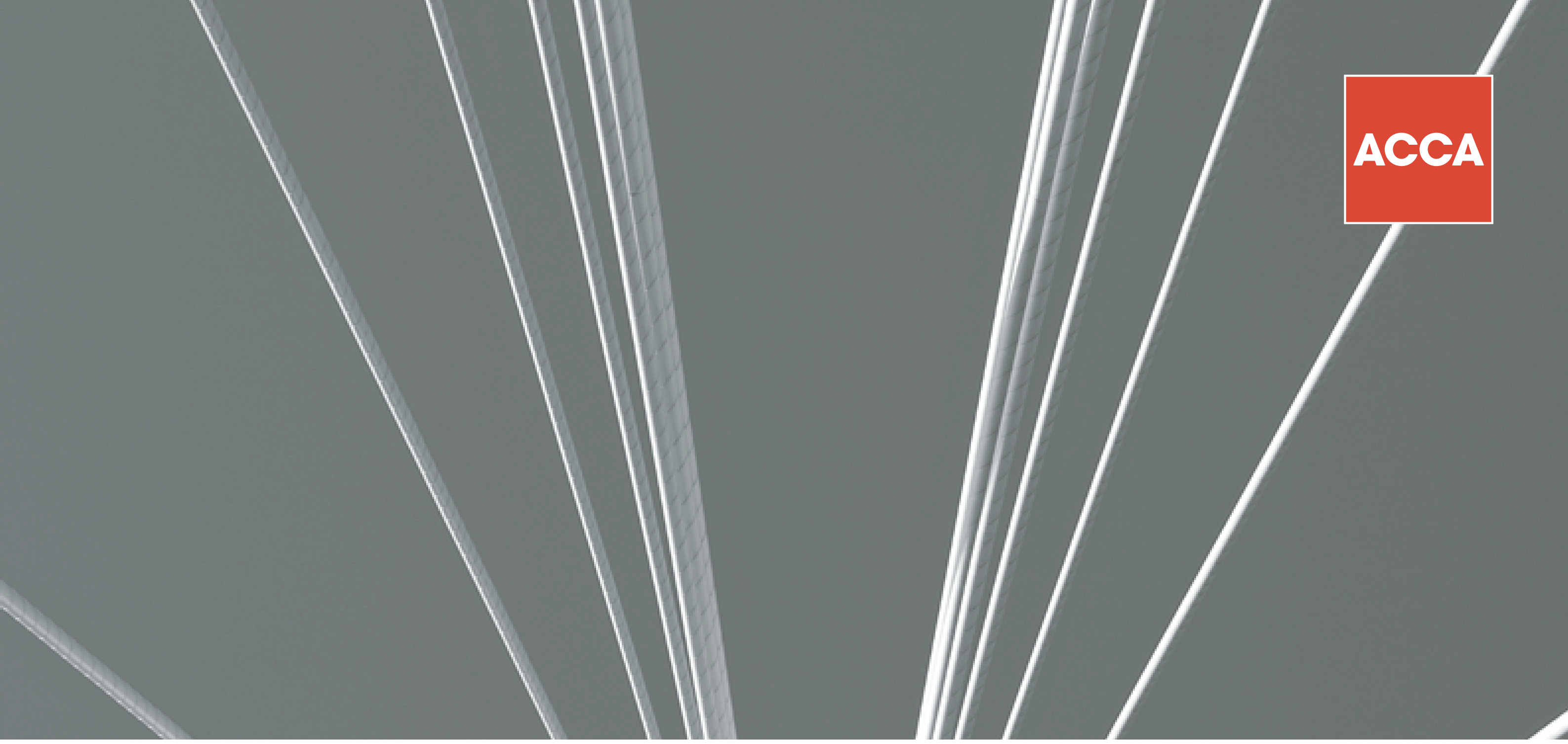

ACCOUNTANCY FUTURES

CRD IV and small businesses: revisiting the evidence in Europe

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ABOUT ACCOUNTANCY FUTURES

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CRD IV is one of the most important pieces of regulation ever to come out of the EU institutions and its implementation could determine the shape of the recovery from one of the most challenging times in the Union's existence.

Based on its analysis of the likely impact of CRD IV on lending to SMEs, this paper endorses UEAPME's reaction to CRD IV and makes a set of ten recommendations for European policymakers in order to address the shortcomings of current proposals.

FOR FURTHER INFORMATION

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Executive summary

In late July 2011, the European Commission unveiled its proposals for the Capital Requirements package commonly referred to as CRD IV, which will, among other things, implement Basel III in the EU member states. The detail of CRD IV has arrived at a crucial time, when the sovereign debt crisis in Europe has taken a turn for the worse and the capitalisation of European banks has come under renewed scrutiny.

ACCA has long championed the cause of more and better capital for banks and realises that there is a trade-off to be made between economic growth and financial stability. In calibrating the provisions of CRD IV the stakes are very high. Europe's SMEs are more dependent on bank lending than their counterparts in the US and similarly Europe's banks are more exposed to SME loans. To sustain the recovery, European SMEs will need to finance about €646 billion worth of investment in 2012 in fixed assets alone and unless banks are able to play their part much of this investment will never materialise. It is therefore –––appropriate that the Commission has carried out an SME test on CRD IV and has also made the right choice in opting to monitor the possible effects of liquidity, capital and leverage rules on SME lending and finance.

Nonetheless, much of the evidence on the impact of CRD IV on SMEs is still missing, and the exclusively quantitative approach taken by the Commission in –assessing this may be concealing important qualitative elements that may make a difference beyond simply higher or lower interest rates on loans to smaller businesses. It is important to understand what the behaviour of lenders is likely to be in response to CRD IV. This is not much clearer now than when ACCA published *Basel III and SMEs: Framing the Debate*, ACCA's first discussion paper on the impact of Basel III. Yet even where quantitative evidence is most relevant, for instance in determining risk factors and other crucial coefficients that match the actual behaviour of SME loans and deposits, it is not clear that the proposed calibration of CRD IV corresponds entirely with the evidence.

