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Sarbanes-Oxley and the Competitive Position of U.S. Stock Markets

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Sarbanes-Oxley and the Competitive Position of U.S. Stock Markets

Summary

Congress passed the Sarbanes-Oxley Act of 2002 (P.L. 107-204) to remedy weaknesses in accounting and corporate governance exposed by massive fraud at Enron Corp. and other firms. Criticism of the law, which has been fairly widespread among business groups, academics, and accountants, focuses on the costs of compliance, which are said to outweigh the benefits. Several studies and comments have argued that the rising cost of regulation has created incentives for firms to list their shares on foreign markets or to withdraw from the public markets altogether, weakening the international competitive position of U.S. stock exchanges.

Specific evidence cited includes the fact that 24 of the largest 25 initial public stock offerings (IPOs) in 2005 took place on foreign exchanges, and that there has been a boom in the private equity market, where U.S. securities regulation is minimal. This report attempts to put instances like these in context by presenting comparative data on the world's major stock markets over the past decade.

In terms of the number of corporations listing their shares, several foreign markets have shown faster growth than the major U.S. exchanges (the New York Stock Exchange (NYSE) and Nasdaq). However, these increases appear to be fueled primarily by growth in the number of domestic firms listing on their own national markets. While major foreign markets have seen significant declines in foreign listings as a percentage of all listings, U.S. exchanges have not been abandoned by foreign companies in significant numbers.

Perhaps the most common reason for firms to delist, or leave a stock exchange, is a merger with another firm. Lower costs of regulation may be a side benefit of many mergers, but trends in interest rates and stock prices appear to be the primary determinants of merger activity. A rising number of corporate acquisitions result in the acquired firms "going private" — becoming exempt from most regulation — but this trend is also largely driven by economic conditions. Private equity investment has boomed since 2000 because debt financing has been abundant and relatively cheap, and because institutional investors have sought higher yields than what the stock and bond markets have provided.

Figures on new issues of stock (including IPOs) are volatile, and annual data may be skewed by a few large deals. Certain foreign exchanges have recovered more quickly from the 2000-2002 bear market, but, on the whole, there is little evidence that the U.S. stock market is becoming less attractive to companies seeking to raise capital. When the bond markets are included, the role of the U.S. securities industry in capital formation appears to be as strong as ever.

The data surveyed here suggest that rising regulatory costs have not precipitated any crisis in U.S. markets, and that the outcome of global competition among stock exchanges depends more on fundamental market conditions than on differentials in regulatory costs. This report will be updated if events warrant.

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Sarbanes-Oxley and the Competitive Position of U.S. Stock Markets

Introduction

The Sarbanes-Oxley Act of 2002 (P.L. 107-204) was enacted in response to massive accounting fraud at Enron and a long list of other U.S. corporations. The law sought to improve — or restore — the effectiveness of the gatekeepers who are supposed to ensure that investors receive accurate information about firms whose securities are traded in public markets. Under Sarbanes-Oxley, corporate executives, directors, auditors, accountants, attorneys, and regulators are all held to more stringent standards of accountability.

Criticism of Sarbanes-Oxley has focused on compliance costs, which to some observers outweigh the benefits of improved governance and regulation.[1] Since direct measurement of those costs and benefits within a single business is impossible, much of the debate has looked to the securities markets, where excessive regulatory costs should be mirrored.

Raising the costs of complying with U.S. securities regulation, as Sarbanes-Oxley unquestionably did, creates incentives both for firms whose securities are listed on U.S. stock markets and for firms weighing the costs and benefits of going public and obtaining such listings.[2] Firms in the first group (including non-U.S. companies) that find compliance costs excessive may choose to delist their shares and become privately held businesses, or list on foreign stock exchanges, where Securities and Exchange Commission (SEC) regulations do not apply. Firms in the second group may decide to avoid SEC regulation by remaining private and seeking funds outside the public securities markets, from private equity investors, for example. They also have the option of going public in a foreign country. If significant numbers of firms have decided since 2002 that the costs of U.S. regulation exceed the benefits of access to U.S. public securities markets (with their traditional advantages of deep liquidity and low transaction costs), some or all of the following would be expected:

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[1] For an overview of criticisms, see Henry N. Butler and Larry E. Ribstein, "The Sarbanes-Oxley Debacle: How to Fix It and What We've Learned," Mar. 13, 2006, available at [http://www.aei.org/events/filter.all,eventID.1273/summary.asp].

[2] Throughout this report, "public" is used to describe companies that sell their securities to the general public (and thereby come under SEC regulation) and the markets where those securities are traded. "Private" (or "privately held"), on the other hand, refers to corporations that do not report to the SEC because their stock is not available for sale to small investors.

- a decrease in the number of firms (domestic and foreign) whose shares are listed on U.S. exchanges, either in absolute terms or relative to foreign stock exchanges;

- an upward trend in delistings, reflecting companies that choose to leave the U.S. public markets; and

- a falling off in the number of new listings on U.S. exchanges, as the initial public offering (IPO) market shrinks or moves offshore.

Several recent comments and studies have cited evidence that U.S. stock markets have indeed become less competitive and have suggested that expensive regulation may be partly to blame.[3] Few would argue that Sarbanes-Oxley (or U.S. regulation in general) is solely responsible for the perceived decline in U.S. markets' competitive position. Other factors include several long-term trends, such as (1) the growth of foreign stock markets, particularly in countries like China and Germany without long traditions of widespread stock ownership; (2) the lowering of legal and regulatory barriers to cross-border investment and trading; and (3) the role of computer technology in reducing communications, information, and transactions costs. However, policy recommendations to address the perceived decline in competitiveness tend to focus on regulatory relief, since there is little Congress or regulators can realistically do to reverse financial globalization or technological progress.

Two facts often put forward are that in 2005, only one of the 25 largest IPOs took place in the United States, and that going-private transactions have reached extremely high levels, both in number and value of deals.[4] In late 2006, Senator Charles Schumer and New York Mayor Michael Bloomberg argued that "while New York remains the dominant global-exchange center, we have been losing ground as the leader in capital formation."[5]

This report attempts to provide a context for evaluating arguments about the competitive position of U.S. stock markets. The tables and charts below present data that illustrate trends in global markets since 1995. The first set of data gives a sense of how the world's stock exchanges rank in size — in other words, where the competition lies. Subsequent tables set out data on new listings and delistings at the major exchanges, and on trends in international listings. Finally, the record in capital formation is examined: how much have firms raised on the major exchanges through IPOs, through follow-up stock offerings. Some data ongoing-private transactions are also presented.

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[3] See, e.g., Committee on Capital Markets Regulation, *Interim Report*, Nov. 30, 2006, at [http://www.capmktsreg.org/research.html], which argues that "the growth of U.S. regulatory and compliance costs compared to other developed and respected market centers" is "certainly one important factor" in the loss of U.S. competitiveness, (p. x.)

