Sustainability of the External Liabilities of the U.S. and the Future of the International Monetary System

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"International Monetary System Reform in the Post-crisis Era"

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Change of the international monetary regime in the 21st century?

Ⅰ, Implications of the trilemma (the impossible trinity) of the international monetary system and the regime change

Reference：

竹中正治「戦後通貨史〜不可能の三角形で読み解く国際通貨体制の変遷〜」
　　毎日新聞社　エコノミスト2010年11月臨時増刊号

Masaharu Takenaka " Brief History of the International Monetary Regime in the Post War Era"
　　Mainichi Shinbunsha "Economist" Nov.2010

Ⅱ, Sustainability of the current account deficit and the external liabilities of the US

Reference:

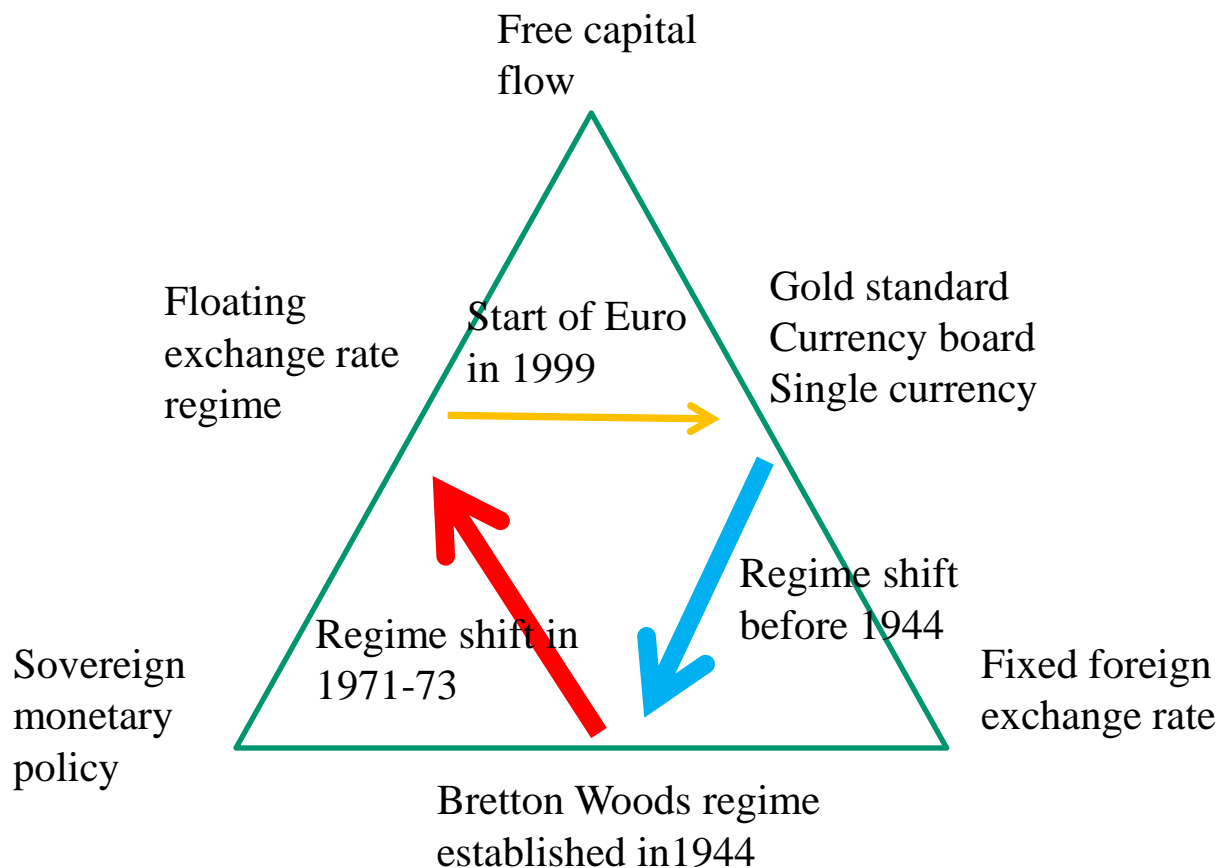竹中正治「グローバルインバランスとドル基軸通貨体制の行方」日本総合研究所 Business & Economic Review 2010年2月号

Masaharu Takenaka "The Global Imbalance and Prospects of the US Dollar as a World Key Currency "
　　Japan Research Institute, Business & Economic Review, Feb.2010

Ⅲ, What can we do? What should we do?

Ⅰ, Implication of the trilemma (the impossible trinity) of the international monetary system and the regime changes
There are two types of regime changes: one is a shift to the other side of the triangle , another is a change of key currency at the same side.

