INTERNATIONAL

Transfer Pricing Implications of the Basel II Capital Accord

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1. INTRODUCTION

In June of 2004, central bank governors and the heads of bank supervisory authorities in the Group of Ten (G10) countries endorsed the publication of a new capital adequacy framework, titled *Basel II: International Convergence of Capital Measurement and Capital Standards: a Revised Framework* (better known as Basel II). It replaces the 1988 Basel Capital Accord (Basel I).[3] Basel II, the full implementation of which is targeted for year-end 2007, would maintain the current "capital ratio" target, but would change the manner by which the inputs to that ratio are calculated. In addition, Basel II provides for enhanced supervisory and disclosure requirements.

Along with significantly impacting the lending and trading behaviour of compliant banks, Basel II has important transfer pricing implications for those institutions that adopt it, including potential tax-planning opportunities. This article will highlight some of these implications.

2. OVERVIEW OF BASEL I

The Basel I Accord was the first global attempt to establish minimum levels of capital that banks must set aside to cover certain risks of doing business. Initially, the Accord focused on credit risk; it was amended in 1996 to include the treatment of risk arising from movements in market prices.

Under the Basel I standards, a bank's ratio of total capital to risk-weighted assets should be no less than 8%. The numerator of the ratio can include:
– Tier 1 capital:[4] equity and retained earnings;
– Tier 2 capital:[5] reserves and long-term debt; and
– Tier 3 capital: short-term subordinated debt.[6]

Of the 8% target, at least 4% should consist of Tier 1 capital. Thus:

$$\frac{\text{Tier 1 + Tier 2 + Tier 3}}{\text{risk-weighted assets}} \geq 8\%$$

$$\frac{\text{Tier 1}}{\text{risk-weighted assets}} \geq 4\%$$

For measurement of credit risk, the denominator of the ratio is calculated by applying risk weightings of 0, 10, 20, 50 or 100% to the bank's assets (including off-balance-sheet exposures), depending on the type of asset. For example Basel I's basic guidelines suggest a 0% weighting for cash, 20% for claims on OECD banks and 100% on private-sector claims.[7] In general, therefore, assets are grouped into broad categories of relative riskiness for purposes of determining the appropriate weight. Credit quality, as measured by either external or internal ratings, plays no role in determining appropriate risk weightings under Basel I.

The 1996 market risk amendment to Basel I provides two methodologies for calculating a capital cushion against adverse market movements stemming from the trading of securities. The *standardized methodology* arithmetically sums the market risk associated with debt, equity, foreign exchange, commodity and option positions, both individually and on a portfolio basis. The amendment provides a measurement framework for each type of instrument. Alternatively, subject to certain conditions and the approval of national supervisory authorities, a bank may choose to use internal risk management models (e.g. value at risk, or VAR, calculations) in order to measure market risk. Internal models typically have the advantage of taking into account correlations in return performance and volatility within and across asset categories and geographic locations.

3. BASEL II

The proposed new Accord revises and extends Basel I in ways meant to better equate regulatory capital with "economic" capital (i.e. capital needed to cushion against the actual risks inherent in loan exposures and trading positions). It does so by revamping the measurement of credit risk, incorporating operational risk and requiring greater supervisory oversight and public disclosure. While the capital ratio target remains, as does the definition of the numerator (regulatory capital), the composition and calculation of the denominator (risk-weighted assets) has been overhauled.

1. Ceteris, Inc., New York.
2. Ceteris, Inc., Toronto.
3. The third "consultative paper" on Basel II was released in early 2003.
4. Also known as core capital or basic capital.
5. I.e. supplementary capital.
6. Tier 3 was introduced with the market risk amendment. In addition to the general definitions provided here, certain restrictions apply as to the precise elements that may be included in each level of capital; the allowable ratios of the three levels of capital, and of certain elements included within them; the types of risks that a specific tier may cover; etc. Some of these rules are left to the authority of national regulatory bodies of participating countries.
7. As with the definitions of capital, some of the weightings are left to the discretion of individual national supervisory authorities.

3.1. Credit risk

Basel II provides three options for the calculation of credit risk, characterized by increasing sensitivity to actual risk.

