

Investment Banks

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Economics of Financial Intermediation

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Overview



We discuss about securities brokerage firms and investment banks

- **Activities** of securities firms and investment banks
- **Size, structure, and balance sheet**
- **Regulation**
- **Global issues**

- *Securities firms* and *Investment banks* primarily **help** net suppliers of funds **to transfer** funds to net users of funds at a **low cost** and with a **maximum** degree of **efficiency**.
- Unlike other types of FIs, *securities firms* and *investment banks* do **not transform** securities issued by the net users of funds *into claims* that may be **more attractive** to the net suppliers of funds (*i.e., banks and their creation of banks deposits and loans*). Rather, they **serve as brokers** intermediating between fund *suppliers and users*.

Securities Firms & Investment Banks

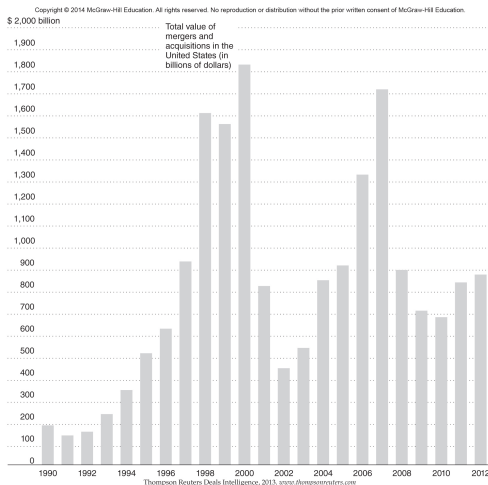


Nature of business:

- **Underwrite securities;**
- **Market making** (*trading of securities in a secondary market, profit bid-ask spread*);
- **Advising** (*example: M&A, restructurings*);

Some firms in the industry **specialize** in **purchase, sale and brokerage** of exiting securities (*retail business*), and are called *securities firms*, while other firms specialize in **originating, underwriting** and **distributing** issues of new securities (*commercial business*) and are called *investment banks*.

Merger and Acquisition 1999-2012



Growth in domestic M&A:

- Less than \$200 billion in **1990**
- \$1.83 trillion in *2000*
- In US: **bottomed out** at **\$458 billion** in **2002** (\$1.2 trillion worldwide)
- Topped \$1.7 trillion 2007 (\$4.5 trillion worldwide)
- Effects of financial crisis: fell to \$687 billion in 2010 (\$1.8 trillion worldwide)

Worst financial crisis since 1930s, but M&A activity still greater than early 2000s

Structured changes in the recent years:

- **Acquisition of Bear Stearns by J.P. Morgan Chase** (2\$ per share)
- **Bankruptcy of Lehman Brothers**
- **Acquisition of Merrill Lynch by Bank of America** (Wall Street: Money never sleeps)
- Only two remaining major firms:
 - **Goldman Sachs and Morgan Stanley**¹
- **Dramatic increase in number of firms from 1980 to 1987;**
- **Decline of 37% following the 1987 crash, to year 2006**
- **Concentration of business among the largest firms**
- **Many recent inter-industry mergers** (i.e., insurance companies and investment banks)
- **Role of FSMA, 1999**

¹Converted to commercial bank holding companies in 2008

Types & Relative Sizes of Firms

- **National full-line firms are larges**
 - **Bank of America** (via acquisition of Merrill Lynch);
Morgan Stanley
 - They serve both **retail** (especially acting as broker-dealers²) and **corporate customers** (such as **underwriting**³).
- We can be divided the National full-line firms in 3 subgroups:
 - **Commercial Bank holding companies** (largest, full service, BOA)
 - National full-line firms **specializing** in **corporate business** and are highly active in **trading** (Citigroup)
 - **Investment banks** (maintain limited subsidiaries and operate more with institutional client)

²Assist in the trading of exiting securities

³Assisting in the issue of new securities

- The rest of the industry is compressed of firms that perform a mix of **primary** and **secondary markets** activities:
 - **Regional securities firms** (*subdivided into large, medium, and small*)
 - **Specialized discount brokers** (*stockbrokers that conduct trades for customers but do not offer investment advice*),
 - **Electronic trading firms** (*E*trade*),
 - **Venture capital firms** (*pool money from investors to fund small and new business*),
 - **Other firms** (*research boutique, floor specialist..*)

Top Bank Holding Companies 2011 (by brokerage fee income)



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TABLE 4-2
Top Bank Holding Companies in Securities Brokerage Fee Income, 2011 (in billions of dollars)

Bank Holding Company	Securities Brokerage Fee Income
Bank of America	\$ 9.93
Morgan Stanley	7.47
Wells Fargo	4.75
Goldman Sachs	3.01
J.P. Morgan Chase	2.75
All bank holding companies	\$36.81

Key activities



- **Investment banking**
 - **Activities** related to **underwriting** and **distributing new** (IPOs⁴) and **secondary** (seasoned) issues of **debt** and **equity**
- **Public offerings & private placements**
 - In a **private offering**, the *investment banker* acts as a **private placement** agent for a **fee**⁵

⁴An initial, or first time, public offering of debt or equity by a corporation

⁵The securities issue are placed with one or a few large institutional investors



Key activities con't



In a **public offering**, the investment bank may **underwrite** securities with a **best-effort** or with a **firm commitment basis**.

