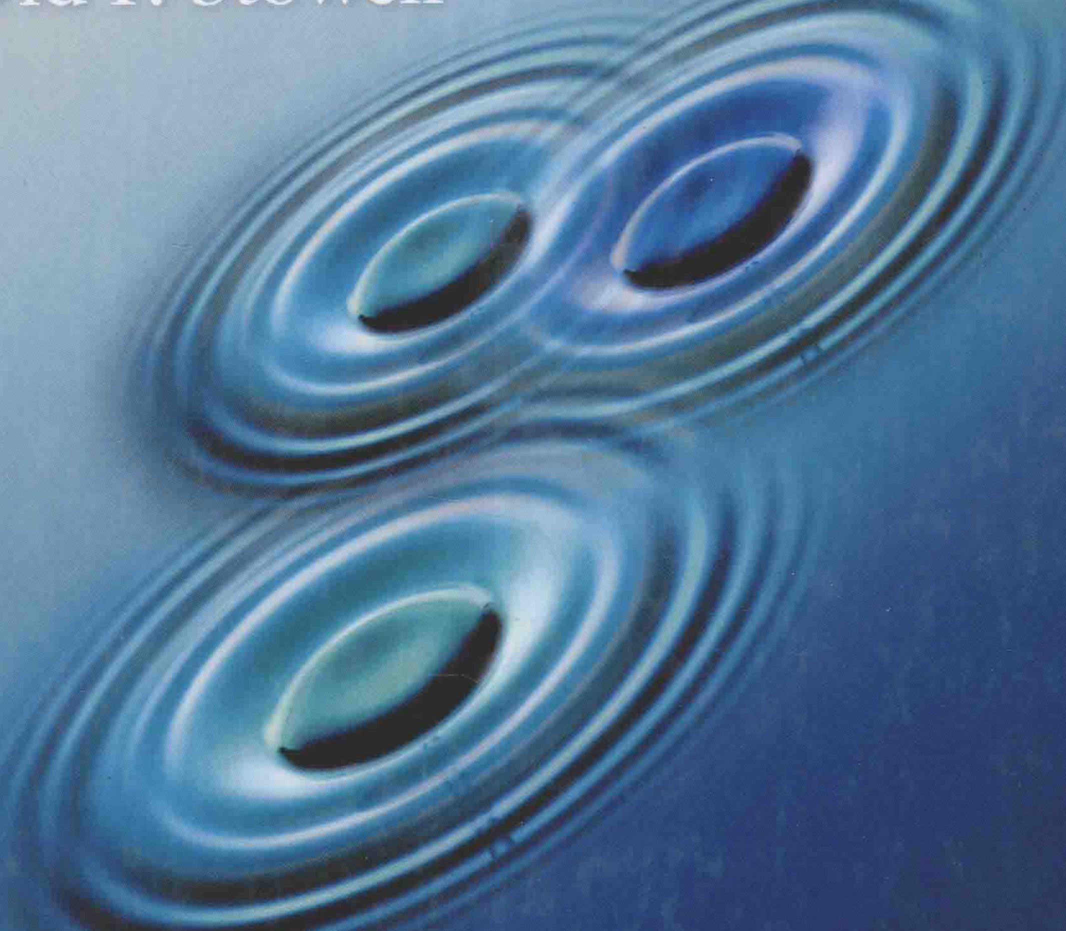
David P. Stowell



AN INTRODUCTION TO INVESTMENT BANKS, HEDGE FUNDS, AND PRIVATE EQUITY

The New Paradigm

AP

An Introduction to Investment Banks, Hedge Funds, and Private Equity

The New Paradigm

David P. Stowell
Kellogg School of Management
Northwestern University

ELSEVIER

AMSTERDAM • BOSTON • HEIDELBERG • LONDON
NEW YORK • OXFORD • PARIS • SAN DIEGO
SAN FRANCISCO • SINGAPORE • SYDNEY • TOKYO
Academic Press is an imprint of Elsevier

Academic Press is an imprint of Elsevier
30 Corporate Drive, Suite 400, Burlington, MA 01803, USA
525 B Street, Suite 1900, San Diego, California 92101–4495, USA
84 Theobald's Road, London WC1X 8RR, UK

Library of Congress Cataloging-in-Publication Data
Stowell, David.
An introduction to investment banks, hedge funds, and private equity : the new paradigm / David Stowell.
p. cm.
Includes bibliographical references and index.
ISBN 978-0-12-374503-3 (casebound : alk. paper)
1. Investment banking. 2. Hedge funds. 3. Private equity.
4. Finance–History–21st century. I. Title.
HG4534.S76 2010
332.66–dc22
2009050831

British Library Cataloguing-in-Publication Data
A catalogue record for this book is available from the British Library.

