

External Wealth of Nations Project

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September 2009

Measuring financial globalization

- Restrictions on capital movements (De jure; Chinn-Ito)
- Arbitrage gaps between onshore and offshore rates
- Volume-based measures: scale of international balance sheet; scale of gross capital flows
- Volumes important in capturing exposures and linkage mechanisms

EWN Mark II: Dataset on external position (assets and liabilities) for 145 countries

- Extends and improves the dataset in Lane and Milesi-Ferretti (JIE 2001)
- From 67 countries to 145 countries (nearly universal coverage)
- Coverage extended to 1970-2004 [further updates]
- Much larger availability of stock estimates from national authorities
- <http://www.philiplane.org/EWN.html>

Dataset “outputs”

- External assets
 - Portfolio equity
 - Foreign direct investment
 - Debt assets
 - Portfolio debt (for some countries/periods)
 - Other investment assets (for some countries/periods)
 - Reserve assets (net of gold)
 - Financial derivatives (limited coverage)

Dataset “outputs” (II)

- External liabilities
 - Portfolio equity
 - Foreign direct investment
 - Debt liabilities
 - Portfolio debt (for some countries/periods)
 - Other investment liabilities (for some countries/periods)
 - Financial derivatives (limited coverage)

Data inputs

- International Investment Positions (when reported)
- Balance of payments flows
- World Bank's Global Development Finance (external debt)
- FDI stocks and flows from UNCTAD
- Stock of portfolio equity holdings in the US and by US residents (Warnock)
- CPIS Portfolio Survey
- BIS locational banking statistics
- National sources
- Historical data from Sinn (1990)
- IMF desks
- etc....

Estimation methods

- Eclectic...
- Stock data, complemented by cumulative capital flows with valuation adjustments
 - For portfolio equity, valuation reflects stock market prices
 - For debt, its currency composition
 - For FDI, international relative prices

Caveats

- Substantial degree of uncertainty for estimates
- Some offshore centers missing
- Large world NFA discrepancy

Some data features

- Acceleration in scale of cross-border asset trade (more so for advanced nations)
- Increase in relative importance of equity finance for developing countries
- Most advanced countries have positive net equity, negative net debt positions; most developing countries have negative net equity positions
- Weakening correlation between CA and D(NFA)
- Cumulative impact of valuation channel important

Figure 3. International Financial Integration:
Industrial Group and Emerging Markets/Developing Countries Group, 1970-2004

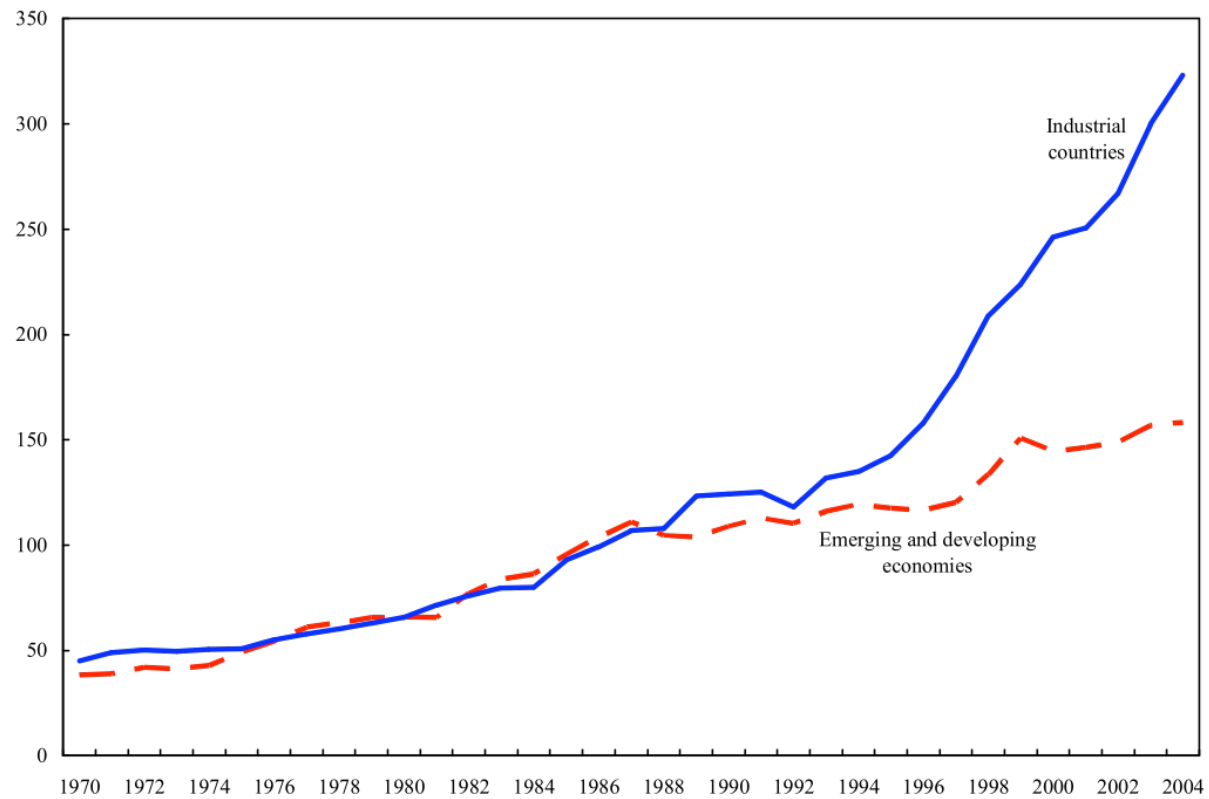


Figure 4. Financial Integration versus Trade Integration:
Industrial Group and Emerging Markets/Developing Countries Group, 1970-2004

