



# Center for the Study of Financial Regulation

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The Center for the Study of Financial Regulation at the University of Notre Dame has as its mission to promote sound economic analysis of current and proposed financial regulation. Poorly conceived financial regulations can impose large costs on the economy and may harm America's leadership in the financial industry by driving financial transactions offshore. We believe that more independent economic analysis of financial regulation is needed.

If you have comments on this newsletter please contact the Center's Director, Paul Schultz, at [pschultz@nd.edu](mailto:pschultz@nd.edu). We welcome your input, advice and suggestions.

### WHAT WE KNOW (and don't know) ABOUT HIGH-FREQUENCY TRADING

By Charles M. Jones

High-frequency trading (HFT) has attracted considerable negative press coverage recently. Is any of it warranted? In a recent paper,<sup>1</sup> I review the existing academic research on HFT so that researchers, practitioners, policymakers, and other interested parties can become familiar with the current state of knowledge and some of the outstanding economic issues. Rather than relying on emotional appeals, regulators need to consider the evidence on HFT and automated markets.

HFT firms can trade thousands of times per day for their own account, with typical holding periods measured in seconds or minutes. Many HFT strategies are not new. They are familiar trading strategies updated for an automated environment. For example, many HFTs stand ready to buy or sell like traditional human market-makers, but with lower costs due to automation. As a result, HFT market-makers have mostly replaced the human variety. Other HFT strategies conduct cross-market arbitrage, such as ensuring that prices of the same-share trading in both New York and London are the same. This trading strategy can be implemented faster and at lower cost with computers.

Liquidity—the ability to trade a substantial amount at close to current market prices—is an important, desirable feature of financial markets. The key question is

whether HFT improves liquidity and reduces transaction costs, and economic theory identifies several ways that HFT could affect liquidity. The main positive is that HFT can intermediate trades at lower cost due to automation. These can be passed on to investors in the form of narrower bid-ask spreads and smaller commissions. The biggest potential negative is that the speed of HFT could disadvantage other market participants. The resulting adverse selection could reduce market quality. There is also the potential for an unproductive arms race among HFT firms racing to be fastest.

Over the past 10 years, HFT has increased sharply, and liquidity has improved markedly. But correlation is not necessarily causation. Empirically, the challenge is to measure the incremental effect of HFT on top of other changes in equity markets. The best papers for this purpose identify market structure changes that either facilitate or discourage HFT. There have been several such changes, and the results in these papers are consistent. When a market structure change leads to more HFT, liquidity and overall market quality have improved. It

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## WHAT WE KNOW (and don't know) ABOUT HIGH-FREQUENCY TRADING *Continued*

appears that market quality improves because automated market-makers and other liquidity suppliers are better able to adjust their quotes in response to new information.

A remaining concern is that HFT could make markets more fragile, increasing the possibility of extreme market moves and episodes of extreme illiquidity. During the May 6, 2010 Flash Crash, for example, S&P futures fell almost 10 percent in 15 minutes before rebounding. Some individual stocks moved far more. During the Flash Crash, the CFTC and SEC find that HFT firms initially stabilized prices but were eventually overwhelmed, and in liquidating their positions, HFT exacerbated the downturn. This appears to be a common response by intermediaries, as it also occurred in less automated times during the stock market crash of October 1987 and a similar flash crash in 1962. Thus, there does not seem to be anything unusually destabilizing about HFT, even in extreme market conditions. Short-term individual stock price limits and trading halts have been introduced since. This appears to be a well-crafted regulatory measure that should prevent a recurrence. A trading pause should give market participants a chance to re-evaluate and stabilize prices if the price moves appear unwarranted. More recently, stocks fell by about 1 percent in less than one minute after false rumors about explosions in Washington circulated on a hacked Associated Press Twitter feed. Trading pauses could also be useful in cases like this.

