

WORLD BANKERS

P.O. Gourinchas

Carlos Lopez

U.C. Berkeley

UC Berkeley

Hélène Rey

Princeton

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INTERNATIONAL MONETARY SYSTEM

- ▷ UK at the center of the international monetary system in the 19th century, early 20th century.
- ▷ UK the **world banker** (Feis (1930)):
 - ★ UK banks invested in high yield long term projects abroad (bank loans and bonds), especially in the Commonwealth.
 - ★ The rest of the world invested in sterling denominated liquid assets in London.

- ▷ After World War I, Britain declined as an international power, but sterling kept most of its functions as an international currency (even after 1931).
- ▷ After World War II, New York eclipsed London as the leading financial center and the U.S. dollar became the world's international currency.
- ▷ The U.S. became the **world banker**, i.e. the leading supplier of liquid safe financial assets (Kindleberger (1965))
 - ★ U.S. Treasury securities asset of choice for many foreign investors;
 - ★ U.S. investors acquire long term assets abroad (DI and equity);

EXTERNAL ASSETS AND EXTERNAL ADJUSTMENT

The details of the structure of external assets matter for the process of external adjustment.

- ▷ Gourinchas and Rey (2006a) show that the U.S. earns large excess returns (**exorbitant privilege**)
- ▷ **Valuation effects** arise through changes in asset returns or currency prices. Gourinchas and Rey (2006b) find predictable valuation effects that ease the cyclical external adjustment of the U.S.
- ▷ Caballero, Farhi and Gourinchas (2006) argue that the U.S. can run persistent current account deficits if it has a comparative advantage in supplying safe liquid financial assets.

FROM ONE WORLD BANKER TO ANOTHER

This paper constructs and compares the disaggregated external balance sheets of the US and the UK for most of the postwar period.

- ▷ Britain enjoyed a position similar to the U.S now at the turn of the 20th century.
 - ★ Evidence of excess returns during the classical Gold Standard (Meissner and Taylor (2006));
 - ★ The currency composition of external assets and liabilities (short in sterling) also made adjustments easier for the UK.

- ★ But the data is fragmentary and prevents the construction of Britain's external balance sheet then.
- ▷ Instead, we compare the U.K. and the U.S. since 1950. We look at what happens once sterling loses its status as the world's international currency.
- ▷ Perhaps this will give us a hint of what might happen to the U.S. if the dollar were ever to lose its current status.

METHODOLOGY

We construct:

- ▷ A database of gross external positions in equity, debt, direct investment and other assets at market prices from 1950:1 to 2005:4 (1952 for the U.S.)
- ▷ The yields and total returns on each asset class and how they have evolved through time. This sheds light on different intermediation roles over time.

- ▷ Flow data obtained from Balance of Payments and National Income Accounts data, supplemented by various surveys of external holdings (CPIS, ONS Pink Book, US Treasury Surveys...)
- ▷ International Investment Position available from IMF, Lane and Milesi-Ferreti (2006), BEA or Pink Book.
 - ★ Lane and Milesi-Ferretti: FDI positions at current cost; annual since 1970;
 - ★ Limited data (IMF and BEA: annual since 1980 (1982); Pink Book: starts in 1987)
 - ★ Official data not comparable (U.S.: FDI at market value, U.K.: FDI at current cost)

- ▷ Combine the flow data with valuation adjustments to construct quarterly positions data since 1952 for the US and 1950 for the UK.
- ▷ Asset and currency valuation adjustment using detailed disaggregated data on geographic, currency and maturity structure of portfolio holdings (CPIS for recent years, Treasury Surveys for the US) and geographic FDI holdings.
- ▷ Direct Investment positions constructed using the BEA's [market equity model](#) (Landefeld and Lawson (1991))

$$PF_{t+1} = \frac{PF_t}{1 + \rho_{t+1}} \frac{P_{t+1}}{P_t} + FF_{t+1}$$

where P_t is a stock price index and ρ_t is a correction term for reinvested earnings.

EMPIRICAL ISSUES

- ▷ U.S. data: extension of Gourinchas and Rey (2006a and 2006b)
- ▷ U.K. data:
 - ★ FDI assets and liabilities benchmarked to Pratten (1992)'s estimates for 1989 (at market value)
 - ★ No distinction between debt and equity flows before 1980. We allocate using average equity share between 1980 and 1985 (this share is quite crude.)
 - ★ Other assets and liabilities: before 1966, no data on the foreign currency lending/borrowing of UK banks. We construct an estimate using the ratio of foreign currency to sterling lending/borrowing.
 - ★ The valuation of 'other' assets and liabilities matters a lot quantitatively. We obtain more accurate valuation using the currency rather than geographic composition.

