Class 10

Econ 402 James Morley

#### Class 10 Outline

- Macroeconomic Equilibrium and Predictions
- More on Purchasing Power Parity
- Does the Current Account deficit portend a financial crisis?
- Intertemporal Considerations

# CASE STUDY: The Reagan deficits revisited

	1970s	1980s	actual change	closed economy	small open economy
G – T	2.2	3.9	<b>^</b>	<b>↑</b>	<b>↑</b>
S	19.6	17.4	<b>→</b>	<b>↓</b>	<b>↓</b>
r	1.1	6.3	<b>↑</b>	<b>↑</b>	no change
1	19.9	19.4	<b>↓</b>	<b>↓</b>	no change
NX	-0.3	-2.0	<b>↓</b>	no change	<b>1</b>
	115.1	129.4	<b>↑</b>	no change	<u> </u>

# Big Mac Index (2/1/2007)

	Big Mac Prices				
Country	in local currency	in dollars	Implied PPP FX rate	Actual Dollar FX	Under/Over valuation %
US	\$3.22	3.22			
Argentina	Peso 8.25	2.65	2.56	3.11	-18
Britain	Pound 1.99	3.90	1.62	1.96	21
Canada	C\$ 3.63	3.08	1.13	1.18	-4
Euro Area	Euro 2.94	3.82	1.10	1.30	19
Japan	Yen 280	2.31	87.0	121	-28

# Big Mac Index (2/1/2007)

	Big Mac Prices				
Country	in local currency	in dollars	Implied PPP FX rate	Actual Dollar FX	Under/Over valuation %
US	\$3.22	3.22			
Mexico	Peso 29.0	2.66	9.01	10.9	-17
Norway	Kroner 41.5	6.63	12.9	6.26	106
Sri Lanka	Rupee 190	1.75	59.0	109	-46
Switzerland	SFr 6.30	5.05	1.96	1.25	57
Turkey	Lire 4.55	3.22	1.41	1.41	nil

# Forecasting

- The Economist claims that the Big Mac Index does a better job forecasting exchange rates than PPP measures based on relative CPIs
- Over what time frame do you expect PPP to hold for US\$ exchange rate with the Euro, Swiss Franc, Sri Lankan Rupee, Canadian dollar?

#### Estimated Half-Lives of Exchange Rate Deviations from PPP

Country	Half-Life in Years
Canada	13
Japan	4
UK	2

#### PPP Persistence Puzzle

- Exchange rates too volatile to be driven just by real shocks
- Exchange rates too persistent to be driven by monetary shocks and sticky prices