ACCA, therefore, recommends that the Commission, Member State governments, regulators and industry focus their efforts on properly assessing and counteracting the negative impact of CRD IV on SMEs. In particular, they should prioritise the following:

1. Performing a second SME Test for CRD IV no later than 2015, when the first assessments of CRD IV's more innovative instruments will be complete.
2. Matching CRD IV with a business support package to address anticipated impacts on SME access to finance.
3. Adjusting unrealistic risk weights and funding stability coefficients.
4. Encouraging securitisation of small business debt and the creation of a secondary market in government-guarantee-backed SME loan securities.
5. Minimising effects on export and trade financing.
6. Ensuring CRD IV is compatible with the nature of credit guarantee systems in Europe.
7. Safeguarding development business.
8. Safeguarding Europe's long-term financing culture.
9. Reassessing the concept of a leverage ratio.
10. Implementing Basel III internationally.

Introduction

In the summer of 2011, ACCA published the discussion paper, *Basel III and SMEs: Framing the Debate*, which explored the little-understood impact of the new global framework for capital adequacy and liquidity on lending to smaller businesses. In late July 2011, the European Commission unveiled its proposals for the Capital Requirements package commonly referred to as CRD IV, which will, among other things, implement Basel III in the EU member states. The detail of CRD IV has arrived at a crucial time, when the sovereign debt crisis in Europe has taken a turn for the worse and the capitalisation of European banks has come under renewed scrutiny.

ACCA has long championed the cause of more and better capital for banks (ACCA 2008) and along with many other stakeholders realises that there is a trade-off to be made between economic growth and financial stability. Nevertheless, ACCA believes that, in their search for an optimal trade-off, policymakers have largely overlooked key issues such as the impact on small and medium-sized enterprises (SMEs), which account for 58% of Europe's business output and 67% of business employment (Cambridge Econometrics 2011) and whose activities did not materially contribute to the financial crisis of 2008–9, much less the more recent sovereign debt crisis.

Europe's SMEs are more dependent on bank lending than their counterparts in the US and similarly Europe's banks are more exposed to SME loans (EC 2011b). Much of this credit is used to fuel long-term investment; estimates prepared for the European Commission's SME Performance review suggest that European SMEs will need to finance about €646 billion worth of investment in 2012 in fixed assets alone (Cambridge Econometrics 2011), and unless banks are able to play their part much of this investment will never materialise.

ACCA believes that, while CRD IV has serious flaws that policymakers cannot afford to overlook, it is necessary for financial stability. Moreover, its failures can be redressed by properly examining the evidence base, however inconclusive or fragmented it may appear to be. This paper aims to contribute to this exercise, and calls for concrete steps in order to address the shortcomings of current proposals.

CRD IV: an overview

CRD IV consists of two legislative instruments: a directive governing access to deposit-taking activities, which member states will have to transpose into their own legislation, and a directly applicable regulation establishing a set of prudential requirements for financial institutions. At the heart of CRD IV are the following instruments (see Table 1):

- A new set of minimum capital requirements, much higher than those previously in place, so that financial institutions can remain solvent and able to support the real economy under adverse economic and market conditions.

- A maximum leverage ratio that aims to ensure that fluctuations in asset values cannot easily wipe out financial institutions' capital.

- A set of liquidity requirements that aim to ensure that financial institutions can service their short-term liabilities even if some of their assets become illiquid or distressed or if access to interbank and wholesale credit markets is constrained.

- Provisions for dual capital buffer that aim to rein in the supply of credit in boom times and achieve higher capitalisation under adverse economic conditions.

Table 1: Elements of CRD IV

Directive (Strong links with national law, less prescriptive)	**Regulation** (Detailed and highly prescriptive provisions establishing a single rule book)
Access to taking up/pursuit of business	Capital
Exercise of freedom of establishment and free movement of services	Liquidity
Prudential supervision	Leverage
Capital buffers	Counterparty credit risk
Corporate governance	
Sanctions	

Source: EC (2011a)

CAPITAL

CRD IV envisages a gradual adjustment to a Core Tier 1 capital ratio of 8% between 2013 and 2019. In light of the impact of the sovereign debt crisis on the value of government bonds, the European Banking Authority (EBA) has ordered banks to achieve a Core Tier 1 ratio[1] of at least 9% by the end of June 2012, essentially creating a shortfall, initially assessed by the EBA at €106.4 billion (EBA 2011a); this has since been revised up to €114.7 billion (EBA 2011c). This requirement will be applied after allowing for a certain haircut on government debt, even this is held to maturity in the institutions' banking book, which does not normally need to be marked to market.

1. Core Tier 1 capital is the particular subset of a bank's regulatory capital which is assumed to be most capable of absorbing losses and most readily available to creditors in the event of liquidation; for the most part it is meant to consist of shareholders' equity and retained earnings although determining what is eligible as Core Tier 1 is significantly more complex and involves 14 detailed criteria. The Core Tier 1 ratio is the ratio of Core Tier 1 capital to the financial institution's risk adjusted assets. CRD IV prescribes the specific coefficients that must be applied to assets according to their riskiness in order to arrive at this ratio.

CAPITAL BUFFERS

The Commission's proposal is for banks to implement a dual capital buffer. This would consist of a countercyclical buffer, which involves banks having to hold additional capital once a certain threshold of 'excessive' capital growth has been crossed, and a capital conservation buffer of 2.5%, which banks would have to hold on to on top of their regulatory capital in times of growth. Any bank that fails to do so would risk regulatory intervention on their discretionary capital distribution – essentially they would be likely to face curbs on compensation and dividends, and potentially even legally binding lending targets. Crucially, the timing and extent of the countercyclical buffer will remain at the discretion of member states.