ISBN: 978-0-12-374503-3

For information on all Academic Press publications
visit our Web site at www.elsevierdirect.com

Printed in the United States of America
10 11 12 9 8 7 6 5 4 3 2 1

Preface

The world of finance has experienced a paradigm shift following the global financial meltdown of 2007–2009. Market participants have been significantly impacted and attitudes about risk, transparency, regulation and compensation have changed. Investment banks, hedge funds and private equity firms are at the epicenter of a transformed financial landscape, forging new roles and seeking new ways to create value in an environment of lower risk and greater regulation. This book provides an overview of investment banks, hedge funds and private equity firms and describes the relationships between these organizations: how they simultaneously compete with and provide important services to each other, and the significant impact they have on corporations, governments, institutional investors and individuals. Together, they have reshaped global financing and investing patterns, attracting envy and awe but also criticism and concern. They dominate the headlines of the financial press and create wealth for many of their managers and investing clients. This book enables readers to better understand these heavily interconnected organizations, their impact on the global financial market, principal activities, regulatory environment, historical development, and risks and opportunities in the post-crisis world.

Ultimately, the objective of this book is to demystify investment banks, hedge funds and private equity firms, revealing their key functions, compensation systems, unique role in wealth creation and risk management and their epic battle for investor funds and corporate influence. After reading this book, the reader should better understand financial press headlines that herald massive corporate takeovers, corporate shareholder activism, large capital market financings and the myriad strategies, risks, and conflicts in the financial market landscape. The inclusion of case studies and spreadsheet models provides an analytical framework that allows the reader to apply the book's lessons to real-world financing, investing and advisory activities.

Target Audience

The target audience for this book includes MBA, MSF and Executive MBA students, and upper-level undergraduates who are focused on finance and investments. Investment banking classes can use this book as a primary text and corporate finance and investments classes can use the book either as a secondary text or as a principal text to focus on hedge funds and private equity. In addition, professionals working at investment banks, hedge funds and private equity firms can use the book to broaden understanding of their industry and competitors. Finally, professionals at law firms, accounting firms and other firms that advise investment banks, hedge funds and private equity firms should find this book useful as a resource to better understand and assist their clients.

Distinguishing Features

This book is unique for two reasons. First, it is the product of a long career working for and with investment banks, hedge funds, and private equity firms, combined with five years in classrooms teaching students about these institutions. Second, by addressing investment banks, hedge funds, and private equity firms in the same book, and focusing on their simultaneous competition and cooperation the book provides a more holistic view of the changing boundaries and real-world impact of these institutions than has previously been available.

I wrote this book following a twenty year career as an investment banker at Goldman Sachs, JP Morgan and UBS, and an additional four years at O'Connor & Associates, a large hedge fund that is now part of UBS. As an investment banker, in addition to completing numerous M&A, debt and equity financing, equity derivative, and convertible transactions with corporate clients, I worked with private equity firms (financial sponsors) as they acquired companies and pursued exit strategies through recapitalizations, M&A sales and IPOs. Since 2005, I have been a professor of finance at Northwestern University's Kellogg School of Management, where I have had the privilege of teaching what I learned during my pre-academic career, while completing ongoing research into the ever-changing landscape of investment banks, hedge funds and private equity. The opportunity to teach bright students at a first class business school has provided great feedback and a forum to refine concepts and make them more relevant to students. This book is therefore a product of both real world and academic experience, creating a new educational offering that more fully opens the door to understanding the key participants in the global financial and advisory markets.

Cases

The inclusion of ten cases facilitates greater understanding of the concepts described in the chapters. These cases focus on recent actual financial and advisory transactions and include a summary of risks, rewards, political considerations, impact on corporations and investors, competition, regulatory hurdles and other subjects that are linked to chapter topics. The cases include questions for students and case notes and teaching suggestions for instructors. In addition, several cases include spreadsheet models that allow readers to create an analytical framework for considering choices, opportunities and risks that are described in the cases. The cases are assembled together at the end of the book, but are all linked to preceding chapters. As a result, cases are designed to be used in conjunction with chapter reading to reinforce concepts and enhance learning.