[4] Remarks by Treasury Secretary Henry M. Paulson on the Competitiveness of U.S. Capital Markets to the Economic Club of New York, Nov. 20, 2006, available online at [http://www.ustreas.gov/press/releases/hp174.htm].

[5] Charles E. Schumer and Michael R. Bloomberg, "To Save New York, Learn From London," *Wall Street Journal*, Nov 1, 2006, p. A18.

Who Are the Competitors?

The World Federation of Exchanges compiles statistics from 51 stock exchanges around the world. At the end of September 2006, the market value of shares listed on these exchanges was about $45.6 trillion, but this was not evenly distributed. There was a top tier of six exchanges, each with more than $3 trillion in market capitalization.[6] Two of these were American (the New York Stock Exchange (NYSE) and Nasdaq), two Japanese (the Tokyo and Osaka Stock Exchanges), and two European (the London Stock Exchange and Euronext).[7] These six accounted for $31.3 trillion in market capitalization, or 70.9% of the total.

There is a second tier of exchanges whose market capitalization fell between $1 trillion and $2 trillion: the Toronto Stock Exchange, the Deutsche Börse, the Hong Kong Exchanges, the BME Spanish Exchanges, and the Swiss Exchange. These five markets combined accounted for $6.7 trillion in market capitalization, nearly the same as the remaining 40 exchanges, which added $6.6 trillion, or 14.4% of the total. **Table 1** and **Figure 1** set out these figures.

All 51 markets are competitors, but when we think of global competition as framed by Senator Schumer and Mayor Bloomberg — a struggle to become (or remain) the world's financial capital — it makes sense to focus on the top tier, without ignoring the possibility that the second tier markets may rise to the level of global competitors, either through growth of the domestic corporate sector, merger with other exchanges, or cost-saving innovation. Indirect evidence for this assumption is provided by the recent behavior of the NYSE and Nasdaq, which have responded to competitive pressures by pursuing mergers with Euronext and the London Stock Exchange, respectively. This report will present data on the top tier markets, and on the second tier where it seems appropriate.

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[6] The market capitalization figures cover domestic companies only, because inclusion of foreign listings would cause double counting.

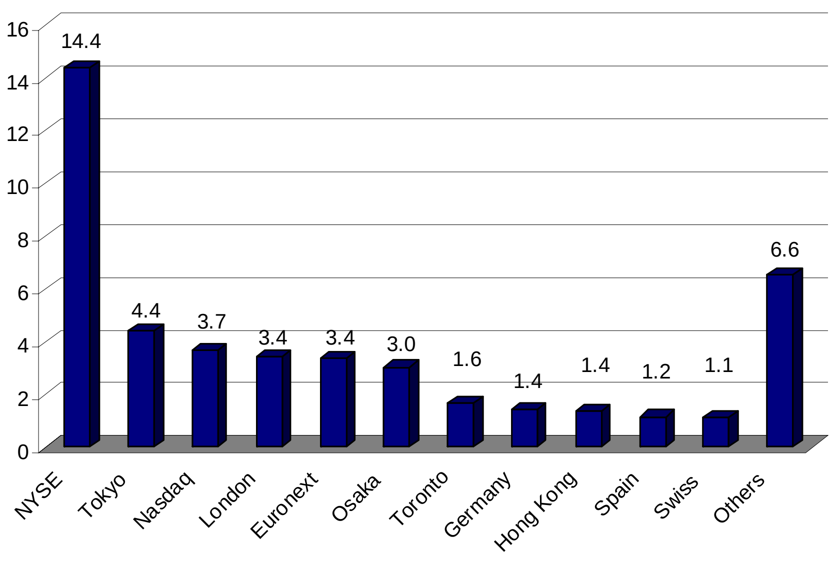
[7] Euronext was formed in 2000 by a merger of the Paris, Brussels, and Amsterdam markets, and absorbed the Lisbon stock exchange in 2002.

Table 1. Market Capitalization of Domestic Shares: September 2006

Exchange	Market Capitalization ($ in trillions)	Percent of Total
New York Stock Exchange	14.37	31.55
Tokyo Stock Exchange	4.42	9.70
Nasdaq	3.67	8.06
London Stock Exchange	3.44	7.55
Euronext	3.36	7.38
Osaka Stock Exchange	3.04	6.67
Subtotal	32.30	70.91
Toronto Stock Exchange	1.64	3.60
Deutsche Börse	1.43	3.14
Hong Kong Exchanges	1.36	2.99
BME Spanish Exchanges	1.15	2.52
Swiss Exchange	1.11	2.44
Subtotal	38.99	85.60
World Total	45.55	100.00

Source: World Federation of Exchanges.

Figure 1. Shares of Global Market Capitalization: September 2006



Source: World Federation of Exchanges.

Trends in Exchange Listings

When a corporation wishes to have its shares traded on an exchange, it applies to be listed. Exchange listing standards are not uniform, but generally include requirements regarding corporate governance practices, financial size or condition, number of shares available for trading, and minimum share price. In addition, listing on an exchange brings a company under the jurisdiction of the national securities regulator.[8] Other things being equal, therefore, an exceptionally onerous regulatory regime ought to discourage growth in the number of listings.

Table 2 presents figures on total exchange listings — both domestic and foreign companies — from the end of 1995 through September 2006, for the largest stock markets. **Figure 2** rebases the same data as an index (the number of listings at the end of 1995 is set at 100), and shows the percentage change in the number of listed firms over the period. (Euronext is excluded from the chart, since it was formed by merger in 2000: Hong Kong is substituted.[9])

A glance at **Figure 2** suggests that the major U.S. markets have not fared well over the last decade. NYSE listings have barely risen, while Nasdaq listings have fallen sharply. However, factors other than international competition may explain this. The fall in Nasdaq listings reflects the end of the "dot-com" bubble, when thousands of listed firms that had never made money (and that in retrospect probably never should have gone public) collapsed.

In the case of the NYSE, the stability of the listings figure before and after the bust makes it difficult to argue that any single factor, including the response to the Enron scandals, had a major impact. NYSE's listing policy appears to focus on quality rather than quantity — the exchange's annual financial statement for 2005 describes NYSE listing standards as "the most stringent of any securities marketplace in the world," and notes that "[a]ll standards are periodically reviewed to ensure that the NYSE attracts and retains the strongest companies with sustainable business models."[10] In other words, the NYSE may not see growth in the number of listings as a goal to be pursued for its own sake.

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[8] For foreign firms, the full range of regulation does not necessarily apply: foreign companies listing on U.S. exchanges, for example, are subject to more stringent reporting requirements when they are raising capital in U.S. markets (i.e., selling new securities to U.S. investors) than if they are simply seeking a venue for secondary trading of shares issued elsewhere.

