

The Turbulent 1970s and 1980s

Lecture Summary

- From Oil Crisis to Debt Crisis
 - International Commodity Cartels (e.g. OPEC)
 - Principles of Cartel Formation and Success
 - Oil Crises of the 1970s
 - Debt Crisis of the 1980s
- Effects of Crises on Industrial Countries
 - recession + inflation = “stagflation”
 - Disinflation under Paul Volcker
 - The Strong Dollar and the “New Protectionism”

International Commodity Cartels

- Definition: an association of developing countries that aims to artificially reduce supply in order to raise the price of their commodity exports
- Like ISI and EOI, Int'l Commodity Cartels were seen as a path to economic development
 - Sought to address terms of trade (TOT) problem (Figure 1)
- OPEC (Organization of Petroleum Exporting Countries) the most successful cartel in the 70s, but it's success has not been consistent
 - OPEC members agree to of oil by setting an output ceiling. Reducing the amount of oil available on world markets puts upward pressure on oil prices
- Other efforts to cartelize commodity output (bauxite, copper, tin, coffee, bananas) never as successful. Why?

Principles of Cartel Formation and Success

- Cartels are agreements between producers of a good to limit production in order to raise the price of the good (so as to earn monopoly profits)
 - Purpose of Antitrust Law is to prevent cartels from forming and charging excessive prices: cartels are illegal in the U.S.
 - International Cartels (OPEC, diamonds, tin) are outside the jurisdiction of the U.S.
- Cartels are inherently unstable, due to the incentives to cheat
 - Cheating means “free riding”: members enjoy benefits of the high cartel prices without paying the cost of reducing production
 - Crux of the cartel problem: Cheating increases *individual* profits, but decreases *cartel* profits
 - Free riding is the major cartel enforcement problem. When too many producers cheat, the cartel is unsuccessful

The Cartel Problem: aka the Prisoners' Dilemma

		Player 2	
		Defect or Low Price	Cooperate or High Price
Player 1	Defect or Low Price	5,5	16,0
	Cooperate or High Price	0,16	8,8

Note: First numerical entry in each box is payoff to (row) Player 1; Second is (column) payoff to Player 2.

Define properties:

1. As $16 > 8$, defect is dominant strategy for both, but,
2. As $8 > 5$, (Cooperate, Cooperate) is better for both than (Defect, Defect)

Conditions for cartel success

- **Number and size distribution of sellers**
 - Small number \Rightarrow easier to collude
 - Cheating more obvious, enforcement relatively easy
 - One dominant producer \Rightarrow easier to collude
 - If one very large member wants to keep cartel together, it can manipulate prices even if others free ride (Saudi Arabia in OPEC)
- **Socio-cultural structure of sellers**
 - Ideological/cultural linkages \Rightarrow easier to collude
 - Such ties can reduce incentives to cheating. In OPEC, opposition to Israel united members
- **Structure of consumer demand**
 - If demand is price “inelastic” \Rightarrow easier to collude
 - Inelastic means demand is not very sensitive to price, i.e. change in quantity demanded $<$ change in price

Organization of Oil Exporting Countries

- Founded in 1961 by 5 Middle East countries in response to power of “Seven Sisters” (Standard Oil, Texaco, Chevron, Mobil, Exxon, BP, and Royal Dutch Shell) to set oil prices
 - Began with a wave of nationalizations of private oil companies
- Why did Seven Sisters lose control?
 - “Obsolescing Bargain” (Figure 3) facilitated shift in control
- Divisions in OPEC
 - Hawks (e.g Iran, Iraq) have large populations and relatively small oil reserves. Preference for highest possible oil prices
 - Doves (Saudi Arabia, Kuwait, UAE) have small populations and large oil reserves. Preference is for moderate oil prices to prevent consumers from reducing dependence on oil (finding substitutes, new sources)
- In Oct 1973, OPEC overcame differences and achieved a four-fold increase in oil prices \$3 \Rightarrow \$12 barrel (Figure 4)
 - Key to OPEC success was Saudi Arabia, with half of reserves. Broke with dovish preference for moderate prices and absorbed largest burden of production cuts
 - Or, if too much cheating was going on, Saudi’s punished the free riders by flooding the market with oil and driving prices very low.

Oil Crisis to Debt Crisis

- Debt Crisis a major threat to borrowers *and* to the world financial system (Figure 5)
- Why did the lenders over-lend?
 - Rise of the Eurodollar market
 - Need to “recycle” OPEC petrodollars (Figure 6)
 - Herd mentality
- Why did the borrowers over-borrow?
 - To finance payment deficits (caused by ISI)
 - Worries about FDI and MNCs (e.g. ITT in Chile)
 - Bank loans don’t carry the threat of MNC invasion
 - *Negative* real interest rates (Figure 7) made borrowing like a free lunch

