

STANDARDIZATION OF SECURITIES REGULATION:
REHYPOTHECATION AND SECURITIES COMMINGLING IN THE
UNITED STATES AND THE UNITED KINGDOM

MARIYA DERYUGINA*

I. Introduction

While securities laws and regulations in the United States strictly prohibit United States brokers and dealers from rehypothecating and commingling their clients' securities in most circumstances, United Kingdom regulations to a much larger extent permit both rehypothecation and the commingling of broker assets with customer assets. The asymmetry in the legal rules governing transactions in these two large and interrelated financial markets has led to customer confusion regarding the ownership or title status of their securities, misunderstanding regarding the customers' legal rights in any given transaction or investment, and an increase in the transaction costs associated with obtaining prime brokerage services. Industry participants largely ignored, failed to notice or failed to consider the full implications of this large regulatory discrepancy until the collapse of Lehman Brothers Holdings, Inc. ("Lehman") in the United States and the subsequent collapse of its affiliate, Lehman Brothers International (Europe) in the United Kingdom. While the United States bankruptcy of Lehman proceeded relatively smoothly, United Kingdom rehypothecation and asset commingling rules stifled the resolution process. Hedge funds and other clients of the United Kingdom affiliate of Lehman were unable to withdraw or reclaim the assets they had placed with the broker, leading to massive market losses and, in some cases, to the failure of hedge fund businesses. The Lehman failure highlighted the riskiness of allowing rehypothecation and the commingling of client assets in the United Kingdom and the benefits of prohibiting such practices.

* Student, Boston University School of Law (J.D. 2010); University of California, Davis, Communication B.A. June 2007, Managerial Economics B.S. June 2007. Ms. Deryugina thanks Cornelius K. Hurley for his help in advising and editing this piece. She also very much appreciates the editorial help of Rebecca Gallup, Yomarie Silva and Christopher Thorson and thanks them all for the work they put into improving this note. Finally, she thanks the *Review of Banking and Financial Law* staff members who helped tremendously in preparing this note for publication.

The United Kingdom should adopt a more rigorous prohibition on rehypothecation and the commingling of client assets based on United States law. Standardizing the rules governing rehypothecation and management of customer assets in the United Kingdom and the United States would provide greater market transparency, a reduction in transaction costs and a smoother functioning market for prime brokerage services. An international standard requiring segregation of customer securities would also be beneficial.

This note focuses on hedge funds—since they are the largest group of prime brokerage clients—and evaluates the impact of United States and United Kingdom regulations governing client asset commingling and rehypothecation on hedge fund administration, advocating that the United States approach is superior and should be adopted as the law both in the United Kingdom and internationally. Section II of this note describes the business and economic incentives of both hedge funds and prime brokers to enter into prime brokerage agreements that permit rehypothecation of hedge fund assets by the broker. Section III summarizes the current law governing client asset commingling and rehypothecation in the United States and in the United Kingdom. Section IV describes the tragic results of the bankruptcy of the United Kingdom affiliate of Lehman, specifically addressing the adverse impact of the insolvency of this large and systemically significant broker on hedge fund and market operations. Section V provides analysis of the potential rationale for the difference in rehypothecation and asset commingling regulation between the United States and the United Kingdom, including the assumptions on which such rationale is based. It further describes why these assumptions fail in many circumstances and thus do not accurately reflect market realities. Finally, section VI advocates for law reform in this area. Subpart A urges the United Kingdom to adopt a rule of law that prohibits rehypothecation and asset commingling that is similar to that currently in effect in the United States. Subpart B suggests that an international standard that mirrors the United States regulatory regime in this area may likewise be appropriate.

II. *Hedge Funds, Prime Brokers and Rehypothecation*

Hedge funds¹ frequently give custody of their assets to large investment banks that provide prime brokerage services.² These large

¹ While the term “hedge fund” lacks an accepted industry-wide definition, it typically refers to “unregistered, privately-offered, managed pools of capital, generally excluding, in particular, funds principally involved in venture capital or similar private equity investments.” *The Long and Short of Hedge Funds: Effects of Strategies for Managing Market Risk: Hearing before the Financial Services Subcommittee on Capital Markets, Insurance and Government Sponsored Enterprises*, 108th Cong. 4-5 (May 22, 2003) (statement of William H. Donaldson, Chairman, U.S. Sec. and Exch. Comm’n) [hereinafter *The Long and Short of Hedge Funds*]. Hedge funds and mutual funds share the same “investment structure—a commingled investment fund,” but vary in the types of investment strategies that the funds have historically implemented, with the former typically holding long position hedged by shorting of stock. JOSEPH G. NICHOLAS, *INVESTING IN HEDGE FUNDS* 12 (2005). In the United States, the term is broadly used to refer to unregistered asset management organizations that operate as investment advisers outside the regulation of the United States Securities and Exchange Commission (“SEC”). WILLIAM J. CREREND, *FUNDAMENTALS OF HEDGE FUND INVESTING* 1, 73-74 (McGraw-Hill 1998); *The Long and Short of Hedge Funds, supra*, at 17, stating that:

Hedge funds are able to avoid regulation by meeting criteria that are laid out in four general exclusions or exceptions: (1) the exclusion from registration of the fund under the Investment Company Act of 1940, (2) the exemption from registration of the fund’s securities under the Securities Act of 1933 (3) the exception from registration of the hedge fund manager under the Investment Advisers Act of 1940, and (4) the exception from reporting requirements under the Securities Exchange Act of 1934.

The traditional hedge fund model assumes that the fund will hold a class of United States stocks and bonds primarily in long positions and short certain asset classes to minimize investment risk. CREREND, *supra*, at 1-2. The United Kingdom likewise lacks a legal definition for a hedge fund and the term is defined according to the unifying characteristics of hedge funds in the industry. FINANCIAL SERVICES AUTHORITY, *HEDGE FUNDS: A DISCUSSION OF RISK AND REGULATORY ENGAGEMENT* 10, ¶ 2.1 (2005) [hereinafter *FSA Hedge Fund Report*]. Most hedge funds in the United Kingdom are also unregulated. *Id.* at 13, ¶ 2.11 (stating that many hedge funds are structured as “unregulated collective investment schemes (CIS)”).

investment banking institutions—the prime brokers—administer the daily business affairs of the hedge funds. Where permitted by law, prime brokers utilize the assets of the hedge funds to execute lending and borrowing transactions such as rehypothecation. Rehypothecation generally refers to pledging of client securities as collateral in other unrelated transactions,³ for example as collateral to obtain brokerage bank loans. In other words: “Hypothecation is the posting of collateral to secure an obligation. Rehypothecation is the reuse of posted collateral.”⁴ Commingling of funds refers to the maintenance of “a collateral management account [that is] shared by multiple beneficial asset holders.”⁵ In order to prevent commingling, a broker must maintain a separate account—defined as “a segregated account and a reporting account that typically allows an investor to direct investments according to his [or] her individual risk tolerance, and desire for performance.”⁶ Rehypothecation necessarily involves the commingling of client assets because the broker is unable to rehypothecate a security—reposting it as collateral in another transaction—while at the same time maintaining it in a separate account on behalf of the client. The prime broker either commingles the securities of the client with its own securities or with the securities of the broker’s other customers when it engages in rehypothecation.⁷

Rehypothecation provides benefits for both the hedge fund and the prime broker, but likewise creates significant costs for the counterparties to the transactions and increases the level of systemic risk in the market.

² See George O. Aragon & Philip E. Strahan, *Hedge Funds as Liquidity Providers: Evidence From the Lehman Bankruptcy* (Nat’l Bureau of Econ. Research, Working Paper No. 15336, 2009) at 9-10, 30 (showing the number of hedge funds that have reported using prime brokerage services, ranging anywhere from 39% to 67% from year to year, depending on the available data).

³ See, e.g., Gary Gorton & Andrew Metrick, *The Run on Repo and the Panic of 2007-2008*, at 8 (2009) (providing an example of rehypothecation); Manmohan Singh & James Aitken, *Deleveraging after Lehman—Evidence from Reduced Rehypothecation 1* (Int’l Monetary Fund, Working Paper No. 09/41, Mar. 2009) (defining rehypothecation).

⁴ FSA Hedge Fund Report, *supra* note 1, at 34 n.17.

⁵ BANK OF NEW YORK MELLON, RESETTING THE ROADMAP: MANAGING IN A NEW SECURITIES LENDING ENVIRONMENT FOR BENEFICIAL ASSET HOLDERS 12 (2009).

⁶ *Id.*

⁷ Singh & Aitken, *supra* note 3, at 4.

A. Incentives to Commingle and Rehypothecate

Both brokers and hedge funds have significant economic incentives to enter into prime brokerage agreements that permit brokers to commingle and rehypothecate hedge fund assets. The ability of a prime broker to rehypothecate a hedge fund's assets has benefits for both the broker and the fund: It gives the prime broker a significant amount of additional revenue from the rehypothecation transactions and in turn provides the hedge fund with more favorable terms and rates for the prime brokerage services that it needs.⁸ While there are also significant costs to rehypothecation, market participants seem to have discounted or miscalculated these costs prior to the Lehman bankruptcy. Without taking the full costs of rehypothecation into account—as evidently was customary prior to the Lehman dissolution—both prime brokers and hedge funds had market incentives to permit the prime broker to rehypothecate the assets of the hedge fund to the full extent permissible by law. Without regulation, then, the predicted market outcome is that both parties⁹ will permit rehypothecation and client asset commingling. In reality, a little less than a year ago rehypothecation clauses—contractual provisions permitting the prime broker to rehypothecate and commingle hedge fund assets to the full extent permissible by law—routinely appeared in prime brokerage agreements.¹⁰

⁸ FSA Hedge Fund Report, *supra* note 1, at 34, ¶ 3.48.

