

Lecture 3: From Financial Repression to Financial Liberalization

Development Finance

Lecturer: Nguyen Xuan Thanh

Government Intervention in the Financial System

- ◆ Developing country governments considered their existing financial system as unsupportable for industrialization and modernization.
- ◆ Developing country governments saw the need to intervene in the sphere of finance to mobilize and direct funds to those activities that they thought necessary for economic development.
- ◆ An economy is said to be financially “repressed” when the government intervene and hence distort the domestic financial market. (Shaw and McKinnon 1973).

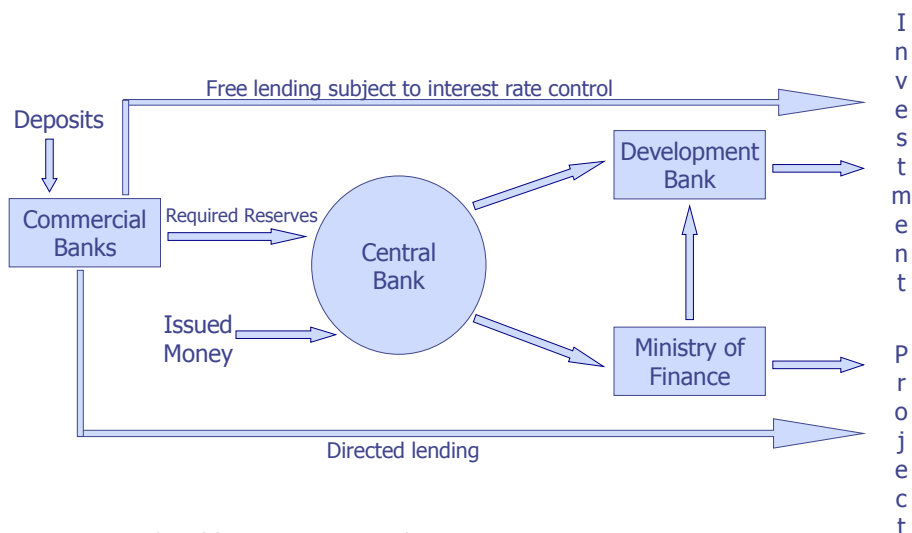
Instruments of Financial Repression

- ◆ High reserve requirements
 - ✓ Reserve requirements are imposed by the central bank on deposits held by deposit money banks.
 - ✓ Initial objective: ensure the stability of the banking system (with a required reserve ratio of around 10%).
 - ✓ For many developing countries, high reserve requirements were applied (above 50%) to mobilize finance for the government through the banking system.
- ◆ Interest rate control
 - ✓ Ceilings on nominal deposit rates
 - ✓ Ceilings on nominal lending rates
 - ✓ Ceilings on nominal deposit and lending rates
 - ✓ Floors on interest rates (less popular)
- ◆ Directed credit

The government requires financial institutions or establishes specialized credit to

 - ✓ provide loans compulsorily to govt.-favored investment projects,
 - ✓ often with interest rate subsidies and/or credit guarantees.

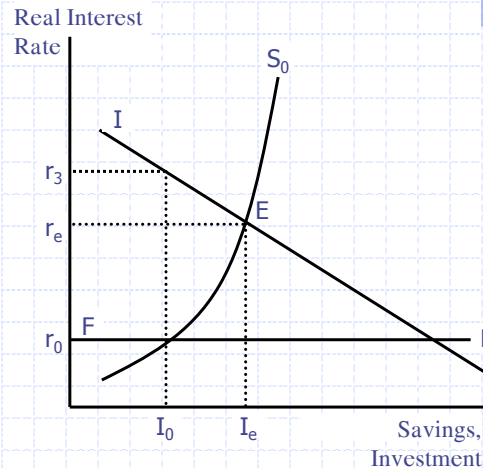
A Repressed Financial Process



Source: Adapted from McKinnon 1993, Ch. 4.

Financial Repression

- ◆ The level of savings S_0 corresponding to GDP growth rate g_0 is a function of real interest rate.
- ◆ A ceiling on the nominal deposit rate puts a cap on the real deposit rate at r_0 which is below the equilibrium level.
- ◆ Actual investment is at I_0 which is equal to savings at r_0 .



