

# Basel II promises cheaper banking

by Richard Barfield

**The diversity and complexity of capital markets are addressed in new banking regulations set to be phased in after 2007**

A recent study by PricewaterhouseCoopers for the European Commission estimates that the introduction of new rules for banks could release some 5 per cent of bank capital - about €100billion - in the European Union. Known as Basel II, after the Swiss border town where international bank supervisors meet, this package brings regulation more into line with modern financial services. Regulators and rating agencies have made it clear that they want to see gradual change, however, so any capital reductions will be phased in after 2007.

Under the current Basel I rules, for every €100 of lending, banks need to back it with a minimum of €8 capital, although banks tend to hold more than the regulatory minimum - nearer to €11 for every €100 of lending. The new regulations (Capital Requirements Directive or 'CAR') are much more risk-sensitive than Basel I, which dates back to 1988. This means that better quality loans may require less capital while worse quality loans more capital than under Basel I. This could have implications for pricing. The final formulation, after extensive global consultation, was published in June. The CAR (which is in most important respects the same as Basel II) means that the regulations will have the force of law in the EU.

The driving force for Basel II - which

focuses specifically on establishing how much capital a bank requires, given its risk profile -- has been the need to recognise the improvements most financial institutions have made in risk management and risk-based capital allocation in recent years. This has been enabled by leaps in computing power and data management capabilities. Technology and better risk management have also been accompanied by growing complexity in financial products and capital markets. While in his Berkshire Hathaway annual report Warren Buffet has described one such product - derivatives -- as "financial weapons of mass destruction", others prefer to think of improved risk management as ABS braking systems in cars - the car is safer while encouraging some drivers to take more risk, but without crashing.

## Capital reductions - national differences

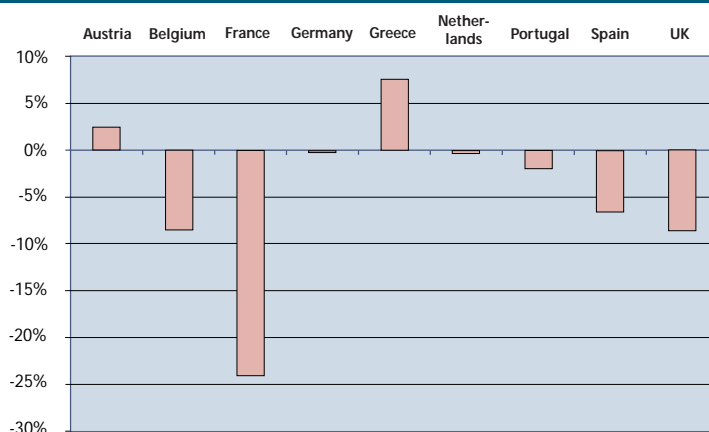
The potential capital reduction varies from country to country, market to market, and institution to institution. Figure 1 shows the range of over-all reduction across some of the major EU countries. The figures are based on the banks' own figures derived from their third quantitative impact assessments for Basel II which were collated by each national regulator in 2003. Even in those countries with small reductions or over-all increases, there will be reductions for individual banks, types of lending and customers. Degrees of change also vary.

Within Basel II, banks can opt for one of three approaches to measuring risk-based capital: Standardised, Foundation or Advanced. The Foundation and Advanced approaches rely on internal ratings data collected by the banks themselves.

The Standardised approach allows banks to use standard estimates of risk capital by type of exposure as agreed by the Basel Committee. The Advanced approach requires sophisticated models using detailed loss histories at an individual loan level for at least seven years. The greater detail of the Advanced approach means that, everything else being equal, an advanced institution will require less regulatory capital than a Standardised institution.

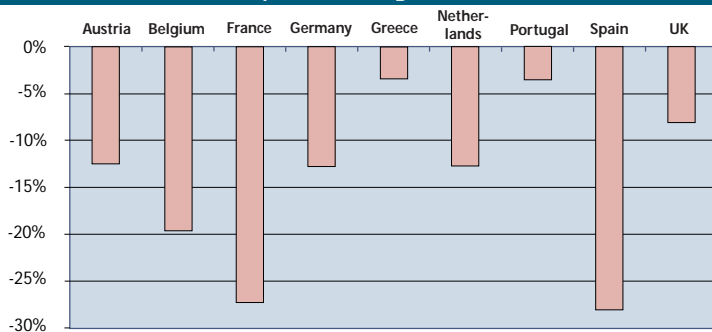
The Advanced approach requires significant investment in systems, data and management time, however. A large international bank will probably spend between

Figure 1: Expected change in capital requirements by country



Source: QIS3 country reports, PricewaterhouseCoopers analysis  
 No data was available for Ireland, Italy and Luxembourg. Data for Sweden was insufficient for the analysis.  
 Data for Denmark and Finland is not displayed for reasons of confidentiality but capital requirements in both countries are likely to decrease.