Regulators in the U.S. and abroad are considering other initiatives related to HFT. Many issues associated with HFT are the same issues that arose in more manual markets. For example, there is concern about the effects of a two-tiered market. Today, the concern is that trading speed sorts market participants into different tiers. In the floor-based era, the concern was access to the trading floor. Many of the abuses in the floor-based era were due to a lack

of competition. Now, regulators are appropriately relying on competition to minimize

abuses. If there is some sort of market failure, however, then robust competition may not always be the solution, and regulation may be in order. In evaluating any regulatory initiative, it is important to identify the market failure and to ensure the cure isn't worse than the disease. Proposed regulatory initiatives include:

**Consolidated order-level audit trails.** Audit trails have always been needed for market surveillance, and robust enforcement is important to ensure investor confidence in markets. With HFT, malfeasance is possible in order submission strategies, and it may be possible to hide by scattering trades across different exchanges, so regulators need ready access to order-level data from each trading venue.

**Order cancellation or excess message fees.** If bandwidth and data processing requirements are overwhelming some trading venue customers, it may be appropriate for trading venues or regulators to set prices accordingly and charge the participants who are imposing those costs on others. Some markets around the world have imposed these fees. There could be unmeasured benefits, but the early evidence suggests that market quality worsens, as liquidity providers widen their spreads and reduce depths to avoid the fees or recover their costs.

**Minimum order exposure times.** Under these proposals, submitted orders could not be cancelled for at least some period of time, perhaps 50 milliseconds. This would force large changes in equity markets and could severely discourage liquidity provision. The economic rationale here is particularly suspect, as the overriding goal in market design should be to encourage liquidity provision. But this hasn't really been tried yet, so there is no empirical evidence one way or the other.

“When a market structure change leads to more HFT, liquidity and overall market quality have improved.”

**Securities transaction taxes.** Based on jurisdictions where transaction taxes have been imposed, removed, or changed, it is clear that these taxes reduce share prices, increase volatility, reduce price efficiency, worsen liquidity, increase trading costs, and cause trading to move offshore.

**Restrictions on order types.** Exchanges and trading venues have introduced a variety of new order types in the past few years. HFT firms are the main adopters, and there is concern that these could disadvantage other traders in some way. Studying the empirical effects would be worthwhile.

Overall, the vast majority of the empirical work indicates that HFT and automated, competing markets improve market liquidity, reduce trading costs, and make stock prices more efficient. Better liquidity lowers the cost of equity capital for firms, which is an important positive for the real economy. Minor regulatory tweaks may be in order, but those formulating policy should be especially careful not to reverse the liquidity improvements of the last twenty years. ■

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<sup>1</sup>Charles M. Jones (2013), “What do we know about high-frequency trading?”, working paper, available at [ssrn.com](http://ssrn.com). The paper is based on a number of previous lectures and talks on HFT with the same title; Citadel (an HFT firm) provided financial support to turn the slides into a paper.

## REGULATING DISCLOSURE: DOES THE PRESENCE OF PUBLICLY OWNED FIRMS HELP OTHER FIRMS?

By Brad Badertscher,  
Nemit Shroff and Hal White

In the wake of the 1929 stock market crash, Congress passed the Securities Acts of 1933 and 1934, which greatly increased the required amount of information that publicly traded firms must disclose to investors. This increased transparency was intended to restore investor confidence in the firms and the market. Since then, regulators have continued to increase firms' disclosure requirements. Public firms now disclose large amounts of information, such as their business strategy, financial performance, expected future outlook, current and future investment outlays, material contracts, and business risks. In addition, information intermediaries, such as financial analysts and the business press, analyze, discuss, and disseminate firms' disclosures.

In contrast, because private firms are not required to publicly disclose information in the U.S. and analysts and the business press provide much less coverage of private firms, little is known about the operations and performance of private firms. Thus, the composition of public and private firms in an industry is likely to have a significant effect on the industry's information environment. While this increased transparency may be beneficial to investors in assessing firms' financial health and future prospects, other market participants (e.g., industry peer firms) may also find the public disclosures useful.

In Badertscher, Shroff, and White (2013), we show that greater public firm

presence in an industry can increase the responsiveness of firms' investment to their investment opportunities (i.e., investment efficiency) by enriching the industry's information environment. The intuition is that as more firms in an industry publicly disclose information and receive coverage by information intermediaries, a more complete perspective of the current economic environment and future outlook for the industry emerges. This reduction in industry uncertainty can then be used by peer firms in the industry to make more informed investment decisions. Corporate investment decisions are often characterized by some degree of irreversibility; i.e., investment expenditures are at least partially sunk, and cannot be undone without cost once incurred (Pindyck, 1991). When investment decisions are irreversible, uncertainty makes firms more cautious and leads firms to take a "wait and see" strategy, making them less responsive to their growth opportunities (Bloom, Bond, and Van Reenen, 2007; Julio and Yook, 2012). Our results suggest that greater public firm presence leads to lower uncertainty, and thus increases investment efficiency.