Free capital
flow

Floating
exchange rate
regime

Start of Euro
in 1999

Gold standard
Currency board
Single currency

Regime shift
before 1944

Regime shift in
1971-73

Sovereign
monetary
policy

Fixed foreign
exchange rate

Bretton Woods regime
established in1944

1,Change to the other side of the triangle from the current floating regime of major international currencies : is it realistic?　No.

2, Multi-polar key currencies: does it promise a more stable international monetary system?　 Probably no.

The UN report(2009) said:

Problems with a multiple currency reserve system

It should be emphasized that a system based on multiple, competing reserve currencies would not resolve the difficulties associated with the current system, since it would not solve the problems associated with national currencies—and, particularly, currencies from major industrial countries—being used as reserve assets.

The basic advantage of a multi-polar reserve world is, of course, that it provides room for diversification. However, **it would come at the cost of adding an additional element of instability: the exchange rate volatility among currencies used as reserve assets**. If central banks and private agents were to respond to exchange rate fluctuations by changing the composition of their international assets, this would feed into exchange rate instability.

Under these conditions, the response to the introduction of a multiple currency reserve system might be calls for a return to a fixed exchange rate arrangement. But fixing the exchange rates among major currencies in a world of free capital mobility would be a daunting task that would require policy coordination and loss of monetary policy sovereignty that seems unlikely under current political conditions.

"Report of the Commission of Experts of the Presidents of the United Nations General Assembly on Reforms of the International Monetary and Financial System"　 Sept.2009　p.114

3, Is there any candidate currency which could take over the world key currency role of the US dollar in the near future?

4, What is the qualification of a world key currency in the floating regime at the era of economic globalization ?

Three roles of currency: (1) medium of exchange, (2) unit of account, (3) store of value. A world key currency is a currency of currencies to play these 3 roles in the international transactions and markets.

However, regarding the role of store of value some diversification among the international currencies seems to be natural because there is no inconvenience as long as they are fully convertible.
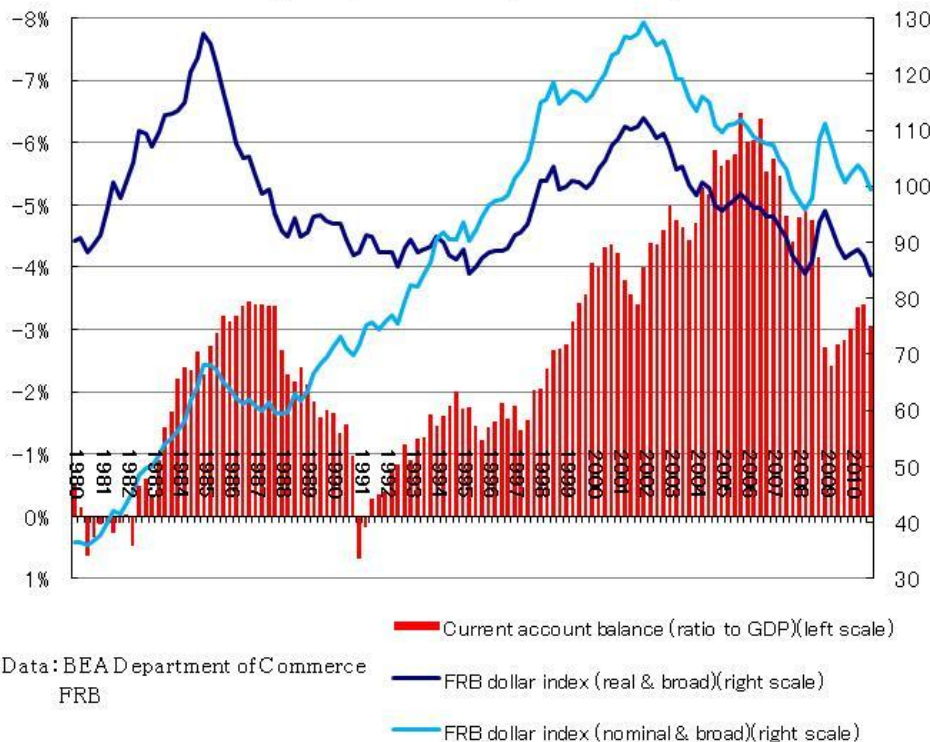
On the other hand, the positive net work externality using single key currency works very strongly on the role of (1) and (2).