Causes of the Crisis and its Resolution

- **Proximate causes were *international*:**
 - Disinflation policy in the U.S. (Volcker) led to:
 - Recession in the OECD \Rightarrow reduces demand for LDC exports
 - Rise in global interest rates \Rightarrow increases LDC debt burden
 - Appreciation of US dollar \Rightarrow increases LDC burden (Figure 8)
 - Protectionism in the OECD lowers earnings of debtors
 - Recession in North increases protectionism there
 - Strong dollar exacerbates protectionism
- **Resolution, 1983-1989**
 - Phase 1: Keep loans current to prevent int'l financial collapse
 - Put all the burden on the debtors (IMF-sanctioned austerity programs)
 - Phase 2: Debt reduction
 - Brady Plan of 1989 reduced debt and lowered interest rates

Effects of Crises on Industrial Countries

- Recession + Inflation = “Stagflation”
 - Odd mix of slow growth, high unemployment, and a sustained rise in prices, 1973-79. Why?
 - OPEC hike in energy costs propels a “wage-price inflationary spiral”
 - producers raise prices to compensate for higher energy costs; workers then demand higher wages to compensate for rising costs of everything; producers then raise prices to deal with higher labor costs...repeat
 - Federal Reserve, free from Bretton Woods constraint, accommodates the spiral, 1973-79
 - With so much uncertainty about prices, and with high energy costs eating into profits, firms cut back on production and investment. Slow growth and high unemployment result.

Disinflation under Paul Volcker

- 1980s began with the Volcker disinflation
 - Federal Reserve Chair Paul Volcker's attempt to restore confidence in the inflation-fighting commitment of the Federal Reserve and to reduce inflation from near 10 percent per year to low levels.
 - Successful, but at a cost: steepest recession of the post-WWII era, with unemployment that peaked near 10%. Recovery does not happen until the late 1980s
- Strong Dollar and the “New Protectionism”
 - Volcker’s tight money, combined with Reagan’s loose fiscal policy, lead to rising interest rates in the early 1980s
 - Massive capital inflow and appreciation of the \$US (Figure 8)
 - Strong dollar lead to a flood of imports (Figure 9). For the reason why, see (Figure 10)
 - Rising imports stimulated demand for New Protectionism.
 - New Protection = non-tariff barriers (NTBs) such as “voluntary export restraints (VERs)” (Figures 11-12)