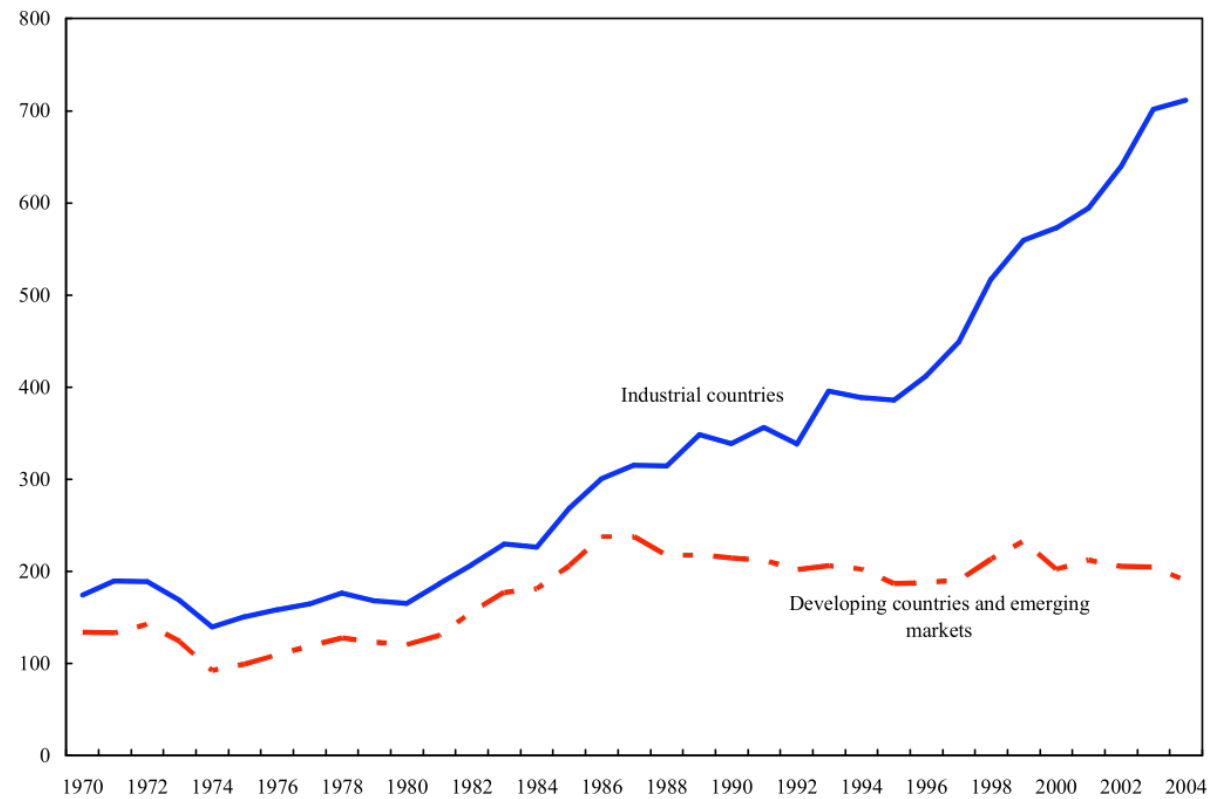


Figure 5. International Equity Integration: Industrial Country Group and Emerging Markets and Developing Country Group, 1970-2004

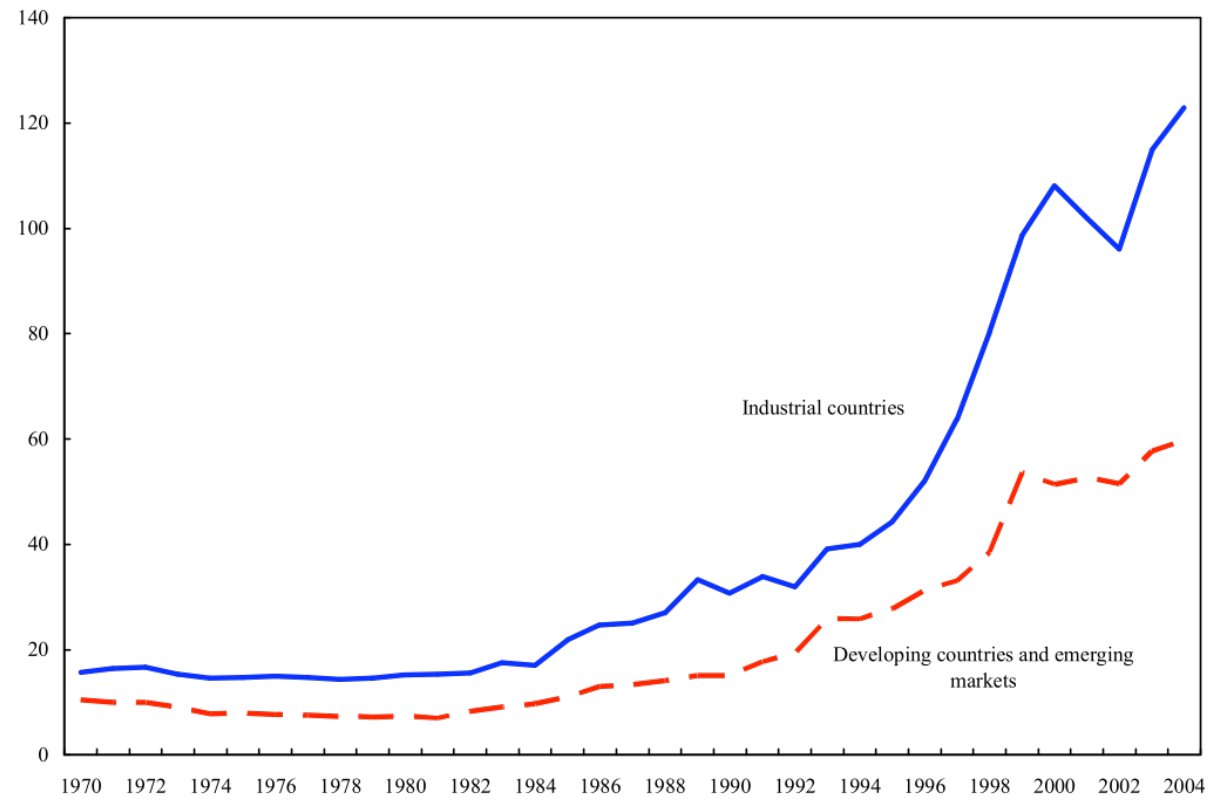


Figure 6. Equity Share in External Liabilities: Industrial Country Group and Emerging Markets and Developing Country Group, 1970-2004

