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Ms. Nancy M. Morris, Secretary
Securities and Exchange Commission
100 F St. NW
Washington, DC 20549-9303
Rule-comments@sec.gov

SR-NASDAQ-2007-031
SR-NASDAQ-2007-025
File Number 4-533
File Number 4-534

Dear Ms. Morris:

As both an empirical researcher in finance and a personal investor, I deal with stock exchange ticker symbols almost every day. I am pleased that the topic of ticker symbols has come up, because there is a need for improvements in the present system to prevent consumer confusion. Here are my comments on the exchange symbology plans. In brief:

- Just as with phone numbers, the rights to a particular ticker symbol should belong to the issuers, not the exchanges. Issuers generally expend considerable resources to associate their corporate brand image with a particular set of characters, and their claims should prevail over the far weaker claims of any particular exchange.
- Changing ticker symbols cause investor confusion, leading to errors in both research and trading. Allowing issuers to keep their ticker symbols when they change exchanges will lead to fewer costly trading mistakes.
- One, two, and three character tickers have previously been used by the AMEX, and the NYSE, as well as the regional exchanges. Comment letters implying that one, two, and three letters are associated only with the NYSE ignore current practice and the historical record.
- Perpetual reservation of unused ticker symbols is a bad idea. Unused tickers should be available to any legitimate issuer seeking to use them on a first come, first served basis.
- A joint symbology plan should also create industry standard condition codes and suffixes, and vendors should be encouraged to treat condition codes and suffixes in a standard way.

- Derivative exchanges and index providers should be included in the administration of the plan.

My more detailed comments follow:

Introduction: Who owns the alphabet?

In the beginning, there was the stock ticker. Each exchange used its own symbology for the instruments it traded. A stock traded on multiple exchanges could have multiple tickers. Or the same ticker could mean different stocks on different exchanges. For example, AT&T (then known as American Bell) first traded on the Boston Exchange under the ticker symbol T in 1888. When AT&T listed on the NYSE, it used the ticker symbol ATT and did not use the single letter T on the NYSE until 1931.¹

This is still the international practice today. For example, the ticker symbol FUN on the NYSE represents Cedar Fair, L.P., a maker of amusement parks. The symbol FUN on the TSX in Toronto is Fun Technologies PLC. This creates a lot of fun for investors and researchers who deal with the stocks that are dually listed in the U.S. and Canada.

To deal with this confusion in the United States, Standard and Poor's came up with a standard alphabet-only system of U.S. ticker symbols which became the industry standard.²

The NYSE, AMEX, and regional exchanges traditionally used one, two, or three character ticker symbols to identify stocks. The NASDAQ has traditionally used four or five character ticker symbols. When a firm switched its stock listing from the NASDAQ to the AMEX or NYSE, it would have to change its ticker symbol to a shorter ticker symbol. Likewise, when a stock moved from the NYSE or AMEX to the NASDAQ, it had to adopt a longer four or five character ticker symbol. However, when stocks switched from the AMEX to the NYSE they usually kept their shorter ticker symbol. Thus, there is a long precedent of firms keeping their ticker symbols when they switch exchanges.

Furthermore, the various exchanges and data vendors use different methods for identifying various stock conditions. For example, NASDAQ used to identify stocks that were late in filing financial statements by appending "the scarlet E" after their ticker symbols, while the NYSE did not. Different methods are also used by data vendors for identifying different classes of stocks such as preferred stocks.

¹ ATT, *The New AT&T "T" Stock Ticker Symbol Fact Sheet*, <http://www.att.com/gen/investor-relations?pid=7537>, accessed May 6, 2007.

² Wikipedia, *Ticker symbol*, http://en.wikipedia.org/wiki/Ticker_symbol, accessed April 25, 2007.

Now NASDAQ wants to use shorter ticker symbols and its competitors don't want to let it. NASDAQ and its allies have proposed setting up a plan under the NMS rules to divvy up stock symbols among the exchanges. The NYSE and its allies have proposed a competing plan to keep the shorter ticker symbols all to themselves. This brings up an interesting question: Who owns the alphabet, the exchanges or the issuers?

Issuers have the strongest claim to any particular ticker symbol.

The economic issues involved are very similar to those involved with trademarks. My understanding is that courts have traditionally not permitted firms to trademark their ticker symbols as such.³ I am not now, nor have I ever been, an attorney, so I will not make a legal argument here. Without commenting on the wisdom or relevance of such court cases, I will instead make an economic argument as to how the rights to a particular ticker symbol should be decided.

