International Monetary System

Content

A. Bimetallism

B. The gold standard

C. Modified gold standard

D. The Bretton-Woods monetary system

E. Post Bretton-Woods monetary system

Starting points

All previous lectures BUT we have to predominantly consider:

- Development of WE – period of ups and downs
- Gresham´s law
- Equation of exchange $P*Q = M*V$
- Theory of balance of payment (BofP)
- Exchange rate regimes – fixed, floating, pegging

Function of international currency in WE

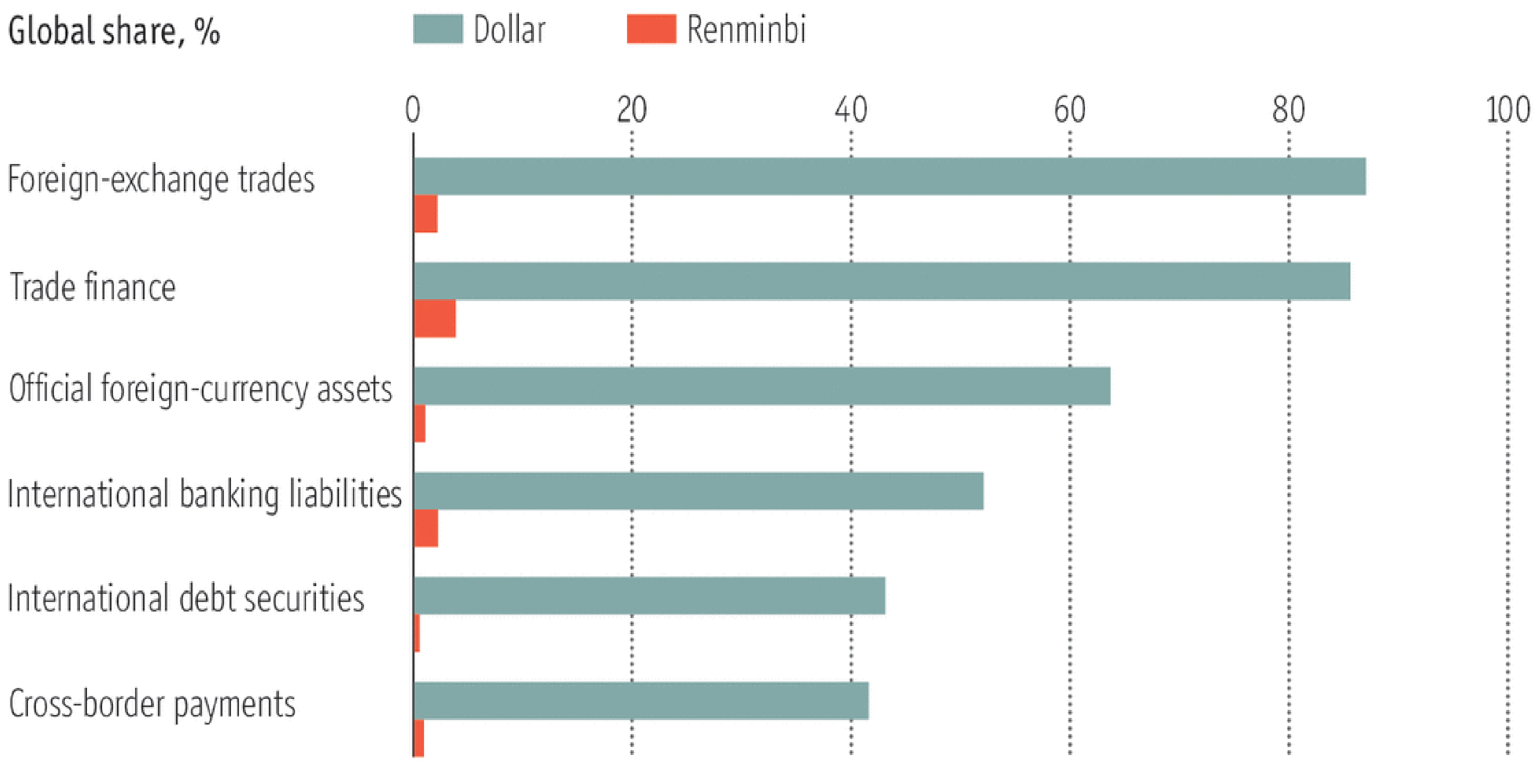
A. International trade currency

- evaluate and mediate international trade
- price (exchange rate) is formed on foreign currencies markets

