*Fordham International Law Journal*

*Volume* 20, *Issue* 4 1996 *Article* 2

# Globalization of the Equity Markets

Richard A. Grasso*

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## Abstract

Put simply, the Exchange must position itself for a turn-of-the-millennium environment shaped, in part, by three powerful forces. First, we are as impacted as any other institution by the current changes in the economics and engineering of telecommunications and computational capacity. Second, enterprises in the more free-market industrial democracies, as well as those in more state-oriented countries, are turning to the use of equity finance at a pace that is unmatched in history. Third, two of our most important constituent groups, the fifty-one million U.S. retail investors and the ten thousand U.S. institutions with significant equity exposure, are going through a one-time, secular shift in their approach to ownership of non-U.S. equities. When this process levels out, reaching some more appropriate geographical balance for the typical U.S. equity portfolio, the U.S. equity markets and their customers will not be as they are today.

# GLOBALIZATION OF THE EQUITY MARKETS*

*Richard A. Grasso***

I have spent a large portion of my adult life and all of my professional career working at the New York Stock Exchange ("NYSE" or "Exchange"). In my judgment, the Exchange is a few years into an entirely new realm, defined by an extraordinary set of changes in our operating environment. As a result of these changes, ten years from now the NYSE will be remarkably different than it is today. Our challenge is to adapt successfully to these new developments.

Three facts illustrate the change in our operating environment in the past ten to fifteen years:

- Two-thirds of the companies that we now trade on the NYSE listed within the last dozen years;[1]
- In 1981 average daily volume was a bit under forty-seven million shares;[2] last year it was 412 million shares;[3]
- In 1980 there were thirty-eight non-U.S. companies on the NYSE list, half of which were from Canada.[4] At year-end 1996, the non-U.S. list had grown to 290 companies from forty-two countries around the world.[5]

The next ten to fifteen years will be even more remarkable.

Put simply, the Exchange must position itself for a turn-of-the-millennium environment shaped, in part, by three powerful forces. First, we are as impacted as any other institution by the

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* This address was delivered at Fordham University School of Law on January 13, 1997.

** Chairman and Chief Executive Officer, New York Stock Exchange, Inc. Thanks to Ms. Aigool Khalikov and Ms. Jean Tobin, both of the International & Research Group, for help in preparing this written version of my January 13, 1997 remarks.

1. Letter from Jean Tobin, International & Research Group, New York Stock Exchange, to Professor Constantine N. Katsoris, Fordham University School of Law (Mar. 11, 1997) (on file with the *Fordham International Law Journal*).

2. New York Stock Exchange, Inc., Fact Book for the Year 1995 99 (1996).

3. Record Days Fax and Number of Trading Days Memorandum from the New York Stock Exchange to the *Fordham International Law Journal* (Mar. 7, 1997) (on file with the *Fordham International Law Journal*).

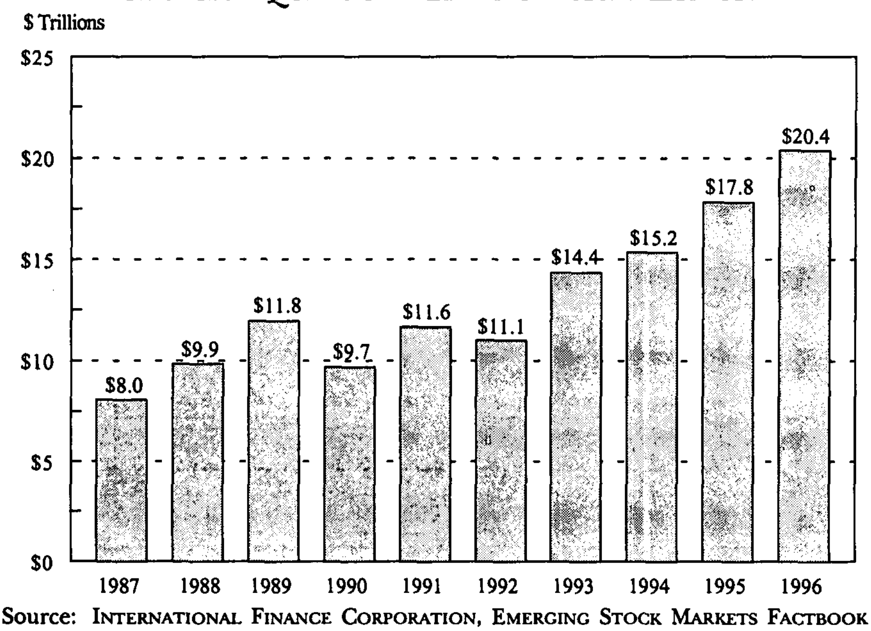
4. New York Stock Exchange, Inc., Fact Book 1981 34 (1981).

5. New York Stock Exchange, Inc., Stocks of non-U.S. Corporate Issuers Listed by Geographic Region, 1996 (Mar. 1997) (unpublished spreadsheets, on file with the *Fordham International Law Journal*) [hereinafter Stocks of non-U.S. Corporate Issuers].

current changes in the economics and engineering of telecommunications and computational capacity. Second, enterprises in the more free-market industrial democracies, as well as those in more state-oriented countries, are turning to the use of equity finance at a pace that is unmatched in history. Third, two of our most important constituent groups, the fifty-one million U.S. retail investors[6] and the ten thousand U.S. institutions with significant equity exposure, are going through a one-time, secular shift in their approach to ownership of non-U.S. equities. When this process levels out, reaching some more appropriate geographical balance for the typical U.S. equity portfolio, the U.S. equity markets and their customers will not be as they are today.

