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International Economics

XI. International Lending, Inflation and Financial Crises

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Pugel, International Economics, pp. 503-539



1. Inflation and the International Economy

Definition

- Inflation usually means *price inflation*: a general rise in all prices or in the price level
- “Inflation is always and everywhere a monetary phenomenon” (Friedman 1968)
- Inflation is caused by an increase in the supply of money

Effects of Inflation

- On a country's exchange rate
- On its balances of payments
- Depending on the currency regime, the effects work themselves out in different ways



Origins of Inflation

- The inflation starts when the monetary authority or central bank decides to increase the money supply. It goes on as long as the increase continues
- Bank credit expansion also cause inflation
- Credit expansion usually stimulated by an inflow of reserves from central bank

Further Development of Inflation

- As the supply of money increases, prices of goods and services rise
- Which prices rise first depend on where and how new money enters the economy
- Credit expansion usually benefits business, leading to rise in producer prices
- “Simple” inflation can also go to business first – it always depends on the data of each case



Consequences

- It becomes more expensive to buy domestic goods and comparatively cheaper to buy foreign goods
- Imports will increase, as foreign goods are now comparatively cheaper
- Exports will drop off
- Result: current account deficit
- If credit expansion is ongoing, domestic interest rates will likely *initially* be lower at home than abroad
 - Investors will seek foreign investment opportunities → capital will flow abroad



Depreciation

- There is a proportional change in demand for currency
 - Less demand for domestic currency abroad and more demand for foreign currency
- The exchange rate falls – depreciation sets in
 - Note that this is consonant with the basic determinant of exchange rates: PPP

Countering Depreciation

- The inflating country may try to stop the depreciation
 - E.g., by instituting capital/currency controls
 - The CA deficit will persist as will the depreciation
- Only by ending the inflation will the CA deficit and depreciation end
- If the inflation continues, inflationary expectations develop
 - Traders/speculators will discount future inflation now → the exchange rate will depreciate even more



Direction of Inflation

- Credit expansion (usually) affects financial and capital markets first
 - Capital goods /producer prices rise first
 - The prices of domestic financial assets rise
- Domestic interest rates fall
 - Price spreads between stages of production narrow
 - Interest rate paid in financial markets fall
 - Illusion of abundant capital leads to surge in investment

International Consequences

- Lenders will seek abroad for investment options as domestic interest rates fall
 - Foreign interest rates will also tend to decline, as the supply of loanable funds on foreign loan markets increases
 - If loans go primarily to business, the result will be malinvestments, boom
 - In this way, the effects of credit expansion in one country can spread abroad
- A boom or economic expansion spreads from the inflating country through the channels of international capital flows and increased imports



The End of Credit Expansion

- The boom ends when the expanding country stops increasing the money supply
 - Or when the rise in prices (exchange rates) accelerates ahead of the increase in the money supply
- Now the current account imbalance reverses and the outbound capital flows stop

Consequences

- Prices stop rising relative to foreign prices, it becomes again attractive to buy domestic and/or to export
- Domestic interest rates rise, making it more profitable to invest at home
 - The outbound flow of capital stops and capital starts flowing in
- Contraction abroad and at home is the result
 - Both boom and bust are centered on the expanding country, “ripples” to the rest of the world
- Consequences for foreign countries depend on size of the economy where credit expansion occurs, and on how soon the expansion is reflected in exchange rates



Differences Under a Fixed Exchange Rate

- Domestic inflation and credit expansion have slightly different effects
- As domestic prices rise, downward pressure will develop on the exchange rate
 - Foreign goods are now comparatively cheaper
 - Domestic buyers will demand foreign exchange to finance imports
 - Simultaneously, exports fall, less foreign exchange is earned

Consequences

- The monetary authority will have to sell reserves at the pegged rate, financing cheap imports
- Exports will drop off even more than under a flexible exchange rate regime, since the exchange rate cannot adjust



Ongoing Pressure

- So long as the inflation is ongoing, the pressure toward depreciation will continue → ongoing drain of reserves

Consequences

- The central bank will eventually have to give up its inflationary policy
 - And/or accept devaluation of its currency
 - Often if not usually both!
- Once the central bank admits defeat and devalues, equilibrium between exports and imports will be restored and the pressure on reserves ends