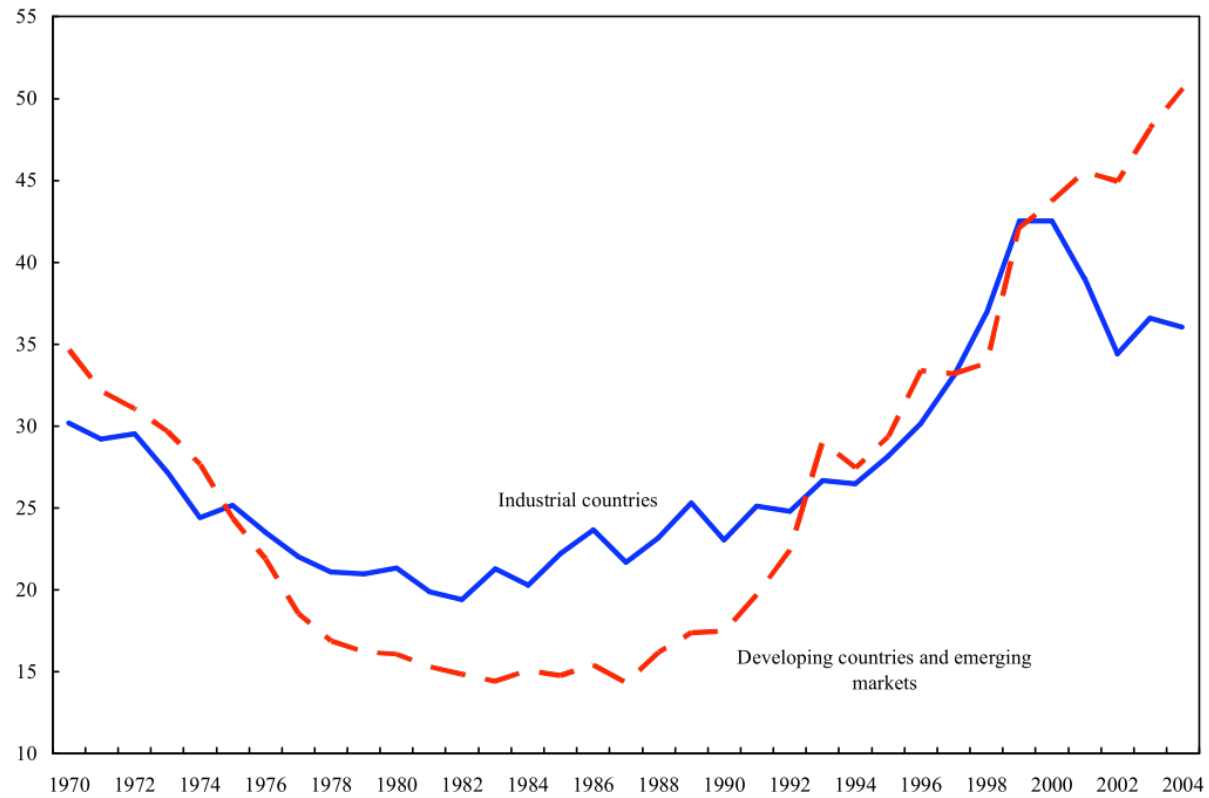


Figure 7. External Debt and Official Reserves, Emerging Markets and Developing Group, 1970-2004