Interest rate, inflation, and reserve requirement

Nominal and real interest rates

- ◆ i_d and i_l are nominal deposit and lending rates.
- ◆ r_d and r_l are real deposit and lending rates.
- ◆ π is inflation rate.
- ◆ We have:

$$i_d = r_d + \pi$$

$$i_l = r_l + \pi$$

The central imposes the required reserve ratio of k

- ◆ D is total amount of deposits
- ◆ L is total amount of loanable funds
- ◆ Required reserves: kD
- ◆ Loanable funds: $D - kD = (1 - k)D$
- ◆ We have:

$$(1 - k)D = L$$

Zero-profit assumption

- ◆ Interests paid on deposits:
 $i_d D$
- ◆ Interests earned on loans:
 $i_l L$
- ◆ Zero-profit assumption: $i_d D = i_l L$
- ◆ Substituting $(1 - k)D = L$ into the above equation, we have:

$$i_d = (1 - k)i_l$$

The higher the reserve tax and/or inflation tax on the financial system, the greater the wedge between deposit and lending rates

$$r_l - r_d = i_l - i_d = \frac{r_d k}{1 - k} + \frac{\pi k}{1 - k} = f(k, \pi)$$

- ◆ An increase k means that banks have to put more required reserves which earn zero interest at the central bank. To avoid suffering losses, banks have to lower the deposit rate or raise the lending rate or both.
- ◆ If a ceiling is imposed on the nominal lending rate (i_d), then when k or π increases, the nominal deposit rate is pushed downward.
- ◆ When inflation rises, the real value of the required reserves decreases, causing losses to the banks. To break even, the banks have to raise the real lending rate if depositors require a fixed real deposit rate.

Effect of Financial Repression (McKinnon & Shaw 1973)

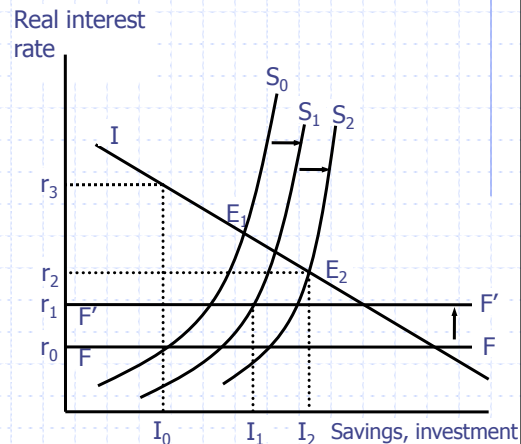
- ◆ Interaction between strict interest rate controls and high required reserve ratio often lead to negative deposit rates \Rightarrow impeding the financial deepening process.
- ◆ Low interest rates do not increase capital investment as expected because the ability to mobilize savings is limited.
- ◆ Household and business investment tends to concentrate on high-value inflation-free assets (e.g. gold or real estate).
- ◆ Due to the decrease in loans available from the formal financial system, investors have to rely more on self-finance.
- ◆ Reliance on self-finance reduces the liquidity of business liabilities.
- ◆ Investment activities of insurance companies and investment funds are constrained once the currency becomes unstable and financial assets are illiquid.
- ◆ Directed credit schemes accompanied by other preferential interest rates create a wide disparity in interest rates between the favored and non-favored groups.

Proposed Solution

- ◆ Price stabilization
 - ◆ Liberalization of interest rates to insure that real interest rates reflect market forces.
- ⇒ Financial Liberalization

Financial Liberalization

- ◆ The interest rate ceiling is increased from FF to FF' .
- ◆ The growth rate increases from g_0 to g_1 .
- ◆ Savings shift to the right from S_0 to S_1 .
- ◆ Investment increases to I_1 .



- ◆ Control over interest rates is totally removed, savings moves to S_2 corresponding to the growth rate g_2 . The equilibrium is now E_2 . The real interest rate is r_2 and investment is I_2 .

Critics of Financial Liberalization

- ◆ The higher the returns on the loan, the higher the proportion of risky borrowers applying for credit; while the prudent borrowers will be forced to leave the market (adverse selection)
- ◆ Any borrower will try to change the nature of their project to make it more risky (moral hazard). Because the expected return on the loan of the prudent borrowers may not be high enough to pay loan interest rates.