Core Country Inflation

- We have already previously touched on the American “deficit without tears”
 - Since 1945 the USA has not had to worry about their balance of payments deficit
 - Dollars and dollar-denominated assets are key reserve assets in the global monetary system
- Inflation in the US therefore does not lead to depreciation of the dollar to the same extent
 - There is no pressure to balance the BoP
 - The US effectively simply export debt to the rest of the world



Core Country Inflation

- When the US engages in inflation, reserve assets will be exported
 - Dollar-denominated financial assets – e.g., US government debt
 - These will pile up in foreign central banks

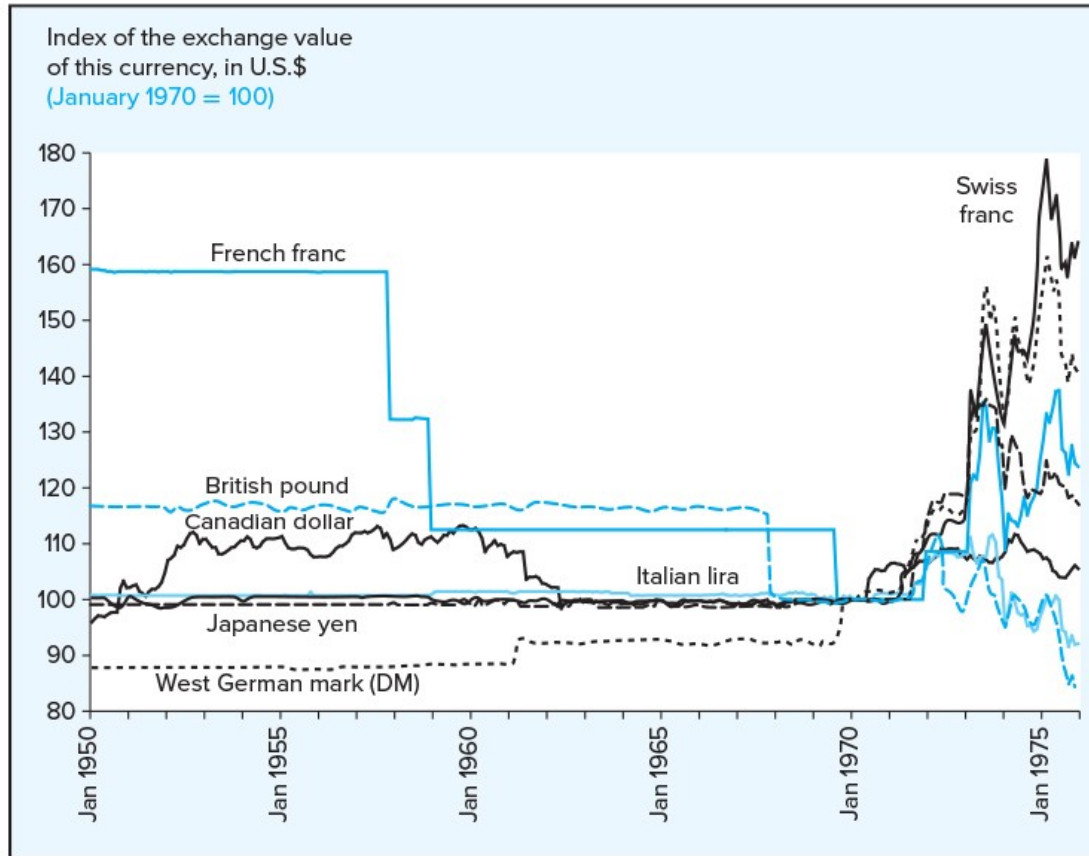
Consequences Abroad

- Foreigners sell US assets to their central banks
- Normally, central banks would sell any excess assets
- However, dollar assets can serve as backing for foreign central banks own expansion of the money supply
- They use increased reserves as the basis for domestic inflation
- Countries that are less inclined to inflation will let their currencies appreciate against the dollar (or euro) – e.g., the Swiss or the Germans (before the euro)



Currencies against the Dollar, 1950-1975

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Sources: For 1950-1956, Board of Governors of the Federal Reserve System, *Banking and Monetary Statistics, 1941-1970* (Washington, D.C., 1976); for 1957-1975, International Monetary Fund, *International Financial Statistics*.



