

# The Implications of Capital Buffer Proposals for Money Market Funds

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# The Implications of Capital Buffer Proposals for Money Market Funds<sup>1</sup>

May 16, 2012

## EXECUTIVE SUMMARY

Recent comments by Securities and Exchange Commission (SEC) Chairman Mary L. Schapiro indicate that the SEC is considering proposing that money market funds or their advisers hold capital to buffer fund investors from potential future losses on their funds.<sup>2</sup> This study analyzes the likely outcomes of the imposition of a capital buffer.

Given the wide range of approaches that SEC requirements could take, this analysis considers several variations on the capital buffer idea, including requiring fund advisers to commit capital, requiring funds to raise capital in the market, or having funds build a capital buffer inside funds from fund income.<sup>3</sup>

### *Requiring Fund Advisers to Commit Capital*

Proposals requiring fund advisers to commit capital to absorb possible future losses in money market funds would fundamentally alter the money market fund business model. A money market fund, like all mutual funds, provides investors a pro rata interest in the fund, whereby fund investors share in the risks and rewards of the securities held by the fund. All of the fund's shares are equity capital. The default risk of diversified portfolios of securities held by money market funds is very low

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<sup>1</sup> Sean S. Collins, ICI Senior Director of Industry and Financial Analysis, was the lead author with substantial assistance from Brian K. Reid, ICI Chief Economist; Rochelle Antoniewicz, ICI Senior Economist; Jane G. Heinrichs, ICI Senior Associate Counsel; and Gregory M. Smith, ICI Senior Director of Fund Accounting and Compliance. The Investment Company Institute (ICI) is the national trade association for registered investment companies, including money market funds. Members of ICI manage \$13.4 trillion in assets and serve more than 90 million shareholders.

<sup>2</sup> See Mary L. Schapiro, Chairman, Securities and Exchange Commission, *Remarks at the Society of American Business Editors and Writers (SABEW) Annual Convention* (March 15, 2012), available at [www.sec.gov/news/speech/2012/spch031512mls.htm](http://www.sec.gov/news/speech/2012/spch031512mls.htm).

<sup>3</sup> In the same speech, Schapiro suggested that any new capital requirements would be “combined with limitations or fees on redemptions.” In public comments, other SEC officials have indicated that redemption limitations could take the form of 30-day “holdbacks” on redeemed assets or minimum account balances calculated as a percentage of peak or average balances over the previous 30 days. This paper considers only the concept of capital buffers; ICI has addressed problems with redemption restrictions in other work (see *Money Market Fund Regulations: The Voice of the Treasurer*, 16–22, available at [www.ici.org/pdf/rpt\\_12\\_tsi\\_voice\\_treasurer.pdf](http://www.ici.org/pdf/rpt_12_tsi_voice_treasurer.pdf)) and would argue that such restrictions could compound the negative effects of capital requirements that are discussed here.

and is shared by all fund investors, so that the likelihood that an individual investor will experience a sizeable loss, or any loss at all, is remote.<sup>4</sup>

Imposing capital requirements on a fund adviser would fundamentally change the nature of a money market fund by interposing the adviser between the fund and its investors. Currently, fund advisers do not allocate capital to absorb losses because investors bear the risks of investing in funds.<sup>5</sup> The mutual fund structure, including that of money market funds, is designed so fund advisory fees compensate the adviser for managing the fund as a fiduciary and agent and for providing ongoing services that the fund needs to operate, but not for bearing investment risks of the fund.

Shifting investment risks from fund investors to advisers would require advisers to dedicate capital to absorb possible losses of the funds that they manage. Some advisers would have to raise new capital in the market. Others could perhaps shift capital from other parts of their businesses. Either way, all advisers would expect to earn the market rate of return on such capital. If they cannot earn that rate of return, they would seek better business alternatives, such as moving investors to less-regulated cash management products where investors still must bear the risks of investing.

While the potential for losses in a money market fund is remote, the cost of providing capital likely would be significant. Under the current arrangement, small and highly infrequent losses are spread across a large number of fund investors and a large asset base. Under the new arrangement, small losses would be concentrated in a single investor (the adviser) and across a small asset base (the value of the capital). The adviser could face large *percentage* losses on its small capital investment and thus would require a compensatory rate of return.

In theory, advisers could seek to pass along to investors the cost of providing the capital to absorb investment risks. As a practical matter, we doubt this is possible. Because of the very low interest rate environment, advisers at present have no ability to pass along cost increases; doing so would raise fund expense ratios, dropping net returns below zero. Even in a more normal interest rate environment, advisers would have difficulty passing the cost of the required capital on to fund investors.

Any increase in a fund's advisory fees would have to be put to a shareholder vote. Shareholder votes can be costly to undertake and outcomes would by no means be guaranteed. Even if shareholders accepted a fee increase, the increase could be so large as to reduce the net yield on a prime fund

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<sup>4</sup> Money market funds are registered investment companies that are regulated by the SEC under U.S. federal securities laws, including Rule 2a-7 under the Investment Company Act of 1940. That rule, which was substantially enhanced in 2010, contains numerous risk-limiting conditions governing the credit quality, liquidity, maturity, and diversification of a money market fund's investments that are intended to help a fund achieve the objective of maintaining a stable NAV using amortized cost accounting.

<sup>5</sup> To be sure, some money market fund advisers have at times voluntarily supported their funds, but these advisers did so as a *business decision*. Requiring *all* fund advisers to take on a first-loss position would be a radical departure from the current agency role that fund advisers play.

below that of a Treasury-only money market fund. All else equal, an increase in a fund's advisory fee would lower the fund's net yield. Any desire to offset the effect on the fund's yield by holding riskier and therefore higher-yielding securities would be constrained by the risk-limiting provisions of Rule 2a-7 effectively setting a ceiling on the yield before expenses of prime money market funds. Presumably no investor would hold a prime money market fund that offered a return below that of a Treasury fund, so that yields on Treasury funds set a floor on the yields of prime funds.

By far the most likely outcome is that advisers would have to absorb the cost of providing the capital buffer. Although outcomes depend on the particulars of any SEC proposal, our analysis indicates that capital buffers in the range of 1.5 percent to 3 percent would be costly and would make prime and tax-exempt funds uneconomical. There are various ways to illustrate this. We focus on two approaches: internal rate of return and payback period. The analysis shows that it would require very sizable increases in the fees of prime funds for advisers to earn a reasonable rate of return on capital they might be required to pledge. For example, depending on assets included and the capital requirement percentage, prime fund fees might need to rise between 16 to 40 basis points for advisers to earn a 5 to 7 percent rate of return on invested capital.

The payback analysis shows that under current fee structures and market conditions, capital buffers of 1.5 percent to 3.0 percent would absorb every dollar of advisers' net earnings from money market funds for 18 to 43 years, depending on whether only Treasury securities or both Treasury and agency securities are excluded from a capital assessment. Even under best-case conditions, these buffer requirements would absorb at least eight to 20 years of advisers' profits from operating money market funds.

Under these circumstances, it is foreseeable that many, if not most, fund advisers may make the business decision to change their cash management offerings radically. Some advisers may simply liquidate their funds and not offer alternative products. As a result, offerings of money market funds to retail investors probably would shrink considerably. For 56 million retail investors, that outcome would mean the loss of access to money market returns in a liquid, stable, convenient vehicle. Since 1990, money market funds have paid retail investors \$242 billion more in returns than competing bank products, assuming reinvestment and compounding. Some advisers would refocus their efforts on other cash-like products that are less regulated and less transparent for their institutional clients, thereby increasing risks in the financial markets.

### ***Requiring Funds to Raise Capital in the Market***

As an alternative to requiring fund advisers to commit capital, some have suggested requiring funds to raise capital in the market. This paper finds significant legal, business, accounting, and economic hurdles to raising capital in the market. Moreover, this concept could well increase, rather than reduce, systemic risk.

Regulators and others may hope that these capital buffer proposals will provide absolute certainty that no money market fund will ever face a potential loss even in the midst of a severe financial crisis. We believe, however, no feasible capital proposal can achieve this goal.<sup>6</sup> More than three years ago, ICI noted that even sizable capital buffers cannot completely eliminate investment risks to fund investors, particularly during periods of severe and widespread financial market stress.<sup>7</sup> The recent report on money market fund reform by the President’s Working Group implicitly acknowledged this point.<sup>8</sup>

### ***Within-Fund Capital Buffer***

Finally, if—as Treasury Secretary Timothy F. Geithner has suggested—regulators’ goal is just to increase somewhat the resilience of money market funds,<sup>9</sup> another option is a within-fund capital buffer. Building a within-fund capital buffer would align more directly the costs of the buffer with the fund’s beneficiaries: fund shareholders. Capital at this level would not absorb large credit losses, but it would provide funds somewhat greater flexibility in selling securities at a price below amortized cost. Legal and accounting considerations, however, would limit a within-fund capital buffer to 0.5 percent of a fund’s total assets. Also, because of tax and economic considerations, a fund might need many years to build such a buffer. As the analysis shows, under plausible assumptions, building such a buffer might take a typical prime fund 10 to 15 years. The exact horizon depends on whether short-term interest rates rise somewhat more quickly than is currently expected, on how investors

