

Board  
Memorandum

THE New York Stock  
Exchange  
e

September 24, 1973

Summary Memorandum

TICKER TAPE DELAY PROCEDURES

The Issue

To determine whether the Board of Directors should give final approval to specified changes in tape delay procedures.

Background

At its meeting on July 11, 1973, the Board approved in principle the recommendations of the Floor Committee with respect to changes in tape delay procedures. The memorandum and exhibits submitted to the Board by the Market Surveillance Division are attached as Exhibit A, which also includes a draft letter to the SEC, subsequently sent by the Secretary on July 12, pursuant to SEC Rule 17a-8, notifying the Commission of the Board's action.

In a letter of response dated July 27 (Exhibit B) the SEC asked the Exchange to defer action until the Commission could receive and comment on the Exchange's replies to four questions dealing with the relationship of the proposed changes to a consolidated tape.

The Exchange replied to the SEC's questions by letter, dated August 27. (Exhibit C).

Discussion

On September 24, the SEC indicated by telephone that, based on the Exchange's representation that the proposed tape delay procedures will not affect the implementation of a consolidated tape, the Commission raises no objection to the proposed changes.

It is expected that formal SEC approval will be received prior to the Board's October 4 meeting. In that case, it will be in order for the Board to act on the proposed changes.

Recommendation

The staff recommends that the Board of Directors give final approval to changes in the tape delay procedures, as follows: to delete "volume" and "sequential repeat sales at the same price" only with respect to transactions involving less than 1,000 shares, rather than with respect to transactions involving less than 5,000 shares.

Market Surveillance Division

Exhibit A -- Board Memorandum (June 18, 1973,  
with Attachments)

Exhibit B -- SEC Letter to NYSE (July 27, 1973)

Exhibit C -- NYSE Letter to SEC (August 27, 1973)

NEW YORK STOCK EXCHANGE, INC.

June 18, 1973

TO: The Board of Directors  
FROM: Market Surveillance Division  
SUBJECT: Change in Present Ticker Tape Delay Procedures

RECOMMENDATION

That the Board of Directors approve, in principle, a change in the ticker tape delay procedures so that the "digit delete" and "sequential repeat sales at the same price delete" modes be applicable to transactions of less than 1,000 shares rather than less than 5,000 shares as at present.

BACKGROUND

At a meeting on June 5, 1973, the Floor Committee considered the attached memorandum dated June 1, 1973, and determined to make the above recommendation to the Board of Directors. It was the consensus of opinion that it was more advantageous to the public to get a more complete picture of the volume activity in listed issues even though on some occasions it would mean the duration of tape lateness would be extended and the amount of tape lateness at any given time could be as great as five or six minutes. Examples of current tape delay procedures are attached as Exhibit A-1.

PROPOSED EXCHANGE BOARD ACTION

That the Board of Directors approve, in principle, a change in the ticker tape delay procedures so that the "digit delete" and "sequential repeat sales at the same price delete" modes be applicable to transactions of less than 1,000 shares rather than less than 5,000 shares as at present. No rule amendment is necessary. However, since it is a policy change, prior concurrence of the SEC is necessary. A draft letter for this purpose is attached as Exhibit A-2.

J. J. O'Donohue

NEW YORK STOCK EXCHANGE, INC.

June 1, 1973

TO: The Floor Committee

FROM: Market Surveillance Division

SUBJECT: Change In Present Tape Delay Procedures

As volume increased over the years, The Exchange has had to implement various procedures to prevent or reduce extended tape delay. The last such change was made in September 1968 and as a result, the present tape delay procedures are as follows:

1. Price digits are deleted when it appears that the tape may become late.
2. Except for blocks of 5,000 shares or more, volume is not printed when the tape runs more than two minutes late and it appears that tape lateness will otherwise increase. The printing of volume is resumed when the tape is cleared and it appears that the printing of volume will not cause tape delay.
3. "Flash" prices in certain stocks are printed when the tape becomes six minutes late. This consists of the 15 most active stocks and 15 "blue chip" stocks.
4. Sequential repeat sales at the same price, except for transactions involving 5,000 shares or more, are deleted when the tape is three minutes late and it appears that lateness will otherwise increase. This procedure remains in effect until the tape is cleared of delay and it appears that the resumption of printing sequential repeat sales at the same price will not lead to renewed tape lateness.