Financial Liberalization and Macroeconomic Instability

- ◆ Financial liberalization through interest rate deregulation and lower reserve requirement has taken away an instrument for the government to offset budget deficits.
- ◆ If the government is unable to borrow from domestic sources and yet does not want to increase inflation tax, then the capital account must be relaxed to access foreign savings and finance the budget deficits.
- ◆ Foreign capital inflows make the real exchange rate appreciate. In fact, the exchange rate can over-appreciate and gradually depreciates due to the capital inflow decreasing over time once foreign debts approach the level required by the economy.

Surveys of Financial Liberalization

- ◆ Financial liberalization leads to:
 - ✓ Rising real interest rates
 - ✓ Financial deepening (except for low-income countries)
 - ✓ Increases in foreign investment
 - ✓ Improvement in productivity
- ◆ Financial liberalization and domestic savings
 - ✓ Mixed results.
 - ✓ In some cases, gross domestic saving as a percentage of GDP declines after financial liberalization.

Before and after domestic financial liberalization: Real lending rate

	Before	After
All 50 countries (1970-1998)	1.58	7.73*
Developed	0.43	6.28*
Emerging		
Asia	5.52	5.0
Latin America	1.42	14.7*
Africa	-1.49	8.96*
Middle East	12.12	8.06
By income level		
High	1.10	6.02*
Upper-middle	-3.28	9.03*
Lower-middle	15.47	9.97*
Low	0.06	9.73*

* Significant at 5% level

Source: Reinhart & Tokatlidis (2001).

Before and after domestic financial liberalization: Private domestic credit/GDP

	Before	After
All 50 countries (1970-1998)	32.2	55.2*
Developed	56.9	82.5*
Emerging		
Asia	32.7	57.9*
Latin America	25.8	33.5*
Africa	19.7	26.8*
Middle East	28.3	37.7*
By income level		
High	56.5	81.9*
Upper-middle	32.1	44.7*
Lower-middle	24.5	41.6*
Low	17.7	18.2

* Significant at 5% level *Source:* Reinhart & Tokatlidis (2001).

Before and after domestic financial liberalization: Gross domestic saving/GDP

	Before	After
All 50 countries (1970-1998)	19.7	21.0*
Developed	24.8	22.8*
Emerging		
Asia	23.2	28.9*
Latin America	23.0	19.2*
Africa	14.5	12.2*
Middle East	11.4	14.2*
By income level		
High	24.1	24.5
Upper-middle	24.4	23.8
Lower-middle	18.6	18.3
Low	14.1	13.1

* Significant at 5% level *Source:* Reinhart & Tokatlidis (2001).

Financial Liberalization and Financial Fragility - Demirguc-Kunt & Detragiache (1998)

- ◆ Banking crises are more likely to occur in countries with a liberalized financial sector, even when other factors (including the real interest rate) are controlled for.
- ◆ A weak institutional environment makes liberalization more likely to lead to a banking crisis.
- ◆ Franchise values tend to be lower when financial markets are liberalized, possibly because bank monopolistic power is eroded. This suggests that theories attributing increased moral hazard to low bank franchise value may help explain why financial liberalization tends to make banking crises more likely.

Banking crises are more likely to occur in countries with a liberalized financial sector

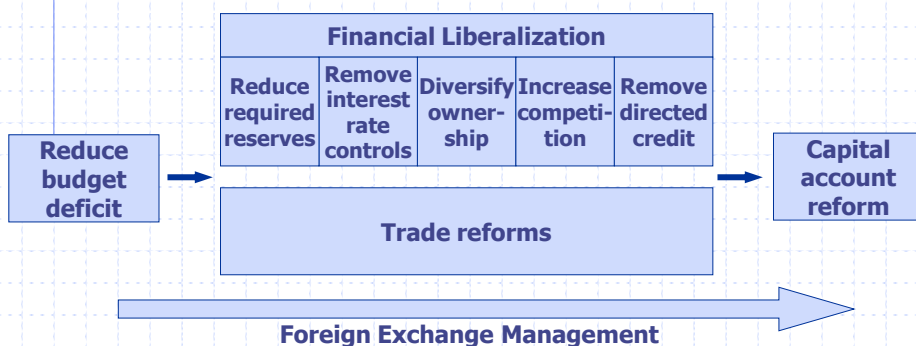
	Crisis Year	Probability of Crisis Predicted by Baseline	Predicted Probability of Crisis had the Country not Liberalized
US	1980	0.459	0.126
Japan	1992	0.071	0.012
Sweden	1990	0.033	0.006
Chile	1981	0.174	0.035
Colombia	1982	0.047	0.008
Mexico	1994	0.207	0.043
India	1991	0.221	0.047
Malaysia	1985	0.170	0.034
Indonesia	1992	0,306	0.071

Source: Demirguc-Kunt & Detragiache (1998).