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<sup>6</sup> Holding substantial capital, at levels well in excess of those contemplated for money market funds, has not prevented banks from suffering failures or runs. For example, according to Federal Deposit Insurance Corporation (FDIC) data, at least 482 banks and savings institutions have failed since 2000 at a cost of more than \$82 billion (which does not include the as-yet-unreported cost of the 115 banks and savings institutions that the FDIC closed in 2011 and thus far in 2012). During the recent financial crisis, there were several high-profile runs at U.S. banks, including Countrywide Bank ([www.latimes.com/business/la-fi-countrywide17aug17,0,1835165.story](http://www.latimes.com/business/la-fi-countrywide17aug17,0,1835165.story)), IndyMac Bank ([www.youtube.com/watch?v=2EnaU7D80oM](http://www.youtube.com/watch?v=2EnaU7D80oM)), Washington Mutual Bank ([www.calculatedriskblog.com/2009/10/report-wamu-bank-run-rumors-were-true.html](http://www.calculatedriskblog.com/2009/10/report-wamu-bank-run-rumors-were-true.html)), and Wachovia ([www.charlotteobserver.com/2008/10/11/246983/5-billion-withdrawn-in-one-day.html](http://www.charlotteobserver.com/2008/10/11/246983/5-billion-withdrawn-in-one-day.html)). Runs also occurred in banks in foreign countries, such as Northern Rock in the United Kingdom ([www.economist.com/node/9832838](http://www.economist.com/node/9832838)).

<sup>7</sup> See Investment Company Institute, *Report of the Money Market Working Group* (March 17, 2009), available at [www.ici.org/pdf/ppr\\_09\\_mmwg.pdf](http://www.ici.org/pdf/ppr_09_mmwg.pdf).

<sup>8</sup> See *Report of the President’s Working Group on Financial Markets: Money Market Fund Reform Options* (October 2010), 4, stating that “preventing any individual MMF [money market fund] from ever breaking the buck is not a practical policy objective,” available at [www.treasury.gov/press-center/press-releases/Documents/10.21%20PWG%20Report%20Final.pdf](http://www.treasury.gov/press-center/press-releases/Documents/10.21%20PWG%20Report%20Final.pdf).

<sup>9</sup> See the remarks of Timothy F. Geithner, Secretary, United States Department of the Treasury, at ICI’s 2011 General Membership Meeting Policy Forum ([www.ici.org/pressroom/mm/video/11\\_gmm\\_program\\_vid](http://www.ici.org/pressroom/mm/video/11_gmm_program_vid)) at minute 38, stating that “Mary Schapiro and her colleagues [at the SEC] are doing a very careful, thoughtful job about how to...bring a little bit more resilience into that system [i.e., money market funds] without depriving the economy of the broader benefits those [money market] funds provide.”

respond to a buildup of a within-fund capital buffer, and on the willingness of advisers to continue to absorb the cost of maintaining large fee waivers. In the best of circumstances, building a within-fund capital buffer of 0.5 percent likely would require at least five years.

### *Scope of Analysis*

The analysis of these variations on the capital buffer idea is composed of five sections. The first section describes current money market conditions and their likely influence on money market funds. The second section analyzes the likely effects of requiring fund advisers to pledge capital and offers some principles that apply to capital requirements generally. The last three sections discuss the potential for raising capital from the market, the implications of within-fund buffers, and conclusions.

## **CURRENT MARKET CONDITIONS**

Short-term interest rates have been near zero since late 2008, owing to highly accommodative monetary policy (Figure 1). As a result, most money market funds have been reporting net yields—yields paid to investors—of nearly zero, which indicates that they currently have little net income.<sup>10</sup> Figure 2 tabulates assets in the share classes of prime money market funds according to their current net yields. Prime fund share classes with current yields of 0 to 0.05 percent manage \$642 billion, or about 45 percent, of prime fund assets, and all share classes of prime funds have a current yield of 0.27 percent or less (as of January 2012).

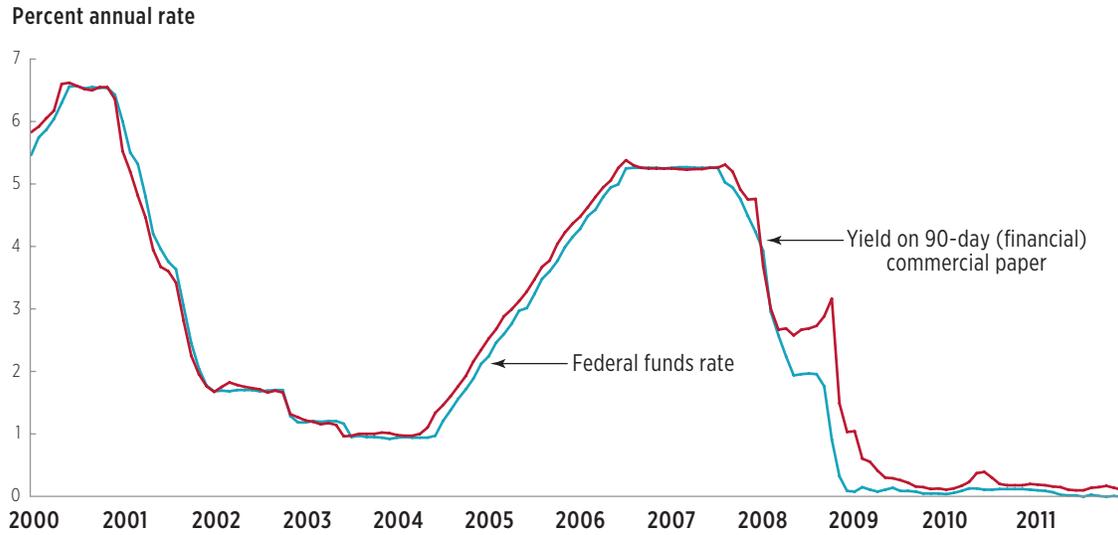
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<sup>10</sup> A fund's net yield is the yield distributed to investors, which in turn is equal to the fund's earnings on the securities it holds less fund expenses, adjusted for any fee waiver provided by the fund's adviser.

FIGURE 1

### Short-Term Interest Rates Are Near Zero

2000-2011

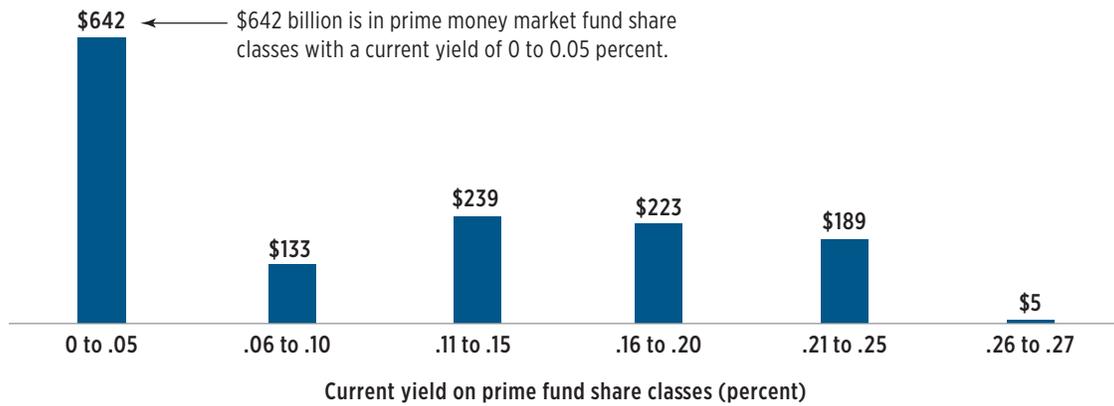


Sources: Investment Company Institute and Federal Reserve Board

FIGURE 2

### Assets in Prime Money Market Fund Share Classes by Current Yield

Billions of dollars, January 2012



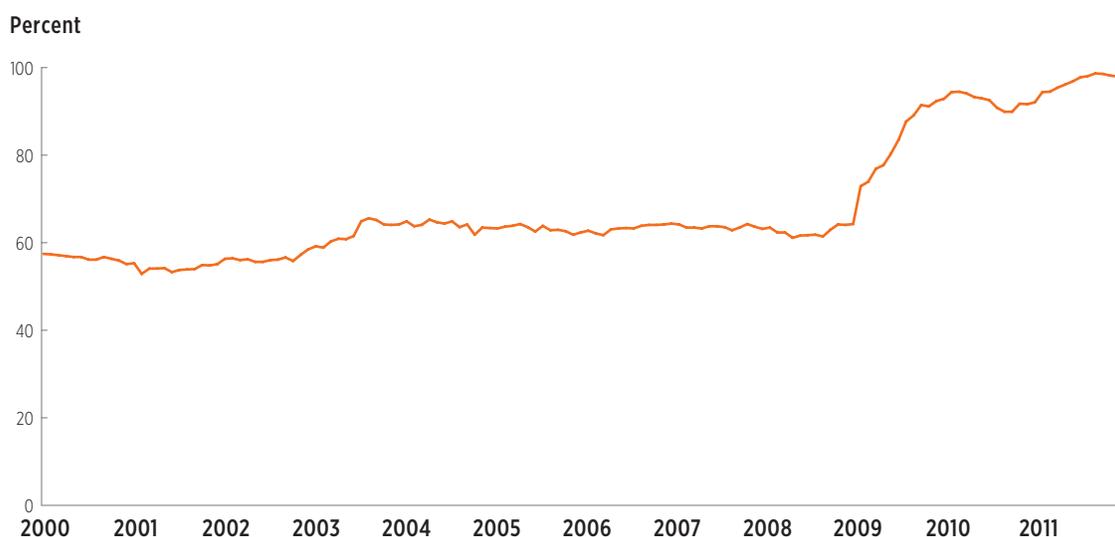
Sources: Investment Company Institute and iMoneyNet.com