Figure 1: Primary Products Terms of Trade

A. Overall indexes

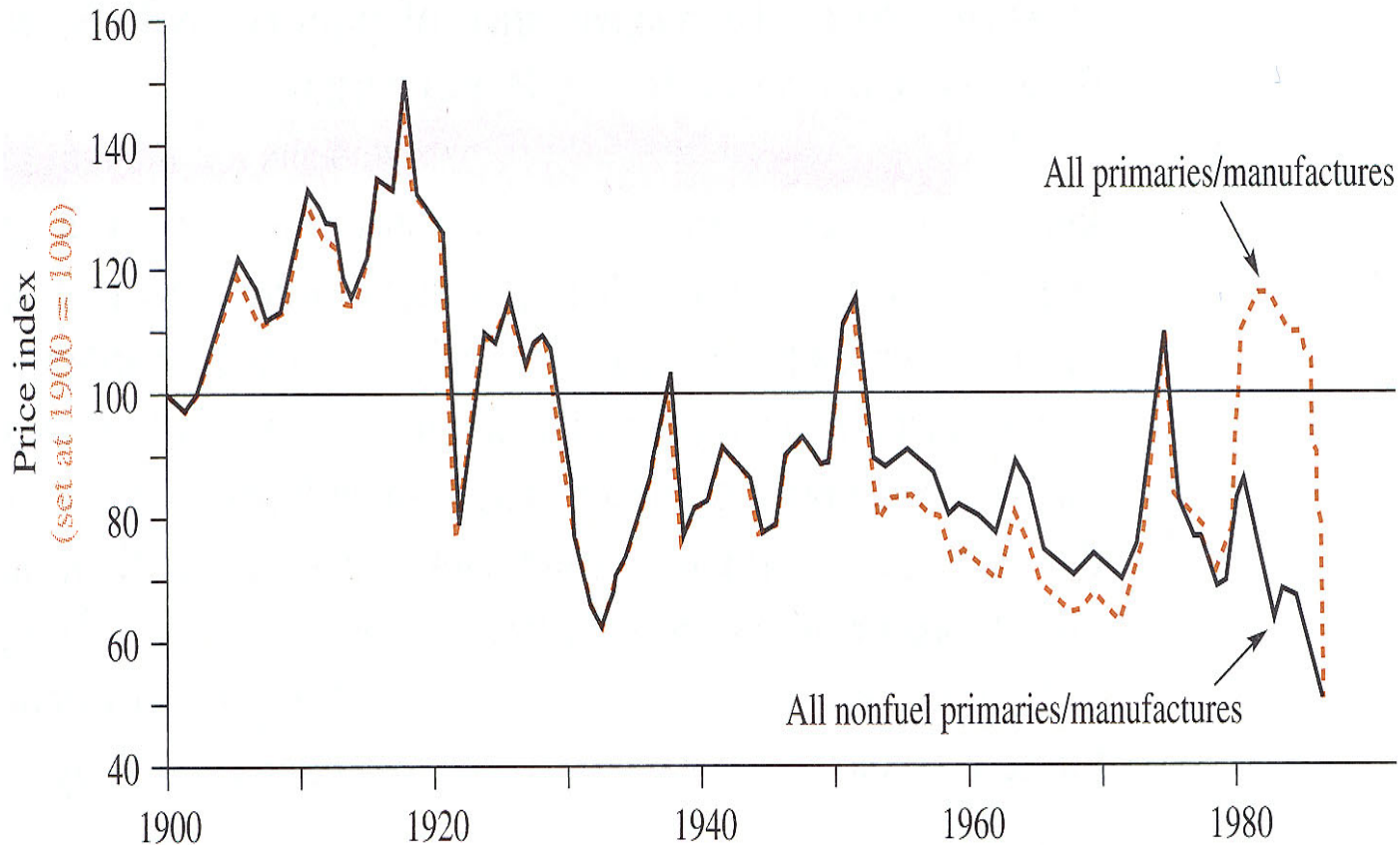
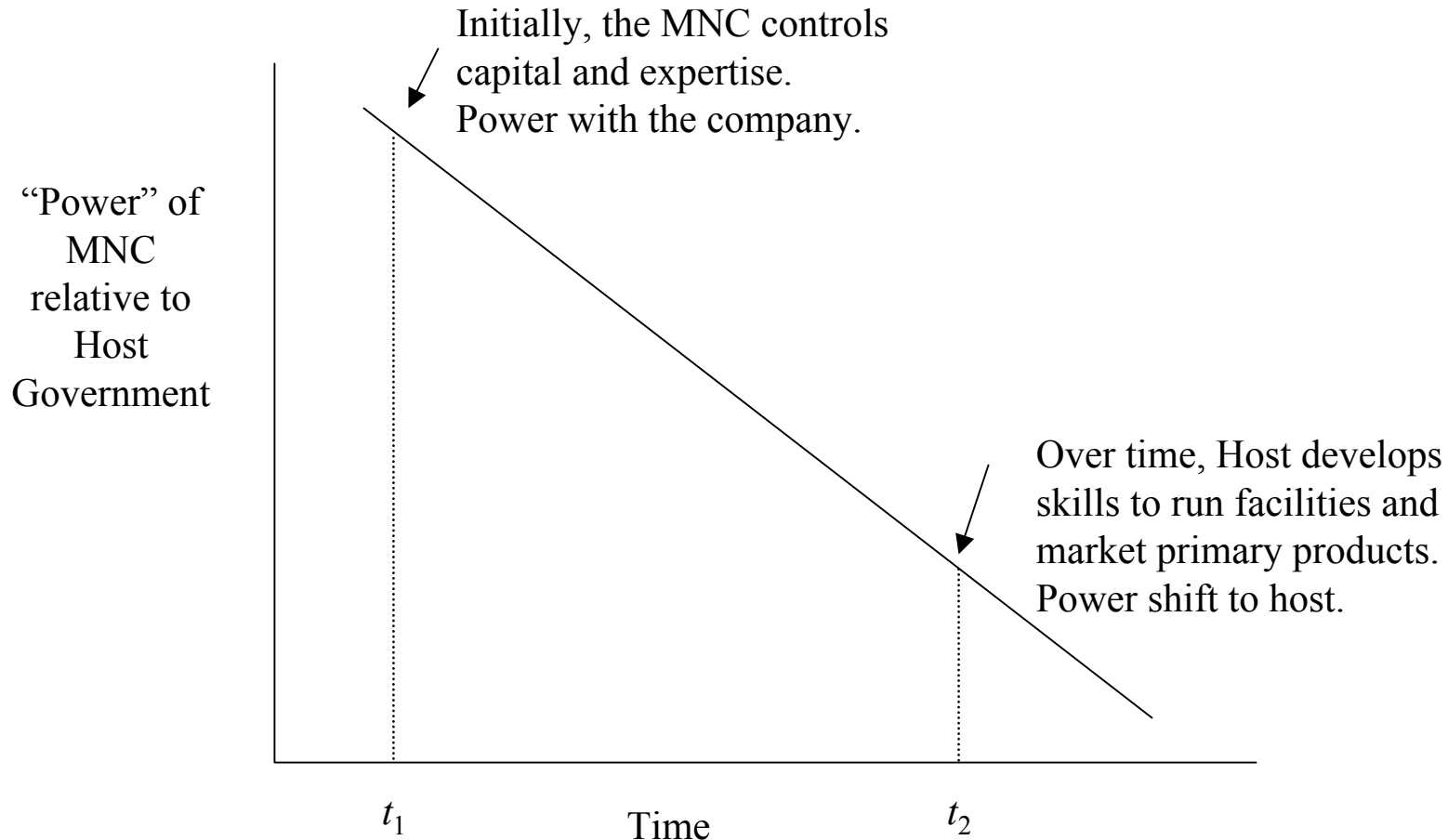