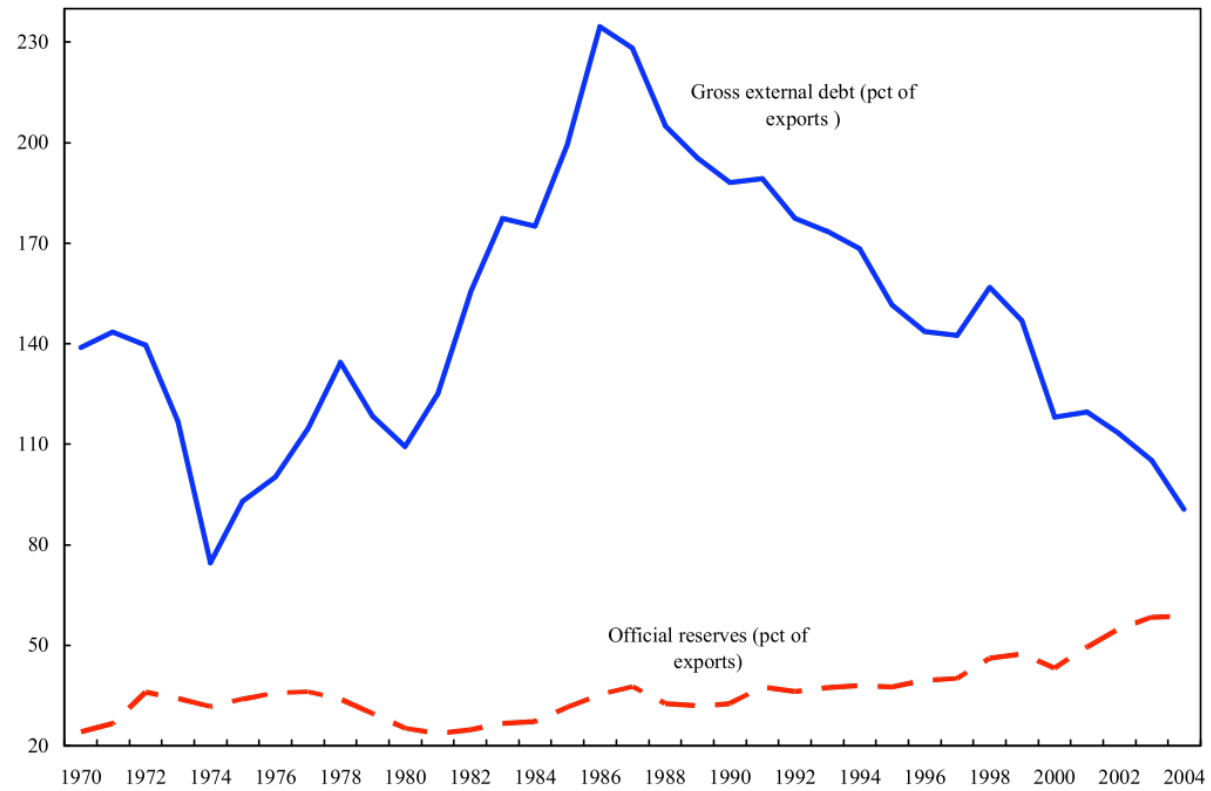


Table 4. Indicators of Int. Fin. Integration, Emerging Markets (ratios of GDP)

	1982	1992	2002
Average net external position	-26.7%	-21.1%	-20.6%
Average external assets	16.6%	26.5%	61.1%
of which:			
foreign exchange reserves	5.1%	11.1%	19.4%
FDI + portfolio equity	0.5%	2.0%	9.3%
Average external liabilities	43.3%	49.9%	81.7%
of which:			
FDI + portfolio equity	5.1%	9.6%	34.5%

Source: authors' calculations based on Lane and Milesi-Ferretti (2001) and IFS.

Figure 8. Net foreign assets and GDP per capita: All Countries, 2004.