As a direct result of the low interest rate environment, virtually all money market fund share classes now are waiving fees to ensure that fund net yields remain positive (Figure 3).<sup>11</sup> These waivers are substantial in dollar terms, amounting to \$5.2 billion in 2011 (Figure 4). Also, fees collected from money market funds have declined sharply, from a peak of \$12.5 billion in 2008 to \$4.7 billion in 2011. That, combined with the increase in fee waivers, has put pressure on the margins of fund advisers and lowered their net earnings. Little relief is in sight, given a reasonable reading of Federal Reserve policy.<sup>12</sup>

FIGURE 3

### Nearly All Money Market Fund Share Classes Are Waiving Fees

*Percentage of all money market fund share classes waiving some or all fees, 2000–2011*



Sources: Investment Company Institute and iMoneyNet.com

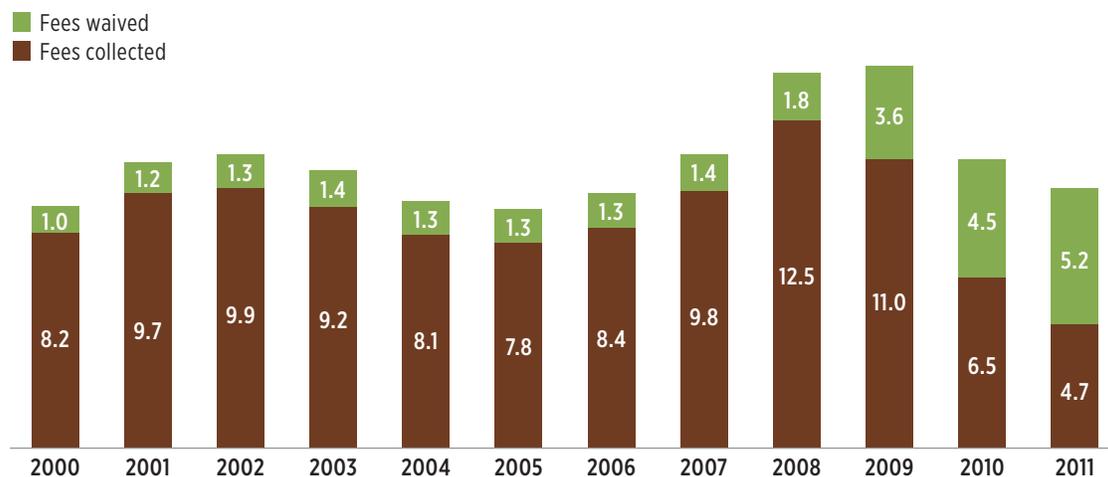
<sup>11</sup> Even in normal interest rate environments, many money market fund share classes voluntarily waive fees to cap fund expenses for competitive reasons. For example, in 2006 approximately 60 percent of fund share classes waived fees (Figure 3), amounting to \$1.3 billion (Figure 4). In 2011, however, almost 100 percent of share classes waived fees, and waivers totaled \$5.2 billion. Without such waivers, many money market funds would not be able to pay positive yields to shareholders.

<sup>12</sup> The Federal Reserve has indicated that economic conditions are likely to warrant exceptionally low levels of short-term interest rates at least through late 2014 (see Federal Reserve Board: Press Release, FOMC Statement [April 25, 2012], [www.federalreserve.gov/newsevents/press/monetary/20120425a.htm](http://www.federalreserve.gov/newsevents/press/monetary/20120425a.htm)). History suggests that when the Federal Reserve begins to raise short-term interest rates, it will do so gradually. For example, the most recent round of monetary policy tightening, which began in mid-2004, lasted more than two years; in the first calendar year of that tightening phase, the federal funds rate rose only about 100 basis points. This suggests that short-term interest rates may not rise much above 1 percent until sometime in 2016.

FIGURE 4

### Money Market Fund Fee Waivers Are Substantial and Revenues Are Down

Billions of dollars, 2000-2011



Sources: Investment Company Institute and iMoneyNet.com

## ADVISER-CONTRIBUTED CAPITAL

Regulators have suggested requiring money market fund advisers to commit capital in support of their money market funds. Under this arrangement, advisers would dedicate specified amounts of capital to be held against their money market fund assets.<sup>13</sup> Doing so would fundamentally change the relationship between fund advisers and their funds. Currently, advisers act as fiduciaries to their funds. Advisers legally do not bear investment risk associated with the money market funds they advise. Capital requirements on fund advisers would move advisers to a first-loss position for fund investment risks, transforming the business model into one where the adviser is a principal rather than an agent.

<sup>13</sup> The precise mechanism by which fund advisers would do this is uncertain. One possibility would be to require fund advisers to fund an escrow account that absorbs first losses in any money market funds they advise.

## *Implications for Fund Accounting and Investor Behavior*

For many fund sponsors, adviser-provided capital would raise difficult financial accounting issues. Under Generally Accepted Accounting Principles (GAAP), a money market fund adviser that commits first-loss capital to its funds probably will be required to consolidate the financial positions of its funds on the adviser's books.<sup>14</sup> By itself, this would make interpretation of the financial statements of advisers (or their parents) more difficult.

In addition, bank-related advisers may be forced to hold “double capital” against their funds—once to meet any SEC-mandated capital requirement, and the second time to comply with Basel capital standards. The amount of additional capital banks would have to hold is uncertain, as it would depend on how regulators interpret and apply Basel capital standards in this case. Fund advisers indicate that the additional capital that banks might need to hold to meet Basel capital requirements could total between 0.25 percent and 4.0 percent of their money market fund assets.

Adviser-provided capital also could affect the behavior of money market fund investors. Institutions that invest in money market funds generally undertake due diligence to understand fund risks, however minimal.<sup>15</sup> An important question is whether adviser-provided capital might encourage investors to pay less attention to such risks.

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<sup>14</sup> GAAP requires a reporting company to consolidate entities it controls on its balance sheet for financial reporting purposes (See Financial Accounting Standards Board [FASB] Accounting Standards Codification Topic 810). If a fund adviser were deemed to have a “controlling financial interest” in its money market funds, it might be forced to consolidate those money market funds into its financial statements. In a consolidation, the assets and liabilities of the money market fund would be combined with those of the fund adviser on the adviser's balance sheet. The equity or net assets of the money market fund not owned by the fund adviser would appear on the adviser's balance sheet as noncontrolling interests. Also, the income and expenses of the money market fund would be reflected on the adviser's income statement. Arrangements that obligate the fund adviser to bear the risk of loss associated with the money market fund may cause the adviser to have a controlling financial interest, even where it does not own any equity interest in the fund. FASB recently issued a proposal that would delineate the circumstances in which an asset manager has a controlling financial interest in the pooled vehicles it manages requiring consolidation (See FASB Proposed Accounting Standards Update, *Principal Versus Agent Analysis* [November 3, 2011]). If adopted as proposed, this FASB proposal increases the likelihood that advisers providing first loss capital would be required to consolidate their money market funds.

<sup>15</sup> Many institutional investors can invest only in money market funds that hold AAA or equivalent money market fund ratings from credit rating agencies. Institutional investors also track funds' portfolio risks through information services (e.g., Crane Data Services LLC or iMoneyNet) that analyze and publicize data on fund portfolios obtained from fund disclosures.

### *Implications for Advisers' Business Models*

Apart from these accounting and risk-management factors, requiring fund advisers to pledge capital would drastically alter the current business model. Mutual fund advisers, including advisers to money market funds, establish funds, provide ongoing services that funds need, and act in a fiduciary capacity. They are compensated for these services through advisory fees. Advisory fees can be raised, but only by an affirmative vote of both the independent directors and fund shareholders.

Because investors bear the risks of investing in mutual funds, including in money market funds, fund advisers do not allocate capital to absorb fund investment losses. Shifting the absorption of investment risks in money market funds from investors to advisers would require advisers to commit capital to absorb losses to the funds they manage. Some advisers would have to raise new capital, either in the market, through private placements, or by borrowing from banks. Some advisers would perhaps be able to reallocate capital from other parts of their businesses toward their money market funds. All advisers, however, would expect a market rate of return on that capital. Absent such expectations, they would deploy that capital elsewhere.

### *Capital Buffer Levels*

Since no formal proposal has been issued specifying such details, this analysis considers a range of cases. Calculations are offered for capital buffers of 3 percent and 1.5 percent of fund assets. The analysis assumes that regulators would exclude Treasury securities from a capital buffer requirement, both because Treasury securities generally are considered the least risky assets available in the money markets and because Treasuries receive a zero risk weight in bank capital standards. Thus, all the calculations that follow exclude Treasury securities from the asset base for capital requirements.