B. International reserve currency

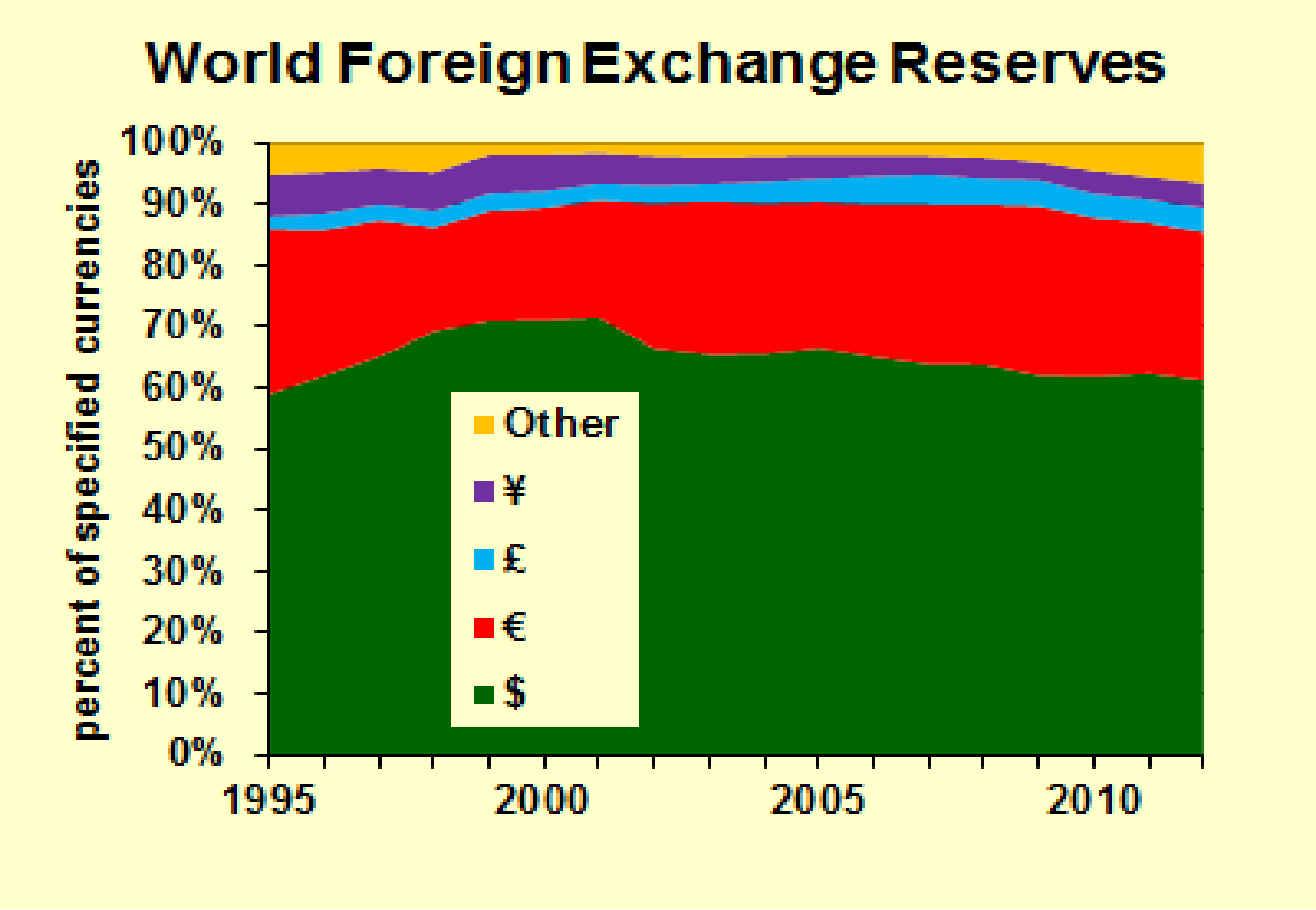
- foreign currency hold as reserve = consequence of BofP disequilibrium

Greenback v redback



Sources: Bank for International Settlements; IMF

Economist.com


World Foreign Exchange Reserves
percent of specified currencies
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
1995
2000
2005
2010
Other
¥
£
€
$

Bimetallism

A. BIMETALLISM

- simultaneous circulation of **coins from at least 2 different metals**
- **conditions for the functioning:**
  a) legally determined exchange ratio between the metals
  b) existence of authorized mint prepared to exchange the metals

- more **favourable to purchase goods with different prices**
- X ↓prices – if only one metal - ↑ AD ➔ ↑ production + if insufficient ↑ M_s (gold) ➔↓ prices = **deflation**
- **instability** - good functioning as long as the difference between official and market EX rate is small ➔ otherwise ➔….of metal with higher values = monometallism
- **abandoned** mainly in order to follow GB