The confluence of this internationalization of U.S. equity portfolios with the surge in equity issuance is probably one of the biggest business opportunities placed before the NYSE in the past one hundred years. It matches the financial revolution this country experienced in the latter part of the 1800s and the early

*GLOBAL EQUITY MARKETS CAPITALIZATION*




Source: INTERNATIONAL FINANCE CORPORATION, EMERGING STOCK MARKETS FACTBOOK 1993 10-11 (1993); FEDERATION INTERNATIONALE DES BOURSES VALEURS Table 4 (Dec. 1996); All amounts are to U.S. Dollars..

6. NEW YORK STOCK EXCHANGE, INC., *supra* note 2, at 53.

1900s as the infrastructure and industrial enterprises that we now take for granted were created and financed.

I will touch on a few things associated with the technology challenges we all face. But there is nothing unique to us in this area. All of us must puzzle through the innovations that are happening and formulate appropriate strategies. I prefer to focus on the second two challenges.

It has been less than twenty years since the real impetus for globalization took hold: it was almost twenty years ago when the U.K. elections brought Margaret Thatcher to office and her Government began the process of returning state-owned business to investors' hands. This privatization process, which later moved onto the European continent and then around the world, has created a worldwide surge in the supply of equity. Nearly everywhere in the world equity is replacing alternative ways of raising capital. Firms that traditionally raised capital by issuing debt, drawing down retained earnings, or obtaining bank loans or government grants, now sell equity to investors to finance their activities.

The privatization of state-owned firms, in large part, has driven a worldwide equity boom. From 1991 to 1996, dramatic economic and political changes caused governments to sell nearly US$370 billion in state-owned assets to the private sector, with 1996's US$86 billion setting an all-time record.[7] Governments accomplished these sales through issuing equity. The increased capitalization of the world's publicly-traded equity indicates this growth: at year-end 1990 it was US$10 trillion, while today it is about US$20 trillion.[8] This dramatic shift to equity financing generates fundamental changes in the world's capital markets.

Countries and companies are relying more each year on equity capital. Other sources of financing, governments, banks, and internal financing, are shrinking due to large government

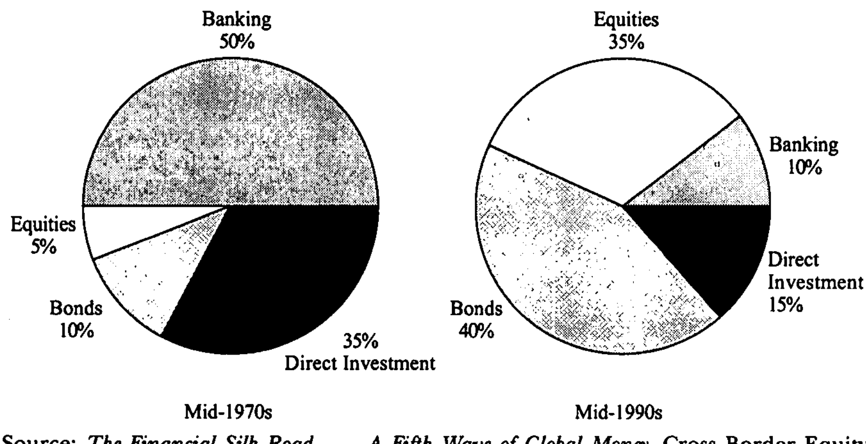
7. *Achieving Record Level Proceeds in 1996*, PRIVATISATION INT'L, Jan. 1997, at 24.

8. New York Stock Exchange, Inc., Market Value of Domestic Stocks on World Exchanges (Mar. 6, 1997) (unpublished spreadsheet, on file with the *Fordham International Law Journal*); New York Stock Exchange, unpublished spreadsheet using data from INTERNATIONAL FINANCE CORPORATION, EMERGING STOCK MARKETS FACTBOOK (1993) and FEDERATION INTERNATIONALE DES BOURSES DE VALEURS, FOCUS-MONTHLY STATISTICS (Dec. 1996) (Apr. 29, 1997) (on file with the *Fordham International Law Journal*) [hereinafter NYSE Spreadsheet].

budget deficits, a world banking system reluctant to accept large credit risks, and the inability of internal funds to meet the needs of rapidly growing enterprises. Because local capital is often limited, especially in developing countries, reliance on equity has produced a shift toward raising international equity.

Moreover, equity capital requires a higher level of disclosure to investors. This transparency helps investors overcome distrust and assists international capital flows. Ten or twenty years ago, the most common form of international financial outflow from member countries of the Organization for Economic Co-operation and Development[9] ("OECD") either to each other or to the developing world was through bank loans or direct investment. Today, portfolio investment through bond and equity markets accounts form the lion's share of capital outflows.

*PRIVATE SECTOR CAPITAL OUTFLOWS FROM OECD COUNTRIES*




Source: *The Financial Silk Road . . . A Fifth Wave of Global Money*, Cross Border Equity Flows, Global Strategy Unit, ING Baring Securities (1995).

The internationalization of capital markets is also being driven by a massive shift in the holdings of U.S. investors into non-U.S. equity. In 1983, the market value of U.S. equities comprised fifty-three percent of the world capitalization total;[10] by December 1996, the U.S. portion, about US$8.5 trillion, repre-