There are strong arguments for also excluding securities issued by government-sponsored entities (GSEs, which are also known as agencies) from any capital buffer. Yields on short-term agency debt now differ from yields on short-term Treasury debt by only a few basis points. This reflects the fact that, in the wake of rescue efforts during the financial crisis, market participants now regard agency securities to be as riskless as Treasury securities. A capital requirement of more than a few basis points on short-term agency securities would make it uneconomical for money market funds to hold agency debt relative to Treasury securities (money market funds currently hold 42 percent of short-term agency debt). Therefore, the analysis also looks at capital requirements applied to an asset base that excludes agencies as well as Treasury securities.

Money market fund assets currently are approximately \$2.6 trillion. With a capital assessment of 3 percent of all fund assets except Treasury securities, fund advisers would have to commit \$67 billion in capital, based on their holdings as of December 31, 2011 (Figure 5).<sup>16</sup> Of that, more

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<sup>16</sup> To put this \$67 billion figure in context, note that the FDIC currently has a capital reserve of less than \$10 billion (\$9.2 billion as of December 31, 2011) to support insured bank deposits of \$6.9 trillion. That amounts to just 0.13 percent of covered assets (i.e., 13 basis points).

than \$18 billion would be needed to cover government funds—funds that invest predominantly in Treasury and agency debt or repurchase agreements collateralized with such debt.<sup>17</sup> Advisers to prime money market funds (taxable funds that invest in commercial paper as well as Treasury and agency securities) would need to raise \$40 billion in aggregate. Advisers to tax-exempt funds would need to set aside nearly \$9 billion. Cutting the capital requirement to 1.5 percent would reduce the capital commitment by half, but the amount required would remain very large.

If both Treasury and agency securities are excluded from the asset base for capital assessment, the required capital is reduced somewhat. A 3 percent capital requirement on this asset base would require advisers to commit almost \$55 billion in capital. The bulk of the capital commitment, \$36 billion, would apply to prime money market funds, but advisers would still have a capital requirement on their Treasury and government funds (reflecting their investments in repurchase agreements). A capital requirement of 1.5 percent on all securities other than Treasury or agency debt would require fund advisers to commit over \$27 billion in capital.

FIGURE 5

### Capital Buffer Levels Under Selected Scenarios

*Billions of dollars, December 2011*

	All assets excluding Treasuries				All assets excluding Treasuries and agencies		
	All assets	Required capital			Required capital		
		3.0%	1.5%	Memo: applicable assets	3.0%	1.5%	Memo: applicable assets
<b>All funds</b>	\$2,691.4	\$67.1	\$33.6	\$2,238.7	\$54.8	\$27.4	\$1,826.3
Treasury and government funds	965.1	18.4	9.2	612.7	10.1	5.0	335.7
Prime funds	1,434.6	40.0	20.0	1,334.4	36.0	18.0	1,199.3
Muni funds	291.7	8.7	4.4	291.6	8.7	4.4	291.3

<sup>17</sup> Treasury and government money market funds would face capital requirements for two reasons. First, government funds would face a capital requirement unless agency securities are explicitly excluded from the capital requirement. Second, both Treasury and government funds invest in repurchase agreements, which are generally collateralized by Treasury and agency securities. We have assumed that repurchase agreements are not excluded from capital requirements, regardless of the type of collateral; thus, the advisers of any funds employing repurchase agreements would face capital requirements. It is conceivable that the SEC would exclude from any capital assessment securities maturing in one to seven days (i.e., securities that are deemed by the SEC to count toward funds' required daily or weekly liquidity standards). If so, the level of required capital would be lower for all taxable funds (Treasury, government, and prime), because the repurchase agreements held by such funds generally mature within seven days or less.

### *Internal Rate of Return Calculations*

Calculating an internal rate of return (IRR) is one method for assessing the business decision advisers will face in determining whether to set aside capital to absorb losses in the money market funds that they manage. The IRR calculations in this paper measure the rate of return on the dollar amount of capital that advisers would commit at the 3 percent and 1.5 percent level for a fixed stream of additional fee income over a 10-year period. The analysis assumes that money market fund assets remain constant at the levels shown in Figure 5, and that the funds incur no losses that would require a payment to funds over the 10-year period. Each of the figures below plots the IRR for different fee levies given initial capital outlays at the 3 percent or 1.5 percent level.

As noted earlier, advisers to prime funds would have an initial outlay of \$40 billion in capital at a 3 percent capital requirement and \$20 billion at a 1.5 percent capital requirement that excludes Treasury securities. Under the 3 percent capital requirement, the IRR is negative until fees are increased by 28 basis points—the point at which the IRR curve equals zero (Figure 6, top panel). After this point, the IRR turns positive as additional fee income increases. Under the 1.5 percent capital requirement, the IRR is negative until fees are increased by 14 basis points, after which it becomes progressively more positive as fees are increased further. The bottom panel of Figure 6 shows similar IRR calculations for prime funds when both Treasury and agency securities are excluded.

Advisers would undertake a similar analysis to determine the rate of return that would be necessary in deciding whether they would be willing to allocate loss-absorbing capital to these funds. They will take the IRR of this endeavor and the return offered by equivalent-risk investments in the capital market into consideration. To achieve a rate of return in the 5 to 7 percent range<sup>18</sup> at a 3 percent capital requirement excluding Treasury securities, for example, advisers would have to increase fees on their prime funds by 36 to 40 basis points. Even with a less onerous capital requirement of 1.5 percent excluding both Treasury and agency securities, advisers would have to assess additional fees between 16 to 18 basis points to produce a rate of return between 5 and 7 percent.

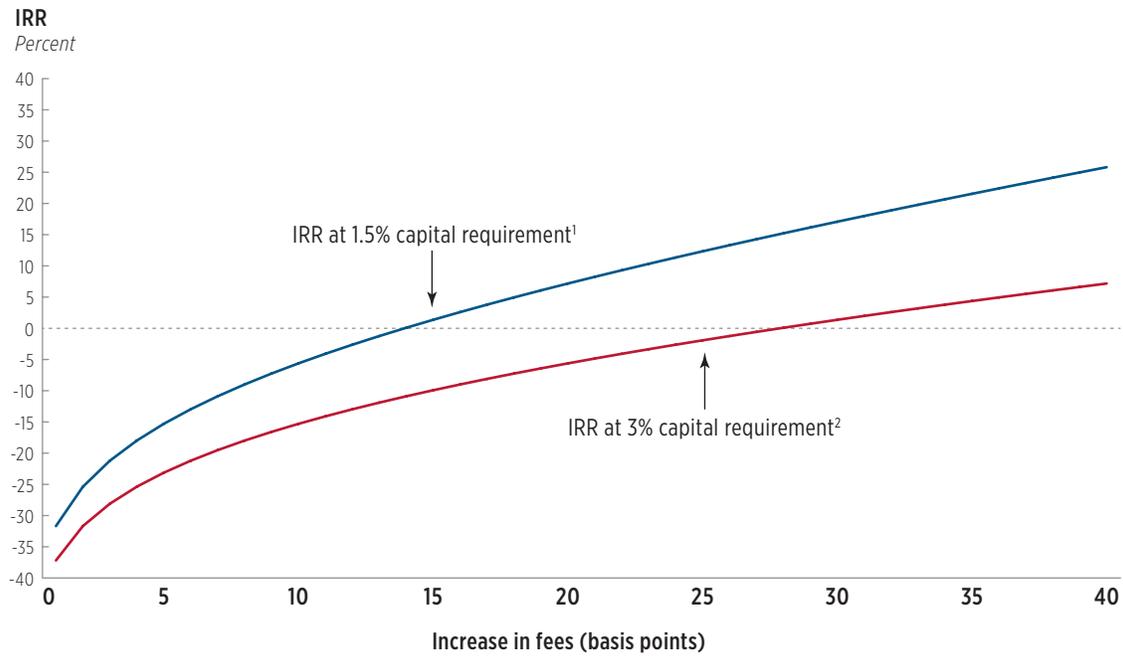
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<sup>18</sup> This range should not be interpreted as an indication of the rates of return advisers would require. It is merely for expository purposes.