**Figure 2: Likely reduction in regulatory capital for credit risk for corporate lending**



Source: QIS3 country reports, PricewaterhouseCoopers analysis

€100m and €150m on implementation over a five-year period.

These changes relate to 'Pillar 1' capital which covers market, credit and operational risk. There are other risks for which capital has to be allocated but these are more difficult to quantify. The banks and the regulators deal with these in 'Pillar 2'. For the purposes of PwC's analysis, it was assumed that, everything else being equal, the estimated Pillar 1 reductions would lead to a proportionate reduction in over-all capital.

The expected over-all reduction in Pillar 1 capital is driven by reductions in capital for credit risk (the main risk for most banks) with a compensating increase in capital for operational risk (systems failures, major fraud, etc). The credit risk change outweighs the operational risk component under the internal ratings based approaches.

### Corporate customers

For corporate lending which accounts for about 20 per cent of lending, the expected reductions are between 5 and 15 per cent in most countries (see Figure 2).

Some corporate customers are already asking their banks how much Basel II will reduce pricing. They are probably in for a long haul. The PwC study had access to most countries' Quantitative Impact Study. These were prepared by banks all over the world for their regulators and submitted to the Basel Committee late in 2002.

Although many banks may see capital reductions for credit risk regulatory capital for corporate lending, corporate banking markets are extremely competitive and margins are already thin. There are two main reasons for this. Firstly prices tend to be set by banks that already use risk-sensitive pricing models. Secondly many banks see corporate lending as a gateway relationship product to sell higher margin items

such as structured products. But the benefits of any capital reductions are likely to be passed on to customers.

Although some banks already use risk-based pricing, Basel II is likely to bring further benefit to corporate customers. The simple reason is that the rather blunt instrument of Basel I is a regulatory constraint which has the effect of underpinning capital levels. As the underpinning level of capital drops, this should reduce over-all capital and improve returns which in turn could result in cheaper banking.

Small and medium sized enterprises (SMEs) are critical to the EU economy, accounting for 99 per cent of all firms and about two-thirds of employment. Capital supporting SME lending is expected to reduce, and the impact on the price of lending the sector is expected to be positive for customers. In addition, separate academic studies in Austria, Belgium, France, Germany, Italy and Spain also indicate that SMEs should gain from the changes.

### Retail customers

The biggest over-all Pillar 1 reductions are likely in the capital to support retail lending, which accounts for about 25 per cent of bank lending in the EU.

Figure 2 indicates the relative impact by country. The proportion of banks using the Foundation and Advanced approaches has an important influence on the outcome. In some countries, smaller institutions are working to share the costs of implementing the necessary Foundation systems.

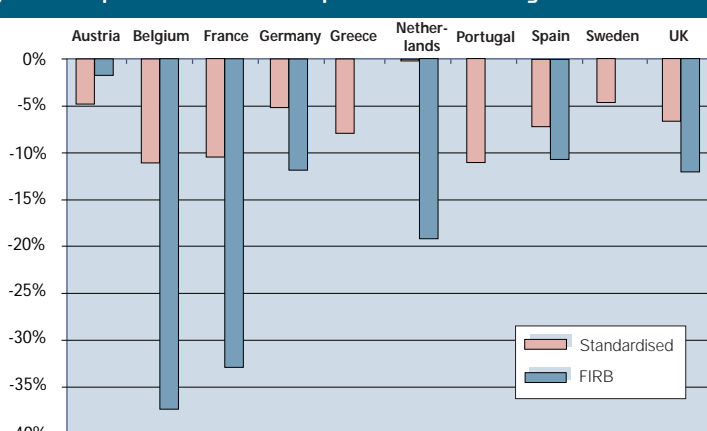
Retail lending generally has higher margins than, say, corporate lending and is often a key driver of bank profitability. A decrease in capital could either increase profitability further or be passed on to the customer via reduced pricing to defend or increase market share. The latter is likely to be true in mortgage markets, which are highly competitive in most EU countries. Within retail, residential mortgage lending is one of the major beneficiaries and is the main contributor to the banks' estimate of retail capital reduction.

### Who will benefit?

The above discussion gives some broad views on how the benefits might be shared. But a key factor to consider in your specific markets will be the profitability of the banking sector (or sub-sector) and the degree of competitiveness. These differ widely across the EU.

To illustrate the differences, the diagram below shows how profitability varies (measured by comparing return on equity with cost of equity) with market concentration (measured by the share of banking assets of the top four banks in each country). The size of each circle is proportional to the size of

**Figure 3: Impact on credit risk capital for SME lending**



Source: QIS3 country reports, PricewaterhouseCoopers analysis

banking assets. Concentration and competitiveness are not necessarily negatively correlated - as the competitiveness of the Dutch market attests - but the diversity across the EU is more than apparent.

