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Corporate finance with a sprig of Basel

Basel III implications for non-banks

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1. Introduction

Global banking regulation, primarily aimed at enhancing the capital ratios and liquidity profiles of banks, has burgeoned in the aftermath of the financial crisis. The underlying rationale for these changes is that more liquid, highly capitalized banks will be less susceptible to financial crises. **Changes to bank capital and liquidity requirements will increase the cost to banks of providing revolving lines of credit (henceforth "revolvers"). This, in turn, might have consequences for firms whose liquidity needs lead them to rely on revolvers** provided by banks.

The higher capital and liquidity requirements for revolvers, in particular, may result in a significant gap between current revolver pricing and banks' cost of equity capital at these higher levels. Such a **gap in pricing may affect banks, and through them their non-bank clients, in a variety of ways.**

1. Banks' economic profitability might decline, requiring them to either:
   (a) Increase revolver pricing
   (b) Reduce revolver supply
   (c) Revise revolver terms
   (d) Absorb part of the cost (and hence reduce return on equity targets)
   (e) A combination of (a), (b), (c) and (d)
2. Banks' equity risk, and hence cost of equity, could decline to partially offset the economic profitability erosion

Our analysis suggests that some **banks may be unable to fully absorb the increased regulatory burden.** To illustrate this point, we observe that per the proposed regulation, the median beta of the large U.S. banks would have to fall from 1.30 to 0.53 in order for them to be able to maintain their current economics. To put this in perspective, the two lowest sector betas are currently 0.69 (consumer staples) and 0.75 (utilities).[1] The more stringent regulations will, therefore, **likely place upward pressure on the pricing of revolvers and/or the need for ancillary business.** The market adjustment is expected to take place through the phasing period of the proposed regulations.

Higher revolver pricing, in turn, might have significant ramifications for the corporate finance policies of borrowers, especially those who rely heavily on revolvers for liquidity. **Liquidity is particularly relevant in today's environment,** characterized by such corporate finance themes as: (1) investors clamoring for more aggressive return of capital, (2) elevated activist attention to balance sheets, (3) large overseas trapped cash balances, and (4) macroeconomic uncertainty. In this report, we provide a brief description of the new banking regulations, explain the channels through which they could impact banks and non-banks, and discuss the corporate finance implications.

EXECUTIVE TAKEAWAY

Upcoming changes in bank regulation will increase the cost to banks to provide credit products. This increase is expected to have far-reaching effects, potentially leading to higher pricing and/or lower supply of bank products, particularly revolvers. Although the effect on revolvers is yet to be seen, we encourage executives to be proactive about the corporate finance implications of a more expensive bank liquidity landscape.