Trademark protection is quite broad and covers the use of such a trademark in many other applications. The same economic considerations that led society to create trademark protection can also be applied to the more limited case of who should have the right to a particular letter combination for use as a ticker symbol

There are two issues here: First, should an issuer that moves its listing from one exchange to another exchange have the right to take its ticker symbol with it? Does the ticker symbol belong to the exchange or the firm? And second, should a group of exchanges, or anyone else for that matter, have an exclusive right to certain letter combinations even when those combinations are not in use? Is a one-, two-, or three-character ticker symbol such a unique signal of the AMEX, NYSE, and regional exchanges that they should be able to preclude NASDAQ-listed firms from using them? The proposed NMS plans give certain exchanges the right to reserve some symbols indefinitely even though they have no current plans to use them.

In general, it is economically efficient for the society (and thus the law) to protect trademarks because it reduces consumer search costs.⁴ Consumers come to know that a trademark indicates a particular producer or product with which they associate a particular level of quality. Consumers can spend less time investigating the source or quality of a particular product, and producers can spend less time communicating the source or quality of a particular product. This creates a socially beneficial efficiency.

³ The NYSE comment letter cites *Exxon Corp v. XOIL Energy Resources, Inc.*, 552 F. Supp. 1008, 1015 (S.D.N.Y. 1981) and *Central Parking Corp. v. Park One Inc.* No. Civ. A. 97-2638, 1997 WL 655925. at *1 (E.D. La Oct 20, 1997). <http://www.sec.gov/comments/sr-nasdaq-2007-031/nasdaq2007031-12.pdf>.

⁴ For a truly great discussion of the economics of intellectual property law, see Landes, William M., and Richard A. Posner, *The Economic Structure of Intellectual Property Law*, The Belknap Press of the Harvard University Press, 2003.

Investors in the United States can choose from over 10,000 public companies in the United States and over 30,000 around the world. Most issuers are well aware that they need to be very pro-active in reaching out to investors. Issuers invest substantial sums in shareholder relations and other activities to promote awareness of their securities in the marketplace.

Companies often go to great efforts to come up with ticker symbols that appeal to investors. Sometimes ticker symbols reflect the name of the company (AAPL or IBM for example). Other ticker symbols have other associations with the issuer. Dynamic Materials, which is engaged in explosive metal working, has ticker symbol BOOM while Anheuser-Busch, the maker of Budweiser, uses ticker symbol BUD. Southwest Airlines started its operations at Love Field and thus uses the ticker LUV. The post-bankruptcy US Airways chose LCC to signify that it is a Low Cost Carrier. Oftentimes these symbols are seen as part of a firm's identity.

Corporations sometimes include their ticker symbols in their advertising campaigns as a way to alert their customers that their stock is publicly traded. When companies change their names, they often change their ticker symbols as well. Sometimes the firm's identity and ticker symbol have become so intertwined that the company changes its name to match its ticker. X was used for U.S. Steel long before it changed its name to USX.

Over time, investors tend to associate a particular ticker symbol far more with a particular company than with a particular exchange. Thus, in terms of reducing investors' search and transaction costs, it makes sense to award the rights to a particular ticker symbol to the issuer that has been using the ticker symbol.

It also makes economic sense to expand the pool of potential ticker symbols for all issuers by giving all exchange-listed issuers full access to all combinations of ticker symbols from one to five characters. Ford Motor Company may well prefer the ticker FORD as it will cause less confusion to investors than F. This will allow issuers to pick tickers that better match the issuer to the symbol, thus reducing communication costs and search costs.

Thus, the claim of any particular exchange or group of exchanges to the entire class of shorter ticker symbols is quite weak. In general, listed companies have expended far more resources in associating a particular ticker symbol with their company than has anyone else. It thus makes sense to allow issuers to keep their ticker symbols if they choose to switch their listing from one market to another. There is no good reason why an Amex or NYSE-listed firm should not be able to keep its ticker symbol if it moves to NASDAQ. Likewise, there is no good reason why a NASDAQ-listed firm should not be able to keep its longer ticker if wants to move to the AMEX or NYSE.

Shorter ticker symbols should go to the more actively traded stocks, if they want them.

