatory of paying most of their income in debt payments,
  - This is called “getting onto the property ladder” (上車).
  - However, when debts are too heavy, income cannot even pay the interests, then bankruptcies cannot be avoided. Housing price must drop then.

Negative Real Interest Rate

- NRIR can have the following four effects:

1. encourage borrowing through negative cost of borrowing
2. encourage spending through fear of inflation
3. encourage asset investment to hedge inflation (Hot Money Inflow)
4. encourage more spending through wealth effect and income effect

http://ecyyiu.wordpress.com/2014/07/03/how-negative-real-interest-rate-policy-changes-behavior-the-fed-2008/

Boost Consumptions by NRIR

- There are at least three ways to make people spend

1. Wealth effect,
2. Income effect and
3. Fear of Inflation.

- “The object was to create negative real rates …when real rates are negative, borrowing becomes attractive and both spending and investment grow. … this potent combination of more borrowing, which expands the money supply, and more spending, which increases velocity, would grow the economy.”

How to Make NRIR?

- Reducing the nominal interest rate
  - Low interest rate would drive currency down
  - But there is a limit, because interest rate normally cannot be lower than zero.
- Increase money supply or Quantitative Easing (QE)
  - Printing money could definitely increase inflation.
  - Printing money can depreciate the currency for boosting export.

Bernanke-Krugman-Svensson theory, or the Princeton monetary experiment

- Reducing the risk premium
  - Letting stock price and housing price go up is a simple way to instill the confidence, and increase velocity.

References

- Jen, Stephen (2013) The World's Hegemonic Reserve Currency: The US$ versus the Chinese Yuan, Ch.2 Eisen, S. (ed) Currencies after the Crash, NY: McGramHill
- Shilling, Gary (2013) The Dollar Will Remain on First, Ch.1 Eisen, S. (ed) Currencies after the Crash, NY: McGramHill
- James, Rickards (2013) Currency Wars and a Growing Role, Ch.7 Eisen, S. (ed) Currencies after the Crash, NY: McGramHill

The End

comments are welcome.

Enquiries to:

ecyyiu@cuhk.edu.hk