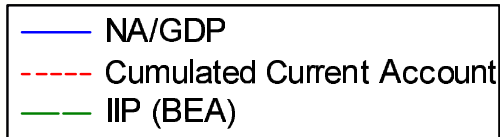
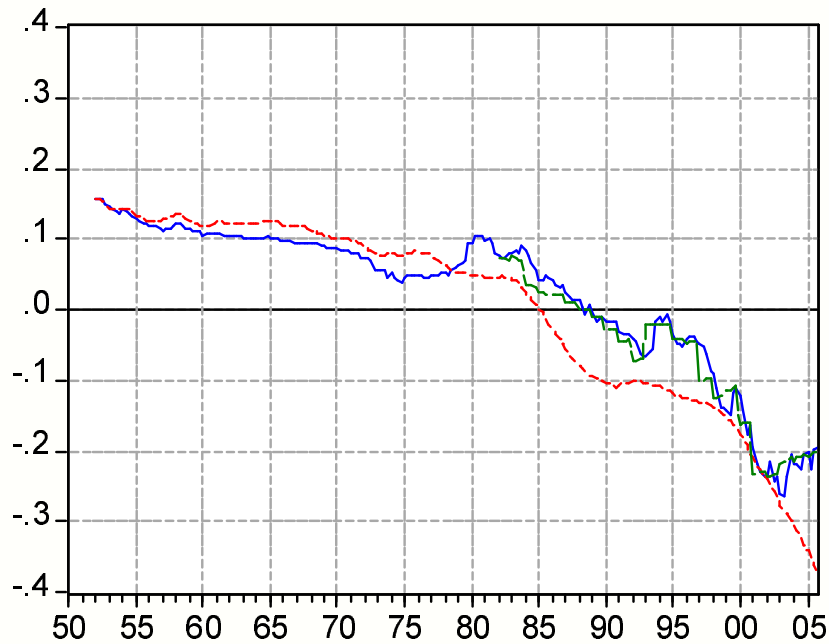
NET FOREIGN ASSET POSITION

- ▷ Significant differences between U.K. Pink Book and market value estimates (FDI valuation).
- ▷ We can see traces in the net asset position of the major external shocks to the British economy (figure 1)
 - ★ from 1949 ([Anglo American loan crisis](#)) to 1958 ([convertibility](#)): steady improvement in external balances. This is the period of the dollar shortage and the sterling balances problem (more on this later)
 - ★ from 1960 to 1967 ([devaluation of the sterling](#)): stabilization of the external balances followed by a run on the sterling (1965-1967). This is the period of [stop-and-go stabilization policies](#).

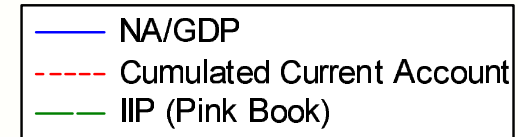
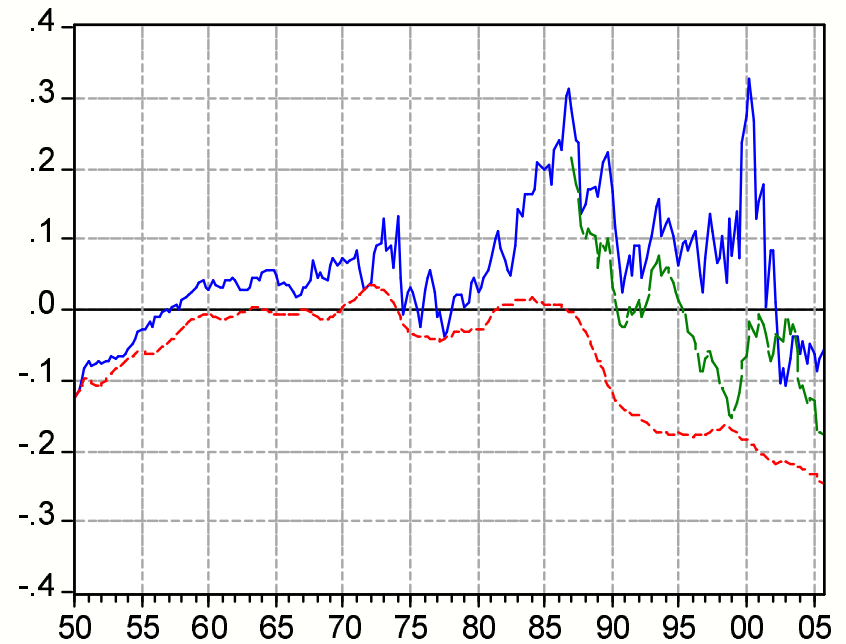
- ★ from 1967 to 1976 (**sterling crisis**) a period of greater volatility followed by a collapse of the sterling as the Bank of England's attempts to depreciate the sterling spiraled out of control.
- ★ from 1976 to 1992 (**ERM crisis**), cycle of depreciation, then appreciation of the sterling against the dollar shows up as an improvement, then worsening of the net external position.
- ★ The 1992 ERM crisis had no discernible impact on the external accounts.
- ★ Between 2001 and 2005, the strength of the sterling has coincided with a worsening of the external accounts.

Figure 1: Net Foreign Asset Position, U.S. and U.K, percent of GDP. 1950-2005.