⁹ While there are technically three parties to every prime brokerage arrangement—“the prime broker, the executing broker, and the customer”—the discussion will deal with the relationship of the broker-dealer and the customer, since any relation between the broker-dealer and the executing broker is ultimately dependent upon the prime-broker, and the customers' relationship with the broker-dealer ultimately controls the nature of the transaction. See *The Long and Short of Hedge Funds*, *supra* note 1, at 10.

¹⁰ Michael Huertas, *Hedge Funds, Master Netting Arrangements and Rehypothecation: Limiting Systemic Risk Through Increased Transparency*, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1411609 (2009), at 26.

1. *Prime Broker Incentives*

The prime broker has an incentive to insert the right to rehypothecate client assets into the brokerage agreement because this ability increases the broker's revenue dramatically.¹¹

Hedge funds are important customers for investment banks. Hedge fund customers accounted for approximately an eighth of the total revenue of the investment banks in 2004 and generated about \$25 billion in income that year.¹² Of this amount, trading and sales revenues represented \$19 billion and the remaining \$6 billion represented revenue from the prime brokerage business.¹³ Prime brokerage is a competitive business, and hedge funds frequently switch prime brokers or retain several prime brokers to conduct transactions, partially in order to manage counterparty risk.¹⁴ While the prime broker is responsible for "essentially acting as a central clearing system for all trades," the broker likewise lends many other financial services support to the hedge funds and "[s]hort positions and margin transactions are a big business for a prime broker."¹⁵

Where permitted, investment banks often combine their prime brokerage business with the securities lending business and lend securities to their hedge fund clients.¹⁶ The prime broker can engage in securities lending in any number of ways, which differ in legal form and economic substance, the types of participants in the agreements and parties to the transactions, and in the amount of information that parties have regarding ownership of assets.¹⁷ The types of securities lending arrangements include collateralized loans, unsecured or uncollateralized loans, lending pursuant to securities repurchase agreements, and the broker holding assets under a "street name" and rehypothecating assets.

¹¹ *Id.* at 17-18 (explaining that a prime broker can rehypothecate clients assets at little or no cost to itself and pool collateral with either its own or others in the repo market to generate a source of financing).

¹² FSA Hedge Fund Report, *supra* note 1, at 14, ¶ 2.13.

¹³ *Id.*

¹⁴ Aragon & Strahan, *supra* note 2, at 9-10.

¹⁵ CREREND, *supra* note 1, at 71.

¹⁶ MARK C. FAULKNER, AN INTRODUCTION TO SECURITIES LENDING 21 (3d ed. 2006).

¹⁷ See Leon Taub, *Borrowing Securities: Implications for Measuring Cross-Border Portfolio Investment*, in 28 IFC BULLETIN, IRVING FISHER COMM. ON CENTRAL BANK STATISTICS 169, 175, ¶ 3.1 (2008).

First, a broker may enter into a collateralized lending arrangement, where the broker allows a hedge fund customer to borrow securities by posting collateral or based on the margin account balance of the customer.¹⁸ Each party to such transactions generally has full information regarding securities ownership.¹⁹ Second, the broker may engage in general securities lending by giving hedge funds its own securities to cover short positions.²⁰ This arrangement differs from the first only in the sense that the prime broker does not obtain collateral from the hedge fund to secure the loan. Third, the broker may enter into a security repurchase agreement (“repo”), which involves “the sale of securities at a specified price with a commitment to repurchase the same or similar securities at a fixed price on a specified future date.”²¹ The economic nature of the repo may be more similar either to a collateralized loan or a general sale of a security, depending on the contractual specifications and legal and economic transfers of ownership between the parties to the repo.²² The end investors in the repo may be unaware of either the existence of the repo or the specific securities that are the subject of the repo.²³ Fourth, the prime broker may hold a customer’s security under a “street name,” meaning that the prime broker rather than the customer is listed on the broker’s books and records as owning the security.²⁴ The customer still technically “owns” the security in the sense that it remains the legal title holder on its ownership.²⁵ The broker typically gives the records that prove the customer to be the legal title holder of the security to the customer.²⁶ The broker is consequently able to use the security it holds under a street name as if it were the owner, and to lend the security to others without the knowledge of the customer who rightfully owns it.²⁷ The agreement between the hedge fund and the prime broker in this scenario would give the prime broker the ability

¹⁸ *Id.* at 170-75, ¶¶ 2.1-2.20, 3.1.

¹⁹ *Id.*

²⁰ INTERNATIONAL MONETARY FUND, STATISTICS DEPARTMENT, THE MACROECONOMIC STATISTICAL TREATMENT OF REVERSE TRANSACTIONS 6 (2000).

²¹ *Id.* at 2.

²² *Id.* at 17.

²³ Taub, *supra* note 17, at 176, ¶ 3.6.

²⁴ *Id.* at 175-176, ¶¶ 3.3-3.4.

²⁵ *Id.*

²⁶ *Id.*

²⁷ *Id.*

to lend out the hedge fund's security in connection with the maintenance of the hedge fund's margin account or for any other purpose.²⁸ This type of lending typically involves broker rehypothecation of the hedge fund's securities.²⁹

The ability to rehypothecate the assets of their clients or to borrow such assets from the client increases the lending capacity of prime broker banks and thereby tremendously increases revenue.³⁰ "Re-hypothecation is a key generator of prime brokerage revenue and is often linked to the terms on which other prime brokerage services are offered to the hedge funds."³¹ The large investment banks that provide prime brokerage services actively participate in the repurchase market, and therefore seek to obtain the ability to rehypothecate the assets of their clients so as to use the assets as collateral in repo market transactions.³²

The ability to rehypothecate and commingle hedge fund assets permits the investment bank to increase the revenue it derives from providing prime brokerage services to hedge funds and the broker thus has an incentive to seek to obtain the right to rehypothecate such assets.

2. *Hedge Fund Incentives*

The hedge fund has the incentive to allow the prime broker to rehypothecate its assets so as to obtain a more favorable rate and terms for the services it receives from the prime broker.

Hedge funds rely on prime brokers for virtually all of their administrative affairs, and the prime brokers provide full service assistance to hedge funds. Hedge funds utilize prime brokerage services of large investment banking institutions to clear transactions, execute trades, obtain ordinary and enhanced leverage, obtain securities loans and otherwise manage their portfolios.³³ The investment

²⁸ *Id.*

²⁹ *Id.*

³⁰ See Aragon & Strahan, *supra* note 2, at 7 (stating that the reduction in rehypothecation after the collapse of Lehman has increased the costs of obtaining collateral for prime brokers who previously used the securities of their customers as their own collateral).

³¹ FINANCIAL SERVICES AUTHORITY, *supra* note 1, at 34, ¶ 3.48.

³² Michael Huertas, *supra* note 10, at 3.

³³ *The Long and Short of Hedge Funds*, *supra* note 1, at 10-11 (stating that "[p]rime brokerage is a system developed by full-service broker-dealers to

banks settle trades, pay taxes, monitor the funds' compliance with minimum net equity requirements, place orders and conduct other transactions on behalf of the hedge funds in accordance with the terms of a prime brokerage agreement that the investment banks and the hedge funds enter into.³⁴ As with any other financial services arrangement, the contractual agreement between the parties—the prime broker and the hedge fund customer—as well as the mandatory and non-waived default rules applicable to them, control the rights, remedies, obligations and privileges of the transaction.

Hedge funds pursue a variety of investment strategies, all of which may at times require leverage or borrowing of securities. Hedge funds often invest in foreign stocks and derivatives, and have expanded their investment strategies to include shorting and leveraging in search of higher returns.³⁵ Hedge funds may be roughly divided into five different types:³⁶ (1) relative value funds, which attempt to pursue “market-neutral strategies” and hedge long positions with corresponding short positions in order to limit the amount of market risk and engage in arbitrage of market inefficiencies;³⁷ (2) event driven funds, which typically hold long positions in anticipation that a specific corporate event, such as a business transaction,

facilitate the clearance and settlement of securities trades, and other aspects of portfolio management, for substantial retail and institutional customers including, especially, those who are active market participants” and defining other types of services prime brokers may perform on behalf of hedge funds).

³⁴ See generally Securities Industry and Financial Markets Association, Prime Brokerage Agreement – Form 150 (1994), <http://www.sifma.org/services/stdforms/pdf/prime.pdf> (providing a sample prime brokerage agreement, describing the nature and condition of the prime brokerage services to be provided).

³⁵ NICHOLAS, *supra* note 1, at 13.

³⁶ Other subdivisions of hedge funds are possible, creating more categories of hedge fund strategies, but the five listed seem to encompass the broader subdivisions. See, e.g., PowerPoint: Financial Services Authority, Presentation to LIBA: “Ninth Hedge Fund as Counterparty Survey” (Feb. 5, 2009), slide 4, available at <http://ftalphaville.ft.com/lib/data/filecache/attachment/F/S/FSA-prime-brokerage-survey-Oct08.pdf> (naming convertible bond arbitrage, emerging markets, equity market neutral, event driven, fixed income arbitrage, global macro, long short—equity, multi-strategy and other as possible classifications of hedge funds).