**"Our results suggest that greater public firm presence leads to lower uncertainty, and thus increases investment efficiency."**

We then examine circumstances when public firm presence is likely to have a higher or lower effect on firms' investment efficiency. We begin by exploring whether differences in the quality and quantity of information disclosed in the industry affect the extent to which public firm presence reduces uncertainty. If the firms and information intermediaries in an industry disclose less information or information that conceals economic performance, public firm presence is less likely to reduce uncertainty and facilitate the investment decisions of peer firms in such an industry.

Accordingly, we predict and find that the relation between public firm presence and investment efficiency is stronger when the public firms have more informative earnings, provide more management forecasts, and are covered by more analysts. We also find that the effect of public firm presence on investment efficiency is greater in industries characterized by higher degrees of investment irreversibility; i.e., when investment decisions have higher sunk costs.

So, what does this mean for future disclosure regulation and its ability to generate positive externalities? Clearly there are well-documented costs and benefits to mandatory disclosure regulation. However, the current movement is toward firms utilizing decreased disclosure-related regulation and/or leverage buyouts to avoid disclosure requirements, yet still maintaining access to capital and investors. For instance, among its many items, the JOBS (Jumpstart Our Business Startups) Act of 2012 significantly eased the regulatory burdens of firms complying with the registration and reporting obligations of the Securities Exchange Act of 1934, while still allowing firms to access additional capital through increased

stockholders of record (from 500 to 2,000). In addition, the JOBS Act relieves "emerging growth companies" from certain regulatory and disclosure requirements when they initially go public and for a period of five years after they are public. As a result, the JOBS Act coupled with the growing leverage buyout market (WSJ, 12/6/2012) gives firms, both young and established, the ability to grow and raise capital without being subjected to mandatory disclosure requirements. Although such actions likely benefit the involved firm in a positive way, the ramifications also extend to the rest of the industry, as such actions will likely reduce the richness of the industry's information environment. Our study suggests that this reduction in the information environment could lead to less informed investment decisions.

## REGULATING DISCLOSURE: DOES THE PRESENCE OF PUBLICLY OWNED FIRMS HELP OTHER FIRMS? *Continued*

Another question arising from our research is, can society in general benefit from a full disclosure regime, where both private and public firms publicly disclose information? Perhaps we can learn something from the U.K., where both private and public firms are required to publicly disclose their financial statements. In our study, we compare changes in public firm presence in the U.S. with similar changes in the U.K. to determine whether our observed relation between public firm presence and investment efficiency holds in the U.K. Since the proportion of public firms does not capture the proportion of firms publicly disclosing information in the U.K., it is less likely to capture variation in the information environment of the industry as a whole. We find no evidence that public firm presence affects investment sensitivities of private firms in the U.K. While this finding further validates the inferences in our paper, it also poses an interesting question as to whether the lack of findings in the U.K. suggests that firms are already using the information to make more efficient investments.

As regulators increase disclosure requirements on public companies to serve investors, many more questions arise. Are the burdens of complying with disclosure rules driving more and more firms to delist? If so, what impact does that have on economic growth in an economy, both directly and indirectly through externalities? Should private firms be required to disclose information? To which constituency and what level of care should regulators be focused on? At a minimum, it seems that there should be more thorough discussion and analyses on the implications of disclosure regulation beyond how it directly impacts investors' understanding of the firm. ■

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## RAISING CAPITAL REQUIREMENTS: AT WHAT COST?

By Malcolm Baker and Jeffrey Wurgler

Since the financial crisis, bank capital positions have improved considerably. However, calls for heightened capital requirements have not abated. Federal Reserve Chair Ben Bernanke, Vice Chair Janet Yellen, and governors Daniel Tarullo and Jeremy Stein have all suggested that Basel III may not go far enough, particularly for large and complex banks. The legislation proposed by U.S. Senators Sherrod Brown and David Vitter lays out a plan to raise requirements further, and there are other recommendations both by policymakers and academics.

