



# The Securities Industry in New York City

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## Highlights

- Before the current crisis, the securities industry accounted for 5 percent of City employment but 25 percent of wages earned.
- Wall Street employment may decline by 38,000 jobs from its peak in October 2007, with another 10,000 jobs lost in the rest of New York City's financial sector. Statewide, losses in the financial sector may reach 55,000 jobs.
- New York City has already lost 16,300 jobs in the securities industry over the past year.
- Broker/dealer operations of New York Stock Exchange member firms reported a loss of \$20.7 billion in the first half of 2008. This follows a loss of \$11.3 billion for all of 2007.
- During the last Wall Street downturn in the early 2000s, cash bonuses paid by New York City securities industry firms fell by 50 percent over a two-year period.
- The size of the losses and the resulting consolidation and downsizing that is taking place in the securities industry suggest that a bonus decline of a similar or even greater magnitude could occur this time.
- Wall Street-related personal and business tax revenue are expected to fall dramatically this year and next—by more than 40 percent (\$2 billion) in New York City and by nearly 38 percent (\$4.5 billion) in New York State.
- Hedge funds and private equity firms have become important investment vehicles for institutional investors, including university funds, foundation endowments, and public pension funds.
- Hedge funds and private equity firms, which have also been hard hit by the crisis, play an important role in the securities industry and have a strong presence in New York City.

Wall Street and the nation have been pounded by the fallout from the subprime credit crisis that reached a critical point in July 2007. The depth and the scope of the crisis came into focus in September 2008 as liquidity evaporated, credit markets froze, financial firms failed, and equity markets plunged. The crisis has cost trillions of dollars, transformed Wall Street, aggravated the economic slowdown, and led to federal intervention on a scale not seen since the Great Depression.

Efforts by the U.S. government and European nations to restore confidence and liquidity have helped stabilize the financial system, but the crisis has not passed and the economic fallout is only just beginning to be felt.

The financial crisis will lead to significant changes as Wall Street evolves from a highly leveraged investment banking business model to a better-capitalized commercial banking model. These changes will lead to job losses and lower profits and compensation.

New York State and New York City will experience large job losses as the financial services sector restructures and the broader economic slowdown takes hold. Tax collections are expected to fall sharply, and both the State and the City project large budget deficits. The Governor and the Mayor have been proactive in dealing with the crisis, but New York, like other states, may require federal assistance to navigate these uncharted waters.

Wall Street, which is often called New York City's economic engine, is undergoing an overhaul that will take several years to complete. The United States and other nations must act to restore confidence in the world's financial system by enhancing oversight and transparency. Excessive regulation, however, would risk harming the securities industry, which is a key driver of New York's economy.

## Federal Government Actions

Throughout the credit crunch, the Federal Reserve and the U.S. Treasury Department have worked to restore liquidity, stability, and confidence in the financial markets and support economic growth.

Between September 2007 and April 2008, the Federal Reserve reduced interest rates seven times, but as the crisis grew the Federal Reserve turned to other actions. Among other things, it created a number of new lending facilities for nonbank financial firms, expanded the discount window for traditional banks and extended the discount window to other financial institutions, and increased coordination with foreign central banks.

The federal government also orchestrated the bailout of several financially distressed firms whose collapse threatened the financial system. For example, in March 2008 it steered the sale of Bear Stearns to JPMorgan Chase. By September 2008, deteriorating conditions caused the government to take over Fannie Mae and Freddie Mac—the nation’s largest mortgage lenders, with combined liabilities of \$5 trillion.

The government also provided an \$85 billion loan (subsequently raised to \$150 billion) to prevent the collapse of insurer AIG, and assumed control of the company. The federal government did not prevent the collapse of Lehman Brothers, however, nor was it involved in the sale of Merrill Lynch—which came under pressure from the financial markets—to Bank of America.

The surviving independent investment banks, Goldman Sachs and Morgan Stanley, quickly converted themselves into commercial bank holding companies. While this structure subjects them to more regulation and limits how leveraged—and profitable—they can become, it allows them to take deposits to restore capital. In the wake of the sector’s large losses, building capital has become a key to survival.

Even with these dramatic steps, conditions in the financial markets continued to deteriorate rapidly. In response, the U.S. Department of the Treasury proposed a \$700 billion bailout of the financial system on September 19, 2008. The Troubled Asset Relief Program (TARP), which was signed into law on October 3, 2008, authorizes the Treasury to purchase troubled assets from banks and other financial institutions, and grants the Treasury flexibility to take other actions.

Despite these actions, credit conditions tightened still further and bank failures began to spread across Europe. The Federal Reserve took additional steps to increase liquidity in the system, including the purchase of commercial paper and two additional half-point interest rate reductions.

The Treasury used part of the \$700 billion to take a \$125 billion equity stake in the nation’s nine largest banks—an action last undertaken in the Great Depression—and it intends to take another \$125 billion stake in midsize and smaller banks. The Treasury no longer plans to purchase troubled assets from financial institutions. The use of the remaining TARP resources and reforming the financial system will be addressed by the Obama administration.

## Recapitalization

In response to large write-offs and the loss of market confidence, financial firms have moved to rebuild their balance sheets by raising additional capital. Before September 2008, Bloomberg LP had estimated that banks had raised \$353 billion in new capital—either through equity offerings or by bringing in new investment partners, including significant resources from sovereign wealth funds (i.e., investment funds owned by foreign nations).

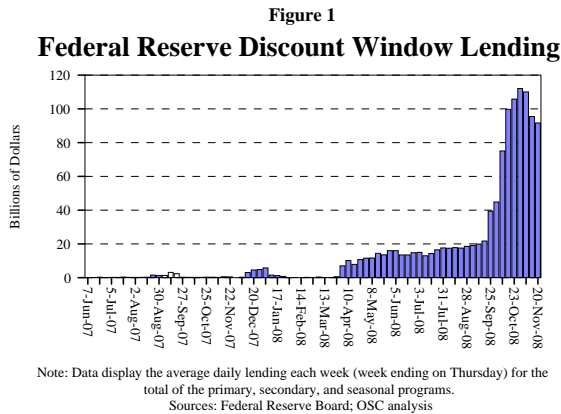
Major sovereign fund investments in early 2008 included the Singapore Government Investment Corporation in UBS (\$11.5 billion), Abu Dhabi Investment Authority in Citigroup (\$7.5 billion), China Investment Corporation in Morgan Stanley (\$5 billion), and Temasek Holdings and three other funds in Merrill Lynch (\$6.6 billion). Many of the sovereign funds, however, have lost much of their investments as financial conditions deteriorated and some firms failed or were sold.

The need to find a well-capitalized partner drove the sales of Bear Stearns to JPMorgan Chase and of Merrill Lynch to Bank of America. The ability to raise capital by taking deposits also contributed to the conversion of Goldman Sachs and Morgan Stanley to commercial bank holding companies.

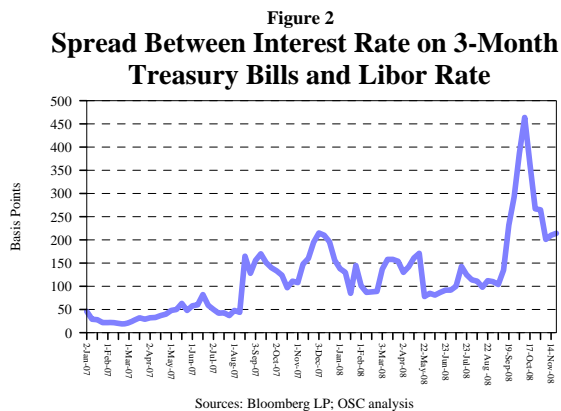
Goldman Sachs received a \$5 billion investment (about a 10 percent ownership stake) from Warren Buffett, and Morgan Stanley received \$9 billion by selling 20 percent of itself to Japan’s Mitsubishi UFJ Financial Group. Overall, the highly leveraged investment banking model has collapsed in favor of a more capitalized commercial banking model.

