Banking in flux

Do we know what to do?

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Focus

On micro economics of banking –

- Impact ‘landscape’ of banking on incentives and choices made by financial institutions
- Implications for the desired regulatory and supervisory structures in banking

→Fundamental changes driven by information technology….

→Little understanding of bank strategy

Message

- True understanding needed about impact information technology on business of banking
  – Tradability and “changeability” key; see more recent financial innovations
  – Impact on size and complexity of institutions

- Banks and markets become more and more intertwined
  – Impact financial market conditions on bank behavior
  – Sensitivity to (collective) euphoria

Message – 2

- 'Changeability' and market sensitivity causes governance problem
  - Systemic risk and correlated strategies
  - Issue of complexity (included TBTF, too-interconnected-to-fail, etc.)
  - Difficulty of supervising/regulating moving target…

Message – 3

- Ineffectiveness market discipline
- Banks suffer from cost of capital fallacy
- Bank choices in terms of scale and scope of activities worsen complexity problem
  - Many banks continue to go for size, conglomerate model
  - Scalability transaction oriented banking

Message – 4

- Key problem with alignment market forces and prudential objectives suggests need structural measures
- Dealing with complexity primary challenge
  - Behavioral regulatory measures (e.g. capital requirements) important, yet insufficient
  - Living wills could help, but complexity needs to be dealt with ex ante, PCA may then have a chance
- Structural measures needed?
  - Volcker rule, Vickers and beyond…
- Yet, lack of research on cost/benefit trade-off

Information technology and banking

What did information technology do to banking?

- Via financial innovations and structuring, extreme tradability and ‘changeability’
  - Risk profile can be changed instantaneously….

  → Institutions and markets more and more intertwined

Risks via

- Opportunistic behavior
- Herding behavior

→ Financial market linkages key

Market discipline?

- Sensible complementary ‘tool’. Idea behind third pillar Basel II
- Complicated effect in crisis times: everyone may “head simultaneously for the exit”
- Paradox in normal times… momentum in financial market may lead to opportunistic behavior of banks, yet same momentum driven markets would simultaneously have to impose discipline?

→ Market discipline effective for idiosyncratic differences between institutions, less for financial market driven strategies

More capital seems crucial, yet…

- Debt overhang
- Bankers suffer from cost of capital fallacy
  - Self-fulfilling prophecy?
- Complicated link capital and risk taking
- Is being well capitalized a competitive advantage?

Cost of capital fallacy

We do not need to like M&M, nor believe M&M has relevance to banking, but to deny that

"the cost of capital is affected by the risk that the capital is exposed to" is disturbing

Implications:

- Maximizing ROE fundamental violation of corporate finance theory
- Fixed high cost of capital does not make sense

→Yet self-fulfilling prophecy

Are banks reluctant to raise new capital?

What do we know from corporate finance when there is high leverage?

Reluctance to raise equity because of windfall gain to debtholders...

[and stigmatization...]

DEBT OVERHANG IN CASE OF BANKS

Introduce risk. Activities of the bank have value tomorrow of 80 or 120 (with equal probability). Forget discounting, value is then 100. Existing debt is 100, guaranteed by the government. How does the balance sheet look?

Value of guarantee: 0,5 x [100 – 80] = 10
Value equity: 0,5 x [120 – 100] = 10, hence:

Balance sheet

Assets	100	Equity	10
Guarantee	10	Debt	100
	110		110

What happens to the value of the existing shareholders claim once for 10 new equity is issued?

DEBT OVERHANG (cont'd)

Assume, the new shares will be issued at the correct price. The cash receipts (10 euro) will be invested in fully safe AAA bonds. Note: the bank is now valued 'tomorrow' at 90 or 130!!!

Value of the guarantee: 0,5 x [100 – 90] = 5
Value of equity : 0,5 x [130 – 100] = 15, hence:

Balance sheet

Assets	110	Equity	15
Guarantee	5	Debt	100
	115		115

What does this mean for the existing shareholders??? [share price falls by 50% ....]

Dealing with complexity

i. Complex institutions difficult to manage and supervise (problem of opaqueness);

ii. A complex financial institution has many, difficult to discern linkages with the financial system at large; TBTF, too-interconnected-to-fail concerns;

iii. As a consequence systemic concerns might become more prominent;

iv. Complexity could put supervisors in a dependent position, e.g. how to intervene (timely)?

→ No readily available prescriptions on how to simplify

Dealing with complexity – 2

- Living will idea aimed at mitigating this
  - Only effective if dealt with ex ante
- How to disentangle businesses?
  - Separate legal and operational structures, no recourse? (Vickers; OECD)
    - → Would it work, and does market accept it?
  - Breaking-up banks? (Volcker Rule and beyond…)

→Together with high(er) capital allows for PCA?