United States



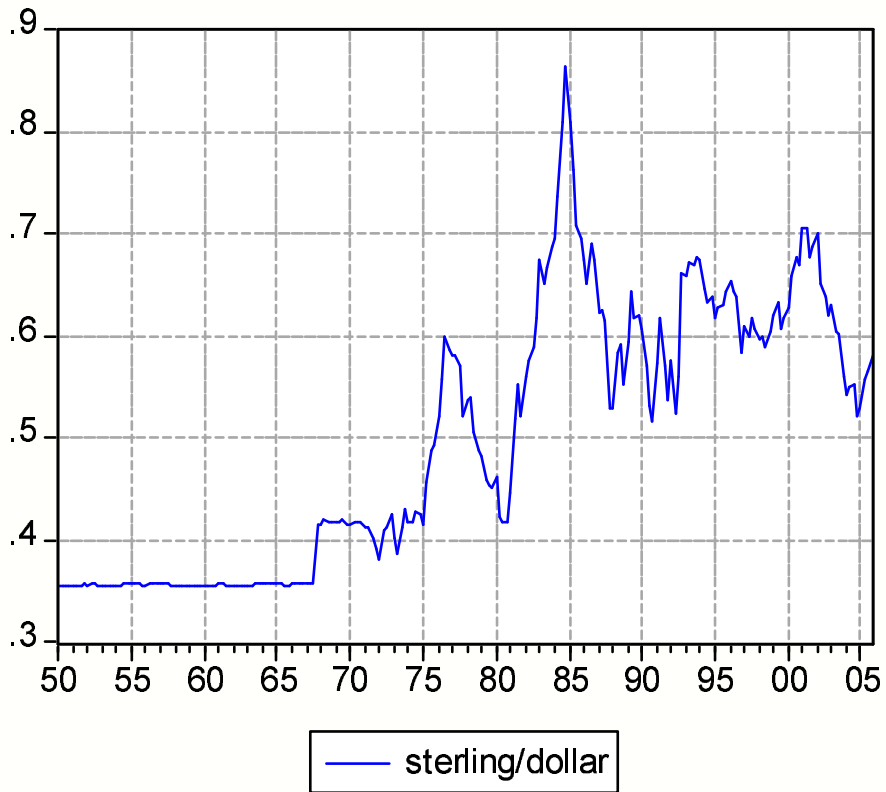
United Kingdom



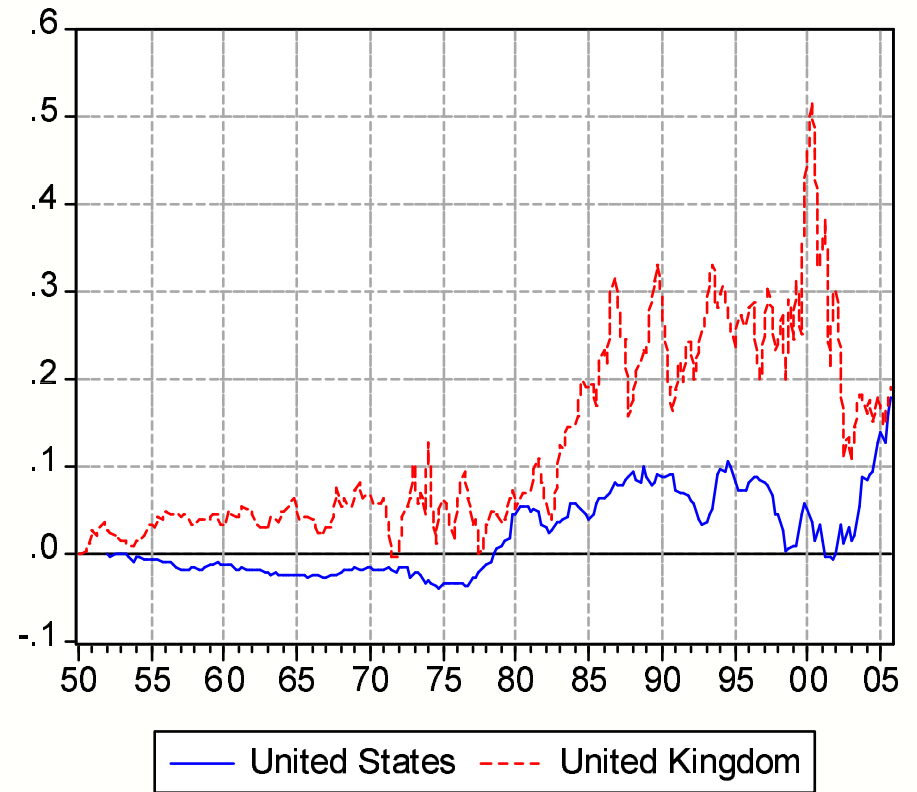
- ▷ Importance of valuation effects (figure 2)
 - ★ Measured as the difference between the 'naive' estimate (cumulated current accounts) and the market value estimates.
 - ★ Stabilizing effect for the U.S., (especially large since 2001)
 - ★ Increasingly large and volatile in the U.K. (up to 50% of GDP in 2000), and correlated with the dollar-sterling exchange rate.

Figure 2: Sterling Dollar Exchange Rate and Valuation Component (percent of GDP), 1950-2005.

