

The Euro Might Overtake the Dollar as Leading International Currency by 2020



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“Dollar-dissing” is cyclical

- Historically, whenever the \$ depreciates, commentators predict its demise as the leading international currency. E.g., 1978-79; 1994-95.
- Such speculation in the past has been premature. E.g., the true statistics showed a temporary *upward* trend for the \$ in the 1990s – Frankel (1995).

But this time may be different

- What makes this time different?
 - U.S. macro policy may undermine faith in the \$
 - twin deficits
 - net international debt
 - monetary ease (2001-04, 2007-08)
 - parallels with late 1960s
 - **A plausible rival exists, since 1999: the euro.**
- Eichengreen & Frankel (1996): “It is unlikely that some other currency will supplant the dollar as the world’s premier currency...There is no plausible alternative for the number one position” But we also acknowledged “the possibility of a single currency coming into use throughout Europe, which would indeed pose a challenge to the supremacy of the dollar.”
- A very few authors had faith in the euro all along: Bergsten (1997) and Portes & Rey (1998).



The euro is now a credible rival,
where the DM and ¥ were not.



Birth of € implies potential rival for \$

Shares of currencies in reserve holdings, %

	1999	2000	2001	2002	2003
All countries					
U.S. dollar	64.9	66.6	66.9	63.5	63.8
Japanese yen	5.4	6.2	5.5	5.2	4.8
Pound sterling	3.6	3.8	4	4.4	4.4
Swiss franc	0.4	0.5	0.5	0.6	0.4
Euro	13.5	16.3	16.7	19.3	19.7

Roles of International Currency

Table B

<i>Adapted from Kenen</i>		
<i>Function of money:</i>	<i>Governments</i>	<i>Private actors</i>
<i>Store of value</i>	International reserve holdings	Currency substitution (private dollarization)
<i>Medium of exchange</i>	Vehicle currency for foreign exchange intervention	Invoicing trade and financial transactions
<i>Unit of account</i>	Anchor for pegging local currency	Denominating trade and financial transactions

Historical precedent: £ 's loss of premier international currency status in 20th century

- By 1919, US had passed UK in
 1. output (1872)
 2. trade (1914 or 1946)
 3. net international creditor position (1914-19).
- Subsequently, \$ passed £ as #1 reserve currency (1940-45)

From the literature on reserve currencies

Determinant

Proxy:

1. Country size

GDP

2. Depth of
financial market

Foreign exchange
turnover

3. Rate of return

Inflation,
Long-run depreciation
Exchange rate variance

EU GDP > US GDP

	2003	2004
US	\$11.0 trillion	\$11.5 trillion
Euro-zone (12 countries)	8.8 tr.	9.0 tr.
EU pre-5/1/04 (15 countries)	11.3 tr.	11.5 tr.
EU post-5/1/04 (25 countries)	11.8 tr.	12.1 tr.

From the literature, continued

Network externalities

\Rightarrow *Tipping* *captured by:*

1) Inertia

lags

2) Nonlinearity
in determinants

logistic functional form
or
dummy for leader GDP

Research strategy

in Chinn and Frankel papers

- Estimate parameters from historical data on reserve currency shares, 1973-1998.
- Perform simple post-sample test on data from first years of euro, 1999-2004.
- Use estimates to simulate possible future path of \$ and € in the future, 2008-2040, under alternative scenarios.

Reserve Currency Holdings,

historical data 1965-2002

Table A

Share of National Currencies in Total Identified
Official Holdings of Foreign Exchange, End of
Year (in percent)

	1965	1973	1977	1982	1987	1992	1997	2002
All countries								
U.S. dollar	56.1	64.5	76.2	57.9	53.9	48.9	59.1	63.5
Japanese yen	0.0	0.1	1.2	4.1	6.8	7.4	5.1	5.2
Pound sterling	20.0	4.2	1.5	1.8	1.9	2.6	3.3	4.4
Swiss franc	0.0	1.1	0.8	2.3	1.7	0.8	0.5	0.6
Euro	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.3
Deutsche mark	0.1	5.5	6.4	11.6	13.8	14.0	13.7	0.0
French franc	0.9	0.7	1.0	1.0	0.9	2.6	1.5	0.0
Netherlands guilder	0.0	0.5	0.4	1.0	1.2	0.7	0.5	0.0
ECUs	0.0	0.0	0.0	13.8	13.6	9.7	5.0	0.0
Unspecified currencies	22.9	23.6	12.3	6.5	6.4	13.3	11.3	7.1