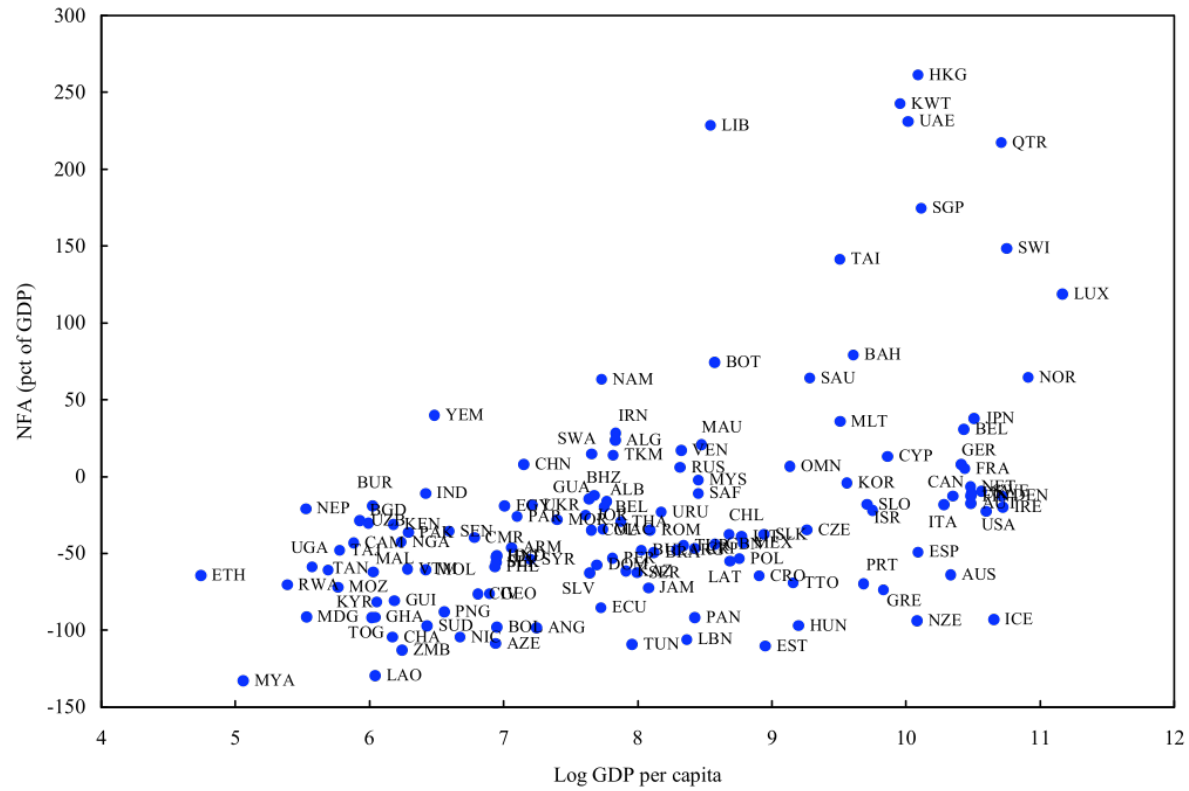


Figure 9. Net Foreign Assets by Country Group (percent of Group GDP), 1980-2004

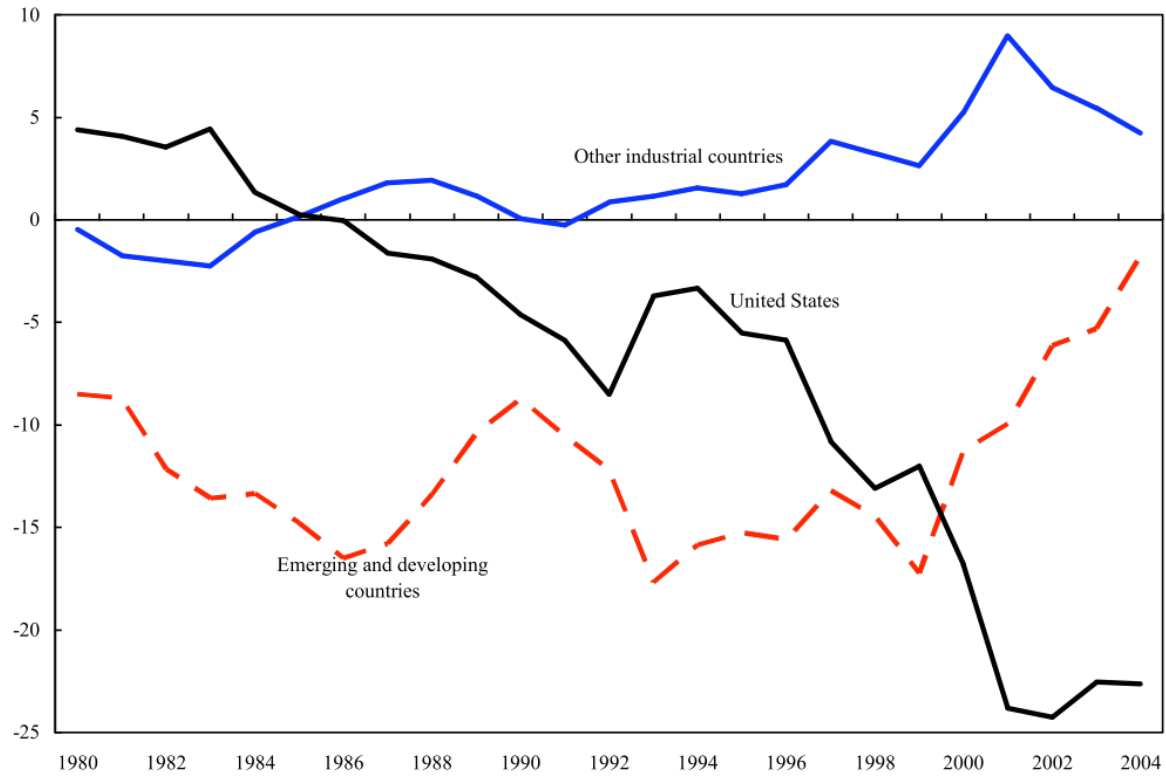
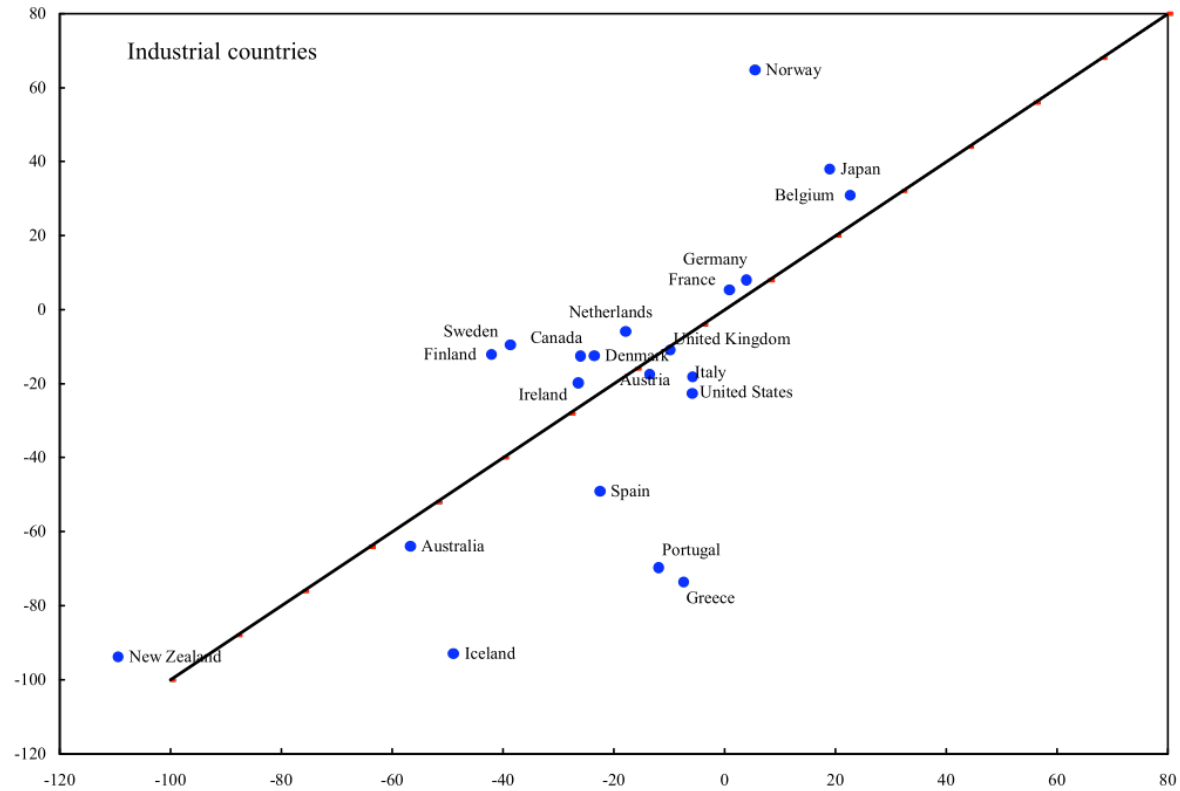


Figure 10a. Change in NFA/GDP, 1996-2004: Industrial Countries



Note: Switzerland is not displayed (NFA of 111% of GDP in 1996 and 149% of GDP in 2004).

