Lecture 8: Bank regulation 2: prudential regulation

In this lecture we shall look at the second key aspect of banking regulation, namely so-called prudential regulation of banks' capital and conduct of business. We stress the reasons for regulating banks, notably in the light of the interrelation between prudential regulation and the safety net, as well as looking at some additional forms of regulation such as reserve requirements, and discussing the various Basel Agreements for international banking regulation.

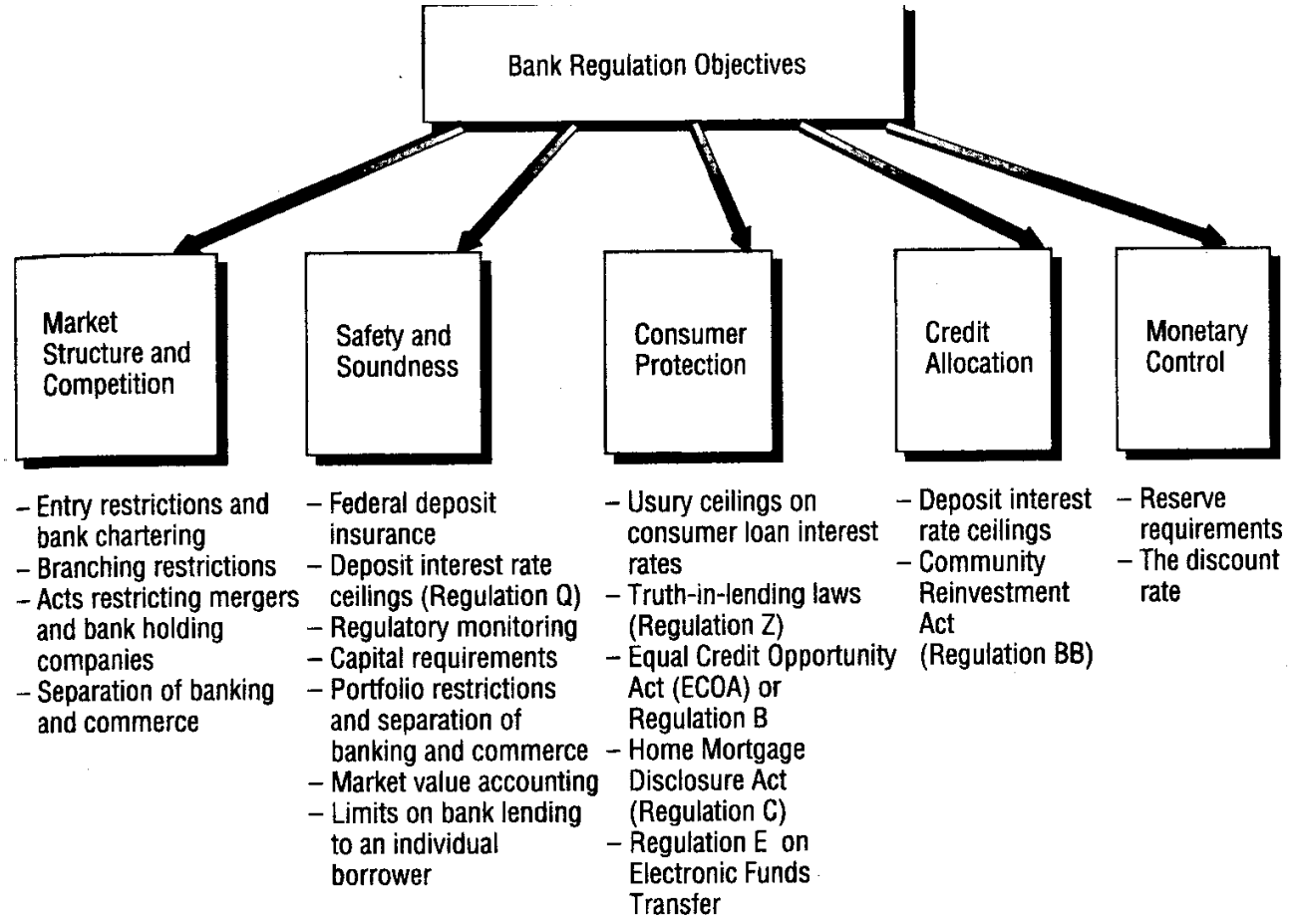
Why regulate any economic activity?

Market failures, meaning a set of market prices fails to reach a Pareto optimum: Issues of information asymmetry, externality, market power which justify regulation.