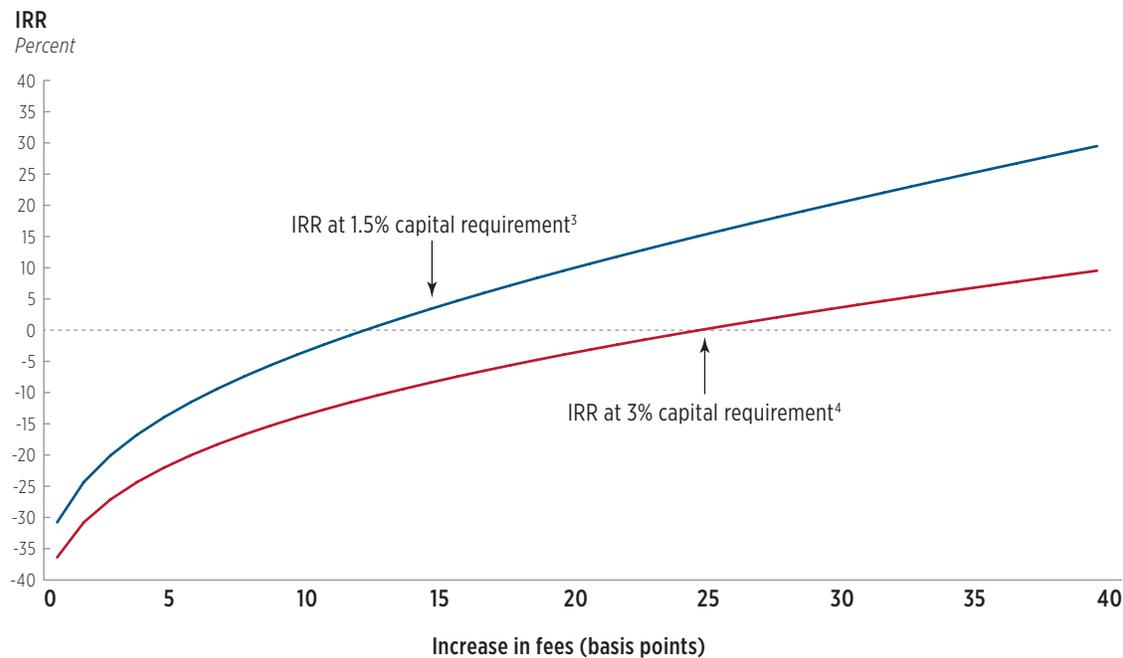
FIGURE 6

## Internal Rate of Return: Prime Money Market Funds

### Capital requirement that excludes Treasuries



### Capital requirement that excludes Treasuries and agencies



<sup>1</sup> Initial capital outlay of \$20 billion with a 10-year fixed stream of additional fee income on \$1.4 trillion in total net assets.

<sup>2</sup> Initial capital outlay of \$40 billion with a 10-year fixed stream of additional fee income on \$1.4 trillion in total net assets.

<sup>3</sup> Initial capital outlay of \$18 billion with a 10-year fixed stream of additional fee income on \$1.4 trillion in total net assets.

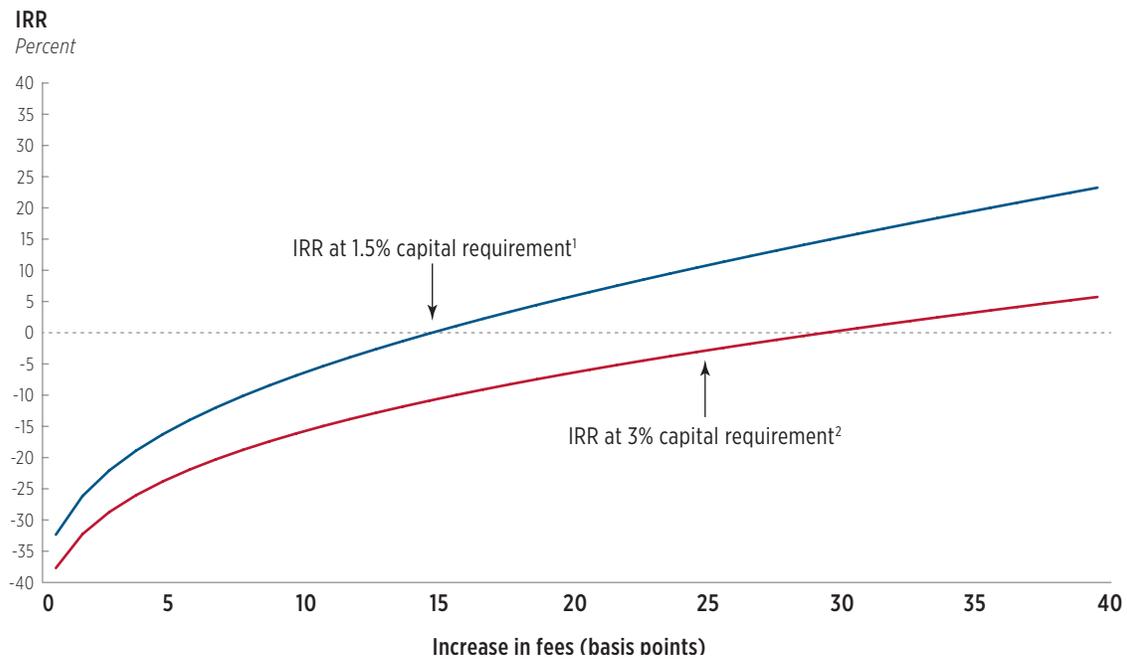
<sup>4</sup> Initial capital outlay of \$36 billion with a 10-year fixed stream of additional fee income on \$1.4 trillion in total net assets.

Tax-exempt money market funds would have to increase fees by even more to achieve a similar IRR on their initial capital outlay (Figure 7), since they hold virtually no U.S. Treasury or agency debt. With a 3 percent capital requirement, tax-exempt funds would have to increase fees between 37 and 42 basis points to produce an IRR between 5 and 7 percent, and between 20 and 22 basis points with 1.5 percent capital requirement.

FIGURE 7

### Internal Rate of Return: Tax-Exempt Money Market Funds

Capital requirement that excludes Treasuries and agencies



<sup>1</sup> Initial capital outlay of \$4.4 billion with a 10-year fixed stream of additional fee income on \$292 billion in total net assets.

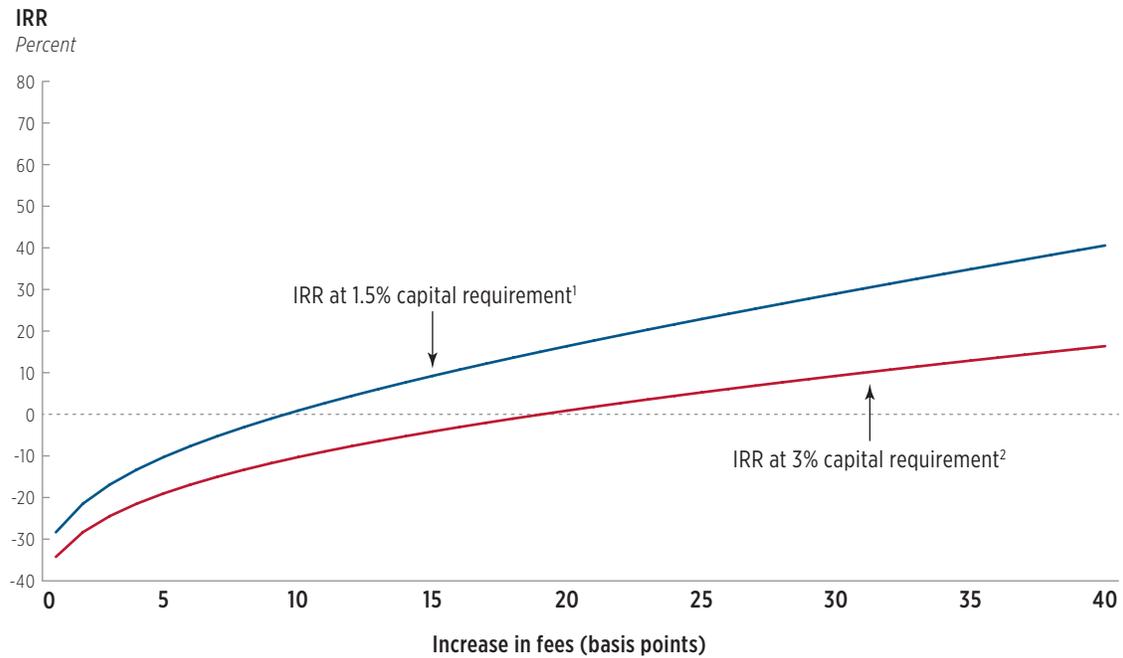
<sup>2</sup> Initial capital outlay of \$8.7 billion with a 10-year fixed stream of additional fee income on \$292 billion in total net assets.

Taxable government money market funds would need to increase their fees the least because of their significant holdings of Treasury and agency securities. However, if only Treasury securities were excluded from the capital assessment, even these funds would have to raise fees by 25 to 27 basis points at a 3 percent capital requirement (Figure 8, top panel) and 12 to 14 basis points at a 1.5 percent capital requirement to achieve an IRR of between 5 and 7 percent (Figure 8, bottom panel).