The gold standard

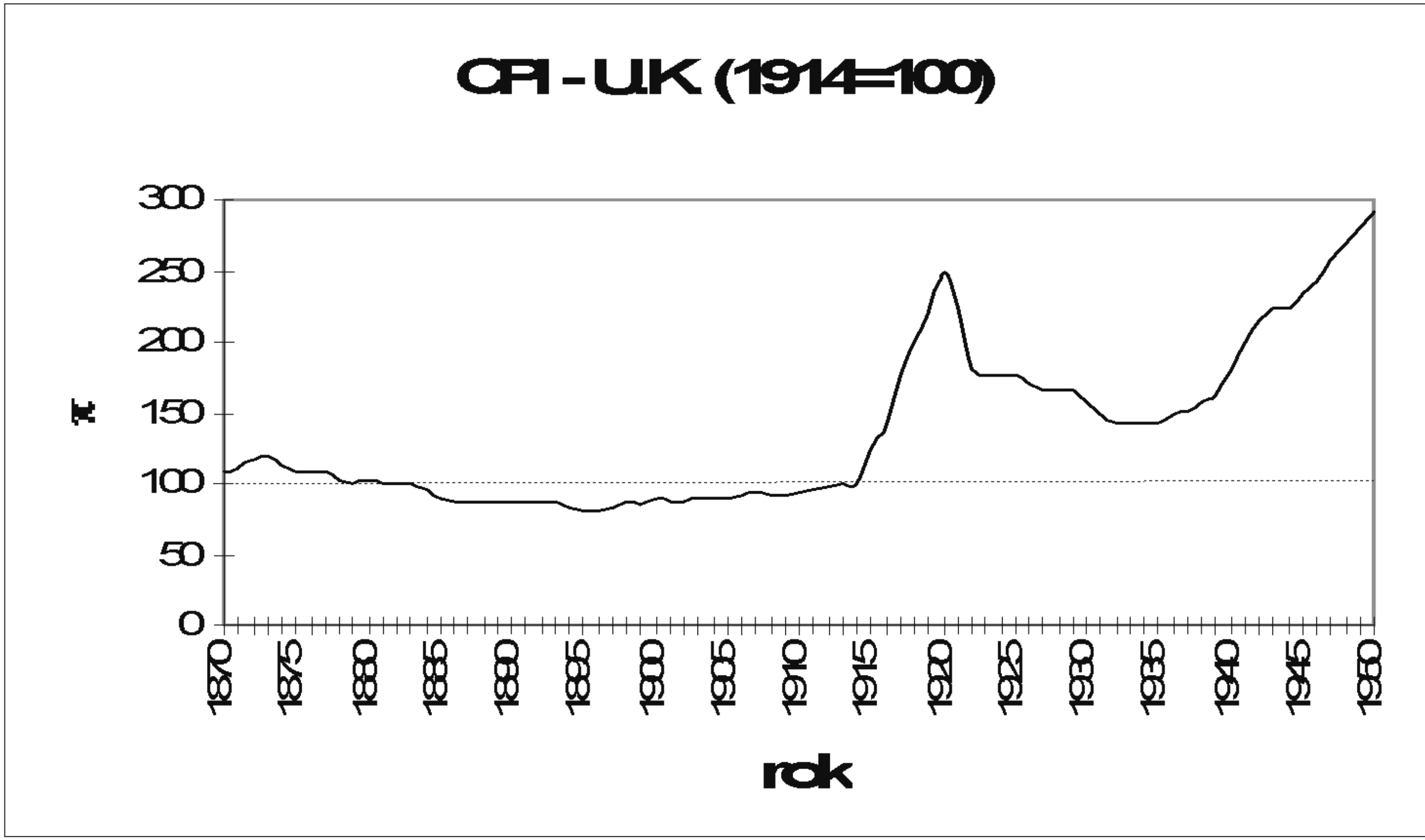
B. Gold Standard (GS)

- practically a **single currency** – (period from 1870s to WWI)
  - uncertain starting point – dates ranged from1880 to 1897
  - before WWI – 59 countries (except China)
- system with automatically reached equilibrium
- **remember:**
  - successful stable period - ↑ trade, production, INV- ↑ interdependence of WE
  - relative balance among powers
  - GB superpower prepared to take responsibility for the development of WE
- difference between **theory and practice**

- **at the beginnig of the 1970s**
  - gold (AU): GB (already since 1717)
    - Interuption during the Nepolenic Wars
  - silver (AG): DE, NL, Scandinavia, Lat. America and Orient
  - bimetallis: USA and FR
  - banknotes: Russia, AUS-HUN, IT and GR
- **Prussia – Frace War 1871**
  - DE – Goldmark + Reichsbank
  - ⇨⇩prices of AG ⇨ FR forced to adopt GS

- rich **deposits of AG** (e.g. Nevada) ⇨⇩ prices of AG ⇨ threat of Π ⇨ NL, NO, SE, DK to Au
- u**ntil 1878 GS:** GB, BE, NL, FR, DE, Skandinavia + paper money ⇨ silver out of use
- **1879** USA (formally 1900); AUS-HUN 1892; Russia nad JP 1897 ⇨ break of the new century – GS in almost all countries
- **later** AR, MX, PE, UY

Recall



CPI - U.K (1914=100)
300
250
200
150
100
50
0
1870
1875
1880
1885
1890
1895
1900
1905
1910
1915
1920
1925
1930
1935
1940
1945
1950
rok

Conditions for the functioning of GS

1. each currency had a fixed volume of AU – gold par value
2. obligation of the monetariry authority to exchange any amount of domestic currency (at a given rate) for AU
3. unlimited EX and IM of AU
4. ban on gold inflow sterilizing

any violation ➔disfunction of the system

Self-balancing mechanism – closed economy

(e.g.) technological progress in mining

⇩ MC on mining below the real price of AU

⇧ mining = ⇧ M_s = ⇧price level
BUT fixed nominal price of AU

⇩ real price of AU

⇩ profits in mining industry+ ⇧ use for nonmonetary purposes ⇨ avoid to⇧ Ms –LR stable

Mechanism of BofP balancing = Hume´s Law

BofP DEFICIT

outflow of AU from the country

=

⇩ money in circulation

=

⇩ price level (P*Q = M*V)

