Financial Regulation and Economic Growth
John Eatwell, Chairman
“Multiple layers of financial regulatory reforms hold back economic growth and will continue to do so for some time”.

“The global economy is weak and is not well placed to handle the burdens imposed by the panoply of proposed measures that range from capital and liquidity to tax and structural change. If implemented on the time horizon currently envisaged, bank reform measures are likely to negatively affect global economic growth relative to what might otherwise prevail.”

Josef Ackermann, Chairman of the IIF Board, Chairman of the Management Board and the Group Executive Committee, Deutsche Bank
Chart I.3
All Countries: Real GDP Level
percentage difference from base

- Benign Funding Scenario
- Central Scenario
- Rapid Adjustment Scenario
Chart I.1
All Countries: Real Lending Rate
basis point, difference from base

- Rapid Adjustment Scenario
- Central Scenario
- Benign Funding Scenario

## Table 1. Basel III Impact on Credit and GDP Growth

<table>
<thead>
<tr>
<th>Basel III impact</th>
<th>Impact on credit spreads</th>
<th>Impact on annual GDP growth</th>
<th>Credit</th>
<th>GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(bps)</td>
<td>(%)</td>
<td>(bps)</td>
<td>(%)</td>
</tr>
<tr>
<td>Zone</td>
<td>Europe</td>
<td>Japan</td>
<td>U.S.</td>
<td>Europe</td>
</tr>
<tr>
<td>IIF 2012-2019</td>
<td>328</td>
<td>181</td>
<td>243</td>
<td>-0.40</td>
</tr>
<tr>
<td>IIF 2011-2015</td>
<td>291</td>
<td>202</td>
<td>468</td>
<td>-0.60</td>
</tr>
<tr>
<td>OECD 5 years transition</td>
<td>54</td>
<td>35</td>
<td>64</td>
<td>-0.23</td>
</tr>
<tr>
<td>BIS Long-term (capital) 1/2/3</td>
<td>52</td>
<td>N.A.</td>
<td>52</td>
<td>-0.07</td>
</tr>
<tr>
<td>BIS Long-term (liquidity) 3/4/</td>
<td>25</td>
<td>N.A.</td>
<td>25</td>
<td>-0.03</td>
</tr>
<tr>
<td>BIS Long-term (combined) 3/5/</td>
<td>56</td>
<td>N.A.</td>
<td>66</td>
<td>-0.08</td>
</tr>
</tbody>
</table>
These studies:
› assume that higher bank charges will reduce investment
› relate the impact of those charges to an assumed trend ‘that might have been’
› most important of all, neglect the impact of financial instability on future output and growth

› The role of financial regulation is to correct the inefficiencies of financial markets
Market failure:
  - absence of markets
  - information – apples v medical care
  - asymmetric information
  - monopolies and other market distortions

Externalities
Financial risk-taking is a concern of public policy because with the risk-taking actions of individuals there are associated externalities; i.e. costs that are imposed on the society that are external to the calculations of the investor, and not accounted for in the market place.

Financial externalities may be particularly potent because they are transmitted macro-economically, via interest rates, exchange rates, or ‘the general level of market sentiment’.
Financial regulation

- Asymmetric information:
  - Consumer protection
  - Conduct of business
- Moral hazard
- Externalities
- Systemic risk
- Macro-prudential risk
- And, of course, financial crime
On 15 August 1971 the world of international finance was changed forever. President Richard Nixon “closed the gold window”. The dollar floated and forex risk was privatised.
Post-liberalisation growth of markets

- The ratio of forex trading to international trade in goods and services plus long term investment rose from 2:1 to 80:1 today
- Overseas sales of US bonds rose from 3% of US GDP in 1970 to 200% in the early 2000s
- Overseas sales of UK bonds rose from nil in 1970 to 1000% of UK GDP in the early 2000s
Now there are global markets in cash, bonds, equities, and consequential derivatives.

This has changed the nature of the macro-economy. The macroeconomic control exercised by national governments has changed dramatically – typically it has been diminished.

Financial regulation an attempt to regain some control, and re-establish some stability.

Post-liberalisation growth of markets
Post WWII major bank-centred financial crises
(Reinhart and Rogoff)