³⁷ NICHOLAS, *supra* note 1, at 3.

will increase the value of the stock;³⁸ (3) equity funds, which hold a net excess of either long or short positions and typically invest in a certain class of assets;³⁹ (4) global asset allocators, which invest in a diverse range of securities, positions and across many geographical boundaries, often being large in size;⁴⁰ and (5) short selling funds, which utilize margin brokerage accounts to short assets and then repurchase them at lower prices.⁴¹ Because each category of hedge funds generally engages in a variety of transactions, and at times short securities, hedge funds often have a substantial demand for securities borrowing. Even if the hedge funds cannot foresee a need for such services and may not intend to use such services regularly, the ability of a prime broker to extend both ordinary and enhanced leverage and to provide securities lending are qualities that hedge funds seek to obtain in a good prime broker.⁴²

Investment banks customarily offer hedge funds better rates for prime brokerage services in exchange for the right to rehypothecate and commingle their assets.⁴³ “In simple economic terms, the use of hedge fund assets by prime brokers is a key factor in reducing borrowing costs, thereby increasing returns, for hedge funds. . . . [T]he more assets a prime broker is able to use, the lower overall cost of funding that hedge funds have to pay.”⁴⁴ The hedge funds thus have an incentive to permit prime brokers to rehypothecate their securities.

³⁸ *Id.* at 9.

³⁹ *Id.* at 11-12.

⁴⁰ *Id.* at 12-13.

⁴¹ *Id.* at 14-15.

⁴² See, e.g., Richard R. Lindsey, *Tips for Choosing a Prime Broker* 2-3, http://www.globalclearing.com/gcsportal/pdf/tips_primebroker.pdf (last visited Sept. 25, 2009) (“Give yourself flexibility for the future—make sure your prime broker knows more than one way to extend leverage . . . One of the most important services a prime broker can provide is securities lending.”).

⁴³ See Huertas, *supra* note 10, at 17; Singh & Aitken, *supra* note 3, at 7 (stating that hedge funds will be obligated to pay higher prime brokerage fees for the prime broker services if the broker does not obtain the right to rehypothecate the fund’s securities pursuant to the terms of the prime brokerage agreement).

⁴⁴ EUROPEAN COMMISSION INTERNAL MARKET AND SERVICES DG, REPORT OF THE ALTERNATIVE INVESTMENT EXPERT GROUP 30 (2006).

3. *Market Outcome*

Both the hedge fund and the prime broker have positive incentives to permit the prime broker to rehypothecate hedge fund assets. If the parties are not taking the full costs of rehypothecation and asset commingling into account, one would expect that, if permitted by law, both parties would seek to permit rehypothecation and asset commingling. This prediction, at least until the Lehman dissolution, turned out to be true.⁴⁵ Prime brokerage agreements typically authorized the prime broker to borrow and lend client securities to the fullest extent that such activity is permitted by the governing law,⁴⁶ stating, for example:

Within the limits of applicable law and regulations, Customer hereby authorizes the Clearing Broker to lend either to itself or to others any securities held by or for the benefit of the Clearing Broker in Customer's account, together with all attendant rights of ownership, and to use all such property as collateral for its general loans. Any such property, together with all attendant rights or [sic] ownership, may be pledged, repledged, hypothecated or rehypothecated either separately or in common with other such property⁴⁷

Such terms in the prime brokerage agreements that permit rehypothecation of client assets—rehypothecation clauses—were infrequently negotiated; the hedge funds and the prime broker very infrequently removed or restricted in any way the right of the prime broker to rehypothecate the hedge funds' assets.⁴⁸

⁴⁵ See Singh & Aitken, *supra* note 3, at 7 (“Before Lehman, high grade collateral was encouraged to be pledged, repledged and rehypothecated.”).

⁴⁶ *Id.* at 3 (“Every Customer Account Agreement of Prime Brokerage Agreement with a prime brokerage client will include a blanket consent to [rehypothecation] unless stated otherwise. Market sources suggest that rehypothecation of assets has historically been a cheapest way of financing the prime business than turning to the repo market.”).

⁴⁷ See, e.g., MERRILL LYNCH, PIERCE, FENNER & SMITH INC., AGREEMENT FOR PRIME BROKERAGE CLEARING SERVICES 3-4.

⁴⁸ See FSA Hedge Fund Report, *supra* note 1, at 34, ¶ 3.48.

B. Prime Broker Rehypothecation Creates Risks

Prime broker rehypothecation of hedge fund assets for the benefit of the prime broker or the broker's other customers rather than for the benefit of the hedge fund creates various counterparty risks⁴⁹ for hedge funds. It creates a significant risk that the prime broker will misplace the hedge fund's securities and that the fund will be unable to establish claims on the securities in case the prime broker becomes insolvent or unable to fulfill its debt obligations.⁵⁰ The hedge fund client then becomes a general unsecured creditor for purposes of establishing claims on its securities in custody of its prime broker.⁵¹ Rehypothecation also creates the risk of multiple claims placed on any given asset through the bona fide purchaser ("BFP") rule.⁵² In turn, a prime broker may be unable to fulfill all existing obligations on securities if the hedge fund customers choose to withdraw their holdings in large numbers while the securities have been lent out to others. The risks posed by the possibility of prime broker insolvency, the application of the BFP rule to rehypothecation transactions, and the possibility of a run by prime brokerage customers are magnified when multiple chains of rehypothecation occur with respect to the same security.⁵³

C. Rehypothecation Creates Systemic Risks

Hedge funds and prime brokers control trillions of dollars of funds and are systemically significant market players. Failure to properly regulate prime broker rehypothecation thus not only creates counterparty risks for hedge funds, but also increases the overall level of systemic risk for the global financial system.

Hedge funds control billions of dollars of wealth worldwide, making them systemically important market participants. In 2007, the hedge fund industry controlled approximately \$1868 billion in assets under management in the United States.⁵⁴ In Europe, the total

⁴⁹ These risks, which became apparent after the Lehman bankruptcy, are summarized here and discussed more fully in sections IV and V of this note.

⁵⁰ See, e.g., EUROPEAN COMMISSION, *supra* note 44, at 30.

⁵¹ *Id.*

⁵² See Huertas, *supra* note 10, at 22-23.

⁵³ *Id.* at 23.

⁵⁴ BANK OF NEW YORK MELLON, *supra* note 5, at 2.

assets under management in the hedge fund industry around that time were approximately \$250 billion.⁵⁵

Prime brokers are large international institutions and only four large investment banks provide the majority of prime brokerage services globally.⁵⁶ There are approximately 381 unique providers of prime brokerage services worldwide.⁵⁷ The largest providers of prime brokerage services from 2002 until 2008, measured by percentage of total prime brokerage market share, were Bear Stearns, Morgan Stanley, Goldman Sachs, Bank of America, ABN AMRO, Morgan Stanley Dean Witter, Merrill Lynch, Man Group, ING Group, Salomon Smith, Barney, Credit Suisse First Boston, Lehman Brothers, Deutsche Bank, UBS and Citigroup.⁵⁸ These investment banks appeared in the top ten prime broker list between the years of 2002 and 2008, based on the percentage of market share that each occupied.⁵⁹ The top ten investment banks in these years consistently held approximately seventy to eighty percent of the prime brokerage services market, with Bear Stearns, Morgan Stanley and Goldman Sachs consistently holding the top three spots in terms of percentage market share and dominating around fifty percent of the prime brokerage market.⁶⁰

Securities borrowing and lending is prevalent worldwide. United States residents held approximately \$8 trillion in outstanding securities loans in 2004, of which approximately \$2 trillion were lent out to parties outside of the United States through repo agreements and approximately \$700 billion through securities lending agreements.⁶¹ The European market for borrowing securities is an estimated \$2 trillion and is expanding rapidly.⁶²

⁵⁵ FSA Hedge Fund Report, *supra* note 1, at 11-12, ¶ 2.6.

⁵⁶ *See* Aragon & Strahan, *supra* note 2, at 9.

⁵⁷ *Id.*

⁵⁸ *Id.* at 29.

⁵⁹ *Id.* The data excluded the year 2004, thus the reported market share is for years 2002, 2003, 2005, 2006, 2007 and 2008.

⁶⁰ The top ten firms held 69.92% of the prime brokerage market in 2002, 71.53% in 2003, 81.09% in 2005, 80.91% in 2006, 80.33% in 2007 and 75.22% in 2008. *See id.* The top three firms in all these years—Bear Stearns, Morgan Stanley and Goldman Sachs—held 48.05% of the prime brokerage market in 2002, 48.95% in 2003, 51.77% in 2005, 51.12% in 2006, 49.88% in 2007 and 46.37% in 2008. *See id.*

⁶¹ Taub, *supra* note 17, at 169, ¶ 1.1.

⁶² *Id.*

Rehypothecation transactions have the potential to create systemic risk because of the size of the counterparties to these transactions—the size and significance of the securities lending industry, the trillions of dollars of assets under management that hedge funds control, combined with the few large investment banks that dominate the global prime brokerage market—and the size of the securities lending market.

III. Current Rules Governing Rehypothecation and Client Asset Management

Securities rehypothecation and commingling is absolutely prohibited in the United States while it is permitted in the United Kingdom, creating large discrepancies in the ability of prime brokers to raise revenue from the prime brokerage business. The difference in regulation currently allows United Kingdom prime brokers to offer hedge funds lower rates while providing the same services as the United States prime brokers. This type of regulatory arbitrage has the potential to create a deregulation “race to the bottom” and, prior to Lehman’s demise, provided significant economic incentives for hedge funds to choose a United Kingdom rather than a United States prime broker.

A. United States Rules Prohibiting Rehypothecation and Asset Commingling

Federal securities law in the United States strictly prohibits prime brokers from rehypothecating and commingling client assets.⁶³ The United States has a long history of regulation regarding commingling of client assets and rehypothecation.⁶⁴ It has

⁶³ The Uniform Commercial Code, in contrast to securities laws in the United States, permits the secured party to commingle and rehypothecate collateral assets. U.C.C. § 9-207 (2005); U.C.C. § 9-207 cmt. 5 (2005); *see also* Kenneth C. Kettering, *Repledge Deconstructed*, 61 U. PITT. L. REV. 45, 50-51 (2000) (defining rehypothecation and stating that it is more precisely defined as repledge, which is the term the U.C.C. uses).