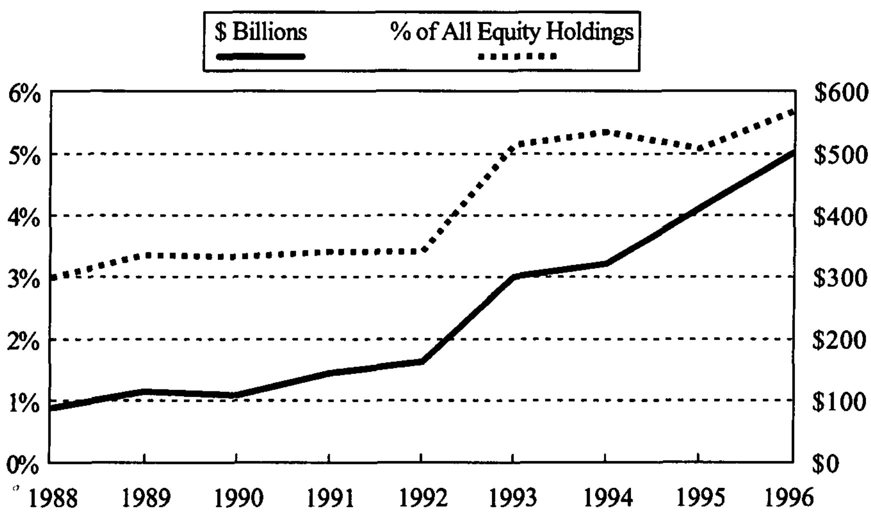
9. BARRY E. CARTER & PHILLIP R. TRIMBLE, INTERNATIONAL LAW 579 (2d ed. 1995). The Organization of Economic Cooperation and Development ("OECD") "works toward developing policies on a range of economic, scientific, and social issues." *Id.*

10. NYSE Spreadsheet, *supra* note 8.

sents only forty-two percent.[11] Although the United States continues to grow, the rest of the world grows faster. Additionally, the costs of acquiring and trading non-U.S. equities have declined for U.S. investors, a result of declining trading costs abroad and increased availability of non-U.S. equity on relatively low-cost U.S. public markets.

In the last five years, the non-U.S. stocks component of U.S. portfolios has nearly doubled, from just under three percent to almost six percent of total equity holdings.[12] Within the next few years, U.S. investors are expected to again double the non-U.S. component of their equity portfolios to around twelve percent. This shift of six percentage points in an US$8.5 trillion portfolio represents over US$500 billion.

*HOLDINGS OF NON-U.S. EQUITIES IN THE UNITED STATES*




Source: "Flow of Funds Accounts," Board of Governors of the Federal Reserve System; *see supra* note 12.

Institutional investors, typically at the forefront of investment trends, lead the movement toward the ownership of non-

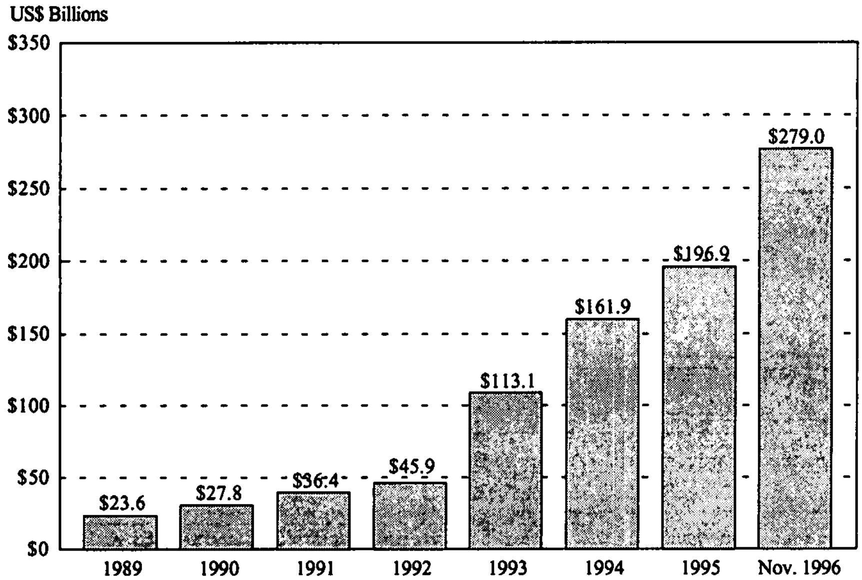
11. *Id.*

12. BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, FLOW OF FUNDS ACCOUNTS: FLOWS AND OUTSTANDINGS, SECOND QUARTER 1993 111 (Sept. 17, 1993); BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM, FLOW OF FUNDS ACCOUNT OF THE UNITED STATES: FLOWS AND OUTSTANDINGS, SECOND QUARTER 1996 88 (Sept. 12, 1996).

U.S. equity. U.S. institutions have decided to expand their non-U.S. holdings to between fifteen and twenty percent of their total portfolios, and a number of the more aggressive or sophisticated institutions have already achieved these levels.[13] Corporate pension funds, on average, have invested about eight percent of their total portfolios in non-U.S. stocks.[14] Public sector pension funds are also diversifying as many of the restrictions that have limited their participation in this trend are lifted. There seems to be little doubt where major U.S. institutions are headed.

Mutual funds are also surging into global and international investment vehicles. The number of global and international mutual funds has grown from 123 in 1989 to 667 at the end of

*INCREASING MUTUAL FUND INVESTMENT IN INTERNATIONAL EQUITIES**




* Assets in International and Global Mutual Funds Combined at Year-end
Source: INVESTMENT COMPANY INSTITUTE RESEARCH DEPARTMENT, TRENDS IN MUTUAL FUND ACTIVITY Table 6A (Nov. 1996).

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13. *America's Largest Overseas Investors*, INSTITUTIONAL INVESTOR (Int'l ed.), July 1995, at 83; Norma Cohen, *International Company News: U.S. Pension Funds Lift Investment Overseas Despite Market Turmoil*, FIN. TIMES, Apr. 11, 1995, at 25.