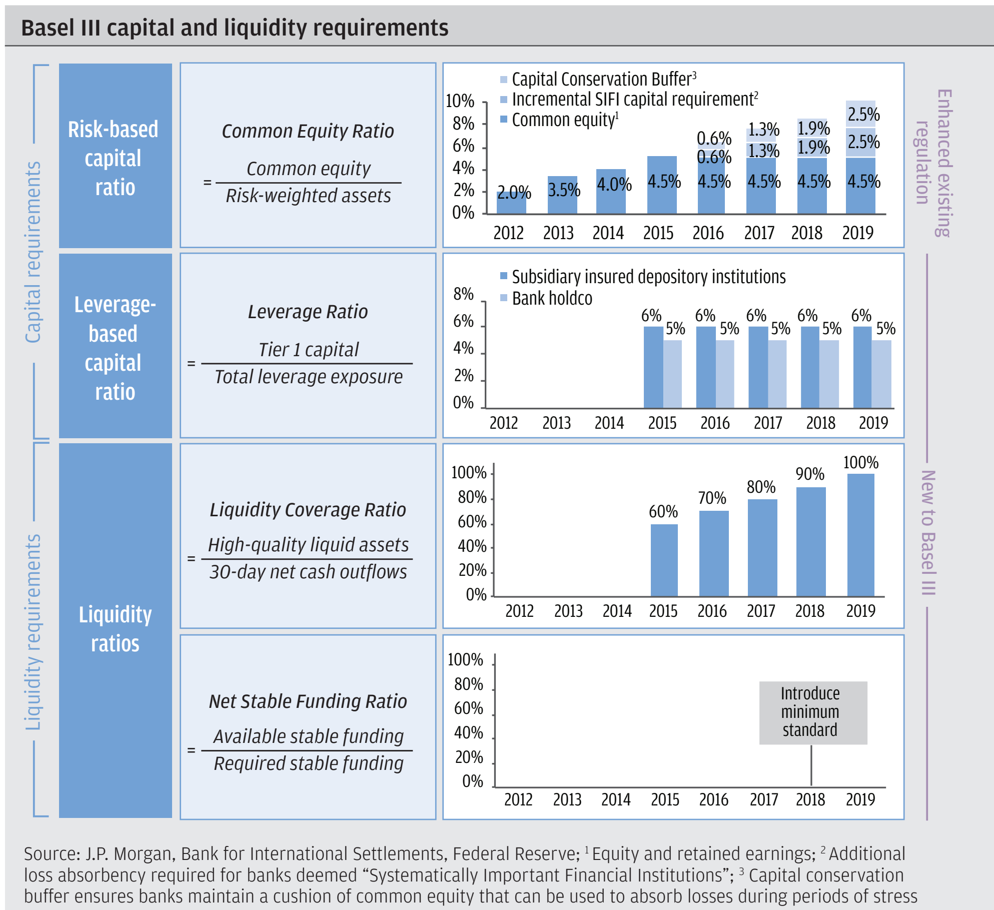
[1] Five-year adjusted betas for S&P 500 firms were used for this analysis. The revised beta for the banks was computed assuming a common equity ratio of 9.5% (minimum common equity requirement of 4.5%, capital conservation buffer of 2.5%, maximum incremental SIFI capital requirement of 2.5%)

2. Basel III highlights

The Basel Committee on Banking Supervision, comprised of authorities from the G-20 nations, formulates broad banking supervisory standards and guidelines. The implementation of these standards is left to the member countries. The most recent of the Basel Accords (Basel III), a response to the financial crisis, was developed to strengthen the balance sheets of banks by increasing their liquidity and decreasing their leverage. Basel III introduces several features above and beyond those included in Basel II, the previous Basel Accord from 2004. The **additions span multiple fields, with a particular focus on capital and liquidity requirements** (Figure 1).

Figure 1

Basel III capital and liquidity requirements



Source: J.P. Morgan, Bank for International Settlements, Federal Reserve; [1] Equity and retained earnings; [2] Additional loss absorbency required for banks deemed “Systematically Important Financial Institutions”; [3] Capital conservation buffer ensures banks maintain a cushion of common equity that can be used to absorb losses during periods of stress

Basel III not only tightens the definitions of the capital ratios, but also **introduces leverage-based capital requirements.** The leverage-based approach to capital departs from the risk-weighted capital approach by not adjusting capital requirements for the risk of the assets.[2] It is intended to be supplemental to risk-based capital requirements through mandating a minimum level of capital regardless of risk-weighting. In the current U.S. proposal, as of July 2013, the U.S. regulators set the leverage-based capital requirements at 6% for the eight U.S. “Systematically Important Financial Institutions” (SIFIs).[3] Earlier this year, the

[2] A second interesting feature of the leverage-based approach is that capital is required to be held against the total leverage, including off-balance sheet exposures. This limits the benefits derived from the ability to net derivative positions for accounting purposes and magnifies the capital requirements. However, these limitations have recently been eased and might even be further relaxed