The financial and capital market of a key currency nation is required to be open, huge and transparent enough to be a center of the world money flows.
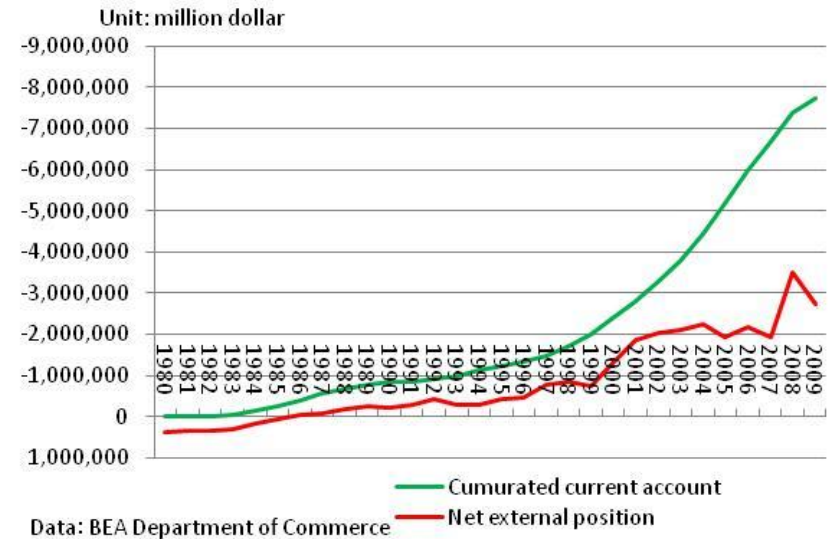
Ⅱ, Sustainability of the current account deficit
and the external liabilities of the US

Dollar crisis scenario: Chronic current account deficits of the US→ Expansion of its external liabilities → Facing the limits of foreign investors' demand for dollar → Decrease of foreign money flow to the US → Simultaneous collapse of the dollar exchange rate and the US capital markets → Tumble of the dollar from the world key currency
This scenario did not realized even in the financial crisis of 2008.

Current Account Balance of the US(ratio to GDP)
(quarterly base as of 4th quarter of 2010)

Net External Position and
Cumurated Current Account of the US

Unit: million dollar

Current account balance (ratio to GDP)(left scale)

FRB dollar index (real & broad)(right scale)

FRB dollar index (nominal & broad)(right scale)

Data: BEA Department of Commerce
FRB

Cumurated current account
Net external position

Data: BEA Department of Commerce

Positive return gap between the external assets and liabilities of the US

Investment return of the external asstes and liabilities （%、annual average）

	1989-2009	1989-1999	2000-2009
Return of the external assets ①＝②+③	9.4%	9.7%	9.0%
Receiving income return ②	5.5%	6.2%	4.6%
Return of the assets evaluation ③	3.9%	3.5%	4.4%
Price changes	1.8%	2.4%	1.1%
Foreign exchange rate changes	0.1%	−0.4%	0.6%
Other changes	2.0%	1.4%	2.7%
Cost of the external liabilities ④＝⑤＋⑥	5.3%	6.4%	4.1%
Payment income cost ⑤	4.1%	4.8%	3.3%
Cost of the liabilities evaluation ⑥	1.2%	1.6%	0.8%
Price changes	1.3%	2.4%	0.0%
Foreign exchange rate changes	0.0%	0.0%	0.1%
Other changes	−0.1%	−0.8%	0.6%
Return gap ⑦＝①-④	4.1%	3.3%	4.9%
Gap of income return ⑧＝②-⑤	1.4%	1.4%	1.3%
Gap of evaluation return ⑨＝③-⑥	2.7%	1.9%	3.6%

Data：BEA Department of Commerce as of June 2010

note：culculation methods

②＝receiving income of balance of payments／external assets（average balance of beginning and end of each year）

⑤＝payment income of balance of payments／external liabilities（average of beginning and end of each year）

③＝changes of assets evaluation／external assets at beginning of each year

⑥＝changes of liabilities evaluation／external liabilities at beginning of each year

direct investment at current cost base

Equations to calculate external assets, liabilities and net position

$D_{t+1} = B_{t+1} + A_t(1+r_a) - L_t(1+r_l)$ ①

D_{t+1} : net external position at t+1 period (a minus figure represents deficit)

d_{t+1} : D_{t+1} ／nominal GDP

B_{t+1} : trade balance (including current transfer balance) at t+1 period

(a minus figure represents deficit)