[9] For other second tier exchanges, consistent data is also a problem: the Canadian, Spanish, and German markets all underwent mergers since 1995.

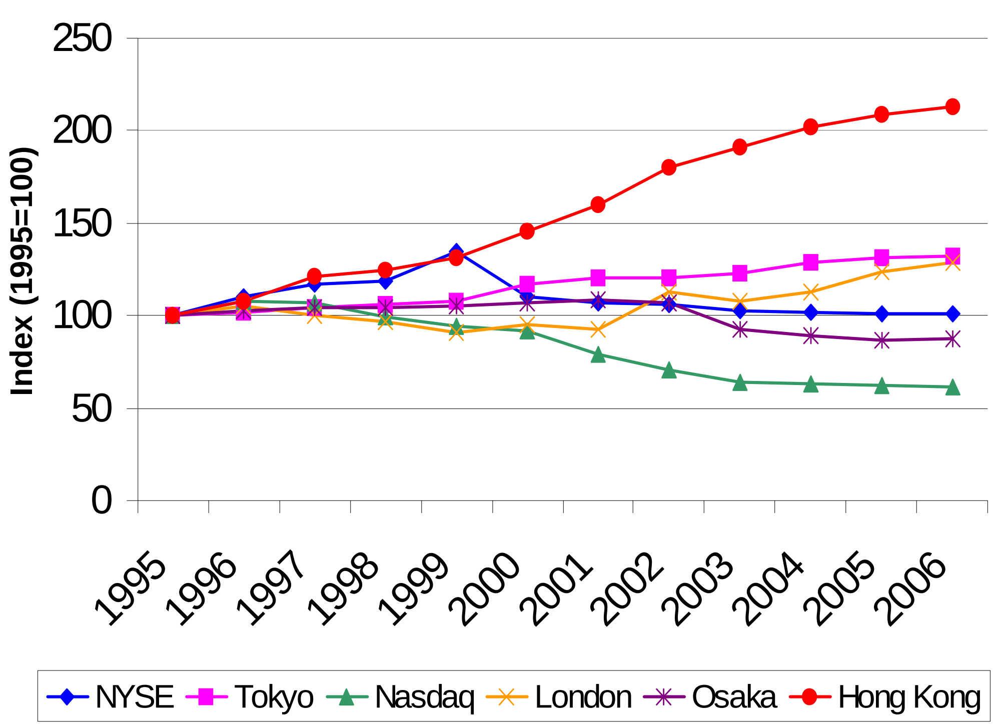
[10] NYSE Group, Inc., *2005 10-K Report*, p. 8.

Table 2. Number of Companies (Domestic and Foreign) Listed on Seven Major Exchanges: 1995 — September 2006

Market	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
NYSE	2,242	2,476	2,626	2,670	3,025	2,468	2,400	2,366	2,308	2,293	2,270	2,257
Tokyo	1,791	1,833	1,865	1,890	1,935	2,096	2,141	2,153	2,206	2,306	2,351	2,368
Nasdaq	5,127	5,556	5,487	5,068	4,829	4,734	4,063	3,649	3,294	3,229	3,164	3,130
London	2,502	2,623	2,513	2,423	2,274	2,374	2,332	2,824	2,692	2,837	3,091	3,212
Euronext	NA	NA	NA	NA	NA	1,216	1,195	1,114	1,392	1,333	1,259	1,210
Osaka	1,222	1,256	1,275	1,272	1,281	1,310	1,335	1,312	1,140	1,090	1,064	1,070
Hong Kong	542	583	658	680	708	790	867	978	1,037	1,096	1,135	1,152

Source: World Federation of Exchanges.

Figure 2. Percentage Change Since 1995 in Listings



Source: World Federation of Exchanges.

What of the markets where listings have increased during the past four years? Has their growth come at the expense of U.S. exchanges, or was it driven by events in those exchanges' home markets? The next set of figures breaks down listings on the leading exchanges into foreign and domestic companies.

Foreign vs. Domestic Listings

International crosslisting is a fairly recent phenomenon. Until the late 1980s, only a handful of stocks traded on exchanges in more than one country. In September 2006, by contrast, the tabulation of the World Federation of Exchanges showed that of 40,888 total listings on global exchanges, 2,738 represented foreign companies.[11] Companies seek foreign listings for two reasons: better access to foreign capital markets and to seek a more liquid secondary (or resale) market for their shares, which aids capital formation in their home market.[12] Exchanges seek foreign listings as a source of fee income and for the prestige of being an international financial center.

Competition for foreign listings is intense, and cost-driven.[13] How do the NYSE and Nasdaq compare to other major exchanges? **Figure 3** shows the percentage of total listings on the major exchanges accounted for by foreign companies, at the end of 1995 (the earliest point in the World Federation of Exchanges data series), at the end of 2002 (shortly after the enactment of Sarbanes-Oxley), and at the end of September 2006.

Several features of **Figure 3** are striking. First, international cross-listing is much more common in Europe than elsewhere, as might be expected given the historical economic interdependence of European states, and after more than a decade of economic integration policies.[14] In the Asian markets, on the other hand, nearly all listings are domestic. The trend over time is also interesting: in every market other than the U.S. exchanges, the percentage of foreign listings has fallen since 1995.[15] The decline is most pronounced in the U.K. and German markets, where the percentage of foreign listings was well above U.S. levels in 1995, but is now very similar. On the NYSE and Nasdaq, the percentage of foreign listings climbed between 1995 and 2002, and has since held steady.

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[11] See the monthly statistics archive at [http://www.world-exchanges.org]. Note that because a single company may be listed on multiple exchanges, the 2,738 listings represent a smaller number of crosslisting firms.

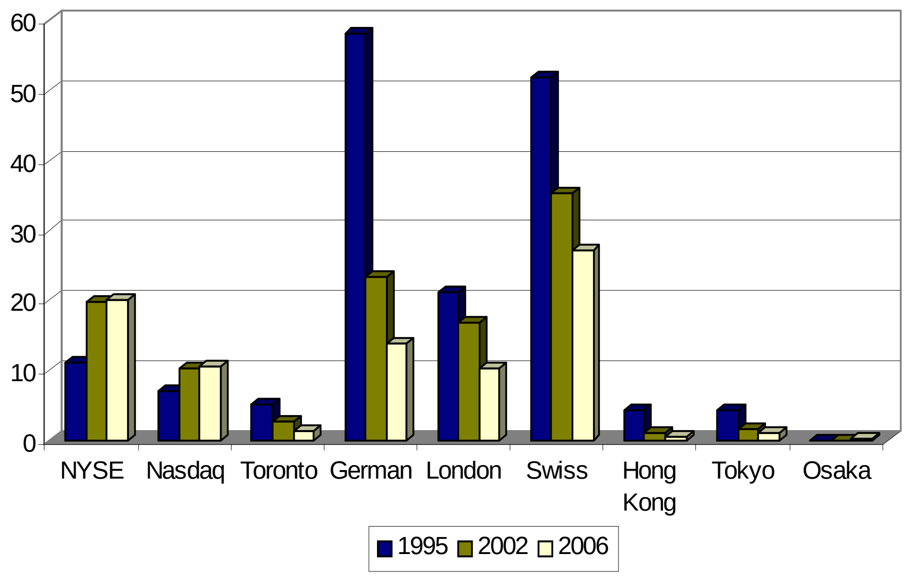
[12] Other things equal, investors will pay a premium for securities that can be resold quickly and inexpensively.