## Liquidity Concerns

Liquidity pressures on financial firms are reflected in the increased use of the Federal Reserve's traditional discount window lending for commercial banks (see Figure 1). Utilization rose after the Federal Reserve implemented changes on March 17, 2008, which increased loan length and lowered the primary credit rate. Use of the discount window surged in late September 2008 as the credit markets froze and demand remains high.



Uncertainty and banks' reluctance to lend to each other have fueled a flight to U.S. Treasury instruments (Treasuries) as investors seek to lower their risk. Consequently, the interest rate on Treasuries has fallen while the interbank lending rate, reflected in the London Interbank Offered Rate (i.e., the Libor), has risen. The spread between these rates (specifically, the difference in rates for three-month Treasury bills and the three-month Libor rate) increased sharply as the credit crunch intensified in August 2007, and then surged in September 2008 after the failure of Lehman Brothers (see Figure 2). The spread began to ease as the United States and other nations injected capital into their largest banks.



## Access to Credit

Businesses are also finding it more difficult to obtain capital—either through bank loans or by issuing commercial paper (i.e., short-term debt obligations)—because the credit markets have largely frozen. The level of outstanding commercial paper issued by companies themselves, which had increased at double-digit rates during 2005, 2006, and early 2007, fell from its peak by 34.8 percent through October 2008. A rebound began as the Federal Reserve started buying commercial paper (see Figure 3). The level of commercial and industrial loans made by domestic banks, which had grown by 28 percent in 2006, declined by 9.8 percent in 2007 and by 5.9 percent during the first three quarters of 2008.

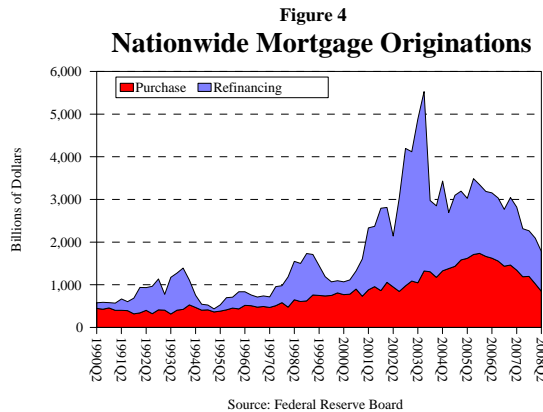


Concerns about credit quality also increased the spread between higher- and lower-rated corporate bonds. The difference in yields between Moody's top-rated Aaa corporate bonds and the more moderate Baa bonds more than tripled, from 0.79 percentage points on October 13, 2007, to 2.89 percentage points as of November 15, 2008. Thus the cost of borrowing has soared for many companies, making it more expensive for businesses to finance their daily operations.

Borrowing also has become more difficult for some states and many municipalities across the country. California and Massachusetts, for example, were unable to access the short-term credit markets for a while. Municipalities are paying significantly higher interest rates now, and some have delayed offerings due to lack of interest.

For consumers, the tightening of credit standards and reduction in credit availability is occurring across several kinds of products. Financing has become difficult for everything from car loans to student loans. In August 2008, the level of outstanding consumer installment credit fell by 0.2 percent to \$2.6 trillion (seasonally adjusted), which is the first monthly decline since 1998.

The lack of liquidity and tighter credit standards are also evident in mortgage financing. Nationwide, mortgage originations for home purchases have fallen by 51 percent since peaking in the fourth quarter of 2005 at a seasonally adjusted, annualized rate of \$1.7 trillion (see Figure 4). Likewise, originations for refinancings have fallen by 42 percent during the same period. The lack of available financing has increased the downward pressure on home prices.



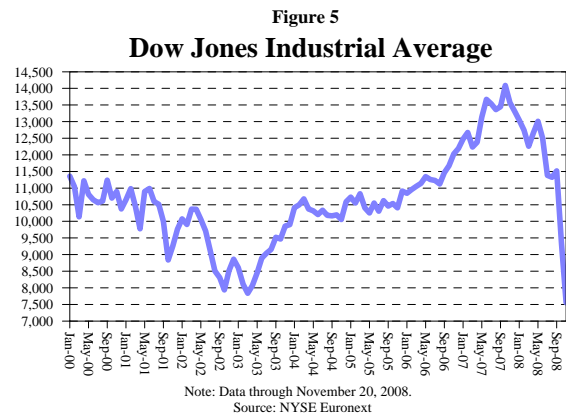
The use of subprime mortgages, which is at the heart of the current crisis, has fallen since the spring of 2007. According to one measure (data collected under the Home Mortgage Disclosure Act), the number of subprime mortgage originations fell by 63 percent during all of 2007.

## Financial Market Conditions

Conditions in the financial markets began to change dramatically during the third quarter of 2007 as uncertainty increased for several investment classes. Events reached a critical point in September 2008 as liquidity evaporated, credit markets froze, financial firms failed, and equity markets plunged. These developments have had an adverse impact on revenues and profits of financial firms.

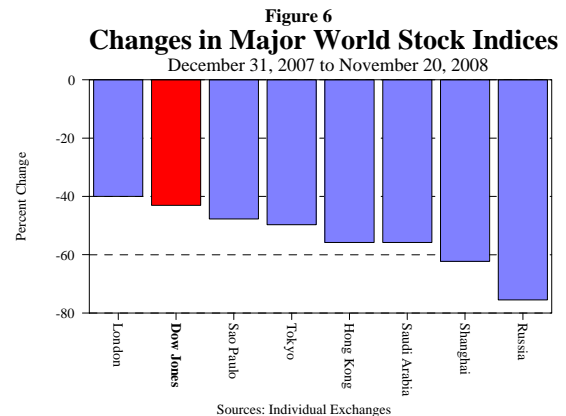
## Equity Markets

The Dow Jones Industrial Average declined by 37.8 percent from 11,723 on January 14, 2000, to 7,286 on October 9, 2002, reflecting the economic downturn and the terrorist attacks of September 11, 2001. Over the next five years, the stock market rose until it peaked at 14,164 on October 9, 2007. Over the course of the following year, the Dow dropped by nearly 47 percent, to 7,552 on November 20, 2008 (see Figure 5). The sharpest declines have occurred in the past two months.



The stock market's decline over the past year has eliminated an estimated \$8 trillion in shareholder wealth. According to the Congressional Budget Office, retirement plans—e.g., private sector, public sector, and 401(k) plans—have lost about \$2 trillion in value. The loss in wealth will depress consumer spending and increase public and private sector pension costs for many years.

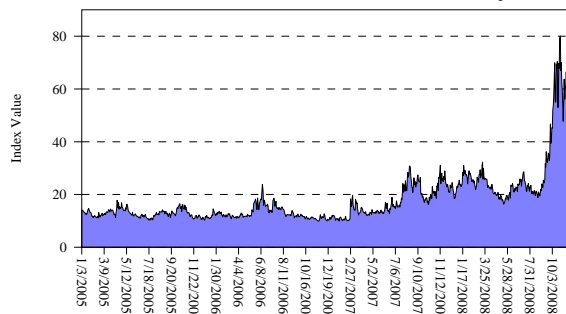
Overseas equity markets have also experienced large declines (see Figure 6). So far this year, the London and Tokyo stock indices have fallen by at least 40 percent and the Russian and Shanghai indices have declined more than 60 percent.





As prices have declined in the equity markets, price volatility and trading volume have surged. The Chicago Board Options Exchange Volatility Index reached 80.9 on November 20, 2008—more than five times higher than before the current crisis began (see Figure 7). Trading volume on the New York Stock Exchange during the first ten months of 2008 was nearly 57 percent greater than during the same period in 2007. On October 10, 2008, a new daily trading volume record—nearly 11.5 million shares—was set.