At its meeting on Thursday, March 29, 1973, the members of The Floor Committee expressed a desire to print all transactions between 1,000 and 4,990 shares in full on the ticker tape, regardless of how late the tape runs.

It was felt that the printing of these transactions in full would give the public a truer picture of what had occurred in the market. For example when the tape is three minutes late, five 1,000 share transactions could take place at the same price within a short period of time and all that

would appear on the tape would be one print only, namely the price of the first transaction. Most members of the public would probably assume that only 100 shares had traded in that issue.

Deletion of volume could be particularly misleading in high priced stocks where the dollar value of the amount of stock which traded could be very substantial. For example, if a transaction of 4,000 shares of a stock selling at a price of \$130 per share took place, the public, seeing only the price of the transaction, would think only 100 shares had traded, or \$13,000 worth of stock, when the amount that actually traded involved over one-half million dollars.

The cost and technical problems involved in making the suggested change have been researched. This inquiry indicates that the cost and reprogramming involved would be minimal and could be implemented within approximately one week from the time a formal request is submitted to the Securities Industry Automation Corporation (SIAC).

### Background

In September 1968, the Board adopted a policy of deleting sequential repeat sales at the same price, except for transactions involving 5,000 shares or more, when the tape is three minutes late and it appears that lateness will otherwise increase. Since the implementation of this policy, tape delay has never surpassed three minutes. If transactions of 1,000 shares or more are printed in full regardless of how late the tape runs, each "print" would add a minimum of five characters. On most days, the effect of these added characters would be absorbed in a few extra minutes of delayed tape and it is doubtful that they would cause tape delays beyond three minutes. It is possible that the "repeat price omitted" mode might be implemented sooner, and continued longer than at present.

However, on an exceptionally busy day such as February 13, 1973, when 25.3 million shares traded, there were almost 50,000 trades, and about 4,500 of these were between 1,000 and 4,900 shares. Not all of these transactions occurred in the high activity period on that day, but the tape was in a "digit delete" mode for a total of two hours and thirty minutes; a "volume delete" mode for one hour and forty-five minutes; and a "repeat price omitted" mode for forty-one minutes. Practically all of this occurred between the opening and 12:30 p.m. If it is assumed that approximately 60% of the total number of transactions between 1,000 and 4,900 shares occurred during this period, it would add a minimum of 13,500 characters to the already late ticker. In all probability, the tape would have been placed in a "repeat price omitted" mode from about 10:10 a.m. to 1:30 p.m., and increased the maximum tape delay beyond the three minutes currently assumed to be the maximum to five or six minutes. Moreover, if the tape became six minutes late, the "flash price" procedure would have been implemented, and "flash" prices would have been printed every five minutes. This would further inhibit the ability of the ticker to catch up with the market activity.

Some pros and cons on this subject are as follows:

Pro

1. Printing transactions of 1,000 shares or more in full on the tape could make the public more cognizant of activity in a particular stock.

Cons

1. The impact of the Consolidated Tape plan on tape lateness is not known at this time. Initially, 15 dually-listed securities will be printed on the tape as a test. If successful, all transactions of dually-listed stocks from all regional exchanges and the NASD will be printed on this Exchange's ticker tape. Transactions involving 1,000 shares or more coming from these other sources would also have to be printed in full when the tape is late. The impact of all these transactions could possibly cause the tape to run quite late.
2. The Exchange's inquiry devices located on the Trading Floor are not affected by the deletion procedures. All transactions appear in full, regardless of tape delay. When tape delay procedures are in effect, The Exchange transmits data every twenty minutes to vendors of interrogation devices in order to update their share volume data in each stock. Therefore, printing transactions involving 1,000 shares or more in full would only have an impact on those persons viewing paper ticker tape or tape display devices.

