

International Economics

THEORY & POLICY

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Chapter 22

Developing Countries: Growth, Crisis, and Reform

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Slides prepared by Thomas Bishop



Preview

- Snapshots of rich and poor countries
- Characteristics of poor countries
- Borrowing and debt in developing economies
- The problem of “original sin”
- Types of financial capital
- Latin American, East Asian and Russian crises
- Currency boards and dollarization
- Lessons from crises and potential reforms
- Geography’s and human capital’s role in poverty

Rich and Poor

Indicators of Economic Welfare for 4 groups of countries, 2003		
	GNP per capita (1995 US\$)	Life expectancy
Low income	450	58
Lower-middle income	1480	69
Upper-middle income	5340	73
High income	28850	78

Source: World Bank, World Development Report 2004/2005

- Low income: most sub-Saharan Africa, India, Pakistan
- Lower-middle income: China, former Soviet Union, Caribbean
- Upper-middle income: Brazil, Mexico, Saudi Arabia, Malaysia, South Africa, Czech Republic
- High income: US, France, Japan, Singapore, Kuwait



Rich and Poor (cont.)

- While some previously middle and low income countries economies have grown faster than high income countries, and thus have “caught up” with high income countries, others have languished.
 - ◆ The income levels of high income countries and some middle income and low income countries have converged.
 - ◆ But the some of the poorest countries have had the lowest growth rates.

Rich and Poor (cont.)

Country	GDP per capita (1996 US \$)		annual growth rate
	1960	2000	1960-2000 average
United States	12414	33308	2.5
Canada	10419	26922	2.4
Hong Kong	3047	26703	5.6
Ireland	5208	26379	4.1
Singapore	2280	24939	6.9
Japan	4657	24672	4.3
Sweden	10112	23662	2.1
France	7860	22371	2.6
United Kingdom	9682	22188	2.1
Italy	6817	21794	2.9
Spain	4693	18054	3.4
Taiwan	1468	17056	6.7
South Korea	1571	15881	6.0
Argentina	7395	10995	1.0

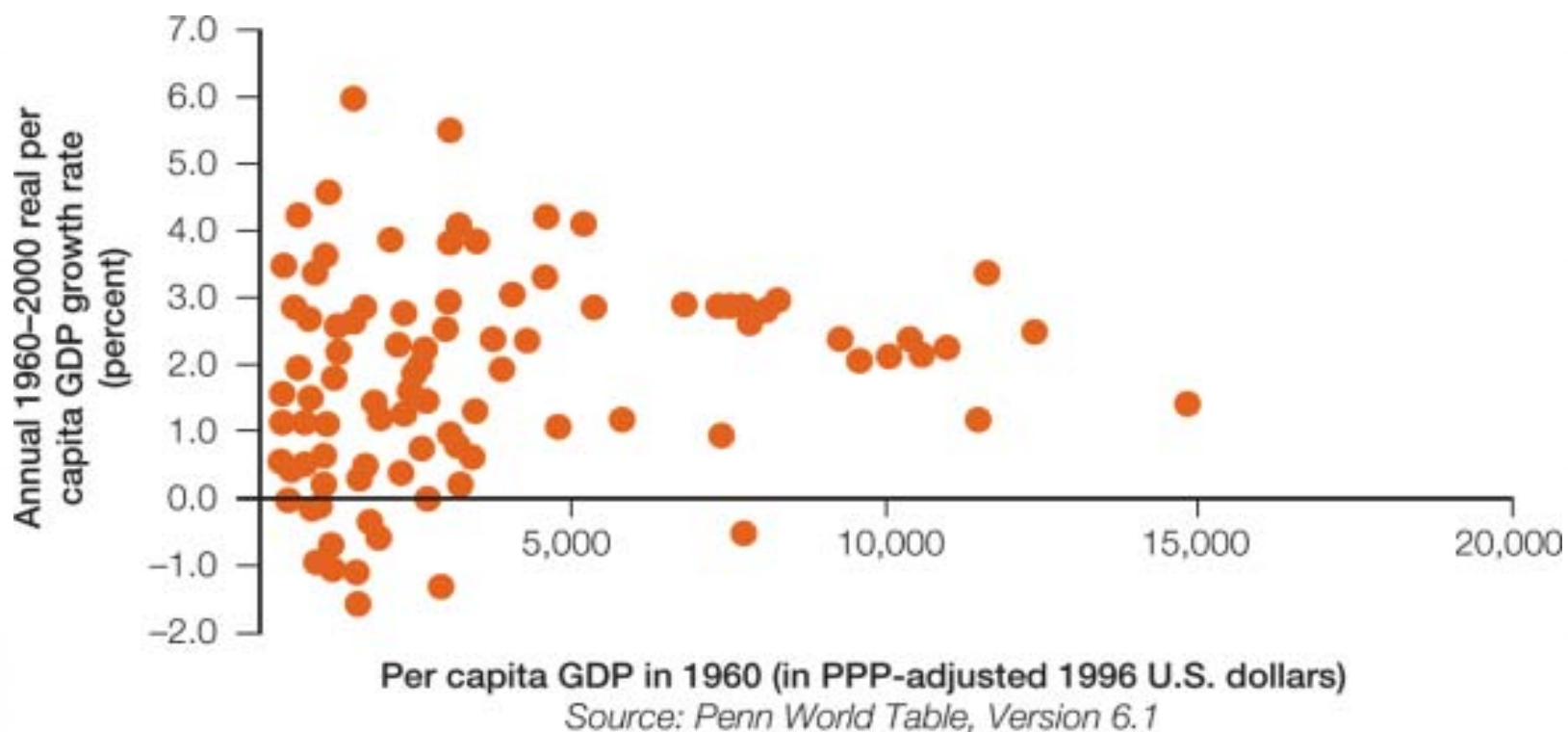
Rich and Poor (cont.)