Figure 10b. Change in NFA/GDP, 1996-2003: Africa

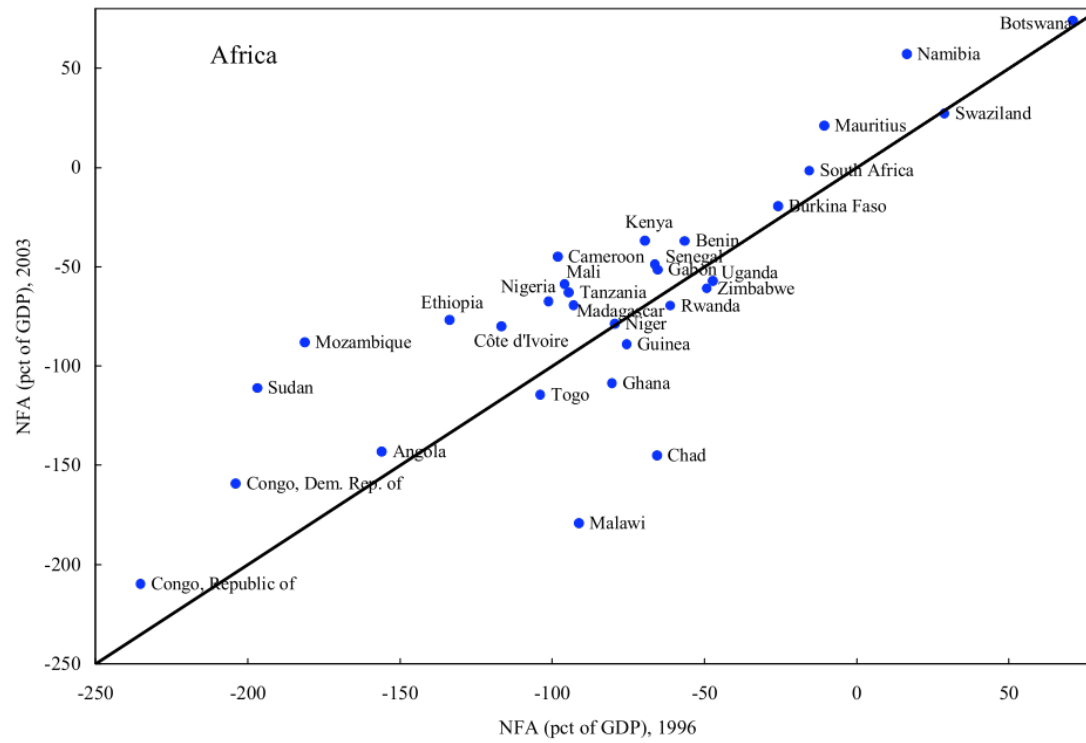


Figure 10c. Change in NFA/GDP, 1996-2004: Asia

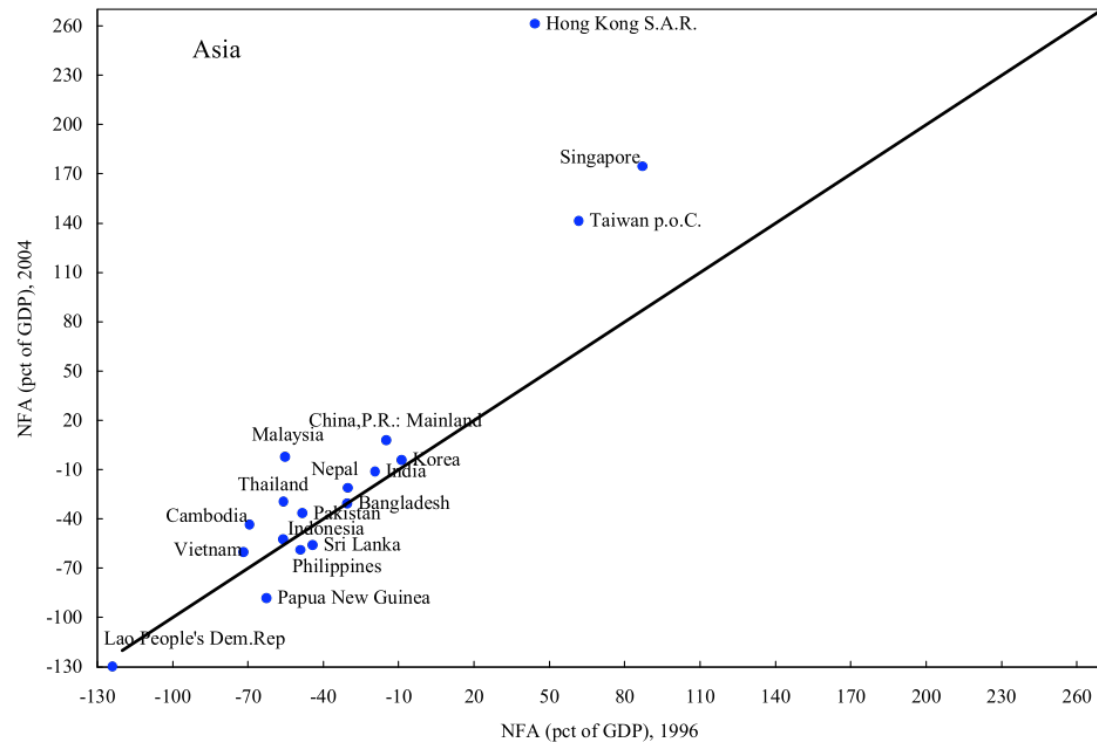


Figure 10g. Change in NFA/GDP, 1996-2004: Western Hemisphere