LEVERAGE

In its latest proposals, the Commission has opted for the course of extensive monitoring of the Leverage Ratio – an instrument proposed within Basel III which has not been part of previous capital requirement frameworks. The Leverage Ratio would be a non-risk based measure (ie the ratio would be the same regardless of how risky a bank is perceived to be). It would consist of the ratio of Core Tier One or Tier One capital to the sum of on- and off-balance-sheet assets, in a rough parallel to the approach taken in the US, Canada and Switzerland. Rather than impose a minimum leverage ratio outright, the Commission proposes to allow time for a review of the leverage ratio's impact on lower risk business models; lending to SMEs and trade financing; and the interaction of the ratio with the risk based capital requirements. Thus, the leverage ratio is only expected to be tracked, not mandated, by regulators between 2013 and 2018, and will not be required to be disclosed before 2015.

LIQUIDITY

As with countercyclical buffers, liquidity requirements are a new element introduced into Basel III and CRD IV that was not in their predecessors, will be phased in over time. The Liquidity Coverage Ratio (LCR) is expected to be introduced in 2015 and the Net Stable Funding Ratio (NSFR) in 2018. NSFR will be under observation, however, from 2012 onwards.

The LCR is the ratio of a bank's net liquidity outflows during a theoretical 30-day period of acute stress divided by its stock of 'high quality' liquid assets. Both the quality of liquid assets and the likely outflows will be the product of statistical modelling of liquidity crises. The NSFR, on the other hand, is the ratio of Net Stable Funding (ie customer deposits, long-term wholesale funding and equity) to assets, where funding sources are weighted by their respective Stable Funding Factors reflecting the probability of mass withdrawal and assets are similarly weighted by coefficients reflecting the extent to which they might need to be refinanced. In order to incentivise competition for small business deposits, and in appreciation of the more stable nature of small business deposits, the Commission has proposed that factors of 85% and 70% be applied respectively to stable and less stable small business deposits, compared to 50% for wholesale funding from corporate clients. On the other hand, short-term loans to small businesses are treated as separate from those to individuals for the purposes of determining stable funding requirements, with a required stable funding factor of 100% as opposed to 85% for individuals.

Odd one out: the commission's SME test for CRD IV

In the summer of 2011, ACCA set out its expectations regarding an SME Impact Assessment for Basel III following calls from SME stakeholders (UEAPME 2010), politicians (eg PJCCFS 2011) and the accounting profession (ACCA SME Committee 2010; Schizas & Chittenden 2010). We were, therefore, pleased to see the Commission include this in its assessment of the economic impact of CRD IV (EC 2011b) – a world first for Europe. We were surprised, however, to see the Commission insist that the effect of stricter capital requirements on European SMEs will not be disproportionately high. Of all the major international organizations and institutions to examine the issue, including the Financial Stability Board's (FSB) Macroeconomic Assessment Group (MAG) itself, only the Commission seems to believe this (ACCA 2011).

'Assessments about how tighter regulatory standards for banks may affect the supply of credit to the real economy need to take into account the ability of borrowers to make use of non-bank sources of credit.... Bank-dependent small and medium-sized firms may find it disproportionately difficult to obtain financing.'

'Added to [the estimated effects of capital and liquidity requirements on GDP growth] are the factors...which, as noted, are difficult or impossible to quantify. These include... differences in the impact of a cutback in bank lending across sectors. If tighter regulatory requirements lead to a disproportionately large cutback in lending to a sector, such as small and medium-sized enterprises, that has a relatively large role in supporting growth...this would increase the GDP impact.'

THE MAG (2010) IMPACT ASSESSMENT

The long adjustment period envisaged for the new rules as implemented in CRD IV addressed some of the MAG (2010) concerns for SMEs, even though other commentators such as Ambler (2011) suggest that banks may also use the time afforded to them in order to minimise the impact on their return on equity at the expense of either clients, especially small businesses, or the taxpayer. At any rate, a long implementation period increases the probability that compliance will be pursued through fundamental changes to the banks' business models. That said, the EBA's call for the buildup of capital buffers by mid-2012 has undone much of the beneficial effect of phased implementation, by forcing banks to build a procyclical capital buffer immediately – arguably a justified response to the sovereign debt crisis but also the direct opposite of what CRD IV was meant to deliver.

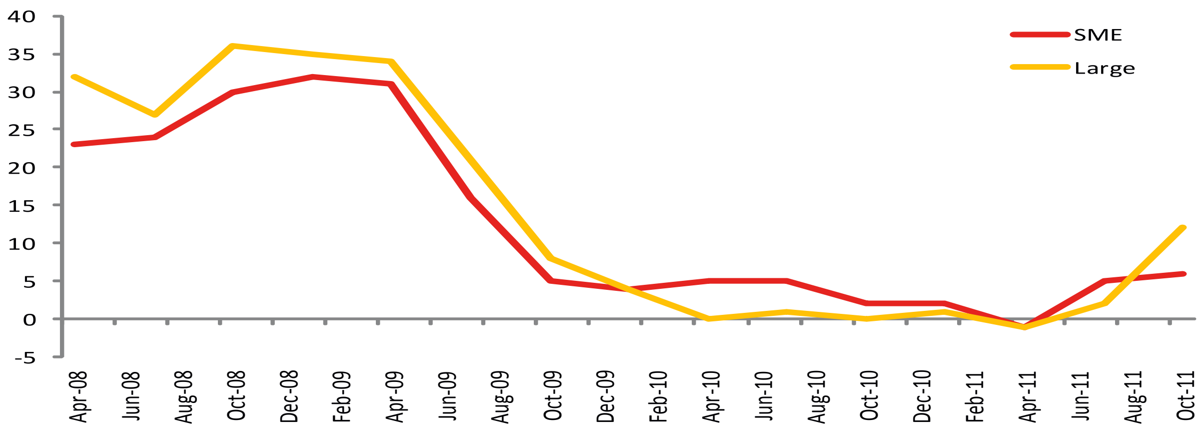
There are four parts to the Commission's argument on why the impact of CRD IV on SMEs will not be disproportionately negative, and it is worth examining these, and the evidence behind them, in some detail. By way of introduction, it is important to note that only the impact of capital requirements has been analysed to any satisfactory extent – a good deal of work remains to be done before the SME test is complete.

