ECO 798
Emerging Financial Markets
(Lectures for 03 and 10APR)
Chapter 1 – Introduction to EFMs

Definition of EFM
EFMs emerge when they begin to separate their domination by governments (financial repression). This requires a government's active support based on a commitment to capital allocation to the private sector.

A. Why study financial markets and EFMs?
   1. Investment in EFMs (EFMs are marked by recurrent financial crises and low returns. You would think that with the opportunities in EFMs that the rate of return would be larger than that in well-developed financial markets (e.g. the U.S.), but exactly the opposite is true) or that investors would not invest in these markets due to the long run performance in these markets. But they do.

   2. Many American businesses operate in financial markets. Their employees should understand how these markets differ from those in well-developed financial markets and the risks associated with EFMs.

   3. Knowledge of Financial Markets, in general. Many of the problems of EFMs are buried in well-established financial markets and may come out in the future under stress.

   4. Curiosity: Understanding financial markets in general (understanding why they do what they do. E.g why despite their having many investment opportunities and a potential high return, do they continually produce much less?)

B. Emphasis of the Course
   1. Emphasis on understanding the incentives facing financial institutions and their reaction to these incentives. EFMs may have a different incentive structure than in well-developed financial systems due to their special institutional structure and due to government interference.
   2. Development of market-based controls and non-market regulations to promote efficient and sound financial systems. These are taken for granted in the U.S., but often ignored in EFMs.

Chapter 2 & 3 –Financial Repression and Financial Liberalization

A. The Proper Role of Government in an Economy

1. Public Goods
   a. Society wants goods, but due to free-rider problem, no one will provide these or there is under provision (e.g., clean air, education).
2. Market Failure
   a. Externalities. Market fails to take into account costs and benefits; usually due to lack of property rights specification or inability to extract benefits (e.g. pollution).
3. Failure of Competition and Regulation of Monopolies
   a. Some markets will develop into monopolies or markets where a few have market power.
   b. While under some conditions, monopolies are most efficient (e.g., utilities). Government should allow these monopolies and then regulate to produce the socially optimal outcome.
   c. Information failures
4. Legal System
   a. This sets environment conducive to economic activity.
5. Police

B. Role of the Financial System

1. Issue Money and protection of its value
   a. Efficiency gains from a medium of exchange
   b. Low inflation environment allows more efficient decisions (costs of inflation)
2. Channel funds from savers to borrowers
   a. Meet savers and borrowers preferences (maturity intermediation, denomination intermediation)
   b. Produce information on borrowers (risk and return) for more efficient distribution of funds. Main reason for the existence of financial intermediaries is to mitigate asymmetric information problems so that borrowers can be assessed for NPV and risk of projects.
   c. The channeling of funds increases I and GDP
3. Allows Intertemporal Consumption Smoothing
   a. Consumers have a preference for smoothing consumption intertemporally.
   b. This maximizes utility over the life cycle
   c. It can be done without financial assets, but it is difficult and costly
4. Allows Risk Pooling (e.g., insurance) and Risk Shifting (e.g., derivatives, employment laws), allowing people and firms to take on the desired level of risk.

a. Insurance – without financial institutions individuals and firms must bear all risk. This could decrease their investment expenditures. Insurance allows the pooling and sharing of the cost of an adverse shock to individuals of firms.
b. Insurance and Derivatives – Allows one to shift risk to others. With insurance, deductibles allow you to bear some of the risk. With forwards and options the same risk shifting can occur. Contracts for fixed or variable loans: Small firms and Home owners. Other examples of risk shifting in non-financial markets: employment laws-education is insurance

C. <u>Role of Government in Repressing an Economy</u>

1. Extract Rents from Financial Institutions – Through,
    a. Government Ownership
    b. Subsidies
    c. Licensing of preferred firms
    d. Allowing Monopolies
2. These benefits government officials and those managing these institutions.
3. Follows from Government ownership of business or Business control of government.

D. <u>The Proper Role of Government in a Financial System</u>

1. Legal System
    a. Contract Law: Since most transactions involve promises to pay or deliver something in the future, contract law and enforcement of these laws is important for these markets to develop and work efficiently (e.g., savers and borrowers, derivative contracts to shift risk).
    b. Bankruptcy Law:
    c. Laws on Property Rights
    d. Laws on Possession of Collateral
    e. Laws on Information Disclosure (e.g., banks quarterly reports, SEC regulations on disclosure for listed securities)
2. Supervision and Regulation
    a. Encourage the production of information needed to allow markets to be formed and operate efficiently.
    b. To promote competition/or restrict excessive competition
    c. To avert market failure (financial crises)

E. Government Repression of the Financial System

What is financial repression?