Financial Liberalization, Financial Crisis, and Financial Development

- ◆ Conditional on no banking crisis, countries/time periods in which financial markets are liberalized have higher financial development than countries/time periods in which markets are controlled
- ◆ Countries/time periods with both financial liberalization and a banking crisis have approximately the same level of financial development as countries/time periods with neither.
- ◆ For countries whose financial system is strongly repressed financial liberalization is accompanied by higher financial development even if a banking crisis also takes place.

Sequence of Financial Liberalization

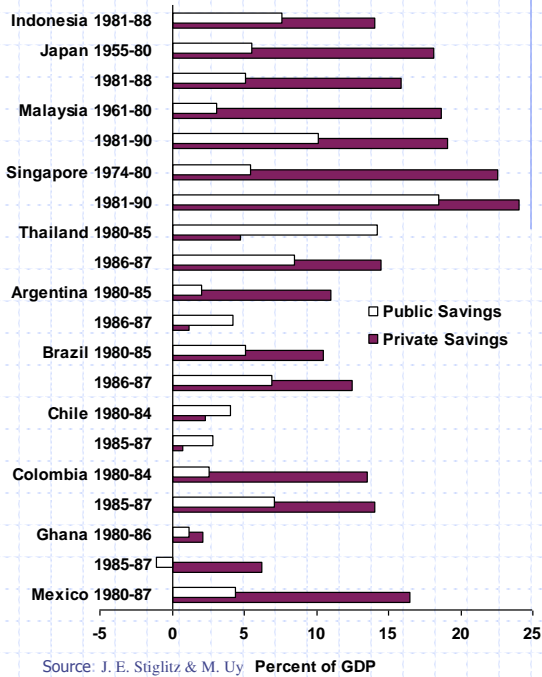


The East Asia Experience: Stabilizing the Economy and Keeping a Low Budget Deficit

- ◆ Macroeconomic policies in East Asia were much more stable than in most other developing countries.
- ◆ Macroeconomic stability had a positive effect on savings because it:
 - ✓ Reduces the fluctuations in the returns rate on savings; and a more stable returns rate can raise savings.
- ◆ The trend towards keeping low budget deficits or large surpluses in East Asia contributed to macroeconomic stability, and budget surpluses contributed to a high national savings rate.
- ◆ All East Asian countries were persistent in maintaining a high public savings rate and as well as an increasing private savings rate.

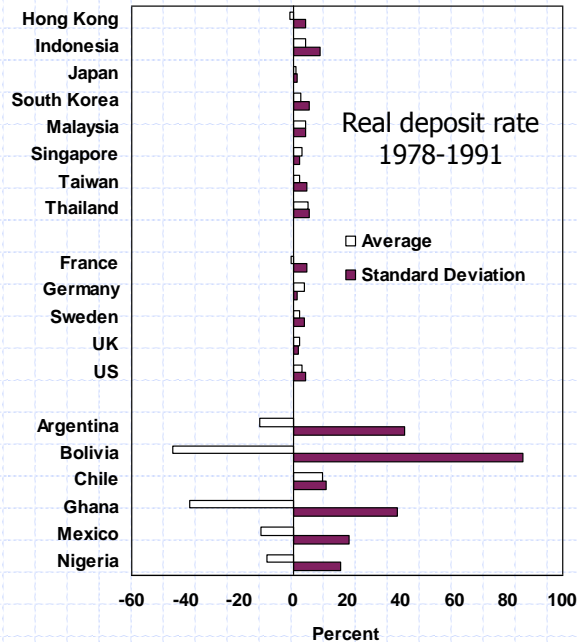
Savings Rate

- ◆ High savings rate in East Asian countries compared to Latin American countries shows that government intervention had a positive effect on increasing savings.



Financial Repression

- ◆ East Asian economies also repressed their interest rates below the equilibrium. However, the level of financial repression is reasonable and much lower than in other developing countries.
- ◆ Reasonable policies of financial repression are called financial restraint.