EC ARGUMENT PART 1

Evidence from the adjustment to higher capital requirements already underway among European banks in Q4 2010 and Q1 2011 suggests that large businesses have been affected to a greater extent than small ones.

Overall, it is not advisable to base a set of crucial policy decisions on two datapoints. Nor does this period represent the amount of time during which banks have known about (and begun to prepare for) the likely provisions of Basel III and thus CRD IV – December 2009 would be a more appropriate starting point (BCBS 2009). Furthermore, loan volumes may not be the primary channel through which the impact of the new requirements reaches SMEs. In fact, since December 2009, EU banks' margins on loans to SMEs not characterised as 'risky' have consistently widened faster than those for large businesses (ECB 2011; see Figure 1). Whether this is due to preparations for CRD IV or due to the impact of the sovereign debt crisis, it is clearly the outcome of a forced recapitalisation and deleveraging, so it would probably resemble the effects of phasing in new capital requirements by mid 2012. These findings point to a price-, not rationing-led response by banks, although the experience of individual countries will have varied.

Figure 1: Changes to European Banks' margins on less risky loans to enterprises, by size [diffusion index] (ECB 2011)



EC ARGUMENT PART 2

SMEs transact mostly with smaller banks, which are on average better capitalised and more liquid.

This claim is not only factually incorrect but also a dangerous generalisation. It is true that smaller European banks are better capitalized and more liquid (EC 2011b), and almost certainly true that SME loans make up a larger share of the risk-adjusted assets of small lenders – but this is all that can be deduced from Berger et al. (2001), the survey of Argentinian firms which is cited as evidence by the Commission. In fact, large European banks are significantly exposed to SMEs. Recent research from CapGemini suggests that small businesses, as defined by the different lenders surveyed, accounted for 46% of the risk-adjusted assets of global retail banks in 2010 (Capgemini et al. 2010), and this is likely to be the case in Europe as well. Moreover, large banks have much larger balance sheets than small ones, so even if Europe's small lenders only lent to SMEs, the combined SME loan portfolio of Europe's large banks would most likely still be larger.

More to the point, while small banks have, in general, remained better capitalised throughout the present crisis, there is no guarantee that this will be the case during future buildups of systemic risk. If CRD IV is designed on the assumption that future banking crises are bound to evolve in the same way as the last one, then it will most likely fail the test of time. The Impact Assessment prepared for the directorate-general for internal markets (Reifner et al. 2011) found, for instance, that loan impairments tended to be higher for smaller European banks between 2000 and 2010 (including all of the years since 2007), and that co-operative banks suffered the biggest relative impairments throughout this period. There is no reason, therefore, to assume that small lenders will always remain more liquid and better capitalised.

Finally, the structure and concentration of the small business banking sector varies significantly among different European countries; while the Commission's assertion may reflect the regionally fragmented or highly competitive SME banking sectors of many countries in Europe, other countries, such as the UK, have very concentrated SME banking sectors (IBC 2011). Moreover, in the aftermath of a financial crisis and some types of deleveraging, banking sectors tend to become more, not less concentrated (Sun 2011). If the effects of capital requirements on SME lending depend on the structure of the sector as ACCA (2011) has argued they do, then they are likely to vary significantly among the member states, and the Commission should consider ways of addressing any imbalances created in this way.

EC ARGUMENT PART 3

The benefits of financial stability are greater for SMEs than for large businesses.

This argument is not unreasonable; ACCA (2011) has made the same case for sacrificing some SME growth in defense of capital requirements. SMEs are less able to hedge operationally or financially against financial crises than large businesses and cannot rely on the extensive government safety net available to households; thus their prosperity may well be more dependent on economic stability. For instance, a global review by Ayyagari et al. (2003) found significant correlations between SMEs' share of economic output and dimensions of macroeconomic stability such as low inflation and stable exchange rates. First-order outcomes of macroeconomic stability, including highly developed financial intermediaries, high levels of government expenditure, educational attainment and quality of public infrastructure, are also positively correlated with SMEs' share of output, as are policy outcomes, such as labour market flexibility, which are less likely to be pursued during times of economic turbulence.

That said, it is important to note that it is not good practice to net off the costs and benefits dimensions of the SME test for any regulation without first considering their implications separately. The SMEs benefiting from financial stability will not necessarily be the same ones bearing the cost. For instance, netting off gains for steady-state SMEs against potentially fatal losses of funding for dynamic small businesses with strong growth prospects is not a neutral proposition (Schizas and Chittenden, 2011).

EC ARGUMENT PART 4

The market would demand capital adjustments similar to those under CRD IV anyway as investors and bondholders need to be reassured of the solvency of European banks. There is little incremental cost or true burden to CRD IV.

This argument, while not entirely invalid, is confusing as it begs the question of why Europe is bothering with new capital requirements at all if the market is likely to impose them anyway. Even if the rate of recapitalisation and/or deleveraging in the sector were to be left purely up to the market, the Commission would still be considering support for SMEs in response, as it did during the financial crisis of 2008–9. If so, then it is best to build some support for SMEs into or alongside CRD IV from the outset rather than wait for a new credit crunch. In any case, as of October 2011 the EBA was clear that the scale of deleveraging already underway was dangerous enough for SMEs to warrant a policy response: 'Some deleveraging is already under way due to the pressure on bank funding, stemming from the sovereign debt crisis. Therefore, a comprehensive policy response is needed to avoid a credit crunch and ensure continued lending to the real economy including SMEs' (EBA 2011b).