Country	GDP per capita (1996 US \$)		annual growth rate
	1960	2000	1960-2000 average
Malaysia	2147	9937	3.9
Chile	3818	9920	2.4
Mexico	3970	8766	2.0
Brazil	2395	7185	2.8
Thailand	1121	6857	4.6
Venezuela	7751	6420	-0.5
Colombia	2525	5380	1.9
Paraguay	2437	4682	1.6
Peru	3118	4583	1.0
China	685	3747	4.3
Senegal	1833	1622	-0.3
Ghana	832	1349	1.2
Kenya	780	1244	1.2
Nigeria	1035	713	-0.9

Source: Alan Heston, Robert Summers and Bettina Aten, Penn World Table Version 6.1

Rich and Poor (cont.)

Poor countries have not grown faster:
growth rates relative to per capita GDP in 1960





Characteristics of Poor Countries

- What causes poverty?
- A difficult question, but low income countries have at least some of following characteristics, which could contribute to poverty:
 1. Government control of the economy
 - ◆ Restrictions on trade
 - ◆ Direct control of production in industries and a high level of government purchases relative to GNP
 - ◆ Direct control of financial transactions
 - ◆ Reduced competition reduces innovation; lack of market prices prevents efficient allocation of resources.



Characteristics of Poor Countries (cont.)

2. Unsustainable macroeconomic policies which cause high inflation and unstable output and employment
 - ◆ If governments can not pay for debts through taxes, they can print money to finance debts.
 - ◆ **Seigniorage** is paying for real goods and services by printing money.
 - ◆ Seigniorage generally leads to high inflation.
 - ◆ High inflation reduces the real value of debt that the government has to repay and acts as a “tax” on lenders.
 - ◆ High and variable inflation is costly to society; unstable output and employment is also costly.



Characteristics of Poor Countries (cont.)

3. Lack of financial markets that allow transfer of funds from savers to borrowers
4. Weak enforcement of economic laws and regulations
 - ◆ *Weak enforcement of property rights* makes investors less willing to engage in investment activities and makes savers less willing to lend to investors/borrowers.
 - ◆ *Weak enforcement of bankruptcy laws and loan contracts* makes savers less willing to lend to borrowers/investors.
 - ◆ *Weak enforcement of tax laws* makes collection of tax revenues more difficult, making seigniorage necessary (see 2) and makes tax evasion a problem (see 5).



Characteristics of Poor Countries (cont.)

- ◆ *Weak of enforcement of banking and financial regulations* (e.g., lack of examinations, asset restrictions, capital requirements) causes banks and firms to engage in risky or even fraudulent activities and makes savers less willing to lend to these institutions.
 - A lack of monitoring causes a lack of transparency (a lack of information).
 - **Moral hazard:** a hazard that a borrower (e.g., bank or firm) will engage in activities that are undesirable (e.g., risky investment, fraudulent activities) from the less informed lender's point of view.



Characteristics of Poor Countries (cont.)

5. A large underground economy relative to official GDP and a large amount of corruption
 - ◆ Because of government control of the economy (see 1) and weak enforcement of economic laws and regulations (see 4), underground economies and corruption flourish.
6. Low measures of literacy, numeracy, and other measures of education and training: low levels of **human capital**
 - ◆ Human capital makes workers more productive.

Characteristics of Poor Countries (cont.)

