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Is Basel turning banks into public utilities?

EY Global Financial Services Institute

March 2015 | Volume 3 - Issue 1

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Abstract

This paper looks at the effects of Basel III on the long-run profitability prospects of banks. It is argued that the new restriction on maturity mismatching and leverage will mitigate the “special” role banks play in the economy. Indeed, it will turn them into over-regulated public utilities with limited profitability and ability to innovate. The major thesis is that regulators appear to have forgotten that banks are “special” in terms of the economic benefits they provide to an economy, and that such benefits enhance social welfare.

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Introduction

As every commercial banker, savings banker and credit union officer knows, Basel III will be phased in over the 2015-19 period. These regulations will not only affect BIS member countries, but it is also likely that countries worldwide will adopt similar regulations – in large part because of IMF and World Bank “conditionality” for loans.

In this paper, I briefly discuss the major features of the new Basel III accord. I will also discuss the two key factors that will have severe effects on future bank profitability, in particular, as I will argue in more detail later, because they can be expected to radically reduce the ability of banks to leverage their equity and to engage in traditional forms of “financial intermediation,” i.e., borrowing short term and lending long term so as to earn a borrowing-lending spread. I will argue that in the next few years bank RoEs (return on equity) can be expected to be reduced to the 8%-10% range, a range common among “safe” public utilities, such as gas and electric companies. Indeed, this raises the question about how banks are expected to generate profit in the Basel III era.

In Section 1 of the paper, I will give an overview of the key features of Basel III, which will reduce bank leverage and ability to exploit, in full, the benefits of financial intermediation in order to generate interest spreads between their borrowing and lending. In Section 2, I will look at the economic implications of these regulations for bank profitability and their potential demise into “public utility” type firms with low RoEs and low risks.

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1. Overview of Basel III reforms

1.1 Leverage

As most bankers are aware, under Basel I and II the minimum capital requirements for credit risk were set at 8% of risk weighted assets – where the so called tier-1 capital had to comprise a minimum of 4% of that total. Tier-1 comprised of retained earnings, common stock and a limited amount of perpetual preferred stock.

Under Basel III, the 8% ratio stays unchanged, but the tier-1 component is raised to 6%, and a new “common equity” tier-1 ratio of just common stock and retained earnings is imposed at 4.5%. In essence, regulators will focus considerable attention on the core or so-called tangible equity of the bank.

But in addition to the 8% ratio, four new additional “add-ons” to that ratio will be introduced.

The first is a so-called conservation buffer of 2.5% to both total risk-based capital and the common equity tier-1 ratio, increasing them to 10.5% and 7%, respectively. The idea behind this buffer is to create some extra capital reserves for truly unexpected financial events.

The second is a “countercyclical” buffer that may be introduced by individual central banks ranging from 0% to 2.5%. The basic idea of this add-on is to offset the so-called “pro-cyclicality” effect that became a feature of Basel II. Essentially, what was discovered during the 2007-09 crisis is that as countries entered recessions and firms were down rated by rating agencies, banks’ risk-weighted assets rose and pressure was put on their risk-based capital ratio. This problem was exacerbated by the fact that most banks could not offset this effect by generating increased earnings and/or issuing new common stock, i.e., by increasing capital. To offset this pressure, many banks cut their high-risk-weighted loans, putting increased downward pressure on the real economy and making the recession worse. To offset this type of built-in procyclical effect, the countercyclical buffer will be used as countries grow fast toward the top of a business cycle – say China or India growing at the 6%-8% per annum range. With an overheating of the economy, it becomes an increasing probability that a downward correction or recession might follow. This is especially true if the “overheating” is in the property sector.

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It is in periods of high growth that banks are generally more profitable and can raise new equity capital more easily, so it is at this time, before a recession starts, that a central bank may impose the additional counter-cyclical buffer ratio of between 0% and 2.5%. The basic economics of this is to create a so-called “rainy day” fund to be used in bad economic times. While this is highly unlikely to be imposed in the current Eurozone economies, the capital ratios of banks in countries like China may be raised by an additional 2.5%, resulting in a total risk based ratio of 13% and a common equity tier-1 ratio of 9.5%.