3.1.1. Standardized approach

As with the Basel I rules, banks applying the standardized approach would group their assets into various supervisory categories, such as claims on sovereigns, banks, non-bank corporate entities and residential property. Basel II extends this approach, however, by allowing banks to take into consideration credit ratings assigned by external agencies recognized by national supervisors when determining risk weights within each category of assets.

3.1.2. Internal ratings-based approaches

Under the internal ratings-based (IRB) methods, risk-weighted assets (and therefore capital requirements) are determined by applying certain formulas, or "risk weight functions", which are specified by the Basel Committee. The formulas and their inputs vary by asset class, as do the methods by which they are applied (e.g. per exposure or pool of similar exposures). For example, when assessing capital requirements for sovereign, bank or corporate exposures, the relevant inputs (or risk components) are:
- probability of default (PD): probability that a borrower will default over a given time horizon;
- loss given default (LGD): proportion of exposure that will be lost in the event of default;
- exposure at default (EAD): for loan commitments, the amount of the facility that is likely to be drawn down in case of default; and
- maturity (M): remaining maturity.

Under the foundation IRB approach, PD is provided for each exposure by the bank, while LGD, EAD and M are generally based on supervisory estimates. Banks able to apply the advanced IRB approach provide their own internal estimates for all the risk components.[8]

Due to the internal data needs of the IRB methods, banks that choose to apply them will be required to meet minimum qualifying standards, as established by the Basel Committee and enforced by national supervisory authorities. These standards are meant to ensure that the banks' internal risk management processes can meaningfully assess the credit risk of their various exposures and accurately quantify the relevant risk components. The standards are more stringent for banks that opt to apply the advanced, as opposed to the foundation, IRB approach.

3.2. Operational risk

Operational risk is defined as the risk of losses resulting from (1) inadequate or failed internal processes, people and systems or (2) external events. The incorporation of additional capital requirements as a hedge against these types of losses recognizes the growing need to encourage banks to consider operational risk in their internal risk management processes. As with credit risk, Basel II allows for three approaches to the measurement of operational risk:
- basic indicator approach;
- standardized approach; and
- advanced measurement approach (AMA).

The basic indicator approach simply sets the capital requirement for operational risk as 15% of a bank's average annual gross income over the previous three years.

The standardized approach is also formulaic in nature, but calculates capital requirements as a percentage of gross income at the business line, as opposed to firm, level.[9] The percentages vary by business line, and total required capital is the sum of the individual business-line requirements.

The AMA sets the capital charge based on a bank's internal operational risk management system. As such, a bank capable of applying the AMA will enjoy a significant level of flexibility in determining its operational risk capital.[10]

Banks wishing to apply the standardized approach or, especially, the AMA will need to meet minimum criteria with respect to the adequacy of their operational risk systems, including management and independent oversight of such systems. In addition, under certain conditions, banks will be allowed to use the AMA for certain business lines, legal entities or geographic locations, and the basic or standardized approaches for others. This should be accompanied by a reasonable timetable for rolling out the AMA across the firm.

4. IMPLEMENTATION

Though full implementation of Basel II is scheduled for 2007, banks are preparing in advance. As the more sophisticated methods will likely result in lower capital charges, banks (especially the larger ones) have an incentive to increase the complexity of their risk systems, and perhaps put in place new enterprise-wide reporting databases. In addition, they will be required to have on hand years of risk data on their portfolio of exposures. This includes, for example, five to seven years of historical information on the risk components used in the IRB approaches.[11] For banks that implement the AMA to determine operational risk capital charges, a minimum of three years of internal loss data is required as a basis for setting the parameters of internal models relative to actual loss experience (or validating such parameters). Consequently, there is an immediate need to collect data by business line, product and location.

