Asian Financial Crisis

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Introduction

- Period of financial crisis — started in July 1997
- Started with Thailand
  - Floating the pegged currency
  - Real estate-driven financial overextension
  - Excessive foreign exposure
- Also affected Indonesia, South Korea, Hong Kong, Malaysia, Philippines
- IMF programs offered $40bn to stabilize their currencies

Agenda

- Explaining a Crisis
- The Asian Miracle
  - Did the East Asian growth model make the crisis inevitable?
- What happened?
- Macroeconomic Factors
  - Evidence, Analysis
- Role of the IMF (International Monetary Fund)

What is a crisis?

Explaining a Crisis: Fundamental Factors

- International Factors:
  - Interest rates, commodity prices, or trade conditions
- Domestic Factors
  - Political leadership, economic policy, or the burden of debt
- Intrinsic Instability
  - International loan market prone to “self-fulfilling crisis”

Explaining a Crisis: By Type

- Real economic crisis (recession by falling GDP growth rates)

- Financial Crisis
  - Banking crisis
  - Currency (balance of payment) crisis
  - Sovereign debt crisis

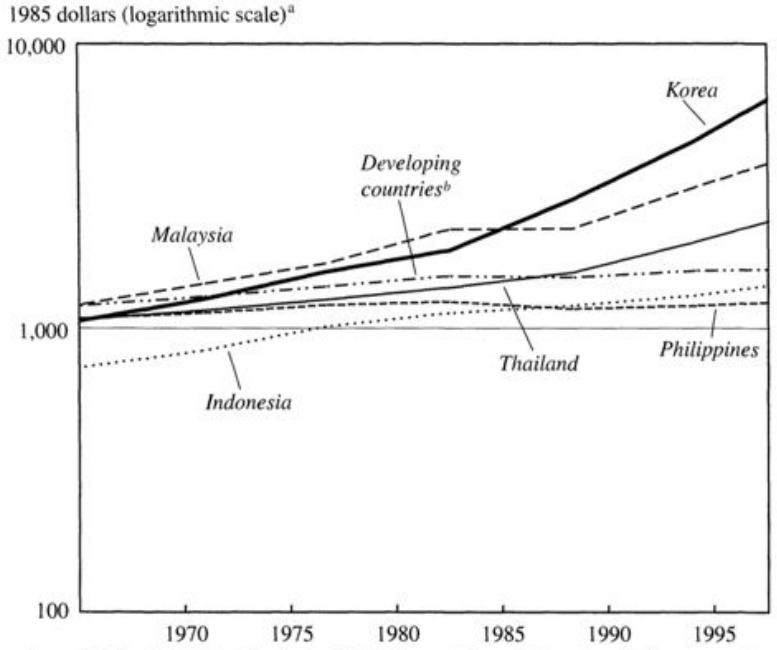
- Banking and currency crises both present in the Asian Financial Crisis

East Asian Miracle

East Asian Miracle

- 1960s — 1990s: East Asian Economies maintained very high growth rates (8-12%)
- Primarily due to:
  - Maintained high interest rates to attract foreign investments
  - Rapid industrialization
  - Export-led growth policies

Figure 3. GDP per Capita, Selected Asian Countries, 1965–96



Source: GDP data for 1965-91 are from the Penn World Tables, mark 5.6, available on the worldwide web page of the National Bureau of Economic Research. For 1992-96, GDP levels are constructed by applying growth rates from World Bank, *World Development Indicators* (available on CD-ROM) to the respective 1991 GDP levels.

a. Conversion to dollars uses purchasing power parity (PPP) exchange rates.

b. Comprises eightly-five countries.

Patterns of the East Asian Miracle

Capital Scarcity → Foreign Capital Inflows

How do you encourage capital inflows?

- Trade Liberalization
  - Increases rate of return on capital
  - Opens economies to capital inflows, which finances investments from abroad: leads to an Investment Boom
- Pegged Exchange Rates
  - Central banks absorb the risks of exchange rate movements on behalf of investors

Inflow of International Capital

- Most fundamental change in the majority of East Asian Economies in ‘90s
- Access to foreign funds
  - Most governments partially liberalized foreign capital movement
- Private capital flows:
  - US was in a recession = low interest rates
  - Asian Tigers received 50% of capital inflows in Asia
  - Saw a dramatic run-up in asset prices

Table 1. External Financing of Five Asian Countries, 1994–98[a]

Billions of dollars

Item	*1994*	*1995*	*1996*	*1997*[b]	*1998*[c]
Current account balance	−24.6	−41.3	−54.9	−26.0	17.6
External financing (net)	47.4	80.9	92.8	15.2	15.2
Private inflows (net)	40.5	77.4	93.0	−12.1	−9.4
Equity investment	12.2	15.5	19.1	−4.5	7.9
Direct	4.7	4.9	7.0	7.2	9.8
Portfolio	7.6	10.6	12.1	−11.6	−1.9
Private creditors	28.2	61.8	74.0	−7.6	−17.3
Commercial banks	24.0	49.5	55.5	−21.3	−14.1
Nonbank	4.2	12.4	18.4	13.7	−3.2
Official inflows (net)	7.0	3.6	−0.2	27.2	24.6
International institutions	−0.4	−0.6	−1.0	23.0	18.5
Bilateral creditors	7.4	4.2	0.7	4.3	6.1
Resident lending and other (net)[d]	−17.5	−25.9	−19.6	−11.9	−5.7
Reserves change, excluding gold[e]	−5.4	−13.7	−18.3	22.7	−27.1