In any language, the most frequently used words are typically the shortest ones. This reduces the “cost” of using the language. Similarly, the shortest ticker symbols should be used for the most frequently traded securities, as shorter ticker symbols require less typing and may be easier to remember. This reduces the time it takes investors to type in ticker symbols and reduces the mental bandwidth needed to remember the tickers. Some of the most actively traded securities are NASDAQ listed, so economic efficiency would dictate that such actively-traded NASDAQ stocks could also be able to use shorter ticker symbols if they want them.

Traditionally, the exchanges used shorter ticker symbols for the larger and more actively traded stocks. T stands for ATT (“Telephone”) and F for Ford. Thus, shorter ticker symbols have a certain cachet associated with larger issues. However, the shorter ticker symbols are no longer exclusively used by the most actively traded shares. Barnes Group Inc., ticker symbol B, has a three-month average daily volume of only 384,863 shares.⁵

Shorter ticker symbols can also lead to investor confusion as well. Automated news search engines that search for a stock symbol sometimes bring up numerous false hits when searching for shorter ticker symbols. Longer ticker symbols that are not recognized words yield fewer false hits. Googling the letters MSFT yields 7.3 million hits, most of which are relevant to Microsoft. Googling the letter A yields 7.3 billion hits, most of which have nothing to do with Agilent. Thus, some issuers will wisely choose to avoid shorter ticker symbols.

Ticker symbol portability is a good because it will reduce investor confusion.

Speaking as both an investor and researcher, I can attest that mutating ticker symbols can be a large source of confusion and costly investment mistakes. When a ticker symbol changes, data vendors do not always catch the change. I have personally run across many instances in which data vendors have proffered up incorrect charts or incorrect accounting information because of a missed symbol change. Reducing the number of ticker symbol changes will be a plus for investors, and will reduce costs to the legions of unsung heroes in the back offices who keep track of these things.

Ticker symbol portability will reduce the confusion to investors and researchers that comes from changing ticker symbols. This is similar to the rights to a particular telephone number. In the bad old days, a phone company (either landline or mobile) would assign a number to a customer. If a customer switched to another provider, the customer had to give up the old number and get a new number from the new

⁵ Source: Yahoo ! Finance, accessed May 9, 2007. <http://finance.yahoo.com/q?s=B>.

provider. This was, to say the least, a nuisance. Now the practice is that customers can keep their phone numbers when they switch providers. This is in line with economic efficiency as it reduces the overall costs to the economy when everyone has to keep track of new phone numbers. It also enhances competition between phone companies. In the same manner, companies should be able to take their ticker symbols with them when they switch exchanges. This ticker symbol portability will result in fewer costs for issuers and investors.

As such, I don't think that NASDAQ's proposal for three-character portability goes far enough, and that such exchange ticker symbol portability should extend to one- and two- (as well as three-, four-, and five-) character tickers.

Exchanges should not be allowed to sit on unused symbols.

However, in order for trademarks to be recognized as intellectual property (in which case others are precluded others from using them), they generally need to be used. This makes economic sense because parking unused trademarks reduces the potential benefits to consumers and producers that would occur if someone else used the unused property. Thus, NASDAQ should not be allowed to park the symbol FORD if Ford Motor Company wanted to use it on another exchange. The features in both proposed plans that allow the exchanges to permanently reserve ticker symbols should not be approved.

Many exchanges have used one-, two-, and three-character ticker symbols.

Trademarks also need to be enforced, or their value as an indicator of a particular producer will disappear. Words like aspirin and cellophane were once trademarks, but they have been "genericized." Repeated use of the words for products made by other producers made the terms less useful for identifying the producer. This makes economic sense because the economic value to society of a trademark is that it reduces search and communication cost. Once a trademark loses that ability to identify a particular producer, it loses its value to society. Any claim that the NYSE has to the class of shorter ticker symbols has been severely weakened by the longstanding historical use of such ticker symbols by other exchanges.

Trademarks generally indicate the origin of the good or service. As a trademark, the length of the ticker symbol fails miserably at this task. Just ask any empirical finance researcher who has tried to use "three characters or less" to identify NYSE-listed firms. (Been there, done that, got the t-shirt.) Yes, the NYSE traditionally has used 1,2, and 3 character ticker symbols. But so has the AMEX. The AMEX currently has

dozens of two-character tickers trading on it. And, in the past, there have been several one-character tickers that traded on the AMEX.⁶

The regional exchanges have also used shorter ticker symbols. Thus, a firm with a three character ticker could be a smaller regional issue that does not qualify for listing on the AMEX, NASDAQ, or NYSE exchanges. For example, GRF is the NAIC Growth Fund, market capitalization of approximately \$8 million, and it is listed on the Chicago Stock Exchange. One of the most famous examples of a shorter ticker on a regional exchange is the Archipelago Exchange. Archipelago took over the equity business of the Pacific Stock Exchange and then went public on its own electronic exchange under the ticker symbol AX. OEF is the CBOE-listed iShares S&P100 Index Fund ETF.