Figure 2: “Obsolescing Bargain” in MNC-Host Government Relations



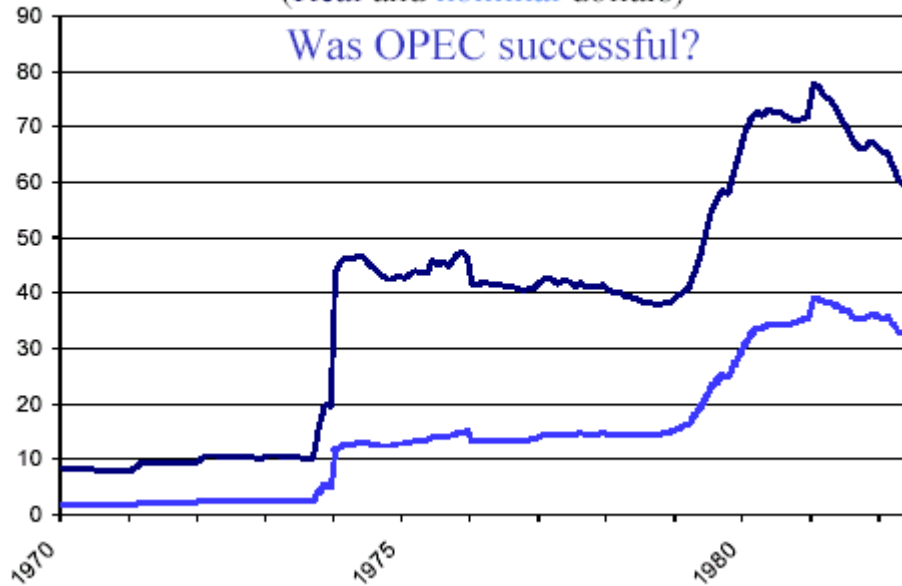
Relevant to the shift in power to OPEC from the “7 Sisters,” and to commodity cartels generally.

Figure 4: Was OPEC Successful?

World Oil Prices, 1970-1982

(Real and nominal dollars)

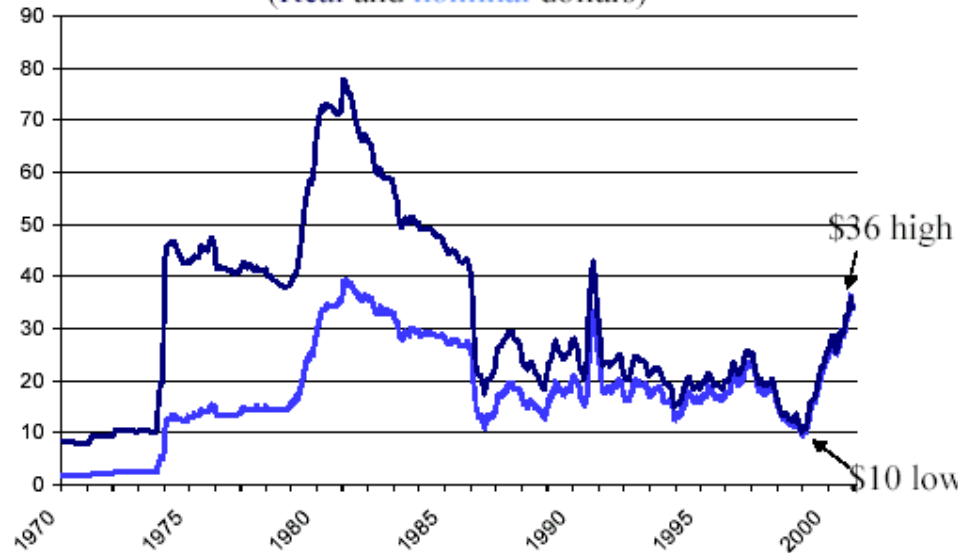
Was OPEC successful?