Exchange Rate



Valuation Component



COMPONENTS OF THE U.S. GROSS EXTERNAL POSITION

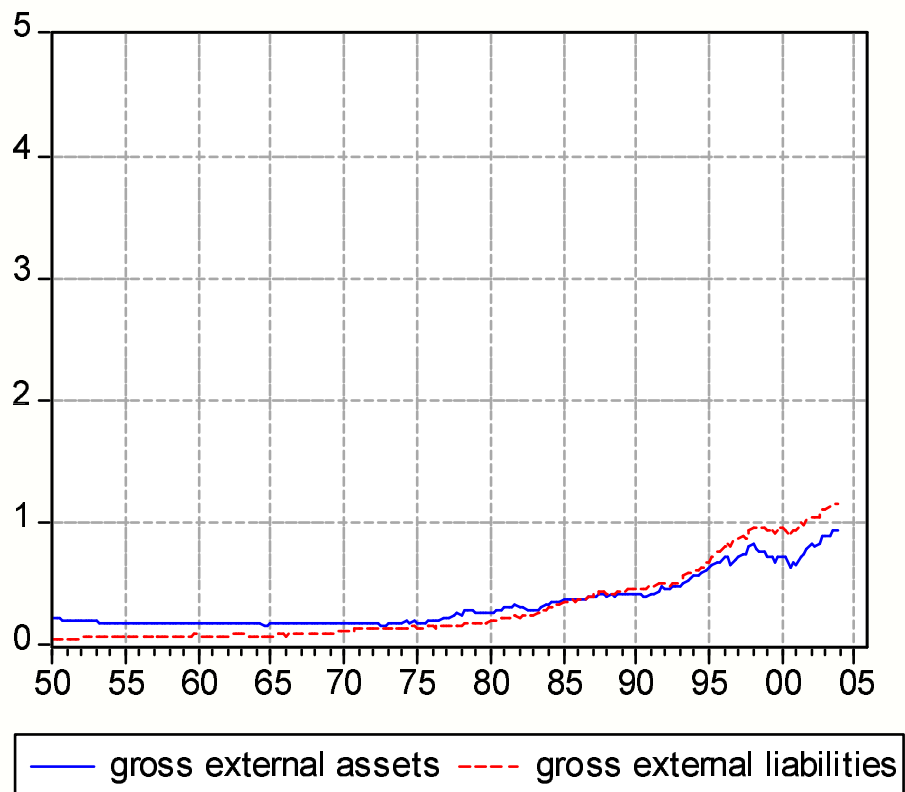
- ▷ Rapid growth of gross positions (Lane and Milesi-Ferretti (2006)) (figure 3).
- ▷ Asymmetric gross positions (figure 4). Intermediation index (figure 5) captures **the growing role of U.S. as world supplier of liquid assets.**

$$\begin{aligned} \text{intermediation index} &= \text{share of liquid assets in total liabilities} \\ &\quad + \text{share of illiquid assets in total assets} \\ &\quad - 1 \end{aligned}$$

Index equals 0 when the composition of asset and liabilities is symmetric and is positive when liabilities are mostly short term/liquid.

Figure 3: Gross External Positions, U.S. and U.K, relative to GDP.
1950-2005.