**Figure 7**  
**Stock Market Price Volatility**



Sources: Chicago Board Options Exchange; OSC analysis

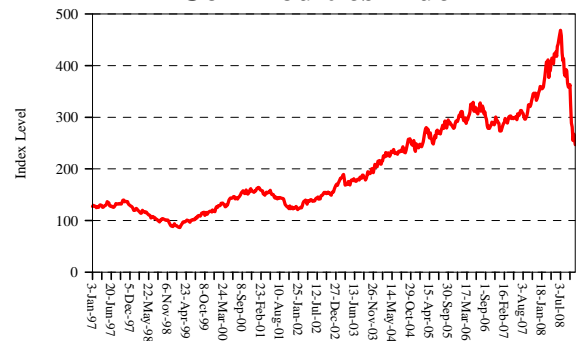
### Commodities

The turmoil in the financial markets affects not only financial instruments but commodities as well. Just as sharp price increases for commodities help fuel inflationary concerns, the sudden collapse of these prices, coupled with declining home prices and the worldwide economic slowdown, has renewed concerns about deflation.

The price and trading volumes of commodities have skyrocketed in recent years, driven by rising demand and price speculation. According to the Bank for International Settlements, the outstanding value of over-the-counter derivatives contracts for commodities reached \$9 trillion worldwide by the end of 2007—a nearly ninefold increase over the 2002 level. The Reuters/Jefferies composite commodity price index peaked at record levels on July 2, 2008 (see Figure 8).

Since July, however, global economic growth has slowed, undermining both demand and the availability of capital for speculative investment. Although the plunge in oil prices has been most noticeable, all commodities prices have fallen sharply, with the Reuters/Jefferies price index declining by 51.1 percent between July 2, 2008, and November 20, 2008.

**Figure 8**  
**Commodities Index**

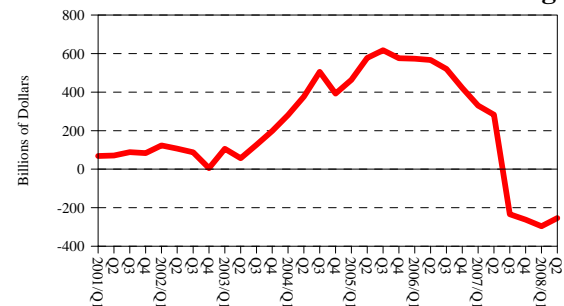


Source: Reuters/Jefferies & Co.

### Asset-Backed Mortgage Securities

During the early part of the decade, financial institutions increased their reliance on mortgage-backed securities. Although they were risky, these securities proliferated, and between the third quarter of 2004 and the third quarter of 2006 issuances soared—net issuances exceeded \$500 billion annually. As delinquencies and defaults began to grow, demand for these securities evaporated (see Figure 9). Financial institutions began to write off many of these bad loans, resulting in large financial losses.

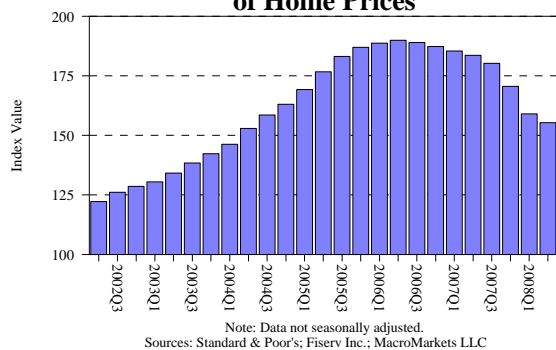
**Figure 9**  
**Net Change in Home Mortgage Asset-Backed Securities Outstanding**



Note: Data are seasonally adjusted and annualized.  
Source: Federal Reserve Bank

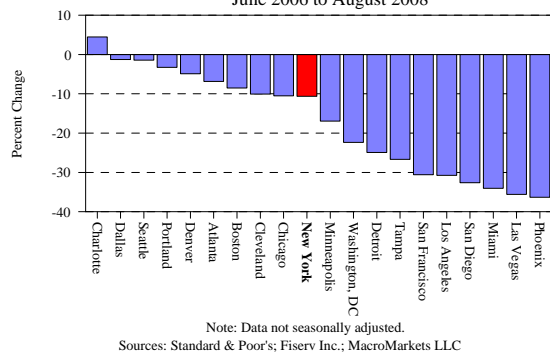
The decline in home values, which precipitated the credit crisis in the mortgage market, has only worsened during the past year. According to the S&P/Case-Shiller Home Price Index, national home prices have fallen by 18.2 percent from their peak in the second quarter of 2006, and by 15.4 percent in the past year alone (see Figure 10).

**Figure 10**  
**Case-Shiller National Index**  
**of Home Prices**



Home values in virtually all of the nation's 20 largest metropolitan areas have declined (see Figure 11). Property values in San Francisco, Los Angeles, San Diego, Miami, Las Vegas, and Phoenix have declined the most—by at least 30 percent since mid-2006—and the four states in which these cities are located lead the nation in mortgage delinquencies and foreclosures. Prices have declined by 10.7 percent in the New York metropolitan area during this period.

**Figure 11**  
**Change in Metro-Area Home Prices**  
June 2006 to August 2008

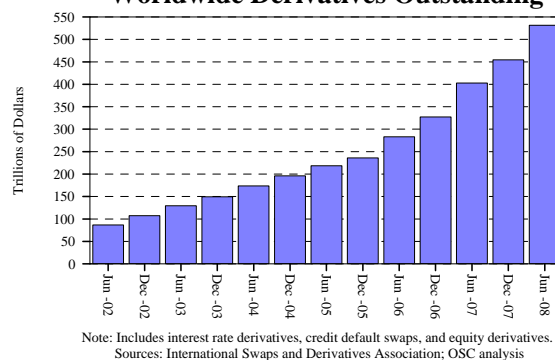


With the economy slowing, commercial vacancy rates are rising across the nation. CB Richard Ellis reports that in some cities, such as Detroit and Dallas/Fort Worth, commercial vacancy rates are close to or exceed 20 percent. In New York City, Manhattan's commercial real estate market has begun to weaken as job losses in the finance industry increase and spread throughout the economy. Several major commercial real estate deals and construction projects have been cancelled or put on hold due to tight credit conditions and weakening demand. Colliers ABR reports that Manhattan's overall commercial vacancy rate rose to 9.1 percent in September 2008, from 6.8 percent one year earlier.

## Derivatives

Derivatives are financial contracts whose price depends on the value of other underlying financial instruments. They are often used to hedge risk, but can also be used for speculative purposes. Warren Buffet has described derivatives bought on speculation as "financial weapons of mass destruction." Over the past six years, the value of derivatives grew fivefold to \$531 trillion in June 2008 (see Figure 12). Interest rate derivatives, which account for nearly 88 percent of all derivatives, increased by 21 percent in the first half of 2008. Credit default swaps, which make up a much smaller portion of derivatives, declined by 12.2 percent to \$54.6 trillion during this period.

**Figure 12**  
**Worldwide Derivatives Outstanding**



## Mergers and Acquisitions

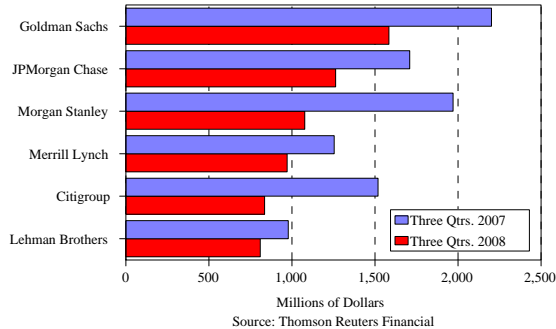
Although the credit crisis reached a critical point during the second half of 2007, the impact on merger and acquisition activity was not apparent until the first quarter of 2008.

Thomson Reuters Financial reports that in 2007, merger and acquisition activity reached a record \$3.8 trillion, an increase of 23.9 percent. (Of this amount, \$1.7 trillion involved the acquisition of companies in the United States.) The amount of imputed fees from mergers and acquisitions reached \$44 billion worldwide, an increase of 16 percent. The (then) six largest firms in the United States realized \$12.5 billion in fees (led by Goldman Sachs at \$3.1 billion), an increase of 29.9 percent over the 2006 level.

With credit conditions tightening, announced merger and acquisition activity in the United States declined by more than 30 percent during the second half of 2007 (compared to the second half of 2006). The slowdown was less pronounced in the rest of the world, where announced deals grew at a slower rate (8.3 percent) than in recent years.