“Yes” from 1973 to early 1980s

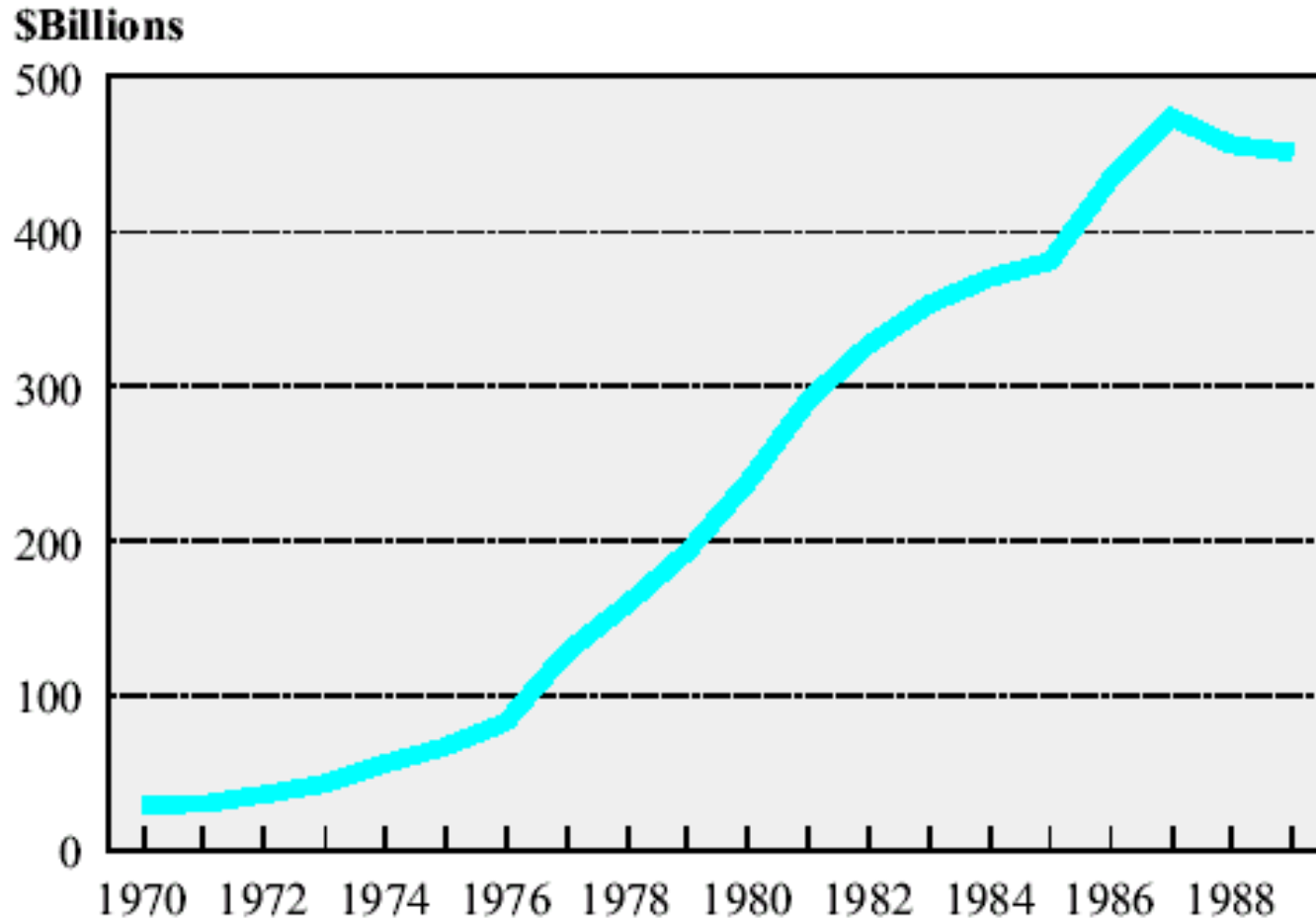
World Oil Prices, 1970-2001

(Real and nominal dollars)