Requirements regarding the adoption of Basel II by various types of financial institutions will to some extent dif-

8. Specified approaches for calculating risk-weighted assets for other asset classes (e.g. retail, real estate and equity exposures) vary depending on the nature of the assets and a bank's internal capabilities.
9. The business lines are corporate; finance; trading and sales; retail banking; commercial banking; payment and settlement; agency services; asset management; and retail brokerage.
10. Banks that adopt the advanced IRB approach for credit risk will be required to use the AMA for operational risk.
11. Depending on whether the bank is applying the foundation or advanced IRB.

fer among countries, as determined by national supervisory authorities. For example the top ten US banks will likely be required to adopt Basel II (and the next ten banks are also expected to), while other institutions may elect to stay with Basel I.[12]

5. TRANSFER PRICING IMPLICATIONS

5.1. Increase in information technology expenditures

One expected implication of the new requirements and the associated data needs is a significant increase in information technology (IT) spending by the impacted institutions. The largest global banks could spend as much as EUR 200 million in the years preceding and following implementation.[13] Existing systems will have to be adapted to the new requirements, and new risk management solutions will be developed. Though some of this money will come at the expense of other IT projects, a considerable portion is expected to be new spending. The allocation of these costs among the member companies of a banking group raises transfer pricing compliance issues, as well as possible tax-saving opportunities.

5.1.1. Regulatory background

The treatment of IT expenditures for transfer pricing purposes has been considered from the perspective of the OECD publication *Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations* (OECD Guidelines). The OECD Guidelines address two primary issues for intra-group services. The first issue is whether an intra-group service can be considered to have been rendered. If a service has been rendered, the second issue is the determination of the arm's length charge.

Under the arm's length principle, the question of whether an intra-group service has been rendered when an activity is performed for one or more group members by another group member depends on whether the activity provides a respective group member with economic value to enhance its commercial position. This can be determined by considering whether an independent enterprise in comparable circumstances would have been willing to pay for the activity if performed for it by a third party, or would have performed the activity for itself. If the activity is not one for which the independent enterprise would have been willing to pay a third party, or perform for itself, the activity ordinarily should not be considered as an intra-group service under the arm's length principle.

For example, many IT services (e.g. centralized financial accounting systems, trading systems and product pricing modules) are services which independent enterprises are willing to pay third parties for, or develop internally; therefore, they should be regarded as intra-group services under the arm's length principle. On the other hand, if an IT system is primarily used by a parent company, and any benefit to other group members is at best remote or incidental,[14] those member companies should not be expected to pay for it.

Once it is concluded that an intra-group service has been rendered, it is necessary to determine whether the amount of the charge, if any, is in accordance with the arm's length principle. This means that the charge for intra-group services should be that which would have been made and accepted between independent enterprises in comparable circumstances. In general, this implies that the costs associated with the services are allocated to the beneficiaries of those services,[15] along with a profit element (i.e. a mark-up) as determined by market comparables.[16]

5.1.2. Transfer pricing treatment of Basel II costs

It is not easily decided whether or not related entities can or should be charged with respect to costs incurred by a parent company to upgrade IT systems for purposes of Basel II implementation. Existing transfer pricing guidelines allow for differing conclusions as to the chargeability of such costs in varying circumstances. Some relevant considerations are discussed below.

Applications of the standardized approach for credit risk, or the basic indicator or standardized approaches for operational risk, are not likely to require sizable increases in IT spending. However, for larger institutions that wish to apply the more advanced methods (i.e. IRB for credit risk and AMA for operational risk), significant changes to existing IT systems will likely be needed. A decision will then have to be made as to whether to keep the related costs, and the resulting tax deduction, with the entity that incurs them, or to share the costs among affiliated companies that are deemed to benefit from the services.

The key consideration for transfer pricing purposes is whether these expenditures provide benefits to group companies. One view would be that a large, global financial institution benefits from adopting the more complex risk methods, while most of its affiliated companies, if they were independent, would choose less complex methods. As such, individual group members should not be expected to share in the IT costs associated with advanced methodologies. On the other hand, if it can be shown that adoption of an IRB or AMA approach results in more efficient management of the enterprise's regulatory capital, and that the resulting benefits accrue to each member company and are not incidental in nature, then a case can be made that the member companies should pay service charges to the party taking on the IT investment.