1977-2002: updated IMF Internal data

Figure 7: Reserves held by central banks as shares of total

— major currencies

(revised IMF data spliced into old data after 1979) 5/2/05

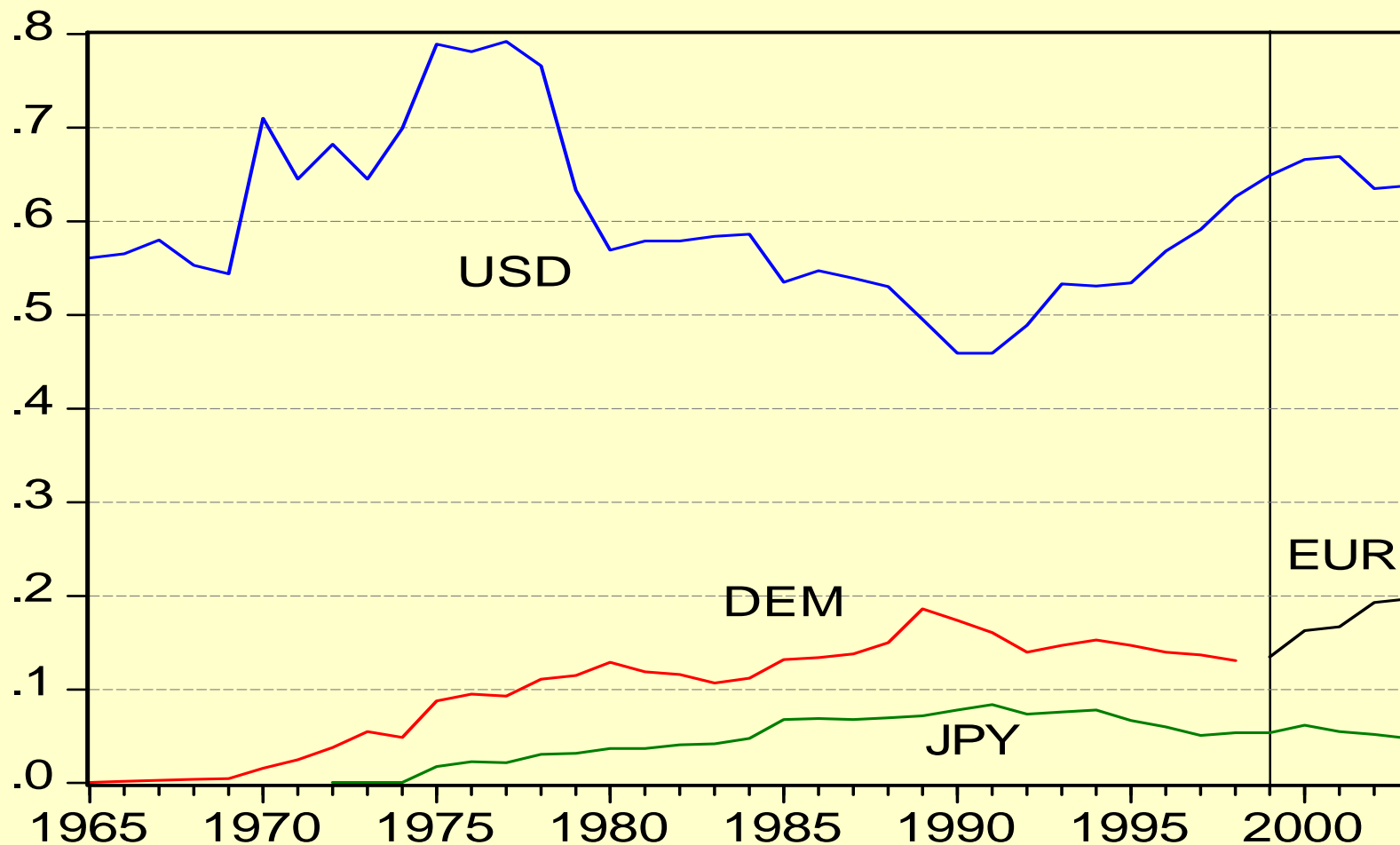


Figure 8: Reserves held by central banks as shares of total – smaller currencies

(revised IMF data spliced into old data after 1979)