The slowdown in merger and acquisition activity has continued into 2008, which will lead to a marked reduction in fees in 2008 and 2009. Completed domestic transactions declined by 47.3 percent through September 2008, and by 10.2 percent in the rest of the world. Imputed fees for New York-based firms declined by 32.1 percent (see Figure 13).

**Figure 13**  
**Imputed Fees from Worldwide Mergers and Acquisitions**



### Equity and Debt Underwriting

Activity in the underwriting market also began to slow during the second half of 2007. Although worldwide equity issuances grew by 12.3 percent during the second half of 2007 and initial public offerings (IPOs) grew by 5.9 percent, the rates of growth were much smaller than one year earlier. The value of equity issuances in the United States fell by 11.4 percent during this period and the value of IPOs declined by 1.2 percent.

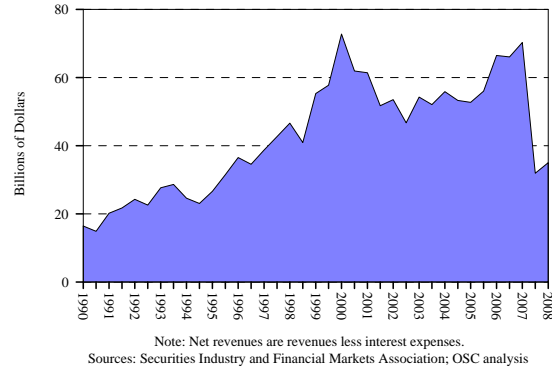
Equity issuances for the first three quarters of 2008 were down by 33 percent worldwide, including a decline of 57.5 percent for IPOs. In the United States, however, the value of equity issuances grew by 14.2 percent, reflecting efforts to recapitalize the financial industry. Thomson Reuters reports that during this period the top ten equity issuances, with a value of \$78.4 billion, were for companies in the financial industry.

The worldwide value of long-term debt issuances fell by 17.8 percent during the second half of 2007, driven by a 28.4 percent decline in the United States. Conditions worsened in the first three quarters of 2008, as issuances fell by 39.3 percent worldwide and by 48.8 percent in the United States. Although financial institutions in the United States continued to hold the lead in debt equity underwriting, imputed fees fell by 31 percent during the first nine months of 2008.

## Sources of Revenue

Wall Street firms have four main sources of revenue: investment banking (which includes mergers and acquisitions, and underwriting); principal transactions (trading and the firms' own investment portfolios); asset management; and interest income. Figure 14 shows that industry revenues fell from \$70.3 billion in the first half of 2007 to \$32 billion in the second half of 2007.

**Figure 14**  
**Revenue at Securities Firms**



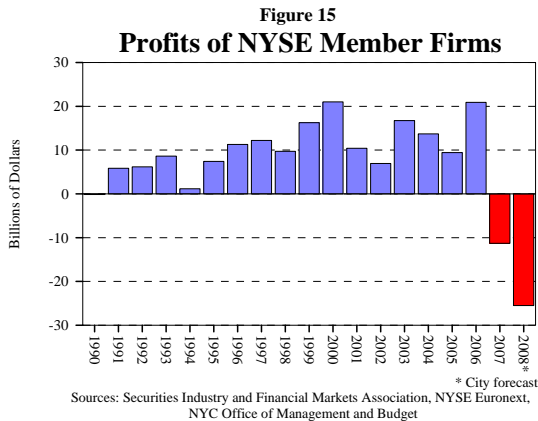
Revenues for the six largest firms headquartered in New York City (Citigroup Institutional Clients Group, Goldman Sachs, JPMorgan Chase Investment Bank, Lehman Brothers, Merrill Lynch, and Morgan Stanley) fell by 63 percent in the second half of 2007, and by another 58 percent during the first three quarters of 2008. Several firms have reported negative revenues due to write-offs that exceeded their other earnings. Write-offs at these firms have totaled more than \$140 billion since the third quarter of 2007, with the largest write-offs at Citigroup and Merrill Lynch.

Principal transactions, which totaled \$51 billion in the first half of 2007 and had accounted for nearly 50 percent of the firms' net revenues, swung to a \$28 billion loss in the second half of 2007, reflecting write-offs, and eased to an \$18 billion loss in the first three quarters of 2008.

Although the firms' net interest income grew by 37 percent and asset management income increased by 4 percent during the first three quarters of 2008 (when compared to the same period in 2007), income from investment banking fell by 42 percent—declining at all the firms—reflecting the reduction in mergers and acquisitions and underwriting activity.

## Wall Street Profits

According to the Securities Industry and Financial Markets Association (SIFMA), broker/dealer operations of New York Stock Exchange member firms reported profits of \$20.9 billion in 2006, slightly less than the record set in 2000. These firms, however, lost \$11.3 billion during 2007, the industry's first loss since 1990 (see Figure 15).



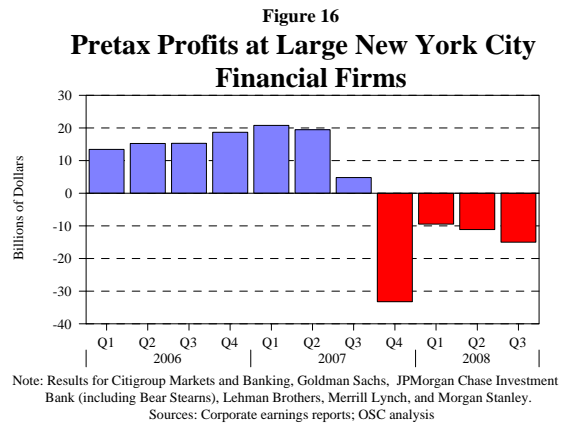
Although member firms earned \$8.9 billion during the first half of 2007, they lost \$20.2 billion during the second half of the year as write-offs accelerated. Member firms lost \$20.7 billion in the first half of 2008, despite a small gain in the second quarter. New York City's financial plan assumes a loss of \$25.5 billion for all of 2008, but projects profits of \$8.7 billion in 2009 and more than \$16 billion by 2011. These estimates, however, may be overly optimistic.

Most of the losses have been focused in the major firms. Small New York City regional firms had less exposure, and their pretax profits grew by 10 percent in 2007 and were unchanged in the first half of 2008. Small regional firms in the rest of the nation remained profitable, but at lower levels.

Traditional broker/dealer profits alone, however, reflect only part of Wall Street's financial condition, as the large financial firms have extended their operations into activities and markets that are not fully captured by this data. As a result, the Office of the State Comptroller also examines the pretax profits of the largest financial firms headquartered in New York City.

Profits for these large financial firms were on track to set a new record during the first half of 2007, but write-offs of toxic assets depressed profits in the third quarter and resulted in record losses of \$33.2 billion in the fourth quarter (see

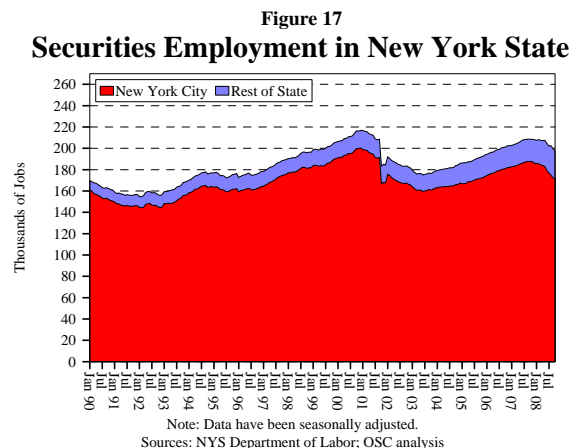
Figure 16). Although the firms still reported a net profit of \$11.8 billion in 2007, that represented a decline of 81 percent from the previous year.