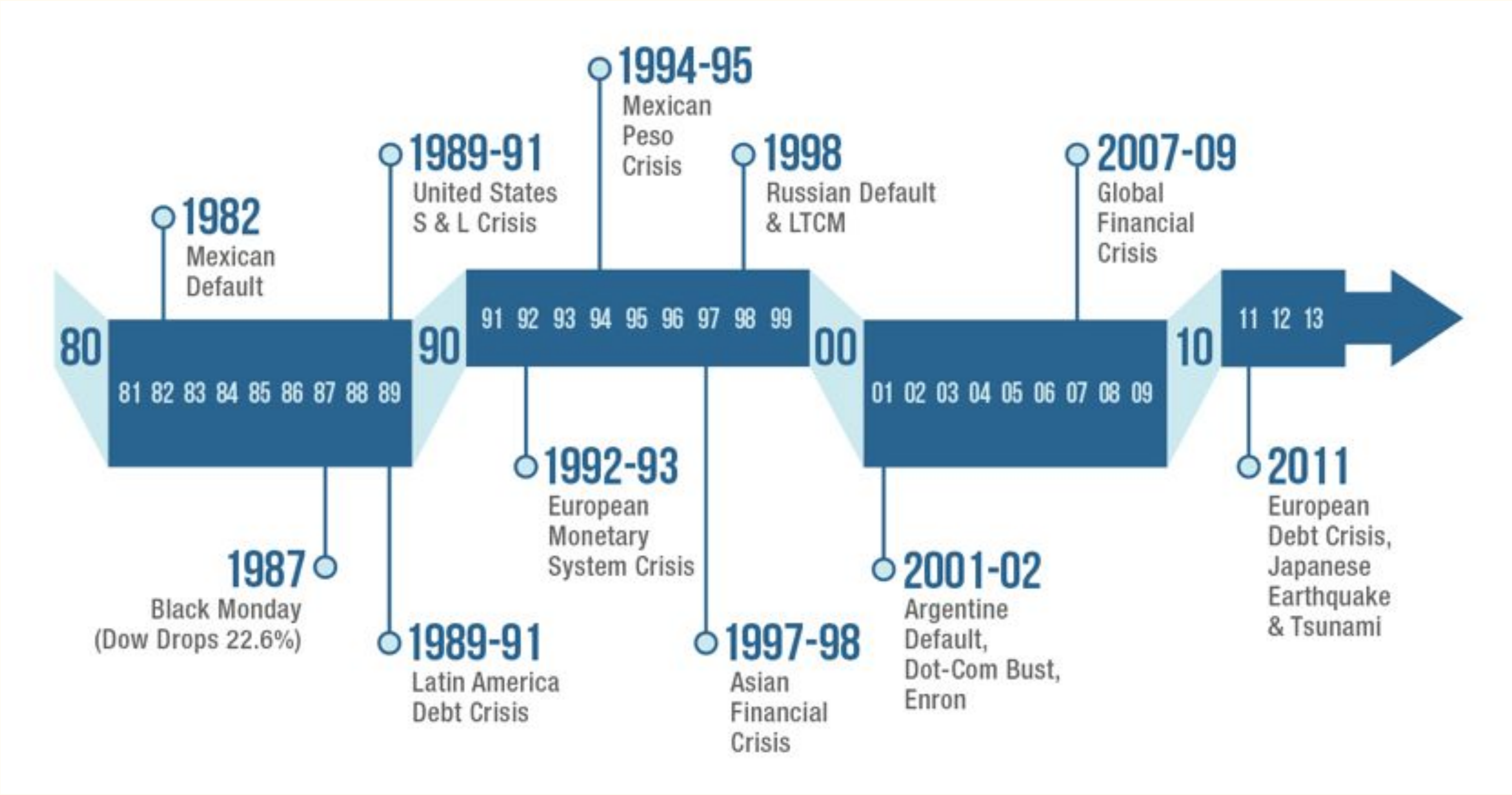
Source: Institute of International Finance, ‘‘Capital Flows to Emerging Market Economies,’’ January 29, 1998.
a. Table entries are sums over data for Korea, Indonesia, Malaysia, Thailand, and the Philippines.
b. Estimate.
c. Forecast.
d. Includes resident net lending, monetary gold, and errors and omissions.
e. A negative value indicates an increase.

Growth Strategy → Crash

Did East Asia's growth strategy make the financial crash inevitable?

- Macroeconomic developments
  - Capital Inflows
  - Real exchange rate appreciation
- Microeconomic fundamentals
  - Credit expansion
  - Financial regulation and supervision

Timeline



1994-95
Mexican
Peso
Crisis
1989-91
United States
S & L Crisis
1998
Russian Default
& LTCM
2007-09
Global
Financial
Crisis
1982
Mexican
Default
80
81 82 83 84 85 86 87 88 89
90
91 92 93 94 95 96 97 98 99
00
01 02 03 04 05 06 07 08 09
10
11 12 13
1992-93
European
Monetary
System Crisis
2011
European
Debt Crisis,
Japanese
Earthquake
& Tsunami
1987
Black Monday
(Dow Drops 22.6%)
2001-02
Argentine
Default,
Dot-Com Bust,
Enron
1989-91
Latin America
Debt Crisis
1997-98
Asian
Financial
Crisis

Themes

1. Collapse in domestic assets

2. Widespread bank failures / bankruptcies of major corporations

3. Currency Crisis

Financial and Currency Crisis

Case Study: Thailand

Pre-1996:

- Real Estate Sector was booming
- High interest rates attracted capital from all over
- Export growth extremely high

Negative Demand Shocks

- Slowdown in export growth
  - Global glut in labor-intensive exports
  - Competition in China & Americas caused downward pressure on wages and export growth in the region
- US increased interest rates to combat inflation
  - Incentive to take money out of Thailand and move into US markets

This triggered significant capital outflows

Table 6. Export and Import Growth Rates, Selected Countries, 1995–96[a]

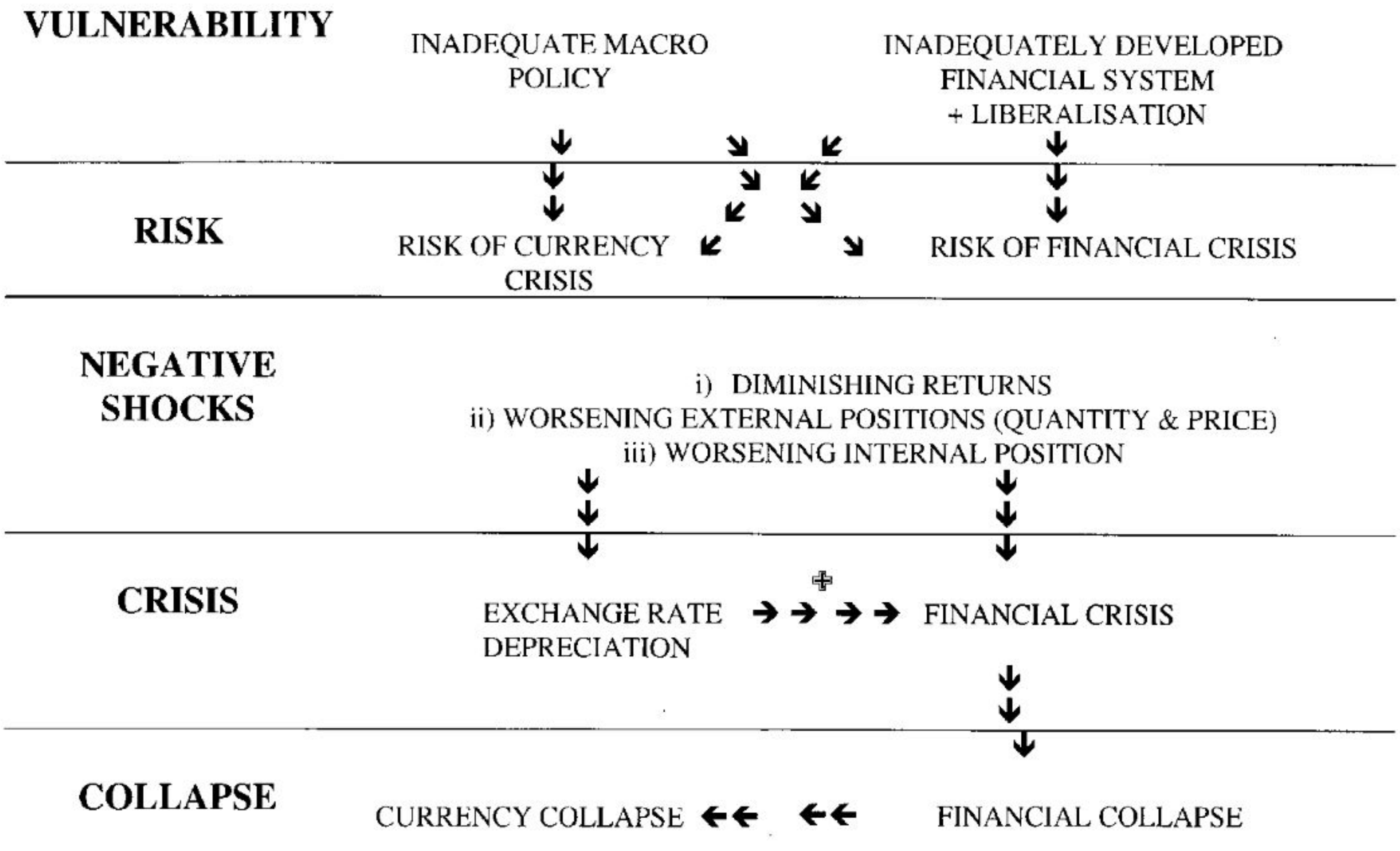
Percent

	Value growth		*Volume growth*		*Unit value change*	
Country	*1995*	*1996*	*1995*	*1996*	*1995*	*1996*
Exports						
China	22.9	1.6	15.3	8.3	6.6	−6.2
India	22.7	7.4	22.4	16.9	0.2	−8.1
Hong Kong	14.8	4.0	1.9	−8.6	12.6	13.8
Korea	30.3	3.7	24.0	19.1	5.0	−12.9
Singapore	22.1	5.7	15.7	6.3	5.6	−0.6
Indonesia	13.4	9.7	10.3	4.8	2.8	4.7
Malaysia	26.0	5.8	15.6	13.6	9.0	−6.9
Philippines	31.6	16.7	17.0	18.8	12.4	−1.8
Thailand	25.1	−1.3	14.2	−0.7	9.5	−0.6
Argentina	33.9	13.6	17.8	3.2	13.7	10.0
Mexico	40.3	22.6	24.5	14.7	12.7	6.9
Poland	34.3	6.8	30.8	6.9	2.7	−0.1
Imports						
China	11.6	7.6	15.1	16.4	−3.0	−7.5
India	28.6	8.3	23.6	18.9	4.0	−8.9
Hong Kong	19.2	3.0	13.6	4.0	4.9	−1.0
Korea	32.0	11.3	21.2	11.9	8.9	−0.6
Singapore	21.3	5.5	13.0	6.4	7.3	−0.9
Indonesia	27.0	5.7	17.4	10.7	8.2	−4.6
Malaysia	30.5	0.9	23.4	17.7	5.8	−14.3
Philippines	25.7	20.4	14.6	24.2	9.7	−3.0
Thailand	30.0	3.8	15.9	−3.6	12.1	7.7
Argentina	−6.5	18.1	−17.5	25.2	13.3	−5.7
Mexico	−23.1	30.4	−14.9	20.8	−9.6	8.0
Poland	35.9	27.8	24.5	28.9	9.1	−0.8