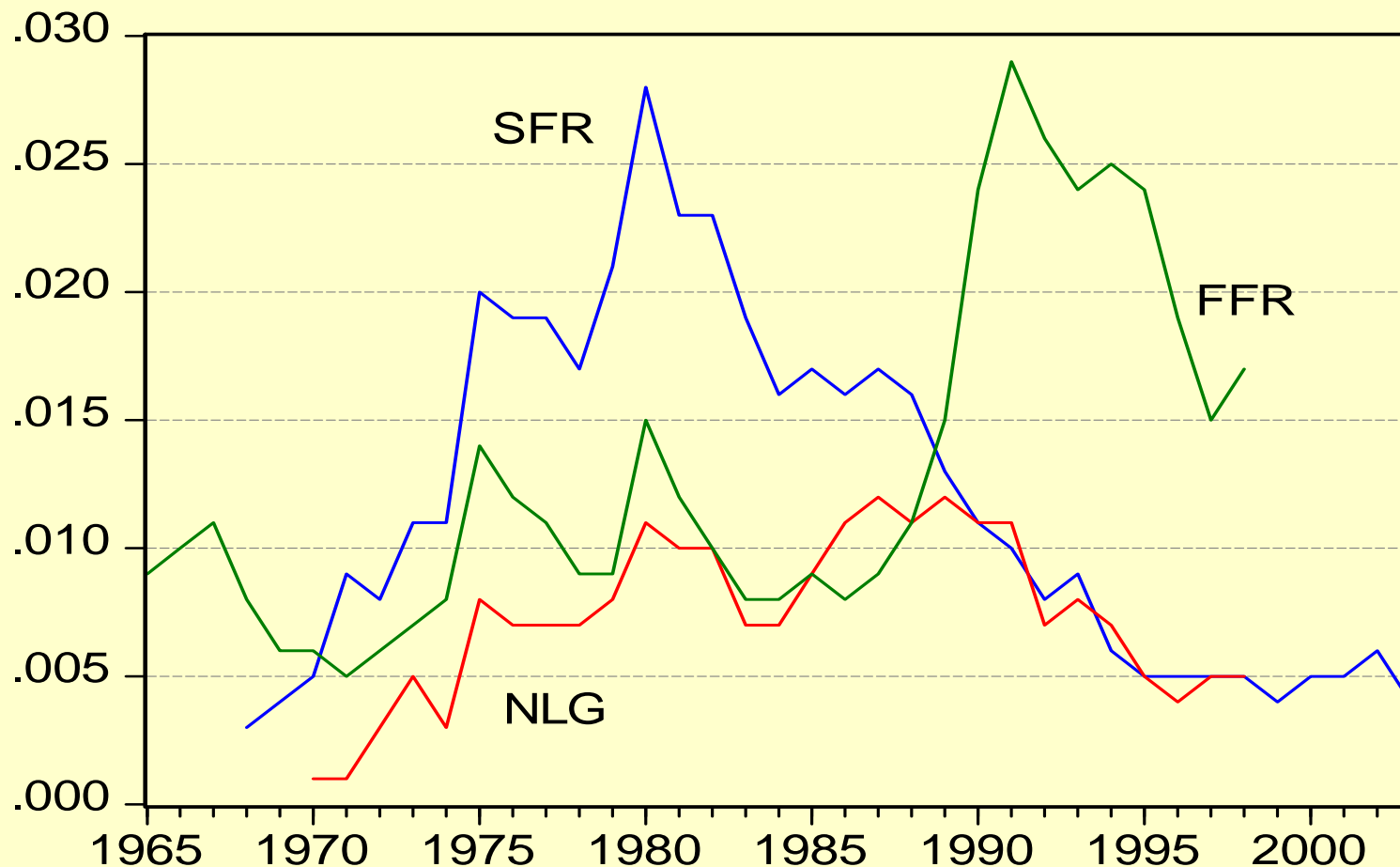
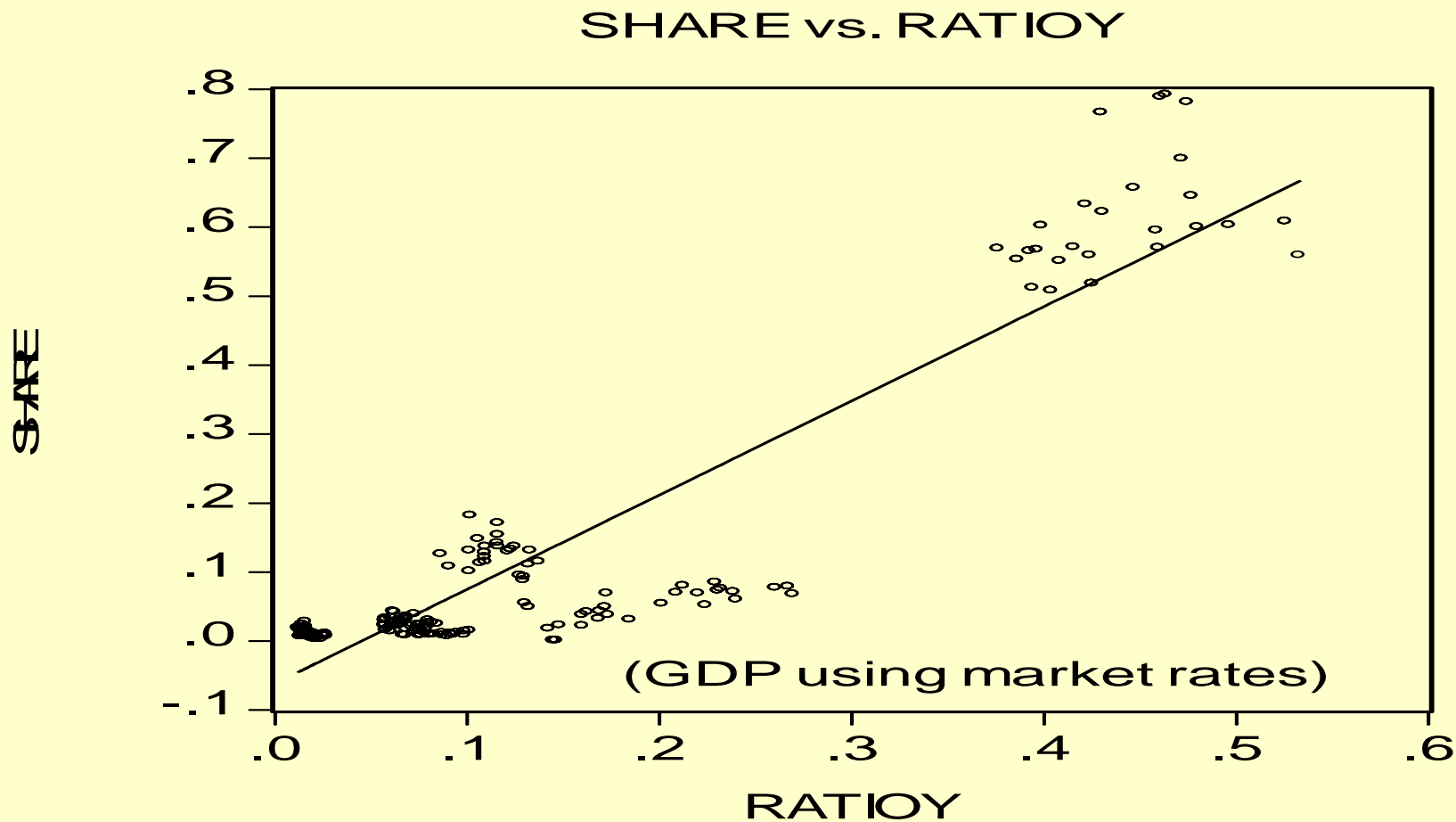
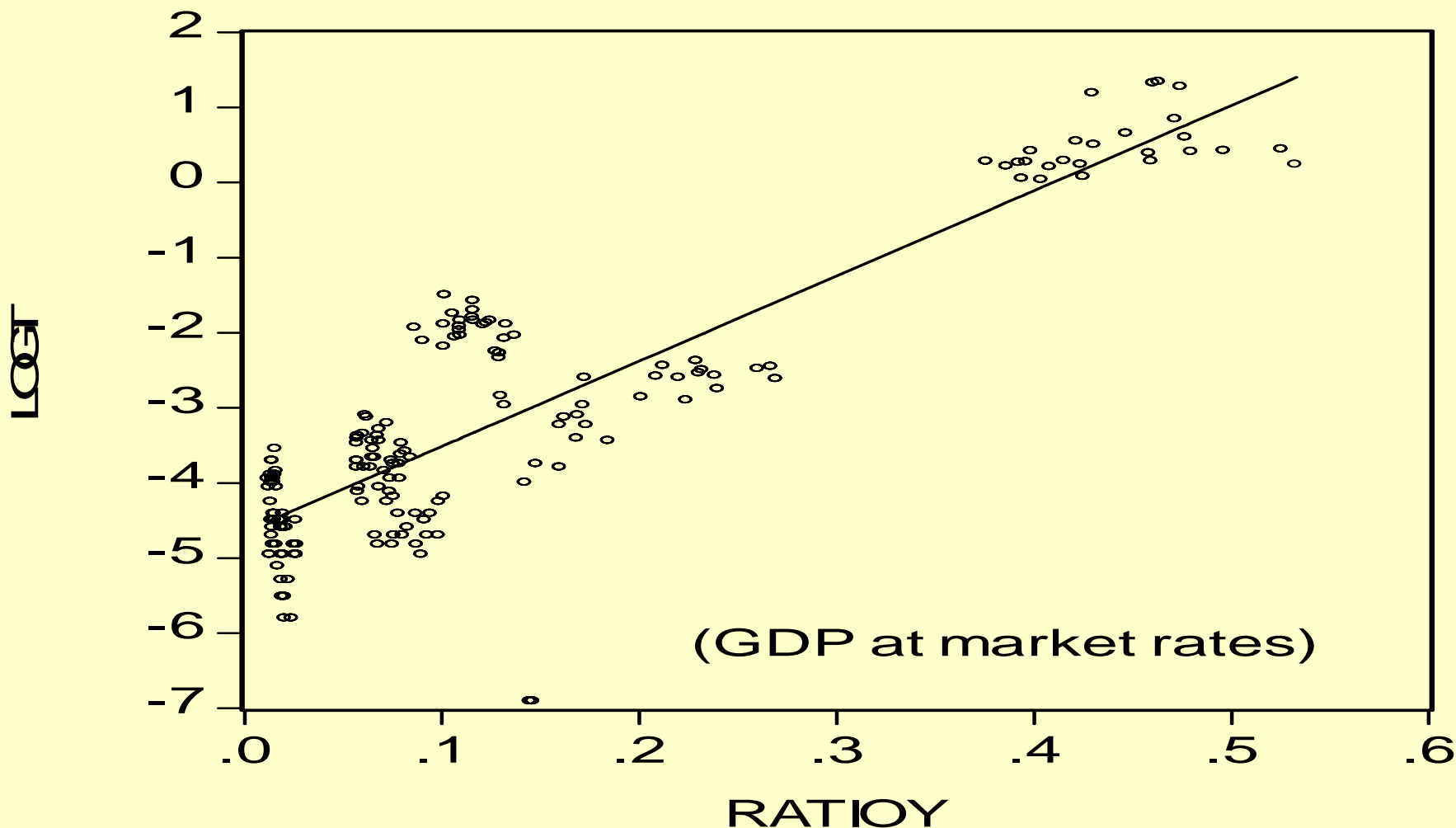