Examples of Ticker Tape Delay Procedures

Assume 200 shares of XXY traded at a price of 162 7/8. It is followed by trades of 4,000 shares of ZZY at 132; 1,000 shares of ZZY at 132; 2,000 shares of XXY at 162 7/8; and 300 shares of XXY at 162 7/8. This sequence of transactions would appear on the tape as follows if there was no tape delay:

XXY            ZZY                            ZZY                            XXY                            XXY  
           2s162<sup>7/8</sup>    4000s132                            1000s132                            2000s162<sup>7/8</sup>    3s162<sup>7/8</sup>

When it appears that activity may cause the tape to become late, only the last sale price digit and fraction, if any, will be printed, except for the opening sale, and when the price ends in zero. At the start of the "digit delete" mode, the words "digits deleted" are printed on the tape. At the termination of this mode, the words "digits resumed" are printed. The sequence of transactions in the above example would appear as follows:

XXY            ZZY    ZZY            XXY    XXY  
           2s2<sup>7/8</sup>    4000s2    1000s2    2000s2<sup>7/8</sup>    3s2<sup>7/8</sup>

When the tape becomes two minutes late, and it appears that tape lateness will otherwise increase, volume is deleted except on transactions of 5,000 shares or more. At the start of the "volume delete" mode, the words "volume deleted" are printed on the tape. At the termination of this mode, the words "volume resumed" are printed. The example sequence would appear as follows:

XXY    ZZY    ZZY    XXY    XXY  
           2<sup>7/8</sup>    2            2            2<sup>7/8</sup>    2<sup>7/8</sup>

When the tape becomes three minutes late, and it appears that tape lateness will otherwise increase, sequential repeat sales at the same price are deleted, except for opening prices, sales with special conditions, such as "stopped" stock sales, and repeat sales involving individual volumes of 5,000 shares or more. The example sequence would appear as follows:

XXY            ZZY  
           2<sup>7/8</sup>                            2

Under the proposed change in ticker tape delay procedures, the example sequence would appear as follows:

XXY            ZZY                            ZZY                            XXY  
           2<sup>7/8</sup>                            4000s2                            1000s2                            2000s2<sup>7/8</sup>

THE New York Stock  
Exchange

James E. Buck  
Secretary

Mr. Hugh F. Owens  
Acting Chairman  
Securities and Exchange  
Commission  
500 Capitol Street, N.W.  
Washington, D. C. 20549

Dear Mr. Owens:

Pursuant to SEC Rule 17a-8 under the Securities Exchange Act of 1934, we are submitting herewith three copies of this letter, which sets forth a proposed change in The Exchange's ticker tape delay procedures which was approved in principle by our Board of Directors at their meeting on July 11, 1973. We would appreciate receiving your comments as soon as possible.

As you know, The Exchange has various procedures that it follows in order to reduce or eliminate tape delay. These procedures are as follows:

1. Price digits are deleted when it appears that the tape may become late.
2. Except for blocks of 5,000 shares or more, volume is not printed when the tape runs more than two minutes late and it appears that tape lateness will otherwise increase. The printing of volume is resumed when the tape is cleared and it appears that the printing of volume will not cause tape delay.
3. Sequential repeat sales at the same price, except for transactions involving 5,000 shares or more, are deleted when the tape is three minutes late and it appears that lateness will otherwise increase. This procedure remains in effect until the tape is cleared of delay and it appears that the resumption of printing sequential repeat sales at the same price will not lead to renewed tape lateness.
4. "Flash" prices in certain stocks are printed when the tape becomes six minutes late. This consists of the 15 most active stocks and 15 "blue chip" stocks.



Mr. Hugh F. Owens  
Acting Chairman

The net effect of the proposed change in tape delay procedures is to reduce the number of shares in items two and three, above, from 5,000 to 1,000. It is felt that this modification will give the public a more accurate picture of what had occurred in the market. The fact that the public misunderstands what they see on the tape has become evident in recent months because of several complaint letters that we have received. Essentially, these complaints are of wide price fluctuations on small volume. Yet, in each case, our inquiry showed that the tape was late during the period under review, and the complainant simply did not see all of the transactions that took place, or the amount of volume that was involved. For example, when the tape is three minutes late, five 1,000 share transactions could take place at the same price within a short period of time, and all that would appear on the tape would be one print only, namely the price of the first transaction. Most of the investing public would probably assume that only 100 shares had traded in that issue. Moreover, deletion of volume could be particularly misleading in high priced stocks when the dollar value of the amount of stock which traded could be very substantial. For example, if a transaction of 4,000 shares of a stock selling at a price of \$130 per share took place, the public, seeing only the price of the transaction, would think only 100 shares had traded, or \$13,000 worth of stock, when the amount that actually traded involved over one half million dollars.