Source: Authors' calculations. Data on values are from IMF, *International Financial Statistics*, various issues; and on volumes, from Bank for International Settlements (1997).

a. Table uses dollar values of exports and imports.

FIGURE 1


VULNERABILITY
INADEQUATE MACRO POLICY
INADEQUATELY DEVELOPED FINANCIAL SYSTEM + LIBERALISATION
RISK
RISK OF CURRENCY CRISIS
RISK OF FINANCIAL CRISIS
NEGATIVE SHOCKS
i) DIMINISHING RETURNS
ii) WORSENING EXTERNAL POSITIONS (QUANTITY & PRICE)
iii) WORSENING INTERNAL POSITION
CRISIS
EXCHANGE RATE DEPRECIATION
FINANCIAL CRISIS
COLLAPSE
CURRENCY COLLAPSE
FINANCIAL COLLAPSE

Tides Turning

- Shifts in International Market
  - China's growth, NAFTA and increased Mexican output, USD appreciates
- US economy recovered → began to raise interest rates to combat inflation
  - US now a more attractive investment destination
  - Other currencies appreciate
- Reduction in "hot money" flows to SE Asia through short term interest rates
- Reduction in export-led growth

Beginning of the End

- Thai Baht devalued
  - Reached lowest point: 56 units per $ from 25 per $

How did this affect Thailand's ability to repay foreign debts?

- Foreign loans now 3x more costly
- Resulted in collapse of various companies, including "Financial One"
- Created investor uncertainty / fear -- incentive to pull capital

Downward Spiral

Column1	The 1997 Asian Financial Crisis
Date	Chronicle of Events during the Asian Financial Crisis
2nd July 1997	After exhausted of funds defending the Baht. Thailand decides to float it
18th July	Philippine and Indonesia devalues their currencies
18th July	IMF extends $1.1 billion loan to Philippines
24th July	Asian currencies under severe pressure especially the rupiah
20th August	IMF extends $17 billion loan to Thailand
28th August	Asian Stock Markets plunging to multi year lows
23rd October	Hong Kong dollar and stocks under heavy selling pressure. Hang Seng lost 10%
28th October	Currency Speculators moving to Korea. Korean won hits new low
5th November	Indonesia seeks IMF assistance with $40 billion approved
24th November	Collapse of Sanyo and Yamaici Securities and Hokkaido Takushoku Bank
3th December	Korea seeks IMF assistance. A total of $57 billion approved
5th December	Malaysia imposes tough market reforms in order to stem foreign funds outflow

Withdrawal of Foreign Capital

- Asset prices began to collapse, causing individuals & companies to default
  - Thailand: housing bubble (fueled by "hot money")
- Panic among lenders: led to withdrawal of funds
  - Credit crunch & bankruptcies

Were there any warning signs?

Sachs:

Table 13. Means and Standard Deviations of Variables Used in Probit Regressions[a]

Units as indicated

	Subsample[a]	
Variable	*Crisis observations*	*Noncrisis observations*
Current year		
Short-term foreign debt/reserves	1.82	0.99
	(1.40)	(1.01)
Total foreign debt/reserves	2.31	2.17
	(0.78)	(3.06)
Freedom from corruption[b]	3.22	3.60
	(0.67)	(0.91)
Lagged one year		
Private credit buildup[c]	0.17	0.04
	(0.21)	(0.20)
Capital inflow/GDP	0.07	0.03
	(0.02)	(0.18)
Current account surplus/GDP	−0.05	−0.02
	(0.02)	(0.07)
Real exchange rate change[d]	−15.82	−15.92
	(8.42)	(27.21)

Source: see table 12

Current Account Deficits

- Corsetti observed that many countries in the region ran current account deficits
- “The group of countries that came under attack in 1997 appear to have those with large current account deficits”
- Suspected there may be a correlation between the current account deficits and the currency crises

Current Account Deficits

Table 1
Current account, NIA definition (% of GDP)[a]

	1990	1991	1992	1993	1994	1995	1996	1997
Korea	−1.2	−3.2	−1.7	−0.2	−1.5	−1.9	−4.8	−1.9
Indonesia	−4.4	−4.4	−2.5	−0.8	−1.5	−4.3	−3.3	−3.6
Malaysia	−2.3	−14.0	−3.4	−10.1	−6.6	−8.9	−3.7	−3.5
Philippines	−6.3	−2.5	−3.2	−6.7	−3.7	−5.1	−4.7	−6.1
Singapore	9.5	12.4	12.4	8.5	18.1	18.0	16.3	13.9
Thailand	−8.7	−8.0	−6.2	−5.7	−6.4	−8.4	−8.5	−2.4
Hong Kong	8.4	6.6	5.3	8.1	2.0	−3.0	−2.4	−3.8
China	3.0	3.1	1.1	−2.2	1.2	0.0	0.5	3.6
Taiwan	7.4	6.9	4.0	3.5	3.1	3.1	4.7	3.2

[a] Note: The source of all the data in these tables is the international financial statistics of the International Monetary Fund (unless otherwise noted). The data for Taiwan are from various sources (Economist Intelligence unit reports, IMF's december 1997 world economic outlook and asian development bank). The data for Singapore for 1997 are from the economist intelligence unit country report, 2nd quarter 1998.