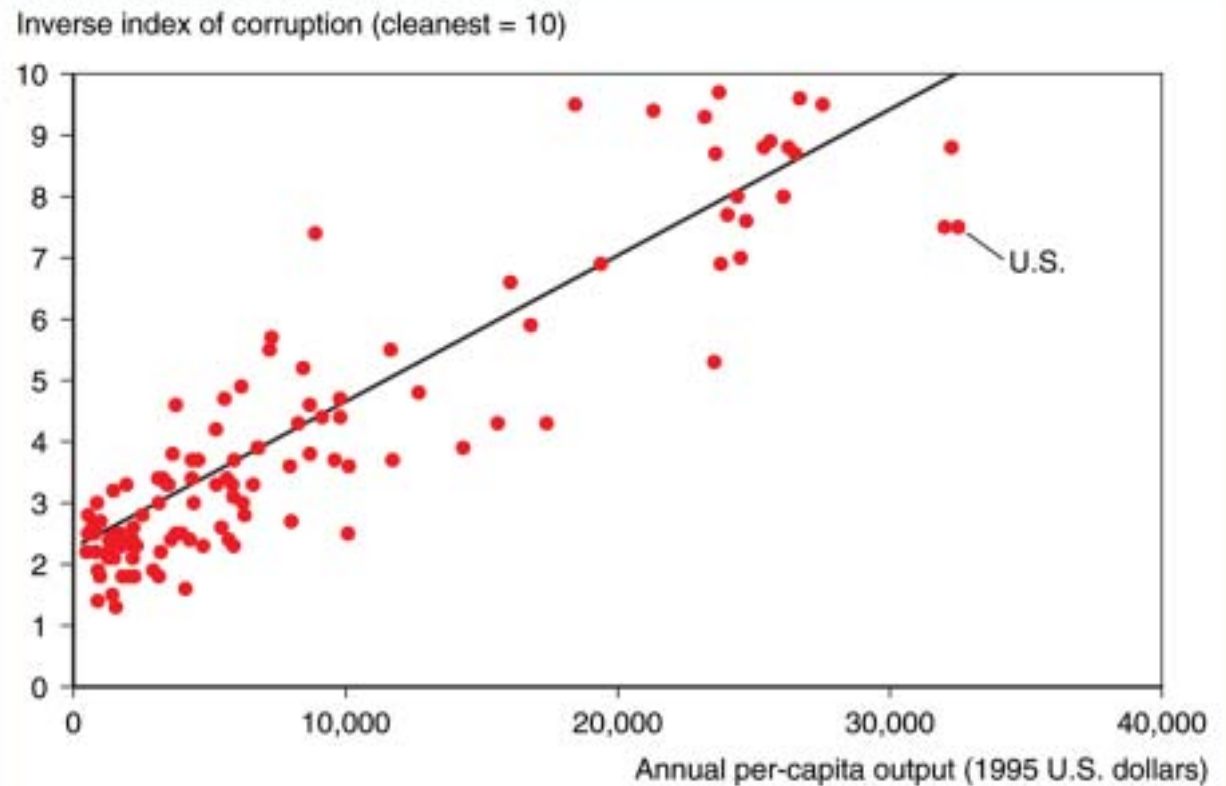


Figure 22-1

Corruption and Per-Capita Income

Corruption tends to rise as real per-capita income falls.

Note: The figure plots 2003 values of an (inverse) index of corruption and 2003 values of PPP-adjusted real per-capita output, measured in 1995 U.S. dollars (the amount a dollar could buy in the United States in 1995). The straight line represents a statistician's best guess at a country's corruption level based on its real per-capita output.

Source: Transparency International, *Global Corruption Report 2004*; World Bank, World Development Indicators.



Borrowing and Debt in Developing Economies

- Another common characteristic for many middle income and low income countries is that they have borrowed extensively from foreign countries.
 - ◆ Financial capital flows from foreign countries are able to finance investment projects, eventually leading to higher production and consumption.
 - ◆ But some investment projects fail and other borrowed funds are used primarily for consumption purposes.
 - ◆ Some countries have defaulted on their foreign debts when the domestic economy stagnated or during financial crises.



Borrowing and Debt in Developing Economies (cont.)

- national saving – investment = the current account
 - ◆ where the current account is approximately equal to the value of exports minus the value of imports
- Countries with national saving less than domestic investment will have a financial capital inflows and negative current account (a trade deficit).

Borrowing and Debt in Developing Economies (cont.)

Current account balances of major oil exporters, other developing countries and high income countries, 1973-2003 in billions of US\$

	Major oil exporters	Other developing countries	High income countries
1973-1981	363.8	-410.0	7.3
1982-1989	-135.3	-159.2	-361.1
1990-1997	-73.9	-600.1	79.0
1998-2003	236.5	-12.8	-1344.3

Source: IMF, World Economic Outlook, various issues



Borrowing and Debt in Developing Economies (cont.)

A financial crisis may involve

1. a **debt crisis**: an inability to repay government debt or private sector debt.
2. a **balance of payments crisis** under a fixed exchange rate system.
3. a **banking crisis**: bankruptcy and other problems for private sector banks.



Borrowing and Debt in Developing Economies (cont.)

- A *debt crisis* in which governments default on their debt can be a self-fulfilling mechanism.
 - ◆ Fear of default reduces financial capital *inflows* and increases financial capital *outflows* (capital flight), decreasing investment and increasing interest rates, leading to low aggregate demand, output and income.
 - ◆ Financial capital outflows must be matched with an increase in net exports or a decrease in official international reserves in order to pay people who desire foreign funds.



Borrowing and Debt in Developing Economies (cont.)

- ◆ Otherwise, the country can not afford to pay people who want to remove their funds from the domestic economy.
- ◆ The domestic government may have no choice but to default on its sovereign debt when it comes due and investors are unwilling to re-invest.



Borrowing and Debt in Developing Economies (cont.)

- In general, a debt crisis causes low income and high interest rates, which makes **sovereign** (government) and private sector debt even harder to repay.
 - ◆ High interest rates cause high interest payments for both the government and the private sector.
 - ◆ Low income causes low tax revenue for the government.
 - ◆ Low income makes private loans harder to repay: the default rate for private banks increases, which may lead to increased bankruptcy.