Why regulate banking?

- Information asymmetry – difficulty or cost of obtaining information, giving rise to vulnerability to exploitation (uninformed depositor)
- Externality – actions of one individual affecting another in ways not captured by the price mechanism (bank runs)
- Market power – by definition, monopoly institution is able to exploit its market power (bank's local monopolies/influence over borrowers)

Objectives of bank regulation in the US (taking wide view of regulation)



The safety net, regulation and deregulation

Basic need for a backup to protect the safety net against moral hazard
The role of structural regulation on banks' activities (formerly made prudential less important)
What is financial deregulation?
- Types
- Proactive or reactive
- Cumulative aspects

The need for prudential regulation (on bank risk taking) when structural is deregulated – devalues bank charters (equity value)

Types of structural and prudential regulation:

Inherent tension between competition and safety/soundness

Structural regulations
- Chartering
- Branching restrictions
- Interstate banking
- Activity restrictions

Prudential regulations
- regulatory monitoring (on bank's asset quality and effectiveness of monitoring)
- capital adequacy (now more important than reserve ratios)
- other portfolio restrictions (e.g. large exposures)
- fit and proper managers
- [interest rate ceilings]

Overall monitoring and the CAMEL system

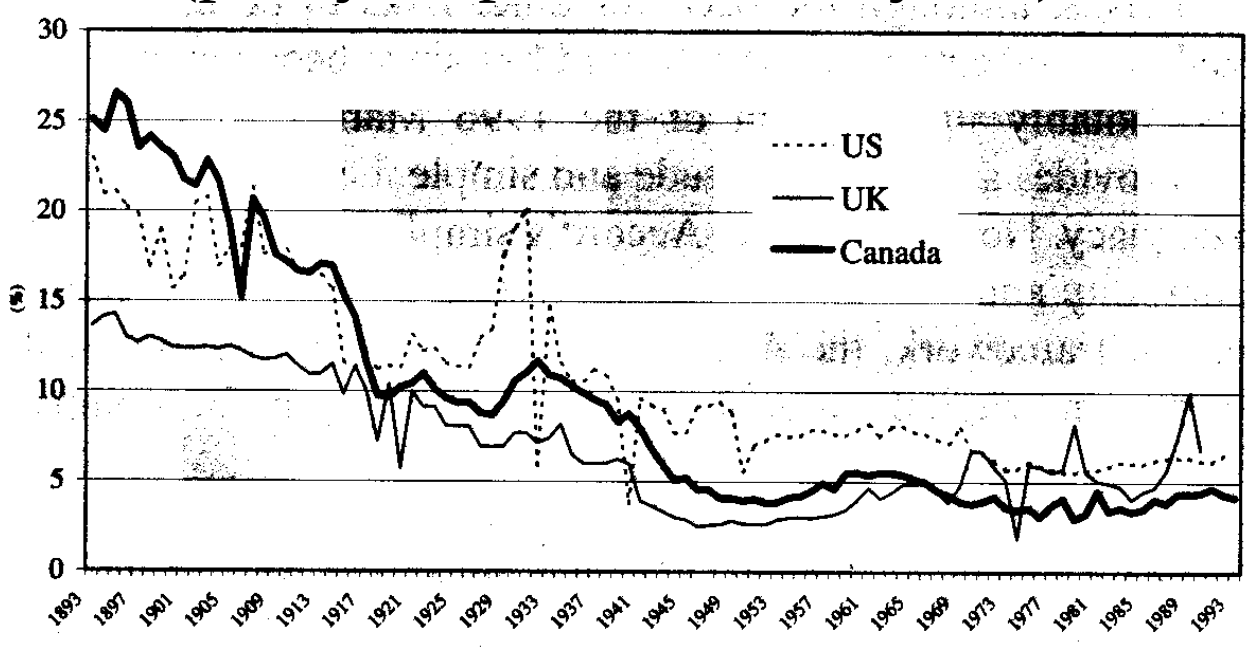
A uniform interagency bank rating system known as CAMEL (capital adequacy (C), asset quality (A), management ability (M), earning quality (E), and liquidity level (L)) was adopted in 1978. None of these factors is judged in isolation. For example, what is acceptable asset quality will depend on how much capital the bank has.