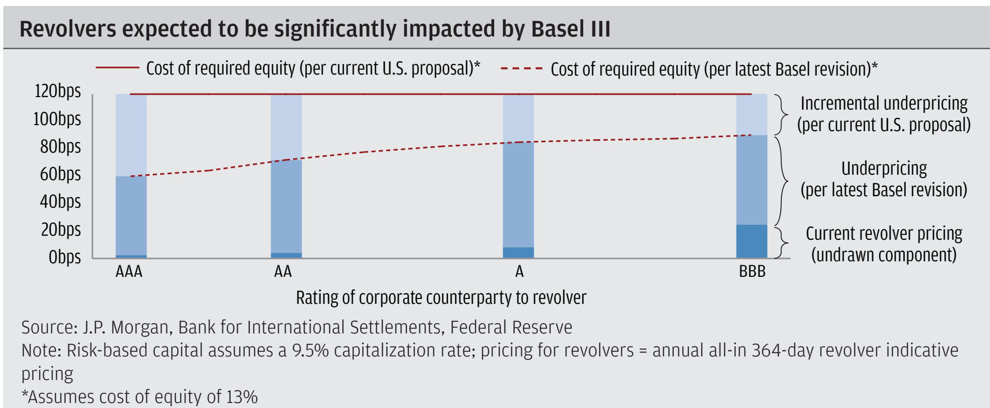
[3] The U.S. SIFIs are J.P. Morgan, Bank of America, Citigroup, Wells Fargo, Bank of New York, State Street, Goldman Sachs and Morgan Stanley. Note that U.S. regulators may introduce enhanced capital and liquidity requirements for other U.S. banks as well as the U.S. operations of foreign banking organizations

Basel Committee suggested decreasing these requirements by lowering the weight assigned to off-balance sheet revolvers. At this point, it is uncertain which leverage-based capital requirement U.S. regulators will ultimately decide on. Whatever the final mandate, it will represent a meaningful departure from current levels.

The other key addition by Basel III, **introduction of minimum liquidity levels,** is achieved through two measures. The first, the Liquidity Coverage Ratio (LCR), mandates that banks have sufficient liquidity to cover net cash outflows in a “30-day standardized supervisory liquidity stress scenario.” The second, the Net Stable Funding Ratio (NSFR), establishes a minimum acceptable amount of stable funding based on the maturity structure of assets and liabilities.[4]

Both the capital and liquidity requirements, at times compounding each others effects, could affect the pricing of revolvers in the long term. Figure 2 shows that current pricing is significantly below the levels required to earn a bank’s cost of equity. Assuming a cost of equity for banks of 13%, the current annual all-in pricing for a revolver is significantly lower than the cost of the minimum required Tier 1 common equity capital under either the current U.S. proposal (solid red line) or the latest Basel revision (dotted red line).[5] The considerations of this underpricing on banks are effectively compounded by the liquidity that banks must hold against the undrawn portions of a revolver to meet the 30-day liquidity requirement.

Figure 2



Source: J.P. Morgan, Bank for International Settlements, Federal Reserve
Note: Risk-based capital assumes a 9.5% capitalization rate; pricing for revolvers = annual all-in 364-day revolver indicative pricing
*Assumes cost of equity of 13%

The combined effect will be to **build pressure on banks to increase pricing, reduce supply or revisit the terms of revolvers.** Furthermore, to the extent that the leverage-based, not risk-based, capital requirements are the constraining factor, banks will potentially be incentivized to shift lending toward lower-rated firms. We caveat, however, that the regulations are only one of the elements that determine revolver pricing. **Other factors, such as the nature of the overall firm-bank relationship, are also key determinants of credit pricing.**

EXECUTIVE TAKEAWAY

Basel III strengthens capital requirements and imposes minimum liquidity levels for banks. A key banking product affected by these regulations is the revolving line of credit. The change in regulations would likely manifest itself through either a changed pricing environment or a changed risk profile for revolvers.