Borrowing and Debt in Developing Economies (cont.)

- If the central bank tries to fix the exchange rate, a *balance of payment crisis* may result with a debt crisis.
 - ◆ Official international reserves may quickly be depleted, forcing the central bank to abandon the fixed exchange rate.
- A *banking crisis* may result with a debt crisis.
 - ◆ High default rates may increase bankruptcy.
 - ◆ If depositors fear bankruptcy due to possible devaluation of the currency or default on government debt (assets for banks), then they will quickly withdraw funds (and possibly purchase foreign assets), leading to bankruptcy.



Borrowing and Debt in Developing Economies (cont.)

- A debt crisis, a balance of payments crisis and a banking crisis can occur together, and each can make the other worse.
 - ◆ Each can cause aggregate demand, output and employment to fall (further).
- If people *expect* a default on sovereign debt, a currency devaluation, or bankruptcy of private banks, each can occur, and each can lead to another.



The Problem of “Original Sin”

- When developing economies borrow in international financial capital markets, the debt is almost always denominated in US\$, yen, euros: “**original sin**”.
- The debt of the US, Japan and European countries is also mostly denominated in their respective currencies.
- When a depreciation of domestic currencies occurs in the US, Japan or European countries, liabilities (debt) which are denominated in *domestic* currencies do not increase, but the value of foreign assets does increase.
 - ◆ A devaluation of the domestic currency causes an increase in net foreign wealth.



The Problem of “Original Sin” (cont.)

- When a depreciation/devaluation of domestic currencies occurs in developing economies, the value of their liabilities (debt) rises because their liabilities are denominated in *foreign* currencies.
 - ◆ A fall in demand for domestic products causes a depreciation/devaluation of the domestic currency and causes a decrease in net foreign wealth if assets are denominated in domestic currencies.
 - ◆ A situation of “negative insurance” against a fall in aggregate demand. “*Fear of floating*”?