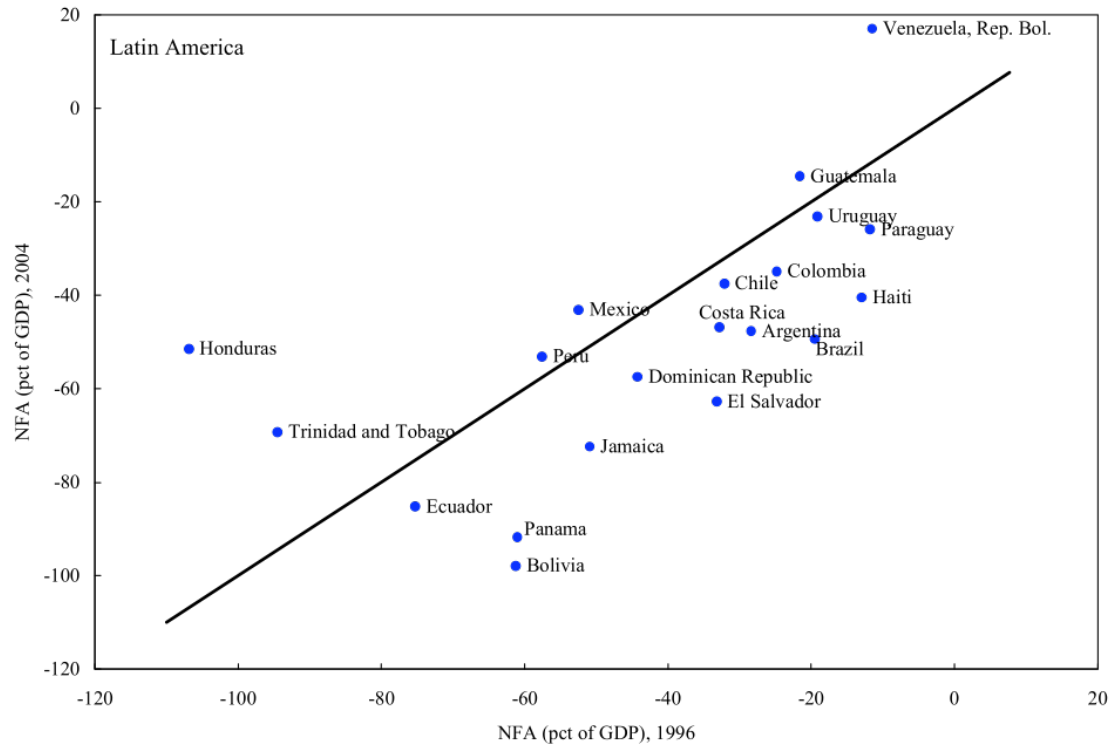


Figure 11a. Net Equity Position versus Net Debt Position: Industrial Group, 2004

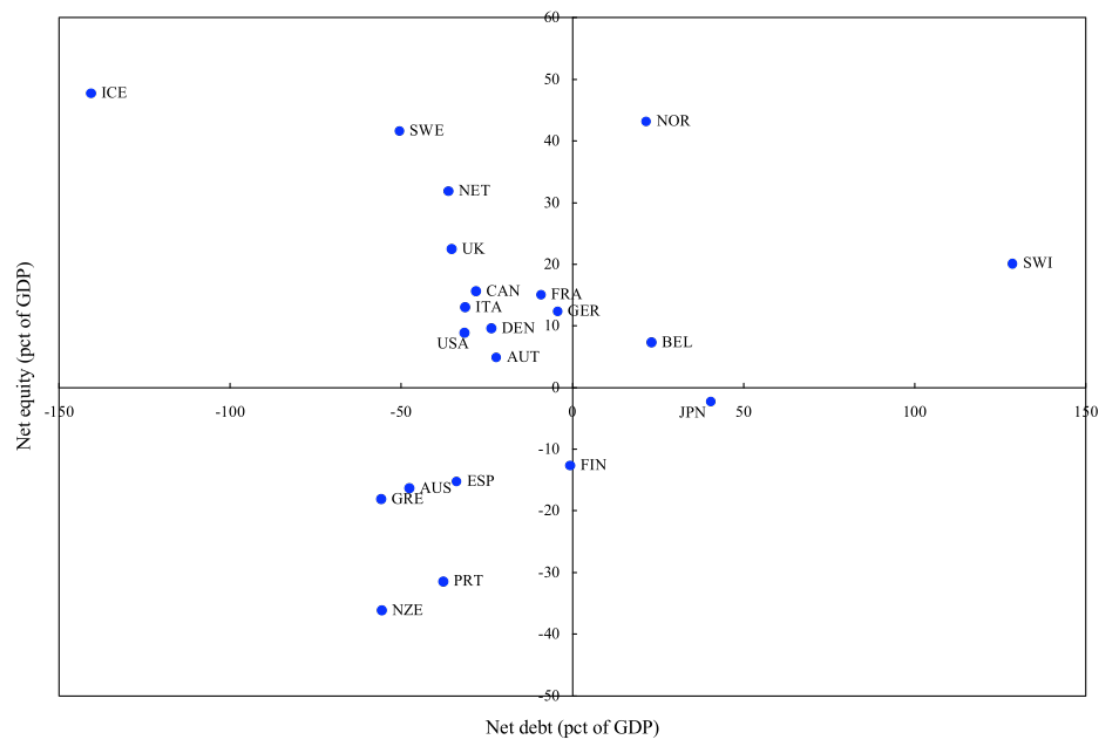


Figure 11b. Net Equity and Net Debt Position:
Emerging Markets and Developing Countries, 2004