[13] For example, the NYSE has proposed to eliminate listing fees for companies transferring from other markets. See NYSE Group, Inc., "NYSE to Eliminate Listing Fee Applicable to Issuers Transferring from Other Markets," Press Release, Nov. 29, 2006.

[14] Euronext and the BME Spanish exchanges are excluded because consistent and comparable data are not available over the period. The September 2006 percentage of foreign listings on Euronext is 21.2%, but the meaning of "domestic" is not plain where several national exchanges have consolidated.

[15] Actually, the percentage of foreign listings in Osaka rose, but only from zero to 0.1%.

Figure 3. Foreign Listings as a Percentage of Total: 1995, 2002, September 2006



Source: World Federation of Exchanges.

The data in **Figure 3** do not provide clear support for a claim that regulatory costs have driven foreign firms away from U.S. stock markets. One might argue that the percentage of foreign listings on Nasdaq and NYSE would have continued their upward trend had U.S. regulation not been tightened in 2002, but is that likely, given that foreign listings appear to be in decline on major markets around the world? A more natural inference from the data would be that Nasdaq and NYSE have remained competitive, since U.S. exchanges have retained foreign listings since 2002, while other markets have been losing them.

With the data in **Figure 3** in mind, we might suppose that in the markets (shown in **Figure 2**) where total listings have risen faster than in the United States — Hong Kong, London, and Tokyo — growth was driven by new listings of domestic companies. In **Table 3**, which breaks out new foreign and domestic listings on the six largest markets, we can observe this process directly.

New Listings

The data in **Table 3** show one common feature: a dropoff in new listings after the peak of the bull market of the 1990s. In five of the six markets, there were fewer new listings in 2001 than in 2000. (The exception was the NYSE, where the decline began earlier and 2000 was the trough year.) This is the predictable result of a global bear market — trends and levels of stock prices affect the prices investors are willing to pay for new shares.

The decline in new listings is most dramatic on the Nasdaq and Euronext markets, probably because more highly speculative business ventures were taken public there than elsewhere.[16] There is no consistent pattern among the markets in the recovery from the crash.

Over the 11-year period shown in **Table 3,** London and Nasdaq are the clear leaders in the number of new listings, and particularly in domestic listings. Since the crash, however, the two markets have fared differently: London recorded record numbers during 2004 and 2005, while Nasdaq remains well below the peak levels of the late 1990s.

Both U.S. markets registered sharp drops in new listings during 2003, the year after Sarbanes-Oxley was enacted, despite the fact that stock prices (as measured by the S&P 500) rose 26% during that year. "Regulatory shock" might explain some of this, or it may be that firms took a wait-and-see attitude as to whether the recovery in stock prices from the trough in October 2002 would last. According to Nasdaq's 2005 Annual Report, "the fluctuation in the number of U.S. IPOs on The Nasdaq Stock Market from 2003 to 2005 was primarily due to market conditions. Over the past few years, competition for new listings has come primarily from the NYSE, although there is also strong international competition."[17] In 2004 and 2005, the number of new listings on both U.S. markets rose above the low figure of 2003.

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[16] This assumes that the bulge in Euronext listings between 1997 and 2000 is the result of IPO activity, rather than acquisition of new listings through merger with other exchanges. The WFE data do not make this distinction.

[17] Nasdaq, *2005 Annual Report,* p. 9.

Table 3. New Exchange Listings (Total, Domestic, and Foreign Companies): 1995-2005

Year	Nasdaq			NYSE			Tokyo			Osaka			Euronext			London		
	Total	**Dom.**	**For.**	**Total**	**Dom.**	**For.**	**Total**	**Dom.**	**For.**	**Total**	**Dom.**	**For.**	**Total**	**Dom.**	**For.**	**Total**	**Dom.**	**For.**
1995	476	413	63	173	138	35	32	32	0	27	27	0	28	22	6	330	285	45
1996	655	598	57	278	219	59	61	59	2	38	38	0	74	63	11	397	347	50
1997	648	573	75	273	210	63	51	50	1	27	26	1	121	110	11	254	217	37
1998	487	437	50	205	162	43	57	54	3	13	13	0	287	266	21	202	169	33
1999	614	553	61	151	123	28	75	75	0	24	24	0	119	102	17	187	161	26
2000	605	486	119	122	62	60	206	203	3	61	61	0	108	98	10	399	366	33
2001	144	123	21	144	93	51	93	92	1	55	55	0	49	36	13	245	236	9
2002	121	NA	NA	151	118	33	94	94	0	41	41	0	18	15	3	201	193	8
2003	56	53	3	107	91	16	120	120	0	26	26	0	24	14	10	201	194	7
2004	170	147	23	152	132	20	153	152	1	30	30	0	32	20	12	423	413	10
2005	139	117	22	146	127	19	99	98	1	27	26	1	34	32	2	626	605	21

Note: Euronext figures before 2001 represent the sum of new listings on the Brussels, Amsterdam, and Paris markets.

Source: World Federation of Exchanges.

Comparing **Tables 2 and 3** makes clear that the increase in total listings is considerably less than the number of new listings. New listings are offset by delistings, which are set out in **Table 4**.

Delistings

Table 4 shows no consistent pattern in delisting trends among the six top-tier exchanges between 1995 and 2005. Nasdaq delistings peaked in 1998 and 1999, before the end of the boom; the NYSE peak was a year or two later. Neither market shows an increase in delistings subsequent to 2002.

Table 4 . Delistings on Selected Exchanges, 1995-2005

Year	Nasdaq	NYSE	Tokyo	Osaka	Euronext	London
1995	79	136	23	4	63	258
1996	121	98	19	4	97	320
1997	717	171	19	8	94	235
1998	906	194	32	16	88	292
1999	873	254	30	15	100	336
2000	700	286	45	32	124	299
2001	815	215	48	30	140	287
2002	535	145	82	65	99	261
2003	410	111	67	198	82	337
2004	322	107	53	80	67	279
2005	332	135	54	53	65	372

Note: Euronext figures before 2001 represent the sum of delistings on the Brussels, Amsterdam, and Paris markets.