Effects of Financial Restraint

- ◆ Financial restraint (Stiglitz): Moderate financial repression
 - ✓ Interest rate controls with positive real interest rates
- ◆ Raising savings
 - ✓ A reduction in the interest rate transfers income from households to companies, and because the corporate sector tends to have higher savings, the aggregate savings increase.
- ◆ Overcoming the problem of adverse selection in banks' portfolios of loans
 - ✓ Reducing and using the interest rate as a mechanism for screening projects (avoiding the situation where only high-risk projects get financed when the interest rate is high).

Financial Repression in Vietnam

- ◆ Interest rate control
- ◆ Reserve requirement
- ◆ Directed lending
- ◆ Government ownership

Interest Rate Controls in the Early 1990s

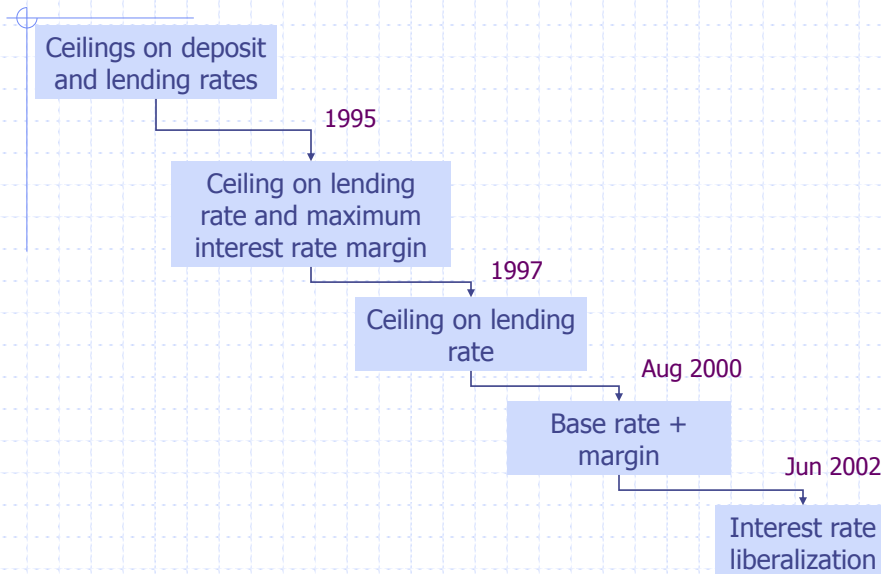
	1990	1991	1992	1993	1994
Demand deposit rate (individuals)	28.8	25.2	12.0	8.4	8.4
3-month deposit rate (individuals & firms)	48.0	42.0	24.0	16.8	16.8
Lending rates					
Agriculture	28.8	39.6	30.0	...	...
Industry & transport	32.4	36.0	24.0	...	...
Commerce & tourism	34.8	44.4	32.4	...	...
Fixed capital	9.6	9.6	21.6	14.4	20.4
Working capital	...	...	32.4	25.2	25.2
Interest rate spread	-15.6	-6.0	6.0	8.4	...
Inflation	92.4	57.6	13.2	14.4	10.8
Real 3-month deposit rate	-44.4	-15.6	10.8	2.4	...

Source: World Bank, "Vietnam Financial Sector Review", 1995.

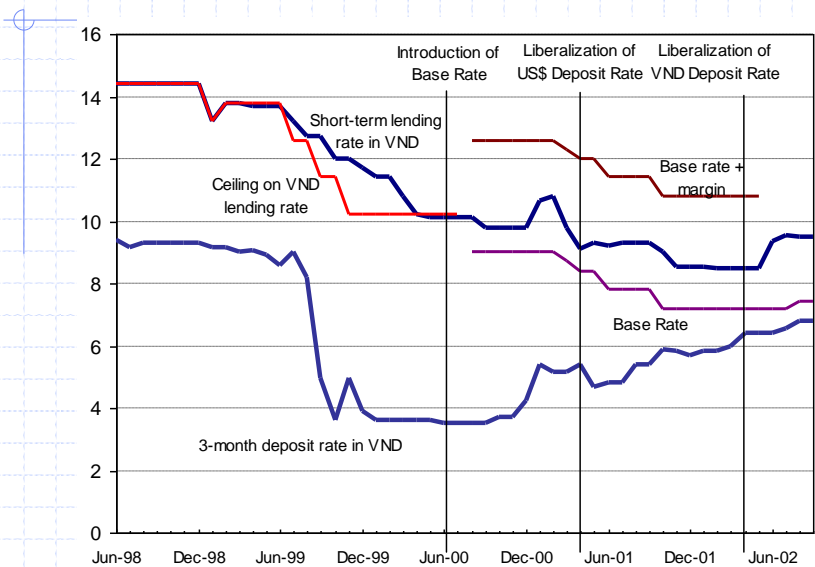
Interest Rate Controls in the Early 1990s