⁶⁴ *See generally* Kettering, *supra* note 63 (cataloging the historical regulation of rehypothecation and the commingling of client assets in the United States).

consistently taken the position that both commingling and rehypothecation of securities is against the law.⁶⁵

The United States Securities and Exchange Commission (“SEC”) Rule 15c2-1 generally prohibits brokers and dealers from hypothecating customer securities.⁶⁶ The prohibition extends to (1) commingling the securities of several customers; (2) commingling customer securities with those of the broker; and (3) pledging customer securities in an amount greater than the customer’s debt to the broker.⁶⁷ The prohibition on hypothecation also extends to registered government securities brokers and dealers,⁶⁸ to members of a national securities exchange and to brokers and dealers who transact business in securities on national exchanges.⁶⁹ Prime brokers may, however, hypothecate customer securities on margin accounts⁷⁰ but may not do so on assets wholly owned by their clients.⁷¹

The SEC’s Customer Protection Rule, Rule 15c3-3,⁷² (“Customer Protection Rule”) promulgated by the SEC under §15(c) of the Securities Exchange Act of 1934,⁷³ also effectively prohibits United States prime brokers from commingling the assets of their customers with other assets and prevents brokers from using their customers’ assets as collateral for the benefit of anybody aside from

⁶⁵ The United States Securities and Exchange Commission (“SEC”) has been adamantly regulating rehypothecation of securities since 1940 and has continued to solidify and reduce the number of exceptional situations in which it will permit rehypothecation. *Id.* at 52, 87-91.

⁶⁶ 17 C.F.R. § 240.15c2-1(a) (2009) (characterizing “direct or indirect hypothecation” of customer securities as “fraudulent, deceptive, or manipulative act or practice”).

⁶⁷ Thomas L. Hazen & Jerry W. Markham, *Broker-Dealer Operations Under Securities and Commodities Law*, 23 *BROKER-DEALER OPERATIONS SEC. & COMM. L.* § 5:7 (2008).

⁶⁸ 17 C.F.R. § 403.2 (2009).

⁶⁹ 17 C.F.R. § 240.8c-1 (2009).

⁷⁰ Prime brokers may utilize margin accounts to fulfill the customer’s debt obligations in the absence of the customer’s ability to do so, and Regulation T of the Board of Governors of the Federal Reserve System governs the manner in which prime brokers may do so. *See* 12 C.F.R. § 220 (2009).

⁷¹ *See* 17 C.F.R. § 240.15c2-1(c) (2009) (stating that margin customer accounts referenced in 12 C.F.R. § 220.4(c) are exempt from the general prohibition on hypothecation so long as the customers are notified of the exact terms of the hypothecation and commingling that the prime broker is engaging in).

⁷² 17 C.F.R. § 240.15c3-3 (2009).

⁷³ 15 U.S.C. § 78o(c) (2009).

the customer. The Customer Protection Rule requires the broker to create a separate bank account to hold all cash or qualified securities for its customers—such account being titled “Special Reserve Account for the Exclusive Benefit of Customers”—and the broker must use such account for the exclusive benefit of the customer for whom the account is created.⁷⁴ This rule essentially⁷⁵ prohibits brokers from comingling the funds of their customers with their own assets and requires that the broker notify the banks in which such accounts are held “that the cash and/or qualified securities shall at no time be used directly or indirectly as security for a loan to the broker or dealer by the bank and, shall be the subject of no right, charge, security interest, lien or claim of any kind in favor of the bank or any person claiming through the bank.”⁷⁶

B. United Kingdom Rules Permitting Rehypothecation and Asset Commingling

The United Kingdom, in sharp contrast to the United States, permits brokers and dealers to rehypothecate the assets of their customers. The Financial Services Authority (“FSA”), which sets the financial regulations in the United Kingdom,⁷⁷ is much less restrictive in regulating securities rehypothecation and asset commingling than the United States.⁷⁸ Although the rules for dealing

⁷⁴ 17 C.F.R. § 240.15c3-3(e).

⁷⁵ Prime brokers still have the ability to rehypothecate and commingle securities held in margin accounts in certain circumstances, as noted in *supra* note 7070.

⁷⁶ 17 C.F.R. § 240.15c3-3(f).

⁷⁷ The Financial Services Authority (“FSA”) was created by the Financial Services and Markets Act 2000, ch. 8, pt. I, § 1 (United Kingdom), and has broad authority to essentially regulate the entire United Kingdom financial system. *See* Financial Services and Markets Act 2000, ch. 8, pt. I, § 2 (United Kingdom) (conferring upon the FSA broad powers and duties to act and regulate in the manner in which it believes will best achieve the objectives set out by the statute, which are “(a) market confidence; (b) public awareness; (c) the protection of consumers; and (d) the reduction of financial crime.”); *see also* Financial Services and Markets Act 2000, ch. 8, pt. X, c. 1, § 138 (United Kingdom) (granting the FSA broad rulemaking authority, including regulating investment firms).

⁷⁸ When enacting consumer protection regulations for the United Kingdom market, the FSA must analyze the degree of risk of any particular transaction or financial service, the financial services customers’ level of

with client money and client assets in the United Kingdom do generally prohibit a prime broker from commingling funds and assets of customers with its own, the FSA's rules provide several key exceptions that allow brokers to avoid these prohibitions.

The United Kingdom client money rules governing custody of client funds⁷⁹ ("Client Money Rules") state that "[a] *firm* must, when holding *client money*, make adequate arrangements to safeguard the *client's* rights and prevent the use of *client money* for its own account."⁸⁰ Pursuant to the "client money segregation requirements,"⁸¹ a prime broker who receives client money must place it in a specified separate account⁸² and must make sure that the institutions with which it deposits the money understands the arrangements for holding the funds⁸³ and maintains an account for the client funds that is separate from the prime broker's funds.⁸⁴ This defines the general rule in the United Kingdom that, just as in the United States, prime brokers may not commingle their own money with the clients'.

expertise, the consumers' necessity for accurate information and transparency, and "the general principle that consumers should take responsibility for their decisions." Financial Services and Markets Act 2000, ch. 8, pt. I, § 5 (United Kingdom). The United Kingdom may thus have a policy preference toward allowing clients to make their own determinations of the level of risk they want to accept in a prime brokerage arrangement in order to obtain a more advantageous deal on the mutual fund servicing costs.

⁷⁹ The FSA's Client Asset Sourcebook Chapter 7 ("CASS § 7") governs the way in which prime brokers may maintain the cash of hedge funds and other investment companies. See FINANCIAL SERVICES AUTHORITY, CLIENT ASSET SOURCEBOOK § 7.1.1 (2009) [the rules therein referred to hereinafter CASS § x] ("This chapter (the *client money rules*) applies to a *firm* that receives *money* from or holds *money* for, or on behalf of, a *client* in the course of, or in connection with: . . . (3) its *MiFID business*; and/or (4) its *designated investment business* . . .").

⁸⁰ CASS § 7.3.1 R. The FSA italicizes defined terms, so the quoted terms that appear italicized are defined in the definition section of the CLIENT ASSET SOURCEBOOK.

⁸¹ The segregation requirements, as defined by the FSA, are CASS 7.4.1 R and CASS 7.4.11 R. FINANCIAL SERVICES AUTHORITY, CLIENT ASSET SOURCEBOOK, GLOSSARY (2009) [hereinafter CASS GLOSSARY].

⁸² CASS § 7.4.1 R.

⁸³ CASS § 7.4.7 R.

⁸⁴ CASS § 7.4.11 R.

The Client Money Rules provide significant exceptions to this general rule, however, which customarily allows prime brokers to commingle client cash with their own funds. The FSA's rules in most circumstances exclude from the regulation funds that the prime broker holds on behalf of a "professional client," and most hedge funds would readily qualify under this exclusion.⁸⁵ Hedge fund cash is thus exempt from the definition of "client money"—and thereby not subject to the segregation requirement—as long as the prime broker obtains written acknowledgement from the client that (1) the funds will not receive protection under the Client Money Rules; (2) the funds "will not be segregated from the *money* of the [prime broker] in accordance with the *client money rules* and will be used by the [prime broker] in the course of its own business;" and (3) the client will become a general creditor with respect to claims against the prime broker in relation to these funds.⁸⁶

The broker is not obligated to comply with the segregation rules if the prime broker is also a banking or depository institution, in which case the prime broker must notify the client that it will hold the client's funds as a banker and not a trustee and that the client's money deposits are not subject to the Client Money Rules.⁸⁷ Furthermore, the money of the client on deposit with the prime broker is also not subject to the segregation rules if the "*client* transfers full ownership of *money* to [the prime broker] for the purpose of securing or otherwise covering present or future, actual or contingent or prospective obligations" and so long as the broker complies with its duties to take actions that are in the best interest of

⁸⁵ A *professional client* is "either a *per se professional client* or an *elective professional client*," determined in accordance with the Conduct of Business Sourcebook rule COBS § 3.5. CASS GLOSSARY, *supra* note 81. Anyone who is not a private investor basically qualifies under the definition of a professional client. See FINANCIAL SERVICES AUTHORITY, CONDUCT OF BUSINESS SOURCEBOOK § 3.5.2 R (2007) [the rules therein referred to hereinafter COBS § x]. Hedge funds would easily qualify as professional clients: either as an "investment firm," which is "any person whose regular occupation or business is the provision of one or more *investment services* to third parties and/or the performance of one or more investment activities on a professional basis"; "a collective investment scheme or the management company of such a scheme;" or "a . . . management company of a pension fund." See *id.*; CASS GLOSSARY, *supra* note 81.