# Estimated Half-Lives of Price Level Deviations from PPP

Country	Half-Life in Years
Canada	<1
Japan	<1
UK	<1

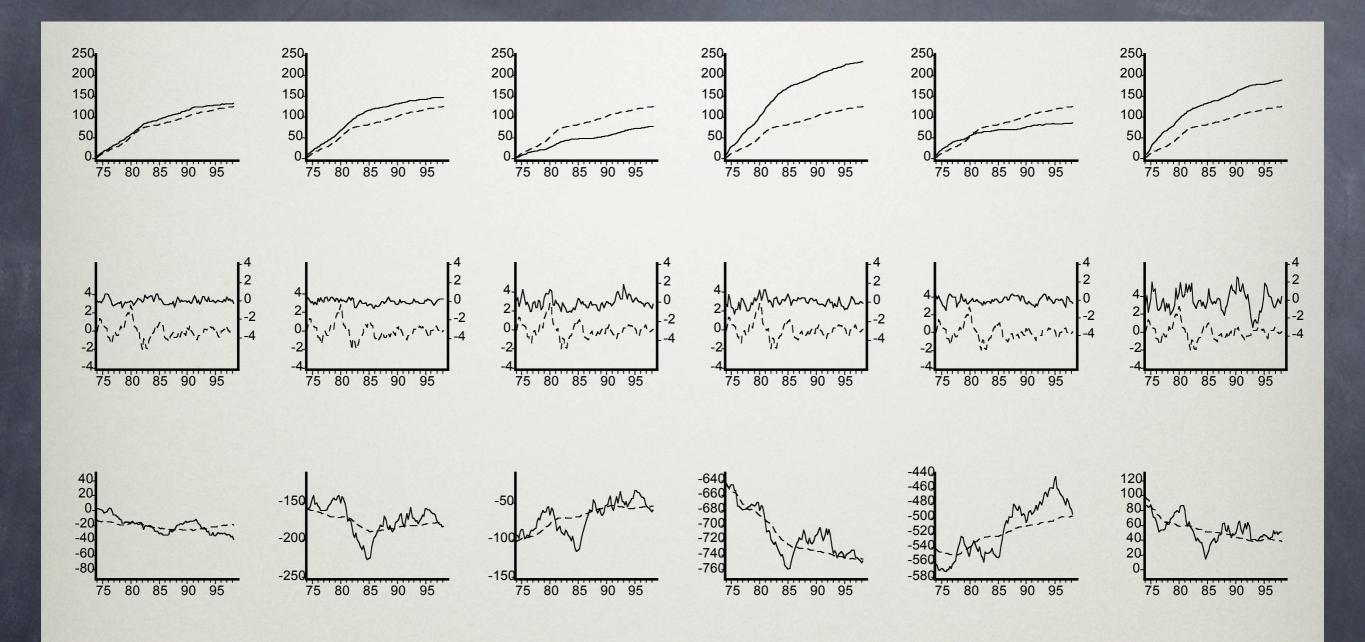
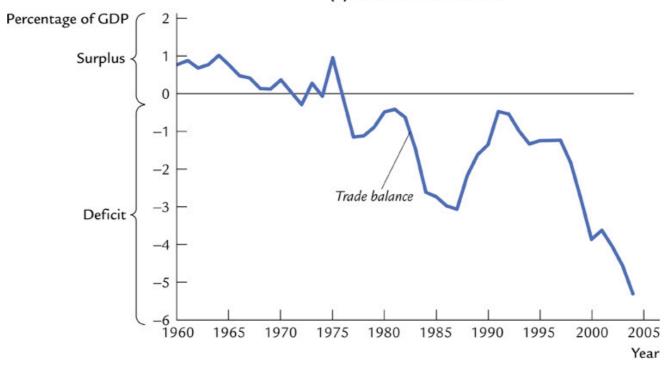


Fig. 2 - Price Components and Exchange Rates for the Seven-Country Model

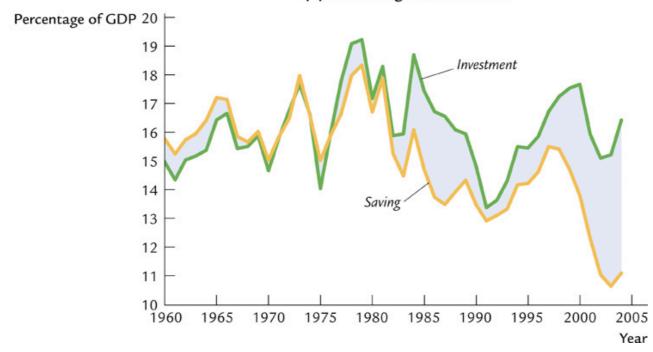
### Dollar Crisis?

- In 2006, the U.S. Trade Deficit is was over 6% of GDP (it was only 4.8% of GDP in 2007)
- What does this imply about national saving and investment?

#### (a) The U.S. Trade Balance



#### (b) U.S. Saving and Investment



**Figure 5.6** The Trade Balance, Saving, and Investment: The U.S. Experience Mankiw: Macroeconomics, Sixth Edition Copyright © 2007 by Worth Publishers

Who is lending to the US?

What would need to happen to NX and the dollar if they stop lending?

How might the change in NX come about?

- Suppose the government wants to avoid the decrease in investment, but it wants to maintain the same level of spending.
- What would it need to do to allow NX=0 without investment falling?
- What would happen to consumption?