It is hard to measure the long-term benefits and costs of capital requirements with precision. The issue is multi-dimensional, involving agency problems in banks, asymmetric information, international coordination, bank governance, taxes,

government subsidies, systemic risks, shadow banking, and so on. Recent experience suggests that the benefits of a safer and more stable banking system, while hard to precisely quantify, are considerable.

A central concern, however, is whether substantially heightened capital requirements will increase the overall cost of capital, raise lending rates, and limit the growth of economic activity in the process. Bankers have appealed to a simplistic logic about the cost of debt and equity. If equity is more costly than debt, then more equity means a higher overall cost of capital.<sup>1</sup> Many economists view this as a fallacy.<sup>2</sup> In theory, reducing leverage with increased capital requirements makes banks safer and lowers the returns that shareholders require. Even though equity is costlier than debt, banks that decide—or are forced—to hold more equity will not change their overall average cost of capital. As long as capital markets are efficient and free of other distortions such as taxes, the reduced cost of equity exactly offsets its increased weight in the capital structure, leaving the overall cost of capital unchanged. This simple and powerful theoretical insight won Nobel Prizes for Franco Modigliani and Merton Miller.

Of course, capital markets are not perfect. For example, if debt is tax advantaged, heightened capital requirements will raise the cost of capital somewhat.<sup>3</sup> Our new research (Baker and Wurgler, 2013) focuses on an underappreciated and even more fundamental market imperfection at the core of the Modigliani-Miller logic: the notion that there is a reliable tradeoff between risk and return in the equity markets.

Certain risk-return tradeoffs across asset classes are sensible and apparent: Treasuries tend to return less than corporate bonds, which in turn tend to return less than stocks. But within the stock market, risk and return have not been well connected. If anything, the relationship is backward. Shareholders have long earned lower returns, on average, for bearing more risk. For instance, in a study published with

“...low-risk banks have historically paid more for their equity ... than relatively riskier banks.”

Brendan Bradley of Acadian Asset Management (Baker, Bradley, and Wurgler, 2011), we found that a dollar invested in low risk U.S. stocks in 1968 grew to more than 59 dollars over the next forty-one years. In contrast, the same dollar in high-risk stocks actually shrunk to 58 cents. After inflation, the high-risk investor is essentially wiped out, despite bearing four decades of extreme risk.

This low risk anomaly is a paradox hidden in the data and runs counter to traditional finance assumptions and principles. The pattern is obscured by episodic crises and easy to see only in a long-term analysis. But it is as real as it is striking. A similarly odd risk-return tradeoff appears in many developed stock markets.

Banks and banking regulators need to pay attention because this fact also applies to banks. We collected 80 years of stock returns on several thousand U.S. banks. As theory led us to expect, we found that highly capitalized banks had lower risk, measured by stock beta or volatility. But, as prior research on the low risk anomaly suggests, low-risk banks have historically paid more for their equity—in the sense of delivering higher average stock returns—than relatively riskier banks.

If the cost of equity actually rises instead of falls, as banks are required to hold more of it, the overall cost of funds rises, too. And, because lending rates must be higher than funding rates—banks like to make a profit—this will be passed on to borrowers. The effect is quantitatively big. Using the inverted relationship between risk and return in the historical data suggests that a 10 percentage-point increase in Tier 1 capital to risk-weighted assets—a stricter increase than Basel III mandates, at least for

most banks, but less than others have called for—would have increased the overall cost of capital for U.S. banks by between 60 and 90 basis points per year.

By our estimates, an increase of this magnitude would more than double the spread over Treasury yields that banks usually pay for capital. It would, in competitive lending markets, also increase lending rates by a similar amount. Higher rates would deter investment or direct borrowers toward the less-regulated shadow banking system for better terms.