⁸⁶ CASS § 7.1.7D R.

⁸⁷ CASS §§ 7.1.8, 7.1.9 G.

the client with respect to such ownership transfers.⁸⁸ The prime broker is then obligated to comply with the “client’s best interests rule”⁸⁹ and to notify the client of any such transfer in ownership and to inform the client of its rights under the arrangement.⁹⁰

The Client Money Rules allow a prime broker the option to comply with the regulations⁹¹ and allow the professional client the option to require that the prime broker comply with the client money segregation rules with respect to its deposits.⁹² In dealing with the same client for various transactions, the prime broker may comply with the client money segregation rules for some types of business transactions with such client and not comply with such rules for other types of business transactions.⁹³

As with the Client Money Rules, the United Kingdom rules governing the other types of assets that a prime broker may hold on behalf of its client typically require the prime broker to keep client assets separate from its own but allow significant exceptions to this requirement.

⁸⁸ CASS §§ 7.2.3 R, 7.2.6 G.

⁸⁹ COBS § 2.1.1 R.

⁹⁰ In order for the prime broker to comply with the “client’s best interest rule,” the broker:

should ensure that where a retail client transfers full ownership of money to a firm: (1) the client is notified that full ownership of the money has been transferred to the firm and, as such, the client no longer has a proprietary claim over this money and the firm can deal with it on its own right; (2) the transfer is for the purposes of securing or covering the client’s obligations; (3) an equivalent transfer is made back to the client if the provision of collateral by the client is no longer necessary; and (4) there is a reasonable link between the timing and the amount of the collateral transfer and the obligation that the client owes, or is likely to owe, to the firm.

CASS § 7.2.7 G.

⁹¹ CASS § 7.1.3 R (explaining that a firm that holds money may elect to comply with the Client Money Rules, set forth in CASS §§ 5.1.1-5.8.3, in relation to all money that the firm receives and holds in connection with its business).

⁹² CASS § 7.1.7C G. (“The ‘opt out’ provisions provide a *firm* with the option of allowing a *professional client* to choose whether their *money* is subject to the *client money rules* (unless the *firm* is conducting *insurance mediation activity*).”).

⁹³ CASS § 7.1.7G G.

The United Kingdom Custody Rules⁹⁴ (“Custody Rules”) govern the way in which a prime broker may keep and use virtually any assets other than cash that the prime broker holds for the client⁹⁵ and are “designed primarily to restrict the commingling of *client* and the *firm’s* assets.”⁹⁶ The Custody Rules prohibit a prime broker from pledging its client’s assets as collateral in its own transactions or in transactions that it conducts on behalf of other clients unless it obtains “express prior written consent” from the client and the use of the assets “is restricted to [a] specified term” to which the client consents.⁹⁷ The United Kingdom rules also require the prime broker to “make adequate arrangements” to ensure the safeguarding of client assets,⁹⁸ including “adequate organisational arrangements to minimize the risk of loss or diminution” of client assets.⁹⁹

The Custody Rules provide a large and significant exception to the general prohibition on the commingling of client assets. A prime broker who obtains a transfer of ownership of client assets so that it has the legal title to those assets need not comply with the segregation requirement. “The [Custody Rules] do not apply where a *client* transfers full ownership of [its asset] to a [prime broker] for the purpose of securing or otherwise covering present or future, actual, contingent or prospective obligations.”¹⁰⁰ This type of transaction refers to the situation where the prime broker holds the hedge funds’ assets under a “street name,” thus keeping title to the securities in its own name rather than that of the customer in its books and records. If a client transfers its assets to the prime broker in accordance with the Financial Collateral Directive,¹⁰¹ for example, the client will be deemed to have transferred title under the Custody Rules and the prohibition on commingling of assets will be inapplicable.¹⁰² When structuring such title transfer transactions, the prime broker still has to follow the “client’s best interest rule” and “act honestly, fairly and

⁹⁴ CASS § 6 is the Custody Rules section of the United Kingdom regulations.

⁹⁵ CASS § 6.1.1 R; CASS GLOSSARY, *supra* note 81.

⁹⁶ CASS § 6.1.22 G.

⁹⁷ CASS § 6.4.1 R.

⁹⁸ CASS § 6.2.1 R.

⁹⁹ CASS § 6.2.2 R.

¹⁰⁰ CASS §§ 6.1.6 R, 6.1.7 G.

¹⁰¹ European Parliament and Council Directive No. 2002/47/EC (June 6, 2002) on financial collateral arrangements (L. 168), *reprinted in* 45 OFFICIAL J. OF THE EUROPEAN COMMUNITIES 45 (2002).

¹⁰² CASS §§ 6.1.6 R, 6.1.7 G.

professionally in accordance with the best interests of [its client].”¹⁰³ Under all circumstances, the prime broker must maintain detailed records of all its assets, as well as the clients’ assets, keep assets in a way that will allow the firm to distinguish custody assets held for one client from another,¹⁰⁴ and perform “internal reconciliations” as often as is necessary to make such distinctions.¹⁰⁵

IV. Lehman Reveals Costs of Permissive United Kingdom Regulation

One of the major risks to hedge funds and to their investors of permitting prime brokers to commingle and rehypothecate client assets is counterparty risk, and specifically the risk to the hedge fund manager, who uses prime brokerage services, of the insolvency and bankruptcy of its prime broker. When the prime broker who commingles and rehypothecates client funds becomes insolvent, the broker becomes unable to repay its liability obligations to investors and clients, due to the fact that the hedge fund lacks defined ownership claims to these assets. Even if the prime broker has sufficient funds or assets in the aggregate to repay some hedge fund clients out of a pool of assets, the prime broker may be unsure of the proper allocation of assets due to the complicated accounting treatment of rehypothecation and client asset borrowing transactions. Then, for purposes of regaining title to and possession of its securities, the hedge fund has no better status as a creditor than any other general creditor of the failed prime broker.

This risk first became readily evident with the collapse of Lehman, a global financial services firm that declared bankruptcy on September 15, 2008.¹⁰⁶ Prior to the bankruptcy, Lehman was one of the world’s largest providers of prime brokerage services, ranking among the top providers of prime brokerage services based on

¹⁰³ CASS § 6.1.8 G.

¹⁰⁴ CASS §§ 6.4.3 R, 6.5.1 R, 6.5.2 R, 6.5.3 R.

¹⁰⁵ CASS §§ 6.5.4 G, 6.5.8 G.

¹⁰⁶ In the Matter of Lehman Brothers Int’l (Europe) (In Administration), [2008] EWHC 2869 (Ch.), ¶ 3 [hereinafter In the Matter of Lehman Brothers Int’l] (identifying Lehman Brothers Holdings, Inc. as a United States company and the parent holding company of Lehman Brothers, Inc., another United States company that operated in New York and which was one of the fourth largest investment banks in the United Kingdom).

percentage market share from 2005 until 2008.¹⁰⁷ Its bankruptcy filing triggered the collapse of Lehman Brothers International (Europe) (“LBIE”), one of the holding company’s large subsidiaries.¹⁰⁸ It is due to LBIE’s collapse that hedge funds and investors worldwide felt the full risks of rehypothecation.

LBIE operated in the United Kingdom and in Europe and regularly utilized United Kingdom rules permitting rehypothecation and commingling of client assets, lending out an aggregate of about \$22 billion worth of customer securities prior to its bankruptcy filing.¹⁰⁹ In clause 5 of its margin lending agreement, “LBIE was authorized to lend the securities [of its hedge fund customers] to itself and to others, and to pledge, re-pledge, hypothecate and rehypothecate them.”¹¹⁰ When LBIE failed, however, clients whose assets LBIE had commingled or rehypothecated were unable to locate their assets or establish claims upon such assets.¹¹¹ The hedge

¹⁰⁷ Aragon & Strahan, *supra* note 2, at 29 (demonstrating that Lehman Brothers held 3.33% of the prime brokerage market share in 2005, 3.55% in 2006, 3.31% in 2007 and 2.36% in 2008).

¹⁰⁸ The chain of events was as follows:

As LBIE relied on [Lehman Brothers Holdings, Inc., its parent holding company] for funding, the collapse into insolvency of [the parent company] had the consequence that LBIE and other companies within the [Lehman Brothers banking group] which relied on [the holding company] for funding were forced into insolvency. As a result, prior to the opening of the markets in this country on Monday 15 September 2008, LBIE and three other companies went into administration.

In the Matter of Lehman Brothers Int’l, *supra* note 106, at ¶ 5; *see also* Helen Avery, *Prime Brokerage: The Day the Music Stopped*, EUROMONEY MAGAZINE, Oct. 29, 2008.

¹⁰⁹ Aragon & Strahan, *supra* note 2, at 7.

¹¹⁰ In the Matter of Lehman Brothers Int’l, *supra* note 106, at ¶¶ 6.