Current Account Deficits

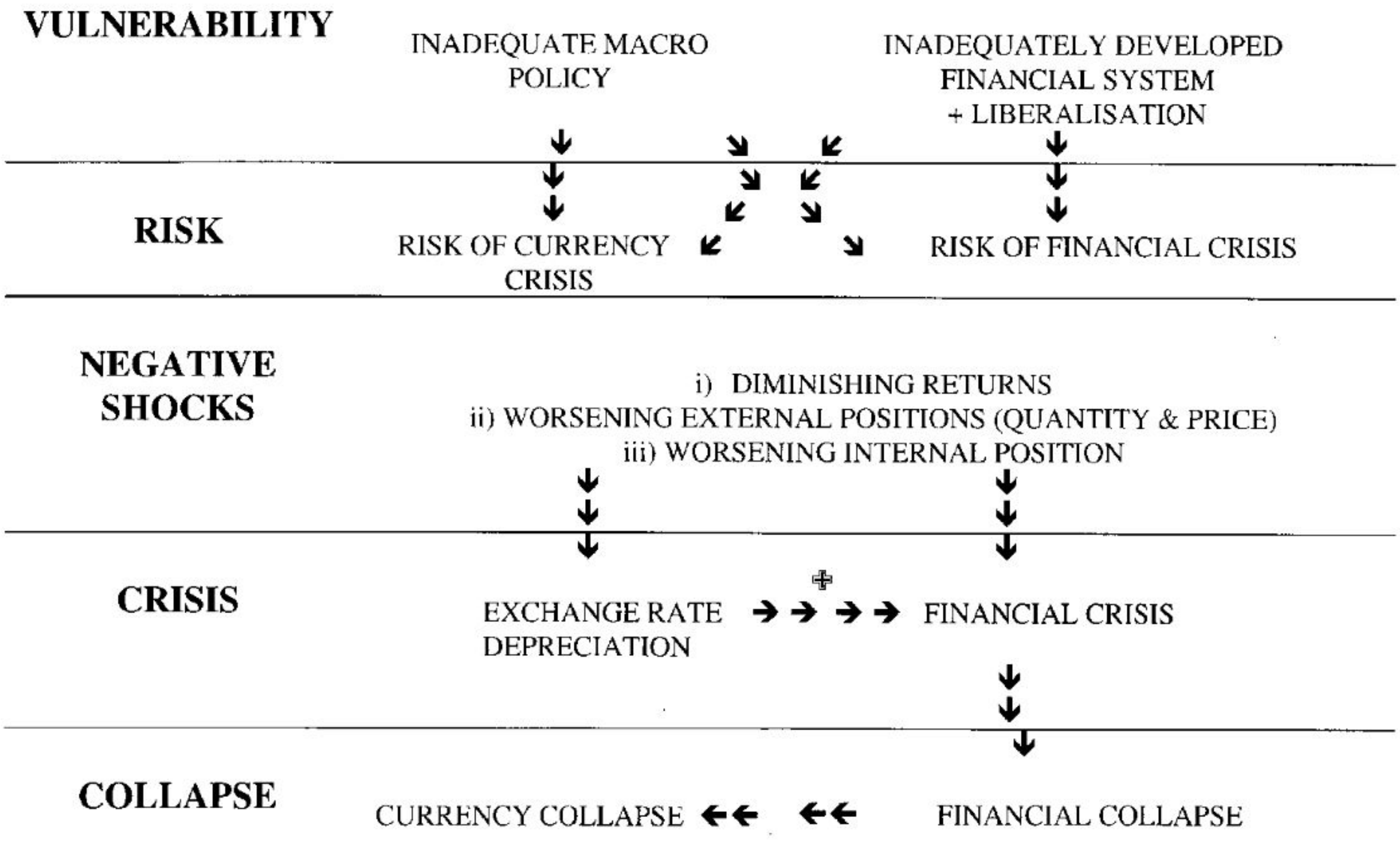
- Thailand and Malaysia ran deficits for over a decade
  - Currencies hit hardest in these countries
- Although CA deficits were high, it doesn't necessarily mean that they were going to fail
  - Not a mature, well developed nation
- US Deputy Treasury Secretary said that deficits in excess of 5% of GDP could lead to rapid reversals
  - Referring to Mexico, but it applies to East Asia
- Provide some evidence that the currency crises may have been associated with an external competitiveness problem

Solvency

- An insolvent borrower lacks the net worth to repay outstanding debts out of future earnings
- Would these countries be able to pay back their long-term liabilities
- Non-increasing Debt-to-GDP ratio as solvency "test"
- Resource Balance Gap
  - As % of GDP
  - Already large before crisis, 1996

Korea	4.4 percent
Thailand	6.9 percent
Indonesia	3.3 percent
Philippines	6.5 percent
Malaysia	2.3 percent

FIGURE 1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Macroeconomic fundamentals