Nor does a four or five character ticker symbol unambiguously identify a NASDAQ-listed security. OTCBB and Pink Sheet securities also use four- and five-character symbols. Some data vendors concatenate prefixes with the root ticker symbol in their displays. Thus, NYSE-listed Berkshire Hathaway Class A is sometimes displayed as BRKA.

One could argue that the shorter ticker symbols indicate a particular method of trading, such as floor-based trading. However, the use of shorter ticker symbols by the all-electronic Archipelago is a direct counterexample. Our markets have evolved to the point that that most orders are now processed electronically, even on the exchanges that still have trading floors. The trading processes used in this NMS world to trade stocks listed different exchanges are now extremely similar across all exchanges. One needs a microscope to determine differences in the trading behavior of stocks across the major exchanges.

Given that the regional stock exchanges, the AMEX, and the NYSE have used shorter ticker symbols, one could argue that the shorter ticker symbols are the collective trademark of national stock exchanges. By this logic, NASDAQ should be allowed to use the shorter ticker symbols as the SEC has now admitted it to the guild of national stock exchanges.

One could also argue that the shorter ticker symbols are an identifier of Tape A and Tape B securities. However, most investors are blissfully ignorant of the details of the distinction between the various tapes, so it is hard to argue that investors are seriously looking for a Tape A or Tape B security. Indeed, the whole distinction between the different tapes makes little sense today; in the modern NMS world, virtually all of the exchanges trade securities listed on other exchanges. The Commission should seriously consider whether the various tapes should be consolidated into one.

⁶ A look at the CRSP data reveals that in the 1990s Amex traded American Medical Buildings, Helm Resources, and Odetics under the ticker symbols A, H, and O respectively.

Some commentators have mentioned that shorter ticker symbols are part of the NYSE brand. The ticker symbols are not an inherent part of the brand, but rather an attribute of the listing product that the exchanges are selling. Manufacturers are not allowed to patent or trademark every attribute of the products that they are selling. For example, Ford's stylized oval trademark is part of its brand, but the fact that its cars have wheels of a certain diameter is not. While other car makers cannot use Ford's oval trademark, they can sell cars with wheels that have the same diameter as Ford's. Indeed, it is useful to have standardized wheel sizes as it reduces the cost to consumers of replacement tires.

So how should the ticker allocation system work?

Regardless of symbol length, industry symbology needs to be improved.

The current ticker system has many flaws. Regardless of how the property rights to ticker symbols are assigned, significant improvements need to be made.

The suffixes used to identify different types of stock vary across exchanges, leading to confusion among investors. For example, NASDAQ uses .V for when issued securities and the NYSE uses .WI. Other condition identifiers also differ across exchanges, making it difficult for data vendors to pass through accurate data without mistakes. This can cause confusion and losses for investors, for example, if information that a firm is delinquent in its SEC filings is dropped by a data vendor. This can often happen with stock screening tools, which may not catch such condition codes.

Furthermore, industry practices in displaying such suffixes vary considerably across various brokerage firms and data vendors. For example, Berkshire Hathaway Class A may be represented as "BRKA", "BRK-A", "BRK.A", "BRK A" or even "BRK^A".⁷ This can cause a great deal of pain and confusion to investors attempting to track down information on a particular stock.

Symbols should be allocated on a "first-come, first-served" basis.

It is economically efficient for there to be legal protection of intellectual property in order to promote the creation of intellectual property, to promote the efficient use of such property, or to reduce consumer search costs. In general, if a piece of intellectual property is abandoned, such as when a patent holder chooses not to pay the patent renewal fee, or a trademark is not used for a period of time, then the intellectual property enters the public domain and is available to anyone who wants to

⁷ For more examples of confusing differences, see <http://www.quantumonline.com/PfdSymbolsNames.cfm>.

use it. If a ticker symbol is not in use, then it should be available to any legitimate issuer that wants to use it. Symbols should be available to issuers on a “first-come, first served” basis with a “Use it or lose it” feature.