Figure 1: Currency share vs. GDP (mkt. rates).
The relationship is not linear, but rather “ogive”



The logistic function fits better than the linear

LOGT vs. RATIOY



Explaining reserve currency shares, pre-euro (1973-98), linear form

Bold figs. sig. at 10% level	[2]	[4]	[6]
GDP ratio (y)	0.123 [0.049]	0.115 [0.049]	0.085 [0.047]
Inflation diff (π)	-0.107 [0.060]	-0.143 [0.063]	
Depreciation (Δs)			-0.094 [0.074]
Exrate var (σ)	-0.057 [0.032]	-0.055 [0.032]	-0.030 [0.030]
Fxturnover (to)	0.019 [0.016]	0.023 [0.016]	0.016 [0.017]
GDP leader (<i>leader</i>)		0.026 [0.014]	0.023 [0.014]
lagshare (sh_{t-1})	0.944 [0.020]	0.904 [.029]	0.923 [.027]

Explaining currency shares, pre-euro, logistic form

	[2]	[4]	[7]
GDP ratio (y)	2.768 [0.643]	3.69 [0.923]	1.04 [0.288]
Inflation differential (π)	-2.639 [1.156]	-2.86 [1.164]	
Depreciation (Δs)			-1.095 [0.594]
Exchange rate variance (σ)	-0.981 [0.573]	-1.395 [0.644]	-1.251 [0.341]
Fx turnover ratio (to)	0.446 [0.289]	0.576 [0.303]	0.427 [0.145]
GDP leader (<i>leader</i>)		-0.217 [0.156]	
Lag logit $\log(sh_{t-1}/1-sh_{t-1})$	0.851 [0.031]	0.846 [0.031]	0.957 [0.014]

Explaining two-currency system of logit shares, pre-euro

GDP ratio (y)	0.762 [0.247]	1.015 [0.773]	0.974 [0.688]
Inflation differential (π)	-0.554 [1.247]	-0.844 [1.259]	
Depreciation (Δs)			-4.524 [3.337]
Exchange rate variance (σ)		-2.375 [1.213]	-2.381 [1.121]
Turnover (to)		0.489 [0.487]	0.652 [0.454]
Lag logit $\log(sh_{t-1} / 1 - sh_{t-1})$	0.829 [0.043]	0.775 [0.085]	0.795 [0.076]