But to respond directly to the Commission's argument: uncoerced market participants would almost certainly not use the asset risk weights employed by CRD IV for the purposes of determining capital requirements. Especially controversial are the zero or negligible weights associated with highly rated sovereigns and the 75% weight prescribed for SME loans which grossly overestimates the risk involved. In a study of 150 EU and US banks, Erlebach et al. (2010) found that bank losses on business loans for 90% of the sample amounted to 24% or less of their corresponding regulatory capital. Such phenomena must not be repeated under CRD IV as they penalise small businesses without materially contributing to financial stability. Even the possible reduction of the SME risk weight to 50% which the EBA has been asked to assess and report on by 1 September 2012 is likely to result in overestimated SME exposures. In their current form, the proposed risk weights add to the natural tendency of capital requirements to subsidise the taking of risks that are seen as having a very low probability but very high impact – known as 'tail risk' or more popularly as 'black swans' (Perotti et al. 2011).

It is similarly unclear whether the proposed stable funding requirement ratios for small business deposits and loans correspond to the stability of the respective funding and loans. Arguably, in crisis conditions individuals' deposits might be more likely to flee a particular member state than those of small businesses, and the overall velocity of SME loans and deposits would intuitively fall, reflecting deteriorating credit terms and falling orders. Perhaps more importantly, requirements on export financing are dangerously divorced from reality (UEAPME 2011). Export credits are normally medium to long term, with draw-down periods of several years, and recourse can only be taken after strict documentation of the corresponding performances has been furnished. Hence, export credits are unlikely to give rise to sudden liquidity outflows, yet they still attract a 100% coefficient.

Approximately right or precisely wrong?

Impact assessments for banking regulations are extremely quantitative affairs, focusing on extracting robust forecasts out of vast volumes of backward-looking data and some forecasting assumptions. True to form, the official assessments for Basel III (MAG 2010) and CRD IV (EC 2011b) rely on exclusively quantitative models of the responses of lenders to new capital and liquidity requirements. Nonetheless, even in a continent with a common SME definition and reasonable access to information on small business lending, producing a precise quantitative estimate of the cost to SMEs is bound to be problematic in a number of ways.

NEW REGULATORY TOOLS

Countercyclical buffers, leverage ratios and, more importantly, liquidity requirements are features which CRD IV does not share with its predecessors, hence data on the lenders' behavior with regard to these are not available. The effect of countercyclical buffers will rely crucially on policymakers' ability to time the business and credit cycles, which they are generally unable to do without more up-to-date economic data than it is currently possible to obtain (Bernoth et al. 2008) and which will no doubt be a highly political decision. With regard to liquidity requirements, current proposals appear to incentivise competition for small business deposits, but at the expense of businesses financing themselves long-term, as banks issuing mostly short-term loans are rewarded with lesser required stable funding factors for the regulators' purposes. Finally, by using Tier I capital (which will tend to be a function of risk-adjusted assets) as the numerator but a risk-independent balance sheet size as the denominator, the Leverage Ratio penalises low-risk business models. This is particularly relevant for banks' SME customers, which are part of most such 'low-risk' business models.

LENDERS' DISCRETION

The MAG (2010) caveated their estimates of the impact of Basel III by noting that 'Banks are likely to change their behaviour in a number of other ways in response to the requirements that are not captured by the macroeconomic models. In the case of SME lending, changes to the behaviour and business models of banks are likely to prove much more significant than the increase in interest rates. Indeed, Härle et al. (2010) and van Steenis et al. (2011) argue that banks are already adapting to Basel III in qualitative as well as quantitative terms by changing their business models.

This is likely to be the case with CRD IV as well. Lenders can, for instance, choose whether they comply by raising capital or offloading assets – a quantitative impact assessment will largely ignore this difference but it is crucial to the actual outcomes. Moreover, because small businesses represent, to most lenders, a distinct business segment complete with its own lending structures (see CapGemini et al. 2010), changes to lenders' business models can imply dramatic changes in individual institutions' supply of finance to SMEs as a whole which are extremely hard to model. Table 2 presents ACCA's review of the possible changes to banks' business models.

Lenders' discretion will complicate Basel III implementation much more in Europe than it does elsewhere. Unfavourable conditions in bond and capital markets have made it all the more likely that European banks will adjust to higher capital requirements mostly through deleveraging and asset sales rather than attempt to raise the full amount needed through capital issues. This is particularly troublesome because in order to save the €114.7 billion of capital expected by the EBA by mid-2012, banks will have to shrink their balance sheets by a much greater amount. Van Steenis et al. (2011) estimated this at €1.5 trillion to €2.5 trillion back when only €106.4 billion of additional capital was required; the final sum could now be around 8% higher. They also note that this massive deleveraging is likely to affect medium-sized, informationally transparent companies more than others (see Table 3).

SECOND ORDER EFFECTS

In 2009, the European Commission published a study (Ruis et al. 2009) into the cyclicality of lending to European SMEs, which found that each percentage point of GDP lost to the business cycle is associated with a 2% reduction in lending to small businesses and a 3% reduction in lending to medium-sized businesses. It is also associated with a 7% reduction in factoring and 4.6% drop in leasing. Similarly, the availability of trade credit may also fall. These findings may be equally applicable to estimates of the benefits rather than the costs of CRD IV to SMEs, as they demonstrate the cyclical fluctuations of lending to SMEs, which capital and liquidity requirements are meant to mitigate.

Capital pricing vs rationing

Apart from deleveraging, the responses of lenders to increases in the cost of capital for SME lending will tend to reflect some combination of credit pricing and credit rationing. Under a capital pricing model, lenders invest heavily in modeling default risk and are thus able to extend credit to any applicant, as long as the loan or facility is expected to be profitable after allowing for the cost of capital and reasonable default rates. Under capital rationing, on the other hand, lenders target a maximum 'tolerable' level of risk and will tend to turn away or discourage applicants whom they judge, based on quantitative and qualitative criteria, to exceed that level of risk.

Generally speaking, rationing tends to be portrayed as the worst of the two; yet, if the objective is to protect lenders from taking on bad debt during irrational credit booms, then a certain level of credit rationing may be necessary. This view is implicit in the arguments of stakeholders, such as UEAPME (2010), who point to the relative resilience of more fragmented banking sectors, with more decision making powers devolved to local managers. Such sectors were more likely to practice rationing in the run-up to the financial crisis. (Carbo-Valverde et al. 2009; Cerqueiro 2008; Park 2008; Canales and Nanda 2010).