The third additional capital ratio is relevant to the 29 or so largest, most systematically risky banks in the world that are central to the global stability of the international banking system and are viewed as essentially being “too big to fail.” On the current list are the largest European, American and Japanese banks. Interestingly, despite having seven of the largest banks in the world only one Chinese bank – the Bank of China – made the initial list.¹

To determine the level of additional capital required for the globally systematically risky banks (GSB), the Basel Committee has developed a systematic risk index that is based on five factors of equal weight (i.e., 20% each). These factors are based on a bank’s cross-jurisdictional activity, its size, its degree of interconnectedness, the substitutability of its products and complexity. Some of these 20% weights are subdivided. Table 1 provides further indication of these weights.

¹ Other Chinese banks have since been added to the list. Industrial and Commercial Bank of China (ICBC) was added to the list in 2013, and Agricultural Bank of China (ABC) was added in 2014.

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Based on the size of a bank's total systemic risk score it can be placed in one of the five buckets of additional capital ratio requirements, ranging from a low of 1% (bucket 1) to a high of 3.5% (bucket 5). For example, based on their systemic risk scores 4 of the 29 banks have been placed in bucket 4 with an additional 2.5% capital requirement: Citigroup, Deutsche Bank, HSBC and JP Morgan Chase. Adding this up, the maximum risk-based capital ratio for a bank would be: $8\% + 2.5\% + 2.5\% + 3.5\% = 16.5\%$, i.e., the minimum risk-based capital ratio plus a conservation buffer plus the maximum countercyclical buffer plus the maximum systemic risk buffer.

Table 1: Indicator weights - indicator-based measurement approach

Category (and weighting)	Individual indicator	Indicator weighting
1. Cross-jurisdictional activity (20%)	Cross-jurisdictional claims	10%
	Cross-jurisdictional liabilities	10%
2. Size (20%)	Total exposures as defined to use in the Basel III leverage ratio	20%
3. Interconnectedness (20%)	Intra-financial system assets	6.67%
	Intra-financial system liabilities	6.67%
	Wholesale funding ratio	6.67%
4. Substitutability (20%)	Assets under custody	6.67%
	Payments cleared and settled through payments systems	6.67%
	Values of underwritten transactions in debt and equity markets	6.67%
5. Complexity (20%)	OTC derivatives notional value	6.67%
	Level 3 assets	6.67%
	Trading book value and available-for-sale value	6.67%

However, beginning in 1996, Basel introduced an “add-on” to the 8% ratio for market risk. This was based on one of the two models: a standardized model and an internal model of a bank adopted with the oversight of bank regulators. This capital requirement is only really materially important for the largest banks, which have perhaps 10%-15% of their assets held in their trading books available for sale. The key change here is to move from the 99% value-at-risk (VaR) concept for the required market risk capital for the trading book to the concept of expected shortfall based on extreme value theory.

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Intuitively, expected shortfall extends beyond the 99% VaR to measure the average of the worst losses on the worst days in each 100-day period. Depending on the loss distribution of a trading asset, this may more than double the required market risk-based capital, and simulations have shown that it leads to an additional ½% of required risk-based capital, resulting in a maximum of 17% plus any additional add-on for operational risk. The operational risk add-on introduced under Basel II in 2006 currently remains unchanged under Basel III. However, it is currently under review for revision in 2015. If we add 2% additional required operational risk capital to the credit risk and market risk capital requirements, we are put in the 19% range.

To some extent, this calculation rationalizes the approach of the Swiss regulators who have imposed a standardized risk-based capital ratio of 19% on banks such as UBS and Credit Suisse, known as “the Swiss finish.”

Given the above, it can easily be seen that under Basel III some banks' leverage ratios could be reduced to only 5 (i.e., 1/20%) from 12½ (i.e., 1/8%).

1.2 Liquidity ratios

Under Basel I and II, there was no attempt to introduce any formulaic liquidity ratios for banks. Essentially, it was left to individual regulators under Pillar 2 of Basel to oversee individual bank liquidity positions. The financial crisis and failure of banks, such as Northern Rock in the U.K., a U.S.\$6 billion bank that relied for 75% of its liabilities on short-term wholesale funding, brought to the forefront the links between bank liquidity and solvency.

To ameliorate these types of insolvencies, Basel III has introduced two liquidity ratios: a liquidity coverage ratio and a net stable funding ratio. The liquidity coverage ratio requires the stock of high quality liquid assets to match or exceed the total net cash outflows from a bank projected to occur over the next 30 days, while the net stable funds ratio requires the available amount of stable funding to match or exceed the required amount of stable funding.

An extreme interpretation of these two ratios is that short-term assets should be sufficient to cover short-term liabilities and long-term liabilities should cover long-term assets. In aggregate, banks will be forced to more closely match the maturities (durations) of their assets and liabilities.