The World Has Changed

During 2008, Bear Stearns collapsed into a fire-sale to JP Morgan, Lehman Brothers declared bankruptcy, Fannie Mae and Freddie Mac were placed into U.S. government conservatorship, the U.S. government assumed majority control over AIG after injecting over $100 billion to keep it afloat, under duress, Countrywide and Merrill Lynch both sold themselves to Bank of America, Wells Fargo bought Wachovia at the brink of bankruptcy, Washington Mutual went into receivership with its branches absorbed by JP Morgan, Goldman Sachs and Morgan Stanley became bank holding companies, and banks all over the world had to be rescued by their respective governments. In the United States, this included the rapid provision to banks of over $200 billion of equity capital by the U.S. Treasury as part of a larger $700 billion rescue program, guarantees of debt and asset pools by the FDIC totaling many hundreds of billions of dollars, and an unprecedented expansion of the Federal Reserve's balance sheet by trillions of dollars as it provided credit based on almost any type of collateral.

All of this occurred as the world experienced the most significant, globalized downturn since the Great Depression of the 1930s.

The investment banking business, in many ways, will never be the same. Leverage has been reduced, some structured financial products have ceased to exist, and regulation has increased. However, the fundamental business remains unchanged: advising corporations and investors; raising and investing capital; executing trades as an intermediary and principal; providing research; making markets; and providing ideas and capital directly to clients. As investment banks reinvent some aspects of their business and learn to live in a world of decreased leverage and increased regulation, new opportunities loom large, while issues such as public perception, compensation, and risk management must be carefully worked through.

Hedge funds and private equity funds suffered significant reversals during 2008, with hedge funds recording investment losses of over 19% on average and private equity firms acknowledging similar potential losses to their investors. Although these results were undesirable and caused some investors to abandon funds, the global equity markets fared even worse, with the major U.S. stock market indices dropping by more than 38% and other equity and non-government debt indices throughout the world posting similar, or greater, losses. Hedge funds and private equity have had to adjust to a changing landscape and re-explain their value proposition while contending with downsizing in the number of funds, assets under management and return expectations. Reinvention and patience were the watchwords during the global financial crisis as these funds fought to hold on to as many limited partners as they could while considering new investment strategies for a credit-deficient world. During 2009, many hedge funds and private equity firms bounced back, with positive returns for most hedge funds and a refocus on smaller and less leveraged investments the hallmark of private equity investment activity.

Investment banks, hedge funds and private equity firms have redefined their roles and developed new processes and business plans designed to maintain historical positions of power and influence. The world has changed, but these institutions will continue to have a significant impact on global capital markets and M&A transactions. This book projects how they will achieve this, and the resultant impact on corporations, governments, institutional investors and individuals.

Structure of the Book

The book is divided into three sections. The first section is comprised of ten chapters that focus on investment banks. The second section includes five chapters that discuss hedge funds and five chapters that review the activities of private equity firms. The third section of the book includes ten cases that focus on recent transactions and developments in the financial markets. These cases are cross-referenced in the preceding chapters and are used to illustrate concepts that benefit from more rigorous analysis.

Section One: Investment Banking

This section includes ten chapters that provide an overview of the industry and the three principal divisions of most large investment banks, including descriptions of the M&A and financing activities of the banking division; the intermediation and market-making, as well as principal (proprietary) activities of the trading division; and the investment gathering and money management activities of the asset management division. In addition, the other businesses of large investment banks and the activities of boutique investment banks are reviewed. Other chapters focus in more detail on financings, including the activities of capital markets groups and the underwriting function, and discussion of IPOs, follow-on equity offerings, convertibles and debt transactions. The role of credit rating agencies, prime brokerage groups, structured credit, derivatives and exchanges is also explored. Finally, regulations, leverage, risk management, clearing and settlement, international investment banking, career opportunities and the interrelationship between investment banks, hedge funds and private equity is discussed. The capstone chapters in this section of the book drill deeply into M&A, convertible securities and investment bank innovation.

Section One is designed to be used as the text for a full course on investment banking. It should be used in conjunction with cases in Section Three that are specifically referenced in Section One chapters. Section Two's hedge fund and private equity chapters may be used as supplemental material.