Overall, lenders that rely more on credit pricing will tend to reduce lending and increase interest rates to a greater extent when the cost of capital increases, but will cut less creditworthy customers loose first. Lenders who rely on rationing, on the other hand, are more likely to respond by discouraging more marginal borrowers. While rationing usually reduces lending volumes by a greater amount, it also reduces the effective demand for finance, thus effectively keeping the cost of funds lower. The following variables are likely to influence the allocation of impacts of CRD IV between credit pricing and rationing.

MARKET CONCENTRATION AND PROCESS CENTRALIZATION

The ability of banks to roll additional financing costs over onto their SME clients depends to some extent on the competitive pressures they face. In some ACCA markets, most notably the UK, small business banking is on average less competitive than corporate banking, while in others it is more so. Empirical evidence suggests that in more concentrated banking sectors, credit rationing for SMEs is less likely and lower-quality borrowers are more likely to apply and receive funding, even though both rejection rates and the cost of financing might be higher (Carbo-Valverde et al. 2009; Cerqueiro 2008; Park 2008). Similar findings have been reported in the case of banks, regardless of market share, where decision-making is more centralised (Canales and Nanda 2010). The extent of competition and centralization could determine the extent to which banks resort to rationing as opposed to interest rates in response to increased capital costs, largely because big banks with large market shares will tend to attempt to model risk rather than ration it to borrowers above a certain threshold of creditworthiness.

ALTERNATIVE LENDING MODELS

A great deal of lending to small businesses around the world takes place through very different models to those assumed by Basel III and CRD IV (see eg UEAPME 2010). From community based lenders to mutuals and microcredit intermediaries, these credit providers carry different types of capital on their books, with different levels of ability to absorb losses; they are also likely to carry proportionately larger SME loan portfolios. The extent to which CRD IV (especially liquidity rules) disproportionally favours or penalises such business models will have implications for SME lending, at least in those markets where alternative models are prevalent.

BORROWING FOR LIQUIDITY VS CAPITAL NEEDS

The effects of a slowdown in lending to SMEs depend substantially on how different types of lending are affected. Small businesses are as likely to borrow for liquidity purposes as they are to borrow growth capital, and the effect of regulation on employment and growth is likely to be larger if short-term lending is disproportionately affected. This is particularly true of liquidity requirements, a relatively new form of bank regulation whose effects are, therefore, hard to model. It may be possible, however, to draw some conclusions from the forced recapitalisation that followed the financial crisis of 2008–9, and which suggests that lenders are happier to lend for capital than liquidity purposes (Forbes Insights 2010) and more likely to apply rationing to the latter than to the former. On the other hand, the CRD IV proposals provide an incentive for banks to extend short-term financing at the expense of long-term funding.

INFORMAL FINANCE AND TRADE CREDIT

While it is often asserted that SMEs depend on banks for financing (MAG 2010; IIF 2010), this is not entirely true. The typical small business draws more liquidity from suppliers (via trade credit on agreed terms and late payment) than it does from the banking system, while the most creditworthy SMEs will tend to act as intermediaries, borrowing cheaply from the banking sector in order to provide credit to their customers (Demirguc-Kunt and Maksimovic 2001). As suppliers are not subject to regulatory capital requirements and cannot invest in elaborate risk-management functions, they are more likely to be effectively undercapitalised and thus their supply of credit should be at least as volatile than that of the banking system. Indeed evidence from the UK and the Eurozone suggests that suppliers have been at least as proactive in tightening credit during the Great Recession as banks themselves (ACCA and CBI 2010; ECB 2011). Perhaps more importantly, suppliers can rarely apply credit pricing policies and must, therefore, rely on credit rationing.

DISCOURAGED DEMAND

A great deal of the literature on lending to small businesses during the crisis has focused on the behavioural effects of a decrease in credit supply on subsequent credit demand. 'Discouraged demand' is said to occur when would-be borrowers fail to apply for formal credit because they believe they will be turned down. Evidence from the US suggests that discouraged demand is largely an efficient rationing mechanism and is more likely in less concentrated banking sectors (Han et al. 2009). While the envisaged implementation periods for CRD IV are not short enough to cause a strong behavioural reaction, an abrupt early adjustment on behalf of lenders could have the same effect. It is also likely that discouraged demand, especially with regards to liquidity, will be redirected towards other types of credit, including credit from suppliers, directors, or non-bank lenders (ACCA and CBI 2010). It is important to note that, taken together, the findings of Han et al. (2008); Carbo-Valverde et al. 2009; Cerqueiro 2008; and Park 2008 suggest that discouraged demand is more of a reaction to the anticipated rationing rather than to the anticipating pricing of credit.

CREDIT GUARANTEES

In many countries, governments maintain credit guarantee schemes which seek to provide a state guarantee in lieu of collateral in order to compensate for information asymmetries in the case of small or young businesses. The European Commission, for instance, claims that 1.8m European SMEs (ca. 9% of the total stock of businesses in the EU-25) benefitted from guarantees in 2009 (EC 2010). Such schemes can provide substantial leverage and achieve additionality at a low cost while also keeping default rates low. (Graham Bannock and Partners 1997) More centralised schemes with a small number of lenders focusing on broad coverage and high volumes can be very successful, provided that procedures and responsibilities are clearly defined and proper co-operative relations are developed between lenders, guarantors and borrowers (Levitsky 1997). Although as a form of collateral, guarantees are likely to become more valuable to lenders under Basel III, the credit risk premia the latter will need to charge are likely to rise, and the agencies will have to submit to credit scoring, with its attendant costs and adjustment needs (Cardone-Riportella et al. 2011). Even so, the presence of guarantee schemes will tend to shift the effect of capital requirements away from rationing and towards pricing.