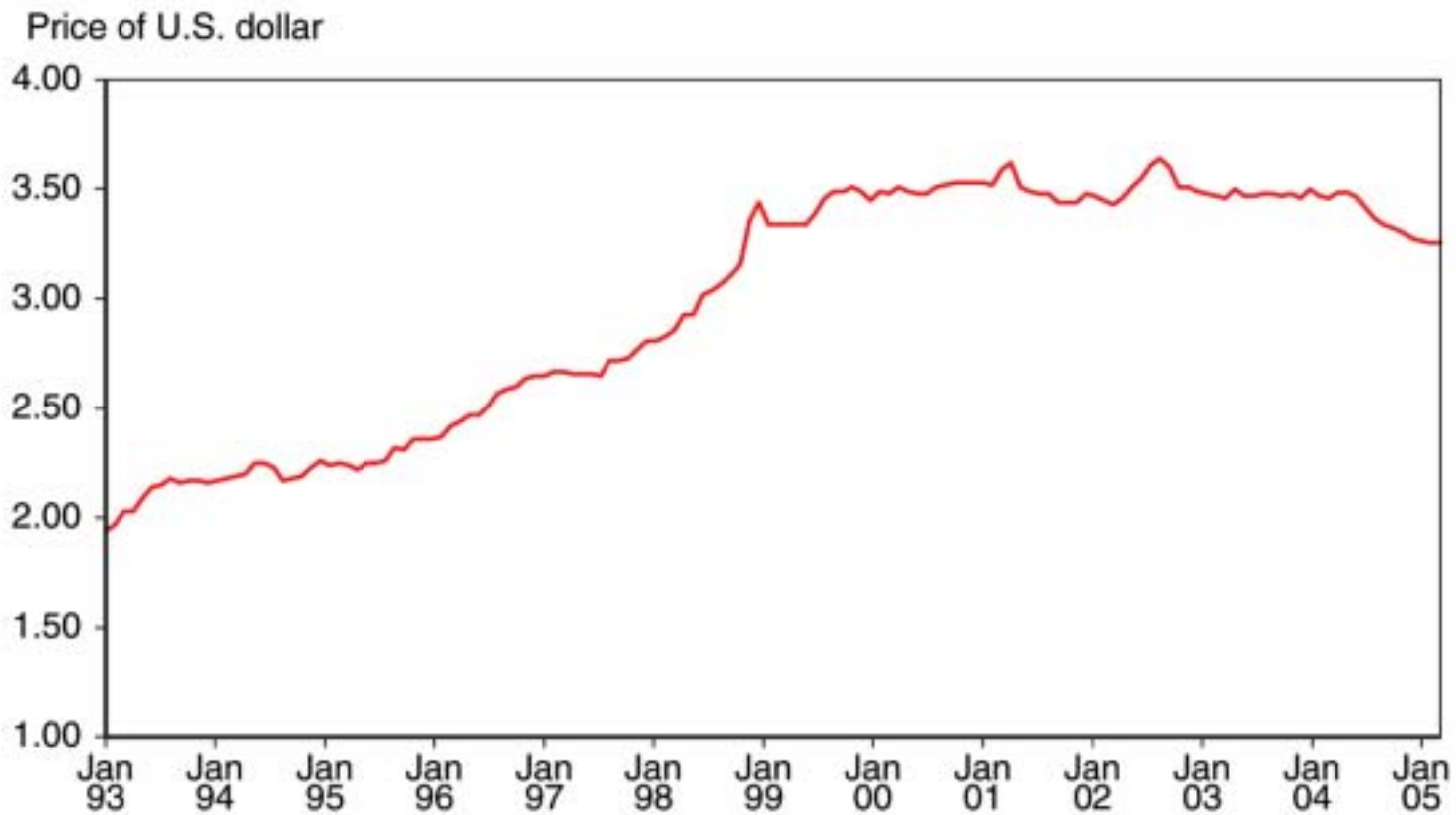


Figure 22-3

Peru New Sol Exchange Rate vs. the U.S. Dollar

Even though Peru's currency, the new sol, is classified by the IMF as "freely floating," sharp changes in its exchange rate against the dollar have been limited.



Types of Financial Capital

1. Bond finance: government or commercial bonds are sold to private foreign citizens.
2. Bank finance: commercial banks lend to foreign governments or foreign businesses.
3. Official lending: the World Bank or Inter-American Development Bank or other official agencies lend to governments.
 - ◆ Sometimes these loans are made on a “concessional” or favorable basis, in which the interest rate is low.



Types of Financial Capital (cont.)

4. Foreign direct investment: a foreign firm directly acquires or expands operations in a subsidiary firm.
 - ◆ A purchase by Ford of a subsidiary firm in Mexico is classified as foreign direct investment.
5. Portfolio equity investment: a foreign investor purchases equity (stock) for his portfolio.
 - ◆ Privatization of government owned firms has occurred in many countries, and private investors have bought stock in such firms.



Types of Financial Capital (cont.)

- Debt finance includes bond finance, bank finance and official lending.
- Equity finance includes direct investment and portfolio equity investment.
- While debt finance requires fixed payments regardless of the state of the economy, the value of equity finance fluctuates depending on aggregate demand and output.



Latin American Financial Crises

- In the 1980s, high interest rates and an appreciation of the US dollar, caused the burden of dollar denominated debts in Argentina, Mexico, Brazil and Chile to increase drastically.
- A worldwide recession and a fall in many commodity prices also hurt export sectors in these countries.
- In August 1982, Mexico announced that it could not repay its debts, mostly to private banks.



Latin American Financial Crises (cont.)

- The US government insisted that the private banks **reschedule** the debts, and in 1989 Mexico was able to achieve:
 - ◆ a reduction in the interest rate,
 - ◆ an extension of the repayment period
 - ◆ a reduction in the principal by 12%
- Brazil, Argentina and other countries were also allowed to reschedule their debts with private banks after they defaulted.



Latin American Financial Crises (cont.)

- The Mexican government implemented several reforms due to the crisis. Starting in 1987,
 - ◆ It reduced government deficits.
 - ◆ It reduced production in the public sector (including banking) by privatizing industries.
 - ◆ It reduced barriers to trade.
 - ◆ It maintained an adjustable fixed exchange rate (“crawling peg”) until 1994 to help curb inflation.



Latin American Financial Crises (cont.)

- It extended credit to newly privatized banks with loan losses.
 - ◆ Losses were a problem due to weak enforcement or lack of accounting standards like asset restrictions and capital requirements.
- Political instability and the banks' loan defaults contributed to another crisis in 1994, after which the Mexican government allowed the value of the peso to fluctuate.



Latin American Financial Crises (cont.)

- Starting in 1991, Argentina carried out similar reforms:
 - ◆ It reduced government deficits.
 - ◆ It reduced production in the public sector by privatizing industries.
 - ◆ It reduced barriers to trade.
 - ◆ It enacted tax reforms to increase tax revenues.
 - ◆ It enacted the Convertibility Law, which required that each peso be backed with 1 US dollar, and it fixed the exchange rate to 1 peso per US dollar.



Latin American Financial Crises (cont.)

- Because the central bank was not allowed to print more pesos without having more dollar reserves, inflation slowed dramatically.
- Yet inflation was about 5% per annum, faster than US inflation, so that the price/value of Argentinean goods appreciated relative to US and other foreign goods.
- Due to the relatively rapid peso price increases, markets began to speculate about a peso devaluation.
- A global recession in 2001 further reduced the demand for Argentinean goods and currency.



Latin American Financial Crises (cont.)

- Maintaining the fixed exchange rate was costly because high interest rates were needed to attract investors, further reducing investment and consumption demand, output and employment.
- As incomes fell, tax revenues fell and government spending rose, contributing to further peso inflation.



Latin American Financial Crises (cont.)

- Argentina tried to uphold the fixed exchange rate, but the government devalued the peso in 2001 and shortly thereafter allowed its value to fluctuate.
- It also defaulted on its debt in December 2001 because of the unwillingness of investors to re-invest when the debt was due.
- Recently, however, growth has been surprisingly strong.



Latin American Financial Crises (cont.)