What causes the backward risk-return relationship among bank stocks? The simplest explanation is that shareholders like their stock risky. They inadvertently accept generally lower returns on risky stocks, even the occasional collapse, for the shot at a big upside, the proverbial “next Microsoft.” This risk-loving attitude may derive from a mix of well-documented biases in our psychology including optimism, overconfidence, and preferences for lottery-like payoffs. Another explanation is that the mere categorization of a security as equity leads investors to demand a return that resembles the return on other stocks, regardless of its particular risk properties. This sort of behavior arguably influenced the pricing of collateralized debt obligations that were labeled as AAA. A final explanation is that the smart money is often on the sidelines. Institutional equity managers are typically benchmarked against the overall stock market. A portfolio of low risk stocks appears risky to them, in the sense that it tends to lag in bull markets.

But frankly, for bank regulators and banks, the exact explanation does not matter. All that matters is the market reality. While forcing banks to reduce leverage will reduce the risk of equity just as intended, it will also—if historical experience is a guide and investor attitudes do not change—increase the cost of equity and in turn lending rates. There are subtler implications here, too. Banks may respond by increasing their risk in other ways to offset the increase

in capital requirements, by pairing lending with riskier activities like investment banking, market making, asset management, and brokerage. Regulators might lean toward rules that allow a greater reliance on unsecured or convertible debt, which leaves equity risk largely unchanged. Perhaps the link between risk and return can be corrected, if new and very low risk bank equity is marketed to investors as different, more like near-investment-grade debt than prototypical equity.

Let us also be very clear. We are not arguing that undercapitalized banks are a good idea. We are not sure what level of capital requirements best balances the costs and benefits. Clearly, fewer financial crises would be welcome. Our point is that regulation that makes bank equity safer will raise the overall cost of capital, and thereby lending rates. Borrowers in particular will then pay a price for safer banks. This is a heretofore unrecognized cost of capital requirements and it needs to be added to the regulatory conversations in Basel, Brussels, London, and Washington. ■

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<sup>1</sup>For example, Elliott (2013) quotes a former managing director of JP Morgan and policy analyst as writing, “the first-order effect of increasing the ratio of common equity to total assets for banks from 5% to 30% would clearly be very high. Assume that the annual cost of bank equity is 5 percentage points higher than the after-tax cost of bank deposits and debt...”

<sup>2</sup>For example, see Admati, DeMarzo, Hellwig, and Pfleiderer (2011).

<sup>3</sup>Other authors, including Hanson, Kashyap, and Stein (2010) have attempted to calibrate the effect of increased capital requirements in light of corporate taxes.

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## MARK-TO-MARKET ACCOUNTING, MARKET STRESS AND INCENTIVE DISTORTIONS

By Andrew Ellul, Chotibhak Jotikasthira, Christian T. Lundblad and Yihui Wang

A very contentious issue raised during the recent financial crisis has been the role played by mark-to-market (MTM) accounting in creating or exacerbating the impact of the crisis on financial institutions and asset prices. In a September 2008 letter to the SEC, the American Bankers Association stated: "The problems that exist in today's financial markets can be traced to many different factors. One factor that is recognized as having exacerbated these problems is fair value accounting." An alternative to MTM accounting is historical cost accounting (HCA), and it is precisely this variant that has been proposed as a better accounting method for financial institutions, at least to avoid amplifying systemic risk during a crisis.

Most of the theoretical literature that links the propagation of systemic risk to accounting (Allen and Carletti (2008), Plantin, Sapra and Shin (2008), and Sapra

(2008)) argues that the specific nature of MTM accounting leads to a "fire-sale externality problem" whereby additional selling pressure by financial institutions arises during market stress because of feedback effects between asset prices and financial institutions' capitalization. They argue that HCA, in contrast, may limit such downward spirals by avoiding these feedback effects.

In our recent papers (Ellul et al. (2012, 2013)), we argue that a crucial issue in the debate, and one that has been largely ignored thus far, relates to the interaction between the accounting regime and the institutional framework. In particular, the accounting treatment cannot be viewed separately from regulatory capital requirements. Our work explores the trading incentives of financial institutions induced by this interaction.