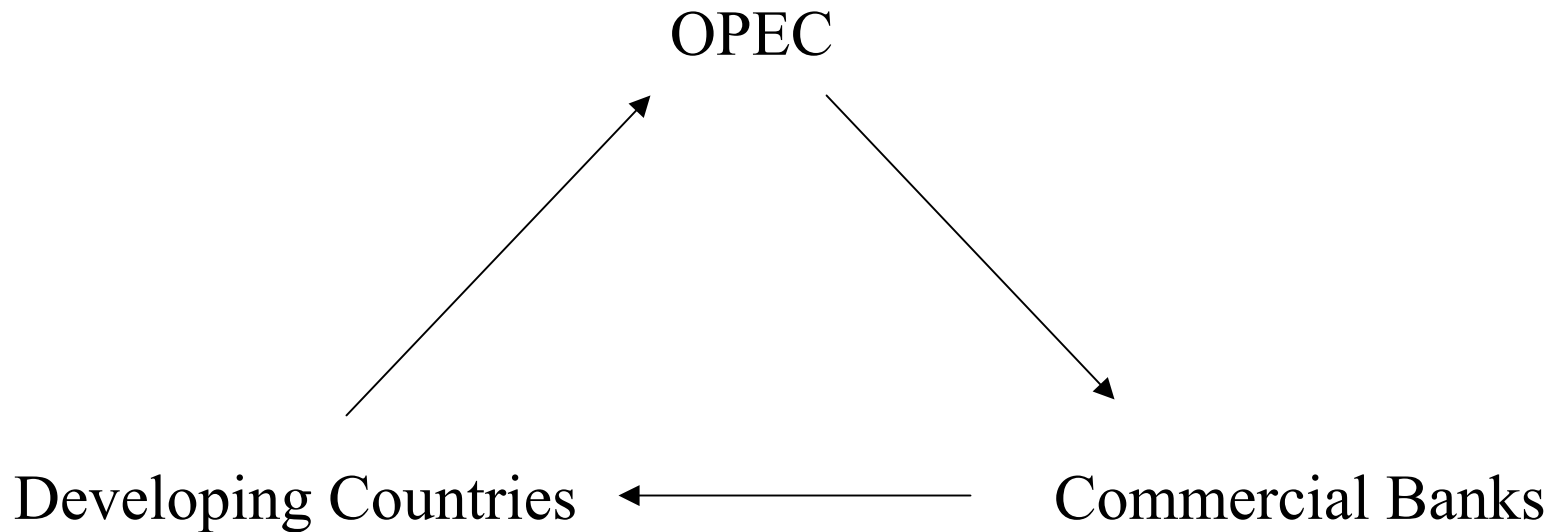
“No” from mid-1980s to the present

Figure 5: Latin American Debt Outstanding, 1970-1989



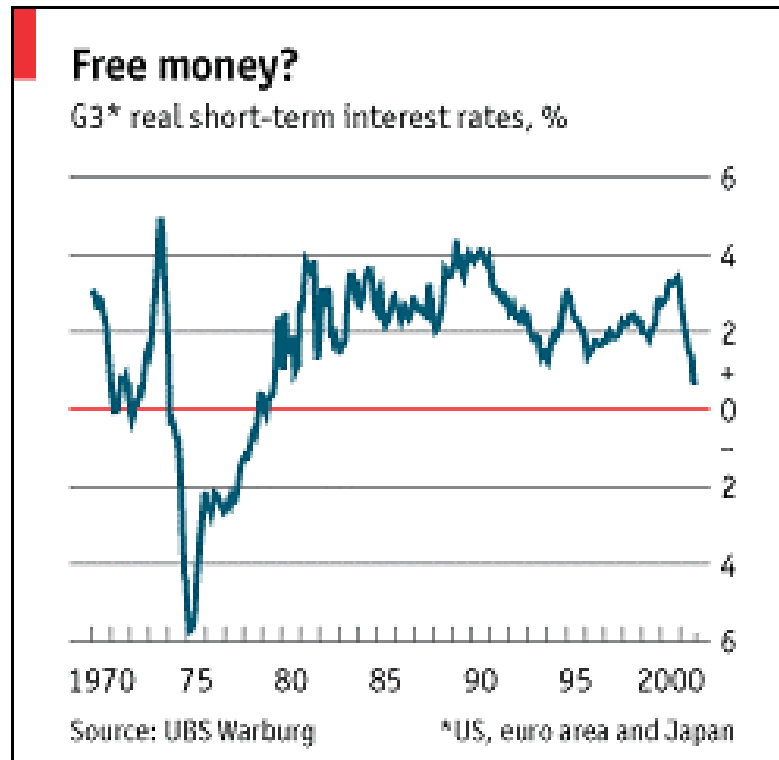
Source: World Bank, *World Bank Debt Tables* (1990-91 ed.).