- Brazil carried out similar reforms in the 1980s and 1990s:
 - ◆ It reduced production in the public sector by privatizing industries.
 - ◆ It reduced barriers to trade.
 - ◆ It enacted tax reforms to increase tax revenues.
 - ◆ It created fixed the exchange rate to 1 *real* per US dollar.
 - ◆ But government deficits remained high.



Latin American Financial Crises (cont.)

- High government deficits lead to inflation and speculation about a devaluation of the *real*.
- The government did devalue the *real* in 1999, but a widespread banking crisis was avoided because Brazilian banks and firms did not borrow extensively in dollar denominated assets.



Latin American Financial Crises (cont.)

- Chile suffered a recession and financial crisis in the 1980s, but thereafter
 - ◆ enacted stringent financial regulations for banks.
 - ◆ removed the guarantee from the central bank that private banks would be bailed out if their loans failed.
 - ◆ imposed financial capital controls on short term debt, so that funds could not be quickly withdrawn during a financial panic.
 - ◆ granted the central bank independence from fiscal authorities, allowing slower money supply growth.
- Chile avoided a financial crisis in the 1990s.



East Asian Financial Crises

- Before the 1990s, Indonesia, Korea, Malaysia, Philippines, and Thailand relied mostly on domestic saving to finance investment.
- But afterwards, foreign financial capital financed much of investment, and current account balances turned negative.

East Asian Financial Crises (cont.)

TABLE 22-4 East Asian CA/GDP (annual averages, percent of GDP)

Country	1990–1997	1998–2000	2001–2004
China	1.5	2.4	2.5
Hong Kong	0.6	4.1	8.7
Indonesia	−2.5	4.6	3.9
Malaysia	−5.6	12.8	10.3
South Korea	−1.6	6.5	1.9
Taiwan	4.0	2.3	8.1
Thailand	−6.3	10.2	5.1

Source: International Monetary Fund, Central Bank of China, Deutsche Bank.



East Asian Financial Crises (cont.)

- Despite the rapid economic growth in East Asia between 1960–1997, growth was predicted to slow as economies “caught up” with Western countries.
 - ◆ Most of the East Asian growth during this period is attributed to an increase in physical capital and an increase in education.
 - ◆ Returns to physical capital and education are diminishing, as more physical capital was built and as more people acquired more education and training, each increase became less productive.
 - ◆ The economic growth was predicted to slow after the rapid increases in early generations.



East Asian Financial Crises (cont.)

- More directly related to the East Asian crises are issues related to economic laws and regulations:
 1. Weak of enforcement of financial regulations and a lack of monitoring caused firms, banks and borrowers to engage in risky or even fraudulent activities: moral hazard.
 - ◆ Ties between businesses and banks on one hand and government regulators on the other hand lead to some risky investments.



East Asian Financial Crises (cont.)

2. Non-existent or weakly enforced bankruptcy laws and loan contracts caused problems after the crisis started.
 - ◆ Financially troubled firms stopped paying their debts, and they could not operate because no one would lend more until previous debts were paid.
 - ◆ But creditors lacked the legal means to confiscate assets or restructure firms to make them productive again.



East Asian Financial Crises (cont.)

- The East Asian crisis started in Thailand in 1997, but quickly spread to other countries.
 - ◆ A fall in real estate prices, and then stock prices weakened aggregate demand and output in Thailand.
 - ◆ A fall in aggregate demand in Japan, a major export market, also contributed to the economic slowdown.
 - ◆ Speculation about a devaluation in the value of the baht occurred, and in July 1997 the government devalued the baht slightly, but this only invited further speculation.
- Malaysia, Indonesia, Korea, and the Philippines soon faced speculations about the value of their currencies.



East Asian Financial Crises (cont.)

- Most debts of banks and firms were denominated in US dollars, so that devaluations of domestic currencies would make the burden of the debts in domestic currency increase.
 - ◆ Bankruptcy and a banking crisis would have resulted.
- To maintain fixed exchange rates would have required high interest rates and a reduction in government deficits, leading to a reduction in aggregate demand, output and employment.
 - ◆ This would have also lead to widespread default on debts and a banking crisis.



East Asian Financial Crises (cont.)

- All of the effected economies except Malaysia turned to the IMF for loans to address the balance of payments crises and to maintain the value of the domestic currencies.
 - ◆ The loans were conditional on increased interest rates (reduced money supply growth), reduced budget deficits, and reforms in banking regulation and bankruptcy laws.
- Malaysia instead imposed financial capital controls so that it could increase its money supply (and lower interest rates), increase government purchases, and still try to maintain the value of the ringgit.

East Asian Financial Crises (cont.)

- Due to decreased consumption and investment that occurred with decreased output, income and employment, imports fell and the current account increased after 1997.

TABLE 22-4 East Asian CA/GDP (annual averages, percent of GDP)

Country	1990–1997	1998–2000	2001–2004
China	1.5	2.4	2.5
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Malaysia	–5.6	12.8	10.3
South Korea	–1.6	6.5	1.9
Taiwan	4.0	2.3	8.1
Thailand	–6.3	10.2	5.1

Source: International Monetary Fund, Central Bank of China, Deutsche Bank.