- **Capital adequacy:** The bank's capital is evaluated on the basis of both the bank's size as well as the composition of its assets and liabilities, both on-and off-balance sheet. We will have more to say about capital shortly.
- **Asset quality:** Examiners assess the credit risks in the various loans in the bank's portfolio and classify these loans as: good, substandard, doubtful, or loss.
- **Management ability:** Examiners attempt to gauge not only the bank's management but also its board of directors. Competence, management acumen, integrity, and willingness to comply with banking regulations are some of the factors assessed.
- **Earnings:** There is an evaluation of the trend of earnings as well as their level relative to peers. One objective is to assess the impact on the bank's capital of internally generated funds.
- **Liquidity:** Regulators assess liquidity by examining credit conditions, deposit volatility, loan commitments, and other contingent claims against the bank, capital, current stock of liquid assets, and the bank's perceived ability to raise funds on short notice.

Theory of bank capital

Direct and indirect effects on risk taking
But also “outsider equity effect”
Economic capital versus regulatory capital (former allows for externalities of bank failure)
Tier 1 and Tier 2

Long-term decline in bank capital ratios (partly response to safety net)



International agreements on bank capital regulation:

First Basel Agreement of 1988

Desire to ensure safety and a “level playing field”
Focus on internationally active banks
Primary concern credit risk
Minimum risk weighted capital ratio of 8%, at least 50% Tier 1
Application of risk weighting to assets, with four “buckets” of 0%, 20%, 50% and 100%
Exclusion of some items from capital previously included
Authorities free to impose tighter controls
OBS items included for the first time
By1993 virtually all international qualified

Criticisms of Basel

8% became target and not minimum
Crude risk classes e.g. 100% for all non-financial companies regardless of credit quality
Manipulable, e.g. by renaming loans as mortgages, capital requirement cut to 50%
Incentives to maximise risk within the "buckets"
Credit risk only (later extension to market risk in 1996, when banks allowed to use approved value-at-risk models)
Concessions e.g. to Japanese use of equity values in capital – now a mixed blessing for them
Non-equity items in definition of equity (e.g. subordinated debt)
Banking risk differs cross-country

No consideration of portfolio aspects (cf. correlations shown in Lecture 5)
No satisfactory rules for dealing with asset valuation, loan loss recognition and provisioning
Failed to keep up with the development of banks' internal systems…
….and with financial innovations such as credit derivatives and securitisation

Second Basel Agreement

Focus on international banks and their credit risks – limit arbitrage by aligning capital with risks and deal with innovation. First proposal 1999, going through extensive consultation process, currently planned to be implemented in 2006 at the earliest

Supervisors less involved in determining rules for determining capital adequacy…
…and focus instead on ensuring internal risk management procedures are adequate
“Shift from rules based to process oriented regulation”

Standardised approach for simple banks to complement process oriented, with more differentiated risk buckets and ratings generated by rating agencies.

More complex banks can use internal risk models as basis for allocating capital

- “Foundation” approach – bank estimates probability of default and supervisor supply other inputs
- “Advanced” approach – banks run models and determine own parameters, and hence capital allocation

Enhanced sensitivity to collateral, guarantees, credit derivatives, netting and securitisation

Enhanced role sought for market discipline, via disclosure

Some issues 1(Caracadag and Taylor 2000)

Has to meet issue of economic versus regulatory capital
Accuracy of both external and internal ratings
Lack of development of satisfactory credit risk models
Potential moral hazard from regulatory approval of internal systems
Lack of information on banks' internal systems
Need for culture change by many regulators from rules based regulation to process based supervision
Disclosure not sufficient for market discipline (uninsured debt)

Some issues 2 (Danielsson et al 2001)

Risk is endogenous and hence VARs can destabilise an economy or financial system

Better risk measures are available than those used by the Basel Committee

Rating agencies give conflicting and inconsistent view of creditworthiness – and are unregulated

Operational risk modelling is not possible with current information, and no convincing reason for such regulation has been suggested

The proposals will induce credit cycles which may enhance systemic risk because credit quality falls in recession, capital requirements rise inducing credit rationing

Reserve requirements

Are they desirable?
Monetary policy or prudential issues?
Effects on innovation
Sharing of seignorage
Finance of central bank
Theoretical concept of “narrow banks”

Other banking regulations

Consumer protection
Credit allocation
Standard anti-trust competition regulation

An alternative to regulation and LOLR - banking clubs.

Incentives for banks to monitor one another
And provide rescue financing
With possible government support
Why are clubs less sustainable as competition and international banking increase?

- free riders
- coordination with many banks
- charter values decline