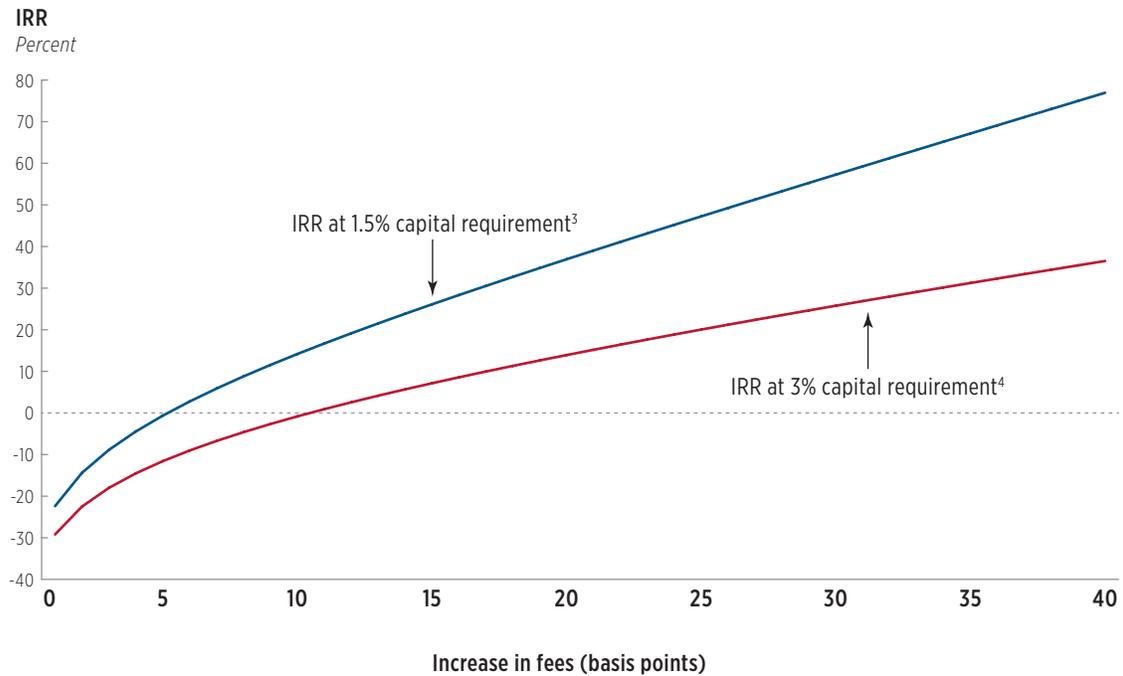
FIGURE 8

## Internal Rate of Return: Government Money Market Funds

### Capital requirement that excludes Treasuries



### Capital requirement that excludes Treasuries and agencies



<sup>1</sup> Initial capital outlay of \$9.2 billion with a 10-year fixed stream of additional fee income on \$965 billion in total net assets.

<sup>2</sup> Initial capital outlay of \$18.4 billion with a 10-year fixed stream of additional fee income on \$965 billion in total net assets.

<sup>3</sup> Initial capital outlay of \$5 billion with a 10-year fixed stream of additional fee income on \$965 billion in total net assets.

<sup>4</sup> Initial capital outlay of \$10.1 billion with a 10-year fixed stream of additional fee income on \$965 billion in total net assets.

This analysis assumes advisers are able to pass along to investors the costs of providing risk-absorbing capital. In practice, this may not be possible. In light of the very low interest rate environment, advisers currently do not have the ability to pass along cost increases. Indeed, as shown in Figure 4, advisers already are waiving a large share of fund expense ratios simply to keep fund net yields from becoming negative. These fee waivers have reduced the return on their existing capital to levels well below those that existed prior to the current interest rate environment.

In a more favorable interest rate environment, some advisers would have more ability to pass along the additional costs of providing risk-absorbing capital. Still, it would be necessary to seek shareholder approval through a proxy vote to raise fund advisory fees, which can be costly; in addition, there is no guarantee of an affirmative shareholder vote. Even then, however, there are limits to how much fees could be increased. Presumably, investors would be unwilling to hold prime funds whose yields are less than those on Treasury or government funds. Thus, any increase in the advisory fees of prime money market funds is limited by the yields on Treasury and government funds.<sup>19</sup> Furthermore, for investors with alternative short-term cash investment options, money market funds would still need to provide a competitive yield. Given that the investments money market funds may hold are highly restricted by Rule 2a-7, funds cannot significantly increase the interest rate and credit risk in their funds to push up their yields to offset the increase in advisory fees necessitated by adviser-provided capital.

### *Payback Analysis*

Given the limitations of passing along the costs of capital to fund investors, a more likely outcome is that advisers would have to absorb most if not all of the cost of providing the initial capital. The hope would be to recover those costs over time from advisory fees whose levels are set to cover the costs of providing management and operational services to funds. A “payback” analysis, assesses the years necessary to recover the initial capital buffer, under the assumption that every dollar that the adviser would have earned on net (after expenses and waivers) from advisory fees are instead channeled toward recouping the capital buffer. Advisers who cannot recover their costs would have an incentive to either leave the money market fund business or refocus their marketing efforts on less-regulated and less-transparent cash management products.

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<sup>19</sup> For example, the yield on prime money market fund share classes (including any fee waivers) is currently 0.02 percent (2 basis points), compared to 0.01 (1 basis point) percent for Treasury and government funds. Thus, in theory, advisers to prime money market funds could at present pass along at most 0.01 percent (1 basis point) of fund assets to help cover the cost of providing loss-absorbing capital before the yield on prime funds would be equivalent to that on Treasury and government funds.

Under current market conditions—near-zero short-term interest rates and the level of fees collected from money market funds in 2011—a 3.0 percent capital requirement on all securities other than Treasuries would equal nearly 43 years of the net earnings of all money market fund advisers (top panel of Figure 9).<sup>20</sup> A smaller capital buffer of 1.5 percent on this asset base would amount to more than 20 years of the net earnings that advisers derive from money market funds.

It is self-evident that fund advisers would not continue to offer a product if it would take them nearly half a century to recoup the capital they pledge to buffer fund losses. Many if not most advisers would make the business decision to either close their funds or migrate their money market fund customers to other cash-like products that do not require regulatory capital.

Excluding agency securities from a capital assessment would reduce the cost to fund advisers but still almost surely would result in a business decision by many firms to alter significantly their cash management product offerings. For example, under current market conditions, a capital buffer of 1.5 percent of all assets except Treasury and agency securities would absorb 17.5 years of fund advisers' net earnings (Figure 9, top panel, right-most bar).

To some degree, these results are driven by the current level of interest rates, fee waivers, and the level of fund assets. Even under the best of circumstances, however, further calculations show that capital buffers of 3.0 percent or 1.5 percent of assets—excluding Treasury and agency securities—could create incentives for fund advisers to consider exiting the business or to restructure completely their offerings of cash management products.

For example, in 2006, interest rates were considerably higher and consequently, fee waivers were substantially lower than at present. Money market fund expense ratios, in turn, were nearly double today's level (0.40 percent in 2006 versus 0.21 percent in 2011). As a result, despite the fact that asset levels were very similar then compared to now (\$2.4 trillion in December, 2006 versus \$2.6 trillion in December, 2011), fee revenues collected from funds were nearly double their current level (\$8.4 billion in 2006 compared to \$4.7 billion in 2011).

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<sup>20</sup> The 43-year estimate is based on the assumption that fees collected from money market funds remain constant at the current estimated rate of \$4.7 billion per year (Figure 4). Not all the fees collected from money market funds are revenue to fund advisers, however. Some portion is paid to third-party distributors. In addition, the \$4.7 billion makes no allowance for advisers' cost of business, taxes, interest expense, and so forth. Third-party estimates of profit margins of publicly traded companies that manage mutual funds indicate that margins are in the range of 30 to 33 percent (see Whitney Curry Wimbish, "Most Boards Address Elusive Topic of Profitability in Depth," *BoardIQ* [March 27, 2012]. Using a 33 percent margin, a \$67.1 billion capital buffer would absorb 42.8 years ( $3 \times \$67.1 / \$4.7$ ) of the net earnings of all fund advisers.

FIGURE 9

**Years of Advisers' Estimated Net Earnings That a Capital Buffer Would Absorb**

**Years under current market conditions**

- 3.0 percent buffer
- 1.5 percent buffer



**Years under best-case conditions**

- 3.0 percent buffer
- 1.5 percent buffer



Sources: Investment Company Institute and iMoneyNet.com

Thus, 2006 in some sense represents a best-case scenario for assessing whether under much more favorable circumstances, advisers might be in a better position to provide a capital buffer. A simple test of this is to assume that interest rates return to higher levels and advisers have sufficient market power to allow them to remove all fee waivers they now offer, collecting fee revenues of \$9.9 billion per year (i.e., \$4.7 billion in fees collected plus \$5.2 billion in fee waivers reported in Figure 4 for 2011). Under such best-case conditions, a 3 percent capital buffer of all fund assets except Treasuries still would consume 20 years of fund advisers' earnings from operating money market funds (Figure 9, bottom panel).<sup>21</sup> Even the most limited capital buffer scenario (1.5 percent of fund assets excluding Treasury and agency securities) in the best of circumstances would absorb more than eight years of fund advisers' net earnings.

### *Implications of Potential Changes in Advisers' Business Models*

In sum, imposing a capital buffer requirement on the advisers of money market funds has the potential to alter the money market fund business drastically. If advisers choose instead to exit the cash management business or refocus their efforts on other cash management products, this would:

- cause a shift to less-regulated, less-transparent cash management products;
- reduce competition in the money market fund industry, which could reduce incentives for innovation and cost-cutting, to the detriment of fund shareholders;
- disrupt financing in the commercial paper, municipal, and agency markets; and
- increase, rather than reduce, systemic risk.

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<sup>21</sup> This analysis is a "best case" for three reasons. First, as indicated in note 20, we assume that 33 percent of fees collected from money market funds go directly to fund advisers' bottom line. The 33 percent estimate is generous because it assumes that fees paid by money market funds are entirely revenue to fund advisers, which is not true. Fees collected are estimated from fund expense ratios, which include charges for things such as directors fees, transfer agent fees, audit fees, and other items that are not generally a source of revenue or profit to fund advisers. Second, the "best case" assumes that short-term interest rates return to the rather elevated level of 2006, a development that is highly uncertain. Third, the "best case" assumes that money market fund expense ratios double; it is unclear that even in more normal times investors would accept such an increase.