Exporting Inflation

- If a country has pegged its currency, it is bound to follow the monetary policies of the anchor
- If the anchor country engages in inflation, this will induce pressure on the anchor currency toward depreciation
- In order to defend the peg, the country with the fixed exchange rate will have to follow this inflationary policy, effectively “importing” inflation

Example: Switzerland and Europe

- From 2011 to 2015, the Swiss franc was pegged to the euro at 1.20/€. As European policy was very inflationary, the Swiss had to copy this
- In January 2015 they abandoned the peg and the franc immediately appreciated 20 percent
- The franc depreciated again to almost 1.20/€, but since May 2018 it has steadily appreciated
 - It is currently about CHF 0.97/€ (June 6, 2023)



Definition of Currency Crisis

- Economic crisis triggered by the collapse of a currency peg
 - Or by the sudden devaluation of a freely floating exchange rate
- Crises like these are as old as capitalism itself (Kindleberger 1996)
- Virtually always the cause of the crisis is monetary inflation – Mississippi Bubble 1720 in France, Germany 1873, US 1929...

More Frequent and Contagious

- As the economy has become globalized and financial markets integrated, crises spread more easily from core or anchor countries to the rest of the world
- Governments fighting to maintain a currency peg while also engaging in inflation often accuse international speculators for the resulting problems
 - balance of payments problems, drain of reserves...



Blaming the Messenger

- In the 1960s British politicians blamed the “gnomes of Zurich” – Swiss bankers – for the run on the pound eventually leading to devaluation in 1967
 - Inflationary policy was the real reason
- Again in the early 90s, the British tried to maintain a stable exchange rate as part of the European Exchange Rate Mechanism (ERM)
 - Speculators perceived a discrepancy between domestic inflationary policies and an overvalued pound
 - George Soros became the face of the speculators who “broke” the Bank of England in 1992



2. International Lending

Categories of Lending

- Divided by type of lender/investor (private or official)
- Maturity (long-term or short-term)
- Management control (foreign direct investment) or not
- Type of borrower (private or government)



Long Term Lending and Investment

- Direct investment (FDI – we have already covered this previously)
- Loans to foreign borrowers, usually banks, with maturity of more than one year
- Portfolio investment, i.e., purchasing stocks and bonds issued by foreign companies or governments

Short Term Lending and Investment

- Short-term loans (less than one year)
- Purchasing bonds and other claims maturing in less than a year
- Duration of investment in negotiable assets is really indeterminate – after all, you can sell them again whenever you want to



Definition

- Lending from a government or a central bank, or an international institution such as the World Bank or the IMF
- Mostly loans (i.e., not bonds), of both shorter and longer term

Use

- Some foreign aid can take the form of loans from developed to developing nations
 - This was especially popular in the 1970s and 1980s
- In recent years central banks have coordinated policies and collaborated through *central bank liquidity swaps*



Definition

- One central bank lends its own currency to another against security in that one's currency
 - Both simply create the new money
- At the end of the swap, the loan is returned at the agreed exchange rate
- Mostly the American Federal Reserve is lending dollars to other central banks

Background

- Banks and financial institutions have lend out huge sums of US dollars despite not being based in the US (eurodollars)
- A lot of European banks had huge dollar liabilities before the financial crisis of 2008
- After the crash in 2007, dollar-funding dried up – European banks could not fund their positions, as they didn't have access to the American Federal Reserve
 - Funding in the private market very expensive – would have bankrupted the banks



The 2008 Swaps

- A lot of dollar-denominated assets would become worthless as banks were forced into default
- To avoid this, the Fed set up swap lines with the ECB and the Swiss National Bank
 - The Europeans could now provide the needed liquidity
- Effectively, the Federal Reserve bailed out non-US banks as well as American banks
 - Not due to altruism: European banks heavily invested in the USA