¹¹¹ Hedge funds who were unable to reclaim their securities from LBIE petitioned for the High Court of Justice in England to compel the court to require the LBIE administrators to submit written statements to the funds describing in detail the whereabouts of the fund’s securities, or alternatively to explain what steps the administrators had been taking to procure such information if it was unavailable. *Id.* at ¶ 15. All the hedge funds hoped to obtain at this point was information. In response, the administrator explained:

[I]t would be necessary to investigate particular records held by LBIE and to obtain data and records from relevant

fund customers of LBIE became general creditors for purposes of reclaiming their securities and became unable to withdraw or move such assets until the reconciliation of all creditors in the bankruptcy; this problem still continues now, more than a year after the bankruptcy filing.¹¹² The extensive amount of rehypothecation that LBIE engaged in combined with the type of bookkeeping that LBIE utilized to record asset ownership complicated determining rightful ownership of client assets.¹¹³ The assets of LBIE's hedge fund clients were especially affected.¹¹⁴ LBIE clients are currently waiting for the return of approximately \$17 billion (£10.4 billion) worth of LBIE

third party custodians, depositaries and other parties. . . .
[T]he difficulties that this process faces, not least the refusal of a number of custodians and others to comply with demands for information and that, in the meantime, the administrators are only able to call upon limited LBIE resources.

Id. at ¶ 25. The High Court, although expressing its sympathy for the hedge funds, denied the petition to provide them with information. *Id.* at ¶ 44. The Court stated that there are many other hedge funds and other LBIE clients that share petitioners' position and that the administrator must be allowed wide latitude from creditors to accomplish its statutory purpose. *Id.* at ¶¶ 26, 44, 46-47.

¹¹² Avery, *supra* note 108; Mike Spector, *Lehman Plan Would Thaw U.K. Assets*, WALL ST. J., Nov. 24, 2009, at C1 (describing a creditors' claim resolution agreement that is pending creditor approval, requiring a 90% approval to pass, and quoting Steven Pearson, a partner at Price Waterhouse Coopers and the joint administrator for the Lehman bankruptcy, stating, "[i]f the plan is rejected, it could take years to ultimately return all client assets"); *see also* Lehman Brothers International (Europe) (In Administration) – latest updates, http://www.pwc.co.uk/eng/issues/lehman_updates.html (last visited Sept. 12, 2009) (website set up by Price Waterhouse Coopers to update former LBIE investors regarding the procedures for reclaiming their assets from the bankrupt company). The latest update states that the administration authority for the LBIE bankruptcy is still uncertain regarding the proper ownership of LBIE client assets and is still processing competing customer claims. *Id.* (follow hyperlink "Client money & asset update – Client Information Portal 08/09/09").

¹¹¹ *See* In the Matter of Lehman Brothers Int'l, *supra* note 106, at ¶ 9.

¹¹² *Id.*

clients' assets were lent out through the use of rehypothecation clauses.¹¹⁵

The LBIE failure demonstrates the counterparty insolvency risk of such regulation: That an insolvent prime broker will be unable to return or identify hedge fund assets that the funds placed in the broker's custody and that the funds rightfully own. The risk could also result in a delay in the return of such assets, which could take several years to orchestrate, leading to severe financial losses or even potential failure for the hedge funds. But there are additional risks to rehypothecation. The United Kingdom regulations leave open the possibility that a bona fide purchaser of a security can assert ownership claims to assets that the hedge fund rightfully owns¹¹⁶ and that the prime broker will have insufficient funds to cover its existing debt obligations to customers if too many of them choose to withdraw their assets at the same time—if a triggering event occurs. In addition, the frequent use of rehypothecation by multiple prime brokers increases these risks because it further dilutes the claims of hedge funds on their assets.¹¹⁷ In other words, the scenarios that produce the rehypothecation risk—mainly insolvency, the existence of bona fide purchasers, or a run to withdraw assets—are more likely to cause a hedge fund to lose claims to its assets or to become a general unsecured creditor with respect to such assets when prime brokers engage in a higher rate of rehypothecation.

Hundreds of hedge funds lost or were denied access to their assets that they had in custody at LBIE and even more lost money because of delays in trading as a result of rehypothecation.¹¹⁸ Hedge funds are uncertain about the status of their assets, are unable to make a determination as to what further action should be taken so as to act in the best interest of their investor clients and are at a serious risk of losing investor confidence and suffering dire revenue impairments, economic losses and sometimes failing as a result.¹¹⁹

¹¹³ Sean Farrell, *Lehman's £10.4 Billion Hangover Points to Need for Insolvency Regime Shake-Up*, TIMES ONLINE, Sept. 8, 2009, <http://business.timesonline.co.uk/tol/business/management/article6825217.ece#cid=OTCRSS&attr=1185799>.

¹¹⁶ Huertas, *supra* note 10, at 22-23; Kettering, *supra* note 63, at 153-75.

¹¹⁷ See Huertas, *supra* note 10, at 22-23.

¹¹⁸ Avery, *supra* note 108.

¹¹⁹ See *In the Matter Lehman Brothers Int'l* *supra* note 106, at ¶¶ 11, 13. The plaintiff hedge funds who held their assets at LBIE described further that:

The hedge funds that utilized LBIE's prime brokerage services, when compared to hedge funds using other prime brokers, also experienced much larger drops in liquidity and a doubling failure rate.¹²⁰ This adverse impact on the hedge funds connected to LBIE then spread into other markets, creating a greater amount of systemic risk.¹²¹

V. *Differences in Regulations Reflect Different Risk Preferences?*

An argument may be made that choosing between a prime broker in the United States and one in the United Kingdom simply reflects a difference in risk preferences, with the United Kingdom market being significantly riskier than the market in the United States. The difference permits freedom of choice for clients: Hedge funds may choose to accept a higher level of risk in order to obtain higher returns. According to this Market Risk Preference Model, customers can choose the amount of market risk they would like to accept. This model, however, does not work in practice because it relies on faulty assumptions.

A. **Market Risk Preference Model**

The amount of systemic risk¹²² and the reward for bearing that risk are positively correlated in an efficient market.¹²³ Data

[T]he consequences of a decision to wind down the funds will be that the funds' property at LBIE will have to be treated as irrecoverable for the purposes of active management, the managers will have to cease charging management fees for that portion of the funds' assets, personnel will lose their jobs, and the funds' inability to engage in restructuring will probably lead to the collapse of at least four companies in which securities are held.

Id. at ¶ 14.

¹²⁰ Aragon & Strahan, *supra* note 2, at 2.

¹²¹ *Id.* at 5, 13 (conducting economic analysis and concluding that “[t]he results strongly suggest that Lehman brought many of its customers down when it failed in September . . . [and stating that] this increase [doubling of the failure rate for Lehman's customers] goes beyond what one would predict based on performance . . .”); Huertas, *supra* note 10, at 12.

¹²² Systemic risk is the type of risk that cannot be eliminated through diversification. BURTON GORDON MALKIEL, *A RANDOM WALK DOWN WALL STREET* 224 (2003).

estimates suggest that pooled funds are able to obtain the efficient market rewards for each relative level of risk they accept,¹²⁴ thus generally fitting efficient market investment predictions. The United Kingdom regulations, permitting rehypothecation and the commingling of customer assets, create an inherently greater level of systemic risk and as a result allow prime brokers and investors who participate in the United Kingdom prime brokerage market to obtain higher margins and profits.

Theoretically, then, a hedge fund can choose to accept the high level of risk by entering into a prime brokerage agreement with a prime broker who is subject to United Kingdom regulations and receive the comparable rewards in the form of more favorable rates. If the hedge fund manager feels that he or she does not want to accept such a risk, then he or she may choose to forego the favorable prime brokerage rates by choosing a prime broker that is subject to United States regulations, which prohibit the commingling and rehypothecation of the hedge fund's assets. Alternatively, the hedge fund manager may still deal with a prime broker in the United Kingdom but negotiate the prime brokerage contract so as to ensure that the prime broker will comply with the segregation requirements of the United Kingdom Client Money Rules and the Custody Rules.

In July of 2006, the European Commission implicitly endorsed the Market Risk Preference Model and recommended just that: Allow the hedge fund and the prime broker to negotiate the terms of the prime brokerage agreement without any regulatory limits on rehypothecation of assets.¹²⁵ It explicitly recognized and described the risk that insolvency of the prime broker would pose to the hedge funds but concluded that any regulatory restrictions would reduce investor returns in the short run and therefore should be avoided.¹²⁶ It stated that regulation in this area would reduce investor returns, "restrict the appetite of providers of leverage to become involved in a 'zero sum game' and combine to militate against the jurisdiction as one of choice for fund promoters and service providers."¹²⁷ The European Commission reasoned that the cost of "[protecting] the investor against the risk of default of the prime

¹²³ See, e.g., *id.* at 226.

¹²⁴ JATI K. SENGUPTA, DYNAMIC AND STOCHASTIC EFFICIENCY ANALYSIS 171-73 (2000).

¹²⁵ EUROPEAN COMMISSION, *supra* note 44, at 30.

¹²⁶ *Id.*

¹²⁷ *Id.*

broker . . . must be balanced against the other needs and the sophistication of the investor.”¹²⁸ It concluded that, because prime brokers are already subject to prudential supervision, “there is no need to build in ‘double lock’ protection. Ideally, the strict limits on re-hypothecation should be negotiated as part of the commercial terms of business between the fund and the prime broker.”¹²⁹

B. Failure of Market Risk Preference Model

The Market Risk Preference Model, which allows hedge funds to choose the level of risk they want to accept when entering into prime brokerage agreements, only functions in theory but has demonstrably failed in practice.

Several key assumptions that would permit the theoretical choice of risk preference described by the Market Risk Preference Model to function in the real world of business relations between hedge funds and prime brokers today are not satisfied. First, that a hedge fund manager is fully informed that the prime broker is currently engaging or is capable of engaging in asset commingling and rehypothecation, or that the manager has a choice regarding the matter. Second, that a hedge fund manager is able to negotiate the terms of his or her prime brokerage agreement with the United Kingdom prime broker so as to limit or prohibit the prime broker from rehypothecating and commingling client assets. Third, that a hedge fund understands the difference in regulation of commingling of assets and rehypothecation between the United Kingdom and the United States. Fourth, that a hedge fund manager understands and takes into account the full level of risk exposure that he or she is accepting when entering into a typical prime brokerage arrangement with a United Kingdom broker that permits asset commingling and rehypothecation. And finally, that the risk is properly allocated between the hedge fund and its client investor.