⇧ EX and ⇩ IM

BofP improvement

Mechanism of BofP balancing based on interest rates

BofP DEFICIT

⇩

outflow of AU from the country

⇩

⇧ interest rates

⇩

⇧ foreign INV

⇩

BofP improvement

GS in practice

- diversions between theory and practice
  - impact on the amount of money in circulation (r)
  - capital flows (sterilizing)
- WHY did it function?

a. willingness of GB to lend
   - policy of Bank of England

b. use of pound instead of AU
   - stability of the pound
   - London – financial center

c. cooperation of CBs

→ SUCCESSFUL PERIOD

Modified gold standard

C. Modified gold standard

- **after WWI**
- attempt to return to GS

BUT **problems**:

  - countries seriously weakened
  - unstable currencies
  - lack of understanding of the functioning of GS
  - nobody shielded the system
  - when and how to anchor the currencies to AU
- majority of countries in the system **at the end of 1920s**

Two forms of modified GS

A. Gold bullion standard

- limited exchange of money for AU – minimum amount
  - practically Ricardo´s ingot plan

B. Gold exchange standard

- no direct convertibility for gold
- stable exchange rates to currencies convertible into gold

Problems with modified GS

- 1. **instability of the system**
  - problems with anchor = overvalued… undervalued
  - in 1920s FR and USA accumulated AU + sterilizing ⇨ deflation
- 2. **Bank of England**
  - outflow of AU- ⇩ reserves
  - need to hold big reserves for foreign creditors
  - ⇨pound under continuous pressure
  - GB the weakest constituent of the system
- 3. **modifications** ⇨ ⇧ foreign currencies as reserves
  - ⇨ pyramidal effect = fin. crisis ⇨ shift to other countries – devaluation ⇨ ⇩ reserves

Great Depression and fin. crisis ➡ collapse in the 930s

- running away from all forms X convertibility of currencies for AU - majority of countries – floating with CB interventions
  - already in 1929 certain countries (e.g. Latin America)
- 1931 GB ceased to exchange pound for AU
  - followed by countries with closed commercial relations

Influence of USA

- crisis in USA ⇨ GS would serve as tool for recovery
  - ⇩ economy ⇨ ⇩ IM ⇨ ⇧ BofP surplus⇨ ⇧ inflow of AU ⇨ ⇧ Ms ⇨ ⇧ economy X FED concerns about inflation and sterilization of AU inflows
  - ⇨ outflow of AU in the world ⇨ ⇩ Ms ⇨ ⇩ AD ⇨ governments´ attempt to reduce IM
- 1933 USA abandoned AU convertibility
- London Conference in 1932 to solve problems of IMS BUT dissension

- **Gold Bloc**
  - countries with AU
  - FR, BE, NL + other Eur states (Czechoslovakia included)
  - deflationary policy – attempt to maintain parity BUT devaluation ⇨ 1936 end of convertibility
- **Sterling bloc**
  - GB, colonies, …
  - X deflation + for ⇧ price level
  - better results than the Gold Bloc
- **Dollar bloc**
  - USA + most countries on the am. continent
  - devaluation and later $ pegged to AU, but bound on EX of AU

The Bretton–Woods system

The beginning…

https://www.youtube.com/watch?v=GVytOtfPZe8

D. Bretton-Woods system

- **1944** – Conference in Bretton-Woods
- **motivation**: mainly to avoid repeating of the pre-WWII development
- B-W **coincide with a succesfull period** in WE, but it has not be the cause of prosperity
- **Content:**

1. **Establishment**
2. **Institutions**
   - International Monetary Fund
   - International Bank for Reconstruction and Development
3. **Functioning**

D1. Establishment

- debates already during WWI
- **White plan (USA)**
  - emphasis on free trade

    \+ creation of **Stabilization Fund of United and Associated Nations =** loans to countries which want to protect their currencies
  - \+ creation of bank for reconstruction and development
    - after-war reconstruction
    - help to DC

- **Keynes plan (GB)**
  - International compensatory chambre = supranational bank
    - multirateral compensations among CBs
    - loans to countries with deficits
    - deposits of surpluses
    - new currency – pegged to AU (inside the insitution)
  - in total higher authority + potential threat of pegging to dollar
- similar aims (partial contradictions)
  - **> compromise GB and USA (1943)** but closer to the US plan

D2. Institutions

The International Monetary Fund (IMF)

- Washington – supreme organ = **Board of Governors**
- **tasks** = to realise B-W agreements:
  - loans for covering BofP deficits
    - to everybody ➔ repayments as soon as possible
    - before lending ➔ proposals of solutions – payback period 3-5 years
  - implementation of mutual convertibility of national currencies
  - in addition
    - development of monetary cooperation
    - consulting services to member states
    - multilateral trading and payment system
    - contribution to ⇧ production and world trade
    - elimination of barriers in mutual trade

The International Bank for Reconstruction and Development (IBRD)

- same membership as IMF
- aim: to support econ. growth → long-term loans on projects (e.g, education, ecology, communication, …)

different tasks of IMF and IBRD (even though)