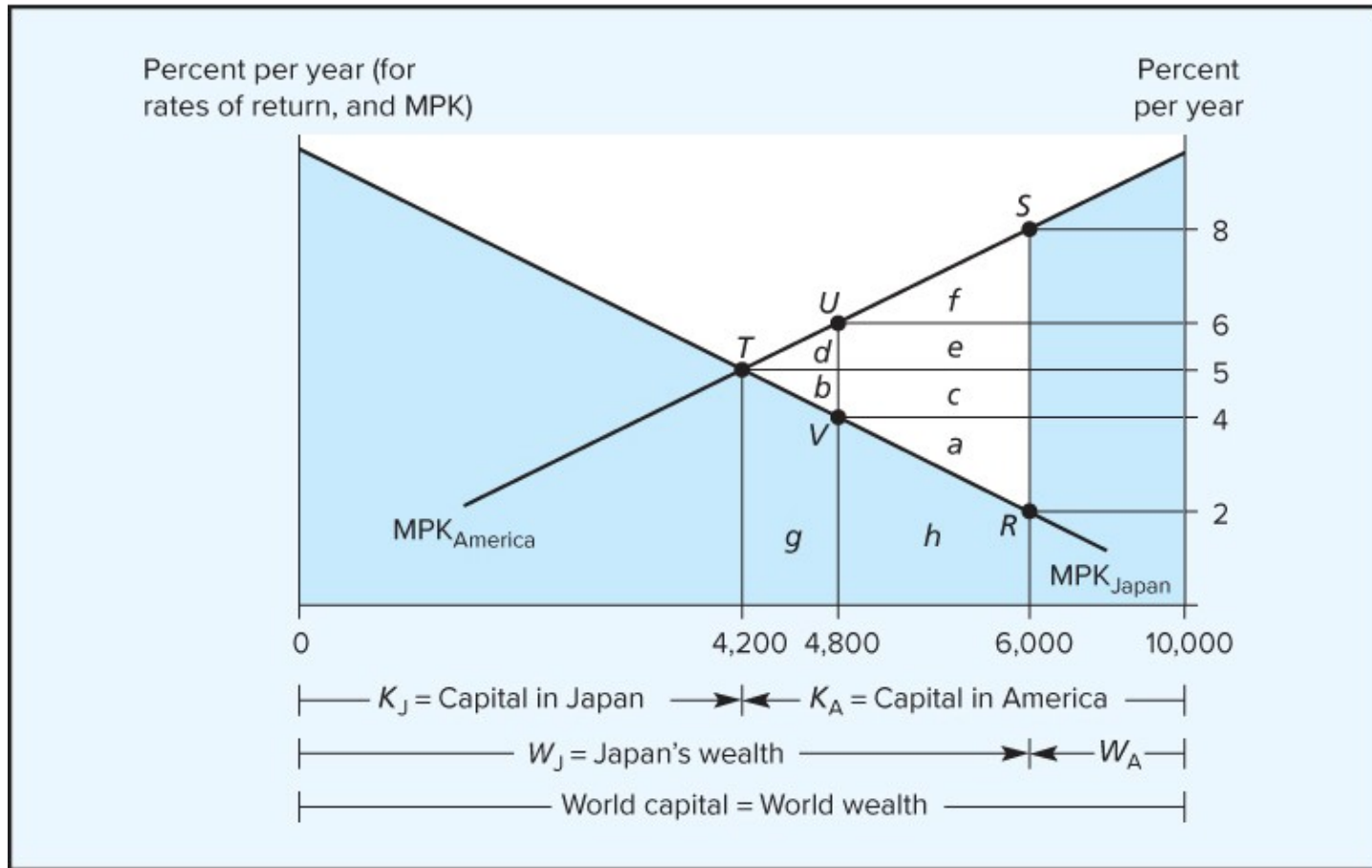
Moral Hazard

- European banks that had overextended themselves were saved by credit on easy terms
 - They were banking on an implicit guarantee that they would be saved in case of collapse: central banks would not want the financial system to contract
- Moral hazard: Potential risks and future costs are ignored due to an implicit public guarantee
- Banks that are considered “too big to fail” or “systemically important” all suffer from this



“Well-behaved” International Lending

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Essence of Financial Markets