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The economic implications for bankers are clear: they have traditionally made spread income from mismatching maturities, i.e., borrowing short-term and lending long-term as the yield curve normally slopes upward. If banks are forced by the two new liquidity requirements to more closely match the maturities of their assets and liabilities, then how will banks make spread income from “normal” financial intermediation?

2. Are banks becoming like public utilities?

What are the potential implications for banks in a world in which their leverage ratios have shrunk and their ability to engage in traditional financial intermediation is constrained? Analysts have made their views very clear by lowering projected RoEs for banks from the traditional 15% range to the 8% to 10% range.

Thus, we will have safer but lower economic returns to bank shareholders. In such a scenario, why would investors buy common stock in a bank? Indeed, the issue of where or how banks are going to raise or earn the new required levels of capital have hardly been discussed. In my view, the net effect of these changes in Basel III is that banks will become something similar to electric companies and other public utilities, earning a safe but low return on capital for investors. In addition, which investors will be willing to set up new banks? Perhaps it should be no surprise that in the U.S., a country of 7,000 banks, no new bank charters have been granted in the last three years. This absence of capital flowing into the banking system can only have negative implications for the supply and growth of bank credit. Moreover, how long will the banking system as we know it survive?

One possible profit opportunity for banks to generate profits remains, namely bank fees. In my opinion, it is not surprising that in response to the above Basel III implications banks have increasingly turned to fee generation as a source of profit. Apart from credit card fees, late fees etc., some banks are actually charging a fee for “storing” deposits, i.e., an implicit negative interest rate. The growth of banks’ reliance on fees can be seen from their most recent income statements. For the five largest banks in the U.S., 40% or more of their revenue now comes from non-interest income, which is largely fees.

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However, even this avenue may soon be restricted. In the U.S., the Dodd-Frank Act of 2010 set up a Consumer Protection Agency for banking that has controlling bank fees high on its agenda. Likewise, the European Commission is starting to take a serious look at bank fees. Any such restrictions can only be expected to push banks' projected RoEs even lower.

Finally, three questions should be asked:

1. Has Basel gone too far?
2. Has it outlived its relevance?
3. Has the whole capital calculation for banks become too complex and cumbersome?

With respect to the first point, my view is yes. Banks are "special" because they engage in financial intermediation that has large potential benefits to the real economy via credit supply and liquidity/money supply provision. Any regulation that seriously inhibits this process cannot be beneficial to the health of the overall economy.

With respect to the second point, the answer is a partial yes. Historically, Basel I was introduced in 1988 in response to the rapid expansion in international bank lending by the Japanese banks by utilizing their then lower capital requirements. A primary objective of Basel was to create a single capital requirement across all banks globally and thus induce a more level playing field.

However, over time, this objective has been increasingly eroded by some countries raising their minimum capital ratios, e.g., 12% in Brazil, introducing and allowing new forms of capital as part of tier-2 capital, and in the case of Basel III giving individual country bank regulators power to introduce country-specific countercyclical capital buffers.

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Finally, with respect to point (3), on whether Basel capital requirements have become too complex, my answer would also be yes. Andrew Haldane of the Bank of England and the U.S. FDIC have recently made the simple point regarding complexity and the informational and computational inputs necessary. For example, banks using the internal ratings-based approach to calculate the 8% credit risk requirement and internal model-based approach to calculate the market risk capital requirement may need to calculate 5,000 or more parameters to estimate Basel capital ratio compliance. Perhaps, it is no surprise that at the last moment Basel III included a simple minimum 3% leverage ratio for credit risk to run side by side with the new risk-based capital requirements. Indeed, such a leverage ratio, with the addition of risk-weighted off-balance sheet items to total assets, does not look very different from what existed in most countries pre-Basel 1988!

3. Conclusion

This paper has argued that Basel III could have serious negative effects on the banking system and indeed the real economy. By leveling new restrictions on liquidity and leverage, the RoEs of major banks are expected to fall below 10%. This, of course, raises the question of how banks can survive as profitable non-public utility type firms. One current trend is obvious – fee generation. But in the long run, competitors will enter to limit fee growth and/or regulators will impose constraints on banks-fees. Thus, from a long-run perspective of “social welfare” and recognizing that banks are indeed “special” in terms of the services they provide to the economy, regulators need to seriously reconsider Basel III implementation.

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Accredited by the American Economic Association
ISSN 2049-8640