An issuer wishing to use a symbol could request the symbol, and then would have a given length of time in which to actually use the symbol. Use of the symbol would include actually trading the security, or filing a listing application with an exchange, or a registration statement with the SEC in anticipation of trading on an exchange.

Perpetual reservations of unused ticker symbols should be prohibited.

Both the NYSE and NASDAQ plans call for various exchanges to retain perpetual rights to a number of unused ticker symbols. This does not make sense and should not be allowed. If the tickers are not in use, then no one should be allowed to sit on them forever. This is consistent with the intellectual property of trademarks, which must be used in order to be maintained.

Some tickers should be off limits.

Although issuers should, in general, be able to choose any symbol they want, there are legitimate reasons why some tickers should not be issued.

One exception to the “first-come, first-served” principle would be for tickers that are so close to existing trademarks that allowing others to grab them would sow confusion among investors. Thus, it should not be permissible for someone other than Ford Motor Company to grab the ticker FORD.

Words that many people find offensive should not be used as ticker symbols. Thus, examples include *****, *****, *****, and <expletive deleted.>

Symbols that are too close to an existing symbol, either in meaning or on the keyboard, could also be precluded if common typos would cause traders to make more “fat fingers” mistakes. For example, it would not be a good idea to use both “FORM” and “FROM” as ticker symbols.

Abandoned tickers should be unavailable for a six-month waiting period to prevent confusion.

When a company abandons a desirable ticker, it is often recycled quickly. For example, when Chrysler was taken over by Daimler to become DaimlerChrysler, its

ticker symbol C was in use for Citigroup within a few weeks. Many investors keep track of portfolios as lists of ticker symbols, and reassigned ticker symbols cause lots of headaches. I have personally experienced situations in which data vendors did not catch the switch, and supplied bad data to in the way of bad price charts, or worse yet, bad accounting data.

When a ticker symbol is abandoned, there should be a six-month waiting period before it can be reassigned. This will give investors time to adapt to the switch.

Cybersquatting by shell companies on ticker symbols should not be allowed.

OTCBB and Pink Sheets issuers have not had the same user rights to four and five character tickers as NASDAQ-listed firms. If a NASDAQ-listed firm wanted a particular ticker that was in use by an OTCBB or Pink Sheets-traded entity, it could usually get it.

Issuers in the OTCBB and Pink Sheets have not paid any listing fees to be traded on those markets, and indeed, cannot even prevent such trading if they wanted to. Hundreds of the tickers traded on the OTCBB are shell companies with no operations. Many defunct tickers are also carried on the Pink sheets.⁸ Allowing shell companies with no operations to cybersquat on desirable ticker symbols is not in the public interest. Only legitimate SEC registrants that meet the listing standards of the exchanges should be able to establish rights to ticker symbols.

Derivative exchanges and index providers should participate in the Plan.

The exchanges have managed for years to trade securities with unique ticker symbols. Such a system could probably muddle through for an indeterminate period. However, it makes sense to establish a central administrative entity to reduce confusion and promote efficiency.

An industry plan for the allocation of ticker symbols is a good idea. There are several ways in which such an industry plan could be administered. The NMS-style Plan is one way. The CUSIP registry is another model, as is the internet domain registration method. Probably any method of administration will work.

However, it should be noted that investors use tickers not only for equities, but also for options, futures, securities futures, mutual funds, and indices. It makes sense that these other players should also be represented in the governance of ticker symbols. This will help to prevent more confusion (and unnecessary expense) further down the line as more investors use derivatives along with plain vanilla equities. There are

⁸ For example, the notorious carpet cleaning fraud ZZZ Best, which ceased operations decades ago, can still be found on the Pink Sheets under ticker symbol ZBSTQ.

various ways that these other constituencies could be represented, either as full voting members or by sending representatives to an advisory committee. Such an advisory committee should also have consumer representatives as well.

The Plan needs a dispute resolution mechanism.

There will be inevitable disputes that arise over the rights to various ticker symbols, and the Plan should come up with a method for resolving disputes. For example, one issuer may claim that it should have the rights to a particular ticker symbol as it has already trademarked that word. Or there may be a dispute as to whether a particular claimant has actually used a ticker symbol to retain rights to it. For example, I have argued that shells traded on the OTCBB and Pink Sheets should not have rights to ticker symbols. What about a “fallen angel” that is delisted from an exchange and then trades on the OTCBB? Should it be allowed to keep its ticker symbol if another issuer wants it? The dispute resolution mechanism of the plan should look at the facts and circumstances in each particular case.

Respectfully submitted,

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