Figure 6: Petrodollar Recycling



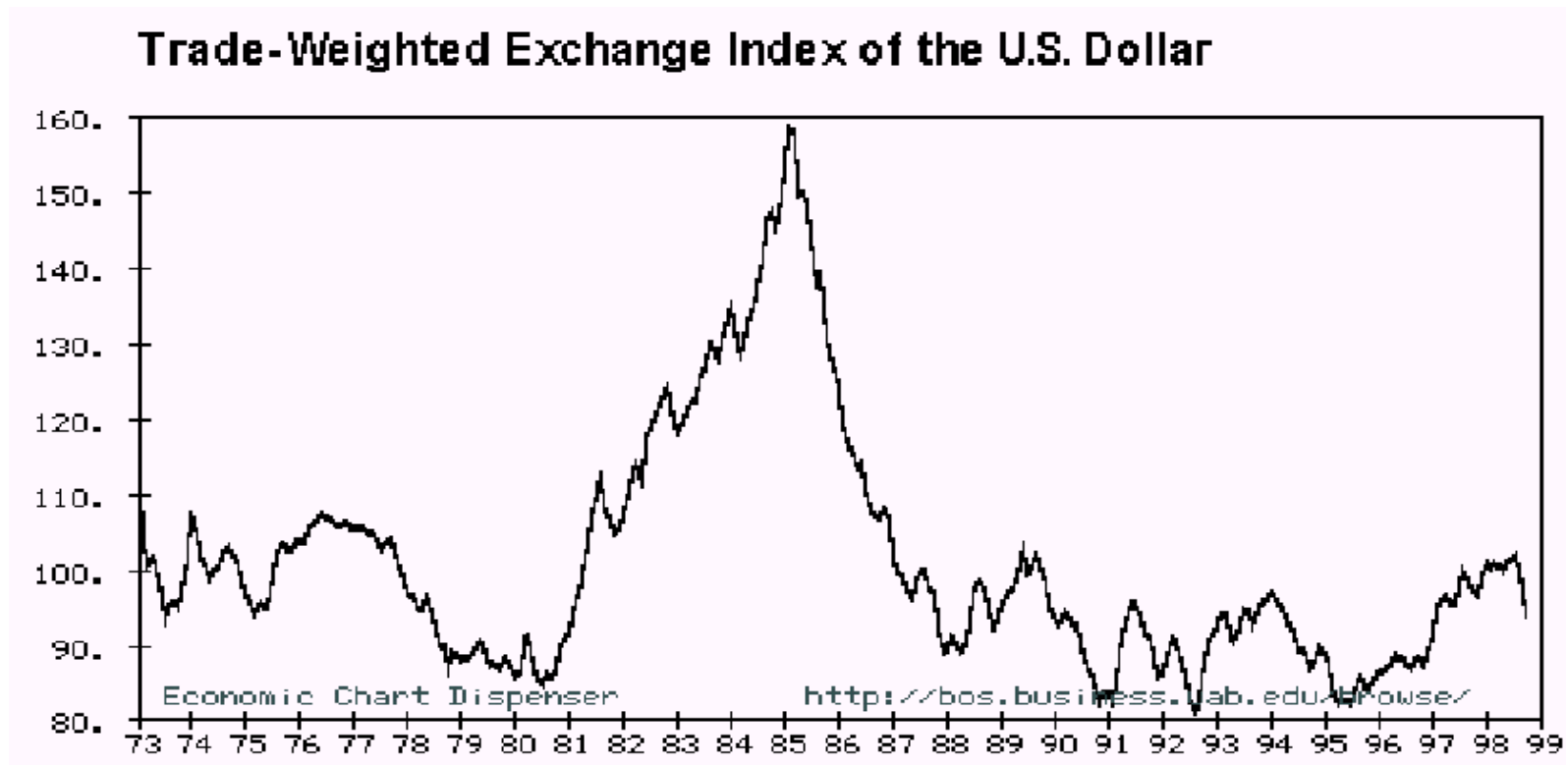
Between 1973 and 1980, the dramatic rise in price of oil provided oil producers (OPEC), with an ongoing windfall gain: a dramatic change in their terms of trade that resulted in huge current account surpluses. These surpluses of 'petrodollars' were deposited in British and American banks and in the eurocurrency markets. The second stage of 'recycling' occurred with the onward lending of the surpluses by banks to developing countries, who were keen to industrialize and saw loans as a way to finance development...and pay their growing oil import bills.

Figure 7: Real Interest Rates



Negative real interest rates, 1975-1979, encourage borrowing by developing countries

Figure 8: Strong Dollar, 1980-85



Trade-weighted exchange rate: weighted average of the exchange rates between the dollar and our trading partners (weighted by the amount of trade between the U.S. and each country).