Not "allowing the financial sector to operate at its full potential by introducing all kinds of regulations, laws, and other non-market restrictions to the behavior of banks and other general financial intermediaries" (Sala-i-Martin (1995, p. 277)).

Why does it exist?

Beneficial to government and policymakers

a. Government can exact rents (revenues/profits), in lieu of taxes (which are unpopular).

[Rents (or economic profits) are profits beyond what it would take to keep someone employed in the enterprise they are in.]

b. Groups and individuals can exact monetary and control benefits
c. Government can direct subsidies to sectors and individuals that can further goals of the government or policymakers.

Types of Financial Repression

1. Debasing the Currency
   a. Inflationary Finance/Inflation Tax to collect rents
   b. Promote short-term growth of the economy for political gain

Inflation – through printing money

Direct Effects:

Benefit for the Government:

(1) The government can use inflation as a tax to pull goods and services from the public. This is often used in countries that have poor tax collection systems or a high tax rate or a populace opposed to tax increases. People do not often figure out immediately what is happening or who is responsible for this inflation.

(2) Increasing the money supply initially leads to low real (and nominal) interest rates, which benefits the economy and makes the government look good. As inflation increases, nominal rates rise with inflation and inflationary expectations (Fisher Effect), in which case all benefits disappear and costs set in.

Cost to the Economy:

As the inflation rate rises, its volatility rises also. This creates risk in the way of a volatile expected real interest rate (i.e. return on investment). To compensate for this risk savers want a high rate, but borrowers want a low rate. This decreases savings and investment (i.e. intermediation), decreasing financial market growth and development (and possibly economic growth). [Derivation of the expected real interest rate: $r^e = R - \pi^e$]

<u>Evidence consistent with this argument:</u>
Easterly and Bruno (1998): Relationship between inflation and economic growth at inflation rates of 40% and greater. When inflation is high it interferes with economic development.

<u>Indirect Effect:</u> Inflation complements many of the following forms of repression and accentuates them.

2. <u>Banking System</u>
   a. <u>*Directed Funds*</u>

      (1) Government Borrowing through Banks
         - May require banks to give the government low cost loans or entice banks by offering subsidies in the form of protection.
         - Drains funds from the rest of the financial system, decreasing development of the financial system.

      (2) *Funds Directed to Government Goals* – Government encourages banks to give credit to government favored sectors and enterprises. Directed toward government projects or government enterprises (usually not to the most productive resources. Remember that a financial system benefits society because it can direct credit to the most productive resources). Government firms are inefficient due to lack of incentives. Agriculture and other special-interest groups often receive low interest rate credit (often these loans are not paid back).

      (3) *Government Ownership of Banks* - Allows the same as above (government direction of credit), but more effectively for the government. It also allows government individuals (managers) to collect personal rents (through pilfering funds they are in charge of or through their power through personal use of resources (fraud)).

b. *High reserve requirements on deposits.*
Central banks require reserves to be held to backup deposits. This is to ensure liquidity for depositors and provide better control of the money supply for the central bank.

- Assume a simple balance sheet

A		L
RR	|	DP
LN	|	K=0

Assume profits are only from the spread between R_{LN} and R_{DP}

(1) $\Pi = R_{LN}(LN) - R_{DP}(DP)$

(TR) (TC)

From the balance sheet constraint

(2) $LN + RR = DP$
$LN = DP - RR$

With a reserve requirement ($RR/DP = \gamma$)

(3) $LN = DP(1 - RR/DP)$, substituting this into (1),

(4) $\Pi = R_{LN}[DP(1-\gamma)] - R_{DP}(DP)$, i.e., γ is tax on TR

Assume that R_{DP} and R_{LN} are determined in the loan and deposit markets so that any bank has to pay these rates, and γ is set by the central bank. Then a bank can only decide DP and therefore LN.

- The reserve requirement imposes a tax on commercial banks' profit.