[4] Stable funding is defined as the portion of capital expected to be reliable over the time horizon considered, which extends to one year

[5] The cost of capital required under the current U.S. proposal is the same for all ratings since the leverage-based requirements are the binding constraint. On the other hand, the risk-based requirements are the limiting constraint per the latest Basel revision

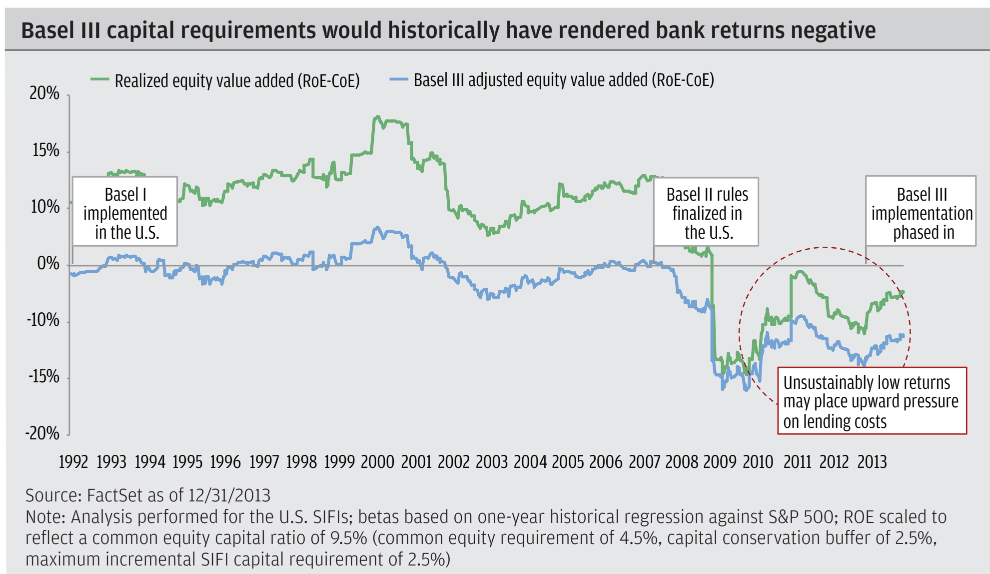
3. The potential impact on banks and corporations is far from neutral

The enhanced capital ratios of Basel III are to be phased in over the coming years. Banks have, however, been proactive in making progress toward meeting these requirements.[6] **These regulatory needs have weighed on the efforts of banks to return to value creation in the post-crisis period.** In fact, our analysis indicates that, historically, banks would have rarely earned a return on equity higher than their cost of equity had they implemented the capital requirements of Basel III.

Figure 3 shows both the historically realized excess returns for the U.S. SIFIs (green line) as well as their excess returns assuming they had held sufficient equity to maintain a common equity capital ratio of 9.5% (blue line).[7] Based on our analysis, banks would not have been able to cover their cost of equity had they historically abided by the enhanced capital mandates of Basel III.[8] This concern is only exacerbated by the additional liquidity requirements of Basel III. Such regulatory mandates may likely drive banks to pass on a portion of the burden to corporations in the form of increased borrowing costs, as illustrated further on.

Figure 3

Basel III capital requirements would historically have rendered bank returns negative



Source: FactSet as of 12/31/2013
Note: Analysis performed for the U.S. SIFIs; betas based on one-year historical regression against S&P 500; ROE scaled to reflect a common equity capital ratio of 9.5% (common equity requirement of 4.5%, capital conservation buffer of 2.5%, maximum incremental SIFI capital requirement of 2.5%)