Although hedge fund managers are generally sophisticated and the level of due diligence they perform aids in attempts to mitigate counterparty risk and engage in informed decisionmaking,¹³⁰ they may be unaware that the United Kingdom prime broker is commingling their assets with the assets of others or rehypothecating them at all. The hedge fund manager may also be unaware of what

¹²⁸ *Id.*

¹²⁹ *Id.*

¹³⁰ FSA Hedge Fund Report, *supra* note 1, at 46-47, ¶¶ 3.82, 3.85.

the regulations for prime brokers are in the United States and the United Kingdom, or that they differ regarding the treatment of asset commingling and rehypothecation. Furthermore, the hedge fund manager may be unaware that he or she is dealing with a prime broker that is subject only to the United Kingdom regulations and not those of the United States,¹³¹ as was the case with many hedge fund managers who dealt with the New York offices of Lehman who never considered the possibility that their transaction would be subject to the laws of any other country aside from the United States.¹³²

Hedge fund managers in the United Kingdom who recognize that the large extent of rehypothecation of client assets by prime brokers presents problems often feel powerless to restrict the level of rehypothecation that prime brokers engage in.¹³³ Almost all prime brokerage agreements contain provisions that allow the prime broker to rehypothecate hedge fund assets.¹³⁴ Polling of United Kingdom hedge fund managers suggests that extremely few managers ever negotiate with a prime broker to enter into a prime brokerage agreement that would prohibit the broker from commingling or rehypothecating the fund's assets.¹³⁵ "In the UK prime brokers have been free to dictate the terms of their agreements with hedge funds.

¹³¹ See, e.g., Huertas, *supra* note 10, at 14, stating that:

Unfortunately many unsuspecting firms failed to realise the legal risk that multi-branch and assignment clauses allowing Lehman's UK arm rather than its US arm to be their actual counterparty under the Master Agreement. Lehman's knowingly did this in order to exercise greater rehypothecation rights under the FSA rules, otherwise not allowed in the US, and as such [investment managers] failed to benefit from the greater US Bankruptcy Code protections.

¹³² See, e.g., Avery, *supra* note 108 (describing the experience of hedge fund manager John James, who stated that "he was unaware that he was dealing with a UK entity subject to different regulations because his account was set up in the US and automated and handled by US employees at Lehman Brothers").

¹³³ FSA Hedge Fund Report, *supra* note 1, at 34, ¶ 3.48.

¹³⁴ See Huertas, *supra* note 10, at 16.

¹³⁵ FSA Hedge Fund Report, *supra* note 1, at 34, ¶ 3.48 (stating that "[o]nly one hedge fund investment manager in [the FSA's sample of respondents] (whose staff had considerable prime brokerage experience) had managed to negotiate limits on re-hypothecation") (alteration in original).

This means they have absolute discretion over the re-hypothecation of client assets and the use of their cash.”¹³⁶ In fact, “[m]ost hedge funds are not in a position to effectively negotiate their terms and conditions” and “[m]any hedge funds simply end up losing control of their assets.”¹³⁷

Because many hedge fund managers lack the requisite legal expertise, knowledge of the identity of the counterparties to the prime brokerage agreements, and frequently lack the requisite amount of bargaining power to alter the terms of the prime brokerage agreement, they may not be accurately assessing the risk of the transaction and may be unknowingly taking on more risk than they would desire when entering into prime brokerage agreements with United Kingdom prime brokers. It is therefore inappropriate to assume that hedge fund managers willingly accept the level of risk they encounter as a result of prime brokerage rehypothecation of hedge fund assets.

VI. *Standardization of Rules Governing Rehypothecation and Client Asset Management*

The United Kingdom should adopt the same regulatory scheme for securities rehypothecation and client asset commingling that the United States has used to regulate its prime brokers. Doing so would reduce the overall level of systemic risk in the prime brokerage market and help stabilize the financial system in the United Kingdom and worldwide. It would enable hedge fund managers to feel confident about the level of systemic and counterparty risk that they accept when entering into prime brokerage agreements. Hedge funds outside of the United Kingdom would not have to worry that their prime broker may become subject to United Kingdom Client Money Rules or United Kingdom Custody Rules permitting asset commingling and rehypothecation when dealing with a large prime broker that has offices in London. Furthermore, the increasingly global and intermingled financial system would benefit from an international standard that mirrors the United States regulatory scheme on this issue.

¹³⁶ Kris Devasabai, *A New Model*, ICFA MAGAZINE, Jan. 22, 2009, http://icfamagazine.com/public/showPage.html?page=icfa_display_feature&tempPageId=836072.

¹³⁷ *Id.*

A. The United Kingdom Should Prohibit Rehypothecation and Asset Commingling

The United Kingdom FSA should adopt a prohibition on securities rehypothecation and asset commingling that is similar or based on the SEC rules in effect in the United States. The United States' method of regulation requiring that prime brokers strictly segregate customer securities has proven effective in dealing with the Lehman bankruptcy in the United States.¹³⁸ In contrast, the United Kingdom regulations on the subject have proven highly ineffective and have created monumental problems and large economic losses for all the parties involved. Not only have the parties to the prime brokerage agreements been affected, but the hedge fund investors, the bankruptcy proceedings and the entire financial system has suffered as a result. United Kingdom securities regulations affect United States investors as well as the remainder of the financial industry because London is one of the most significant financial centers in the world.¹³⁹ A large part of the United Kingdom prime brokerage business relating to securities lending is derived from foreign investors,¹⁴⁰ and the United Kingdom system thereby creates a higher level of market risk worldwide.¹⁴¹

¹³⁸ The set of Bankruptcy Court decisions pertaining to the resolution of the United States divisions of Lehman, which do not deal with client claims for returns of assets, show that the United States' method is effective. *See generally* In re Lehman Brothers Holdings Inc., 2008 WL 5423214 (Bankr.S.D.N.Y.); In re Lehman Brothers Holdings Inc., 2008 WL 4902202 (Bankr.S.D.N.Y.); In re Lehman Brothers Holdings Inc., 2008 WL 4902179 (Bankr.S.D.N.Y.).

¹³⁹ John Gapper, *Are We No Longer the World's Financial Capital?*, N.Y. MAGAZINE, Mar. 18, 2007, <http://nymag.com/guides/london/29440/>.

¹⁴⁰ While there is a large amount of data indicating that the amount of securities borrowing is "extremely significant," there is currently a lack of data regarding the amount of securities borrowing and lending that occurs across national borders, especially among multi-national financial institutions, who "clearly engage in large amounts of these activities." Taub, *supra* note 17, at 186-87, ¶ 6.1. The following example illustrates the reason for the current lack of such data:

The term 'foreign' in trade reports is often on a nationality rather than a locality basis. For example, if a foreign institution with a United States presence borrows a United States security, the borrowing may be housed in the

By permitting rehypothecation, the United Kingdom places a higher value on the ability of hedge funds to obtain more favorable prime brokerage terms than on systemic stability. Market stability and the cost of credit for hedge funds have an inverse relationship in relation to rehypothecation: Hedge funds that are unable to permit their prime brokers to rehypothecate their securities experience a higher cost of credit but increase overall market stability, whereas hedge funds who permit prime brokers to rehypothecate their assets obtain more favorable rates while creating a greater amount of systemic risk as a result.¹⁴² The United Kingdom has, by allowing rehypothecation to continue, implicitly endorsed the idea that lowering the cost of credit for hedge funds is more important than maintaining systemic stability.

Prime brokers in the United Kingdom are unlikely to change their practices and themselves limit or reduce the amount of rehypothecation and client asset commingling that they engage in without the intervention of the FSA. Prime brokerage is a large and profitable business for investment banks, and revenue from asset rehypothecation accounts for a large share of total prime brokerage revenue. Hedge funds lack the requisite bargaining leverage to change standard prime brokerage contracts that allow prime brokers to engage in the full amount of rehypothecation and asset commingling permissible by law.

It may be theoretically possible—as the Market Risk Preference Model advocates—for a United Kingdom prime broker to voluntarily comply with segregation rules and to refrain from rehypothecating hedge fund assets, competing for hedge fund business with the other large investment banks by offering the added security and reduced risk of such an arrangement. However, market

United States branch or subsidiary, resulting in no cross-border impact on securities holdings (although there could be an inter-company loan to fund the operation).

Id. With the existence of multinational and cross-national corporations, the nationalities of the counterparties with whom hedge funds are dealing or contracting with and the nationalities of all the parties to the various rehypothecation agreements are unclear, as well as the laws that apply to such negotiations, contracts or transactions.

¹⁴¹ See, e.g., Huertas, *supra* note 10, at 12.

¹⁴² See HANS JOACHIM VOTH, TRANSPARENCY AND FAIRNESS IN THE EUROPEAN CAPITAL MARKET 26 (2008) (recognizing the relationship between the rates hedge funds pay for prime brokerage services, rehypothecation and market stability).

fund managers are typically insufficiently informed about the differences between United States and United Kingdom regulations and may not know the full extent of the risk to which their assets are subject in a regulatory regime that allows securities rehypothecation and asset commingling. Therefore, prime brokers are unable to successfully market its safer arrangement to hedge funds. The assumptions of the Market Risk Preference Model—of a fully informed hedge fund manager with sufficient sophistication and bargaining power to renegotiate the terms of the investment bank prime brokerage agreement—are not satisfied. Instead of renegotiating the terms of prime brokerage agreements, hedge funds and other investors are simply withdrawing their assets from United Kingdom institutions so as to avoid dealing with the regulatory loopholes allowing asset commingling and rehypothecation. Thus, although the prime brokerage market is very competitive, the profitability of rehypothecating assets combined with the lack of a marketable safer alternative to asset management makes it unlikely that prime brokers will adopt the United States model of asset management voluntarily and without the intervention of the FSA.