b_{t+1} : B_{t+1}／ nominal GDP

A_t : external assets at the end of t period

a_t : A_t ／ nominal GDP

L_t : external liabilities at the end of t period

l_t : L_t／ nominal GDP

r_a : total return of external assets including evaluation profit & loss

r_l : total return of external liabilities including evaluation profit and loss
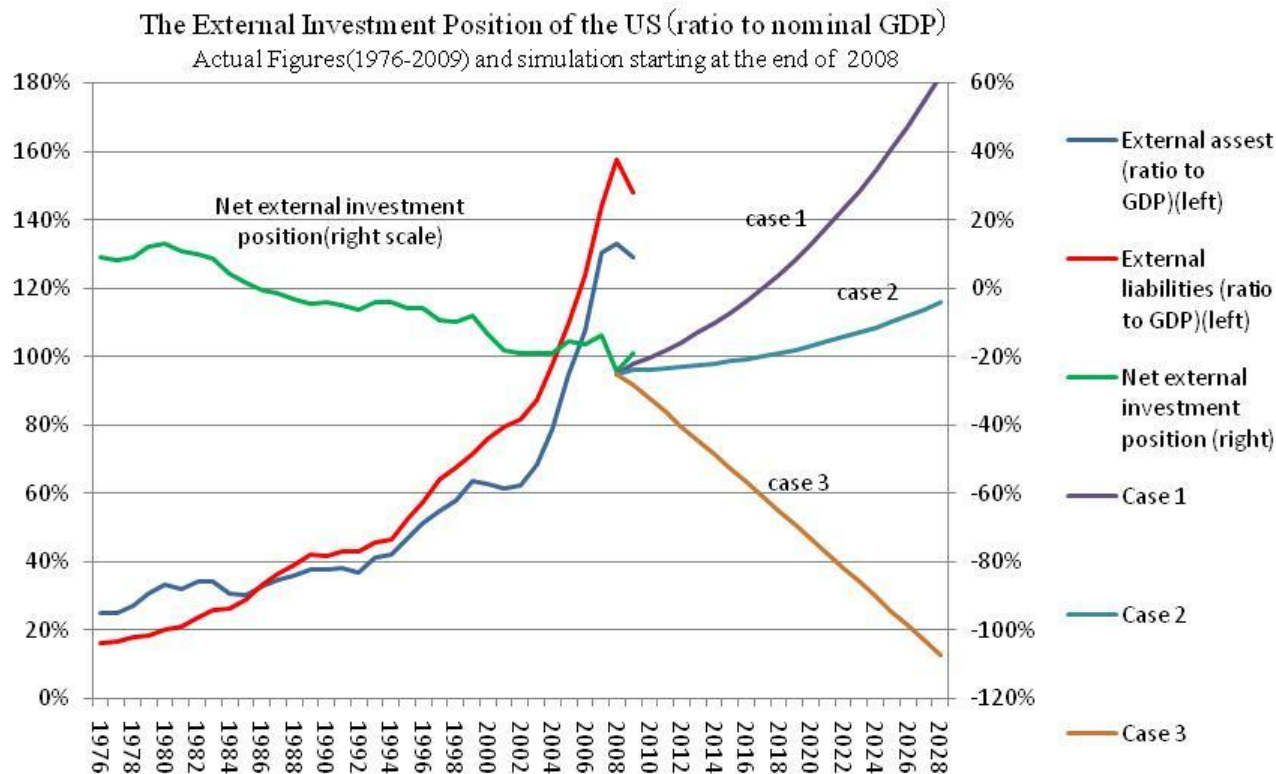
g: nominal GDP

Express ① as ratios to nominal GDP.

$d_{t+1} = b_{t+1} + \{a_t(1+r_a) - l_t(1+r_l)\}/(1+g)$ ②

Despite its persistent trade deficit, the net external liabilities of the US can be stabilized if the following conditions continue.

(1) The positive return gap between the assets and liabilities continues.
(2) The trade deficit (including the current transfer bal.) stays around - 4% as an average ratio to GDP.
(3) The external assets and liabilities continue to increase as a ratio to GDP.

The External Investment Position of the US (ratio to nominal GDP)
Actual Figures(1976-2009) and simulation starting at the end of 2008

Data: BEA Department of Commerce
The simulations are produced by Takenaka based on the data of BEA as of June 2009

| Assumptions		Case 1	Case 2	Case 3
Trade balance*(ratio to GDP)		-3.45%**	-4.00%	-4.00%
Growth of nominal GDP		5.16%**	4.75%	4.75%
Investment return of assets		9.3%**	7.00%	5.00%
Cost of liabilities		5.3%**	4.00%	5.00%
External assets (ratio to GDP)		137.7%***		
External liabilities (ratio to GDP)		161.7%***		
Net external position (ratio to GDP)		-24%***		

Data:BEA as of June 2009

*: trade balance including current transfer account

**: actual average during 1989-2008

***:actual figures as of the end of 2008

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International money flows of the US have returned to the normal mode since the mid of 2009 from the crisis mode.