IMF = www.imf.org

WB = www.worldbank.org

D3. Functioning

- **The goal of the system:**
  - replace scarce gold reserves with the dollar
  - stable environment for the international trade
- **Conditions of functioning:**

a. mutual convertibility

b. fixed exchange rates (CB´s obligation to intervene)

c. USA´s obligation to exchange $ for AU at any time

d. loans in the case of problems with BofP

Convertibility

- USA pressure on GB ⇨ 1947 Ł convertible BUT outflow of $ ⇨ the end of convertibility
- majority of Eur currencies convertible after 1958
  - ⇨ real functioning of the system only after this date

Exchange rates

- after WWII – difficulties with setting parities (value, uncertainty, …) ⇨**in 1946 Ex rates set BUT not realistically** ⇨
  - 1948 – 49 I. wave of devaluations b/c strong external imbalances = lack of $
    - 1. GB ⇨ other developed countries ⇨ until 1952 BofP improvement, ⇧ AU and $ reserves
  - 1967 – II. wave - GB (large strike in GB docks + economic consequences of 6 days lasting war) - 7 developed and 17 DC
  - 1969 – III. wave FR (students´ uprisings and strikes) - 16 DC
  - 1969 autumn – revaluation of the mark

- in total **280 devaluations and 10 revaluations**
  - at least o devaluation – 96 (21 developed and 75 DC) from 109 countries, i.e. 88%
  - only 11 countries without changes of EX rate
  - need of adjustments, but unwillingness to devaluate – only under the pressure of markets (financial crisis) – politically unpopular
- ⇨ **relatively stable system** – mainly during 1959 – 67 (no changes)
  - stable X preceding and followinf period

Problems of the B-W system

- different inflation rates
  - ⇨ real appreciation (countries with higher Π) and depreciation (countries with lower Π)
  - ⇨EX of Π to countries with lower ⇧ price level
    - ⇧ prices of imported goods
    - interventions (obligation to keep fixed EX rate) – countries with lower Π had to purchase foreign currency and sell national currency = ⇧Ms
- government – limits on capital flows (gradual easing) ⇨ no free movement as before WWI ⇨ effectivity…

Pressure on $ - (many dollars in circulation)

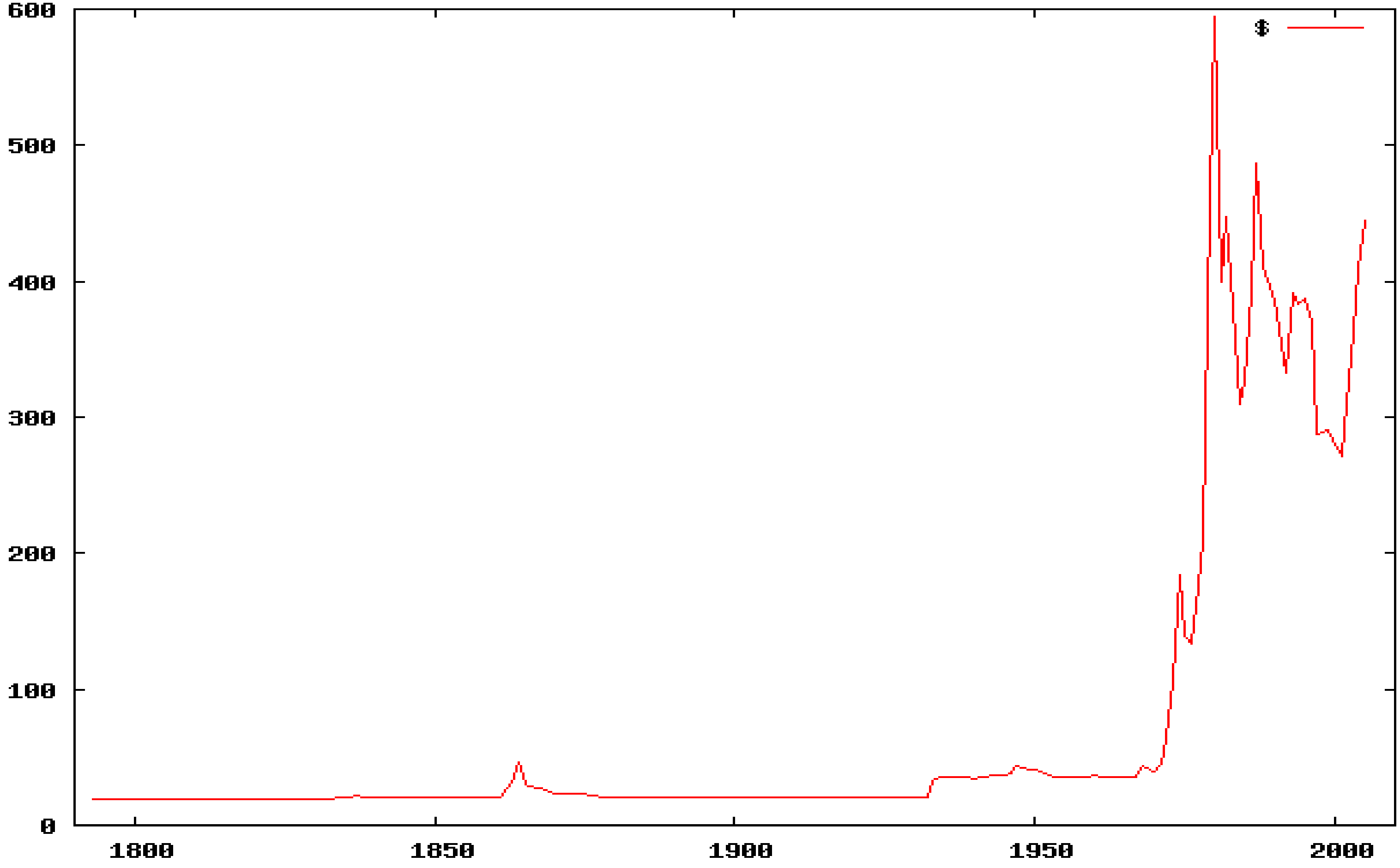
- after WWII **USA large reserves** ⇨ confidence in $
  - other CB wanted $ ⇨ USA possibility of having BofP deficit without loss of AU = national currencies used to pay foreign debts
- but in 1960s **worsening of the BofP deficit**
  - aaccumulation of $ abroad
- **⇩ gold reserves**
  - exchange of $ for AU
- ⇧Ms ⇨ **⇧ inflation**
  - expansive fiscal policy (social programs and Vietnam)
  - expansive monetary policy
- **⇨⇨ many $ in circulation** X **reserves of AU**
  - ⇨⇨ crisis of confidence in convertibility of $ for AU ⇨run to $
    - at the beginning of the 1970s only 20% $ covered by AU