- ◆ SBV set the level and structure of interest rates on both deposits and loans.
- ◆ In accordance with SBV's regulations, banks charged different lending rates on loans for agriculture, industry and commerce. The variation in lending rates reflected the relative investment priority accorded to each sector, rather than the project-specific risk.
- ◆ Before 1992, nominal interest rates were not linked to CPI resulting in negative real interest rates. Furthermore, lending rates were set at levels lower than deposit rates.

From Interest Rate Control to Liberalization



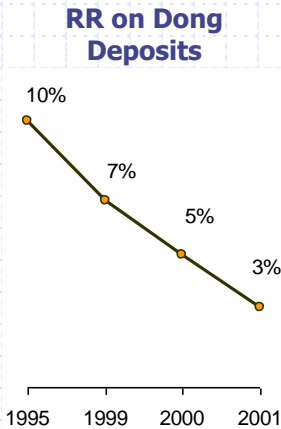
Interest Rates and Interest Rate Policy

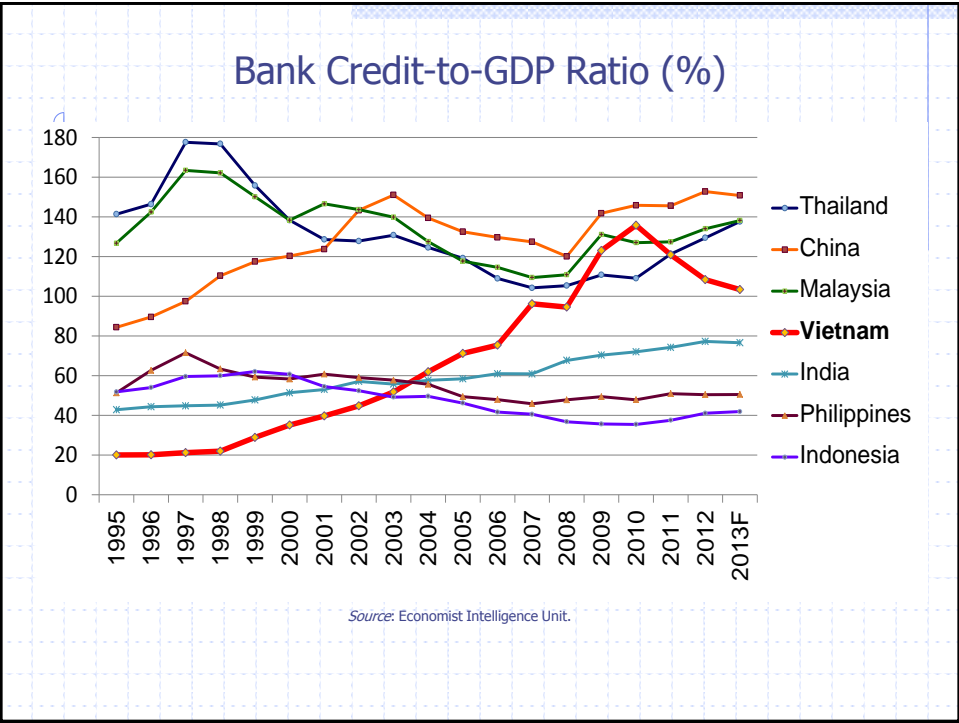
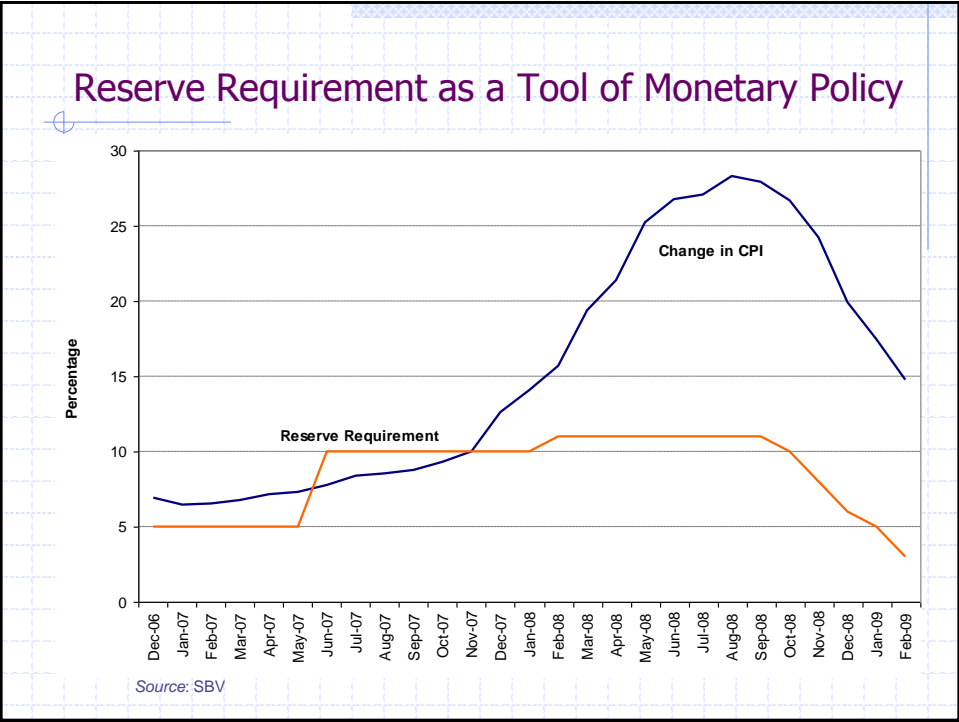