Source: World Federation of Exchanges.

In 2005, 1,011 companies were delisted by the top six exchanges. The exchanges do not publish statistics on the reasons for delisting. Nasdaq and NYSE annual reports provide some information, however. Nasdaq reports that delistings occur for three primary reasons:

- failure to meet listing standards (generally minimum financial criteria);
- mergers and acquisitions, where all of the target company's shares are purchased by another firm (or traded for shares in the merged company); and
- switching to another venue.[18]

[18] Nasdaq describes the third reason as occurring "to a lesser extent." Ibid., p. 10.

Of the 332 firms that ceased listing on Nasdaq during 2005, 85 (25.6%) had failed to comply with minimum share price or other financial criteria, or had failed to file required SEC disclosures on time, which is also grounds for automatic delisting.[19] The NYSE reports a similar percentage: between 2000 and 2005, 27% of all delistings involved failure to maintain the minimum financial criteria required for continued listing.[20]

Of the nearly three-quarters of delistings that happened for reasons other than financial distress, most involved a change of ownership or a change in the form of ownership. This includes several forms of transactions:

- mergers and acquisitions, where two firms become one;
- leveraged buyouts, where a firm's management or outside investors purchase all publically traded shares in a listed company and take it private; and
- "going dark" transactions, where a company voluntarily delists itself from a major exchange and has its shares traded instead on the over-the-counter, or "pink sheets" market. The firm thus becomes exempt from SEC reporting requirements.

These forms of "voluntary" delistings are where regulatory costs are most likely to be a factor. The next section analyzes trends in mergers and going-private deals and the possible role of Sarbanes-Oxley costs.

Mergers, Leveraged Buyouts, Going Private, Going Dark. In most large corporate mergers, the consolidated firm remains a public company. Thus, regulatory compliance costs are not eliminated, though they may be reduced as a percentage of earnings if two public companies merge into one. Basic data about the corporate merger market, presented in **Table 5**, do not support an inference that Sarbanes-Oxley costs are a major factor in the volume of deals. The number and reported value of deals increased each year between 2002 and 2005, but remained below the figures for 1998 through 2001, when soaring stock prices encouraged mergers in which target company stockholders received stock in the acquiring firm rather than cash payments for their shares.

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[19] Ibid., p. 24.

[20] NYSE Group, Inc., *2005 10-K Report*, p. 8.

Table 5. Completed Mergers and Acquisitions, 1996-2005

Year	Number of Deals	Value ($ in billions)
1996	7,347	563.0
1997	8,479	771.5
1998	10,193	1,373.8
1999	9,173	1,422.9
2000	8,853	1,781.6
2001	6,296	1,155.8
2002	5,497	625.0
2003	5,959	521.5
2004	7,031	857.1
2005	7,298	980.8

Source: Thomson Financial. (Only deals worth more than $10 million are included, and dollar figures include only deals for which price data was made public.)

Table 6. Leveraged Buyouts, 1996-2005

Year	Number of Deals	Value ($ billions)
1996	189	20.1
1997	192	15.4
1998	186	22.3
1999	197	28.7
2000	305	51.2
2001	153	18.9
2002	163	24.8
2003	164	41.4
2004	327	82.0
2005	450	117.4

Source: Thomson Financial. (Only deals worth more than $10 million are included, and dollar figures include only deals for which price data was made public.)

One of the benefits to corporations involved in leveraged buyouts, a subset of corporate mergers in which all public shares are purchased and taken off the market, is the elimination of SEC compliance costs. This market has shown rapid growth since 2001, as shown in **Table 6**. How much of the rise can be attributed to increased regulatory costs? Several studies have addressed this question by attempting to measure changes in the propensity of U.S. firms to go private before and after Sarbanes-Oxley. Kamar, Karaca-Mandic, and Talley find that small firms were induced to leave the public markets, but that large firms were unaffected.[21] Engel, Hayes, and Wang find a "modest but statistically significant increase in the rate at which firms go private in the post-SOX period," with the effect more pronounced among smaller firms.[22] Other researchers address the difficulty of separating the impact of regulatory costs from other factors:

> Because buyouts occur for many reasons, and SEC disclosures to shareholders in public companies will focus on the value of the consideration to be received compared to current market values, it is difficult to determine what role the costs of compliance with SOX and other securities laws played in these decisions.[23]

An important factor behind the increase in leveraged buyouts is the rise of the private equity market. Private equity investors purchase companies, either private or public, and seek to improve operating results by restructuring or by providing capital. The activity is not new, but is now a more significant factor in the market than ever before. The growth has been driven by institutional investors searching for higher returns. Yields on both debt and equity investment in the public markets have been depressed over the past several years: blue-chip stock indexes remained below 2000 levels until the fall of 2006, while both long- and short-term interest rates have been low by historical standards. At the same time, there has been a "glut" of international capital seeking investment opportunities, making capital abundant at low interest rates.[24] As a result,"alternative" investments have thrived, including private equity funds.

In short, the boom in mergers and private equity has been produced by a combination of economic factors and market conditions. The boom continued in 2006, as a recent Business Week article attests:

> [W]hat's driving this year's merger mania is quite different from what prompted AOL to plop down $182 billion for Time Warner Inc. in 2000. That boom was fueled by inflated stock prices in an overheated equities market that made

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[21] Ehud Kamar, Pinar Karaca-Mandic, and Eric L. Talley, "Going-Private Decisions and the Sarbanes-Oxley Act of 2002: A Cross-Country Analysis," USC CLEO Research Paper No. C06-5, August 2006, 60 p.

[22] Ellen Engel, Rachel M. Hayes, and Xue Wang, "The Sarbanes-Oxley Act and Firms' Going-Private Decisions," May 6, 2004, p. 3. Available at SSRN: [http://ssrn.com/abstract=546626]

[23] William J. Carney, "The Costs of Being Public After Sarbanes-Oxley: The Irony of 'Going Private,'" Emory Law and Economics Research Paper No. 05-4, February 2005, p. 13.

[24] See CRS Report RL33140, *Is the U.S. Trade Deficit Caused by a Global Saving Glut?* by Marc Labonte.