Section Two: Hedge Funds and Private Equity

The **first** five chapters of Section Two focus on hedge funds, including an overview of the industry; a focus on selected hedge fund investment strategies; shareholder activism and impact of hedge fund activists on corporations; risk, regulation and organizational structure of hedge funds; and a review of performance, risks, threats and opportunities, as well as the changing value proposition offered by hedge funds to their limited investor partners. Finally, hedge fund competition with investment banks and private equity is reviewed, as well as the symbiotic relationship between all three parties.

The **second** five chapters of Section Two examine private equity from the perspective of those firms that principally focus on leveraged buyouts (LBOs) and other equity investments in mature companies. These chapters provide an overview of private equity; an explanation of an LBO model and how it drives decision-making; private equity impact on corporations, including a case history of more than a dozen LBO transactions; a description of organization, compensation, regulation and limited partner relationships; and a discussion of private equity issues and opportunities, diversification efforts, IPOs, historical performance and relationships with hedge funds and investment banks.

Section Two is designed to be used as the text for a full course that focuses on Hedge Funds and Private Equity. It should be used in conjunction with cases in Part Three that are specifically referenced in Section Two chapters. Section One's investment banking chapters may also be used as supplemental material.

Section Three: Cases

This section contains ten cases that are referenced in different chapters in Sections One and Two. The cases enable students to drill deeper into the subject matter of the chapters and apply concepts in the framework of real transactions and developments. Case questions and teaching notes for each case are provided, as well as several spreadsheet models that enable students to manipulate data. The cases focus on the following: the dramatic change in the global investment banking landscape that occurred during the 2008 financial crisis; the use of equity derivatives by Porsche and CSX as these two corporations interacted with investment banks and hedge funds in effecting significant corporate change; Cerberus's investments in Chrysler and GMAC (GM's captive finance subsidiary); the divergent CDO investment strategies of two hedge funds, which, in the first case, resulted in excellent returns, and in the second case, caused bankruptcy; Freeport McMoRan's acquisition of Phelps Dodge, which focuses on M&A, risk taking and financing activities; the acquisition through a bankruptcy court process and management of Kmart and Sears by ESL, one of the world's largest hedge funds; Procter & Gamble's acquisition of Gillette, including the advisory role of investment bankers and discussion of corporate governance and regulatory issues; the LBO of Toys R Us, focusing on the role of private equity funds and investment banks; and activist hedge fund investor Pershing Square's impact on the capital and organizational structure of McDonald's Corporation.

Acknowledgments

I am very grateful to many who have contributed to this publication. My wife, Janet, and children (Paul, Lauren, Audrey, Julia and Peter) have been patient and supportive during the more than two year process of researching and writing this book. When I decided to become an academic, they assumed that my investment banker work-week would drop from 70+ hours to less than half that amount. This has not been the case, as I learned that academics work long hours too, and the book added many hours to my schedule. My oldest son, Paul, is a banker, derivatives structurer, and former convertibles trader, and I relied on and appreciated his wisdom in thinking through the organization of the book and benefited from technical suggestions he made. I wish to thank Xiaowei Zhang, who worked in my team at JP Morgan, for her very diligent and efficient contributions as my principal assistant during the editing and model production stage of this project. I was very fortunate to be able to rely on her many talents during an interlude in her investment banking career.

As I transitioned from practitioner to academic over past 5 years, many finance department colleagues and administrators at Northwestern University's Kellogg School of Management offered support for this project and me. Special thanks to Kathleen Haggerty for her assistance from the Office of the Dean and to senior finance department faculty members Robert Korajczyk, Robert McDonald and Mitchell Petersen for providing valuable suggestions regarding the content of the book.

I am indebted to the following colleagues and friends from investment banks who provided excellent input to selected chapters:

John Gilbertson, Managing Director, Goldman Sachs
Mark Goldstein, Managing Director, Deutsche Bank
Cary Kochman, Managing Director, UBS
David Topper, Managing Director, JP Morgan
Jeffrey Vergamini, Executive Director, Morgan Stanley
Jeffrey Zajkowski, Managing Director, JP Morgan
Xiaoyin Zhang, Managing Director, Goldman Sachs

The following professionals provided greatly appreciated information regarding hedge funds and private equity firms, as well as suggestions regarding legal, regulatory and tax topics in the book:

Bryan Bloom, Principal, W.R. Huff Asset Management Co.
Deirdre Connell, Partner, Jenner & Block
Thomas Formolo, Partner, Code Hennessy & Simmons
Margaret Gibson, Partner, Kirkland & Ellis
Jason Krejci, Vice President, Standard & Poor's
Anna Pinedo, Partner, Morrison & Foerster
James Neary, Managing Director, Warburg Pincus
Joel Press, Managing Director, Morgan Stanley
James Rickards, Senior Managing Director, Omnis

Chirag Saraiya, Principal, Training the Street
Phillip Torres, Portfolio Manager, ForeSix Asset Management
Catherine Vaughn, Managing Director, Highbridge Capital Management
Julie Winkler, Managing Director, CME Group
Elaine Wolff, Partner, Jenner & Block

I express appreciation to Kellogg PhD candidates Fritz Burkhardt and Jonathan Brogaard and Northwestern undergraduate research assistants Esther Lee, Tom Hughes, Anya Hayden and Ashley Heyer for their work on this book. Finally, I appreciate the patience and guidance extended to me by my contacts at Elsevier, especially Scott Bentley, Executive Editor and Kathleen Paoni, Development Editor.

Contents

SECTION

I

Investment Banking

1

Overview of Investment Banking

The material in this chapter should be cross-referenced with **Case Study 1, "Investment Banking in 2008 (A),"** and **Case Study 2, "Investment Banking in 2008 (B)."**

Investment banking changed dramatically during the 20-year period preceding the global financial crisis that started in mid-2007 as market forces pushed banks from their traditional low-risk role of advising and intermediating to a position of taking considerable risk for their own account and on behalf of clients. This high level of risk-taking, combined with high leverage, transformed the industry during 2008, when several major firms failed, huge trading losses were recorded, and many firms were forced to reorganize their business.

Risk-taking activities of investment banks were reduced following large losses that stemmed primarily from mortgage-related assets, bad loans, and an overall reduction in revenues due to the financial crisis. This led to an industry-wide effort to reduce leverage and a string of new equity capital issuances. By the end of 2008, five *pure-play* investment banks headquartered in the United States that did not operate deposit-taking businesses (unlike large *universal* banks such as J.P. Morgan, which operated a large investment bank, a deposit-taking business, and other businesses) had undergone significant transformations: Goldman Sachs and Morgan Stanley converted into bank holding companies; the U.S. Federal Reserve (Fed) pushed Bear Stearns into the arms of J.P. Morgan to avoid a bankruptcy; Lehman Brothers filed for bankruptcy protection after the Fed and Treasury Department ignored its pleas for government support; and Merrill Lynch, presumably to avoid a similar bankruptcy filing, agreed to sell their firm to Bank of America (see Exhibit 1.1).

Historically through 1999, U.S. banks with deposit-taking businesses (commercial banks) were barred from operating investment banking businesses. This rule was created by the

Transformation of Pure-Play/Non-Deposit Taking Investment Banks

- Bear Stearns: sold to J.P. Morgan on March 16, 2008[1]
- Lehman Brothers: filed for bankruptcy protection on September 14, 2008
  - Sold U.S. operations to Barclays on September 16, 2008
  - Sold part of European and Asian operations to Nomura on September 22, 2008
- Merrill Lynch: sold to Bank of America on September 14, 2008[2]
- Goldman Sachs: converted to bank holding company on September 21, 2008
- Morgan Stanley: converted to bank holding company on September 21, 2008

Note 1: Initial price of sale at $2 per share was increased to $10 under a revised agreement on March 24, 2008.
Note 2: Date of announcement; deal completed on January 1, 2009.

EXHIBIT 1.1

Glass-Steagall Banking Act of 1933, which was enacted after the stock market crash of 1929 to protect depositors' assets. In 1999, the Gramm-Leach-Bliley Act overturned the requirement to keep investment banks and commercial banks separate, and led to the formation of U.S.-headquartered universal investment banks, including J.P. Morgan, Citigroup, and Bank of America. Two of the main arguments for rejoining these two kinds of businesses were (1) to provide for a more stable and countercyclical business model for these banks, and (2) to allow U.S. banks to better compete with international counterparts (e.g., UBS, Credit Suisse, and Deutsche Bank) that were less encumbered by the Glass-Steagall Act. As a result, Citigroup, which was created through the 1998 merger of Citicorp and Travelers Group (which owned the investment bank Salomon Brothers), did not have to divest Salomon Brothers in order to comply with federal regulations. J.P. Morgan and Bank of America followed the lead of Citigroup in combining businesses to create universal investment banks. These banks rapidly developed a broad-based investment banking business, hiring many professionals from pure-play investment banks and strategically using their significant lending capability as a platform from which they were able to capture investment banking market share.