Vulnerabilities from export-led growth

1. High rates of government and private savings
2. Private ownership of industrial sector
3. Low inflation rates and restrained domestic credit policies

Macroeconomic Fundamentals: Evidence

1. Output Growth
2. Public and Private Savings
3. Investment and Profitability
4. Inflation
5. Openness
6. Real Exchange Rate Appreciation

Output Growth

Table 4
GDP growth

	1991	1992	1993	1994	1995	1996	1997
Korea	9.1	5.1	5.8	8.6	8.9	7.1	5.5
Indonesia	7.0	6.5	6.5	15.9	8.2	8.0	4.7
Malaysia	8.5	7.8	8.4	9.2	9.5	8.6	7.8
Philippines	–0.6	0.3	2.1	4.4	4.8	5.8	9.7
Singapore	7.3	6.3	10.4	10.1	8.8	7.3	7.6
Thailand	8.2	8.1	8.4	8.9	8.8	5.5	–0.4
Hong Kong	5.0	6.2	6.2	5.5	3.9	5.0	5.3
China	9.2	14.2	12.1	12.7	10.6	9.5	8.8
Taiwan	7.6	6.8	6.3	6.5	6.0	5.7	6.8

Public and Private Savings

- Excessive credit growth in the banking system
  - Onset of non-performing loans
- Current account imbalances weren’t caused by public sector deficits
  - Mostly concentrated in the private sector

Table 12
Saving rates (% of GDP)

	1990	1991	1992	1993	1994	1995	1996	1997
Korea	35.69	35.74	34.88	34.91	34.60	35.14	33.60	33.06
Indonesia	31.75	31.10	33.41	28.66	29.52	27.65	27.50	27.98
Malaysia	29.07	23.24	30.06	27.70	33.81	34.65	37.81	39.34
Philippines	17.85	17.76	18.16	17.29	20.32	17.16	19.35	18.77
Singapore	45.32	46.56	48.35	46.17	50.82	51.05	51.33	51.30
Thailand	32.33	34.83	33.73	34.26	33.89	33.25	33.22	32.64
Hong Kong	35.85	33.78	33.76	35.67	33.83	31.94	29.95	31.33
China	37.77	37.84	37.26	41.29	42.04	40.22	39.25	41.15
Taiwan	30.50	30.26	28.93	28.68	26.99	26.70	25.92	25.43

Investment Rates

Table 5
Investment rates (% of GDP)

	1990	1991	1992	1993	1994	1995	1996	1997
Korea	36.9	38.9	36.6	35.1	36.1	37.1	38.4	35.0
Indonesia	36.2	35.5	35.9	29.5	31.1	31.9	30.8	31.6
Malaysia	31.3	37.6	33.5	37.8	40.4	43.5	41.5	42.8
Philippines	24.2	20.2	21.3	24.0	24.1	22.2	24.0	24.8
Singapore	35.9	34.2	36.0	37.7	32.7	33.1	35.1	37.4
Thailand	41.1	42.8	40.0	39.9	40.3	41.6	41.7	35.0
Hong Kong	27.4	27.2	28.5	27.5	31.9	34.9	32.4	35.1
China	34.7	34.8	36.2	43.5	40.9	40.2	38.7	37.6
Taiwan	23.1	23.3	24.9	25.2	23.9	23.7	21.2	22.2

Investment Inefficiency

Table 6
Incremental capital output ratio (ICOR)[a]

	1987–1992	1993–1996
Korea	3.8	4.9
Indonesia	4.0	3.8
Malaysia	3.7	4.8
Philippines	6.0	5.5
Singapore	3.6	4.0
Thailand	3.4	5.1
Hong Kong	3.7	6.1
China	3.1	2.9
Taiwan	2.4	3.9

[a] Source: J.P. Morgan and authors' calculation.

Low Profitability

- In Korea, conglomerates had extremely low profitability
  - ROIC was below cost of capital for 20 of top 30 conglomerates
- Extremely high debt-to-equity ratios
  - Average 333%
  - Some as high as 8600
- Other countries had overinvestment in non-traded sector
  - Property sector indexes grew more rapidly than other sectors from 1990-1996

Overinvestment

- Moral Hazard
  - Take on more risk because you expect to have some backup plan (bailouts)
  - Caused by financial reform
- Sustained lending boom

Table 19
Bank lending to private sector (% of GDP)

	1990	1991	1992	1993	1994	1995	1996	1997
Korea	52.54	52.81	53.34	54.21	56.84	57.04	61.81	69.79
Indonesia	49.67	50.32	49.45	48.90	51.88	53.48	55.42	69.23
Malaysia	71.36	75.29	74.72	74.06	74.61	84.80	93.39	106.91
Philippines	19.17	17.76	20.44	26.37	29.06	37.52	48.98	56.53
Singapore	82.20	83.34	85.06	84.14	84.21	90.75	95.96	100.29
Thailand	64.30	67.70	72.24	80.01	91.00	97.62	101.94	116.33
Hong Kong		141.84	134.20	140.02	149.00	155.24	162.36	174.24
China	85.51	87.87	86.17	95.49	87.12	85.83	91.65	101.07
Taiwan	100.41	108.99	126.43	137.23	146.89	149.49	146.05	146.23

Quality of Loans

- High rate of non-performing loans
- Poor regulation and poor supervision allowed this to happen

Table 21
Non-performing loans (as proportion of otal lending in 1996)[a]

Korea	8%	Thailand	13%
Indonesia	13%	Hong Kong	3%
Malaysia	10%	China	14%
Philippines	14%	Taiwan	4%
Singapore	4%		