> companies feel like they were playing with funny money. This time the drivers are low interest rates, low valuations, and robust debt markets. One telling difference: 60% of this year's deals have been paid for in cash, vs. 29% in 2000.... The biggest change, though, is the unprecedented heft of private equity firms. Morgan Stanley estimates that buyout shops are now armed with at least $2 trillion in purchasing power, far more than ever before. The number of public-to-private deals in 2006 is set to nearly double the number in 2000, to 205, while their value has soared more than tenfold, says Paul J. Taubman, global head of M&A at Morgan Stanley. Yet there's still plenty of room for the boom to continue. Many companies still look cheap.[25]

Preliminary figures indicate that the value of companies taken private in 2006 reached a record level: $150 billion worldwide, with former NYSE listings representing $38.8 billion; London, $27 billion; and Nasdaq, $11 billion.[26]

Another way a public firm can shed its SEC reporting burden is by "going dark." In this process, firms voluntarily give up their exchange listing and deregister with the SEC.[27] They do not entirely abandon the public markets; their shares continue to trade on the over-the-counter (or "pink sheets") markets. Several studies have linked Sarbanes-Oxley costs to the growing number of going-dark transactions in recent years.[28]

However, firms that go dark are not a representative cross section of listed companies. The studies find that they tend to have serious financial problems (which might have led to an involuntary delisting by the exchange). In addition, Leuz, Triantis, and Wang find evidence that "controlling insiders go dark to protect their private control benefits and decrease outside scrutiny, particularly when corporate governance is weak and outside investors are less protected."[29]

Healthy firms rarely go dark because there is typically a strong negative market reaction. Thus, even if the causal link between rising regulatory costs and going-dark transactions is robust, the competitive position of U.S. markets may not suffer as a

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[25] Emily Thornton, "What's Behind the Buyout Binge: Merger Monday," *Business Week*, Dec. 4, 2006, p. 38. See also the Committee on Capital Market Regulation's *Interim Report* for discussion of the growing liquidity in the private equity market, with the development of secondary trading of limited partnership interests (pp. 34-38).

[26] Peter Smith and Norma Cohen, "Record $150bn of Delistings," *Financial Times*, Jan. 2, 2007, p. 1.

[27] In order to deregister, firms must have had fewer than 300 shareholders of record (or fewer than 500 shareholders *and* less than $10 million in assets) for the preceding three years. When deregistration is complete, the firm ceases filing financial statements with the SEC.

[28] Christian Leuz, Alexander J. Triantis, and Tracy Yue Wang, "Why do Firms go Dark? Causes and Economic Consequences of Voluntary SEC Deregistrations," Robert H. Smith School Research Paper No. RHS 06-045, March 2006, 58 p. and: Engel, Hayes, and Wang, "The Sarbanes-Oxley Act and Firms' Going-Private Decisions."

[29] "Why do Firms Go Dark? Causes and Economic Consequences of Voluntary SEC Deregistrations," p. 3.

result: firms going dark are unlikely to be subject to international competition for listing.

IPOs and Capital Formation

The discussion above has focused on the number of companies listing on U.S. and competing international exchanges, but listing trends are only part of the picture. The basic economic function of a securities market is to intermediate between savers and businesses seeking investment capital. The capacity of an exchange to facilitate capital formation is also an indicator of its competitive position.

One of the most frequent claims regarding the declining competitiveness of U.S. markets is that they now handle a much smaller share of the world's initial public offerings than they once did. Of particular concern is the fact that of the 25 largest IPOs in the world in 2005, only one took place on an American exchange. Have rising regulatory costs driven U.S. firms abroad in search of equity capital, or have foreign firms that might have considered a U.S. offering gone elsewhere?

To begin with the first question, an examination of the 25 largest IPO deals (set out in **Table 7**) suggests that the answer is no. The only firm on the list domiciled in the United States listed its shares on the NYSE.

Table 7 is dominated by French (five) and Chinese (four) IPOs. Most of these deals, including the China Construction Bank Corporation, the China Shenhua Energy Limited, the Bank of Communications, the China COSCO Holding Company, and France's Electricite de France, Gez de France, Sanef, and Eutelsat, were privatizations of huge state-owned enterprises. It seems unlikely that the French or Chinese governments would look favorably on a foreign listing for these firms.

The table indicates that most of the IPO firms chose to list their shares on domestic exchanges. For example, all the Chinese firms listed on the Hong Kong Stock Exchange and all of the French firms listed on Euronext. The same holds true for the Austrian, Australian, Danish, Dutch, German, and Japanese firms.[30]

It may be noteworthy that the exceptions to this pattern — the two companies from Russia and Kazakhstan — chose to list in London. Regulatory considerations may have been a factor in this choice. Did the NYSE or Nasdaq seek to obtain these listings?[31]

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[30] Ernst & Young, which compiled the list, states that the Chinese Government played a role in encouraging firms to list on the Hong Kong Stock Exchange, in order to bolster the firms' good governance credentials. See Ernst & Young, "Accelerating Growth," *Global IPO Trends 2006*, February 2006, p. 15.

[31] A search of periodical databases yields no hint that they did. (Kazakhmys stock trades in the United States on the over-the-counter "pink sheets" market, suggesting that it might not meet Nasdaq listing standards.) On the other hand, the London Stock Exchange appears to have pursued listings from ex-Soviet countries energetically: "More than 40 Russian

(continued...)

Table 7. The Largest Global IPOs in 2005
(in millions of U.S. $)

Company	Domicile	Industry	Proceeds	Primary Exchange Listing
China Construction Bank Corp.	China	Banks	9,227	Hong Kong
Electricite de France	France	Energy and Power	8,200	Euronext
Gaz de France	France	Energy and Power	4,128	Euronext
China Shenhua Energy Ltd.	China	Mining	3,276	Hong Kong
Bank of Communications	China	Banks	2,165	Hong Kong
Tele Atlas N.V.	Netherlands	High Technology	1,946	Euronext
Partygaming	Gibraltar	Professional Services	1,658	London
Goodman Felder Ltd.	Australia	Consumer Stables	1,599	Australia
AFK Sistema	Russia	High Technology	1,593	London
Huntsman Corp.	U.S.	Materials	1,593	New York
Raiffeisen International Bank	Austria	Financials	1,456	Vienna
Premiere AG	Germany	Media and Entertainment	1,354	Frankfurt
SUMCO Corp.	Japan	High Technology	1,346	Tokyo
China COSCO Holdings	China	Marine Transport	1,227	Hong Kong
Spark Infrastructure Group	Australia	Energy and Power	1,223	Australia
Telenet Holding NV	Belgium	Telecommunications	1,190	Euronext
RHM	UK	Consumer Staples	1,171	London
Kazakhmys	Kazakhstan	Energy and Power	1,166	London
EFG International	Switzerland	Financials	1,097	Swiss Exchange
Sanef	France	Industrials	1,088	Euronext
SP Ausnet	Australia	Energy and Power	1,057	Australia
Eutelsat	France	Telecommunications	1,030	Euronext
EuroCommercial Properties	France	Real Estate	1,026	Euronext
TrygVesta	Denmark	Financials	1,008	Copenhagen

Source: Ernst & Young.