In either case, a careful transfer pricing analysis should be undertaken to determine the nature of the benefits, with respect to each affected entity; whether an intra-company charge is warranted; and what that charge should be. Otherwise, any tax deductions taken by the company incurring

12. Those that do not formally adopt the Basel II standards, however, will be expected to re-examine their risk practices, for example by instituting sound operational risk frameworks (albeit with no explicit capital charges).
13. Based on a study by consulting firm Mercer Oliver Wyman.
14. For example resulting solely because a company is part of a larger group, and not because of a specific service provided to that company.
15. Either (1) directly if services, beneficiary group members and the related costs can be specifically identified or (2) through indirect allocation methods if the services are of simultaneous benefit to several group members.
16. Unless market comparables can be identified which indicate that the arm's length compensation for the services is less than the costs incurred.

the costs, or by an affiliated party sharing in those costs through a service fee, may be disallowed by the respective tax authorities.

Moreover, Basel II IT expenditures can be structured in a tax-efficient manner. For example if a case is to be made that the company incurring the costs should not charge them out to its affiliates, then development and/or purchase of the requisite systems can be undertaken, if possible, by a corporate entity operating in a high-tax jurisdiction. Conversely, if the company incurring the costs is in a low-tax country (relative to its affiliates), it would be optimal to push out as much of the expense as possible. Similar considerations can be taken into account when determining the benefits, and therefore intra-company charges, that pertain to various individual member companies.

In addition, the transfer pricing analysis may conclude that the implementation of an advanced methodology, by improving the daily operations of the bank and maximizing efficiency in the use of capital, may provide an intangible benefit. Under these circumstances, various pricing policies, including a cost-sharing arrangement or a usage-charge system,[17] can be compared to select the policy that is defensible to the tax authorities, simple to administer and tax effective.

5.2. Basel II and the attribution of profits to a permanent establishment

The regulation of banks is generally applied to a global, consolidated group. With respect to capital requirements, for instance, the group as a whole is expected to have on hand sufficient capital to cover its assumed risks. Location of that capital is not at issue, as presumably all of the capital would be available to meet lending or trading losses no matter where such losses were incurred. This same indifference to location, however, does not apply when it comes to the measurement of profits for tax purposes among various jurisdictions in which a financial institution operates. Specifically, in situations where a banking or trading business is carried out through a branch, or permanent establishment (PE), of a legal entity,[18] an arm's length attribution of capital should be made to the PE in order to arrive at an accurate measure of its taxable profits.

5.2.1. Regulatory background

Under the OECD's proposed guidance on the allocation of profits to PEs for tax purposes,[19] an attribution of capital must be made to the PE in order to arrive at an accurate measure of taxable profits. A PE should be assumed to have an appropriate amount of capital to support the functions it performs, the assets it utilizes and the risks it assumes. In other words, a PE should be treated as if it were a separate and distinct legal entity, and a factual and functional analysis should be performed to determine what risks arise from its activities. Capital is then attributed to the PE accordingly.

More specifically, the OECD guidance distinguishes between free capital, which carries little or no interest charge, and other (or interest-bearing) capital.[20] Consequently, the amount of capital attributed to a PE, as well as the composition of that capital (as that will impact the amount of deductible interest), will play a significant role in determining the level of taxable profit or loss assigned to the PE. The potential for double taxation, or less-than-single taxation, arises due to the lack of consensus among taxing authorities on how much capital to attribute to a PE.

5.2.2. Transfer pricing implications

5.2.2.1. *Potential for distortion*

By taking credit quality into account (even when applying the standardized approach) and allowing for the use of more complex risk functions when measuring credit risk, as well as explicitly measuring (and determining a capital charge for) operational risk, Basel II is likely to close the gap between regulatory and economic capital as measured for the enterprise as a whole. This will alleviate operational distortions and establish a stronger link between capital and risk. However, although the measurement of taxable income at the PE level is likely to be enhanced (as one will presumably be starting out with a more accurate overall capital number), there remains the question of how to attribute a portion of that capital to the PE's balance sheet.

Not surprisingly, there is no single accepted methodology for attributing capital to a PE. The OECD Guidelines discuss three approaches:
- the capital allocation method (CAM), under which capital is attributed to the PE based on its share of total risk-weighted assets, as determined by the Basel II calculations;
- the thin capitalization approach (TCA), which requires the PE to have the same amount of capital, particularly free capital, as would an independent, comparable institution operating in the same country; and
- the quasi-thin capitalization approach (QTCA), which attributes to the PE the *minimum* amount of capital that would be required of an independent, comparable institution operating in the same country.