How to evaluate?

Resolving complexity to facilitate timely intervention. How does that relate to broader objectives?

- Mitigate contagion
- Safeguard core banking functions

I am convinced that structural remedies are needed…

→ What is default option?

Complexity fact of life?

Yes, but cannot not mean that we accept Allen Greenspan's comment that the financial system is like Adam Smith's invisible hand

…. some type of complex eco-system that is beyond anyone's control or imagination, and is "unredeemably opaque" (*Financial Times*, March 31, 2011)

European Systemic Risk Board (ESRB)

Steering Committee (12 persons)

- 7 ESCB members
- 3 chairs of ESAs
- Member of the European Commission
- EFC President

General Board (at least 62 persons)

Macro-prudential supervision

Report to ECOFIN

Early risk warning and recommenda-tions to governments

Micro-prudential information

Early risk warning and recommendations to supervisors

European System of Financial Supervisors (ESFS)

Micro-prudential supervision

Steering Committee:

Chairs of 3 ESAs

European Banking Autority (EBA)

European Insurance and Occupational Pensions Autority (EIOPA)

European Securities Markets Authority (ESMA)

APPENDIX

What about bank strategy?

Vikram Pandit , CEO Citigroup (March 3, 2011)

“Serving customers, serving clients, serving the real economy, doing that is what banks should be doing”

Banks rediscovering their roots??

The Economist

- "Banks have rediscovered the virtue of knowing their customer"

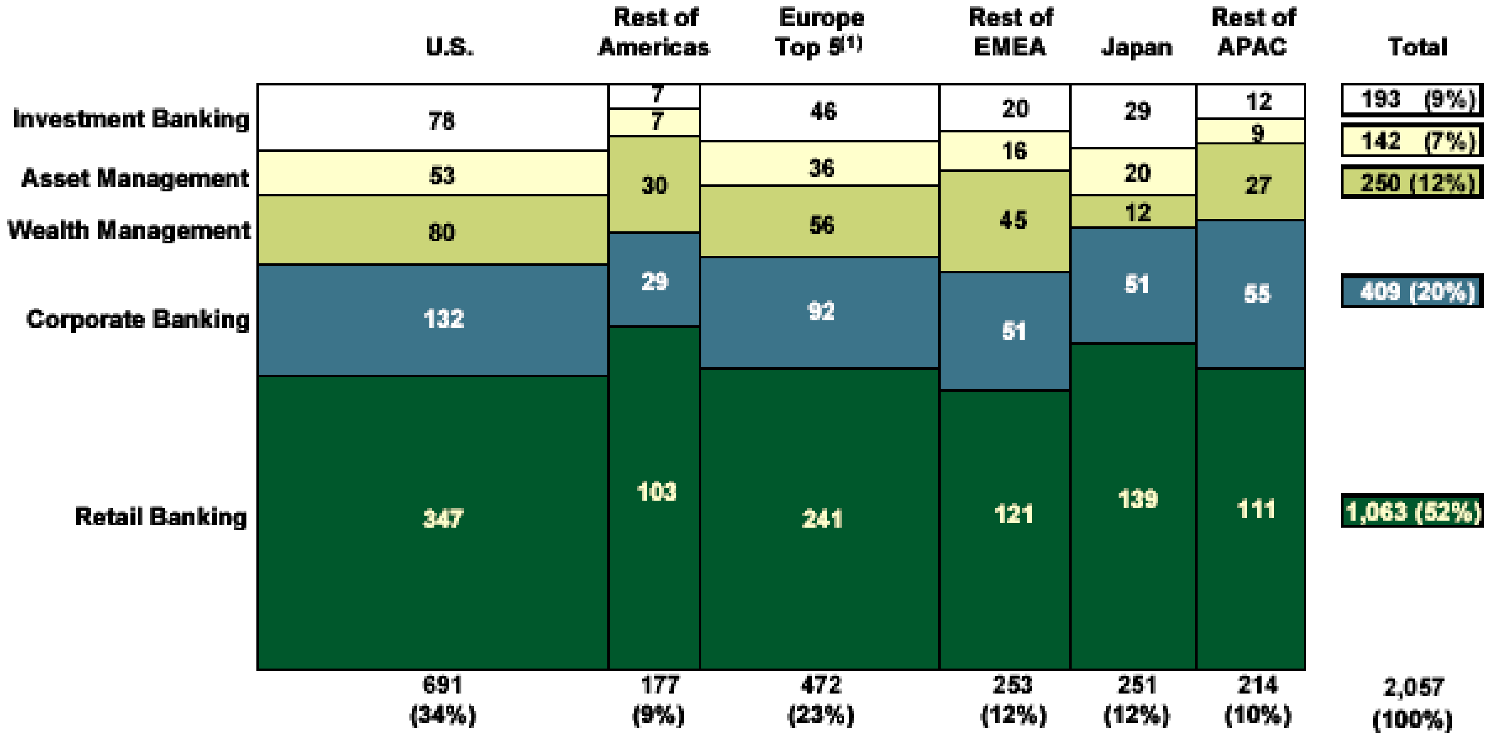
Citigroup's head of retail in *Business Week*