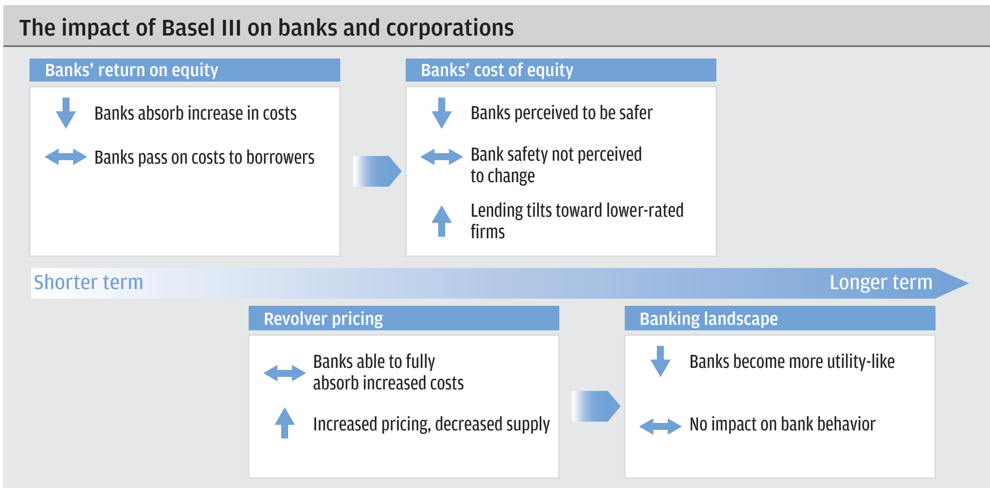
As the Basel III requirements are being gradually introduced, their consequences are not yet fully determined. Basel III affects both the costs of and returns on equity for banks, with the impact flowing through to non-banks. Given general investor sluggishness, **the regulation will first impact the return on equity of banks followed by their cost of equity.** Banks, which are yet to fully recover from the financial crisis, will have limited ability to absorb the resultant economic losses from Basel III. This may drive them to initiate changes in their revolver offerings. As Figure 4 indicates, banks might **eventually increase the pricing or reduce the supply of revolvers** in order to at least partially offset the costs of complying with more stringent regulation.

[6] To support this assertion, we observe that loan spreads have not fallen as much as bond spreads since the end of the financial crisis

[7] Capital ratio of 9.5% is the sum of the common equity requirement of 4.5%, capital conservation buffer of 2.5% and the maximum incremental SIFI capital requirement of 2.5%

[8] These computations assume no changes to the banks' historical common equity capital ratios (including any associated capital buffers)

Figure 4



The longer run effects are less clear. Enhanced capital requirements could lead investors to perceive banks as less risky.[9] This phenomenon would push down the cost of equity of banks and allow them to earn comparable "economic returns." While this is the preferred scenario for regulators, it **would induce banks to adopt a more utility-like model.** If this change were to occur, the result would likely be for banks to ultimately become more focused and develop economies of scale, reducing competition and consumer optionality.

The data in Figure 5 helps illustrate the notion that banks may turn utility-like. Should the eight U.S. SIFIs have to hold the maximum 9.5% common equity capital ratio per Basel III, their beta would need to drop from 1.30 to 0.53 in order to maintain current economics. This would place their beta below that of each sector, including utilities. The beta would have to decline meaningfully, to 1.15, even if the banks only held the new minimum common equity capital required for non-SIFIs. Note, however, that **any decline in banks' cost of equity will likely be outweighed by the magnitude of Basel III requirements** and, therefore, prevent them from scaling back any increase in revolver pricing.

Figure 5

Required betas for banks to maintain current economics

Industry	Median beta[3]
U.S. SIFIs (current)	1.30
Energy	1.22
Materials	1.16
U.S. SIFIs (4.5% common equity)[1]	1.15
Industrials	1.08
Consumer Discretionary	1.08
Information Technology	1.03
Healthcare	0.87
Telecommunications Services	0.83
Utilities	0.75
Consumer Staples	0.69
U.S. SIFIs (9.5% common equity)[2]	0.53

Source: FactSet, as of 12/31/2013
Note: Sample consists of S&P 500; assumes MRP of 6.5% as of 12/31/2013; risk-free rate of 3.0% as of 12/31/2013
[1] 4.5% common equity consists of minimal common equity capital requirement
[2] 9.5% common equity consists of the sum of minimal common equity requirement, SIFI additional requirement and capital conservation buffer
[3] Five-year adjusted beta

[9] Various measures, such as "betas," suggest declining systematic risk in the financial sector. It is too early, however, to be able to discern whether the decline in risk is due to the proposed regulation or the host of other changes in the financial sector and macroeconomic environment in the post-crisis period

EXECUTIVE TAKEAWAY

The Basel III proposals could weaken the ability of banks to return to profitability in the post-crisis period. While the precise impact the proposed regulation will have is uncertain, it may result in increased revolver pricing and/or reduced revolver supply.