On most of these points, the primary financial regulators have voiced similar conclusions. As stated in the President's Working Group's report on money market fund reform,<sup>22</sup>

Given the scale of assets under management in the MMF industry, MMF sponsors (or banks) that wish to keep funds operating would have to raise substantial equity—probably at least tens of billions of dollars—to meet regulatory capital requirements. Raising such sums would be a considerable challenge. The asset management business typically is not capital intensive, so many asset managers—and several of the largest advisers of MMFs—are lightly capitalized and probably could not provide such amounts of capital. If asset managers or other firms were unwilling or unable to raise the capital needed to operate...a sharp reduction in assets in stable NAV MMFs might diminish their capacity to supply short-term credit, curtail the availability of an attractive investment option (particularly for retail investors), and motivate institutional investors to shift assets to unregulated vehicles.

## **RAISING MARKET-PROVIDED CAPITAL THROUGH ISSUANCE OF SUBORDINATED SECURITIES**

Regulators and others have suggested that money market funds could raise capital in the market, through the issuance of subordinated securities. Under this approach, each money market fund would have senior and subordinated securities. The senior securities would be the traditional money market fund share class. The subordinated securities, in the form of debt or equity, would absorb losses in the net asset value (NAV; price per share) of the senior securities due to changes in the value of portfolio securities. The subordinated securities' loss absorption would be limited to the capital raised. In return, shareholders in the senior securities would give up some yield to compensate subordinated investors for pledging capital and assuming interest rate and credit default risk. In theory, market-provided capital could increase the ability of a money market fund to maintain a stable \$1.00 NAV for the senior (i.e., conventional) money market fund shares.

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<sup>22</sup> *Report of the President's Working Group on Financial Markets: Money Market Fund Reform Options* (October 2010), available at [www.treasury.gov/press-center/press-releases/Documents/10.21%20PWG%20Report%20Final.pdf](http://www.treasury.gov/press-center/press-releases/Documents/10.21%20PWG%20Report%20Final.pdf), 33–34.

After considerable study, however, including in-depth analysis by capital markets experts,<sup>23</sup> ICI has concluded that market-provided capital is not feasible for several reasons. Adding subordinated debt or equity would turn a rather simple product—the money market fund—into a considerably more complex offering. Also, small funds and small fund complexes would likely find it difficult and costly to issue and roll over subordinated securities, resulting in industry consolidation and raising a barrier to entrants. Furthermore, the approach potentially would create competing interests between the subordinated and senior investors, such as the subordinated investors' desire to avoid losses and senior investors' desire for the fund to take greater risks to boost fund yields.

A market-raised capital buffer would reduce the yield available to senior shareholders, and subordinated investors would have a highly levered investment. For example, suppose the subordinated securities in a money market fund amounted to 3 percent of the fund's total assets. If, hypothetically, a fund suffered a 0.25 percent loss of fund assets, that loss would be passed to subordinated investors, who would suffer a 8.3 percent loss on their investment. Thus, subordinated investors have a highly levered—and hence potentially volatile—investment and would demand to be well compensated for assuming such volatility. That compensation would reduce the yield available for distribution to the senior share class. A smaller capital buffer would further magnify any losses to the subordinated investors: a 0.25 percent loss in a fund with a 1.5 percent buffer would cost subordinated investors 17 percent of their investment. A smaller capital buffer requirement would require a fund to raise less capital but would make the resulting subordinated securities more levered, more volatile, and therefore more expensive and difficult to sell.

The concept of raising capital through subordinated securities raises a number of additional issues that could complicate the use of this structure. Some of those issues are:

**Debt versus equity:** Capital markets experts indicated that the subordinated securities could be marketed to the institutional investors who are most likely to be willing to assume this kind of volatility (e.g., insurance companies, global reinsurers) only if the securities could obtain a credit rating, which would require them to be structured as debt. Debt instruments in general are more marketable and would require lower yields than equity shares. However, credit rating agencies would not be likely to treat these securities as debt given the operating characteristics of a money market fund with a tiered capital structure (see discussion immediately below on treatment of losses and gains).

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<sup>23</sup> ICI engaged legal counsel, an accounting firm, and an investment bank to analyze the potential for funds or advisers to raise capital through the capital markets.

**Treatment of gains and losses:** The treatment of gains and losses is a key characteristic that would determine the potential marketability of subordinated securities. A crucial question is whether holders of subordinated securities would be required to absorb only realized losses and gains (when securities in a fund's portfolio are sold at a discount or premium to their "book" or amortized cost), or also would be required to absorb unrealized losses (daily fluctuations in the mark-to-market value of a fund's portfolio). The portfolio holdings of money market funds can fluctuate daily by small amounts because of changes in interest rates or credit conditions, which can result in small, unrealized gains or losses.<sup>24</sup> If the subordinated securities were required to absorb unrealized losses, their highly levered nature would cause even minor fluctuations in the underlying portfolio's value to have an amplified impact on the value of the subordinated securities. Credit rating agencies would be unlikely to treat such volatile securities as debt, ultimately affecting their marketability.

On the other hand, requiring the subordinated securities to absorb only realized losses would create competing interests between holders of the senior shares, who might insist that the manager protect the portfolio value by immediately disposing of securities whose value had declined relative to amortized cost, and the holders of subordinated securities, who might pressure the manager to avoid realizing losses by holding those same securities until maturity.

**Securities "inside" or "outside" the fund:** The legal structure of the subordinated securities could take one of two forms: securities issued by the fund ("inside" the fund) or securities issued by a special purpose bankruptcy remote entity (SPE) ("outside" the fund). Both structures pose challenges. Issuing securities inside the fund in most cases would require money market funds to amend their charters or fundamental policies with the approval of fund shareholders. Soliciting the necessary proxies from shareholders is particularly difficult for money market funds, because investors' use of money market funds for transactions leads to high turnover of fund shares.<sup>25</sup> On the other hand, an SPE created to provide first-loss securities outside the fund would be viewed in some jurisdictions as engaged in the insurance business and hence would be subject to additional regulation, costs, and complexity.

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<sup>24</sup> See ICI Research Report, *Pricing of U.S. Money Market Funds* (January 2011), available at [www.ici.org/pdf/ppr\\_11\\_mmf\\_pricing.pdf](http://www.ici.org/pdf/ppr_11_mmf_pricing.pdf), which shows that the mark-to-market values of money market funds generally move in a very narrow range around \$1.00, owing to the minimal credit risk and short maturities of securities money market funds hold.

<sup>25</sup> Similarly, requiring money market funds to impose minimum account balances or other redemption restrictions that affect shareholder rights and preferences would in many cases force funds to amend their charters under state law or otherwise seek shareholder approval. For a discussion of the state law impediments to redemption restrictions and money market funds' difficulties in obtaining shareholder approvals, see Letter from John W. McGonigle, Vice Chairman, Federated Investors, Inc., to Elizabeth M. Murphy, Secretary, Securities and Exchange Commission (March 16, 2012), available at <http://sec.gov/comments/4-619/4619-140.pdf>.

**Market reception of new class of securities:** One appeal of using subordinated securities to meet capital requirements for money market funds is that, in theory, capital could be raised more quickly in the markets than through retained earnings. Launching a new form of security, however, is a complex and time-consuming process. The \$28.3 billion securitization program launched by the National Credit Union Administration (NCUA) in 2010, for example, required eight months to complete, even though the notes were rated AAA/Aaa and backed by the full faith and credit of the U.S. government.<sup>26</sup>

The NCUA offering illustrates the difficulties funds would face in raising capital in the market. A capital buffer of 3 percent of money market fund assets excluding Treasury securities would require capital of \$67 billion (Figure 5), more than twice that raised by the NCUA in its offering. Moreover, the NCUA is a single, well-known issuer. The \$67 billion that money market funds would need to raise might require more than 600 individual money market funds to enter the market seeking to raise capital simultaneously. Even if fund advisers, rather than funds, were the issuers, the market would confront approximately 115 issuers selling a unique new security, with characteristics and performance yet to be demonstrated, in a compressed time frame. Such a scenario would place smaller and closely held fund advisers at a severe disadvantage in obtaining the attention of analysts and potential investors, heightening the consolidation pressure on the money market fund industry.<sup>27</sup>

**Resiliency in a financial crisis:** Finally, it is unclear how well this structure would protect senior share class investors during times of stress. For example, if the subordinated securities were treated as investment-grade debt, these notes would need to be rolled over periodically. During a period of market stress, rolling over such highly levered and risky financing would be difficult, if not impossible. That, in turn, would subject funds to the risk of having to find new sources of capital precisely when market participants are most reluctant to offer it.<sup>28</sup> A fund's failure to roll over its subordinated debt during a financial crisis could trigger exactly the crisis of confidence and heavy redemptions that capital buffers are intended to mitigate.

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<sup>26</sup> See [www.ncua.gov/News/Press/NW20110616FinalGuaranteedNote.pdf](http://www.ncua.gov/News/Press/NW20110616FinalGuaranteedNote.pdf).

<sup>27</sup> Investment bankers concluded that developing the market for subordinated money market fund securities would probably require a staged rollout by issuers. This would further complicate matters and could raise difficult competitive and other issues.