Table 2: Lender behaviour in response to CRD IV with leverage maintained, and likely effects on SME lending

Type of response	Likely impact on lending
Information	
Lenders improve risk models, data quality and internal reporting systems (Härle et al. 2010). In the immediate aftermath of the crisis lenders were more likely to focus their demand for information on a sector rather than individual borrower basis (The Banker and IFAC 2009) Moreover, data quality is reported as being a major obstacle to small business credit management (CapGemini et al. 2010).	Asymmetry of information is greater for SMEs hence improved modelling is likely to reduce perceived risk further in the case of smaller borrowers. However, where credit scoring is already in place or not an option, this effect is moderated by the resources allocated to small borrowers in each business model. Banks typically devote fewer resources to smaller borrowers (Capgemini et al. 2010) or borrowers that are less receptive to cross-selling. Reliance on information is likely to lead to pricing- rather than rationing-based responses.
Collateral	
Lenders demand additional security, or demand security in cases where they previously would not. Unsecured lending to businesses is substantially reduced (Härle et al. 2010). Lenders' emphasis on collateral and guarantees increased in the aftermath of the crisis (The Banker and IFAC 2009)	Smaller and younger businesses, as well as businesses owned by less wealthy individuals, are less likely to be able to provide collateral and guarantees. Increased reliance on collateral without an equal emphasis on information will mean fewer marginal borrowers have access to loans. This will tend to force lenders towards rationing.
Risk-taking	
Lenders shift the composition of their assets away from trading (MAG 2010).	All other things being equal, more funds become available for lending to businesses, including SMEs; this should function as a form of reverse rationing.
Lenders change the composition of their assets away from riskier borrowers. (MAG 2010).	Lenders consider SMEs to be riskier borrowers as a segment. This is likely to lead to rationing.
Lenders boost loan-loss provisions based on improved models (Härle et al. 2010)	Asymmetry of information is greater for SMEs hence improved modelling is actually likely to reduce rationing and increase the amount lent to smaller borrowers.
Lenders make a point of attracting SME deposits as a more stable source of funding (Härle et al. 2010)	Competition for SME deposits could intensify competition in the lending market and force banks to rely on measures other than interest rate hikes to recoup the increased cost of capital. The effect will be equivalent to an increased emphasis on rationing. The Commission's proposals for the NSFR are likely to encourage such strategies.
Lenders shift their business to primarily fee-based sectors rather than increase margins. (MAG 2010)	Up-front fees and cross-selling are unpopular among SMEs; large retail banks make less than a third of their small business income from sources other than credit and deposits (Capgemini et al. 2010). The effect should be equivalent to rationing.
Banks standardise small business loans for securitisation (Härle et al. 2010)	Small business loan securitisation increases the amount that can effectively be lent to SMEs against the same amount of capital, but if standardisation extends to the actual issuance of loans, it could lead to loss of information. The effect of this could vary but is more likely to resemble rationing.
Control	
Lenders reduce risk through increased use of covenants (MAG 2010) or reduce risk and funding costs through reduced maturities (MAG 2010; Härle et al. 2010). In small business lending, this is already an established means of dealing with information asymmetry (Ortiz-Molina and Penas 2006)	Owner-managers may be less likely to accept covenants (Niskanen and Niskanen 2004), effectively giving rise to an effect equivalent to rationing. Moreover, longer periods of negotiation for small business loans are likely to push some businesses to the informal credit market (Datta 2010).

Table 3: Bank deleveraging as a potential response to CRD IV, by asset category

Category	Non-performing loans or distressed assets	Performing loans & high grade securities	Run-offs	Non-core divisions
Assets in focus	• Securitised assets (heavily downgraded/impaired) • Repossessed CRE • Legacy Assets • Other impaired credits (ie Icelandic banks, Lehman, Greece) • Synthetic CDOs	• Asset leasing (aircraft, car, etc) • International syndicated loans • Unsecured consumer finance • AAA securitised products • infrastructure/project finance loans • Leveraged, SME (non-core regions), real estate, shipping loans • commodity financing	• Syndicated lending • Trade finance • Working capital for SMEs • Market making • CEE lending • Commodity financing • German public sector lending • Insurance operations	• Custody • International – especially EM units • Asset mgmt/private banking • EU mandated divestments • Insurance operations • Trading and derivatives business
Rationale and pricing	• Capital relief clearly the objective – both today and under B2.5/3 • Large provisions already taken • Material work out needed or risk view	• Aspire to sell for 95-99c/$ to free-up funding – especially to free $ funding • Funding relief is of high importance	• Focus on not consuming $ funding and term unsecured funding but capital relief clearly the objective too	• Wide variation in pricing • Capital relief clearly the objective • Basel 3 and capital relief of insurance operations a consideration.
Buyers	• Hedge funds, credit funds, private equity and some US banks	• Asian/Japanese and some US banks • PE/unlevered buyers far more limited given funding issues.	• US banks for $ finance • US/ Asian banks for trade finance	• Wide variety of financial players and some private equity
Risks to economy and markets	• Lower, although overhang will impact asset prices	• Pricing and supply, but also with risks to the economy if grid lock in many asset finance markets and also if haircuts to sell are much higher	• The biggest risk to economy/ markets, although many lines to good corporates should be picked up by non-EU banks	• Material given impact on core equity of sellers if weak prices
Sizing	€50–100 billion	€500–1,000 billion	€500–1,000 billion	€100–700 billion

Source: Van Steenis et al. (2011).

TOWARDS A BETTER SME TEST

A precise and relevant quantitative estimate of the impact of Basel III on SMEs is unlikely to materialise even after all proposed measures have been implemented in full. However, given a baseline quantitative model and a range of key state variables on which to build meaningful scenarios, it should be possible to consider the effects of the new regulations in more detail and with more clarity than has been attempted to date.

ACCA believes that in order to account for the above a second, more detailed SME impact assessment should be carried out for CRD IV before 2015, incorporating the following five stages:

1. Modeling the respective contributions of deleveraging and new capital issues to CRD IV compliance and identifying SME loan portfolios likely to be capped or sold off.