14. Barry Rehfeld, *Worldly-Wise Asset Allocation*, INSTITUTIONAL INVESTOR, Jan. 1997, at 41.

November 1996.[15] Assets in global and international equity mutual funds grew to US$279 billion in November 1996, a ten-fold increase since 1990.[16]

Not surprisingly, this surge in demand for non-U.S. stocks has brought with it a commensurate spurt in the trading of non-U.S. issues by U.S. investors. In 1991, purchases and sales of non-U.S. equities on the NYSE, the American Stock Exchange[17] ("Amex"), and Nasdaq totaled US$267 billion.[18] In 1996, aggregate trading of non-U.S. issues reached US$1 trillion.[19]

Ten years ago not a single company from Mexico traded on the Exchange. Today, Mexico represents the third largest national concentration of non-U.S. stocks on the NYSE, following Canada and the United Kingdom.[20] In 1995 Telefonos de Mexico became the first company ever to trade more than one billion shares in a single year.[21]

We find ourselves in the dawn of equity globalization, a dramatic opportunity for the NYSE. If we list all the U.S. companies that are qualified to trade on the NYSE, out of the 9000 publicly-owned companies that are required to report to the Securities and Exchange Commission ("SEC"), our list would grow by about 725 companies, increasing our market value by roughly ten percent.

To be truly global, a critical mass of the 2300 overseas companies that meet NYSE quantitative listing requirements need to be available for trading on the Exchange. The ramifications of success are impressive. The market capitalization of the largest third of the qualified international companies is equal to two-thirds of the current NYSE market capitalization. This opportu-

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15. INVESTMENT COMPANY INSTITUTE RESEARCH DEPARTMENT, TRENDS IN MUTUAL FUND ACTIVITY Table 6A (Nov. 1996) [hereinafter TRENDS IN MUTUAL FUND ACTIVITY]; INVESTMENT COMPANY INSTITUTE, 1991 MUTUAL FUND FACT BOOK 78 (31st ed. 1991) [hereinafter 1991 MUTUAL FUND FACT BOOK].

16. TRENDS IN MUTUAL FUND ACTIVITY, *supra* note 15, at Table 6A; 1991 MUTUAL FUND FACT BOOK, *supra* note 15, at 78.

17. The American Stock Exchange ("Amex") is the U.S. stock exchange with the second largest volume of trading. JOHN DOWNES & JORDAN E. GOODMAN, DICTIONARY OF FINANCE AND INVESTMENT TERMS 16 (3d ed. 1991) [hereinafter DICTIONARY OF FINANCE].

18. New York Stock Exchange, Inc., Trading of Foreign Stocks in the United States (Mar. 11, 1997) (unpublished spreadsheet, on file with the *Fordham International Law Journal*).

19. *Id.*

20. Stocks of non-U.S. Corporate Issuers, *supra* note 5.

21. NEW YORK STOCK EXCHANGE, INC., *supra* note 2, at 16.

nity to list existing large non-U.S. companies does not include state-owned companies that will be privatized. The real gains of globalization are yet to be achieved.

One of the major impediments to international companies coming to the U.S. marketplace to tap this huge pool of capital is that in order for an international company to list in the United States, it must reconcile its financial statements to U.S. Generally Accepted Accounting Principles ("GAAP").[22] This can be a modest or an enormous administrative and financial burden to a company, depending upon its country of origin.

One solution would be the recognition by the SEC of the principles produced by the International Accounting Standards Committee ("IASC").[23] The IASC is making significant progress in developing a global framework for the public accounts produced by firms with significant international presence. In the last two years this process has gained momentum and we expect that in 1998 the SEC, the global accounting authorities, and the Financial Accounting Standards Board[24] ("FASB") here in the United States will agree upon a set of global accounting standards that will allow, for the first time, all issuers, regardless of country of origin, to use a common format. We believe that the year 2000 will be the first year that the floodgates open as a result of that global accounting convention.

When we hit what we believe to be a critical mass of non-U.S. companies, which may be two or three times the number we now trade, the marketplace will change more dramatically than ever in our 205-year history. In 1996, non-U.S. securities trade in a U.S. format, largely as American Depositary Receipts[25]

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22. DICTIONARY OF FINANCE, *supra* note 17, at 170-71. Generally Accepted Accounting Principles ("GAAP") are "conventions, rules, and procedures that define accepted accounting practice" in the United States. *Id.*

23. James L. Cochrane et al., *Foreign Equities and U.S. Investors: Breaking Down the Barriers Separating Supply and Demand*, 2 STAN. J. OF L. BUS. & FIN. 241, 259 (Summer 1996) (citing Pat McConnell, *Practical Company Experience in Entering U.S. Markets: Significant Issues and Hurdles from the Advisor's Perspective*, 17 FORDHAM INT'L L.J. S120, S127 (1994)).

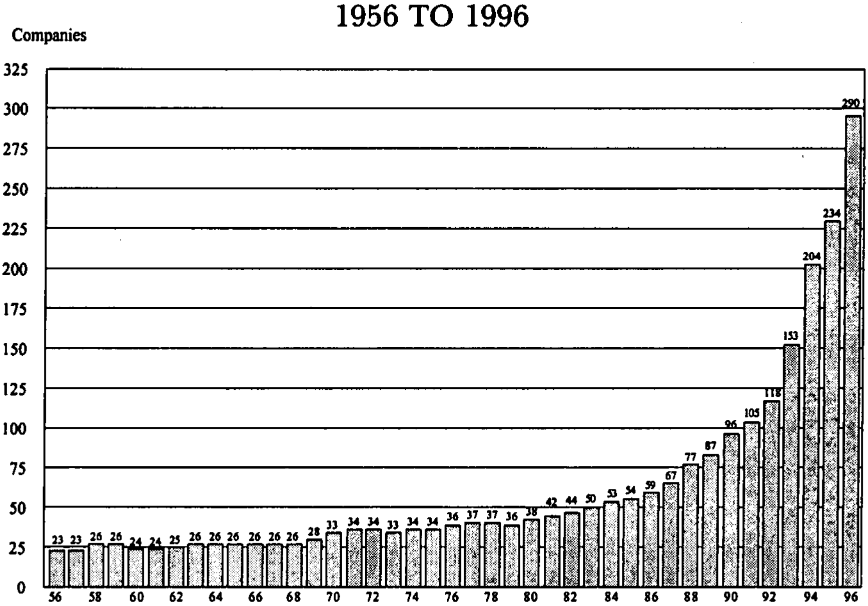
24. DICTIONARY OF FINANCE, *supra* note 17, at 145. The Financial Accounting Standards Board ("FASB") is an independent board that establishes and interprets GAAP. *Id.*