United States



United Kingdom

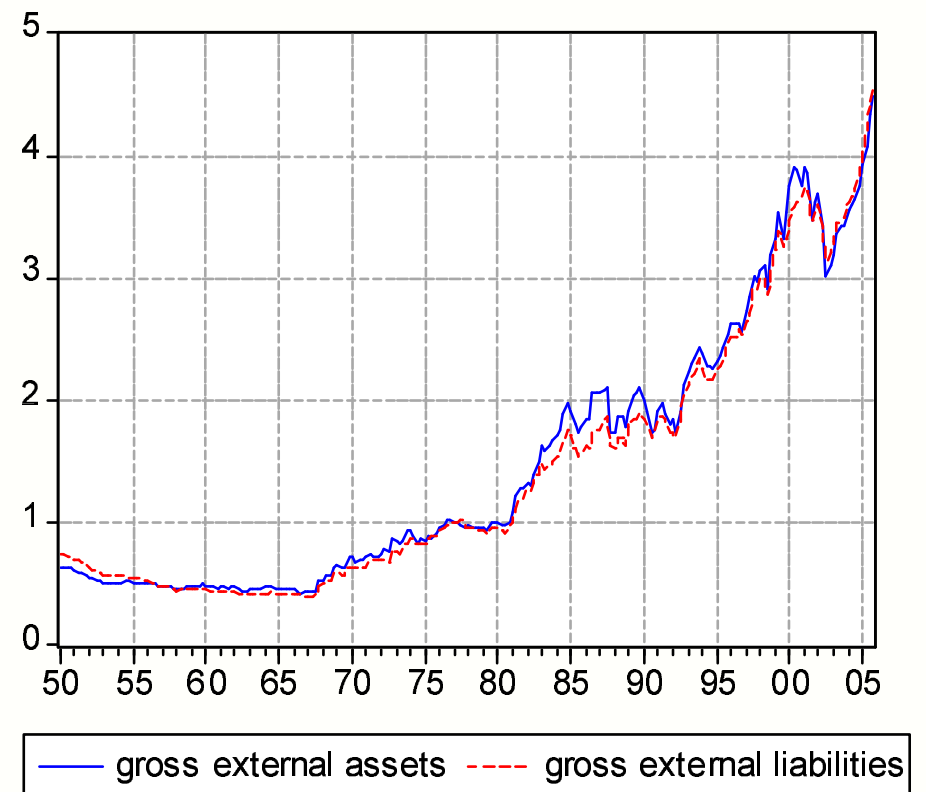
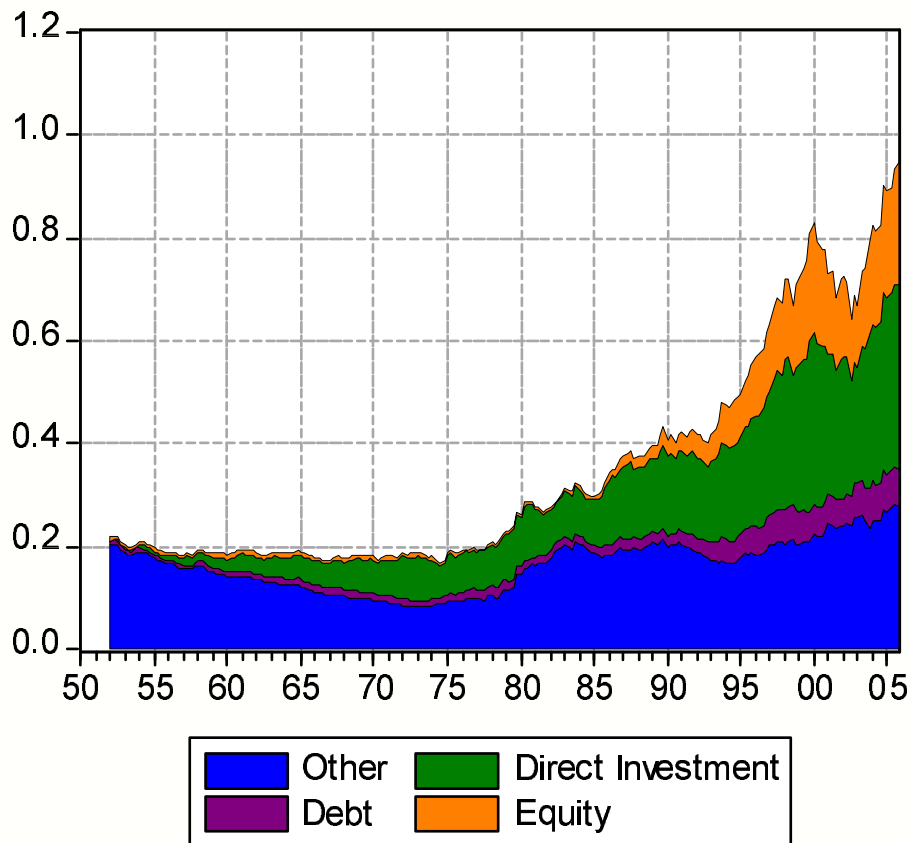


Figure 4: Composition of U.S. Gross Positions, relative to GDP.
1950-2005.