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[31] (...continued)
companies attended a London Stock Exchange 'roadshow' last year. Several are tipped to seek listings in the coming months, including Open Investments, owned by Vladimir Potanin, the Norilsk Nickel billionaire." See Conal Walsh, "Russia's 'Google' aims for London share listing," *The Observer* (London), Jun. 12, 2005, p. 2.

Table 8 presents more comprehensive statistics on the IPO market, showing the value of equity offerings on the six top-tier exchanges and Hong Kong (a second-tier exchange that appears several times in **Table 7**). Total equity issues include both IPOs and sales of new stock by established public companies.

These figures show considerable year-to-year volatility, reflecting not only the variability of stock prices (which affect the attractiveness of equity sales as a means of raising capital) but also the skewing of single-year data by the presence (or absence) of a few very large transactions. The ratio of IPOs to offerings by established public companies also shows great variation from year to year, probably reflecting the impact of large individual transactions in either category.

Preliminary data suggest that 2006 was a record year for IPOs, with global underwriting exceeding $250 billion.[32] Russian and Chinese firms accounted for just over a quarter of this total. IPO value on Euronext was up 60% (to $24.5 billion) over 2005, and doubled on the Deutsche Börse (to $8.8 billion). IPOs on the NYSE raised a total of $25 billion in proceeds (excluding closed-end mutual funds) in 2006. There were 18 IPOs by non-U.S. companies, raising $6.5 billion.[33] The NYSE continues to be a big fish, but the IPO pond is growing.

The most visible international trend is that all markets show a significant drop in equity underwriting in 2000 or 2001, with the end of the bull market.[34] The performance of the two U.S. exchanges since that time is markedly different: Nasdaq underwritings remain far below the boom levels — 2005 equity issues were less than 10% of the 2000 peak. On the NYSE, by contrast, the 2005 figure was 78% of the 2000 level.

The post-2000 recoveries in equity issuance on the European exchanges have been strong; London experienced only a mild drop-off and reached a record high in 2004, while Euronext in 2005 recorded 75% of its 2000 peak, very similar to the NYSE experience.

What does **Table 8** suggest about the competitiveness of U.S. markets? The most striking fact is the dominance of the NYSE as a market for new equity. Its $175 billion in 2005 underwriting was more than double that of the nearest competitor, and in fact accounted for 29.3% of total *global* equity issues. However, the argument is

[32] Norma Cohen and Peter Smith, "Upsurge in IPOs and Private Deals," *Financial Times*, Jan. 2, 2007, p. 15. In the authors' view, U.S. regulation does not account for the "relative decline in popularity of U.S. exchanges." Rather, they argue, "companies domiciled outside the U.S. increasingly look to their maturing home markets, or to the largest capital market closest to them, as a listing venue of choice."

[33] NYSE Group, Inc., "2006 Highlights," Press Release, Dec. 29, 2006.

[34] In securities markets, underwriting refers to the process by which companies raise capital by selling (also called issuing) stocks or bonds to investors. This is also known as the primary market, as distinguished from the secondary (or resale) market, where investors trade securities among themselves and the company that originally issued the securities does not share in the proceeds.

made that the degree of supremacy is diminishing — in 1996, the NYSE accounted for 38.3% of the value of global equity issues.[35]

Several factors underlie the growing share of equity issuance going to foreign markets. Many countries in the world did not have well-developed equity markets until recently; these include not only China and Eastern Europe, but also France, Germany, and other continental European states where corporate finance was historically dominated by universal banks. Economic liberalization has provided an impetus for the development of equity financing, and computer technology has made it possible to replicate the sophisticated trading mechanisms of the New York and London exchanges at relatively low cost.[36] Markets have also expanded rapidly in the high-growth emerging economies of Asia and Latin America.

In short, the fact that U.S. stock exchanges are losing market share in global equity trading may reflect positive developments elsewhere, rather than impediments imposed here by regulatory and other burdens. NYSE and Nasdaq have certainly not been complacent in the face of rising competition. On the contrary, they have taken steps like the following:

- pursued mergers with major foreign exchanges (NYSE with Euronext, Nasdaq with London);[37]

- invested heavily in new trading technology to compete with alternative trading systems (cheap, computerized transaction facilities); and

- restructured themselves as for-profit, shareholder-owned corporations, in part to prevent entrenched exchange constituencies (such as the NYSE specialists) with a financial stake in the status quo from blocking innovations needed to remain competitive.

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[35] Global totals from World Federation of Exchanges, annual statistics archive.

[36] Cheap computer technology has inspired many predictions of the imminent demise of the NYSE over the past decade or so.

[37] In fact, the mergers are driven in large part by the European markets' need to cut their trading costs to U.S. levels, rather than U.S. markets' fear of competition. See "Finance and Economics: A War on Two Fronts; Stock Exchanges," *Economist*, vol. 381, Nov. 18, 2006, p. 92.

Table 8. Value of Equity Offerings on Selected Stock Exchanges, 1996-2005

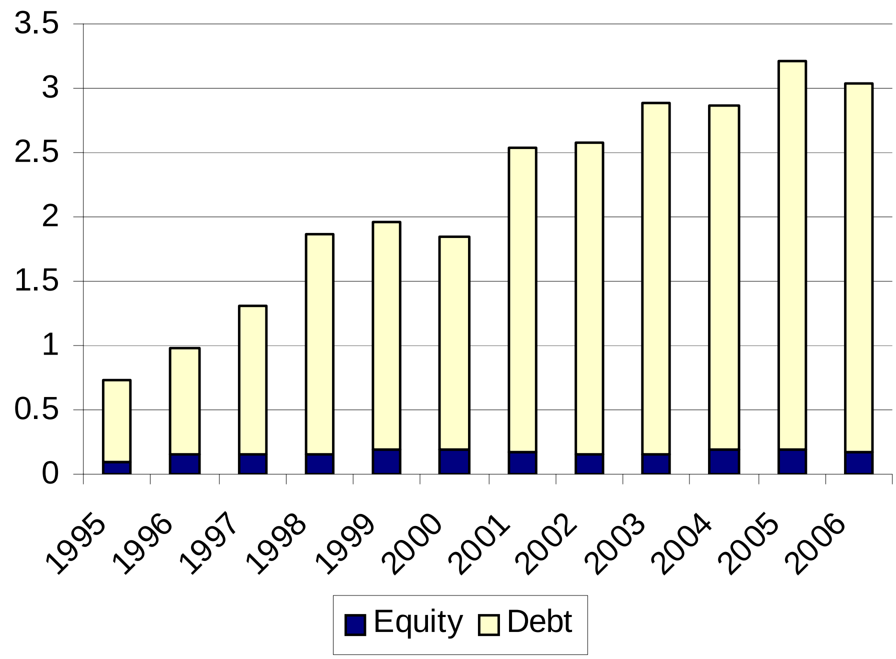
(dollars in billions)