25. *Id.* at 16. An American Depositary Receipt ("ADR") is a "receipt for the shares of a foreign-based corporation held in the vault of a U.S. bank and entitling the [holder] to all dividends and capital gains." *Id.* ADRs are purchased instead of shares in foreign companies in overseas markets. *Id.*

("ADRs"), and are quoted and settled in U.S. dollars. I believe that there will come a time when non-U.S. securities cannot trade as a U.S. product. While the financial markets will continue to service the U.S. retail market through ADRs, denominated and settled in dollars, the global investor demands the so-called global product, the ordinary share, quoted and settled in currencies other than the U.S. dollar. Envision the Exchange not too many years down the road with five or six hundred non-U.S. issuers, traded both in an ADR format, quoted and settled in dollars, and as ordinary shares, traded and settled in the issuers' home currencies, as well as multiple currencies to reflect the world we live in.

*NON-U.S. COMPANIES LISTED ON THE NYSE*

1956 TO 1996




Source: Statistics provided by NYSE International & Research

In 1996 alone, fifty-nine non-U.S. companies joined the NYSE list,[26] a record number. For the first time we added a company from Sub-Saharan Africa, and our first from Russia. I can go on and on about the firsts, but the impact and the trend line are much more important. We are becoming a truly global mar-

26. New York Stock Exchange, Inc., Historical Listing of non-U.S. Companies (1996/1997) (unpublished spreadsheet, on file with the *Fordham International Law Journal*).

ket. Global MBA programs could not come at a better time in terms of producing graduates who will be attuned to how the delivery of financial services will change over the course of the next dozen or so years.

The last major secular change in financial markets in the United States occurred around the turn of the last century, as the industrial composition of the country was undergoing a dramatic transformation. There are some interesting parallels between the U.S. economies of the late 1890s and the late 1990s. Entire industries were being created then, as they are being created today. Both periods are characterized by investors seeking ways to participate in the creative process and the creators voraciously seeking capital.

In the late 1890s and early 1900s, share turnover on the NYSE was at historically high rates, averaging 200-plus percent per year, compared with sixty-three percent last year, which itself was high by the standards of the last thirty years. If I were to apply these turnover rates to the number of shares outstanding today, the NYSE would be doing an average daily volume of nearly two billion shares. This month, average daily volume has been running at about 520 million shares.[27] To place this number in context, in my first full year at the Exchange, 520 million shares would have been about one-sixth of the total volume for the year.[28]

The NYSE and its member firms have spent the past decade preparing for today's volume of business. We ourselves have spent more than a billion dollars during this period on telecommunications and computer systems. Now that doesn't sound like a lot when you look at it through the eyes of a General Electric. When you look at it through the lens of the NYSE, a billion dollars is a great deal of money, six times our working capital. We have made a commitment that the Exchange will always be between two and five years in front of the demand cycle. We are currently in the process of ratcheting up our trading capacity from roughly 2.4 billion shares a day to about 3.5 billion.

In addition to expanding our capacity to trade using the

27. Suzanne McGee, *Hair-Raising Turns for Stock and Bond Markets*, WALL ST. J., Jan. 13, 1997, at C1.

28. NEW YORK STOCK EXCHANGE, INC., *supra* note 4, at 63. Mr. Grasso joined the New York Stock Exchange in April 1968.

space within which we operate, we are currently exploring options to expand the amount of space itself. Many people ask me why we would expand a floor-based system. Why not go to some kind of black-box, automated trading process? I believe in the benefits of a physically-convened auction market. Pure telephone-screen dealer markets, such as London and Nasdaq, have their place as excellent trading systems for certain types of stocks and certain types of order flow, that is, thinly-traded stocks or when the order flow consists of predominantly large orders. Computerized order-matching systems in which natural buyers and sellers can meet have many advantages, but some disadvantages, including the fact that when market imbalances occur it is difficult to inject human intervention in the trading process to break up logjams. We will continue to use a floor-based system, applying more and more technology to pre- and post-trade processes.

Advocates of screen-based trading often tell me that globalization will be the downfall of physically-convened auction markets. The demand to trade stocks at the NYSE continues to grow from outside the U.S. business day time zones, and there is only a given amount of time each day a person can stand on the NYSE floor and participate in a rigorous trading process. I believe that the way around this problem is to break the seat into time frames so that a seat-holder would pass the trading privileges associated with the seat to another person. As a trader, I would operate my seat from 9:30 in the morning until 4:00 in the afternoon. Then I would pass it to a partner or business associate who would operate it from, say, 4:15 to midnight. That person would in turn pass it to another who would operate it from, perhaps, 12:15 a.m. to 7:00 a.m. Semi-continuous, multi-currency, twenty-four-hour trading: no other marketplace in the world has the technological capability, the infrastructure and the product base to do that.

I hope that this evening I have given you some sense of the excitement my colleagues and I feel about the next five to ten years at the NYSE. We are becoming a global marketplace; and we are managing the introduction of technologies that were unimaginable twenty years ago.

Thank you very much for your invitation to speak with you this evening. I would be happy to entertain a question or two.

QUESTION: With regard to the ADRs that you mentioned, going forward, do you think ADRs are going to play a part in globalization for the NYSE? Or will you go to more direct listings?