Lack of dollars (X preceding)

- **in 1960s lack of $**
  - ⇧ foreign trade + $ as international reserve currency
  - ⇨ USA had to have BofP deficit
    - ⇧ $ obligations > ⇧ AU reserves
    - Triffin dilemma:
      - a. USA not issue enough $ ⇨ obstacle for the WE
      - b. issue enough SH ⇨ threat of Π + relation AU and $
- ⇨ 1969 IMF introduction of **Special Drawing Rights (SDR)** – reserve currency- late

Development of the US gold reserves (tons) and the US share in the world's gold reserves (%), 1948-1980

Gold annual average USD price 1793-2005



Collapse of the B-W system

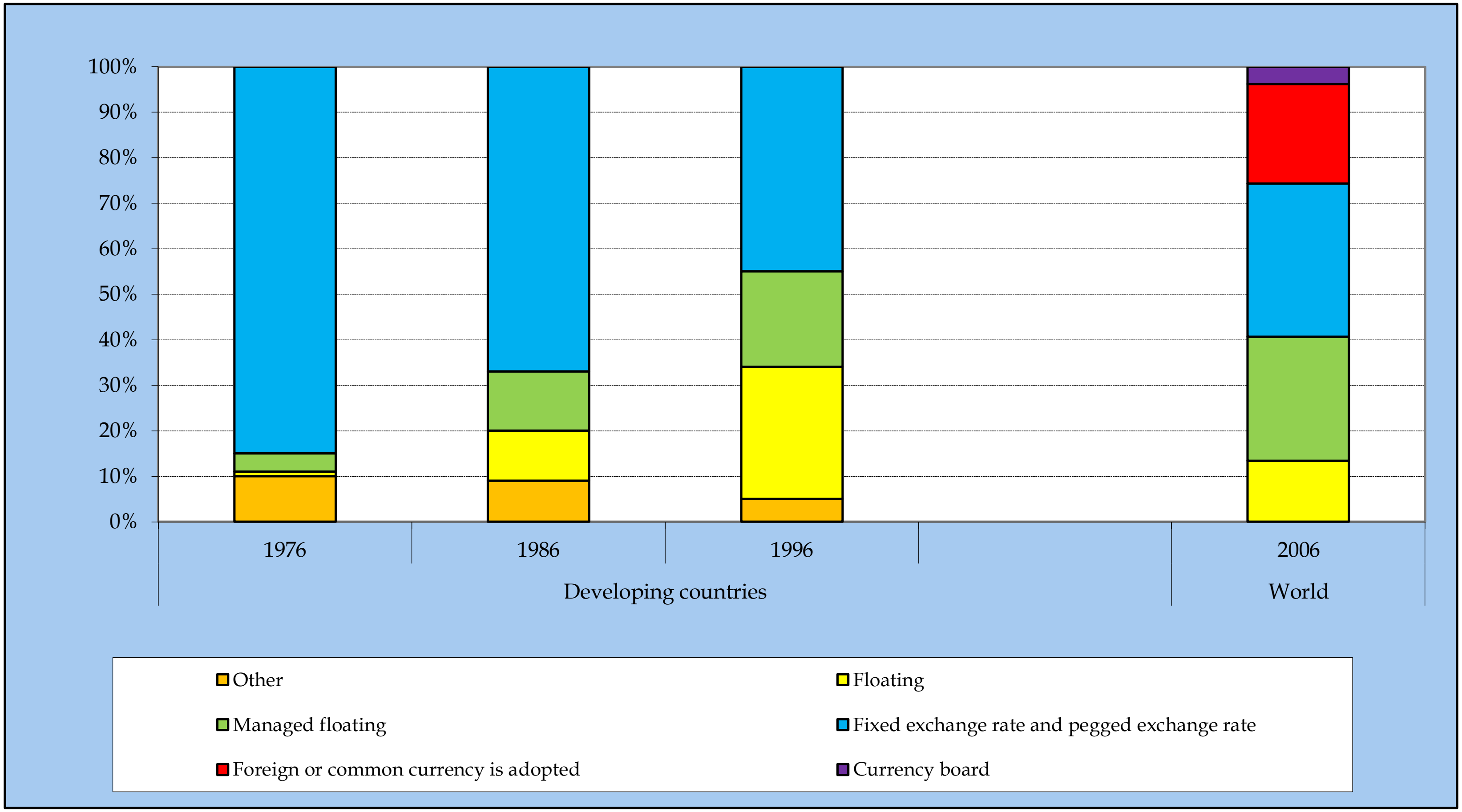
- USA not able to keep fixed $/AU ratio
- 1971 serious worsening of the US BofP deficit = outflow of $
- CBs in a large scale exchange $ for AU
- ⇨ aug. 1971 devaluation + convertibility of $ for AU abandoned
  - ⇨ gold ceased to function as monetary anchor – commodity
- ⇨⇨ after abandonement $ collapse of the system
- **the end in 1973** - IMF broadening of the currency fluctuation range to 2,25% …⇨ **floating**