Cross Border Portfolio Financial Flows of the US (long term securities)
(Unit: $million, as of Jan.2011)

inflow to the US ↑

outflow from the US ↓
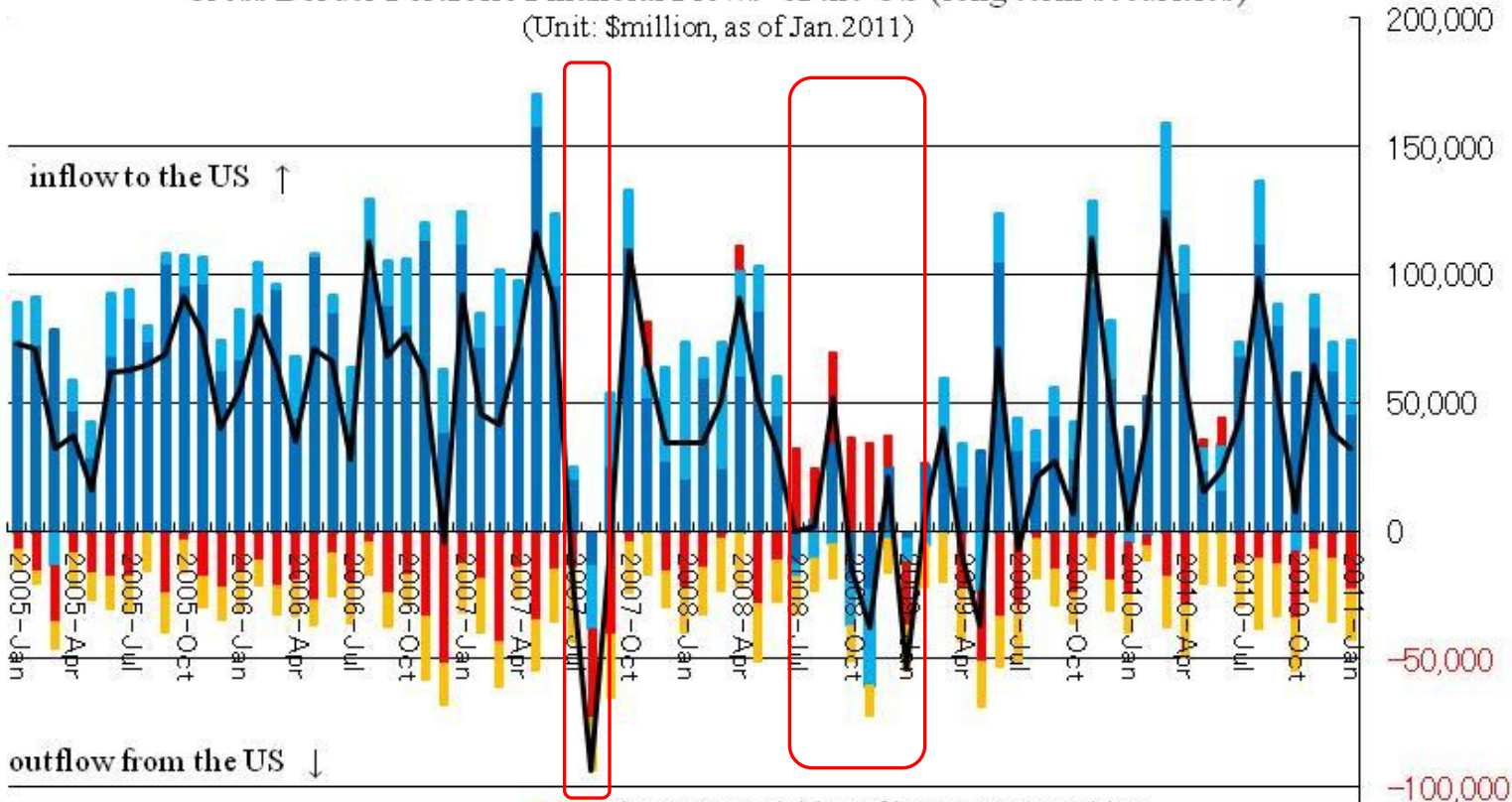
Data: TIC Treasury Department

other net acquisition of long-term securities
foreign securities net purchased by US residents
foreign officials net flow
foreign private net flow
net foreign acquisitions of long-term securities

The return gap once turned to negative in 2008 but it recovered quickly in 2009. The positive gap is expected also in 2010 (the necessary data will be released in June 2011).