In assessing the potential impact in a given country, PwC considered a broad set of factors, including market profitability, customer behaviour, industry structure, bank efficiency and market competitiveness. The study found impact likely in these areas:

- **Banks:** Finland, Greece and Portugal
- **Customers:** Austria, France, Germany, Italy and the UK
- **Either:** Belgium, Denmark, Ireland, Luxembourg, Netherlands, Spain and Sweden

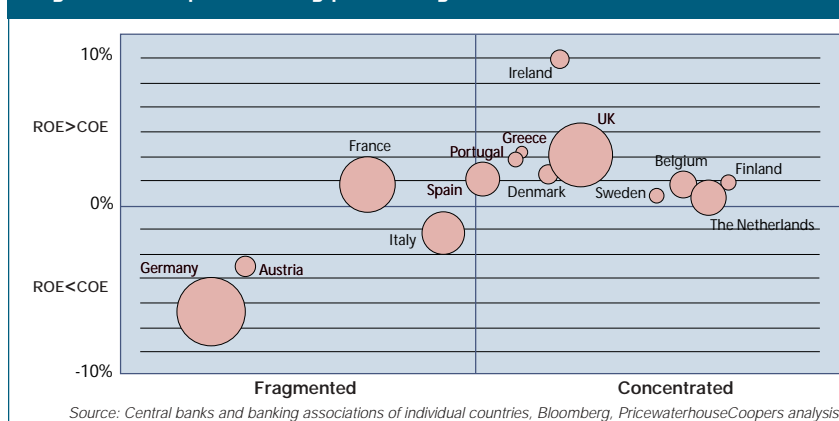
The advantages will pass on to the wider economy, regardless of which stakeholders benefit.

### Macro impact

To assess the impact of the CAR on the EU economy, PricewaterhouseCoopers worked with the National Institute of Economic and Social Research

The Institute's detailed modelling country by country indicated that overall Basel is likely to have a small but positive effect on GDP, potentially leading to an increase of under 0.1 per cent for the EU.

Figure 4: European banking profitability and concentration



An interesting insight from the National Institute's macroeconomic analysis is that the effect on the macro economy depends on to what extent the changes affect lending to businesses or lending to consumers. Any reduction in the cost of consumer lending directly affects demand, but has only a secondary effect on supply. If demand is increased, without any effect on supply, the result is to create inflationary pressure, which central banks will probably neutralise with an increase in interest rates. By contrast, a reduction in borrowing costs to producers will stimulate investment. The

additional investment represents a short-run increase in demand, but also adds productive capacity so that there is a durable increase in supply.

Therefore the extent to which Basel impacts SME and corporate lending will influence the long-term impact on the economy as a whole. Perhaps the next time you are negotiating with your bank you can invoke the national interest to reduce yours.

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## HOW BANKS SET PRICES

In simple terms, banks price loans to cover their costs and generate profit over the life of the loan. Capital is only one component of the loan pricing decision and its importance to the pricing decision will depend on the financial dynamics of the transaction in question. Several costs need to be covered, for example:

- Cost of funds (we assume that banks' credit ratings and thus their funding costs remain unchanged as these depend on many factors and not just capital levels);
- Cost of servicing the loan;
- Cost of advertising or origination (in the case of a new customer);
- Expected credit losses;
- Tax;
- Cost of capital to support the loan.

The bank will also take into account factors such as:

- Expected fee income;
- Income potential from cross sales, (e.g. corporate loans may be seen as loss-leader relationship products);
- Competitive strategy (e.g. is the bank pricing to grow market share or to optimise short-term returns?).

For the purposes of the EU study, PricewaterhouseCoopers

assumed that the changes in capital requirements from Basel I to Basel II will lead to corresponding changes in capital assigned to lending. This is due to the fact that even if the bank is a sophisticated user of economic capital, regulatory capital will still be a constraint that must be considered.

Approaches to calculating capital to support a loan pricing decision vary from one institution to another. The main differences will be whether economic or regulatory capital is the key driver. Within both of these approaches, there is a wide range of options:

- In using economic capital the aim is to assess the marginal risk contribution of the loan. However:
  - The underlying assumptions that drive the economic capital calculations will vary.
  - Many aspects require judgement, for example diversification effects and operational risk. Some institutions will make allowances for diversification benefits, others will not. Even for those that do, there is no agreed common standard for calculating diversification benefits.
- In using regulatory capital some institutions will use the raw regulatory weight, others will add an allowance for the cushion that they carry. In both cases, the target return may vary depending on the institution's strategy.