(5) $d\Pi/d(\gamma) = - DP^*R_{LN}(\gamma) < 0$

- The reserve requirement causes banks to increase their spread

(6) $d\Pi/d(DP) = - R_{LN}(1-\gamma) - R_{DP} = 0$

d(Profit)/dDP = d(TR)/dDP – d(TC)/dDP = 0

MR - MR = 0
(profit-maximizing condition)

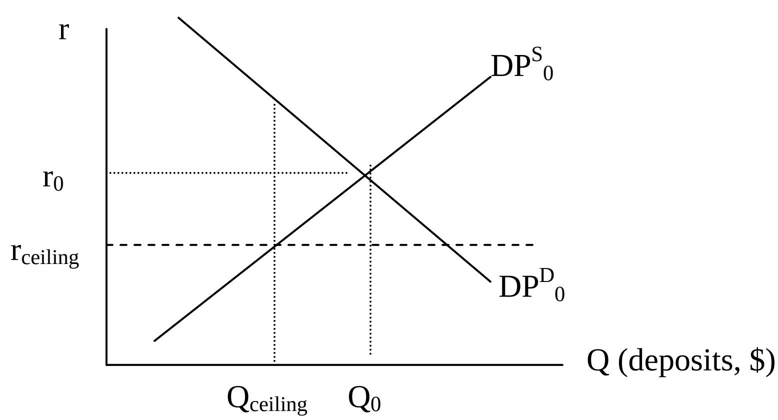
(7) $R_{LN} - R_{DP} = R_{LN}(\gamma)$

$d(R_{LN} - R_{DP})/d(\gamma) = R_{LN} > 0$

- Provides interest-free loans to the central bank (and possibly to the government). The central bank usually requires that at least some of these reserves be held at the central banks and they almost never pay interest on these accounts.
- The tax imposed on banks is passed on to savers and borrowers in the form of an increased spread.
- This results in lower deposits and lower loans. This decreases intermediation and slows financial development.
- Benefit to the government is that
    - Central bank can have an interest-free loan. They could pass this on to the government.
    - Government could pull away some of the rents facing banks in the way of low interest borrowing from banks (if the central bank is closely connected with the government).
    - Extent of benefits increased during inflationary period

c. *Interest Rate Ceilings on Bank Deposits*

(1) An interest-rate ceiling is set below the market rate of interest on deposits (e.g., former Communist countries of Central and Eastern Europe before 1990, and Southeast Asian countries until early 1990s).



- Prevents price competition for deposits, allowing weak banks to collect low price deposits. Gives no incentives for banks to be

efficient (since they do not have to compete for deposits and they collect rents). Decreases Efficiency.
- Reduces savings at banks (i.e., causes disintermediation). Whether depositors keep deposits at banks or not depends on alternative investments. Usually there are other restrictions that prevent depositors from investing elsewhere, so as to encourage them to keep funds in the banks even though the rates are low.
- Allows banks to charge higher loan rates and low deposit rates
- In a high inflation environment, where the real rate of interest is low or negative, this punishes depositors and banks.
- This disintermediation slows financial market development.
- The above allows banks to collect a large spread on loans. Government can take advantage of this spread to ask or force banks to make low cost or zero interest loans to the government (direct loans or force them to buy low interest T-bills) or government projects. I.e. it allows government to obtain credit cheaply.
- Later we will argue that freeing this restriction too soon may lead to instability in the financial sector.

d. *Restrictions on capital flows* (sometimes inflows and usually outflows)

(1) Outflows:
- Prevents competition by not giving investors options. Prevents people from earning higher rates of interest or getting better services elsewhere. Allows banks to keep deposit rates and services low
- Keeps funds in country so they can be used for the governments end.

(2) Inflows:
- Governments like to encourage inflows because it helps the economy grow and provides a means of borrowing for the government.
- But when outflows occur, it can be detrimental for the country and the government. Usually, governments put restrictions of foreigners taking funds out (e.g. Argentina, and Thailand and other East Asian Countries).

e. Restrictions on entry and operation of foreign banks
- Restricts competition
- Loans and deposits remain low due to high interest rate spreads (market power allows spreads)
- Low quality of services
- Deposits in control of domestic banks at low cost

- Government has more funds that it can direct (since it cannot direct foreign bank funds – maybe e.g. Poland forcing foreign banks to finance mergers and restructure domestic banking system
- Limits competition => higher profits for domestic banks.

f. *Measures of Financial Repression* [Look at measures of financial repression in the text]

(1) Inflation rates
(2) Government budget deficits
(3) Reserve ratio
(4) Real interest rates

$r = (R-\pi)/(1+\pi)$, Nominal rate adjusted for inflation

(5) Liquidity
(6) Private borrowing (claims on the private sector/total domestic credit)
(7) Bank lending
(8) Stock market capitalization/GDP

F. Empirical Relationship Between Financial System and Economic Growth

1. Does Financial Development Cause Real Economic Growth? (Related question: Does financial development cause real economic development?)
2. Citations
   a. King and Levine 1993
   b. Levine 2003
   c. St. Louis Fed *Review* Jul/Aug 2003