2. Modeling the contributions of credit rationing and credit pricing respectively in lenders' adjustment.

3. Assessing the incentives provided to lenders by liquidity requirements to trade off long- versus short-term lending, and to attract small business deposits.

4. Modeling changes to lenders' business models that may disproportionately affect SME lending, including qualitative and behavioural aspects of lenders' adjustment.

5. Assessing the second-order effects from a reduction in output on SME access to finance, especially trade credit from suppliers and asset-based finance.

Conclusions and recommendations

CRD IV is one of the most important pieces of regulation ever to come out of the EU institutions and its implementation could determine the shape of the recovery from one of the most challenging times in the Union's existence. Given the crucial role of Europe's SMEs in supporting the recovery, the Commission has done well to carry out an SME test on CRD IV, however incomplete it may be, and is likely the first major jurisdiction to have tested the implementation of Basel III in this fashion. The Commission has also made the right choice in opting to monitor the possible effects of liquidity, capital and leverage rules on SME lending and finance.

Nonetheless, much of the evidence on the impact of CRD IV on SMEs is still missing, and the exclusively quantitative approach taken by the Commission in assessing this may be concealing important qualitative elements that may make a difference beyond simply higher or lower interest rates on loans to smaller businesses. It is important to understand what the behaviour of lenders is likely to be in response to CRD IV. This is not much clearer now than when ACCA published *Basel III and SMEs: Framing the Debate*, ACCA's first discussion paper on the impact of Basel III. Yet even where quantitative evidence is most relevant, for instance in determining risk factors and other crucial coefficients that match the actual behaviour of SME loans and deposits, it is not clear that the proposed calibration of CRD IV corresponds entirely with the evidence.

Based on its analysis of the likely impact of CRD IV on lending to SMEs, ACCA believes that policymakers should consider the following ten recommendations.

1. **Perform a second SME Test for CRD IV no later than 2015.**
While much of the impact of CRD IV is very hard to quantify and in some cases to even conceive of, it is fair to say that the Commission's understanding is still very incomplete. By 2015, many of the provisions of CRD IV will have been trialled and an evidence base will have started to develop on the likely impact on SMEs. During this time, the banking sector should be encouraged to be as transparent as possible regarding changes to their business models that may affect SMEs. The Commission should also plan against the prospect of substantial SME loan portfolios being sold to overseas institutions.

2. **Match CRD IV with a business support package to address anticipated impacts on SME access to finance.**
Whatever the Commission's assessment of the baseline scenario, it should at least acknowledge that there is a risk that SMEs will be disproportionately affected by the implications of CRD IV and should have a contingency package of access to finance measures in place to counteract this. In particular, policymakers should aim to encourage long-term lending, address any disproportionate rise in demand for collateral and balance any incentives that may arise for banks to avoid less risky SMEs. SME lending did not materially contribute to the crisis and should, therefore, not be seen as a necessary sacrifice to the cause of financial stability.

3. **Adjust unrealistic risk weights and funding stability coefficients.**
Even the lower 50% risk weight the Commission is considering for calculating the capital banks will have to set aside against small business loans is probably too high. Still, it is likely to be the best compromise available and as such ACCA support this adjustment. Similarly, however, the Commission should reconsider the perverse incentives provided by liquidity requirements against lending long-term to SMEs.

4. **Encourage securitisation of small business debt and the creation of a secondary market in government-guarantee-backed SME loan securities.**
   Securitisation is one of the few compliance routes available to banks that increases, rather than decreases the supply of finance to SMEs. This option should be approached at the European level, as national markets for such loans are likely to prove too small or illiquid even in large member states.

5. **Minimise effects on export and trade financing.**
   The introduction of a risk-independent leverage ratio under Basel III can lead to a sharp rise in the cost of trade and export financing and fundamentally impede the internationalisation efforts of many companies. Sudden liquidity outflows cannot be caused by export credits and as such the 100% factor applied to them needs to be lowered. Moreover, the leverage ratio should at most be introduced as a benchmark, because otherwise low risk business (e.g. covered export credits and trade financing) would be passed over. Covered export credits should only be counted within the framework of the leverage ratio in terms of their corresponding risk weights.

6. **Ensure CRD IV is compatible with the nature of credit guarantee systems in Europe.**
   Credit guarantees have served Europe well in the downturn and are likely to do so in future crises as well. The Commission should consider recognising the different traditional forms of capital of such guarantee institutions (i.e. mutual guarantee funds) as Core Tier 1 capital either through the regulation itself or by providing some flexibility to Member States to do so – similarly, by ensuring that guarantees are eligible credit risk mitigation techniques.

7. **Safeguard development business.**
   Development banks conduct low risk credit business and promote start-ups, innovations and investments. Moreover, as non-commercial development banks are a de facto part of the public sector they should be subject to the same exemption rules that apply to development institutions of the central states EU, which will not need to observe any leverage ratios in the future.

8. **Safeguard Europe's long-term financing culture.**
   By providing an incentive for lenders to prioritise short-term lending, liquidity requirements could discourage investment and create problems for traditional deposit banks like cooperatives and saving banks. Neither financial stability nor growth will be well served by shifting the risk of fluctuating interest rates from lenders onto enterprises, which is a very likely outcome.

9. **Reassess the concept of a leverage ratio.**
   While the concept of separate leverage ratios for different types of banking activities is quite appealing in light of the extreme levels of leverage seen in the past, using a single leverage ratio across all operations risks creating perverse incentives against, among other things, lending to SMEs.

10. **Implement Basel III internationally.**
    CRD IV is not and could never have been a word-for-word transposition of Basel III; other jurisdictions may, therefore, opt for rules whose differences to CRD IV, however subtle, could in practice disadvantage European SMEs. The Commission has rightly acknowledged this (EC 2011a) but it is not enough to simply monitor and discuss. Future assessments, including the 2015 SME Test, should report explicitly on points of divergence, examine their competitive impact on EU SMEs and propose means of addressing this.

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