Investment Returns of the External Assets and Liabilities of the US

Data: BEA Department of Commerce

Return gap

Return of the external assets
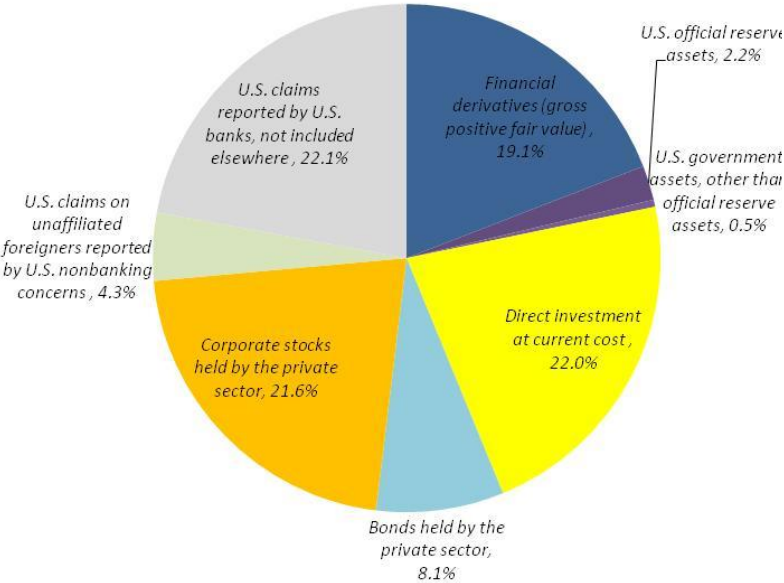
Cost of the external liabilities

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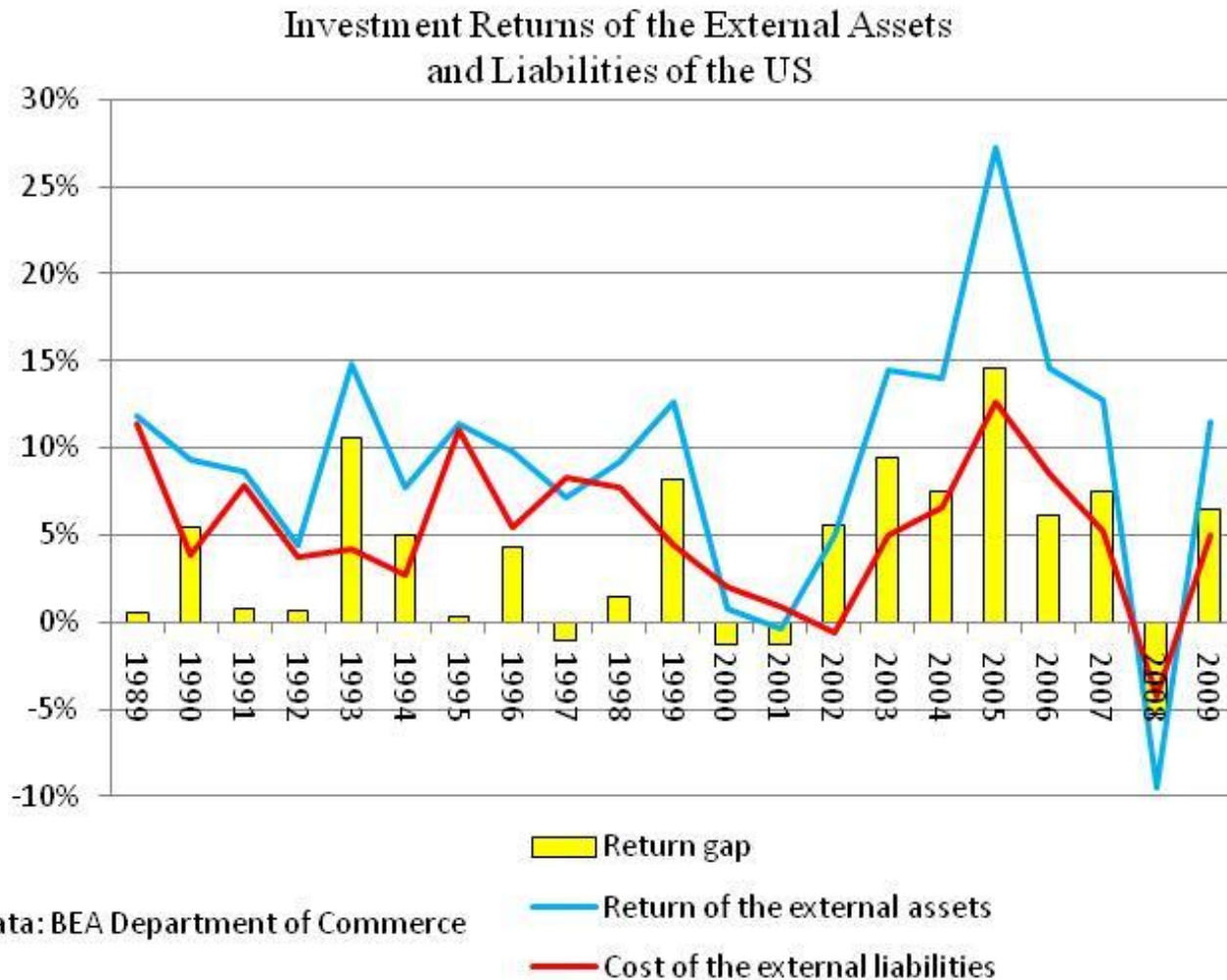
Factors for the positive return gap: (1) relatively high income return on the FDI of the US, (2) relatively high shares of FDI and equity investments in its external assets, (3) relatively high shares of bonds in its liabilities, (4) others including unspecified ones.
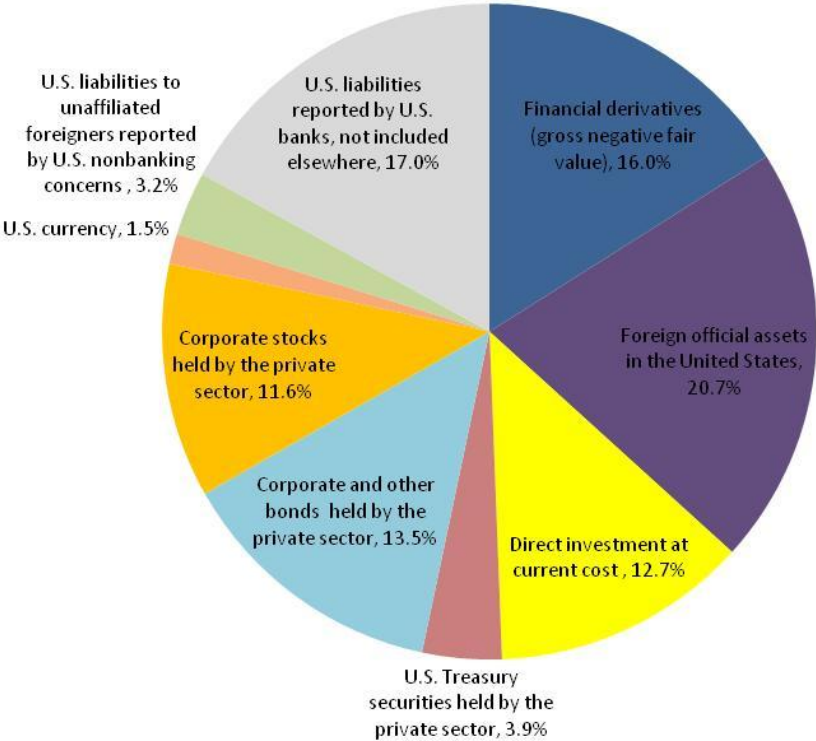
⇔Relatively high share of bonds in the external assets of Japan and China.
Nominal interest gaps between the nations are offset by exchange rate changes in a long- term under the condition of free capital flows.