Year	NYSE			Nasdaq			London			Euronext			Tokyo	Osaka			Hong Kong		
	IPO	Other	Total	IPO	Other	Total	IPO	Other	Total	IPO	Other	Total	Total	IPO	Other	Total	IPO	Other	Total
1996	50.0	111.0	161.0	24.1	27.7	51.8	16.7	14.0	30.7	NA	NA	NA	19.0	NA	NA	NA	4.0	8.9	12.9
1997	43.9	133.7	177.6	11.0	25.2	36.2	11.6	10.7	22.3	NA	NA	NA	9.5	NA	NA	NA	10.5	21.1	31.6
1998	43.7	112.7	156.4	13.8	19.7	33.5	6.6	10.8	17.4	NA	NA	NA	11.8	NA	NA	NA	0.8	4.2	5.0
1999	71.4	129.5	200.9	50.4	53.5	103.9	7.4	16.0	23.4	NA	NA	NA	89.2	NA	NA	NA	2.2	17.0	19.2
2000	73.3	149.7	223.0	52.6	80.8	133.4	14.8	21.3	36.1	49.4	38.0	87.4	16.7	NA	NA	NA	17.0	60.0	77.0
2001	28.5	49.3	77.8	7.8	24.0	31.8	7.8	21.0	28.8	32.1	45.3	77.4	16.9	NA	NA	NA	3.3	8.0	11.3
2002	27.2	60.2	87.4	NA	NA	4.5	8.1	26.3	34.4	3.5	32.5	36.0	15.7	0.1	2.2	2.3	6.7	7.5	14.2
2003	27.4	54.2	81.6	NA	NA	6.4	7.8	22.6	30.4	0.7	50.5	51.2	29.0	0.1	4.9	5.0	7.6	19.9	27.5
2004	54.5	93.4	147.9	NA	NA	15.0	13.8	18.6	32.4	11.7	33.2	44.9	25.9	0.3	5.2	5.5	12.5	23.7	36.2
2005	44.1	130.9	175.0	NA	NA	12.2	31.2	20.7	51.9	21.2	44.7	65.9	24.6	0.3	6.2	6.5	21.3	17.0	38.3

Source: World Federation of Exchanges. (Tokyo figures are not broken down into IPOs and follow-on offerings.)

Finally, while equity markets have been an important locus for capital formation for U.S. businesses, they are only part of the larger securities market. Corporations seeking investment funds have many options, and in recent years of low interest rates they have turned increasingly to the bond markets. **Figure 4** shows annual dollar figures for U.S. corporate underwriting between 1996 and November of 2006. Total underwriting, which measures funds going directly to firms issuing securities, has shown a fairly steady rise throughout the period, suggesting that costs related to the Sarbanes-Oxley Act's tightening of securities regulation have not materially harmed U.S. businesses' ability to raise funds in securities markets.

Figure 4. U.S. Corporate Underwriting, 1995-October 2006



Source: Securities Industry Association.

Conclusion

This report has not attempted to make a direct measurement of the impact of Sarbanes-Oxley compliance costs on firm behavior in the equity markets. Instead, the data presented above seek to provide a context for evaluating claims that such costs have put U.S. stock markets at a competitive disadvantage. There have been three developments in recent years that might plausibly be attributed (at least in part) to rising regulatory costs:

- over the past decade, the total number of listed companies on U.S. exchanges has fallen (in the case of Nasdaq) or failed to grow (in the case of the NYSE), while several foreign exchanges (notably Hong

Kong, Tokyo, and London) have experienced significant growth in listings;

- there has been a boom in the number and size of going-private transactions, which result in firms being taken off the public markets and outside the SEC's regulatory jurisdiction; and

- the share of global IPO volume handled by U.S. markets has fallen, especially among the very largest deals.

However, there are alternative explanations for each of these phenomena, based on market conditions and global economic trends:

- The drop in Nasdaq listings must be viewed in the context of the aftermath of the 1990s bubble, when thousands of technology firms were taken public even though they had no real prospects of ever turning a profit. The NYSE's stable listings figure, on the other hand, may be due to a policy of maintaining stringent listing standards that exclude all but the largest and most financially sound corporations.

- The private equity boom has been driven by market forces including the availability of relatively abundant and inexpensive debt financing, the pressure on pension fund managers and other institutional investors to seek returns higher than those offered since 2000 by traditional investment classes, and the high compensation levels earned by private equity managers.[38] Research has indicated that rising regulatory costs have a discernible impact on going-private decisions primarily among small firms, particularly those with financial or governance problems.

- Growth in foreign equity underwriting appears to reflect growth in foreign economies (such as China's) and/or the development of equity markets in countries that historically relied on bank financing (such as Germany). Corporations continue to show a strong preference for listing on their domestic market, or the closest major financial center. The data do not suggest that many U.S. firms are choosing to list on foreign exchanges, or that foreign firms have abandoned U.S. markets in significant numbers since Sarbanes-Oxley was enacted.

The impact of Sarbanes-Oxley costs is difficult to measure, but quantification of the benefits is even more elusive. It is worth noting, however, that international competition among stock markets has not up to now taken the form of a regulatory "race to the bottom," in which markets attempt to lure companies by offering a more lax regulatory regime than their competitors. There is no equivalent in equity

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[38] Andrew Ross Sorkin and Eric Dash, "Private Firms Lure CEOs with Top Pay," *New York Times*, Jan. 8, 2007, p. A1.

markets to the offshore banking centers and tax havens that thrive in small jurisdictions like the Dutch Antilles, the Isle of Man, or Vanuatu. This fact reflects a market judgement that investor confidence, which is nurtured by the perception that exchanges and regulators devote significant resources to the prevention of fraud, has real economic value. Where stock market growth has been fastest, as in London and Hong Kong, the securities regulators are generally recognized as capable and vigorous.

The outcome of global stock market competition has different implications for different market participants. If U.S. issuers and traders go overseas, to take advantage of lower regulatory or other costs, the U.S. securities industry will suffer a loss of output and jobs. That industry is concentrated heavily in the greater New York area and, to a lesser extent, Chicago. The cost to the U.S. economy of such a shift, however, would be partially offset by lower trading and underwriting costs, which would mean higher returns for public investors and more efficient business investment spending. To the investors and businesses who use the market, the ranking of the U.S. securities industry in the world market is of secondary importance. If U.S. markets remain competitive, both the industry and its customers can continue to thrive. The United States has been (and continues to be) the world leader in the adoption of new, cost-saving technology and in the elimination of anti-competitive market structures and practices. International market trends over the past several years do not provide strong evidence that a serious loss of competitiveness has occurred, or that such a loss is inevitable unless regulatory costs are reduced