- **Best effort**: the investment bank acts as an **agent** on a **fee basis** related to their **success** in placing the issue.
- **Firm commitment**: the investment bank act as a **principal**, purchasing the **securities** from the **issuer** at one price and **sell** to **investors** at a **slightly higher price**.

An investment bank agrees to underwrite an issue of 15 million shares of stock for Looney Landscaping Co.



- a. If the investment bank underwrites the stock on a **firm commitment basis**, it agrees to **pay \$12.50** per share to Looney Landscaping Corp. for the **15 million shares** of stock. It can then **sell** those shares to the public for **\$13.25** per share. How much money does Looney Landscaping Corp. receive? What is the **profit** to the investment bank? If the investment bank can **sell** the shares for only **\$11.95**, how much money does Looney Landscaping Corp. receive? What is the **profit** to the investment bank?

An investment bank agrees to underwrite an issue of 15 million shares of stock for Looney Landscaping Co.



- b. Suppose, instead, that the investment bank agrees to **underwrite the 15 million shares** on a **best-efforts basis**. The investment bank is able to **sell 13.6 million shares for \$12.50** per share, and it **charges** Looney Landscaping Corp. **\$0.275 per share sold**. How much money does Looney Landscaping Corp. receive? What is the **profit** to the investment bank? If the investment bank can **sell the shares for only \$11.95**, how much money does Looney Landscaping Corp. receive? What is the **profit** to the investment bank?

Key activities con't



■ Market making

- **Market timing** involves creating a **secondary market** in an asset by a securities firm or investment firm.
- **Agency transactions** (bid-ask spread profit) vs **principal transactions** (profit on the price movement of securities)
- *Increasing importance of online trading*

■ Trading

- **Position trading, pure arbitrage, risk arbitrage, program trading, stock brokerage** (behalf of individual) and **electronic brokerage** (trading by internet services)

Key activities con't



- **Investing** (*involves managing not only pools of assets such as closed and open mutual funds but also pension funds in competition with life insurance company*)
- **Cash management** (*Cash management account, it is a money market mutual funds sold by investment banks, most CMAAs offer check-writing privileges*)
- **Assisting with M&A** (*advisory as road show*)
- **Back-office and service functions** (*custody, clearance and settlement services, research and other advisory services*)

Recent Trend



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TABLE 4-6 U.S. Corporate Underwriting Activity (in billions of dollars)

	Straight Corporate Debt	Con- vertible Debt	Asset- Backed Debt	Non agency MBS	Total Debt	Common Stock	Preferred Stock	Total Equity	All IPOs	Total Under- writing
1986	134.9	9.8	10.0	62.2	216.9	43.2	13.9	57.1	22.3	274.0
1987	108.5	10.3	8.9	83.3	211.0	41.5	11.4	52.9	24.0	263.9
1990	76.5	5.5	43.6	43.2	168.8	19.2	4.7	23.9	10.1	192.7
1995	279.8	12.0	113.1	36.5	441.4	82.0	15.1	97.1	30.2	538.5
2000	587.5	49.6	337.0	102.1	1,076.2	189.1	15.4	204.5	76.1	1,280.7
2001	776.1	78.3	383.3	216.5	1,454.2	128.4	41.3	169.7	40.8	1,623.9
2002	635.4	30.5	496.2	263.9	1,399.0	116.4	37.6	154.0	41.2	1,553.0
2005	752.8	30.1	753.5	901.2	2,437.6	160.5	29.9	190.4	62.6	2,628.0
2006	1,058.9	62.8	753.9	917.4	2,793.0	157.2	33.4	190.5	57.9	2,983.5
2007	1,128.3	76.4	509.7	773.9	2,488.2	187.5	60.0	247.5	91.1	2,735.7
2008	707.2	42.0	163.3	45.0	957.4	164.9	77.3	242.3	11.0	1,199.7
2009	901.9	33.0	150.9	32.4	1,118.2	254.6	9.6	264.2	26.9	1,382.4
2010	1,062.8	29.1	107.5	19.0	1,218.4	239.5	22.2	261.7	52.0	1,480.0
2011	1,012.1	20.7	124.8	22.9	1,180.5	185.1	13.3	198.4	47.8	1,378.9
2012	1,354.5	19.7	199.4	39.3	1,612.9	245.1	32.5	277.6	55.4	1,890.5
% Change (YTD 2011 to YTD 2012)	33.8%	-5.1%	59.8%	71.1%	36.6%	32.4%	144.4%	39.9%	15.7%	37.1%