[a] Source: 1997 BIS annual report; Jardine Fleming

Inflation

- Low inflation in 1990s
- High
  in
  flation signals that the fixed or semi-fixed exchange rate regime is potentially exposed to speculative att

Table 14
Inflation rate

	1991	1992	1993	1994	1995	1996	1997
Korea	9.30	6.22	4.82	6.24	4.41	4.96	4.45
Indonesia	9.40	7.59	9.60	12.56	8.95	6.64	11.62
Malaysia	4.40	4.69	3.57	3.71	5.28	3.56	2.66
Philippines	18.70	8.93	7.58	9.06	8.11	8.41	5.01
Singapore	3.40	2.32	2.27	3.05	1.79	1.32	2.00
Thailand	5.70	4.07	3.36	5.19	5.69	5.85	5.61
Hong Kong	11.60	9.32	8.52	8.16	8.59	6.30	5.83
China	3.50	6.30	14.60	24.20	16.90	8.30	2.80
Taiwan	3.63	4.50	2.87	4.09	3.75	3.01	0.90

Openness

- Most Asian countries were considerably open
  - Large export sector = ability to service debt obligations
  - Costs of a cut-off are too high = more like to honor liabilities
- Led to higher confidence in the Asian economies
- Experiencing trade shocks in 1996
  - Fall in demand of semiconductors

Real Exchange Rate Appreciation

- Currencies were pegged to a basket of currencies
  - US Dollar was so strong that it became an implicit peg
  - Peg allowed for cheaper borrowing
- US Dollar appreciated
  - Caused many other currencies to appreciate
  - Everyone except Korea
- Currency appreciation meant these countries were less competitive
  - Worsened current account

Financial System: Analysis

- Build up of short-term debts
  - Deficits were unsustainable and needed to be financed
- Rapid expansion of financial services sector without construction of sound regulatory framework → leads to moral hazard
  - Excessive amounts of capital inflows
- Financial reform aimed at upgrading financial institutions left them exposed to international financial instabilities
  - More vulnerable to external factors

Short-term debt

- Short-term debt was either greater than or almost equal to foreign reserves
- Illiquid = cannot pay short-term debts

Table 5. Debt to Foreign Banks and Foreign Exchange Reserves, Selected Crisis Countries, 1995–97

Billions of dollars

	Debt by sector						
Year and country	*Total*	*Banks*	*Public*	*Nonbank private*	*Short-term debt*	*Reserves*	*Ratio: short-term debt-to-reserves*
End 1995							
Indonesia	44.5	8.9	6.7	28.8	27.6	14.7	1.9
Malaysia	16.8	4.4	2.1	10.1	7.9	23.9	0.3
Philippies	8.3	2.2	2.7	3.4	4.1	7.8	0.5
Thailand	62.8	25.8	2.3	34.7	43.6	37.0	1.2
Korea	77.5	50.0	6.2	21.4	54.3	32.7	1.7
Total	209.9	91.3	20.0	98.4	137.5	. . .	. . .
End 1996							
Indonesia	55.5	11.7	6.9	36.8	34.2	19.3	1.8
Malaysia	22.2	6.5	2.0	13.7	11.2	27.1	0.4
Philippines	13.3	5.2	2.7	5.3	7.7	11.7	0.7
Thailand	70.2	25.9	2.3	41.9	45.7	38.7	1.2
Korea	100.0	65.9	5.7	28.3	67.5	34.1	2.0
Total	261.2	115.2	19.6	126.0	166.3	. . .	. . .
Mid-1997							
Indonesia	58.7	12.4	6.5	39.7	34.7	20.3	1.7
Malaysia	28.8	10.5	1.9	16.5	16.3	26.6	0.6
Philippines	14.1	5.5	1.9	6.8	8.3	9.8	0.8
Thailand	69.4	26.1	2.0	41.3	45.6	31.4	1.5
Korea	103.4	67.3	4.4	31.7	70.2	34.1	2.1
Total	274.4	121.8	16.7	136.0	175.1	. . .	. . .
Addendum							
Mexico							
End 1994	64.6	16.7	24.9	22.8	33.2	6.4	5.2
End 1995	57.3	11.5	23.5	22.3	26.0	17.1	1.5

Source: Authors' calculations. Data on debt are from Bank for International Settlements (1998); and on reserves, from IMF, *International Financial Statistics*, various issues.

Short-term debt

Table 32
Short-term liabilities towards BIS banks (% of total liabilities at the end of 1996)

Korea	67%	Thailand	65%
Indonesia	61%	Hong Kong	82%
Malaysia	50%	China	49%
Philippines	58%	Taiwan	84%
Singapore	92%		

Summary

- Some macroeconomic fundamentals did not portray the situation
  - Inflation, savings rate
- Others showed that CA deficits could not be sustained
  - High volume of low quality investments, output, ER appreciation
- Unregulated/unsupervised financial system allowed for high levels of short-term debt
  - Larger than most reserves
- Made East Asia vulnerable to external shocks
  - Speculative attacks and capital reversals

Currency Crisis

- By early 1997, macroeconomic conditions had deteriorated in most of the region
- In Spring 1997, Thai government tried to bail-out one of its major financial institutions
    - Asset prices started to fall and bad debt started to accumulate
- Thai government couldn’t bail-out these financial institutions and were forced to float the Baht
- Led to withdrawal of capital from the region

Initial Responses

- Selective actions to limit trading currencies and derivatives or limit repatriation of profits (Taiwan, Philippines, Hong Kong)
- Measures to improve prudential regulation
    - Increase in the ratio of banks' capital relative to risk adjusted assets to 8% or higher
    - Stricter assessment of non-performing loans
    - Increase in independence and unity of oversight agencies

However, the extent of financial and corporate restructuring in the most severely affected economies remained limited

Is crisis inevitable in Emerging Markets?