- "Citi should think locally"

And HSBC billboard in NY-City:

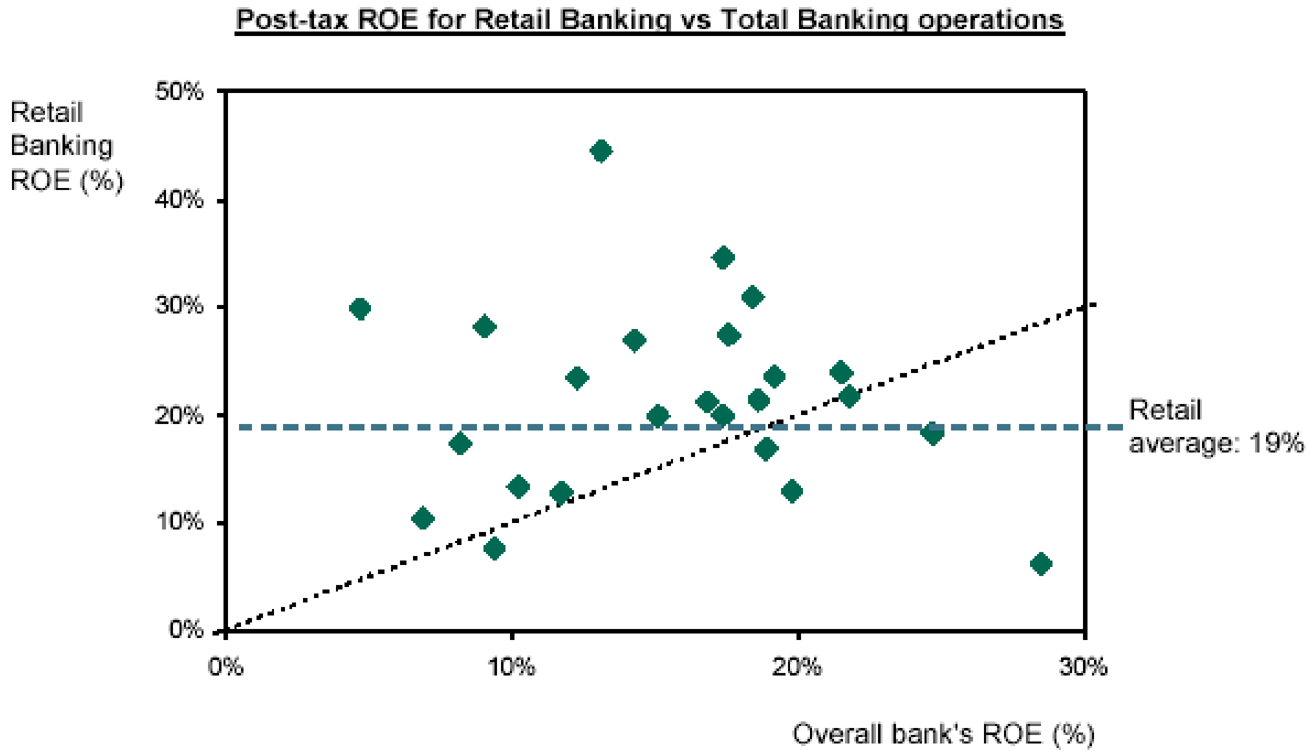
- "The world's local bank"

Corporate and Retail Banking: over 70% of profit pool



(1) Europe Top 5: UK, Germany, France, Italy, Spain

Retail/SME banking profitable…



Note: Sample of homogenized/comparable operations

SOURCE: BCG Retail Banking survey

Evidence on scale and scope

The evidence is inconclusive:

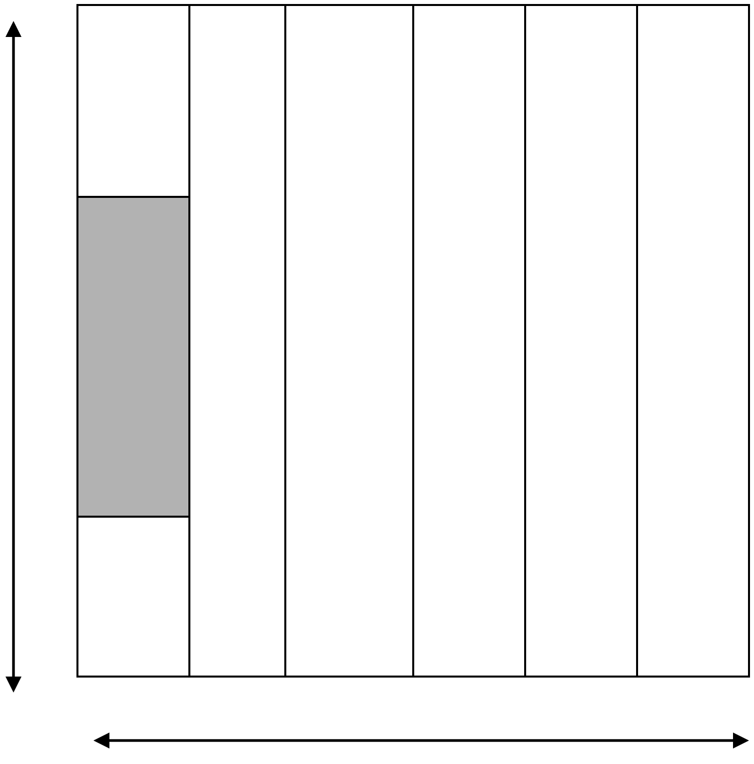
- Mostly not measured at activity level, but at level of bank at large
- Intertemporal changes: IT developments have dramatically changed the landscape
- Market power mixed up with “ true” benefits
- X-efficiency differences “wipe out” scale and scope economies?

Richardson, et al (2011): “Indeed, the recent studies mirror the findings […] some 15 years earlier […] there was no predominance of evidence either for or against economies of scale in the financial sector.”

→ Side show? TBTF benefits are real source of scale economies…

When do we see focus and a disintegration of the value chain?

(Dis)integration of
the value chain



Broader/narrower

Strategy or roller coaster?

Lukas Muhlemann (former CEO Credit Suisse) on desirability of buying Winterthur:

1996: ‘If you only need a glass of milk, why buy the cow?’

1997: Buy anyway, ‘steady insurance earnings will smooth out choppy banking profits’

But

2002: ‘The model of a vast, integrated financial firm is fast going out of favour’ (*The Economist*)

2005: Credit Suisse chooses to divest Winterthur (see also Citigroup), general trend?

More on marketability and changeability

- From finance literature we know that creating trading opportunities also has a dark-side
  - Jacklin (1987) on Diamond-Dybvig (1983) liquidity transformation
  - Bhide (1993) on dark-side of liquidity
  - Boot-Gopalan-Thakor (2008) on desirable stability of shareholder base
- Banks increasingly subjected to volatility and momentum in financial markets
  - Bank-based systems more like market-based systems?
  - Stability bank-based systems affected more?

Marketability and stability of investment and relationship banks

First, investment banks (IBs)

- In past IBs were partnerships. Two characteristics:
  - Personal wealth tied up in IB
  - Cannot get full value of partnership share upon exit
- Move to shareholder structure
  - Marketability has created ‘star phenomenon’
  - Increasing emphasis on trading

→ stars go for personal franchise value rather than *institutional* franchise value (less prudent behavior)

Marketability and stability of investment and relationship banks (2)

Now relationship bank (RB)

- Does marketability relationship banks' assets create similar problems?
  - Less opaque assets reduce emphasis on *institutional* franchise value?

→Important issue now: stability of relationship bank threatened by
  - higher exposure to boom & bust nature of financial market;
  - 'star phenomenon' in the RB itself

Financial development and economic growth

Levine (1997, 2005): "A growing body of work would push even most skeptics towards the belief that the development of financial markets and institutions is a critical and inextricable part of the growth process and [would push those skeptics] away from the view that the financial system is an inconsequential side show, responding passively to economic growth and industrialization"

More recent financial innovations fit this framework?

How to look at financial innovations?

- Extensive literature shows value of security design
  - Spanning
  - Other direct benefits for real activities (e.g. commercial letter of credit)
- Yet this literature may say little about more recent financial innovations
  - (Often?) creating opaqueness rather than resolving asymmetric information
  - Aimed at regulatory arbitrage only?

  → Opened up bank balance sheet: marketability and changeability key