Recent Trend: Commission Income over Total Revenue



Recent Trend

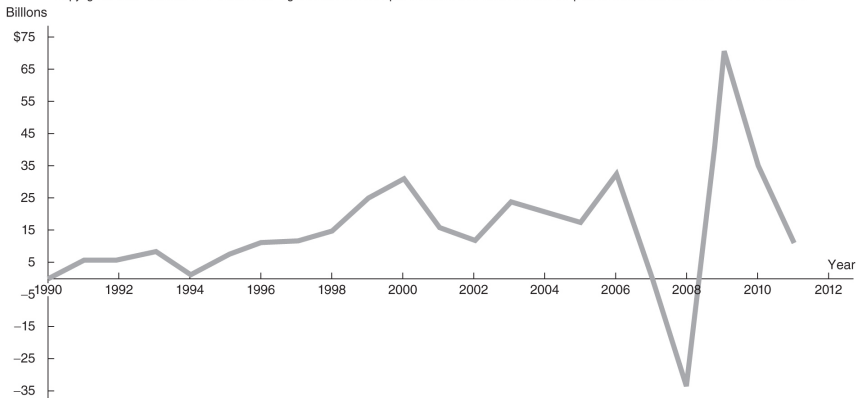


- **Decline in trading volume and brokerage commissions**
- Particularly since crash of 1987, although some recovery since 1992; Record volumes 1995-2000
- **Declines in market values and commission income 2001-2002**
- **Resurgence in market values and commissions during mid-2000s**
- **New lows in 2008**

Recent Trend: Securities Industry pretax Profit, 1990-2012



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Securities Industry and Financial Markets Association, various years. www.sifma.com

Recent Trend



- **Pretax net income** over **\$9 billion** per year 1996-2000
- **Pretax profits** soared to **\$31.6 billion** in 2000 - *Curtailed by economic slowdown and September 11 attacks 2001*
- **Worries over securities law violations** and **investor confidence**
- **Financial crisis**, 2008
- **Profits recovered**, 2009

Balance sheet



- **Key assets:**

 - Reverse repurchase agreements*

 - Receivables** from other **broker-dealers**

 - Long positions** in **securities** and **commodities**

Implications: Market, interest rate, & F/X risks

- **Key liabilities:**

 - Repurchase agreements** are **major source** of **funds**

 - Payables to customers**

 - Payables to other broker-dealers**

 - Securities** and **commodities sold short**

- **Capital levels** much **lower** than in **banks**

Balance sheet



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TABLE 4-7
Assets and
Liabilities of
Broker-Dealers as
of 2012 (in billions
of dollars)

Assets		Percent of Total Assets
Cash	\$ 117.2	2.6%
Receivables from other broker-dealers	1,267.6	27.9
Receivables from customers	192.5	4.2
Receivables from noncustomers	47.0	1.0
Long positions in securities and commodities	1,074.6	23.6
Securities and investments not readily marketable	19.7	0.4
Securities purchased under agreements to resell	1,577.4	34.7
Exchange membership	0.2	0.0
Other assets	<u>254.1</u>	<u>5.6</u>
Total assets	\$4,550.3	
Liabilities		
Bank loans payable	\$ 45.0	1.0%
Payables to other broker-dealers	621.1	13.6
Payables to noncustomers	71.0	1.6
Payables to customers	681.3	15.0
Short positions in securities and commodities	381.6	8.4
Securities sold under repurchase agreements	2,065.6	45.4
Other nonsubordinated liabilities	356.9	2.7
Subordinated liabilities	<u>121.9</u>	<u>2.7</u>
Total liabilities	\$4,344.4	95.5%
Capital		
Equity capital	\$ 205.9	4.5%
Total capital (equity capital and subordinate liabilities)	327.8	7.2%
Number of firms	4,481	

GLOBAL ISSUES



- **Global nature of securities firms**
 - **Competition** between **US** and **European** firms
 - **Foreign investors transactions in US securities** *and* **US investors transactions in foreign securities exchanges** increased
 - **Global concern** about **capital, liquidity, and leverage** following the **financial crisis**
- **Implications for global competitiveness**
- **Strategic alliances** (*U.S. vs Japan*)
- **Exits from foreign markets**