To the extent that any of these approaches leads to more or less capital than the total capital of the enterprise to be attributed amongst its members, the potential for double taxation or less-than-single taxation exists.

17. In a cost-sharing arrangement, two or more parties agree to share in the expenses of developing intangible property based on each party's share of the expected benefits. With a usage-charge system, fees would be paid to the developer/owner of the intangible by each user based on some measure of usage or benefits realized.

18. The legal entity could be the headquarters of the institution, or one of its subsidiaries.

19. First drafts of the guidance, covering general principles (Part I) and banking enterprises (Part II), were released in 2001. A subsequent draft of Part II was released in 2003, along with a new draft document (Part III) which concerns the global trading of financial instruments. Both Parts II and III were redrafted, in response to industry comments, in 2004. Finalization of these documents is not expected prior to 2007.

20. Though equity and retained earnings may be classified as free capital, the latter is not necessarily synonymous with Tier 1 capital in every country. More generally, free capital can be defined as that which does not give rise to a tax deduction in the country in which the PE operates.

For example, differences in the definition of capital between host and home countries, or in the market conditions faced by companies operating in each country, could lead to the attribution of more or less than total capital under the CAM. This is also possible when applying the other methods. Further, identifying independent companies that are comparable to the PE for purposes of the TCA is challenging. The PE, treated as a separate enterprise, would be compared to similar small, independent companies. However, such companies are unlikely to be comparable to a PE that is part of a larger financial enterprise.[21] As a result, the PE could end up with a higher-than-proportionate share of total capital, given its relative functions and risks, which is not recognized by the PE's home country.[22]

Under the QTCA, attribution of the minimum required capital to the PE reduces the amount of profits reported in that jurisdiction. If the host country tax authority assumes a higher level of capital to the PE, and that is not offset by a reduction of capital attributed to the parent company, double taxation of the same profits in the host and home countries could result. Alternatively, application of a QTCA while attributing profits to the parent company based on its share of risk-weighted assets could result in less-than-single taxation of overall profits.

The potential for other-than-single taxation may be further aggravated if the financial enterprise chooses to measure risk using internal measures of economic capital, as opposed to the Basel II methods, including for tax purposes. This would be more likely for a large global player which has more resources and incentives, given the size and diversity of its operations, to develop its own risk models. To the extent that an institution diverges from an accepted global measure of risk exposure, the potential of disagreement among tax authorities is enhanced as each would need to understand and accept the results of the internal models. (At this point, very few banks have internal models that are developed to the point of complete self-sufficiency in the measurement of risk exposures.)

5.2.2.2. *Need for planning*

The attribution of capital to a PE will be a necessary step in determining an arm's length level of profits for that entity. In addition, subject to restraints imposed by a financial institution's business operations and local tax-authority practices, it may be possible to choose an attribution approach that will enhance tax efficiency. For example for a PE operating in a relatively low-tax jurisdiction, the CAM or TCA may result in more profits being recognized in that jurisdiction. Conversely, if the PE's parent entity is based in a relatively low-tax country, it may make sense to apply a QTCA. In order to minimize the potential for double taxation or less-than-single taxation, whichever attribution method is applied must be consistent with the allocation of functions and risks among the PE and its affiliates, and adequate documentation to that affect must be prepared and maintained. In addition, care should be taken to define capital in a way which coincides with the views of relevant tax authorities.

6. CONCLUSION

Changes in the measurement of regulatory capital brought about by Basel II have significant implications for the transfer pricing policies of financial institutions. This is particularly true for the larger institutions, which are more likely to adopt the advanced capital-measure methods described in the Accord.

This article has highlighted two broad areas that will be impacted, namely the treatment of Basel II-related IT expenditures and the attribution of profits to PEs. Banks will need to meet stringent compliance requirements with respect to both of these areas, and the new Capital Accord presents certain pitfalls in that effort, as well as potential tax planning opportunities.

21. Their risk profiles are likely to be dissimilar (e.g. the PE has access to the financial resources of its parent), and the PE's activities will partially reflect a global, as opposed to local, business strategy.
22. The home country is where the PE's parent is based. By contrast, the host country is where the PE is based.