Gross Assets



Gross Liabilities

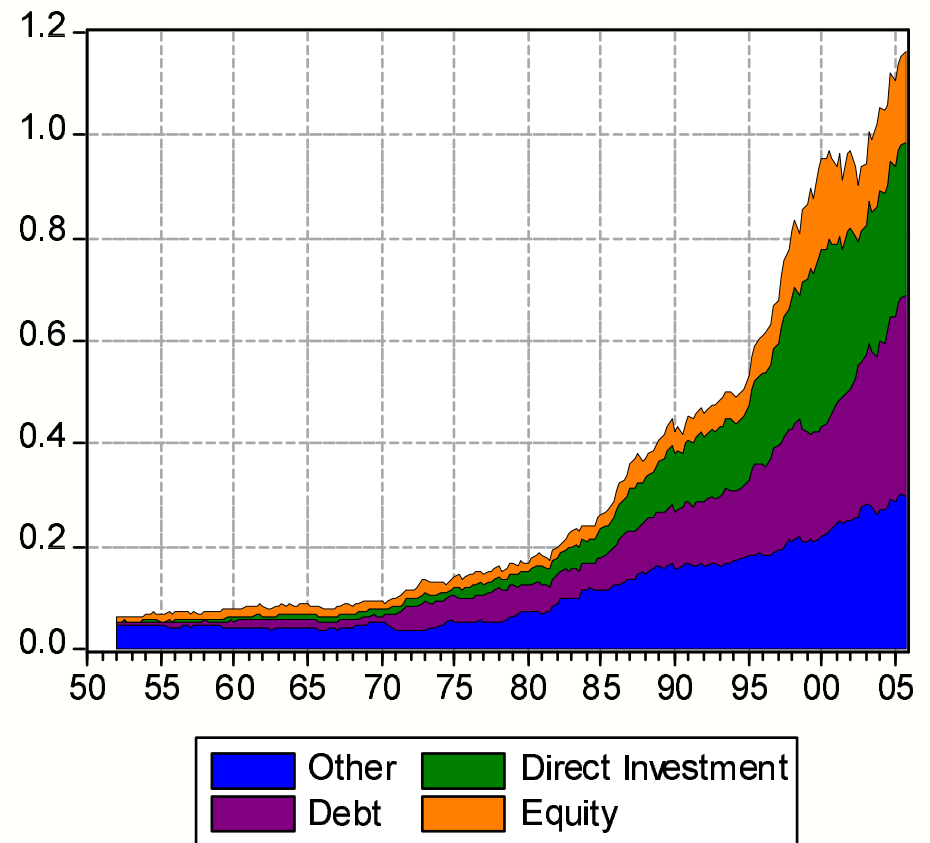
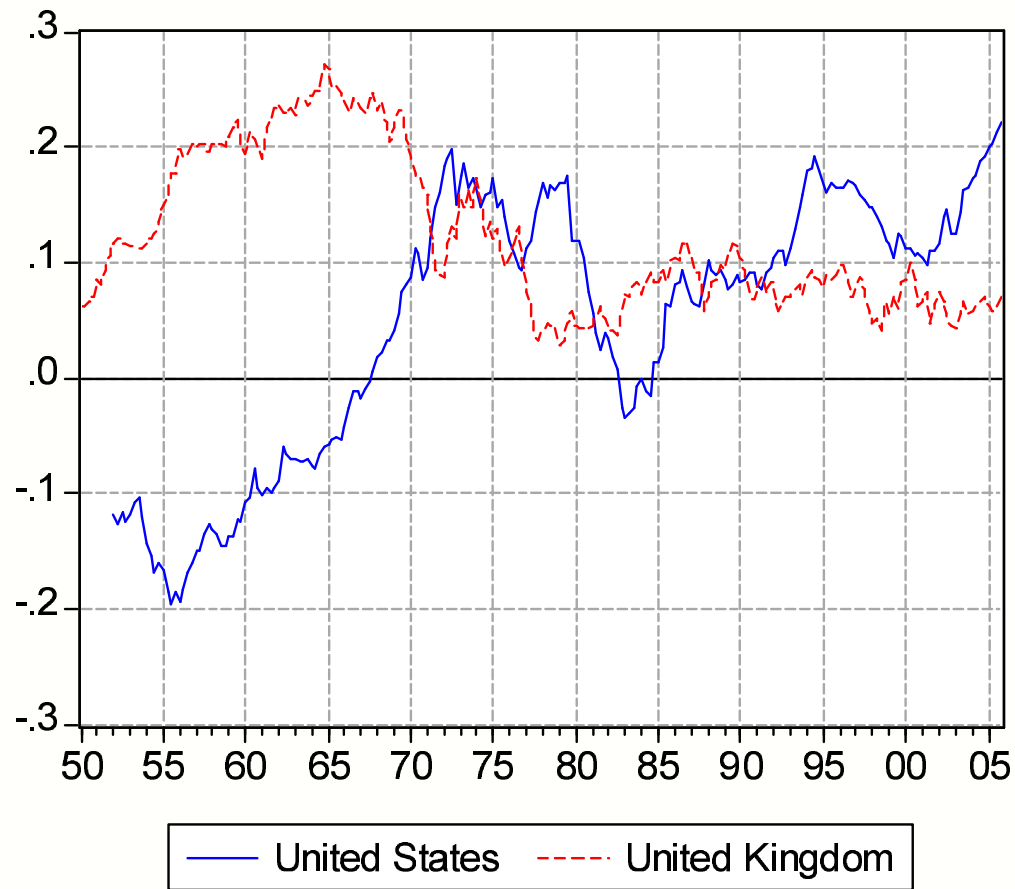


Figure 5: Intermediation Index. 1950-2005.



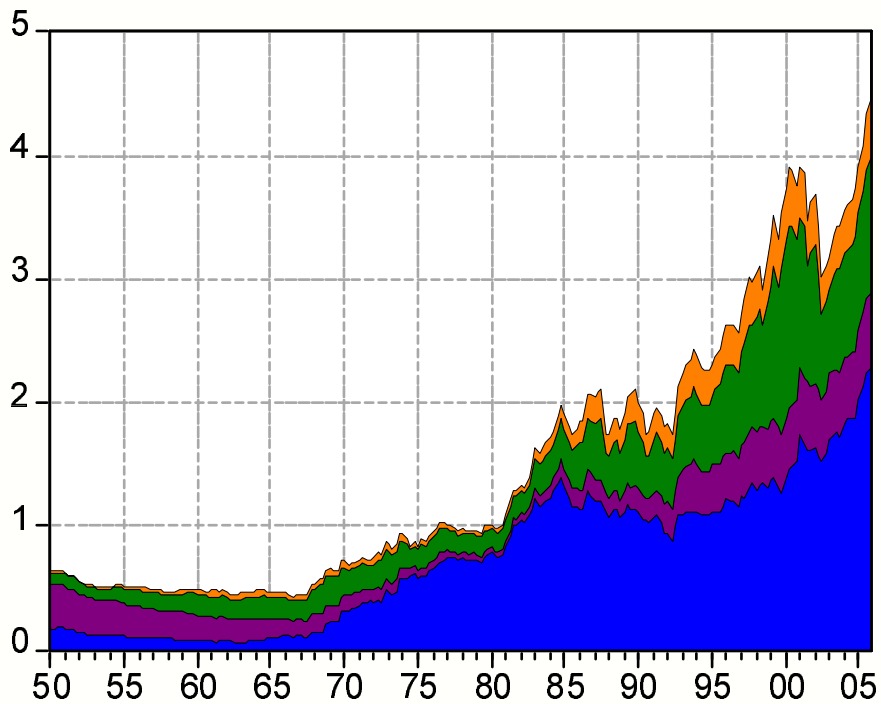
COMPONENTS OF THE U.K. EXTERNAL POSITION