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany, US</td>
<td>1974</td>
</tr>
<tr>
<td>UK</td>
<td>1974</td>
</tr>
<tr>
<td>Spain and Germany</td>
<td>1977</td>
</tr>
<tr>
<td>Canada</td>
<td>1983</td>
</tr>
<tr>
<td>United States</td>
<td>1984</td>
</tr>
<tr>
<td>Norway</td>
<td>1987</td>
</tr>
<tr>
<td>Australia</td>
<td>1989</td>
</tr>
<tr>
<td>Finland and Sweden</td>
<td>1991</td>
</tr>
<tr>
<td>UK</td>
<td>1991</td>
</tr>
<tr>
<td>Japan</td>
<td>1992</td>
</tr>
<tr>
<td>France</td>
<td>1994</td>
</tr>
<tr>
<td>United States</td>
<td>1998</td>
</tr>
<tr>
<td>United States, UK, Germany, Eurozone</td>
<td>2007 - ?</td>
</tr>
<tr>
<td>----------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td><strong>Western Europe</strong></td>
<td>4.791835</td>
</tr>
<tr>
<td>Eastern Europe</td>
<td>4.856923</td>
</tr>
<tr>
<td>Former USSR</td>
<td>4.839587</td>
</tr>
<tr>
<td><strong>USA</strong></td>
<td>3.934276</td>
</tr>
<tr>
<td>Total Latin America</td>
<td>5.390723</td>
</tr>
<tr>
<td>Japan</td>
<td>9.293976</td>
</tr>
<tr>
<td><strong>China</strong></td>
<td>4.920081</td>
</tr>
<tr>
<td><strong>India</strong></td>
<td>3.541897</td>
</tr>
<tr>
<td>Other east Asia</td>
<td>5.28118</td>
</tr>
<tr>
<td>West Asia</td>
<td>7.392618</td>
</tr>
<tr>
<td><strong>Total Asia (excl. Japan)</strong></td>
<td>5.125318</td>
</tr>
<tr>
<td>Africa</td>
<td>4.425814</td>
</tr>
<tr>
<td><strong>World</strong></td>
<td>4.900418</td>
</tr>
</tbody>
</table>
The reaction to liberalisation

- 1982 Banco Ambrosiano (Roberto Calvi): adequate supervision
- 1987 UK-US capital accord
- 1988 Basel One 8% capital requirements
- 1991 BCCI: requirements for consolidated supervision
- 1992 VaR analysis of regulatory capital
- 1994 Mexican crisis: G7 urges IFIs to take action
- 1997-8 Asian and Russian crises: Financial Stability Forum set up (1999); IMF and World Bank enhance regulatory roles
- 2008 Basel Two
Regulation and externalities

Regulation seeks to alleviate the market inefficiencies caused by risk externalities

- By (1) pricing the risk
- or (2) imposing quantitative controls on risk taking
- or (3) nationalising the risk
- or some combination of these three responses
It is the principles underlying Basel 2 that were the most important intellectual foundations of the pre-crisis international financial architecture.
1) The determination of regulatory capital now heavily weighted toward use of banks’ internal risk weighting models, as well as the views of ratings agencies.

2) Supervision

3) Market discipline enforced by greater disclosure of banks’ financial status as well as their internal risk management procedures.
Basel trilogy

- Greater transparency
- More disclosure
- More effective risk management by firms
- Regulation consists of removing market imperfections and enforcing best practice
But perhaps of even greater importance is the powerful tendency of Pillar 1 and Pillar 3 proposals to increase the homogeneity of financial markets. In homogeneous markets in the face of extreme events, everyone tends to do the same thing at the same time.
Micro-prudential regulation

- In normal times, when risk is predominantly confined to the individual institution, risk management reduces the probability of failure, and is stability enhancing.

- When interlinkages between firms and markets dominate behaviour, i.e. at times of extreme events, the price sensitive impact of common risk management techniques increases instability and market volatility.
Effective micro-prudential regulation increases systemic risks and results in destructive behaviour at times of stress.

Systemic risk an externality

*The market mis-prices risk.* Interest rates were too low before the crisis. Risk was not properly priced in.
The Turner Review
A regulatory response to the global banking crisis
March 2009
Macro-prudential regulation

- Micro prudential concerns itself with factors that effect the stability of individual institutions. Macro prudential regulation concerns itself with factors that affect the stability of the system as a whole.

- The nature of regulation applied to an individual institution depends crucially on how ‘systemic’ its activities are.

- This is related...to its size, degree of leverage and interconnectedness ....”

(Brunnermeier, Crockett, Goodhart, Persaud and Shin, 2009)
UK bank balance sheets – 2007

**Liabilities**
- UK residents deposits: 107
- Non-residents deposits (including from banks): 180
- Deposits from UK banks: 28
- Repos: 86
- Other: 70
- Capital & reserves: 26

**Total = 497%**

**Assets**
- Cash, central bank, T-bills, gilts: 118
- Advances to UK & non-residents: 126
- Market loans to UK residents: 31
- Market loans to non-residents (including banks): 70
- Repo: 107
- Investments: 71
- Other: 22

**Total = 497%**
Capital in UK banks in 2007 equal to only 5% of liabilities

All other liabilities are owed to others – deposits, maturing repo transactions, and so on

That means that all that is needed is a 5% fall in the value of assets, and the bank can no longer cover its debts. It is bankrupt.
Leverage and the return on equity

\[ r_E = r_A + (r_A - r_D) \frac{D}{E} \]
Liquidity

- Liquidity Coverage Ratio:
  stock of high quality liquid assets ≥ 100
  30 day net cash outflows

- Net Stable Funding Ratio
- Stable Funding/Long Term Assets must be > 100%
Liquidity

If the two sides of the balance sheet are perfectly matched as to maturity, liquidity etc, then the bank doesn’t make any money.

Liquidity regulation reduces profitability.

Is profitability itself a guarantee of stability?
Costs and benefits

- Prudential regulation to increase stability and mitigate crises
- Conduct of business regulation to ensure markets operate according to standards of social efficiency
- Regulation to prevent financial crime
- But, how much regulation is enough?