Currency Boards and Dollarization

- A **currency board** is a monetary policy where the money supply is entirely backed by foreign currency, and where the central bank is prevented from holding domestic assets.
 - ◆ The central bank may not increase the domestic money supply (by buying government bonds).
 - ◆ This policy restrains inflation and government deficits.
 - ◆ The central bank also can not run out of foreign reserves to support a fixed exchange rate.
 - ◆ Argentina enacted a currency board under the 1991 Convertibility Law.



Currency Boards and Dollarization (cont.)

- But a currency board can be restrictive (more than a regular fixed exchange rate system).
 - ◆ Since the central bank may not acquire domestic assets, it can not lend currency to domestic banks during financial crisis: no lender of last resort policy or seigniorage.
- **Dollarization** is a monetary policy that replaces the domestic currency in circulation with US dollars.
 - ◆ In effect, control of domestic money supply, interest rates and inflation is given the Federal Reserve.
 - ◆ A lender of last resort policy and the possibility of seigniorage for domestic policy makers are eliminated.



Currency Boards and Dollarization (cont.)

- Argentina ultimately abandoned its currency board because the cost was too high: high interest rates and a reduction in prices were needed to sustain it.
 - ◆ The government was unwilling to reduce its deficit to reduce aggregate demand, output, employment and prices.
 - ◆ Labor unions kept wages (and output prices) from falling.
 - ◆ Weak enforcement of financial regulations lead to risky loans, leading to troubled banks when output, income and employment fell.
 - ◆ Under the currency board, the central bank was not allowed to increase the money supply or loan to troubled banks.



Lessons of Crises

1. Fixing the exchange rate has risks: governments desire to fix exchange rates to provide stability in the export and import sectors, but the price to pay may be high interest rates or high unemployment (*trilemma* again).
 - ◆ High inflation (caused by government deficits or increases in the money supply) or a drop in demand for domestic exports leads to an over-valued currency and pressure for devaluation.
 - ◆ Given pressure for devaluation, commitment to a fixed exchange rate usually means high interest rates (a reduction in the money supply) and a reduction in domestic prices.



Lessons of Crises (cont.)

- ◆ Prices are reduced through a reduction in government deficits, leading to a reduction in aggregate demand, output and employment.
- ◆ A fixed exchange rate may encourage banks and firms to borrow in foreign currencies, but a devaluation will cause an increase in the burden of this debt and may lead to a banking crisis and bankruptcy.
- ◆ Commitment to a fixed exchange rate can cause a financial crisis to worsen: high interest rates make loans for banks and firms harder to repay, and the central bank can not freely print money to give to troubled banks (can not act as a lender of last resort).



Lessons of Crises (cont.)

2. Weak enforcement of financial regulations can lead to risky investments and a banking crisis when a currency crisis erupts or when a fall in output, income and employment occurs.
3. Liberalizing financial capital flows without implementing sound financial regulations can lead to financial capital flight when risky loans or other risky assets lose value during a recession.



Lessons of Crises (cont.)

4. The importance of expectations: even healthy economies are vulnerable to crises when expectations change.
 - ◆ Expectations about an economy often change when other economies suffer from adverse events.
 - ◆ International crises may result from **contagion**: an adverse event in one country leads to a similar event in other countries.



Potential Reforms: Policy Trade-offs

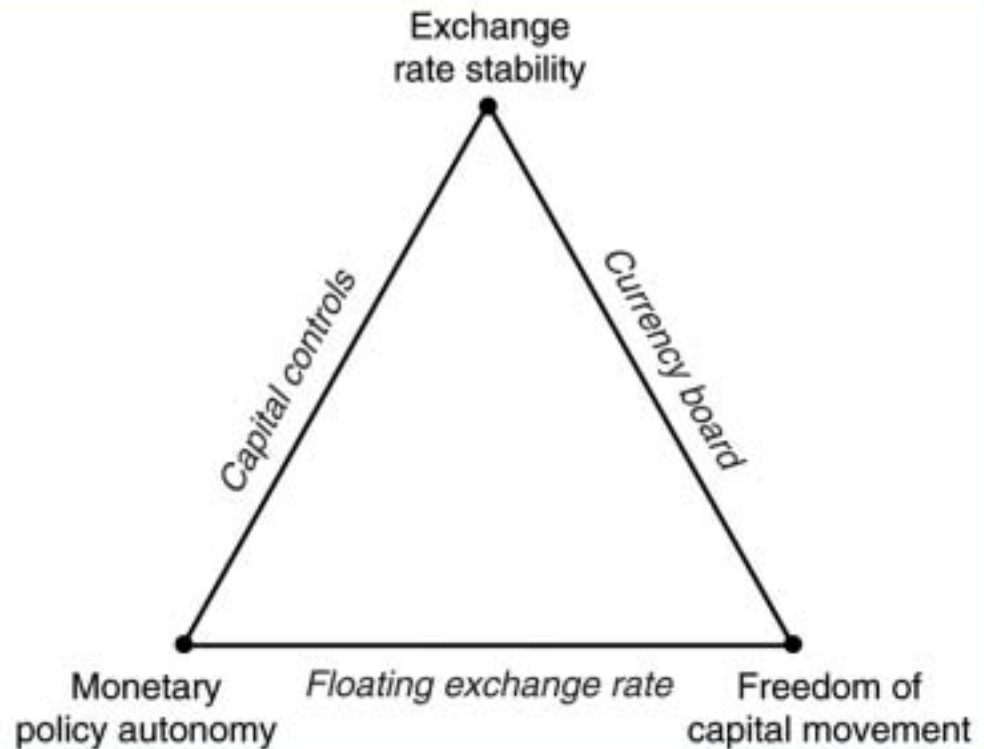
- Countries face trade-offs when trying to achieve the following goals (trilemma):
 - ◆ exchange rate stability
 - ◆ financial capital mobility
 - ◆ autonomous monetary policy devoted to domestic goals
- Generally, countries can attain only 2 of the 3 goals, and as financial capital has become more mobile, maintaining a fixed exchange with an autonomous monetary policy has been difficult.