Figure 9: Out-of-sample prediction of USD & Euro
using logit w/o leader variable

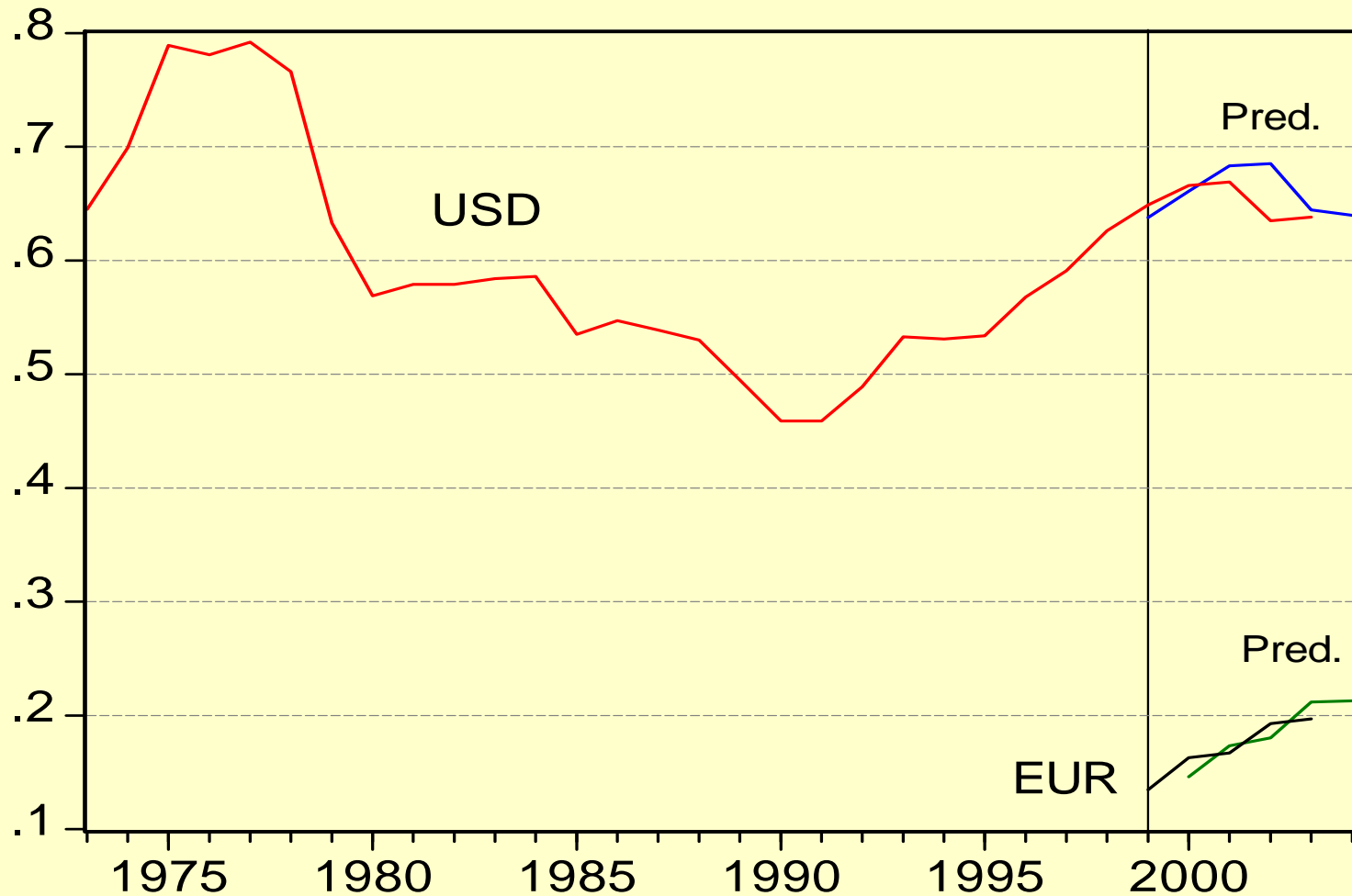
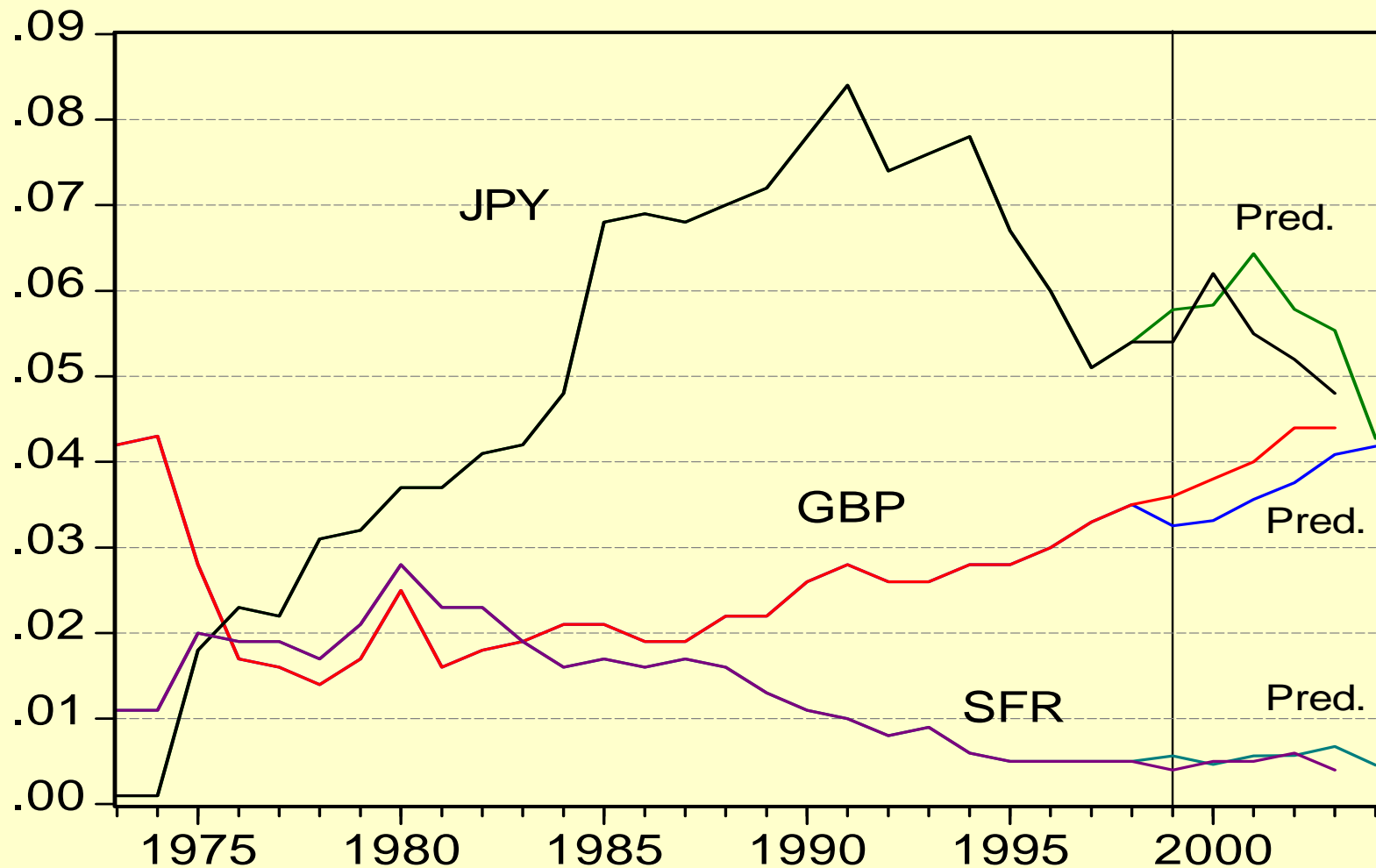
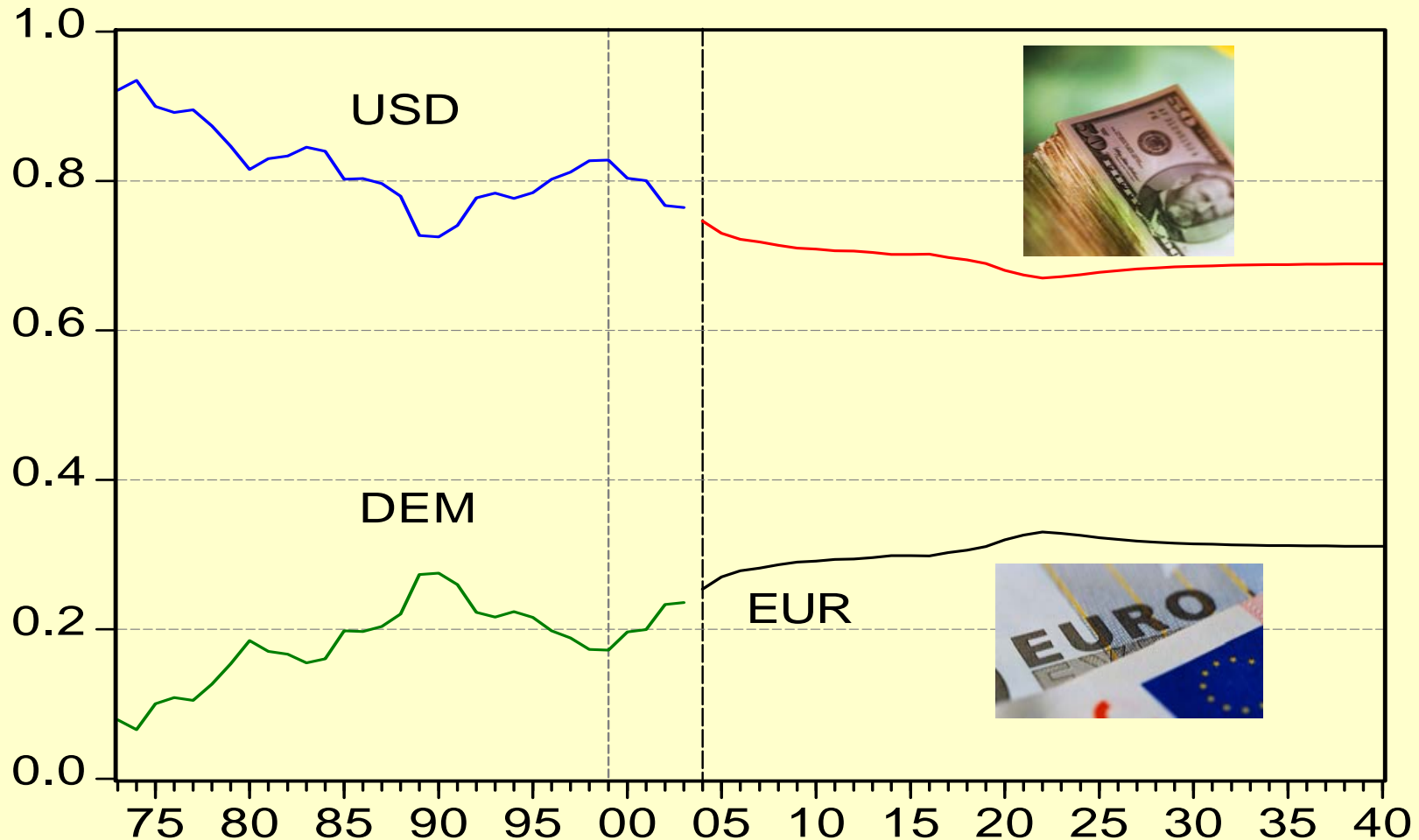