- International financial markets are not essentially different from domestic markets
 - Capitalist lenders seek the best terms possible for their loans
 - They search for as high a rate of return as possible

Example

- The rate of interest is 2 percent in Japan and 8 percent in the USA
- Japanese capitalists will restrict domestic lending and increase lending in the USA
- The result will be a rise in Japanese interest rates and a fall in American interest rates until they converge at 5 percent in our example



Complex Reality

- International lending complicated by currency risks and sovereign risks
- Currency risk comes from potential changes in the value of the local currency
 - Avoided by lending in euros or dollars (or your home currency)
- Sovereign risk is the risk of default by a government, or more generally, risk of the government interfering with international investment
 - Developing countries have often defaulted on their loans
 - Foreign assets have been expropriated, in wartime and when an anti-capitalist party took power

The Result

- A range of global interest rates
 - Depending on specific conditions in each country
 - And on the speculative element in each individual loan, of course



3. International Financial Crises

Surge in international lending

- 1974-1982
- The debt crisis of 1982
- Resurgence of capital flows in the 1990s

Financial crises

- The Mexican Crisis 1994-1995
- The Asian Crisis 1997
- The Russian Crisis 1998
- Argentina's Crisis 2001-2002



- From the early 1970s on, private lending to developing countries greatly increased

The Causes

- Pessimism about returns in developed countries
- High inflation in developed countries
- Oil Crisis led to great increases in oil-exporting countries, they placed their money in liquid forms, bank deposits and bonds in western banks, funding loan expansion
- Era of peak resistance to FDI

Effects

- The lending did not spur much economic development
- Much of it went to governments and cronies, not productive investment



Causes

- Tighter monetary policy and lower inflation in the US in the early 1980s led to higher interest rates in the US
 - Capital flows redirected toward United States
- Tighter policy led to domestic US recession

Consequences

- Severe recession in US and much of the west early 1980s, fewer new loans made
- Recession spread to developing countries: their exports declined, commodity prices fell and interest rates remained high



Net Financial Flows to Developing Countries 1981-2016 (billions of dollars)

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Source and Type	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Net long-term	76	73	53	45	38	38	40	50	48	58	68	110	159	158	168	212	263	222
Official loans	21	22	20	22	18	19	19	18	21	24	21	22	24	14	24	4	10	21
Private debt	42	39	23	14	10	10	11	15	5	10	12	37	43	37	45	76	89	68
Bank and other loans	40	33	22	15	6	10	13	14	4	10	5	29	13	10	24	26	39	30
Bonds	2	6	1	-1	3	1	-1	1	1	0	7	9	30	27	21	49	50	38
Portfolio equity (stocks)	0	0	0	0	0	0	0	0	2	3	6	9	30	26	14	26	27	3
Foreign direct investment	13	11	10	9	11	9	9	17	21	21	29	42	62	81	85	107	136	130
Net short-term	19	15	-16	-6	1	2	10	7	6	24	20	33	33	19	54	29	22	-43
Total net financial flows	95	87	37	39	39	40	50	57	55	81	88	143	192	177	223	241	284	179

Source and Type	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Net long-term	185	173	165	141	192	304	429	571	872	658	581	920	993	1,082	1,100	1,021	748	784
Official loans	16	5	11	-7	-14	-9	-23	-41	9	17	54	60	34	38	46	52	42	56
Private debt	21	20	1	-1	43	86	121	173	284	198	46	197	340	418	406	350	146	203
Bank and other loans	-13	-9	-19	-13	20	49	70	134	208	206	-6	94	188	188	227	170	62	85
Bonds	34	29	19	13	23	37	51	39	77	-8	51	103	152	230	179	180	84	119
Portfolio equity (stocks)	10	14	7	9	26	37	66	108	133	-61	124	126	2	94	71	88	22	44
Foreign direct investment	139	134	146	140	137	190	265	332	445	502	358	537	617	532	577	531	537	481
Net short-term	-21	-9	20	2	54	56	83	92	189	16	34	434	324	149	351	138	-487	-16
Total net financial flows	164	164	185	144	246	360	512	664	1,060	674	615	1,354	1,317	1,231	1,451	1,159	261	768

Source: World Bank, *International Debt Statistics*.