Post-Crisis Global Investment Banking Firms

As of 2009, the surviving nine key global firms that encompass both investment banking and deposit-taking businesses and operate throughout the world included J.P. Morgan, Bank of America, Citigroup, Credit Suisse, UBS, Deutsche Bank, Barclays, Goldman Sachs, and Morgan Stanley. See Exhibits 1.2, 1.3, 1.4, and 1.5 for a summary of financial results, financial measures, and market capitalization for these nine firms.

Financial Results

Firm	2008 Net Revenues (in millions)	2008 Net Earnings (in millions)[1]	2008 Return on Equity (ROE)[2]	2008 Price/Book Value[3]	Mid-2009 Net Earnings
Bank of America	$72,782	$4,008	1.80%	1.4	$7,471
Barclays[4]	$42,420	$9,703	12.00%	1.1	$3,481
Citigroup	$52,793	($32,094)	-47.70%	1.2	$6,081
Credit Suisse[5]	$10,009	($7,118)	-24.00%	1.5	$3,184
Deutsche Bank[6]	$19,830	($5,637)	-12.50%	1.0	$3,006
Goldman Sachs	$22,222	$2,322	4.30%	1.0	$5,249
JPMorgan Chase	$67,252	$3,699	2.20%	1.6	$4,862
Morgan Stanley	$24,739	$1,807	5.30%	0.6	($345)
UBS[5]	$4,096	($19,372)	-64.30%	1.5	($2,627)

Note 1: Earnings exclude discontinued operations and extraordinary gains.
Note 2: Return on common equity computed by dividing net earnings to common shareholders from continuing operations by common shareholders' equity. Excludes extraordinary gains.
Note 3: Book value of common shareholders' equity adjusting for goodwill and intangible assets. Market capitalization as of December 31, 2008.
Note 4: Calculated at 2008 average GBP/USD rate of 1.84 and 1H-2009 average GBP/USD rate of 1.49.
Note 5: Calculated at 2008 average CHF/USD rate of 0.93 and 1H-2009 average CHF/USD rate of 0.89.
Note 6: Calculated at 2008 average EUR/USD rate of 1.47 and 1H-2009 average of EUR/USD rate of 1.33.
Source: Respective 2008 10-K and 1H-2009 10-Q filings

EXHIBIT 1.2

Financial Measures

Firm	Credit Ratings[1]	2008 Total Assets (in millions)	Average 2008 Daily VaR (in millions)[2]	Number of Employees
Bank of America	AA-	$1,817,943	$111	243,000
Barclays[3]	AA-	$2,971,027	$798	156,000
Citigroup	A	$1,938,470	$292	326,900
Credit Suisse[4]	A	$1,108,181	$163	47,800
Deutsche Bank[5]	A+	$3,104,190	$179	80,456
Goldman Sachs	A	$884,547	$180	30,067
JPMorgan Chase	A+	$2,175,052	$202	228,452
Morgan Stanley	A	$658,812	$135	46,964
UBS[4]	A+	$1,907,788	$347	77,783

Note 1: S&P rating for long-term debt in respective 2008 annual reports.

Note 2: Barclays, Goldman Sachs and Morgan Stanley's average daily value-at-risk (VaR's) are calculated based on a 95% confidence level. All others are based on a 99% confidence level.

Note 3: Assets calculated at GBP/USD rate of 1.45 on December 31, 2008; VaR calculated at average GBP/USD rate of 1.84.

Note 4: Assets calculated at CHF/USD rate of 0.95 on December 31, 2008; VaR calculated at average CFH/USD rate of 0.92.

Note 5: Assets calculated at EUR/USD rate of 1.41 on December 31, 2008; VaR calculated at average EUR/USD rate of 1.46.

Source: Respective 2008 10-K filings

EXHIBIT 1.3

Leverage and Average ROE

Firm	Leverage (Assets / Equity)				Avg. ROE[1]
	YE-06	YE-07	YE-08	Mid-09	2004-2008
Bank of America	10.8	11.7	10.3	10.0	13.2%
Barclays[2]	39.2	41.4	49.8	41.0	17.6%
Citigroup	15.7	19.3	13.7	12.1	3.8%
Credit Suisse	28.8	31.5	36.2	30.1	12.6%
Deutsche Bank[2]	34.3	50.8	71.7	50.5	9.7%
Goldman Sachs	23.4	26.2	13.7	14.2	21.9%
JPMorgan Chase	11.7	12.7	13.0	13.1	8.3%
Morgan Stanley	31.7	33.4	13.0	14.5	13.8%
UBS[2]	48.2	61.7	61.9	47.7	-1.1%

Note 1: ROE calculated based on net income from continuing operations available to common equity holders divided by average common shareholders equity.