Post Bretton–Woods system

E. Post Bretton-Woods system

- **detachment of currencies from comodities ➔** one of the reasons of increasing inflation in the 1970s
- ➔independent CBs
- 1976 IMF meeting in Kingston (Jamaica) ➔new system - **managed floating**
- BUT attempt to fix ➔**pegging**

Exchange rates in developing countries, 1976 - 1996 and world-wide in 2006



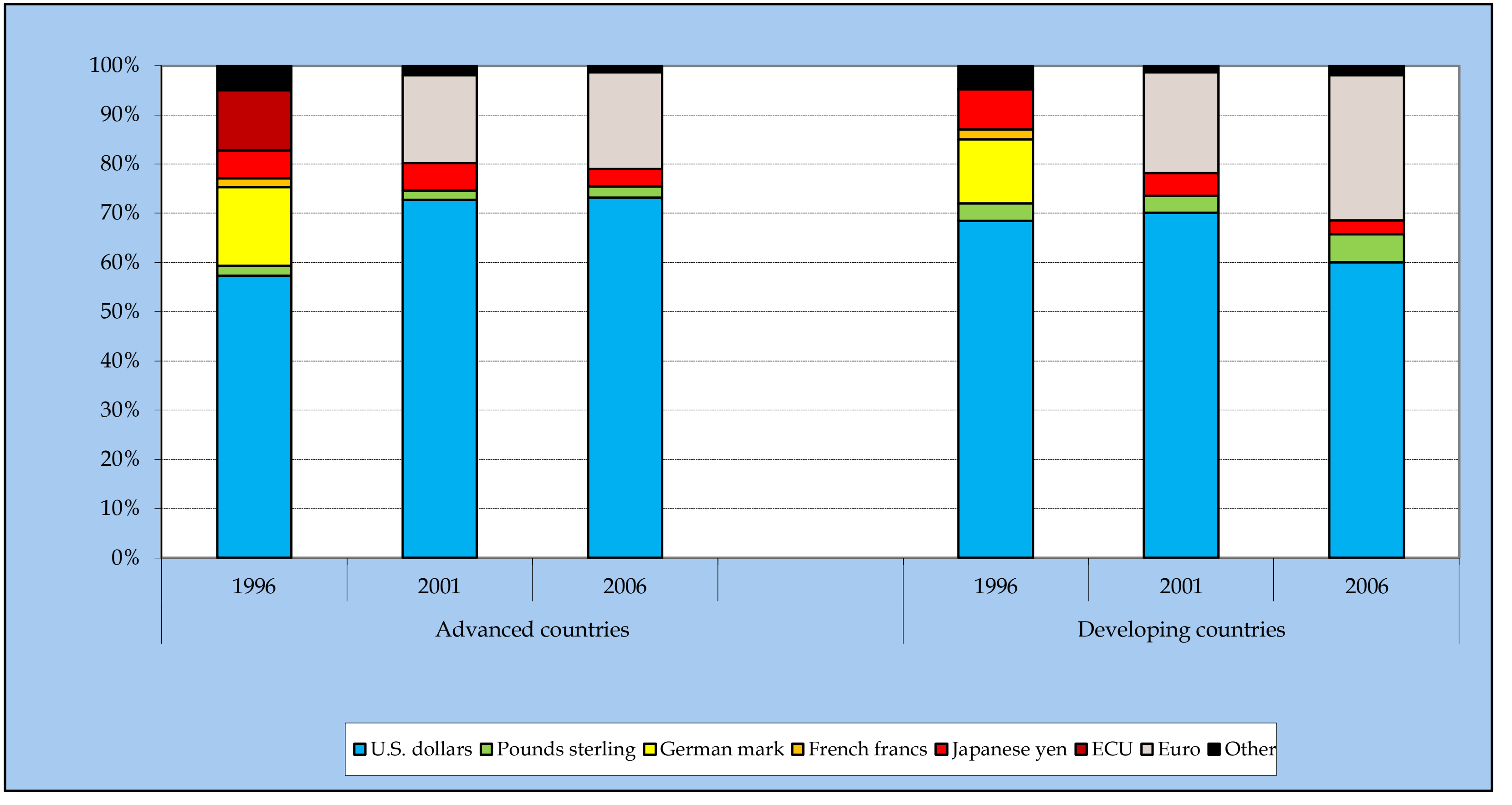
The European Monetary System

- ⇧ imbalances and problems with BofP ➔ **1979 EMS**
- **3 pillars:**
  - European Currency Unit ECU = currency basket
  - Exchange Rate Mechanism ERM = exchange rates of currencies to ECU (bands)
  - credit mechanism– to support stability of the system
- **problems** of EMS at the beginning of the **1990s**
  - GB, IT, … forced to abandon the system