The FSA will not profit from winning the regulatory race to the bottom in its regulations regarding securities commingling and rehypothecation. The “race to the bottom” theory predicts that jurisdictions will compete for laxness in regulation to increase market share.¹⁴³ Overall, London and New York have apparently succeeded as the financial centers of the world because of national consolidation and market liberalization.¹⁴⁴ The “race to the bottom” theory would seem to suggest that the United Kingdom regulation would provide London with a competitive edge in relation to New York in gaining market share in the prime brokerage business. If this

¹⁴³ The “race to the bottom” theory is an application of the Prisoner’s Dilemma, in which each jurisdiction has a dominant strategy to increase the competitiveness of its domestic market. *E.g.*, Scott J. Basinger & Mark Hallerberg, *Remodeling the Competition for Capital: How Domestic Politics Erases the Race to the Bottom*, 98 AM. POL. SCI. REV. 261, 261 (2004). Each jurisdiction then lowers the level of regulation to increase its relative competitiveness—the race to the regulatory bottom. *Id.* In equilibrium, however, the market share of each jurisdiction remains relatively the same, yet each jurisdiction has engaged in deregulation. *See id.* In the end, the only variable that changes is the amount of regulation, which decreases to its bottom level. *See id.*

¹⁴⁴ Saskia Sassen, *Global Financial Centers*, 78 FOREIGN AFF. 75, 76 (1999).

is what the FSA intended, it has gone too far in its efforts in liberalizing the Client Money Rules and Custody Rules.¹⁴⁵

Instead of increasing London's appeal as a financial center, the lax FSA rules regarding rehypothecation and asset commingling seems to be seriously detracting from London's appeal for hedge fund clients since the Lehman bankruptcy. Ever since the collapse of Lehman, "rehypothecation is declining rapidly."¹⁴⁶ Hedge funds are becoming concerned that prime brokers strictly segregate their securities, and hedge funds in the United Kingdom "are demanding 'segregated accounts.'"¹⁴⁷ "The latest data show that since end-2007 the decline in rehypothecation (e.i., total collateral received that can be pledged) by the largest four broker-dealers was \$1.774 trillion."¹⁴⁸ "[T]he aversion to rehypothecation and reduced securities lending globally, is likely to be much higher as the number of investors who are banning the lending of securities by their custodians continues to grow."¹⁴⁹ The decline in rehypothecation is predictably accompanied by a decline in the overall amount of securities lending.¹⁵⁰ The decrease in the amount of rehypothecation is a result of "[the prime brokers'] own counterparty risk, mandate constraints from their clients, and the deleveraging that is taking place."¹⁵¹

¹⁴⁵ In January of 2007, at the peak of the financial boom, banking experts speculated that London was emerging as a more significant financial center than New York. In response, New York City Mayor Michael Bloomberg and New York Senator Charles Schumer undertook a study that analyzed New York's competitiveness in the securities and investment banking sector. *Capital Market Reform: Mayor Bloomberg and Senator Schumer Release Report*, BLOOMBERG L. REP.: SEC. L., Jan. 29, 2007, at 11. Hundreds of top financial executives provided recommendations to make New York more competitive internationally. *Id.* The executives suggested various reforms the SEC and other United States regulators could undertake but notably omitted any mention of liberalizing customer protection rules to make New York a more competitive financial market. *See id.* at 12.

¹⁴⁶ Singh & Aitken, *supra* note 3, at 5.

¹⁴⁷ *Id.* at 5 n.8.

¹⁴⁸ *Id.* (emphasis removed); *see also id.* at 6 (showing, in Table 1, that quarterly declining figures for "Collateral Received that can be Pledged" for the top four largest prime brokers from November 2005 until November 2008—Morgan Stanley, Goldman Sachs, Merrill Lynch and JP Morgan—as well as for Lehman).

¹⁴⁹ *Id.* at 7.

¹⁵⁰ *Id.* at 6.

¹⁵¹ *Id.* at 7.

Evidence suggests that since the LBIE collapse, hedge funds and other investors are increasingly prone to withdraw their prime brokerage balances from the United Kingdom and place them into United States banking institutions because of the lower threshold of risk tolerance that such investors now seek to obtain. “Many [hedge funds] have withdrawn their assets from UK prime brokers and the UK branches of overseas prime brokers, sparking concerns about London's future as a prime brokerage centre.”¹⁵² There is also significant evidence that prime brokers in the United Kingdom are reducing the amount of leveraging and the general level of risk that they take on.¹⁵³ The withdrawal of assets from United Kingdom prime brokers and the reduction in the level of rehypothecation strongly suggests that hedge funds and their investors are realizing the full level of risk that regulations allowing asset commingling and rehypothecation place on customers, and that the hedge funds believe the returns for taking on such risk are insufficient to justify assuming it.

Furthermore, there is strong evidence that the “race to the bottom” theory does not apply to attract hedge fund clients: Hedge funds seek to conduct business in jurisdictions with more stringent rather than more lax regulations.¹⁵⁴ Thus, lowering the level of customer protection in the United Kingdom will not attract hedge funds to London prime brokers.

The FSA should reanalyze its regulation of client money and asset segregation requirements and adopt rules such as those of the SEC that prohibit prime brokers from commingling and rehypothecating securities of hedge funds as well as other clients. Doing so would increase transparency, safeguard the integrity of the financial system and United Kingdom prime brokerage arrangements, limit systemic risk globally and protect the interests of hedge funds and other prime brokerage customers who lack sufficient bargaining power and information to protect themselves.

B. Conclusion and Recommendations

International harmonization of the rules governing prime broker rehypothecation and the commingling of client funds may also be necessary.

¹⁵² Devasabai, *supra* note 136.

¹⁵³ Huertas, *supra* note 10, at 12.

¹⁵⁴ Douglas Cumming & Sofia Johan, *Hedge Fund Forum Shopping*, 10 U. PA. J. BUS. & EMP. L. 783, 784 (2008).

Participants in the modern financial system operate in a global environment with blurred national boundaries, where domestic regulations increasingly affect individuals and businesses abroad.¹⁵⁵ The financial system's real functioning transcends national boundaries and "the regulatory framework consisting of generally independent national regulatory systems no longer matches the reality of global capital flows as transactions involving foreign issuers, financial intermediaries and investors become more the norm than the exception."¹⁵⁶ Hedge funds are increasingly popular international players and their assets under management continue to grow. The investment strategies hedge funds pursue are also increasingly variable and span different types of asset classes and nations.

New York and London—and thereby the United States and United Kingdom regulators—represent the most important financial center players in the world and set the majority of the regulations applicable to asset and investment management worldwide.¹⁵⁷ These cities run "the most critical and complex financial operations of the future," hold "enormous concentrations of resources and talent" and thereby occupy dominant financial positions over the remainder of the financial world.¹⁵⁸ The "secondary network of smaller economic capitals" includes Frankfurt, Hong Kong, Tokyo, Singapore and Sydney.¹⁵⁹

A persuasive argument can then be made that standardizing the laws of the United Kingdom and the United States will solve the current problem of asymmetric regulation of client asset commingling and rehypothecation. This does not mean, however, that the global financial system will not benefit from a unified regulatory standard prohibiting securities rehypothecation and asset

¹⁵⁵ See, e.g., Michael D. Mann, *The Role of the Domestic Securities Regulator in the Internationalization of the World's Securities Market*, 89 AM. SOC'Y INT'L L. PROC. 62, 72-74 (1995); see also generally THOMAS L. FRIEDMAN, *THE WORLD IS FLAT* (2007).

¹⁵⁶ Margaret E. Tahyar, *Final Report of the Securities Law Subcomm. of the Task Force on Extraterritorial Jurisdiction of the International Bar Association*, 1743 PLI/CORP 685, 698 (2009).

¹⁵⁷ See *id.* at 704-05; Robert N. McCauley & Eric Chan, *Hong Kong and Shanghai: Yesterday, Today and Tomorrow*, in 18 FINANCIAL SECTOR DEVELOPMENT IN THE PACIFIC RIM, NAT'L BUREAU OF ECON. RESEARCH, EAST ASIA SEMINAR ON ECON. 13, 15 (Takatoshi Ito & Andrew K. Rose eds., 2009).

¹⁵⁸ Sassen, *supra* note 144, at 75.

¹⁵⁹ *Id.*

commingling. Regulatory intervention will become necessary when the LBIE bankruptcy gets lost in the institutional memories of hedge funds and prime brokers; when the parties once again forget the risks inherent in securities rehypothecation arrangements.¹⁶⁰ Investors may once again flock to the financial centers who win the race of the day to the regulatory bottom, offering high risk high yield rates that cause massive losses and systemic problems when the risks are realized. International securities regulation standardization in this area would be beneficial, and entities such as the International Organization of Securities Commissions (“IOSCO”), the Committee of European Securities Regulators (“CESR”), and the Financial Stability Board (“FSB”) could aid in its development and implementation.

¹⁶⁰ In March of 2009, securities lending once again began to increase at a rapid rate since the Lehman collapse. BANK OF NEW YORK MELLON, *supra* note 5, at 3.