Source: Nguyen Xuan Thanh, "The Road to Interest Rate Liberalization in Vietnam", FETP Case Study, 2002.

Required Reserve Ratio

- ◆ The required reserve ratio (RR) was set at 10% in 1995 and applied to all banks (except people's credit funds, rural joint-stock banks and credit cooperatives) and to all types of deposits whose term is less than one year.
- ◆ In 2001, RR on dong deposits was reduced to 3%. (Bank for Agriculture and Rural Development enjoys 2% RRR.)
- ◆ RR, therefore, is now more of a monetary policy instrument than a financial repression instrument.





Vietnam's Banking System, 1994-98				
Commercial Bank	1994		1998	
	Share of assets (%)	Number of banks	Share of assets (%)	Number of banks
State-owned banks	89	4	82	4
Vietcombank	33		22	
Bank for Agr. & Rural Development	20		19	
Bank for Investment & Development	16		22	
Commercial & Industrial Bank	21		19	
Other banks	11		18	
Joint-stock banks	...	46	10	51
Joint-venture banks	...	3		4
Foreign bank branches	...	13	8	23
Source: World Bank, Vietnam Financial Sector Review, World Bank Country Report, 1995; and IMF, Vietnam Selected Issues, IMF Staff Country Report No 99/55, 7/1999.				