Figure 10: **Out-of-sample prediction of GBP, JPY & SFR**
 using logit w/o leader variable



From Chinn & Frankel (2005; published 2008) Figure 11: Case 2, Scenario B
Simulation of “No UK, or other new members in EMU, and
no further change in the level of exchange rates after 2004.”

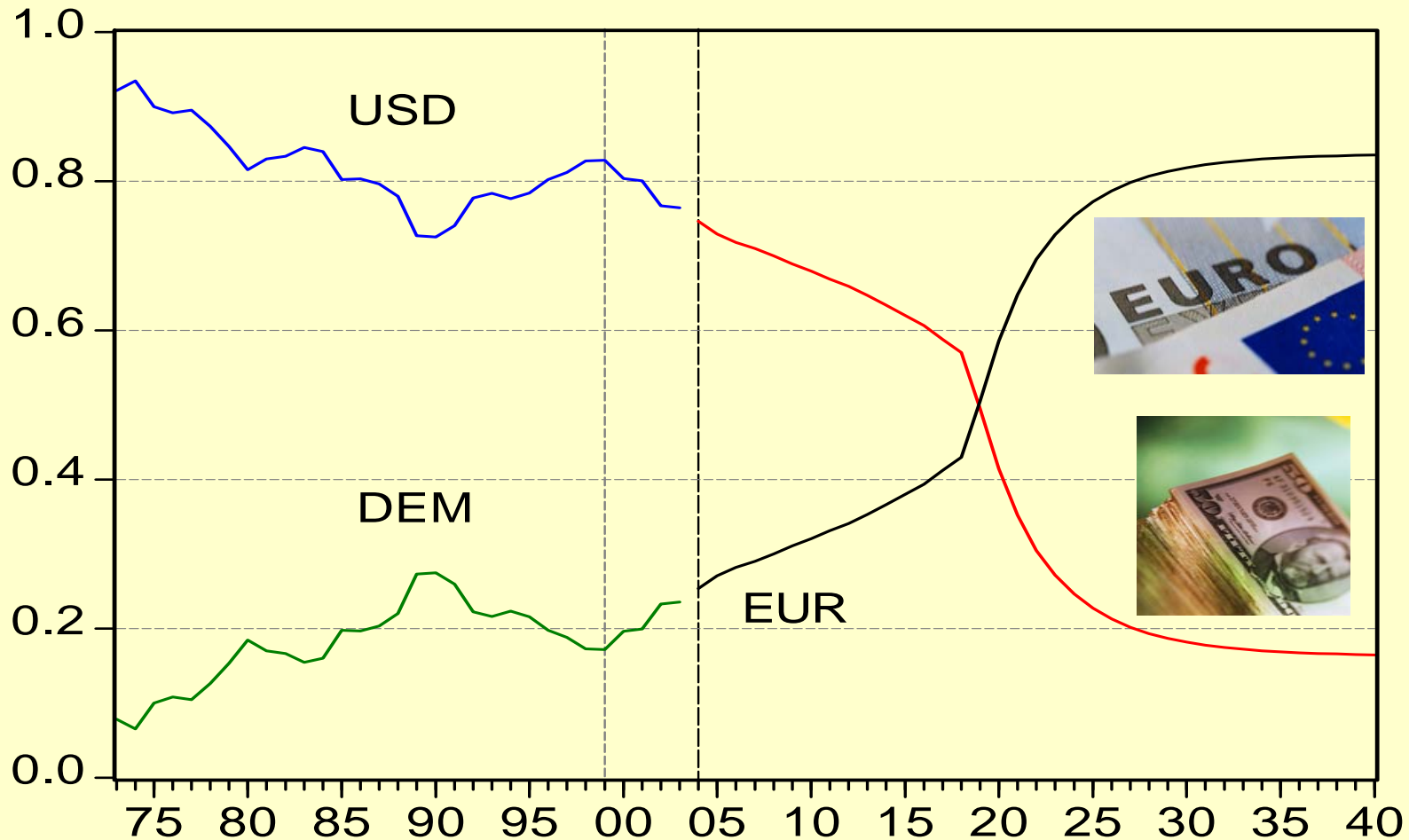
=> No reversal of roles.