Before proceeding, let us first explain how the use of MTM and HCA can influence financial institutions' capital positions. Consider securitized assets (referred to as ABS) that experienced substantial downgrades during 2007-2009. Because of risk-based capital requirements, the severe downgrades of ABS, often from investment to speculative grades, significantly increased the regulatory capital requirements of various financial institutions holding these downgraded instruments. Moreover, these instruments also suffered significant price declines. Each affected institution faces a stark decision: either keep the downgraded instruments and raise additional equity capital, quite difficult during a crisis, or sell the downgraded instruments to reduce the risk-based capital requirement by swapping for low risk assets like Treasuries. This is where the accounting rules used for these instruments should have a first-order effect on trading incentives.

Consider the case where an institution holds the downgraded assets at market values. In this case, the price decline is automatically reflected in the balance sheet, and the loss would directly reduce the institution's equity capital. While the institution

will be indifferent between keeping the assets on its balance sheet and selling them from a purely accounting point of view, selling the downgraded assets for cash or lower-risk assets will reduce the required risk-based capital and hence improve the financial health as measured by the risk based capital (RBC) ratio (defined as the amount of equity capital divided by the risk-weighted capital requirement). In this case, one institution's desire to satisfy regulatory constraints by selling the distressed assets may create negative externalities for other institutions holding the same assets, and thus MTM may lead to a downward spiral of prices. Consider another case where the institution holds the downgraded assets at historical cost: In this case, the price decline will not affect its equity capital, but will elevate its required risk-based capital, leading to a deterioration of its RBC ratio. This institution may try to avoid selling the downgraded assets and realizing losses, but it cannot escape the fact that it needs to improve its RBC ratio to recover its previous measurement of financial health. One option is to engage in the so-called gains trading, where an institution selectively sells other risky assets on its balance sheet to recognize gains and increase its capital (Laux and Leuz (2009, 2010)).

**"This evidence is consistent with the idea that MTM can lead to fire sales and, potentially, to a downward spiral in prices."**

We use the insurance industry as a laboratory to explore the impact of accounting rules since the accounting treatments used in determining the required regulatory capital for holding speculative-grade assets differ significantly for life and for property and casualty (P&C) insurers. Prior to 2009, when an asset held by insurance companies is downgraded from investment to speculative grade, P&C insurers have to immediately recognize the asset value as the lower

## MARK-TO-MARKET ACCOUNTING, MARKET STRESS AND INCENTIVE DISTORTIONS *Continued*

of the book value (based on HCA) and the market price (or model price, in case no market price is available). On the other hand, life insurers can continue to hold the downgraded asset under HCA except in the extreme case when it is classified as “in or near default.”

Using position-level data provided by the National Association of Insurance Commissioners (NAIC), we investigate how the significant downgrade of ABS securities held by the two groups of insurers affected their behavior during the 2007-09 crisis. In Ellul et al. (2012), we find a number of important results. Life firms (generally booking the downgraded securities under HCA) largely keep the downgraded ABS in their balance sheet whereas P&C firms (generally marking to market the downgraded securities) disproportionately sell their downgraded ABS holdings. This evidence is consistent with the idea that MTM can lead to fire sales and, potentially, to a downward spiral in prices. In contrast, we find that life insurers disproportionately sell otherwise unrelated corporate bonds that have the highest level of unrealized gains, confirming the gains trading behavior induced by HCA: Because most corporate bonds are held at historical cost, it is only by selling that these unrealized gains can be recognized. This trading behavior is disproportionately conducted by life insurers that have (a) large exposures to downgraded ABS booked under HCA, and (b) low risk-based capital ratios.

The question then becomes whether such gains trading generates distortions in financial institutions' portfolio allocations and engenders price pressures in the market for the assets with unrealized gains. Our analysis shows that the answer is yes. Life insurers, particularly those that are relatively capital-constrained, maintain sizeable allocations to significantly underperforming and risky ABS whereas P&C insurers significantly cut their ABS allocations. We also find that gains trading by life insurers induces price declines for the otherwise unrelated corporate bonds that happen to

exhibit high unrealized gains. HCA does not completely avoid illiquidity spillovers.

In Ellul et al. (2013), we investigate the trading behavior of the two groups of insurers in the years leading up to the crisis. We find that P&C insurers, subject to MTM in the case that their assets are downgraded to speculative grades, are significantly more prudent in their portfolio choice in the period prior to the crisis. In sharp contrast to life insurers, P&C insurers do not increase as much their portfolio allocation to ABS securities, many of which are eventually downgraded during the crisis, and choose similarly-rated corporate bonds that are safer (as evidenced by their lower market yields and better performance during the crisis). This prudent behavior reduces the need for P&C insurers to engage in fire sales of downgraded assets and hence dampens the potential adverse effects of MTM.