In September 1968, the Board adopted a policy of deleting sequential repeat sales at the same price, except for transactions involving 5,000 shares or more, when the tape is three minutes late and it appears that lateness will otherwise increase. Since the implementation of this policy, tape delay has never surpassed three minutes. If transactions of 1,000 shares or more are printed in full regardless of how late the tape runs, each "print" would add a minimum of five characters, depending on how the transactions took place, and the sequence in which they appear on the tape. While no precise studies are available, it is considered that on most days, the duration of tape lateness would be extended by several minutes in order to absorb the additional characters. It is doubtful that tape lateness at any given time would be greater than three minutes. It is possible that the "repeat price omitted" mode might be implemented sooner, and continued longer than at present.

However, on an exceptionally busy day such as February 13, 1973, when 25.3 million shares traded, there were almost 50,000 trades, and about 4,500 of these were between 1,000 and 4,900 shares. Not all of these transactions occurred in the high activity period on that day, but the tape was in a "digit delete" mode for a total of two hours and thirty minutes; a "volume delete" mode for one hour and forty-five minutes; and a "repeat price omitted" mode for forty-one minutes. Practically all of this occurred between the opening and 12:30 P.M. If it is assumed that approximately 60% of the total number of transactions between 1,000 and 4,900 shares occurred during this period, it would add a minimum of 13,500 characters to the already late ticker. In all probability, the tape would have been placed in the "repeat price omitted" mode from about 10:10 A.M. to 1:30 P.M., and increased the maximum tape delay beyond the three minutes currently assumed to be the maximum to five or six minutes. Of course, if the tape actually became six minutes late, the "flash price" mode would be implemented.

Mr. Hugh F. Owens  
Acting Chairman

The very real need to provide the investing public with up-to-date sales information is not being abrogated by seeking this change in tape delay procedures. The possible additional tape delay that might result would be far outweighed by the fact that the public would have a truer and more complete picture of what was happening in the auction market. Should this change produce an impact greater than expected, the matter will again be considered by The Exchange.

Any questions concerning this matter should be directed to Mr. Jeremiah J. O'Donohue, Market Surveillance Division, 11 Wall Street, New York, New York 10005.

No rule change is required to implement this tape delay modification.

cc: Mr. Harvey A. Rowen  
Sub-Committee on Commerce & Finance

Encs.

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D. C. 20549

DIVISION OF  
MARKET REGULATION

July 27, 1973

Mr. James E. Buck  
Secretary  
New York Stock Exchange, Inc.  
11 Wall Street  
New York, New York 10005

Dear Mr. Buck:

This is in response to your letter of July 12, 1973 in which pursuant to Rule 17a-8, you have submitted proposed changes in the Exchange's ticker tape delay procedures.

The Exchange's ticker tape delay procedures go into effect when the tape is running more than two minutes late, and when it appears that the tape delay will increase. Presently, in such situations, the Exchange does not print the volume of the sales or the sequential repeat sales at the same price (except for transactions involving 5,000 shares or more). The proposed change would require the printing of volume and sequential repeat sales at the same price where the transactions involve 1,000 shares or more.

You state that the change is proposed in response to public complaints which arise from a lack of understanding of the Exchange's policy in these situations. You also mention that such a change would further increase the tape delay.

While we are not suggesting that the Exchange delay any program to educate the investing public to the time delay of the tape, we request that you not go ahead with this proposed policy change before we have had an opportunity to receive and consider your comments on the following questions. Will this proposal in any way serve to delay, defeat or diminish the validity of the pilot program for or subsequent full operation of the consolidated tape which the Commission expects will be initiated shortly? To what extent will your proposal result in further tape delay (in terms of the number of delays and the length of the delays) when the identity of non-NYSE markets is added to the consolidated tape? Has your Exchange advised the other self-regulatory organizations, which together with the NYSE jointly filed a 17a-15 plan, of these

Mr. James E. Buck  
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changes? If so, what has their comment been respecting the proposal's impact on the pilot program for or implementation of the consolidated tape?

Sincerely,

/s/ Sheldon Rappaport  
Associate Director

THE New York Stock  
Exchange

James E. Buck  
Secretary

Mr. Sheldon Rappaport  
Associate Director  
Division of Market Regulation  
Securities and Exchange Commission  
500 North Capitol Street, N. W.  
Washington, D. C. 20549

August 27, 1973

Dear Mr. Rappaport:

This will answer your letter dated July 27, 1973 concerning the proposed changes in the Exchange's ticker tape delay procedures. These changes were submitted to you pursuant to Rule 17a-8 of the Securities Exchange Act of 1934.