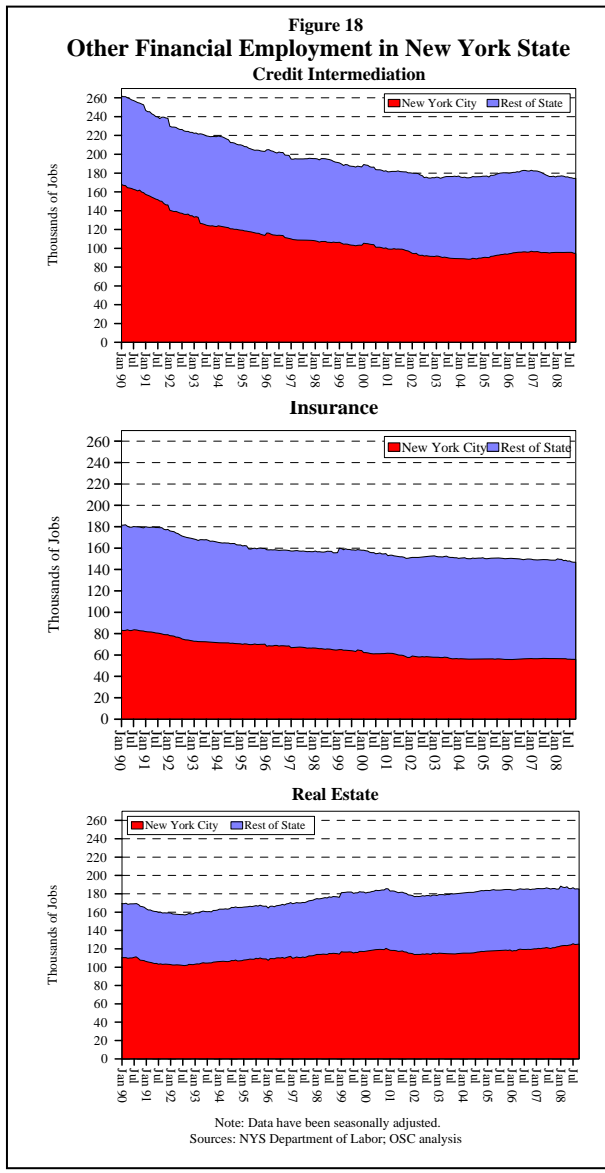
During the first three quarters of 2008, these large firms reported pretax losses of \$35.6 billion. Only three firms recorded profits—Goldman Sachs, JPMorgan Chase, and Morgan Stanley. These profits had all declined from the same period in 2007, ranging from a 45 percent fall-off at Morgan Stanley to a 94 percent drop at JPMorgan. The largest losses during this period were reported by Citigroup (\$18.6 billion) and Merrill Lynch (\$19.7 billion).

## Employment

Employment in the securities industry in New York City peaked at 200,300 in December 2000 (on a seasonally adjusted basis), but declined by 40,800 jobs, or 20 percent, over the following two and a half years in response to the bursting of the dot-com bubble and the events of September 11, 2001 (see Figure 17). By October 2007, the securities industry had regained 28,100 jobs—about two thirds of the jobs lost in the last downturn.







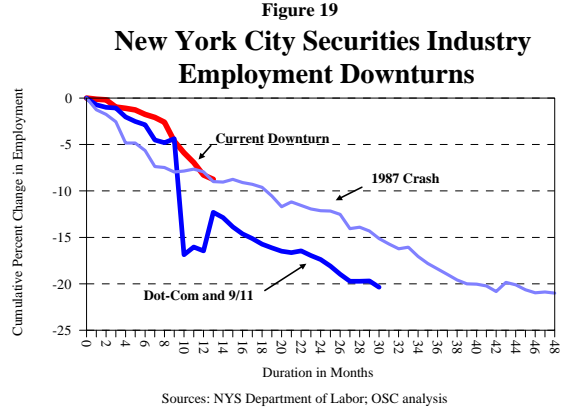
Securities firms, banks, and mortgage and insurance companies, however, have all announced growing numbers of layoffs in response to the crisis. Thus far, employment statistics show that most of the jobs lost in New York City have been in the securities industry. As of October 2008, the industry has already shed 16,300 jobs—more than half of the number gained during the last economic expansion.

Many of the job losses reported in the early stages of the credit crunch were in the area of mortgage lending, but these did not have a major impact locally because most of the jobs were located outside of New York City. The restructuring in banking and insurance, however, is just beginning to be reflected in the employment statistics.

The credit intermediation sector—composed of commercial and savings banks, consumer and commercial lending, and mortgage financing—has lost 2,500 jobs in New York City since peaking in December 2006, including 1,200 jobs in the past year (see Figure 18). This sector has been in long-term decline, but enjoyed a rebound in the last expansion. The insurance sector, which has also been in decline, has lost 700 jobs over the past year.

The financial services sector in the rest of New York State is dominated by insurance, followed closely by credit intermediation. (Together, they account for two thirds of the sector’s jobs.) The financial sector outside of New York City has lost 3,400 jobs over the past year, and losses are expected to mount in the coming months.

Over the past half-century, Wall Street has experienced six periods of extended employment contraction, with declines in four of these periods exceeding 20 percent. The last two major retrenchments in New York City (in the wake of the 1987 stock market crash, and the bursting of the dot-com bubble and events of September 11, 2001) fell into this range, although losses after the 1987 crash occurred over a much longer period (see Figure 19).



As of October 2008, the securities industry in New York City had contracted by 8.7 percent. A 20 percent reduction would translate into a loss of nearly 38,000 jobs in the securities industry. We expect to see additional losses, although on a smaller scale, in the banking, credit, and insurance sectors. In total, the financial services sector in New York City could lose as many as 48,000 jobs.

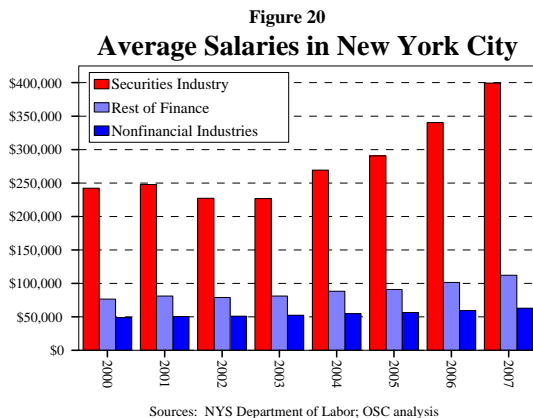
## Compensation

Wall Street compensation levels remained high in 2007 even as profits began to plummet, but a number of factors will lead to a large decline in 2008. These include continued write-offs, which will hold down profits; the impact of consolidation and restructuring, including the transformation of investment banks into more regulated, less leveraged commercial banks; and the federal government's equity position and new regulations.

Wall Street wages grew by 22.7 percent to reach \$73 billion in 2007, the highest rate of growth since 2000. Between 2003 and 2007, Wall Street wages doubled, growing almost four times faster than wages in the rest of the City's economy. During this period, Wall Street accounted for 45 percent of all wage growth in the City. By 2007, Wall Street accounted for more than one quarter of all wages paid in New York City that year, even though it accounted for a little more than 5 percent of the jobs.

### Average Salaries

The average salary in the securities industry in New York City (including bonuses) reached a record high of nearly \$400,000 in 2007 (see Figure 20). On average, Wall Street jobs paid about 6.8 times the salary of nonfinancial jobs in the City (which averaged \$58,640 in 2007). In 2007, salaries averaged \$150,260 in credit intermediation and insurance, and \$62,060 in real estate and related industries.



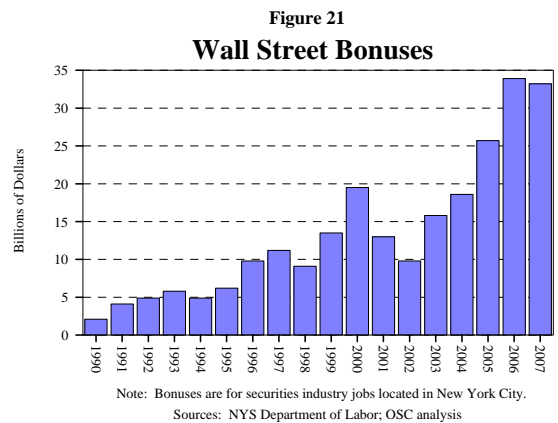
The last economic expansion benefited Wall Street much more than the rest of the City's economy. Between 2003 and 2007, the average salary in the securities industry grew by 76.2 percent—more than four times faster than in the nonfinancial sectors (17.8 percent). Salaries in the rest of the

finance sector also grew faster, rising by nearly 42 percent in credit intermediation and insurance, and by 31.3 percent in real estate and related industries.