Overall, these results show that the interaction between the accounting treatment and capital regulations can alter financial institutions' portfolio allocations, yielding distortions in key regulatory metrics and creating unintended consequences. In particular, the incentives associated with HCA can engender “reaching-for-yield” behavior during normal times and price distortions during market stress for assets that are completely unrelated to the original downgraded securities. ■

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## INDIRECT ADVERTISING FOR HEDGE FUNDS

By Sugata Ray

One of the measures in last year's Jumpstart Our Business Startups (JOBS) Act contemplated lifting the ban on advertising by hedge funds, while retaining investor wealth, income and sophistication thresholds.<sup>1</sup> While the JOBS Act passed last year, this particular measure was temporarily stayed for a comment period and further debate, with the SEC citing investor concerns. Presumably, the worry is that even wealthy, sophisticated investors may be lured into hedge funds through such advertising without fully understanding the risks involved. The question of lifting the ban remains an open one at the time of writing.

We study what amounts to “backdoor” advertising by hedge funds over the last six years, and use results to inform the decision to lift the ban (see “Alternative marketing



## INDIRECT ADVERTISING FOR HEDGE FUNDS *Continued*

for alternative investments,” Yan Lu, David Musto and Sugata Ray, Working Paper, 2013, available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2260370](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2260370).

We focus on advertising by mutual fund companies that also own and operate hedge funds. Since mutual fund advertising is legal (and regulated), we use a database of such advertising to examine whether 1) such advertising factors in the hedge funds that are operated by the parent company in any way, and 2) whether advertising the mutual fund and/or the parent company generally has any effect on the hedge funds’ inflows.

Our first main result is that advertising ramps up after abnormally low hedge-fund flows, indicating that management companies advertise to combat hedge-fund asset shrinkage. Looking more closely, we find that the type of advertising that increases is advertising of the whole company, as opposed to the company’s mutual funds.<sup>2</sup> So it appears that management companies use advertising to create goodwill that reflects at least partly on its unadvertisable products, particularly when their stars fade.

Our second main result is that the advertising works for the hedge funds: Those whose parents advertise enjoy significantly

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more subsequent net flows, approximately 6 percent more per year, than do similar funds whose parents do not advertise. And our third main result is that performance is somewhat worse: The hedge funds whose parents advertised subsequently underperform, by about 2 percent per year, those whose parents did not advertise.

A closer look at the effect on subsequent flows reveals mutual-fund-level, rather than company-level, advertising has the stronger influence. This raises the question of the mechanics of this “back-door” advertising. Mutual-fund-level advertising would appear to bring attention to a mutual fund that must be redirected upon contact: A qualified investor who calls about the mutual fund could be cross-sold the hedge fund at that point, or maybe sold the fund he called about, and cross-sold later. The response to company-level advertising is less likely to involve cross selling. Thus, the mechanics of back-door advertising involve a significant amount of redirecting investors who called about something else.

Our results indicate that hedge funds

affiliated with mutual funds enjoy an advantage over those without. Thus, from a policy perspective, lifting the ban on hedge-fund advertising would level the hedge-fund playing field. Lifting the

ban would also help investors match with the right funds, as investors could compare track records more readily, as they do with mutual funds, and may be less affected by the arguably less relevant performance of affiliated mutual funds. The sub-par post-advertising performance for hedge funds is not a great track record for advertising to date, but this may reflect the peculiarities of advertising through the back door. ■

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<sup>1</sup> In addition to being limited to investors that are “qualified,” hedge funds currently cannot advertise (or “generally solicit”). “Qualified” investors are investors that meet certain income and/or wealth thresholds.

<sup>2</sup> Our advertising database, Ad#pender, categorizes advertising into a number of different types, from product, and even sub-product specific ad spend, to general, company level promotion. We aggregate these categories into two broad types: company level advertising, which advertises the overall parent company brand and product level advertising, which advertises individual mutual funds in the complex.