- ▷ Different scale altogether (Figure 3): gross assets/liabilities now represent 450% of GDP.
- ▷ Sharp initial decline of gross positions from 1950 to 1967 (45% *L* and 35% *A*): unwinding of sterling balances inherited from World War II (see Figure 6).
- ▷ Starting in 1967, phenomenal growth, timed with the emergence of the Euromarkets and the growing role of London as a leading international banking center (Figure 6).

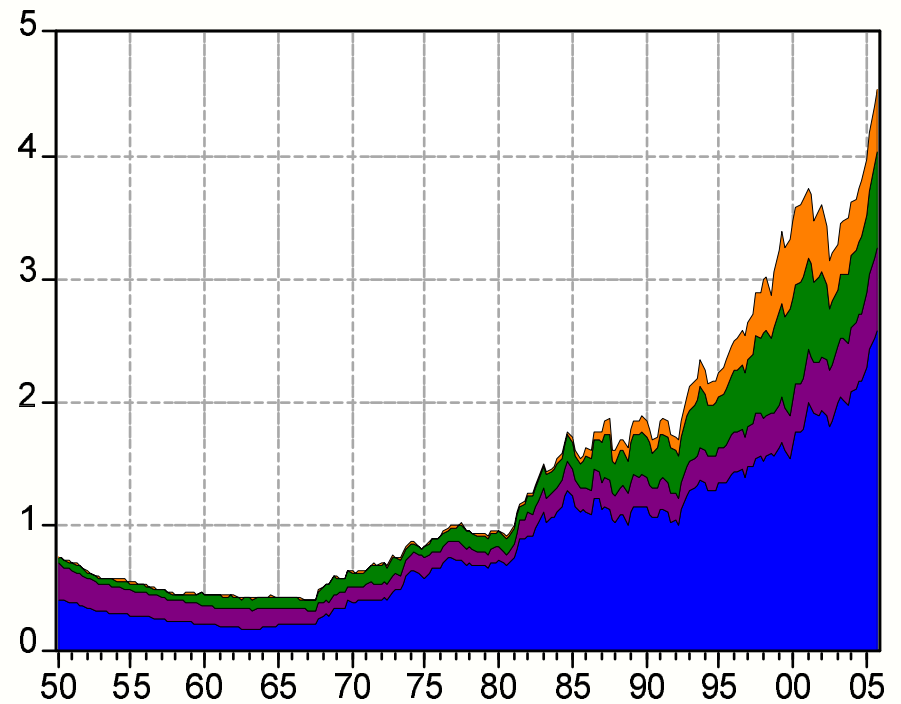
- ▷ Most of these banking transactions are hedged and generate no exposure: they do not contribute much to the external adjustment process.
- ▷ Intermediation index shows the decreasing role of the U.K. as a provider of international liquidity (figure 5).

Figure 6: Composition of U.K. Gross Positions, relative to GDP.
1950-2005.

Gross Assets



Gross Liabilities



THE U.S. AND THE EXORBITANT PRIVILEGE

- ▶ It is well-known that the U.S. income balance remained positive until 2006:1 despite growing net external liabilities.
- ▶ **This is also true of total returns!** On average 2.33% p.a. excess return over the whole sample (5.96% assets, 3.63% liabilities).
- ▶ Since the end of Bretton Woods, **excess returns increased:** 3.61% p.a. (7.14% assets, 3.52% liabilities) (table 1)
- ▶ **Return effect stronger than composition effect** (table 2) indicates that excess return comes from within class excess return
- ▶ Increase in composition effect reflects **the growing role of the U.S. as world banker.**