MR. GRASSO: I believe that the ADRs will continue to be a very important ongoing tool, particularly for retail investors in the United States. I don't think at this juncture the retail investor is prepared to accept currencies other than the U.S. dollar, the difficulty of dealing with dividends in other currencies, or the transfer problems inherent in transferring ordinary securities in the home country marketplace. So I think the convenience of the ADR makes it a necessary and long-lived investment tool going forward.

But the ADR will be augmented by U.S. institutional demand for the ordinary shares, in local currencies. As you get away from the ordinaries, you create breakage, the breakage of conversion from ordinaries to ADRs and of conversions from local currencies to the U.S. dollar. That breakage creates differentiated returns that can be very important to a global asset manager's ability to retain accounts.

So I think the two will operate in parallel. I think the retail investor here in the United States will always want the ADR. The institutional investor has already indicated, through tapping the home markets of non-U.S. issuers, the capacity to accept the difficulties in transfer and dealing in local currencies.

QUESTION: Accounting standards have always been a hindrance to a lot of companies in Europe coming into the U.S. marketplace, such as the NYSE, because of the disclosure of information that they feel is confidential. Is this going to be liberalized?

MR. GRASSO: U.S. accounting and financial disclosure have contributed enormously to the breadth and depth of the U.S. market. So I'm not an advocate of wholesale abolition of our standards. I am a believer that businesses, particularly in a truly global economy, look more and more like global businesses rather than domestic businesses, and, therefore, there needs to be some reconciliation between the traditional domestic practices here in the United States and the traditional domestic practices in other markets. I do not believe it would be fruitful to try wholesale abolition of what we have here in the United States.

Our standards have served us well. They have bred a public confidence in the marketplace that has created liquidity and a universe of ownership that is unlike any market anywhere.

We have some 51 million Americans who are direct participants in our markets, another 110 or so million indirect participants in the markets. I think that breadth and depth is evidence of the confidence that the U.S. public has in the openness and frequency of financial disclosure here in the United States.

I do believe, however, that if you were to look at some of our international companies, you really do raise the question of whether U.S. GAAP should be the prevailing convention or whether there should be some reconciliation to reflect the fact that much of the earning power of a Citicorp or an Exxon or an IBM is done or achieved outside of the U.S. framework. I think you can create a standard that protects investors and yet allows issuers a greater global approach to their financial statements. Thank you for the question. It's important that audiences understand our position on global accounting standards.

As you go from country to country, some countries have conventions of accounting practice that are much more stringent than those of the United States. Others have some that are still in an embryonic state. So you must take almost a country-by-country approach. What has served us well is a level of confidence that the investors in the market have in the frequency, whether good or bad, but the frequency and comparability of issuer financial statements. So I think, to their credit, the SEC, the FASB, and the International Accounting Standards Committee have looked at a global set of standards that would satisfy the needs of international investors, create a comparability of disclosure, and yet allow some companies the opportunity to come to the United States and tap the pool of capital that is here.

QUESTION: Situations in the 1980s were very different from the current levels of fluctuations we have in the 1990s. We have now experienced close to ten years since we have put in the fifty-point circuit breakers. Can you elaborate on where that's going?

MR. GRASSO: For those who may have been out of the country on the 19th of October of 1987, it was what I refer to as a minor modification of the valuation model in the United States. We never use anything that rhymes with the word "rash" in our discussions of 1987. The circuit breakers and so-called shock absorbers that were introduced into the marketplace after the break in 1987 address two very separate sets of concerns.

The macro concern was the public's unwillingness to accept a twenty-two percent decline in a single trading day. Realize that on the 19th of October in 1987 the market fell 508 points on 604 million shares. 1996 was the centennial anniversary of the Dow Jones Industrial Average. It took the average from its creation in 1896 until 1966, some seventy years, to first cross the threshold of 1000 points. In October 1987, we lost a little more than half that in one day. So the Brady Commission, consisting of soon to be Secretary of the Treasury Nicholas Brady and his Brady Commission colleagues from institutions around the country, who were brought together by President Reagan to study what had happened, felt that there was a need to take a macro approach and to say that on any one given trading day, while you might have fifty point declines, you should take a breather in the marketplace. Thus, the introduction of the 250 and 400 point one and two hour breakers, later to be reduced to 30 minutes and one hour. Most recently we have determined that the 250 should become 350 and the 400 should become 550. That was the macro approach. The point that troubled so many people was the accelerant factor of the so-called program trade.

Program trading is a category in the marketplace that on an average day is about twelve or thirteen percent, half divided between index arbitrageurs, half between the so-called tactical asset managers. The index arbitrageurs are simply spreading the forward in Chicago against the cash in New York, either buying discounted futures in Chicago and selling the underlying basket of 500 securities, or the reverse, depending on the premium relationship, with the balance being the tactical asset managers, who are constantly rebalancing.

The fifty-point rule was designed not to take a time out, not to prevent that category of participant from being in the market, but rather to say, on the plus side or on the negative side of fifty, that the participant, the index arbitrageur, could do whatever he or she chose to do. Once the marketplace was down more than fifty or up more than fifty, however, that participant was converted from a consumer of market liquidity to a provider of liquidity. A consumer of market liquidity buys discounted futures and sells stocks, creating weight on, if you will, the cash market, buying further discounted futures and accelerating the process down or accelerating it upward. At or above the fifty-point threshold, that participant had to counter the trend, had to become a provider of liquidity to the marketplace. Today, when the market ticks up or down greater than fifty, the participant can continue the strategy, but only in a market counterbalancing nature. Now that small change, converting from consumer of liquidity to a provider, in effect hits the brakes on that category of trading.