Figure 9: Value of the dollar and trade

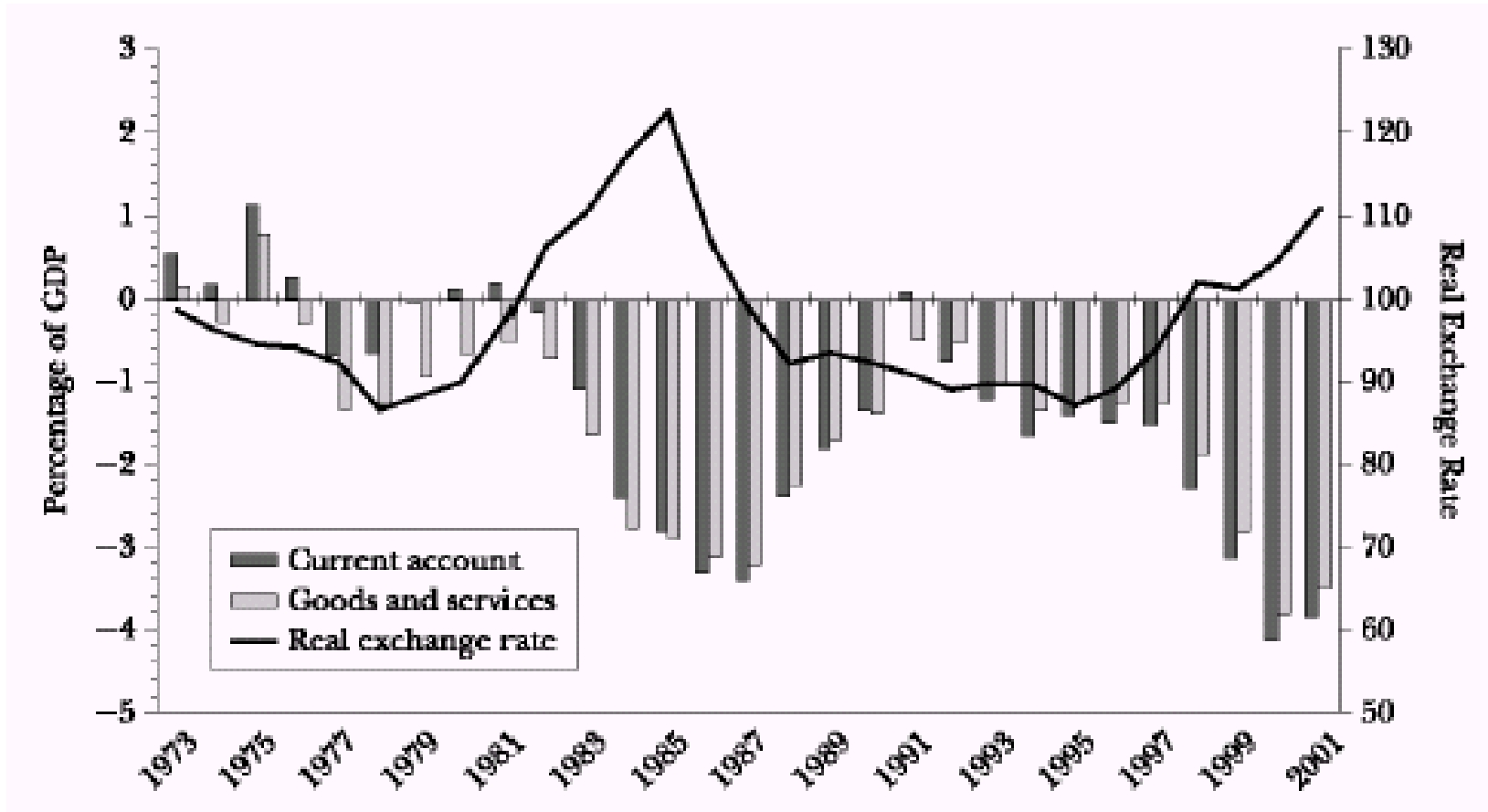


Figure 11: Level of the exchange rate and trade

- **Example:** take 2 countries (U.S., U.K.), 2 currencies (\$US, £UK) and one traded good (men's shirts).
- Price Comparison:
 - U.S.-made shirts \$50
 - U.K.-made shirts £31.50
- Exchange rate: \$1 = £0.63 This is the PPP condition:

	<i>US Shopper prices</i>	<i>U.K. Shopper prices</i>
US-made shirt	\$50	\$50= £31.50
U.K.-made shirt	£31.50=\$50	£31.50

- Now do comparison shopping after the dollar *depreciates* by 25% (\$1 = £0.47)

	<i>US shopper prices</i>	<i>U.K. Shopper prices</i>
US-made shirt	\$50	\$50= £23.50
U.K.-made shirt	£31.50=\$67.02	£31.50

- The exchange rate affects the price competitiveness of all traded goods—it is thus the *single most important price in an economy*. It has a major impact on a country's wealth.

Figure 11: Costs of the “New Protectionism”

Industry	Total Costs to Consumers (in \$ millions)	Number of Jobs Saved	Cost per Job Saved
Textiles and apparel	\$27,000	640,000	\$ 42,000
Carbon Steel	6,800	9,000	\$ 750,000
Autos	5,800	55,000	\$ 105,000
Dairy products	5,500	25,000	\$ 220,000
Shipping	3,000	11,000	\$ 270,000
Meat	1,800	11,000	\$ 160,000

SOURCE: Michael McFadden, “Protectionism Can’t Protect Jobs,” *Fortune*, May 11, 1987.

Figure 12: Costs of Protection in Japan and the US

TABLE 7.1 Japanese and American Protection (Millions of Dollars)

	<i>Producer Surplus Gained</i>	<i>Tariff Revenue</i>	<i>Quota Rents</i>	<i>Efficiency and Consumption Deadweight Losses</i>	<i>National Welfare Loss</i>
	A	B	C	D	(C+D)
Japan (1989)					
Food and beverages (17)	43,210	1,086	6,909	7,189	14,098
Textiles and light industry (6)	3,341	812	3,059	1,767	4,826
Metals (7)	2,546	77	2,185	354	2,539
Chemical products (11)	8,466	135	3,866	3,033	6,899
Machinery (6)	12,286	25	4,233	5,043	9,276
Total, Japan	69,849	2,135	20,252	17,386	37,638
United States (1990)					
Food and beverages (5)	1,775	176	646	350	996
Textiles and light industry (9)	12,242	5,403	6,124	2,574	8,698
Chemical products (2)	222	232	0	30	30
Machinery (1)	157	0	350	35	385
Miscellaneous (2)	1,288	50	0	557	557
Total, United States	15,684	5,861	7,120	3,546	10,666

Before Uruguay Round cuts, the national losses to Japan and the United States were approximately \$37.6 billion and \$21.4 (2 10.7) billion, respectively.

Notes: The numbers in parentheses are the number of industries with high levels of protection included in each category. The Japanese totals make up the majority of total protection in Japan, while the U.S. figures include the twenty-one industries comprising about one-half the total protection in the United States. The sources are Sazanami, Urata, and Kawai, *Measuring the Costs of Protection in Japan*; and Hufbauer and Elliott, *Measuring the Costs of Protection in the United States*.