- A set of policy prescriptions for developing countries came to be formed in the late 1980s
- They were called the “Washington Consensus” since they were promoted by Washington-based agencies
 - The IMF, the World Bank and US Treasury Department
- Among other prescriptions are privatization of state-owned enterprises, freer trade, deregulation and free financial flows
- Overall, if followed these policies would promote capital flows and integration of developing countries into global financial markets
- However, they also promote “fiscal responsibility”
 - The government of developing countries must be a good credit risk, to achieve this it must balance its budget
 - Austerity measures needed for purpose – in reality, this means tax hikes



Developing Countries' External Debt Outstanding, 1970-2016

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Type of Debt	1970	1980	1985	1990	1995	2000	2005	2010	2016
Long-term debt	57	372	655	951	1,450	1,730	1,965	3,131	5,052
Public and publicly guaranteed	43	308	575	896	1,255	1,269	1,283	1,667	2,527
Private nonguaranteed	15	63	80	55	195	462	682	1,463	2,525
Loans from the IMF	1	11	36	32	59	78	69	154	115
Short-term debt	8	108	113	168	326	280	490	1,249	1,710
Total debt	66	491	804	1,152	1,836	2,089	2,525	4,534	6,877
Debt/GNP ratio (percentage)	10.9	20.7	30.3	33.0	38.4	36.7	26.8	22.6	26.0
Debt service-exports of goods and services ratio (percentage)	15.4	19.8	25.0	19.6	18.5	22.0	13.3	9.5	14.2

Source: World Bank, *International Debt Statistics*.



“The Great Moderation”

- Restructuring of debt led to renewed confidence from investors
- Lower interest rates in the US and the developed countries made developing countries more attractive
- Some governments loosened controls on their economies, liberalized, making them more attractive for investor
- Monetary policy favoured increased lending, so-called financialization



Causes

- Capital inflows in Mexico early 1990s
- Despite large domestic inflation, the government allowed only small nominal depreciation
 - The peso became overvalued, a current account deficit developed

The Crisis

- In 1994, the government intervened to defend the value of the peso
- There was a flight of capital out of Mexico – mostly by Mexicans who feared the government would shortly devalue the peso
- In December 1995 the peso was allowed to depreciate
 - Mexican holdings of official reserves had declined to \$6 billion, down from \$25.3 billion in 1993



Causes

- Heavy private lending to Southeast and East Asian countries in the 90s
- Most countries maintained some kind of currency peg to the dollar
 - However, many currencies were overvalued at official rates
 - Partly due to capital inflows: these triggered domestic credit expansion