Because most of the highest-paying positions (e.g., investment bankers, financial advisors, chief executive officers, and senior managers) are located in New York City, average salaries in the securities industry outside New York City are substantially lower (\$205,000 elsewhere in New York State in 2007—or slightly higher than half the average in the City—and \$159,000 in the rest of the nation). Nonetheless, average salaries in the securities industry outside of New York City rose by 55.7 percent between 2003 and 2007.

### Bonuses

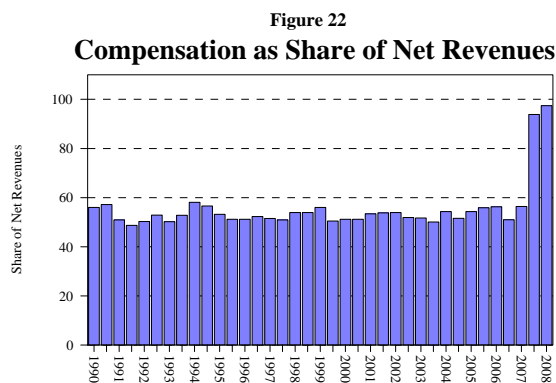
Cash bonuses paid by the securities industry to their employees working in New York City have grown dramatically since 1990, despite occasional declines (see Figure 21). After the downturn, bonuses grew from \$9.8 billion in 2002 to \$33.9 billion in 2006. Bonuses account for roughly half of industry compensation, and Wall Street accounts for more than 80 percent of the bonuses paid in the financial services sector and more than 60 percent of all bonuses paid in New York City.



Although profits fell sharply in the second half of 2007, the Office of the State Comptroller estimates that cash bonuses declined by only 2 percent to \$33.2 billion in 2007. Historically, the decline in bonuses tends to lag behind the decline in profits as firms seek to retain high-performing employees before lower profits force lower bonuses and layoffs.

Compensation (salaries and cash bonuses) for the broker/dealer operations of New York Stock Exchange member firms averaged 53 percent of

net revenues from 1990 through 2006 (see Figure 22), with little fluctuation. In 2007, the ratio rose from 56.4 percent in the first half of the year to 93.8 percent in the second half, as member firms continued to pay near-record bonuses despite mounting losses. Although compensation fell by 24 percent between the first and second halves of the year, net revenues fell twice as fast. The ratio of compensation to revenue rose slightly to 97.4 percent in the first half of 2008—which is unsustainable in the long run.



For the large firms headquartered in New York City, compensation declined by more than 20 percent during the first three quarters of 2008, compared with the same period last year. Since these figures include severance payments, ongoing compensation costs appear to be declining at an even faster pace. SIFMA reports that compensation for the broker/dealer operations of New York Stock Exchange member firms dropped by 14 percent in the first half of 2008, compared with the same period one year earlier.

Given the magnitude of losses and the resulting consolidation and downsizing that is taking place in the securities industry, the bonus pool will contract sharply in 2008. Quantifying the decline is difficult, however, because current conditions are unprecedented, and it is still unclear how financial firms will change their compensation patterns or be influenced by federal intervention.

While top executives are unlikely to receive cash bonuses, lower level employees will still receive bonuses. Although the size of the bonus pool will be much smaller than in prior years, the pool will be shared among fewer employees. Also, greater emphasis may be placed on noncash bonuses, such as stock options, than in past years.

In the early 2000s, bonuses fell by 50 percent over a two-year period (33.2 percent in 2001 and 25 percent in 2002) in the years following the bursting of the dot-com bubble and the events of September 11, 2001. As discussed in a separate report issued by the Office of the State Comptroller on September 29, 2008, recent developments suggest that a decline of a similar or even greater magnitude could occur this time.<sup>1</sup>

On October 28, 2008, New York State revised its budget assumptions to incorporate a two-year 54.6 percent decline in the cash bonus pool for the entire financial sector (42.7 percent in 2008 and 20.7 percent in 2009 compared to the lower 2008 base year), which is driven by the securities industry in New York City. On November 5, 2008, the City of New York revised its budget assumptions to incorporate a two-year 48 percent decline in the bonus pool for the City’s securities industry (47 percent in 2008 and 2 percent in 2009). Both the State and City assumptions are reasonable for budgetary purposes.

Not only will cash bonuses decline sharply, but future growth will be restricted by the restructuring of the industry—with firms regulated more, leveraged less, and generating lower profits—along with the limits on compensation contained in the federal bailout package. Since Wall Street accounts for such a large share of the State and City economies, lower bonuses will have a significant adverse impact on the economy and tax collections for some time to come.

### Economic Multiplier Impact on Jobs

The economic impact of the securities industry ripples through the economy. Due to the industry’s high income levels, the creation of new Wall Street jobs prompts the creation of employment and wages in other industries through multiplier effects. These effects can be either indirect (through the purchasing of goods or services from other industries) or induced (through the increased household consumption of the new jobholders). The multiplier impact of Wall Street’s expansion, from which the City benefited enormously during the past few years, also works in reverse. Thus, Wall Street’s contraction will result in job losses in the rest of the City’s economy for some time.

<sup>1</sup> The Office of the State Comptroller traditionally reports by early January on its estimate of annual cash bonuses paid in the prior year.

The Office of the State Comptroller estimates that each job added in the securities industry leads to the creation of two additional jobs in other industries in New York City.<sup>2</sup> Most of the additional jobs, such as those in retail trade and restaurants, result from increases in household consumption. The balance of the jobs created are in industries that support Wall Street, such as legal, accounting, business, and commercial real estate services.

The multiplier effect also extends beyond New York City because a large percent of Wall Street's employees are commuters who live outside the city. The model shows that each new Wall Street job also creates 1.3 jobs elsewhere in New York State, predominantly in the suburban areas.

With Wall Street now contracting, the multiplier effect will carry losses through the rest of the City and State economies. New York City lost 232,100 private sector jobs during the 2001-2003 recession.<sup>3</sup> The multiplier implies that the securities industry directly and indirectly accounted for more than half, or 122,200, of those job losses. During the last recession, New York State lost 329,600 private sector jobs, of which Wall Street directly and indirectly contributed a loss of 173,500—or more than half of the decline.

On November 21, 2008, the Federal Reserve Bank of New York held a conference that examined the impact of the financial sector's restructuring on the regional economy. A number of government offices have already projected job losses related to the financial crisis and the broader economic slowdown. While the estimates vary, the orders of magnitude are all substantial.

- The New York State Division of the Budget estimates that the entire financial services sector in the State will lose 45,000 jobs between the end of 2007 and the end of 2009, with most of the losses concentrated in New York City. These losses, combined with job losses from the broader economic slowdown, will cost New York State 160,000 private sector jobs during this two-year period.

<sup>2</sup> The IMPLAN input-output model, developed for the federal government, uses interindustrial economic transaction data to model the economic effects of regional demand changes.

<sup>3</sup> New York City lost nearly 346,000 private sector jobs during the 1989-1992 recession.

- The Office of the New York City Comptroller estimates that the financial services sector will lose 35,000 jobs in New York City over a two-year period beginning in August 2008, and that the broader economic slowdown will cost New York City 165,000 private sector jobs during the two-year period. (The City Comptroller's estimate of job losses in the financial services sector excludes job losses that occurred prior to August 2008.)
- New York City's Office of Management and Budget estimates that the financial services sector in New York City will lose 31,000 jobs in the securities industry, and that the broader slowdown will cost New York City a total of 147,000 private sector jobs.
- The Office of the State Comptroller estimates that the financial services sector in New York State will lose 55,000 jobs during the two-year period beginning in October 2007 (when employment in the sector peaked), including 40,000 in the securities industry. Of these losses, New York City could lose 48,000 jobs in the financial services sector, including 38,000 in the securities industry. Total private sector job losses during this two-year period could reach 225,000 in New York State, including 175,000 in New York City. Job losses could be even greater if the downturn is longer and deeper than currently forecast.