The present

- **euro** – see lecture about EU
  - dollar still the most important reserve currency
- **disputes about international institutions**
  - to dissolve them (e.g. Friedman)
  - to reform them
    - return to original ideas
    - ongoing reforms in WB

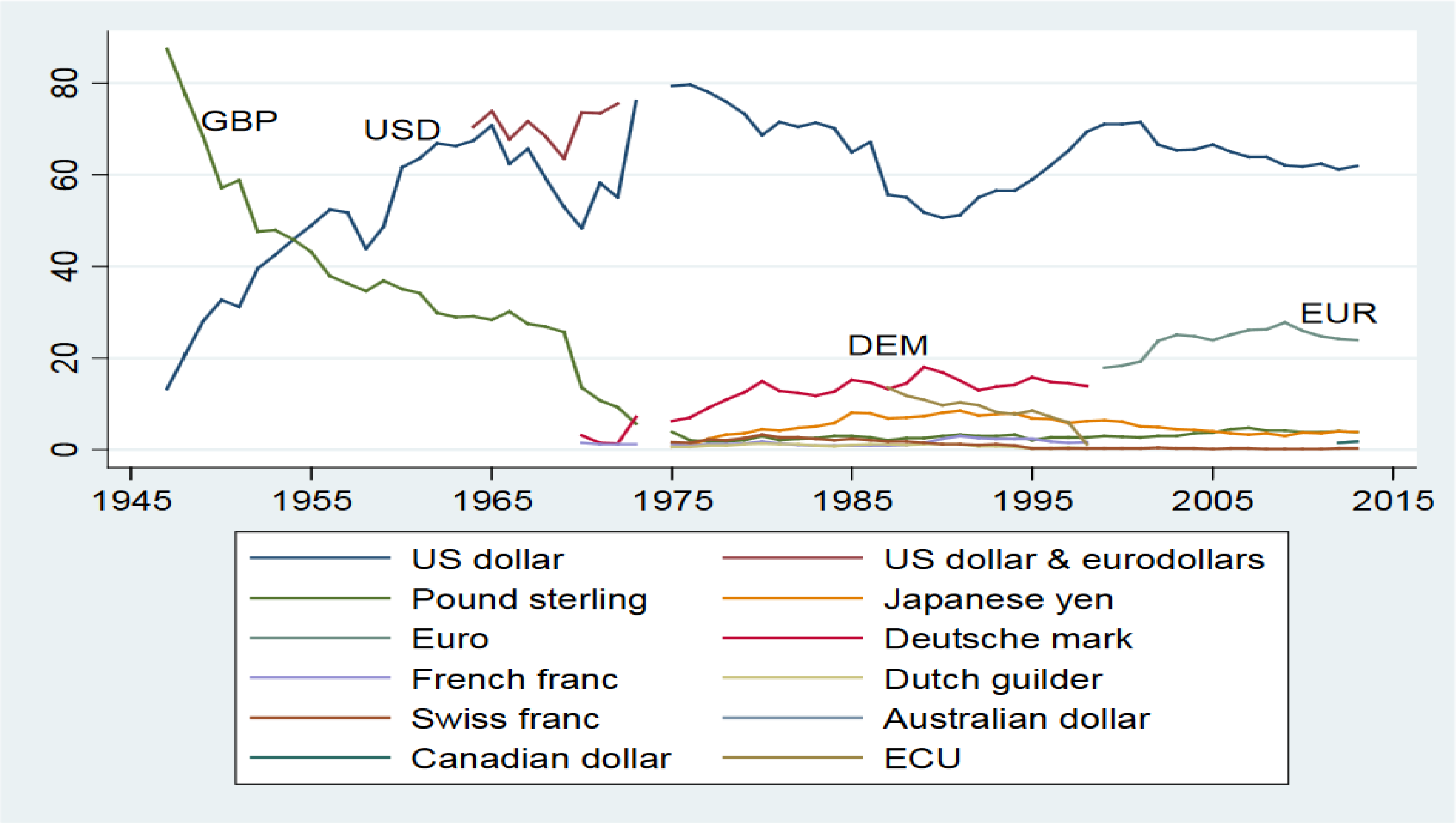
Currency share in foreign reserves



To sum up

- monetary systems are important for smooth development of WE
- performance of WE depends on the monetary systems
- afer the fall of B-S system – at the first time the international monetary system is not pegged to any commodity

Currency composition of globally disclosed foreign exchange reserves (1947-2013, in %)



Source: ECB Working Paper 1715, August 2014

Thank you for attention

The End!