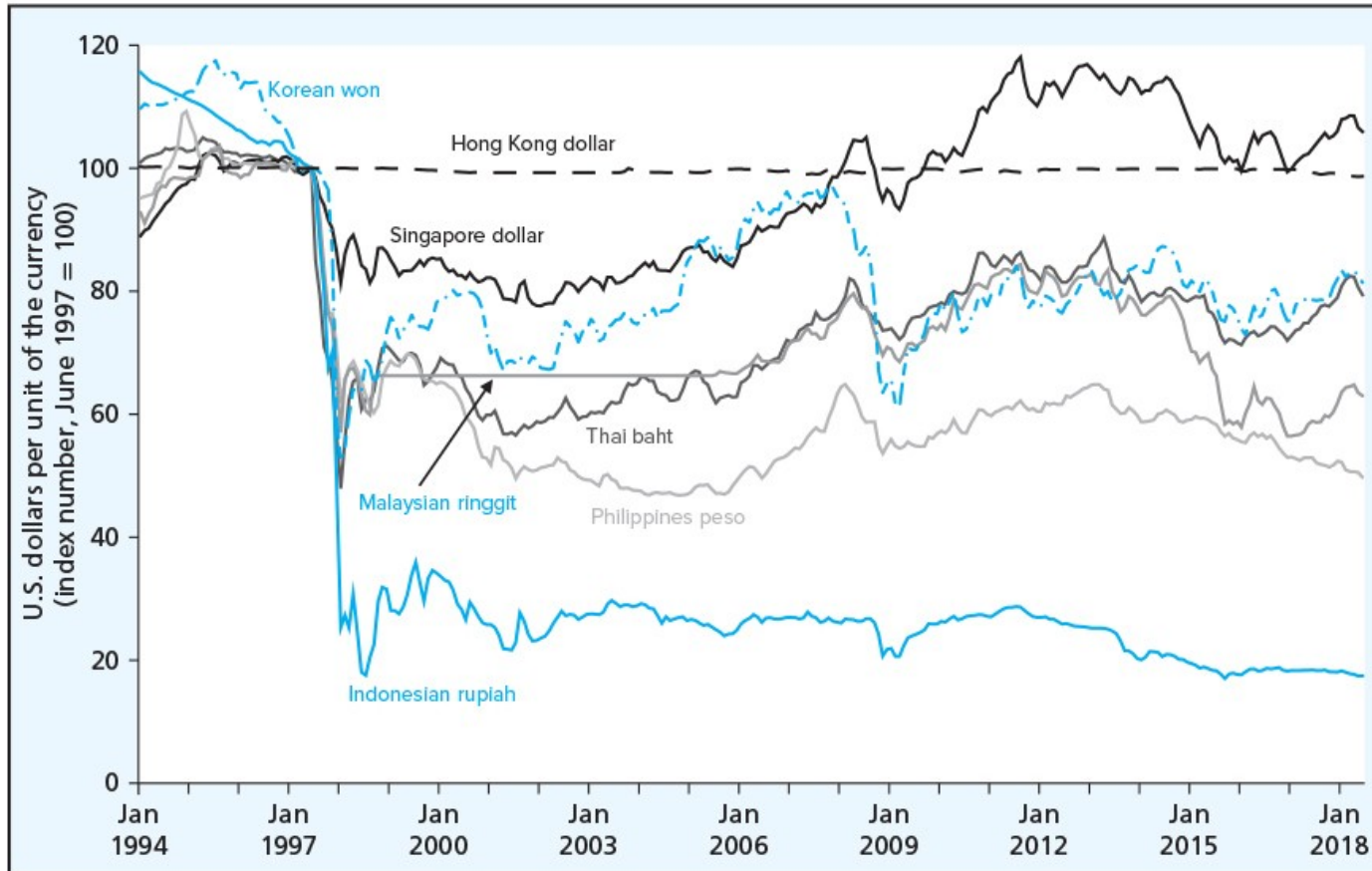
Outbreak of Crisis

- First in Thailand with huge declines on the stock exchange
 - The baht (Thai currency) came under pressure and was allowed to depreciate in July 1997
- The crisis then spread across the region
- The IMF organized bailouts to the different countries, loans to “save” the different borrowers (and lenders, of course)
- Recessions and depreciation cured balance of payments deficits, mainly through curtailing imports



Asian Exchange Rates 1994-2018

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Source: International Monetary Fund, *International Financial Statistics*.



- Russia weathered the Asian crisis, but soon came under pressure
- Large fiscal deficit and great inflation led to capital flight by wealthy Russians: they sold roubles for foreign currencies
- Russian government in August 1998 unilaterally restructured its debt and allowed the rouble to depreciate
- Russian actions caused shock in the markets – the Russian refusal of the IMF bailout led investors to seek safety in developed countries, reducing engagement in emerging markets



Causes

- Fixed exchange rate to the dollar since early 1990s
- Chronic fiscal deficit, current account deficit developed, bailouts from IMF in 2001
 - The IMF refused further bailouts as government didn't institute reforms
- Run on the banks in late 2001, government closed the banks in November, only allowed to reopen a month later with severe restrictions

Consequences

- In early 2002 the government gave up the dollar peg
- The peso depreciated 75 percent
- Argentinian government defaulted on \$140 billion of its debt
- Nowadays there's a sort of "informal dollarization" – you only hold pesos if you absolutely have to



4. Conclusion

1. Domestic inflation always spills over into the international arena
2. Inflating reserve currencies and anchor currencies can spread inflation around the world
3. International lending is in theory beneficial to the allocation of capital, in reality countries are fragile under the flows of capital conditioned by central bank policies
4. International lending has been characterized by a series of financial crises, always tied to monetary policy at home or abroad (or both, usually)



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