US-owned assets abroad as of the end of 2007
total $17.6 trillion

U.S. claims reported by U.S. banks, not included elsewhere, 22.1%

U.S. claims on unaffiliated foreigners reported by U.S. nonbanking concerns, 4.3%

Corporate stocks held by the private sector, 21.6%

Financial derivatives (gross positive fair value), 19.1%

U.S. official reserve assets, 2.2%

U.S. government assets, other than official reserve assets, 0.5%

Direct investment at current cost, 22.0%

Bonds held by the private sector, 8.1%

Foreign-owned assets in the US as of the end of 2007
total $20.0 trillion

U.S. liabilities to unaffiliated foreigners reported by U.S. nonbanking concerns, 3.2%

U.S. currency, 1.5%

U.S. liabilities reported by U.S. banks, not included elsewhere, 17.0%

Financial derivatives (gross negative fair value), 16.0%

Foreign official assets in the United States, 20.7%

Corporate stocks held by the private sector, 11.6%

Corporate and other bonds held by the private sector, 13.5%

Direct investment at current cost, 12.7%

U.S. Treasury securities held by the private sector, 3.9%

The investment return gap of the Euro has been negative since 1981.

ECB "The International Role of The Euro" July 2010

Chart 29 Differential real yields and total returns between foreign assets and liabilities

(average percentages from 1981 to 2008)