We can debate whether a 2400 Dow with a 250/400 macro circuit breaker corresponds to a 6600 Dow with a 350/550 circuit breaker. I had that debate for the better part of the year and basically had no conclusive evidence one way or the other, but I was kind of tired of the debate going on. It is reasonable to say the market has tripled, and we have not changed the 250/400 circuit breaker, so let's make the band width a bit wider. But the fifty-point band will not change. The absence of a fifty point band width is the accelerant that can get you to 350 quickly.

We have only had one 250-point-plus decline in the history of U.S. markets in a single trading session, but I will only use as a comparator the fact that we have had two 600-point moves in the U.S. stock market in the last decade. One occurred on a day when everyone can recall exactly where they were, October 19, 1987. Few people recall the second. It began on the August morning that we awoke in 1990 to learn that Saddam Hussein had decided to expand his real estate. The Dow was at 3000 at that point. Eleven weeks later, the Dow was at 2400. Same 600 points, but without the human cry, without a year-and-a-half worth of my colleagues and I sitting before various congressional committees trying to explain what had happened on the 19th of October. The evidence, albeit anecdotal, is the slower the decline, the less likely you are going to lose public confidence. In fact, you can make an argument that when there are dips in the market, whether a dip in 1989, a dip in 1990, or a dip in the summer of 1996, the Dow moves almost straight-line from 5100 to close to 5700, and then suddenly the technology stocks are out of favor. Then buyers emerge.

In July of last year, you got almost a 500-point decline in a week or so time frame. There is an argument that the public pours in and counterbalances that, so long as you do not experience the free-fall nature of the nineteenth of October.

It is a long about way of saying, if you were about to argue why, if we are changing 250/400, should we not change the fifty-point rule, I do not believe the two are comparable. One addresses a technical, sophisticated category of the market that few people understand and even fewer people deploy, and, yet, it can become a true shock wave into the marketplace.

If you want to really understand what happened on the nineteenth of October, read the footnotes of the Brady report. You will find in one of those footnotes, thirteen institutions hit the door simultaneously. Analogize to putting fifty elephants in a room and letting them all try and go out the door at the same time. There is a predictable result. Program trading, tactical asset allocators, and the so-called index arbitrageurs, while they do not like the fifty-point rule, they're willing to accept it as a social cost of being able to continue in the business using that strategy.

QUESTION: Given the enormous impact that institutions have on trading, can you see the role of the retail customer in the future?

MR. GRASSO: I believe that the institutionalization of the market has been enormously positive for the U.S. markets in general, and, in particular, for the NYSE. At the end of 1996, if you were to look at one common stock fund, the Fidelity Magellan Fund, and you were to turn the page back to 1980, that fund would have represented the entirety of the mutual fund industry's allocation to equity securities. One fund. During the 1980s, if you were not an active investor, simply a passive investor, an indexation participant, the decade of the 1980s produced roughly a 15.25 percent compounded annual rate of return by just buying the S&P 500. In terms of the twentieth century, that is a premium of almost fifty percent over fixed income alternatives. That is why I believe the United States has fallen in love with equity investments.

We are in a unique period. I believe we are in a period where the people live longer, retire earlier, and are less likely to believe that the traditional safety nets provided by government in the post-employment years will be there for them. We are in a period where the traditional philosophy in this country, which said that at age fifty-five I will begin to move into conservative, risk-averse investments, no longer works. Whether it's the environmental differences, parental dependency, grandchild dependency, or a troubled public health care finance system, there is only one way, if you subscribe to some of those environmental elements, that you can deal with the next quarter century, and that is by being an investor in equities.

Now that does not mean rolling the die on the shares of the electric spoon company. The 1980s demonstrated that you can be a conservative investor and do well. Think of just a few simple names, such as Coca-Cola and General Electric. If you choose not to be a stock picker, pick an index. The S&P 500 last year was up twenty percent. The Dow Jones Industrial 30 last year was up twenty-six percent, following a year when it was up thirty-three percent. That is not to suggest those returns are going to continue. It is simply to underline that there is a driving force to your point of new money coming into the marketplace, provided it is patient capital, willing to be in the marketplace for a period in excess of five years.

If you look at the cycles of equity prices in the twentieth century and bought the basket that represented any one of the wide indices at the wrong moment in the cycle and held for a period of seven years or greater, you always had a premium return over the fixed income alternative. If you were lucky to simply buy in the middle, you had a huge premium. If you bought closer to October 19th or to other down periods, such as the fourth quarter of 1990, you had a huge premium.

QUESTION: Looking at what the United States did 200 years ago, I think that you can create one major stock exchange and some additional markets too, like the Amex and Nasdaq, for example. How do you plan to compete with European and emerging markets, especially after the acceptance of a common European currency?

MR. GRASSO: Your question is an excellent one. I think you've got to look at the dynamics that underlie why issuers tap various markets and where investor pools lie. Again, whether it is our advantage of the better part of one hundred years, whether it is the technological advantage, or whether it is the breadth of ownership advantage in the U.S. markets, we find ourselves today with the broadest and deepest pool of investors anywhere in the world. When issuers privatize from state hands to investor hands, there is only one capital market that has the breadth and depth to be able to provide the capital that they seek in that primary financing, and that is here in the United States.

When the Euro[29] is completed, and presuming there is a single market in Europe, will we be able to compete? Will it be an "either/or" cannibalization? I would say no. I believe that markets will be complementary in the following sense. If you were to look today at the experience of the NYSE, we do not have offices throughout the world. We create windows to those various sectors outside of the United States by using advisory boards. I have an Asian-Pacific advisory board, a European advisory board, and a Latin American advisory board. What we try to do is create a partnership with local markets. Not that we are going to trade common product in a continuous sense, but rather a recognition that some companies will always trade primarily in the domestic arena, such as NTT in Japan.