Potential Reforms: Policy Trade-offs (cont.)

Figure 22-2

The Policy Trilemma for Open Economies

The vertices of the triangle show three goals that policy-makers in open economies would like to achieve. Unfortunately, at most two can coexist: At most one of the triangle's three sides can be chosen. Each of the three policy regime labels (floating exchange rates, currency board, capital controls) is consistent with the two goals that it lies between in the diagram.





Potential Reforms

Preventative measures:

1. Better monitoring and more transparency: more information for the public allows investors to make sound financial decisions in good and bad times
2. Stronger enforcement of financial regulations: reduces moral hazard
3. Deposit insurance and reserve requirements
4. Increased equity finance relative to debt finance
5. Increased credit for troubled banks through the central bank or the IMF?



Potential Reforms (cont.)

Reforms for after a crisis occurs:

1. Bankruptcy procedures for default on sovereign debt and improved bankruptcy law for private sector debt.
2. A bigger or smaller role for the IMF as a lender of last resort? (See 5 above.)
 - ◆ Moral hazard versus benefit of insurance before and after a crisis occurs.



TABLE 22-1 Indicators of Economic Welfare in Four Groups of Countries, 2003

Income Group	GNP per Capita (1995 U.S. dollars)	Life Expectancy (years)*
Low-income	450	58
Lower middle-income	1,480	69
Upper middle-income	5,340	73
High-income	28,850	78

* Simple average of male and female life expectancies.

Source: World Bank, *World Development Report 2004/2005*.



Geography, Human Capital and Institutions

- What causes poverty?
- A difficult question, but economists argue if geography or human capital is more important in influencing economic and political institutions, and ultimately poverty.



Geography, Human Capital and Institutions (cont.)

Geography matters:

1. International trade is important for growth, and ocean harbors and a lack of geographical barriers foster trade with foreign markets.
 - ◆ Landlocked and mountainous regions are predicted to be poor.
2. Also, geography *determined* institutions, which may play a role in development.
 - ◆ Geography determined whether Westerners established property rights and long-term investment in colonies, which in turn influenced economic growth.



Geography, Human Capital and Institutions (cont.)

- ◆ Geography determined whether Westerners died from malaria and other diseases. With high mortality rates, they established practices and institutions based on quick *plunder of colonies' resources*, rather than institutions favoring long-term economic growth.
- ◆ Plunder lead to *property confiscation and corruption*, even after political independence from Westerners.
- ◆ Geography also determined whether local economies were better for *plantation agriculture*, which resulted in income inequalities and political inequalities. Under this system, equal property rights were not established, hindering long-term economic growth.



Geography, Human Capital and Institutions (cont.)

Human capital matters:

1. As a population becomes more literate, numerate and educated, economic and political institutions evolve to foster long-term economic growth.
 - ◆ Rather than geography, Western colonization and plantation agriculture; the amount of education and other forms of human capital determine the existence or lack of property rights, financial markets, international trade and other institutions that encourage economic growth.



Summary

1. Some countries have grown rapidly since 1960, but others have stagnated and remained poor.
2. Many poor countries have extensive government control of the economy, unsustainable fiscal and monetary policies, lack of financial markets, weak enforcement of economic laws, a large amount of corruption and low levels of education.



Summary (cont.)

3. Many developing economies have borrowed heavily from international capital markets, and some have suffered from periodic sovereign debt, balance of payments and banking crises.
4. Sovereign debt, balance of payments and banking crises can be self-fulfilling, and each crisis can lead to another within a country or in another country.
5. “Original sin” refers to the fact that developing economies can not borrow in their domestic currencies.



Summary (cont.)

6. A currency board fixes exchange rates by backing up each unit of domestic currency with foreign reserves.
7. Dollarization is the replacement of domestic currency in circulation with US dollars.
8. Fixing exchange rates may lead to financial crises if the country is unwilling restrict monetary and fiscal policies.



Summary (cont.)

9. Weak enforcement of financial regulations causes a moral hazard and may lead to a banking crisis, especially with free movement of financial capital.
10. Geography and human capital may influence economic and political institutions, which in turn may affect long-term economic growth.