Is Crisis Inevitable in Emerging Markets?

- Has happened in Mexico, Turkey, Venezuela, Argentina and now East Asia
- Sachs and Radelet argue for the instability of in international lending and for the self-fulfilling crisis
    - Problem of collective action, depositors demand withdrawals of capital
        - First come, first serve basis
    - Turns illiquid countries into insolvent countries
- No Lender-of-Last-Resort, unlike in domestic markets
    - Can issue funds to illiquid but solvent companies/countries
- Emerging markets lack regulatory oversight

IMF Response

IMF Programs

Objective: Reestablish financial market confidence by stabilizing the exchange rate

Ideology: If exchange rates could be stabilized and default avoided, private lending would revive

Four key elements:

1. Fiscal policy
2. Monetary policy
3. Bank closings
4. Rebuilding / recapitalization of banks

IMF Response

- To combat the outflow of foreign capital, the IMF recommended raising interest rates to make investment more attractive
    - This caused local liquidity to tighten -- local businesses couldn't acquire capital

- IMF recommended reducing the definition of a "non-performing loan"
    - Resulted in measurable increases in bankruptcies across the region

Table 16. IMF and Market GDP Growth Rate Forecasts for Indonesia, Korea, and Thailand

Percent

Country and forecast source	*Date*	*Growth forecast* 1997	*Growth forecast* 1998
Indonesia			
IMF, first program	Oct. 31, 1997	5.0	3.0
IMF, second program	Jan. 15, 1998		0.0
IMF, third program	Apr. 10, 1998		−5.0
IMF, *World Economic Outlook*	Apr. 1998		−5.0
Market forecast	Feb. 1998		−8.8
Korea			
IMF, first program	Dec. 4, 1997	6.0	2.5
IMF, third program	Feb. 7, 1998		1.0
IMF, *World Economic Outlook*	Apr. 1998		−0.8
Market forecast	Feb. 1998		−2.5
Thailand			
IMF, first program	Aug. 20, 1997	2.5	3.5
IMF, second program	Nov. 25, 1997	0.6	0.0 to 1.0
IMF, third program	Feb. 24, 1998		−3.0 to −3.5
IMF, *World Economic Outlook*	Apr. 1998		−3.1
Market forecast	Feb. 1998		−6.0

Source: International Monetary Fund forecasts are from various IMF press releases and IMF (1998c). Market forecast is a simple average of forecasts by Goldman Sachs and two other investment banks operating in the region.

IMF & Moral Hazard

Excerpt:

of such repayments on the exchange rate. In the case of Korea, the

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linkage between the loan package and the repayment of foreign debts was direct and fairly automatic. In early December the commercial banks simply notified the Bank of Korea of the daily foreign creditor demands for foreign exchange loan repayments. The Bank of Korea then credited these banks with the necessary foreign exchange. In this way, the foreign creditors were repaid out of the IMF loan package; the Bank of Korea became the creditor of the Korean commercial banks and the debtor of the IMF. The upside of this arrangement was that the original loans were repaid and default was avoided. The downside was that the original private loans were in effect socialized. If the original loans had been allowed to default, the foreign creditors and the owners of the Korean banks would have shared the bulk of the losses.[37] Instead, the foreign creditors were allowed to escape and the Korean government took over the burden of repaying the foreign debts—now owed to the IMF.

Controversial High Interest Rates

- Critics say high IRs led to widespread banking and corporate bankruptcies
  - Appropriate response was loose monetary policy and lower interest rates
  - Bring up Japan during their internal crisis
- Corsetti et al. argues loose monetary policy exacerbate depreciation
  - Countries worsened themselves by not raising interest rates earlier
  - I.e. Malaysia after runs on Baht
  - Japan is a net lender and has large CA surplus
    - Their situation is different than others

IMF's Effect on Moral Hazard

- Did IMF intervention increase global moral hazard?
- Not really,
    - 1. No relation between surge in capital to East Asia due to bail-outs in Mexico
    - 2. Private creditors bore the majority of losses
    - 3. Policy makers generally do not remain in office when they end up in trouble
    - 4. There is no guarantee for an IMF response

What measures can be taken to help prevent this?

Preventing Future Crises

- Discourage volatile short-term investment
  - Dampen the extent of reversals
- Controls on short-term cross-border interbank flows
  - Well agreed upon and part of good banking standards
- Encourage long-term investment
- Better regulation and supervision
- Ensure ample liquidity
  - Reassure that international investors will be paid

International Markets are Riskier

- Not lender of last resort
  - IMF cannot always be relied upon
- No deposit insurance
  - Risk losing entire investment
- Emerging markets tend to lack regulatory oversight

Discussion Questions

Debate:

- Are international capital markets inherently unstable?

- In what respect did the IMF contribute to the escalation of the crisis?

- Was the currency crisis a result of deterioration in economic fundamentals within affected countries or due to inherent instabilities in international capital markets?

Debate:

- Thailand and Korea faced with strong international pressure to open their financial markets to foreign investors. What can emerging economies learn from the mistakes of East Asia's rapid liberalization?

- Should emerging markets prioritize improving domestic capital markets before liberalizing? How did this play into the AFC?