4. Which users of bank liquidity are most likely to be impacted?

Firms with a greater reliance on revolvers will naturally be more affected by the new regulations. In Figure 6, we show that **smaller firms and lower-rated firms** tend to rely more on revolvers, possibly due to their limited alternative funding sources. Heavy revolver usage is more common in **cyclical sectors, firms with slower inventory turnover and less-diversified firms.** Increasing operational and working capital efficiency might help alleviate the concerns that arise as revolver pricing becomes less favorable either for a particular firm or for firms in its supply chain.

Figure 6

Smaller, cyclical and less-diversified firms are most likely to be impacted

	Characteristic	High users of revolvers	Low users of revolvers
Size	Median market capitalization	$15bn	$30bn
Ratings	% Rated A- & above	35%	51%
Cyclicality	% In cyclical sector	59%	43%
Turnover	Cash conversion cycle	54 days	50 days
Business Diversification	% Firms with >5 segments	19%	29%
Geographic Diversification	% Revenue outside North America	59%	65%

Most affected by changing revolver landscape

Source: FactSet, Bloomberg, annual data as of 12/31/2012, market capitalization as of 1/15/2014
Note: Sample limited to investment grade non-financial firms in the S&P 500; high revolver users defined as firms with revolver/assets greater than sample median of 9.3%; low revolver users defined as firms with revolver/assets less than or equal to sample median of 9.3%; cyclical firms include Industrials, Materials, Energy and Consumer Discretionary by GICS sector

To the extent the change in revolver pricing is skewed toward raising the cost of the undrawn component, facilities for higher-rated firms will experience a larger impact because such firms tend to have lower utilization rates for their revolvers. Additionally, there is a direct correlation between highly rated firms and absolute size. Even a relatively minimal move by these firms toward cash or other debt products would, therefore, have a meaningful impact on various fixed income markets.

5. Key corporate finance takeaways

The prior analysis indicates likely upward pressure on the pricing of loans, especially revolvers. To the extent that banks are able to absorb the costs, the impact on corporations will be less significant. As described above, however, the new regulations may be too taxing to enable banks to entirely digest these costs. Further, differences in pricing mechanisms across the globe could be reduced, creating potential for pricing to converge worldwide over time. In such a scenario, **corporations will likely face more expensive and/or lower capacity revolvers.** Moreover, these regulatory changes could affect corporations in a myriad of ways. In this environment of still-evolving regulation, senior corporate finance executives are encouraged to keep the following at the top of their minds:

"Right"-size revolver capacity	• Increased revolver costs push firms to right-size revolver capacity (current revolvers may be too large because they are "cheap") • Firms with the least "excess" capacity (i.e., capacity in excess of that used to backstop CP) could be the most affected[10]
Develop alternate sources of liquidity	• Firms strengthen reliance on balance sheet liquidity, especially those who may benefit from favorable rating agencies' treatment of net debt • Trapped cash, adjusted for repatriation charges, should be factored into liquidity analyses • Capital markets alternatives may develop for transforming funded liquidity to contingent liquidity • The corporate landscape will likely be marked by increased adoption of working capital solutions and treasury management services
Importance of strong ratings continues	• Migration down the rating scale may continue, but the importance of remaining investment grade may increase[11] • Maintaining a strong rating becomes more important because it offers greater access to capital markets throughout the cycle • Investor messaging is of paramount importance to counter increased activist criticism of rising cash balances and healthy ratings

EXECUTIVE TAKEAWAY

The evolving regulatory environment for banks is expected to be far-reaching and have profound implications for non-banks as well. We highlight the corporate finance impacts of these regulations and encourage decision makers to reassess their overall liquidity needs, the size of their revolvers, and the pros and cons of all alternatives.

[10] Approximately 50% of S&P 500 non-financial firms are estimated to have revolver capacity in excess of CP authorization. In aggregate, the size of backstops is more than 50% greater than the quantum of CP authorization

[11] For further reading, please see our December 2013 report: "The great migration: Evolving market conditions transform the credit rating landscape"

Notes

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