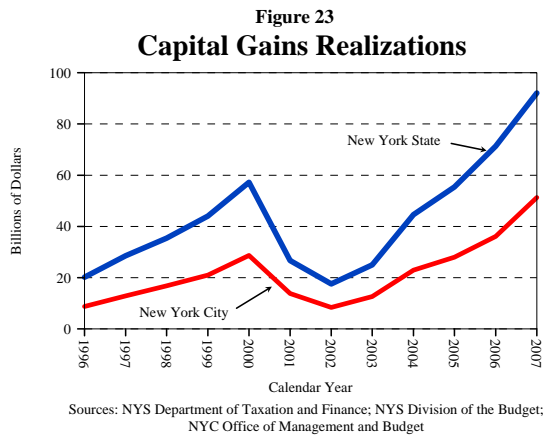
## Tax Revenues

Wall Street activity generates a disproportionate share of State and City tax revenue because of high levels of compensation, profitability, and capital gains. In recent years, tax revenues from the securities industry grew rapidly and helped to fill the State and City coffers. (The industry has accounted for up to 20 percent of State tax revenues and 12 percent of City tax revenues.) The credit crisis has changed the tax revenue outlook, as falling profits, compensation (including bonuses), and employment will significantly reduce collections from the industry for the next several years.

Capital gains realizations, like bonus payments, have surged in recent years (see Figure 23). During Wall Street's last downturn, realizations declined by about 70 percent over a two-year period, for both the City and the State. Given



market conditions this year, realizations are likely to decline sharply during calendar years 2008 and 2009. New York State now forecasts that capital gains realizations will drop by 36 percent in 2008 and by another 20 percent in 2009.

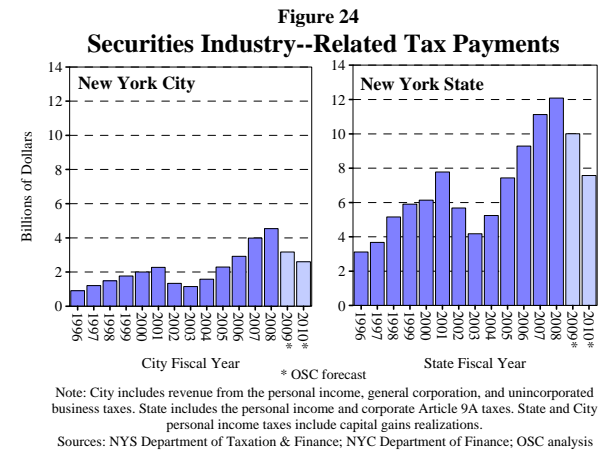


The Office of the State Comptroller estimates that between City fiscal years (CFY) 2003 and 2008, personal income taxes (including payments from realized capital gains) and business taxes that were related to the securities industry have more than tripled to \$4.5 billion (see Figure 24).<sup>4</sup> In CFY 2008, Wall Street revenues accounted for 12 percent of City tax collections. The Office of the State Comptroller estimates that tax collections from Wall Street-related activities could drop by \$2 billion, or more than 40 percent, between City fiscal years 2008 and 2010.

New York State is even more dependent on Wall Street because it relies more heavily on personal and business taxes than New York City does. (The City also levies property taxes.) In addition, the State receives tax revenues from the many industry employees who commute from the suburbs outside of New York City, and from the larger statewide pool of capital gains realizations.

The Office of the State Comptroller estimates that between State fiscal years (SFY) 2002-2003 and 2007-2008, personal income and business tax collections from Wall Street-related activities almost tripled, from \$4.2 billion to \$12 billion (see Figure 24). In SFY 2007-2008, tax collections from these sources accounted for almost 20 percent of total tax collections. The Office of the State Comptroller estimates that tax collections

from Wall Street-related activities could drop by 38 percent, or \$4.5 billion, by SFY 2009-2010.



The ongoing financial crisis also has resulted in dramatic changes in currency valuations. The dollar has benefited from the flight of capital to less risky investments (i.e., U.S. Treasury instruments), which will dampen export growth and make it more expensive for foreign visitors to come to the United States. Last year, nearly 8.8 million international visitors came to New York City—about one fifth of the record 46 million visitors to the City for the year. A reduction in tourism would depress sales and hotel tax collections, and have an impact on jobs.

As a result of the developments on Wall Street and the broader economic slowdown, New York State now forecasts a budget gap of \$1.5 billion in the current fiscal year, and gaps that grow from \$12.5 billion in SFY 2009-2010 to \$17.2 billion by SFY 2011-2012. The Office of the State Comptroller concurs with the Governor's budget gap estimates over the three-year period. New York City also faces large budget gaps.

### Alternative Investment Industry

Hedge funds and private equity were originally targeted at high-net worth investors as a way to obtain higher returns than traditional investments in equities and fixed income securities. In recent years, these alternative investments have become important investment vehicles for institutional investors, including public pension funds.

<sup>4</sup> Excluding revenue from real property or transaction taxes, and sales taxes on industry purchases.

In general, these investments have generated higher returns than traditional equity investments. The New York State Common Retirement Fund, for example, has reported that for the year that ended on March 31, 2008, private equity investments generated a 24.8 percent return and hedge funds a 1.9 percent return, compared to a 6.4 percent decline for domestic equity investments.

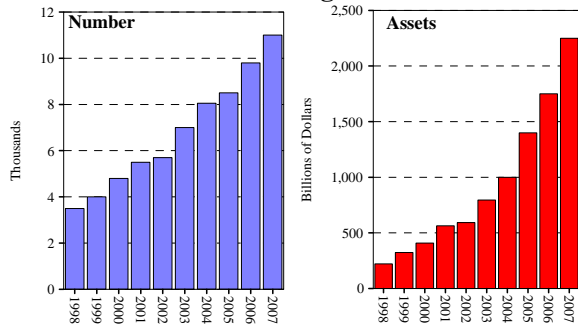
The New York State Common Retirement Fund is subject to statutory requirements that limit the share of assets it can allocate to alternative investments. The State Comptroller has called for an increase in the limit on alternate investments in order to provide more flexibility in crafting an effective investment strategy.

### Hedge Funds

A hedge fund is a pool of capital that is privately organized, less regulated, and not widely available to the general public (because it requires very large amounts of initial investment capital). Hedge funds are commonly organized as limited partnerships or limited liability companies, and fund managers frequently have a stake in the funds they manage. Although hedge funds were first developed in 1949, they did not come into more widespread use until the 1990s. Hedge funds use a variety of investment techniques, including the use of derivatives and short selling, and are more leveraged than traditional investment firms.

Figure 25

### Global Hedge Funds



Sources: International Financial Services, London: OSC analysis

The number of hedge funds worldwide has more than tripled since 1998, and assets under management exceeded \$2.2 trillion at the end of 2007—a tenfold increase compared with 1998 (see Figure 25). Before the credit crunch, hedge funds accounted for about 10 percent of all fixed-income security transactions, 35 percent of activity in

investment-grade derivatives, 55 percent of the trading volume for emerging market bonds, and 30 percent of equity trades in the United States.

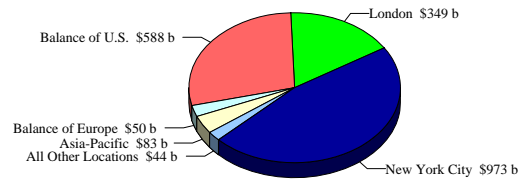
The strong returns generated by hedge funds in past years made them attractive to institutional investors like pension funds, university funds, and foundation endowments, and their investments made up an increasing share of hedge fund assets. Investments from institutional investors represented only 2 percent of assets under management in 2000, but nearly 50 percent of hedge fund assets by 2007.