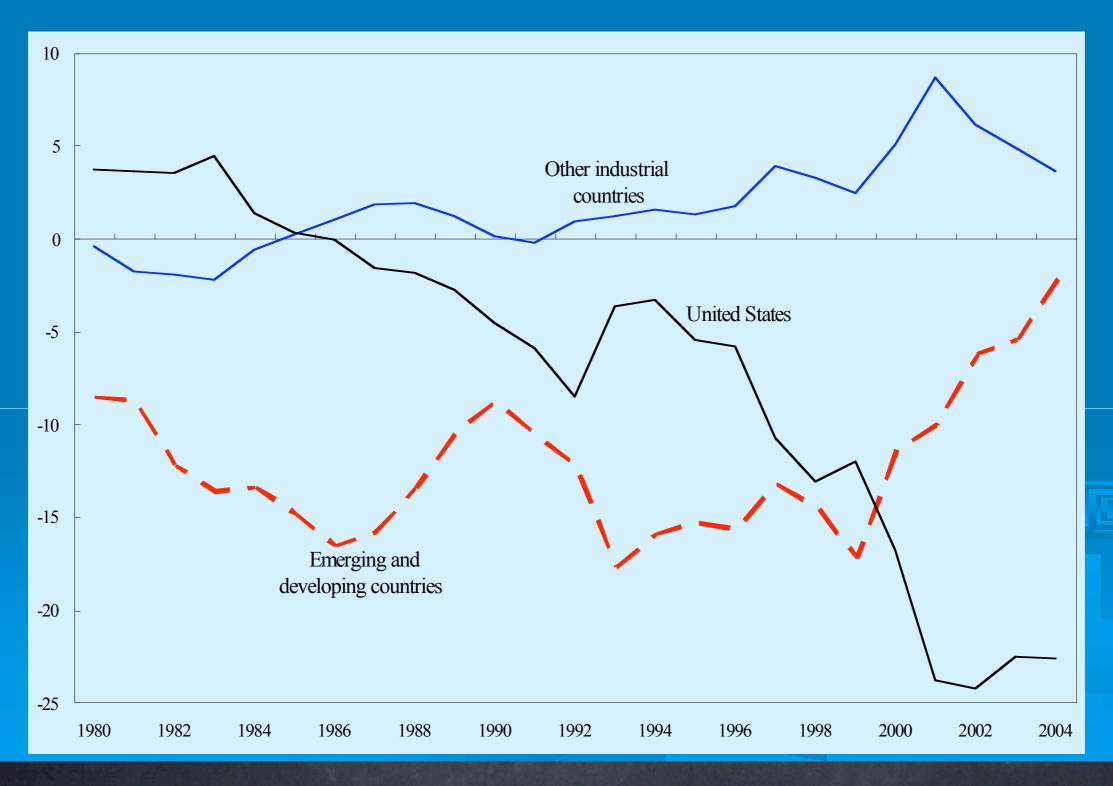
# Intertemporal Considerations

- Modern macroeconomics assumes intertemporal considerations are important
- Extend consumption function (Ch. 16)
- Two-period model