Table 1: Summary Returns, United States

Total real returns	Summary Statistics (1952:1-2005:4)									
	r^{ao}	r^{ad}	r^{af}	r^{ae}	r^a	r^{lo}	r^{ld}	r^{lf}	r^{le}	r^l
1952-2005	3.39	4.73	9.79	13.76	5.96	1.20	0.41	9.47	10.46	3.63
1952-1973	2.41	4.83	9.46	10.83	4.06	1.26	0.81	9.98	11.60	3.80
1973-2005	3.99	4.67	9.99	15.58	7.14	1.17	0.16	9.15	9.75	3.52
Excess return	Δr^o	Δr^d	Δr^f	Δr^e	Δr					
1952-2005	2.18	4.32	0.32	3.29	2.33					
1952-1973	1.15	4.02	-0.52	-0.78	0.26					
1973-2005	2.82	4.51	0.84	5.82	3.61					

$$\begin{aligned}
 E(r^a - r^l) &= E[\bar{\mu}^o (r^{ao} - r^{lo})] \\
 &+ E[\bar{\mu}^e (r^{ae} - r^{le})] \\
 &+ E[\bar{\mu}^d (r^{ad} - r^{ld})] \\
 &+ E[\bar{\mu}^f (r^{af} - r^{lf})]
 \end{aligned}
 \left. \vphantom{\begin{aligned} E(r^a - r^l) &= E[\bar{\mu}^o (r^{ao} - r^{lo})] \\ &+ E[\bar{\mu}^e (r^{ae} - r^{le})] \\ &+ E[\bar{\mu}^d (r^{ad} - r^{ld})] \\ &+ E[\bar{\mu}^f (r^{af} - r^{lf})] \end{aligned}} \right\} \text{return effect}$$

$$\begin{aligned}
 &+ E[(\mu^{ae} - \mu^{le})(\bar{r}^e - \bar{r}^o)] \\
 &+ E[(\mu^{ad} - \mu^{ld})(\bar{r}^d - \bar{r}^o)] \\
 &+ E[(\mu^{af} - \mu^{lf})(\bar{r}^f - \bar{r}^o)]
 \end{aligned}
 \left. \vphantom{\begin{aligned} &+ E[(\mu^{ae} - \mu^{le})(\bar{r}^e - \bar{r}^o)] \\ &+ E[(\mu^{ad} - \mu^{ld})(\bar{r}^d - \bar{r}^o)] \\ &+ E[(\mu^{af} - \mu^{lf})(\bar{r}^f - \bar{r}^o)] \end{aligned}} \right\} \text{composition effect}$$

where e.g. μ^{ae} denotes the share of equities (e) in gross assets (a).

Table 2: Break-up of U.S. Total Real Returns

	Return effect					Composition Effect				Total
Period	(1) Other	(2) Debt	(3) Equity	(4) FDI	Total (1)-(4)	(5) Debt	(6) Equity	(7) FDI	Total (5)-(7)	$r^a - r^l$ (1)-(7)
52-05	0.97	0.66	0.36	0.16	2.15	0.00	-0.53	0.71	0.18	2.33
52-73	0.68	0.38	0.04	0.12	1.22	-0.23	-1.46	0.72	-0.96	0.26
73-05	1.14	0.84	0.56	0.18	2.72	0.15	0.05	0.70	0.90	3.61

SLOWLY VANISHING EXCESS RETURNS IN THE U.K.

- ▷ Excess returns still very large during the Bretton Woods period (Table 3), across all asset classes.
- ▷ Post Bretton Wood, smaller excess returns across all asset classes.
- ▷ The return component disappeared (Table 4): **no more exorbitant privilege**.
- ▷ The (small) excess return comes entirely from the composition effect and the associated limited asymmetry in gross holdings.
- ▷ The large U.K. valuation effects (figure 2) result from **the leverage** of vanishing excess returns.

Table 3: Summary Returns, United Kingdom

Total real returns	Summary Statistics (1952:1-2005:4)									
	r^{ao}	r^{ad}	r^{af}	r^{ae}	r^a	r^{lo}	r^{ld}	r^{lf}	r^{le}	r^l
1952-2005	1.75	1.94	13.41	11.07	5.00	1.40	0.98	12.40	10.57	3.16
1952-1973	1.68	0.90	11.86	12.36	5.02	-0.08	-0.66	10.57	8.28	1.51
1973-2005	1.80	2.60	14.39	10.25	4.99	2.34	2.03	13.56	12.23	4.20
Excess return	Δr^o	Δr^d	Δr^f	Δr^e	Δr					
1952-2005	0.35	0.95	1.01	0.50	1.85					
1952-1973	1.76	1.57	1.29	4.08	3.51					
1973-2005	-0.54	0.56	0.83	-1.78	0.79					

Table 4: Break-up of U.K. Total Real Returns

	Return effect					Composition Effect				Total
Period	(1) Other	(2) Debt	(3) Equity	(4) FDI	Total (1)-(4)	(5) Debt	(6) Equity	(7) FDI	Total (5)-(7)	$r^a - r^l$ (1)-(7)
52-05	0.04	0.24	0.00	0.42	0.70	0.31	0.00	0.84	1.15	1.85
52-73	0.64	0.51	0.18	0.42	1.75	0.44	-0.04	1.37	1.76	3.51
73-05	-0.33	0.07	-0.12	0.41	0.03	0.22	0.03	0.51	0.70	0.79

CONCLUSION

- ▷ 100 years ago, the U.K. was in the position of the U.S. now. It supplied liquidity to the rest of the world, and probably enjoyed the associated intermediation rents.
- ▷ These rents are now disappearing. The large positive valuation effects in the U.K. come from the leverage of relatively small return differences through extremely large gross asset and liability positions.
- ▷ These findings provide a window on a future where the U.S. dollar would lose its status as international currency.