As you know, the Exchange's tape delay procedures involve a four-step phased approach. The first step goes into effect when it appears that the tape may become late. In such a situation, price digits are deleted. When the tape is running more than two minutes late, but less than three minutes, the second step is implemented and volume is not printed except for blocks of 5,000 shares or more. When the tape is three minutes late and it appears that lateness will otherwise increase, the third step is put into operation and sequential repeat sales at the same price, again with the exception for blocks of 5,000 shares or more, are deleted. The fourth and last step involves the printing of "flash" prices in the 15 most active stocks and 15 "blue chip" stocks when the tape becomes six minutes late.

We want to assure you that the impetus for the proposed changes was not public complaints we received regarding market action. It is a relatively simple matter to prepare a public letter or issue a circular to the membership explaining the tape delay procedures. To the contrary, the thrust of the proposed changes is the desire of the Exchange to give the public a more accurate picture of what has actually occurred in the market in order to do a better job in providing essential information on which investors may base their investment decisions. Our mention of the complaints that the Exchange has received was merely used as an example to confirm what we already suspected, i.e., the fact that the public may not be seeing as complete a picture of market activity as would be both desirable and feasible.

We do not feel that the proposed changes in the tape procedures would in any way "...serve to delay, defeat or diminish the validity of a pilot program for or subsequent full operation of the consolidated tape..." Our proposal is very much consistent with and is in the same spirit as both the proposed consolidated tape and central market system. Our primary concern is to give to the public as true and complete a picture of the activity in our listed stocks as is possible, consistent with the desire to avoid an unacceptable degree of tape lateness. We believe the proposed new procedures will prove to be compatible with this concern and will improve the quality of the tape.

In your letter you inquired as to the extent the Exchange's proposal would result in further tape delay when the identity of non-NYSE markets is added to the consolidated tape. As indicated in my letter to Commissioner Owens, no precise studies are available. However, it seems safe to assume that in changing the tape delay procedures as proposed certain deletion modes might be implemented sooner and continued longer particularly when transactions effected in other markets are reported on the tape. This does not necessarily mean that the tape would run later than it might had the proposed procedural changes not been implemented. Our Board of Directors took into consideration the fact that the impact of the Consolidated Tape plan on tape lateness was not known.

It did not dismiss the possibility that the change could produce an impact greater than expected. Our technical people have indicated that the reprogramming involved in effecting the changes in tape delay procedures would be minimal and could be implemented in a week's time. Should the Board determine, after acquiring some experience with the new procedures, that the impact on tape delay in terms of timeliness of disseminating information outweighs the significant advantages anticipated, a reversal of the reprogramming could be accomplished even more rapidly.

The Exchange has not advised other self-regulatory organizations of its proposed changes in the tape delay procedures. As you know, a formal CTA organization has not yet been created nor has the joint plan submitted to the Securities and Exchange Commission pursuant to Rule 17a-15 become effective. Our proposed changes relate to the current tape delay procedures on this Exchange. However, since the aim of all self-regulatory organizations is to provide the public with as accurate a picture of market activity as practical, we anticipate no objection to procedures consistent with that aim. Of course, the same tape delay procedures would apply to printing of all transactions included on the consolidated tape. Therefore, the new procedures should also provide a more complete picture of what was occurring in other markets as well as ours.

Should the Board of Directors formally adopt the proposed changes to the tape delay procedures at its regular meeting on September 6, we would expect to implement them within the month.

Sincerely,

/s/ James E. Buck

cc: Mr. Harvey A. Rowen  
Sub-Committee on Commerce & Finance

RESOLUTION REGARDING A CHANGE IN EXCHANGE  
TICKER TAPE DELAY PROCEDURES PROPOSED FOR  
ADOPTION BY THE BOARD OF DIRECTORS  
ON OCTOBER 4, 1973

RESOLVED that in accordance with the memorandum of the Market Surveillance Division dated June 18, 1973, the change in the tape delay procedures be, and hereby is, given final approval, to delete "volume" and "sequential repeat sales at the same price" only with respect to transactions involving less than 1,000 shares, rather than on transactions involving less than 5,000 shares.