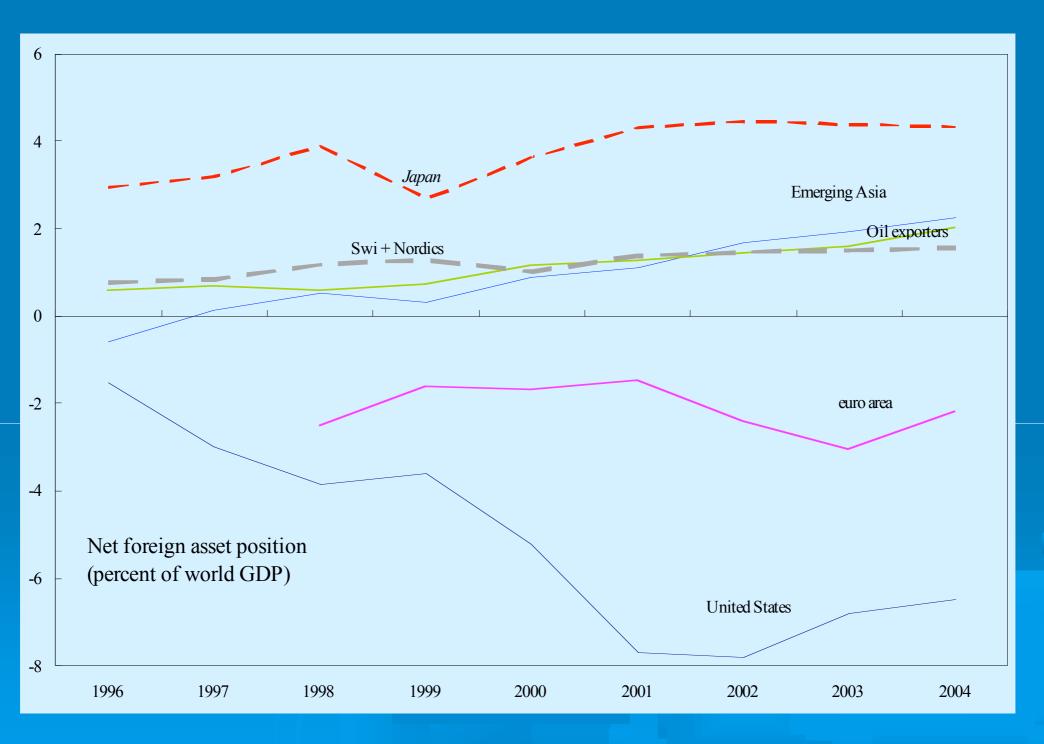
#### Two-Period Model

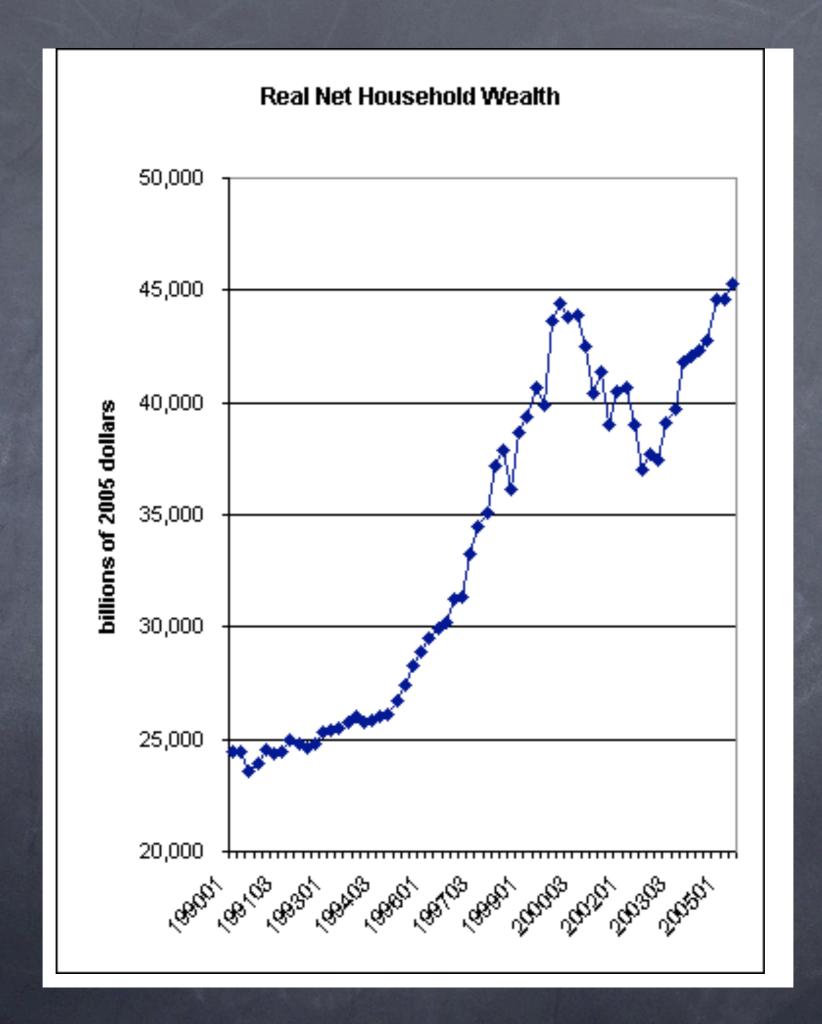
- Private Saving in period 1 = Y1 C1 T1
- > C2 = (1+r)(Y1-C1-T1) + Y2 T2
- That is, C=C(Y-T, Wealth)

# Net foreign assets, broad country groups (pct of GDP)



### NFA (pct of world GDP)





## Open Question

- It is an open question whether capital <u>flows</u> or the <u>stock</u> of wealth matters more
- Historically, both have mattered

Next time: Unemployment (Chapter 6 of Mankiw)