From Chinn & Frankel (2005; published 2008) Figure 14: Case 4, Scenario D

Simulation of “UK entry and continued depreciation of \$ at 2001-04 rate.”

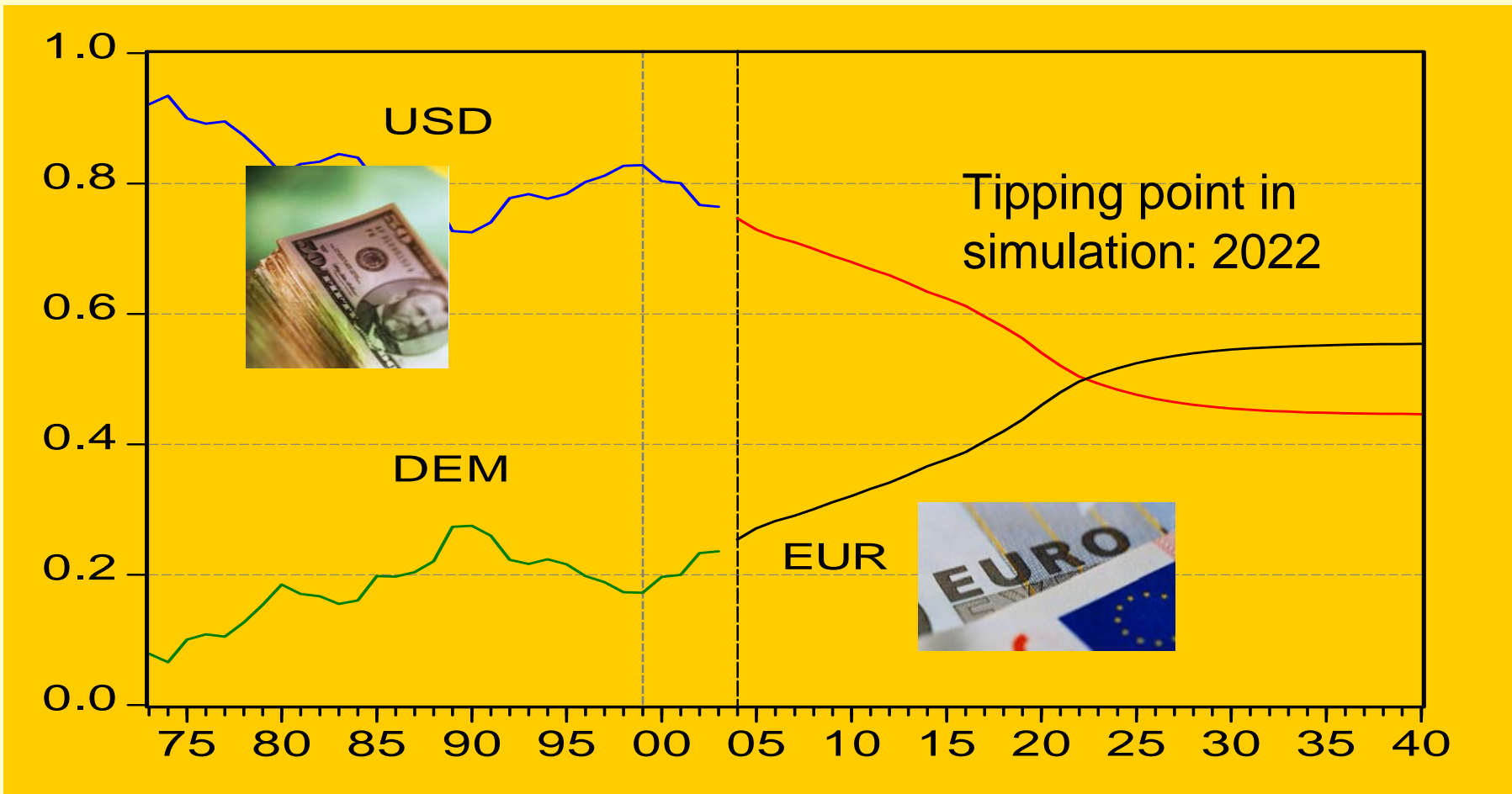
=> Great reversal, with tipping point around 2020



Simulation of shares in central bank reserve holdings

Chinn & Frankel, Figure 13: Case 2, Scenario D: No entry of UK, Sweden, or Denmark into €;
& continued depreciation of \$ at 2001-04 rate.

Preferred case



Conclusion of original Chinn & Frankel paper (in Clarida volume, 2008)

Either of two scenarios could result in € surpassing \$ as international reserve currency in the 2020s:

1. Euro-land substantially surpasses US in economic size, esp. if UK were to join.
2. Dollar continues to depreciate at the rate of recent years, e.g., as a result of large US current account deficits.