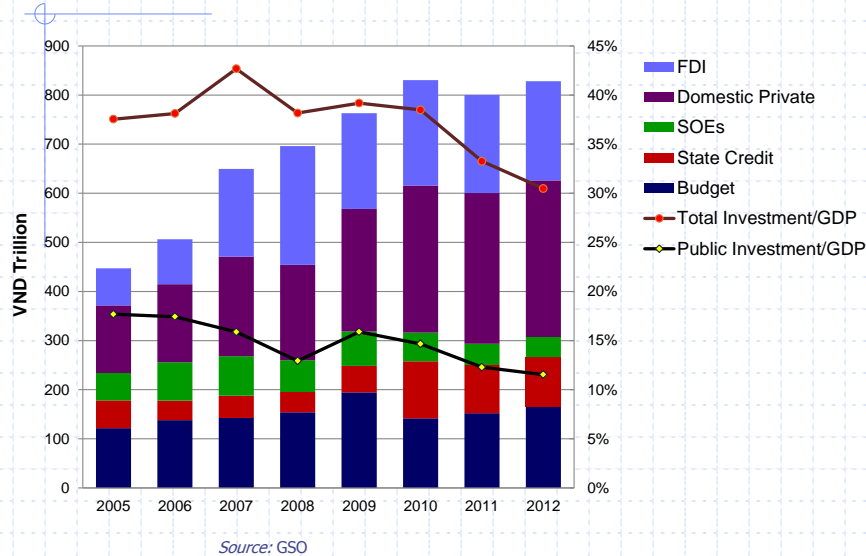
Vietnam's Banking System, 31 Dec 2012							
	Total assets			Equity		Registered Capital	
	Value (VND bn)	Growth (%)	Share (%)	Value (VND bn)	Growth (%)	Value (VND bn)	Growth (%)
State-owned banks	2,201,660	11.78	43.29	137,268	18.68	111,550	28.08
Joint-stock banks	2,159,363	-4.54	42.46	183,139	6.34	177,624	8.14
Foreign & joint-venture banks	555,414	1.58	10.92	92,554	6.76	76,138	2.80
Finance & leasing companies	154,857	-8.43	3.04	10,767	-24.09	24,815	-1.05
Coop banks	14,485	18.69	2.08	2,254	3.68	2,025	0.02
Total	5,085,780	2.54	100.00	425,982	8.97	392,152	11.24
Source: SBV.							

Investment by Sources (%)

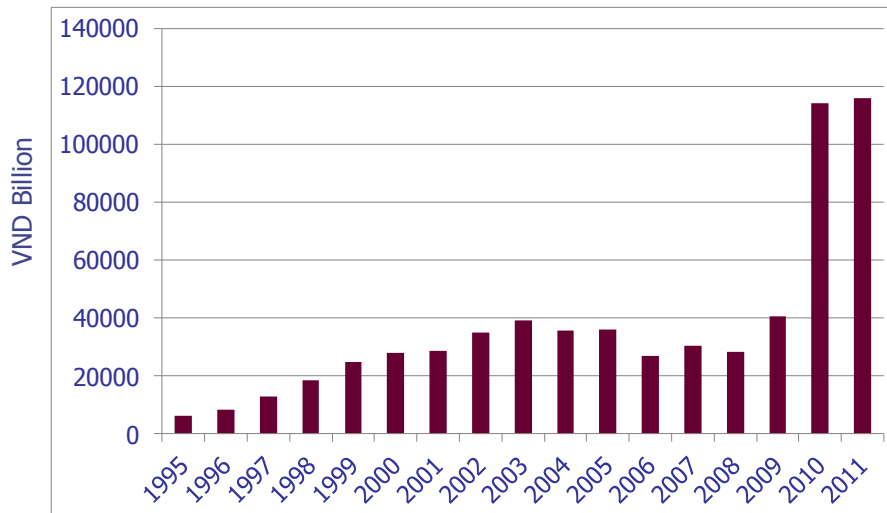
	1995	2000	2005	2008	2009	2011
State sector	42.0	59.1	47.1	33.9	40.5	38.9
Budget	18.7	25.8	25.6	20.9	26.1	20.3
VDB credit	8.4	18.4	10.5	4.6	5.7	13.0
SOEs & Others	14.9	15.0	11.0	8.4	8.8	5.6
Private sector	27.6	22.9	38.0	35.2	33.9	35.2
FDI	30.4	18.0	14.9	30.9	25.6	25.9

Source: General Statistical Office, "Viet Nam Statistical Year Book, 2010".

Investment
(in 2010 constant prices)



Lending by Vietnam Development Bank



Source: General Statistical Office, "Viet Nam Statistical Year Book", various years.

Vietnam: Macroeconomic Instability and Interest Rate Control during 2008-2011

- ◆ Macroeconomic turbulences in 2007-2008
 - ✓ Capital Inflows, credit growth, and inflation
 - ✓ Trade deficit and exchange rate volatility
 - ✓ Liquidity and capital problems in the banking system
- ◆ Re-imposition of interest rate controls:
 - ✓ Cap on lending rates introduced in early 2008: 150% of base rate
 - ✓ Cap on deposit rates introduced in late 2009: 10.5%
 - ✓ Cap on deposit rates introduced in 2011: 14%, subsequently reduced in steps to 8% at the end 2012 and 7% in 2013
- ◆ Discussion:
 - ✓ Should the cap on lending rates be re-established? or
 - ✓ Should the cap on deposit rates be abolished?