<sup>28</sup> In theory, rollover risk could be eliminated by requiring the subordinated share class to consist of a perpetual investment, such as equity. As noted previously, however, investment bankers raised concerns about the marketability of equity.

## **BUILDING A WITHIN-FUND CAPITAL BUFFER BY SETTING ASIDE FUND INCOME**

Raising capital within a money market fund avoids many of the issues associated with raising third-party capital through a subordinated share class. Given that a money market fund has income, a portion of that income could be set aside each year as retained earnings. Over time, these retained earnings would drive up the fund's mark-to-market value, providing a buffer to protect fund shareholders against any decline in the value of a fund's portfolio holdings.

Nevertheless, this approach has limitations. The first limitation is that a fund, under SEC rules and GAAP, can accumulate a capital buffer of no more than 0.5 percent of net assets. The fund's price per share (NAV) would remain fixed at \$1.00 only until the fund's mark-to-market value rises to \$1.0050. At that point, the fund would have to adjust its NAV upward to \$1.01, "breaking the dollar" on the upside. Any buffer in excess of \$0.0050 would require regulatory relief from the SEC and FASB.<sup>29</sup>

The Internal Revenue Code (IRC) limits the speed at which a within-fund capital buffer can be built. In any given year, mutual funds, including money market funds, are required to pay out to shareholders at least 90 percent of their annual earnings.<sup>30</sup> Otherwise they must pay corporate income tax on all their earnings. Failing to meet this test would impose significant double taxation on fund shareholders: once when the fund pays income tax on its earnings, and a second time when the investor must pay income tax on earnings received. To avoid this significant double taxation, a money market fund could at most set aside 10 percent of its annual earnings (assuming it has earnings) toward a capital buffer. In addition, if a money market fund were to retain some of its income to build a capital buffer, it would have to pay corporate income tax, presumably at a 35 percent rate, on the amount retained. This would reduce the amount that a money market fund could set aside to 6.5 percent or less of its income in any given year.

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<sup>29</sup> In practice, absent regulatory relief, the buffer would have to be carefully managed. For example, if a fund had a buffer equal to \$0.0050 per share and the fund experienced a large redemption, the per share amount of the buffer would increase above \$0.0050 (as the absolute amount of the buffer is spread over fewer fund shares) causing the fund's mark to market NAV to exceed \$1.0050.

<sup>30</sup> This provision of the IRC also poses an insurmountable hurdle for tax-exempt money market funds. A tax-exempt money market fund that fails to distribute 90 percent of its income in a given year would be considered an ordinary corporation rather than a fund, and would lose its ability to flow through tax-exempt income to its shareholders. Consequently, the fund's shareholders would have to pay income tax on earnings the fund distributes. The tax-exempt money market fund would generate taxable, rather than tax-exempt, income, which investors presumably would reject.

This calculation also must incorporate another significant constraint: the need for prime money market funds to pay a premium over the yield on Treasury securities. Presumably, investors will not hold prime money market funds that offer a yield below that of Treasury money market funds. This factor, combined with IRC restrictions, indicates that under plausible assumptions a typical prime money market fund could not retain more than about 3 percent of its income each year toward a capital buffer. Our calculations indicate that such a fund would need about 14 years—until about 2026—to build a capital buffer of 0.5 percent of its total assets, the maximum it can set aside without revaluing its NAV upward (Figure 10).<sup>31</sup>

This analysis depends on a number of assumptions about developments in short-term interest rates, investors' future demand for money market fund investments, the elasticity of investors' demand to a decline in current yield owing to the diversion of income to the capital buffer, and advisers' willingness to continue offering fee waivers to their funds. Under the most favorable assumptions—i.e., short-term interest rates rise somewhat faster than assumed in Figure 10 and advisers are willing to continue offering fee waivers at current rates (\$5.2 billion per year) for the next several years—we estimate that building a 0.5 percent within-fund capital buffer would take a minimum of five years (Figure 11).

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<sup>31</sup> Figure 10 uses a number of plausible assumptions (listed below the figure). The most important is that the yield on Treasury bills remains near zero until the end of 2014; after that, it rises slowly until 2019 as the Federal Reserve tightens monetary policy. The figure compares the yield on a Treasury-only money market fund with an expense ratio of 0.35 percent to that of a prime fund with an expense ratio of 0.40 percent that has 30 percent of its assets in Treasury securities and 70 percent in commercial paper. The prime fund sets aside as much of its current income as it can toward a capital buffer, subject to paying out 90 percent of earnings to shareholders and maintaining a net yield (after expenses and any additions to the capital buffer) above that of the Treasury fund. The last column in Figure 10 shows how the capital buffer builds over time, as a percentage of the fund's total assets. The figure indicates that it would take until 2026 to build a capital buffer of 0.5 percent of fund assets.

FIGURE 10

### Building a Within-Fund Capital Buffer from Retained Earnings Would Take 14 Years Under Current Market Conditions

Year	Treasury fund		Prime money market fund			
	Yield		Yield		Capital buffer	
	Yield on 3-month T-bill	After expenses	Gross	After expenses	After expenses, income tax, and addition to capital buffer	Percentage of total fund assets
2013	0.00%	0.00%	0.18%	0.00%	0.00%	0.00%
2014	0.00	0.00	0.18	0.00	0.00	0.00
2015	1.00	0.65	1.18	0.78	0.75	0.02
2016	2.00	1.65	2.18	1.78	1.72	0.05
2017	3.00	2.65	3.18	2.78	2.69	0.10
2018	3.50	3.15	3.68	3.28	3.18	0.16
2019	3.75	3.40	3.93	3.53	3.42	0.21
2020	3.75	3.40	3.93	3.53	3.42	0.27
2021	3.75	3.40	3.93	3.53	3.42	0.32
2022	3.75	3.40	3.93	3.53	3.42	0.36
2023	3.75	3.40	3.93	3.53	3.42	0.40
2024	3.75	3.40	3.93	3.53	3.42	0.44
2025	3.75	3.40	3.93	3.53	3.42	0.48
2026	3.75	3.40	3.93	3.53	3.42	0.50

Assumptions: (1) expense ratios are .35 percent and .40 percent, respectively, for the Treasury and prime fund; (2) maximum capital buffer is 0.50 percent of total fund assets; (3) prime fund distributes 97 percent of its earnings to shareholders each year; (4) prime fund pays corporate income tax at 35 percent rate; (5) investors reinvest 90 percent of distributed income; (6) fund has net new cash inflow of 5 percent per year of total fund assets; (7) adviser waives all fees in 2012 and 2013; (8) prime fund's portfolio consists of 70 percent commercial paper and 30 percent of securities whose yield is equal to that on 3-month T-bill (indicative of the fund's holdings of Treasuries, agencies, or short-dated repurchase agreements); (9) commercial paper earns a yield of 25 basis points above that on 3-month Treasury bills.

FIGURE 11

**Building a Within-Fund Capital Buffer from Retained Earnings Would Take at Least Five Years Under Best-Case Conditions**

Year	Treasury fund		Prime money market fund			
	Yield		Yield		Capital buffer	
	Yield on 3-month T-bill	After expenses	Gross	After expenses	After expenses, income tax, and addition to capital buffer	Percentage of total fund assets
2013	1.00%	0.65%	1.18%	1.00%	0.94%	0.04%
2014	2.00	1.65	2.18	2.00	1.87	0.13
2015	3.00	2.65	3.18	2.98	2.79	0.24
2016	3.75	3.40	3.93	3.72	3.48	0.38
2017	3.75	3.40	3.93	3.70	3.46	0.50

Assumptions: (1) expense ratios are .35 percent and .40 percent, respectively, for the Treasury and prime fund; (2) maximum capital buffer is 0.50 percent of total fund assets; (3) prime fund distributes 93.5 percent of its earnings to shareholders each year; (4) prime fund pays corporate income tax at 35 percent rate; (5) investors reinvest 90 percent of distributed income; (6) fund has net new cash inflow of 5 percent per year of total fund assets; (7) adviser offers a fee waiver averaging 20 basis points for the next five years; (8) prime fund's portfolio consists of 70 percent commercial paper and 30 percent of securities whose yield is equal to that on 3-month T-bill (indicative of the fund's holdings of Treasuries, agencies, or short-dated repurchase agreements); (9) commercial paper earns a yield of 25 basis points above that on 3-month Treasury bills.

## **CONCLUSION**

This paper offers a preliminary analysis of the likely effects of a regulatory requirement that money market funds or their advisers be required to hold capital against money market fund assets.

Outcomes will depend on the specific details of any proposal. Our analysis demonstrates that capital buffer proposals, especially those requiring fund advisers to pledge capital, could lead fund advisers to take business decisions that dramatically alter the money market fund business. The changes could have significant knock-on effects in money markets themselves, business cash management practices, and the ability of regulators to monitor risks in the financial markets. Indeed, we believe that capital buffer proposals could undermine the money market fund product, depriving investors of a powerful tool for cash management and disrupting financing for key sectors of the economy. Moreover, cash balances could migrate to less-regulated, more opaque financial instruments, which would make it more difficult for regulators to identify and manage systemic risk.





1401 H Street, NW  
Washington, DC 20005  
202-326-5800  
[www.ici.org](http://www.ici.org)