According to the periodical *HedgeFund Intelligence*, of the 391 hedge fund firms with at least \$1 billion of assets in January 2008,<sup>5</sup> 144 firms were located in New York City (with collective assets of \$973 billion; see Figure 26). This was up from 123 firms with assets of \$650 billion a year earlier. (London was a distant second, with 75 firms managing \$348 billion.)

Figure 26

### Location of Largest Hedge Funds

Assets Under Management as of January 2008  
(in billions)

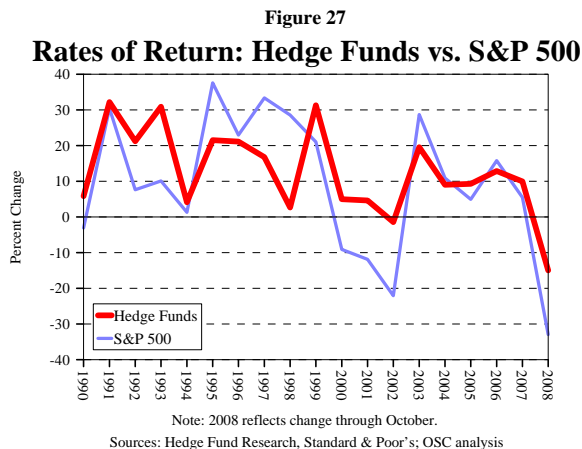


Note: Includes results for firms managing at least \$1 billion in assets.  
Sources: HedgeFund Intelligence; OSC analysis

Despite the size of the assets managed by firms in New York City, the individual firms themselves are small. A survey of Managed Fund Association members with at least \$3 billion in assets under management (coordinated on our behalf by the Partnership for New York City), found that most respondents had fewer than 100 employees in New York City. In addition, the respondents reported that they paid more than \$59 million in unincorporated business taxes and \$2.8 million in commercial rent tax on nearly 1.1 million square feet of office space.

<sup>5</sup> The 391 firms managed \$2.1 trillion in assets, which represents 80 percent of all hedge fund assets.

Hedge funds have outperformed the broad market in most years since 1990 (see Figure 27). Based upon returns as reported by Hedge Fund Research (HFR), \$1,000 invested in hedge funds in 1990 would have been worth \$10,239 by 2007, while a similar amount invested in the stock market (as measured by the Standard Poor's 500) would have been worth \$6,079.



Hedge funds have also been hit hard by the credit crunch; the declines in the equity, bond, and commodities markets; and the temporary ban on short selling imposed by the Securities and Exchange Commission. According to data from HFR, worldwide average annual hedge fund returns fell by 19.8 percent in the first ten months of 2008, compared with average annual gains of 6.7 percent in 2006 and 2007. Another performance measure, the RBC Hedge 250 Index, has declined by 18.2 percent in the first ten months of 2008.

As returns have plummeted and price values have declined, investors have sought to redeem their assets, which has accelerated price declines and caused firms with high losses to be liquidated. HFR estimates that by the end of the third quarter of 2008 the total number of hedge funds had declined by more than 550, to 10,016, and that assets under management had fallen by 7.5 percent to \$1.7 trillion.

Given the long lead times for withdrawing hedge fund investments (withdrawal requests made at the end of the third quarter will take between 45 and 65 days to honor), fund closures and liquidations are expected to rise through the end of the year. Recent reports and comments from wealth management firms, hedge fund managers, and NYU Professor of Economics Nouriel Roubini

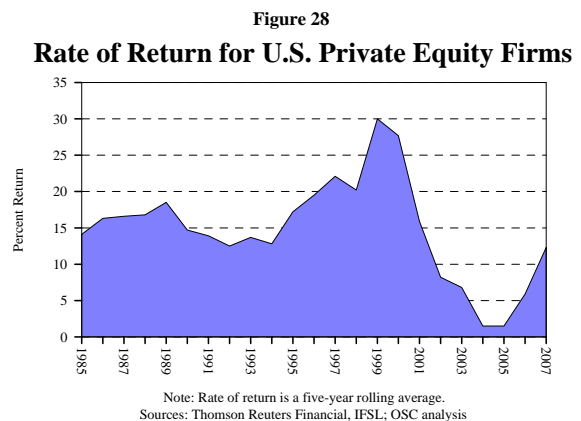
estimate that there will be significant downsizing as the hedge fund industry is reshaped—with some projecting that as many as 30 percent of hedge funds will close.

### Private Equity

Generally, private equity firms make large, long-term investments. The most common forms of private equity activity include venture capital investment and leveraged buyout investment. While wealthy individuals originally provided the bulk of capital for private equity firms, much of the capital today comes from institutional investors, such as pension funds, endowments, foundation funds, and sovereign wealth funds.

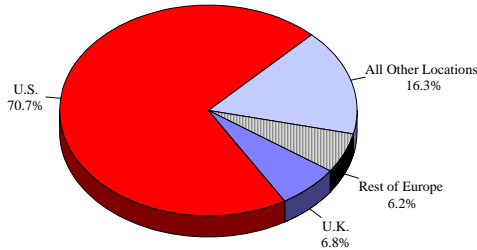
The International Financial Services, London (IFSL) reports that, on average, institutional investors in the United States allocated 7 percent of their portfolios in 2007 to private equity funds—slightly more than investors in Europe (6 percent) and Japan (4 percent).

Private equity investments are relatively illiquid; most investments last between three and seven years. While investment risks are higher, the rates of return can be greater as well. Private equity firms realized large returns through the late 1990s, but returns fell during the early 2000s after the dot-com bubble burst (see Figure 28).



According to IFSL, the level of new, direct investments in businesses by private equity firms worldwide rose by 34.6 percent in 2007, to a record \$686 billion. Buyouts—taking over the ownership of a business—accounted for 89 percent of private equity investments in 2007. Nearly 71 percent of all new private equity investments worldwide were made in the United States (see Figure 29).

**Figure 29**  
**Global Private Equity Investments**  
 (A Total Value of \$686 Billion in 2007)



Sources: Thomson Reuters Financial, IFSL; OSC analysis

The credit crunch, however, has made it difficult to raise funds for private equity investment, especially funding for buyouts. The IFSL reports that new private equity investments fell by about 40 percent during the first half of 2008.

According to Thomson Reuters, 379 private equity firms were located in New York State in 2007, with 341 of them in New York City. Among the top 50 private equity firms worldwide, 11 were in New York City and 11 were in London. Between 2002 and 2007, the New York firms raised \$161 billion in capital while the London firms raised \$135 billion.

Most private equity firms are not publicly traded, but three large publicly traded private equity firms are headquartered in New York City. Reflecting the impact of the ongoing financial crisis, these firms reported weaker results during the first three quarters of 2008: Blackstone Group had a loss of \$748 million, compared with a gain of \$187 billion in the first three quarters of 2007; Fortress Investment Group lost \$182 million, compared with a loss of \$31 million in the first three quarters of 2007; and Och-Ziff Capital Management Group lost \$398 million, compared with a loss of \$140 million in the same period of 2007.

A survey of the members of the Private Equity Council who had assets under management of at least \$8 billion and who had a significant presence in New York City (the survey was coordinated on our behalf by the Partnership for New York City) confirmed that private equity firms are an important component of the City's financial sector. The respondents reported that New York City-based assets under management rose from less than \$8.4 billion in 2002 to more than \$41 billion in 2007—while total assets under management for the respondents exceeded \$170 billion in 2007.

The survey also found that respondents' New York City-based employment rose from 536 employees in 2002 to 1,437 in 2007, and that employee compensation grew at an even faster rate.<sup>6</sup> Respondents reported that in 2007 they paid more than \$43 million in unincorporated business taxes to New York City.

According to the survey, the respondents rented nearly 350,000 square feet of office space; and spent nearly \$165 million on business services, such as legal, accounting, and information technology services.

While an economic multiplier is difficult to compute for the industry based upon the limited results of the survey, the high levels of compensation and significant business expenses suggest that the multiplier would be higher than the one applied to the broader securities industry.

<sup>6</sup> Although the reporting of compensation in the survey was incomplete, it is clear that average compensation levels exceeded the average for the securities industry.

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