The €@ 10: Since that paper was written,

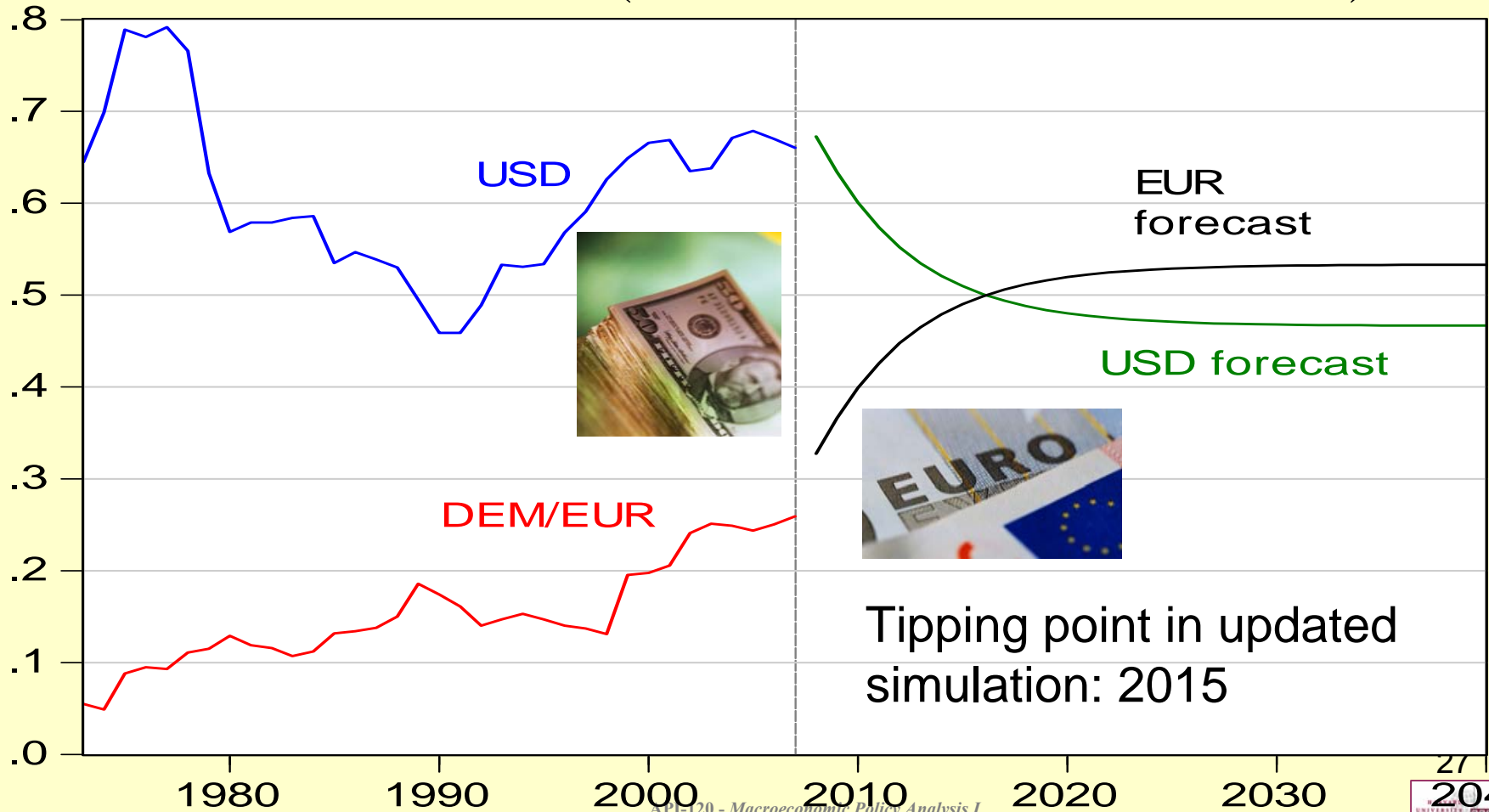
- The \$ has continued to lose value against the €;
- Euroland has surpassed the US in economic size
- It has become clear that London, not Frankfurt, is the euro's financial center; and
- The US economic, financial, and fiscal outlook has sharply worsened (though the same could be said of others).

It is Time for an Update.

Simulation of central banks' holdings of reserve currencies

Scenario: Only accession countries join EMU in 2010 (UK stays out), but 20% of London turnover counts toward Euro financial depth, and currencies depreciate at the average 20-year rates up to 2007.

From Chinn & Frankel (*International Finance*, 2008)



What is the effect of the current financial crisis?

- **On the pro-euro side**, it has
 - undermined the credibility of US financial institutions,
 - given rise to obligations implying higher debt & money creation
 - revealed high synchronization (symmetric shocks) within EU, strengthening argument for non-members to join (UK to Poland).
 - European response (led by Gordon Brown) ultimate seen as better, faster than US response – Krugman (10/14/08).
Diffusion of authority within EU (e.g., B.of E. vs. ECB) is turning out to be less of an obstacle than within US (Admin. vs. Congress, Repubs. Vs. Dems.)

What is the effect of the current financial crisis? continued

- **On the pro-dollar side,**
 - The 1st manifestation of mismatch of currency policy in Frankfurt with responsibility for bank regulation remaining at national level
 - London has fared as poorly as New York,
 - the European economy is faring as poorly as US, and
 - so the US has retained its safe haven status:
 - there has been a flight to US treasury bills (judged by low TB interest rates) and
 - the dollar is not currently in crisis

What is the effect of the current financial crisis? continued

- Re-emergence of country debt spreads in EU
 - E.g. Greece 1.0%, Italy 0.9%, Spain 0.6%
 - Some say this shows drawback of EMU.
 - My answer is that this is good news:
 - Not for Greece, of course, but
 - For the proposition that MU members can continue to run somewhat independent fiscal policies
 - with the consequences of any excess revealed in the interest rates they must pay, as among US states,
 - as was predicted by Goldstein and Woglom,
 - but which has not happened in euroland until now.

Why should the US (or Europe) care about international currency status?

FOUR ADVANTAGES TO A COUNTRY OF HAVING ITS CURRENCY PLAY A LARGE ROLE IN THE WORLD.

- (1) *Convenience* for its residents.
- (2) *Business* for its banks & other financial institutions.
- (3) *Seignorage*
 - narrowly defined as willingness to hold \$ as high-powered money (esp. forex reserves held by central banks), or
 - more broadly as willingness of private investors to hold \$-denominated assets: America's "exorbitant privilege"
- (4) *Political power and prestige.*

Possible geo-political implications

- Paul Kennedy (1989) may have been merely premature when he suggested that the US might go into geopolitical decline as a result of imperial overstretch.
- US could lose hegemony.
- By analogy with how Kindleberger (1995) & others were premature in 1990s when they saw the \$ losing its place as #1 international currency to the ¥ & DM.
- It might be useful to think of reserve currency status as indicative of other respects in which we are losing soft power (many of them less easily quantified).

The 2000-2020 decline in international currency status for the \$ would be only one small part of a loss of power on the part of the US. But:

- A loss of \$'s role as #1 reserve currency could indeed in itself have serious **geopolitical implications**.
- Precedent: The **Suez crisis of 1956**
 - often recalled as the occasion on which Britain was forced under US pressure to abandon its remaining imperial designs.
 - But recall also the major role played by a simultaneous run on the £ and the US decision not to help beleaguered currency.



[1] Frankel, "Could the Twin Deficits Jeopardize US Hegemony,"

Journal of Policy Modeling, 28, no. 6, Sept. 2006.

At <http://ksghome.harvard.edu/~jfrankel/SalvatoreDeficitsHegemonyJan2006.pdf>.

Also "The Flubbed Opportunity for the US to Exercise Global Economic Leadership";

in *The International Economy*, XVIII, no. 2, Spring 2004 at <http://ksghome.harvard.edu/~jfrankel/Flub123M2004.pdf>