Markets will sort the competitive results by pools of industrial interest. If, in fact, you can stimulate a domestic market to a breadth and interest equivalent to the U.S. market, you are going to see those issuers trade primarily in those markets. Capital moves around the globe in nanoseconds. It moves with the speed of technology. If you were to look at our consumer business, we take an order from anywhere in the world, introduce it into the agency-auction price discovery, execute it, and have it back at point of origin in twenty-two seconds. My ten year old son says, "why so long?" He thinks I am a dinosaur. Now that is what defines the difference between the NYSE and the vertical markets. In the vertical markets, the screen-based markets, sellers hit bids and take offers, and I can, in that model, collapse my turnaround time to three seconds. But that is extraneous to the question you raised. The question you raise is where will the market evolve and be most vibrant? The answer is in that arena that has the largest pool of investors, a transparency, a confidence level, and a regulatory umbrella that stimulates investor participation.

One of the things that we do *pro bono* for markets around the world is spend a lot of time trying to teach them the process of the U.S. secondary markets. We willingly share all of our tech-

29. The Euro is "the single currency that the European Monetary Union will convert to in 1999." Ellen Leander, *The Euro: "No Crying Need to do Anything"*, TREASURY & RISK MANAGEMENT, Apr. 1997, at 15.

nology and all of our know-how with emerging markets, repositioning markets because if those markets succeed, we ultimately will be benefactors. We listed our first Russian company and our first Ghanian company in 1996 because we made a strategic investment in creating know-how in those arenas sufficient to stimulate their start-up of their markets.

Your question, though, is an interesting one because when Europe, and I believe it will happen, creates the single currency, some say it will be much more difficult for markets outside of Europe. I think it will be a lot easier because we will not have to go to a cross currency in five or six different options, but simply will be trading the Euro against the dollar. I believe it is going to stimulate a lot of developmental activity here in the United States.

So I am not a believer in the "either/or" theory. In fact, when issuer companies that are considering going outside of their home arena ask the question in a public forum, "Should we list in Tokyo, should we list in London, should we list in Frankfurt, or should we list in New York," my answer is all of the above. Because I think to the extent that a company can raise investor interest in all of those markets or in several of them, it is to that company's advantage to list on them.

QUESTION: As global investment grows, U.S. investors are going to have to deal with a lot of different tax regimes. Do you think this will deter the investors? What if U.S. investors are treated differently than home market investors?

MR. GRASSO: Any country that puts in some sort of a penalty, whether it is an interest equalization tax or some sort of transfer tax, hurts itself and hurts its own markets. To the extent that they seek our counsel, we always, even though it is not in our self interest, suggest that countries not do this because it will limit their competitiveness in the global theater.

If you look at, for instance, the Nordic countries up until about two or two-and-a-half years ago, they had some onerous taxing on domestic securities markets. They lost all of their markets to London. As I said, markets move with the speed of fiber optics. To the extent that you have a confiscatory tax policy in the domestic arena, market activity will move offshore.

There was a perfect example of that here in the United States, something called the Interest Equalization Tax ("IET") in

1963. When we imposed the IET we created the offshore Euro market. We did it ourselves. We did not need any help!

QUESTION: How do you see the proposed changes in Social Security affecting capitalization of the market?

MR. GRASSO: Well, you are going to be surprised to hear me say this because if, in fact, you take the most aggressive approach and assume that forty percent of the trust fund gets rededicated to the equities markets, that is US$200 billion. US$200 billion against a US$7.7 trillion market does not do a lot in the near-term.

Most people, when they read about the three alternatives, think enactment of any one will be a great day at 11 Wall Street. I do not think it is a quick shot in the arm to the marketplace. I think, however, that it is an important tool for public policy. There is, you know, a social security system on the one hand that is probably one of the most successful transfer payment systems we have ever created. Yet on the other hand, we know that an increasing number of U.S. taxpayers is required to fund the system. The amount of benefits paid to recipients has grown from US$7 million a half century ago to US$2.2 trillion or whatever it is today, and at some point the bank runs dry.

So there has to be, I think, an alternative that creates premium returns. You have to be very careful. Public policy does not modulate this correctly. You do not want to end up with a person nearing the end of his or her working life having to take a roll of the die because he or she invested poorly over the last thirty or thirty-five years. So you have to risk-adjust to age tables. I think you also have to have a prudent person standard applied to determine what is a suitable investment.

Lastly, I think the idea of the government investing for us is not a good one, but you would expect me to say that.

QUESTION: When does the Exchange expect to actually be able to trade ordinaries? I was under the impression that there was a plan in place, but that it got pulled.

MR. GRASSO: Well, the plan was not implemented. What really dissuaded us from launching it is the fact that we do not find ourselves today in the position we thought we might be in, in terms of the number of non-U.S. companies that are on the NYSE. There is a need to build a critical mass. For us to launch ordinary share, multi-currency trading, we are going to ask the users of the NYSE, the broker-dealer members, to make significant infrastructure investments.

You cannot in good conscience as the operator of a business ask people to make such investments if they are uneconomic. So we would rather wait until we have got a scale of business opportunity that would produce at least a recognizable rate of return, if not an immediate rate of return, to the broker-dealers who are going to have to invest in that infrastructure. Everything we are doing from a technological standpoint is being engineered to accommodate the so-called ordinary non-U.S. script product. But that, from our standpoint, is a lot more economic than from the point of view of the 600 broker-dealer members of the NYSE. Recognize we are at the center of that activity. If you have got a business that has perhaps only five or six transactions a day that might remotely be in need of this product, you cannot afford to be there as a broker-dealer member. So we are going to hold until we think we have scale. My guess if I have to give you a time table, because I am the one that created the first timetable, that we have not met, I will give you a new one. When we get to about 450 non-U.S. companies, which is roughly a fifty percent growth factor in what we have today, and that is not too far away. That is probably eighteen months, maybe thirty-six months from today. I thank you very much for having me here tonight.