a) Excess real yields

b) Excess real total returns (including capital gains)
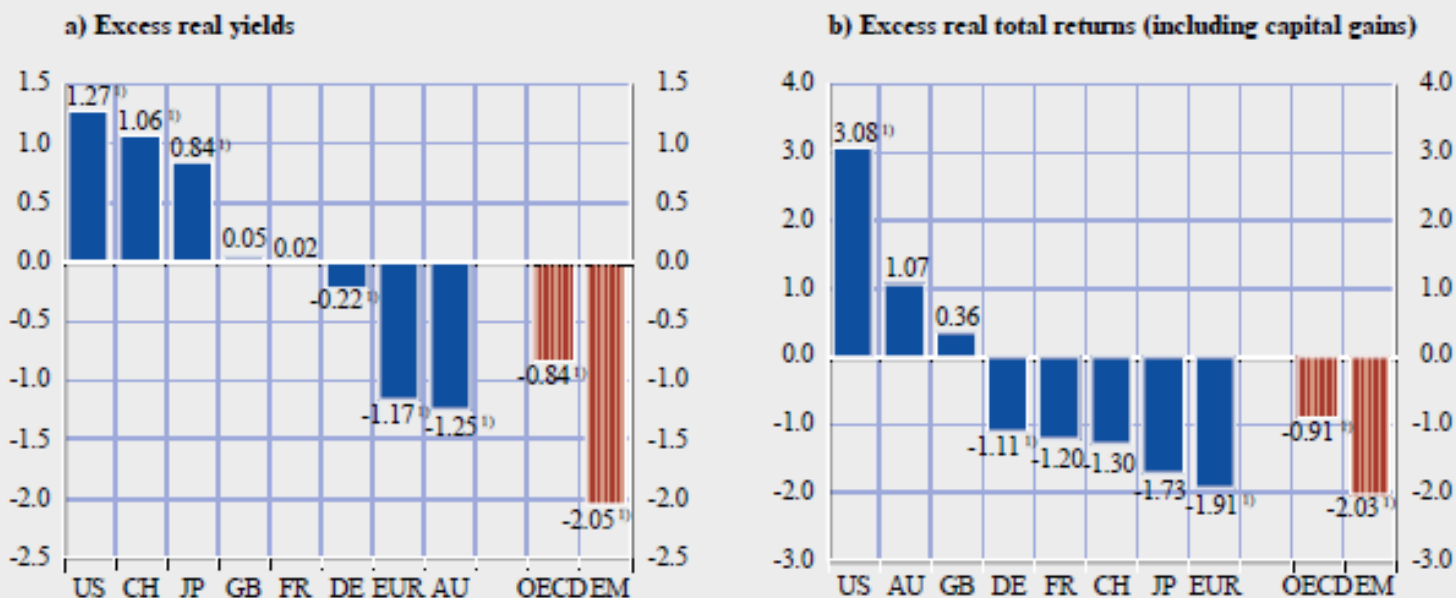
Sources: Habib (2010) based on IMF Balance of Payments Statistics and Mark-II dataset of Lane and Milesi-Ferretti (2007).
Notes: OECD and emerging markets (EM) data cover the period until 2007. For the euro area, yields and returns until 1999 are calculated as the average of those of the founding countries, including Greece and excluding Belgium and Luxembourg.
1) indicates statistical significance at the 5% level.

Ⅲ, What can we do? What should we do?

・Assumptions: there is no sign that the trend of the financial and economic globalization is going to weaken or cease even after the last financial crisis. There is no feasible alternative regime which could take over the current floater regime.

・If we think our foreign reserves should be held in SDRs, it can be done by our own decision without any international monetary reform.

　SDR is just a basket unit for accounting composed of Dollar, Euro, Yen and Sterling Ponds.

・Desirable portfolio shift of our external assets

　Sovereign approach: SWF

　Private approach: (1) improve financial and investment literacy of personal investors, (2) improve effectiveness and resilience of our financial and capital market

・Develop our financial and capital market as an international money center absorbing money from abroad and reinvesting abroad as a risk-taking money.

蛇足図表

Bubble Diagram				（%）
	(a)	(b)	(c)	(d)=(b)-(c)
	Growth of Housing Prices(annual rate)	Government Bond Yields (10 year)	Nominal GDP Growth	
	1997-2006 average	2000-2006 average	2000-2006 average	
Belgium	9.12	4.45	4.22	0.23
Germany	-0.60	4.25	2.07	2.19
Ireland	14.57	4.41	10.08	-5.67
Greece	10.22	4.67	7.10	-2.43
Spain	11.84	4.41	7.82	-3.41
France	9.67	4.35	4.06	0.29
Italy	6.52	4.57	4.02	0.54
Luxemberg	9.50	4.42	7.93	-3.51
Netherland	9.08	4.35	4.90	-0.55
Australia	0.12	4.40	3.81	0.59
Portgal	3.72	4.49	4.50	-0.02
Finland	6.50	4.38	4.50	-0.12
USA(2000-06)	11.03	4.72	5.29	-0.57
Japan(2000-09)	1.50	1.64	-0.50	2.14
China	6.60	5.89	16.60	-10.71
	(2005-10)	(Lending Rate 2004-09)	(2004-09)	
Produced by Nishimura and Takenaka based on the dataof Eurostat,ECB,IMF,				
US Department of Commerce, FRB, S&P/Case-Shiller Index, National Bureau of Statistics of China				
Japan's housing price is based on the housing price index covering used condominiums in Tokyo by IPD				

Bubble Diagram

Vertical Axis: Annual Growth of Housing Price Indexes (%)

$y = -1.6446x + 6.1307$
$R^2 = 0.6429$
$t=-4.64815, p=0.000562$
China is excluded as the data base is diffrent.

Hirizontal Axis: Yields of Government Bonds (10-year) − Growth of Nominal GDP (%)