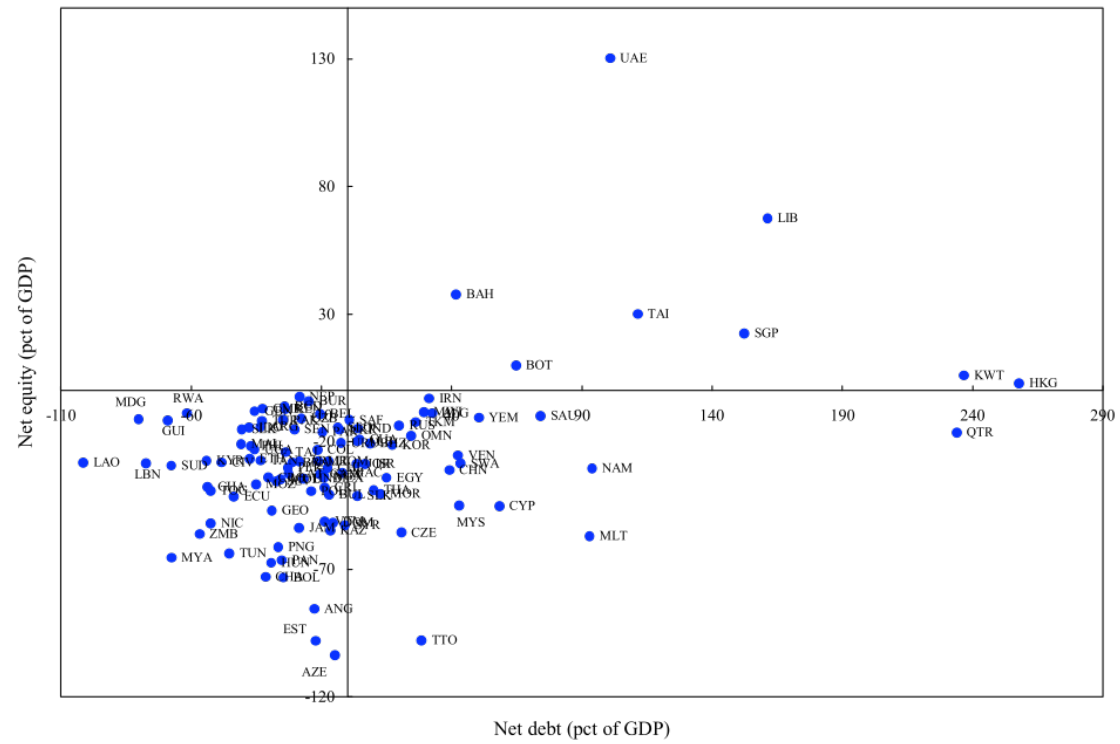


Table 5a. Matrix of Net Debt and Net Equity Positions: Industrial Countries, 2004

		Industrial countries	
		NET EQUITY	
		<0	>0
NET DEBT	<0	6	11
	>0	3	3

Table 5b. Matrix of Net Debt and Net Equity Positions:
Emerging Markets and Developing Countries, 2004

		Developing countries	
		NET EQUITY	
		<0	>0
NET DEBT	<0	73	0
	>0	31	8

Dynamics of External Positions

- In addition to role of capital flows, increasing importance of valuation effects (capital gains and losses on external assets and liabilities)
- Valuation channel an important transmission mechanism for exchange rate movements
- Advanced countries versus emerging market economies

An accounting framework

- NFA accumulation equation:

$$B_t - B_{t-1} = CA_t + KG_t + E_t$$

- Taking ratios of GDP:

$$b_t - b_{t-1} \equiv ca_t + \frac{KG_t}{Y_t} - \frac{g_t + \pi_t}{(1 + g_t)(1 + \pi_t)} b_{t-1} + \varepsilon_t$$

Accounting framework (II)

- We can re-arrange terms of the previous equation in a more familiar form:

$$b_t - b_{t-1} \equiv bgst_t + \frac{r_t^L - g_t}{1 + g_t} b_{t-1} + \frac{r_t^A - r_t^L}{1 + g_t} a_{t-1} + \varepsilon_t$$

- Where a is the stock of gross external assets.
- When rates of return on assets and liabs are equal, this is the familiar debt accumulation eqn.
- When they are not, gross positions matter!

Large industrial countries: NFA 2001-2004

Table 2. Decomposition of change in net foreign assets, 2001-2004

	Initial NFA (2000)	Change in net foreign assets	Cumulative current account		Other factors		
			Cumulative trade balance	Cumulative inv. income	KA, EO	Growth	K-gains
United States	-16.7	-8.3	-19.8	1.0	-0.9	4.0	7.4
United Kingdom	-3.7	-9.1	-15.3	7.4	0.6	0.9	-2.9
Euro Area	-9.8	-5.6	4.1	-2.5	0.4	1.4	-9.0
Canada	-4.8	-5.7	18.5	-9.7	-1.0	1.8	-15.2
Japan	24.3	14.5	5.0	6.8	-1.2	0.3	3.7

Table 8a. Cumulative Current Account and Change in Net Foreign Asset Position: Industrial Group, 1972-2004

	(1) Change in NFA	(2) Cumulative current account	(3) Difference
Switzerland	142.6	121.4	21.2
United States	-23.1	-38.4	15.2
Canada	-9.2	-16.5	7.4
United Kingdom	-13.3	-19.3	6.0
Austria	-17.1	-18.7	1.6
Australia	-62.3	-60.4	-1.8
Germany	7.6	10.9	-3.3
Belgium	30.1	33.6	-3.6
France	4.7	9.2	-4.5
Norway	65.5	71.1	-5.6
Japan	37.6	44.2	-6.6
Portugal	-68.4	-58.7	-9.7
Ireland	-19.3	-5.0	-14.3
Denmark	-10.5	5.3	-15.9
Italy	-18.4	-1.6	-16.8
Greece	-73.4	-55.7	-17.7
Spain	-48.7	-24.7	-24.0
New Zealand	-93.2	-66.4	-26.7
Sweden	-9.5	18.0	-27.6
Finland	-10.7	18.8	-29.5
Iceland	-91.8	-49.6	-42.2
Netherlands	-8.0	48.5	-56.5

Table 8b. Cumulative Current Account and Change in Net Foreign Asset Position: Selected Developing Countries, 1982-2004

	(1) Change in NFA	(2) Cumulative current account	(3) Difference
Argentina	-40.3	-54.3	14.1
Chile	-20.9	-31.7	10.8
India	-8	-10.1	2
South Africa	0.3	-1	1.3
Mexico	-32.3	-30.3	-2
Brazil	-34.8	-32.6	-2.2
China	7.3	18.1	-10.9
Korea	0	14.8	-14.8
Thailand	-24	-8.8	-15.2
Turkey	-39.4	-16.8	-22.7
Malaysia	4.9	30.3	-25.4
Philippines	-39.8	-6.4	-33.4
Venezuela	26	62.1	-36.1
Indonesia	-45.4	-4.5	-40.9

Table 6. Correlation Between Current Account and Change in Net Foreign Assets: Industrial Countries and Emerging Markets, Annual Data, 1971-2004

	Industrial countries	Emerging markets
1971-2004	0.42	0.58
1971-1981	0.71	0.72
1982-1992	0.63	0.68
1993-2004	0.34	0.47