Note 2: Barclays, Deutsche Bank and UBS financials are presented under IFRS standards. All other banks are presented according to U.S. GAAP. A major difference between IFRS and U.S. GAAP is the accounting for derivatives, non-derivative trading assets, and reverse repos/borrowed securities. The former shows gross exposures while the latter shows values on a net basis. For example, after taking into consideration the netting impact of U.S. GAAP accounting, Deutsche Bank's total assets at year-end 2008 drops from EUR 2,202 billion to EUR 1,030 billion. According to Deutsche Bank's targeted leverage ratio definition, which adjusts for U.S. GAAP netting rules (and some additional minor adjustments), its adjusted assets / adjusted equity ratio was 28 at December 31. 2008.

Source: Respective 10-K and 10-Q filings; Deutsche Bank roadshow presentation from February 19 – 20, 2009

EXHIBIT 1.4

Share Price and Market Capitalization

Bank	Mid-2007 Share Price[1]	End of 2008 Share Price[2]	% Change	Mid-2009 Share Price[3]	Mid-2009 Market Cap
Bank of America	$ 48.89	$ 14.08	-71%	$ 13.20	$ 114,200
Barclays	$ 55.79	$ 9.80	-82%	$ 18.44	$ 50,839
Citigroup	$ 51.29	$ 6.71	-87%	$ 2.97	$ 16,358
Credit Suisse	$ 70.96	$ 28.26	-60%	$ 45.73	$ 54,181
Deutsche Bank	$ 144.74	$ 40.69	-72%	$ 61.00	$ 37,704
Goldman Sachs[4]	$ 216.75	$ 84.39	-61%	$ 147.44	$ 77,391
J.P. Morgan	$ 48.45	$ 31.53	-35%	$ 34.11	$ 133,851
Morgan Stanley[4]	$ 69.37	$ 16.04	-77%	$ 28.51	$ 38,751
UBS	$ 60.01	$ 14.30	-76%	$ 12.21	$ 39,492

Note 1: Closing price as of June 29, 2007.
Note 2: Closing price as of December 31, 2008.
Note 3: Closing price as of June 30, 2009.
Note 4: Morgan Stanley and Goldman Sachs were formerly pure-play investment banks, but are now considered universal investment banks since they converted to bank holding companies.
Source: Respective 1H-2009 10-Q filings; share price data provided by Commodity Systems Inc.

EXHIBIT 1.5

Other Investment Banking Firms

In addition to these nine key global investment banks, other large banks compete effectively in regional markets worldwide and, in some countries, have a larger market share for investment banking business than the nine designated global banks. Examples of banks in the category of large regional investment banks include HSBC, Société Générale, BNP Paribas, CIBC, MUFG, Sumitomo Mitsui, Mizuho, Nomura, and Macquarie. Other firms that engage in investment banking business on a more limited scale are called *boutique banks*. Boutique banks principally focus on merger and acquisition (M&A)–related activity, although some participate in other businesses such as financial restructuring, money management, or proprietary investments. Retail brokerage firms are securities firms that narrowly compete with large investment banks in relation to retail client investments in stocks and bonds. They generally do not conduct a full investment banking business. See Exhibit 1.6 for a sampling of banks that compete in each of these areas.

Investment Banking Businesses

Although each investment bank takes a somewhat different approach, the principal businesses of most large investment banks include an (a) investment banking business managed by the Investment Banking Division, which focuses on capital raising and M&A transactions for corporate clients and capital raising for government clients; (b) sales and trading business managed by the Trading Division, which provides investing, intermediating, and risk-management services to institutional investor clients, performs research, and also participates in nonclient-related investing activities; and (c) asset management business managed by the Asset Management Division, which is responsible for managing money for individual and institutional investing clients (see Exhibit 1.7).

Within the nine large global investment banks, Goldman Sachs and Morgan Stanley are examples of more narrowly focused investment banks. They operate each of the businesses