

Treasury-Federal Reserve Study of
the U. S. Government Securities Market

INSTITUTIONAL INVESTORS AND THE U. S. GOVERNMENT SECURITIES MARKET



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I. Introduction and Summary

This paper explores the behavior of institutional investors in the Government securities market and their views as to how this market functioned in the period 1955-65. The analysis is based on the replies of about 400 institutional investors to a mail questionnaire. (A copy of the questionnaire is appended.) Although the questionnaire concentrated on the period 1961-65, for purposes of comparison respondents also were asked to provide information for the period 1955-60.

The analysis is divided into the following three sections:

- A. Institutional investors and the market for U. S. Government securities. The behavior of institutional investors in the Government securities market and the views of institutional investors on how the market functioned, including an evaluation of dealer performance during 1955-65.
- B. Institutional investors and advance refundings. How, and the extent to which, institutional investors participated in advance refundings held by the U. S. Treasury and their views as to how these debt operations affected their investment activities.
- C. Institutional investors and official operations in coupon securities. The impact of U. S. Treasury and Federal Reserve market transactions in outstanding coupon issues on the investment activities of institutional investors.

In addition an Appendix is included, which provides (1) a description of the survey characteristics and limitations of the data; and (2) detailed tables of the results, including the statistical significance of the replies.

The survey revealed general satisfaction by institutional investors in the Government securities market with the performance of the market despite some reservations about particular aspects of the market's performance. The questionnaire also uncovered wide areas of stability in market behavior between 1955-60 and 1961-65. At the same time, however, intermixed with the strong elements of stability, the survey registered significant shifts in the behavior of various market participants. A brief summary of the more important findings follows:

(1) About two-thirds of the respondents transacted all their business in Government securities with primary dealers. The remainder of the respondents mainly split their business between primary dealers and commercial banks other than dealer banks, although a sizable group, 12 per cent of the respondents, transacted all their business with this latter group.

(2) Most institutional investors (approximately 70 per cent) who traded with primary dealers did business with 3 or more dealers and this was true for all maturity sectors. The most significant trend in this aspect of market behavior was the increase, from approximately 10 to 14 per cent, in the number of respondents trading with more than 10 dealers. These investors were the dominant group in the market on the customers' side. Although the investors who traded with more than 10 dealers represented only 14 per cent of the respondents in 1965, they accounted for 62 per cent of the activity and 38 per cent of the holdings in Treasury bill issues reported by the respondents. Similar percentages characterized the coupon area.

(3) In terms of the relationship between number of dealers used and the average size of investor (as measured by the respondents' holdings

of Government securities at the end of 1965, market activity in outstanding Government securities during 1965, and asset size): investors trading with over 10 dealers, on average, tended to be from two to three times larger than those who used 6 to 10 dealers, who in turn tended to be about twice as large as those who used 3 to 5 dealers. These data suggest that the large investors shop around when they are buying and selling Government securities, thus helping to make the market competitive.

(4) Price was the most important factor, by far, in determining the dealer selected by an investor for transactions. The category "primary dealer's bid or offer prices in past transactions tended to be best quotation" was checked by 311 respondents as one of the more important factors and about 190 respondents (more than half of those answering the question) indicated that it was the most important factor in all maturity sectors. The second in number of votes was "other banking or financial business with the primary dealer or bank" which was checked by 173 respondents as of considerable importance and selected as the most important factor by some 40 to 70 respondents for the different maturity sectors. Third in order of number of votes was the factor "size of the transaction that a primary dealer was willing to undertake on quoted markets" which was rated as the most important factor by about 10 per cent of the respondents. Other factors which ranked high as matters of considerable importance, although relatively unimportant as a "most important factor", were the speed at which the primary dealer completed a transaction, the importance of the dealer as a source of investment counsel, and the initiative of the dealer in contacting the investor. The over-riding importance of price to the institutional investor, coupled with the tendency of institutional investors to transact business with a relatively large number of dealers, adds weight to the hypothesis that the market is competitive.

(5) The size of transaction that a primary dealer is willing to undertake is often viewed as one measure of the efficiency of the Government securities market. While from 60 to 75 per cent of the respondents, depending on the maturity sector involved, said that there had been no change in the sixties as compared to 1955-60 in the size of transactions that dealers were willing to undertake as principals, for an important segment of the market this aspect of dealer performance had deteriorated between mid-1965 and the survey date (mid-1966) in all maturity sectors of the market. Moreover, there apparently was a modest decline in the size of transaction that dealers were willing to undertake during the earlier 'sixties in the coupon area of the market for the larger investors in the survey.

(6) Despite some deterioration of the market in terms of transaction size, almost all investors reported that competitiveness among the dealers had remained unchanged or had increased during the 'sixties as compared to 1955-60. Only 6 per cent of the respondents reported any decline in the competitiveness of dealers in the 'sixties relative to the period 1955-60.

(7) A number of factors contributed to the need for Government securities dealers to maintain, if not to increase, their market aggressiveness in the 'sixties. One major factor is indicated by the substantial number of institutional investors who reported an increase in their use of instruments which could serve as substitutes, in whole or in part, to Government securities.

(8) Almost 60 per cent of the institutional investors in the survey participated in advance refunding operations. Moreover, these investors were the larger investors so that they accounted for 85 per cent

of the market activity during 1965 of the survey group and 72 per cent of the holdings of Government securities. The exchange of rights was the most popular form of participation in the advance refundings and more than half of these institutions exchanged rights in four or more (out of a possible eleven) refundings. Next in order of popularity came selling rights, purchase of when-issued securities, purchase of rights, and selling when-issued securities.

(9) Sixty-five per cent of the respondents reported that advance refundings did not affect their activity in the market for outstanding issues, 21 per cent reported that their market activity actually increased because of advance refunding operations, while 14 per cent said that their activity in outstanding issues decreased. When these percentages are translated into the amount of market activity or holdings of the respondents in the increase vs. the decrease group, it appears that advance refundings may have increased market activity in Government securities to a modest extent during the period 1960-65.

(10) Almost all institutional investors in the survey held favorable attitudes toward advance refundings or at least were neutral. Less than 4 per cent of the respondents reported an unfavorable view of advance refundings; these respondents accounted for about 4 per cent of the holdings of the survey group and about 8 per cent of the activity during 1965.

(11) Federal Reserve and Treasury operations in the coupon area influenced only 31 per cent of the respondents in their investment activities. These institutions, however, were (on average) larger than those who reported that they were not influenced and there is some evidence to suggest that they were among the more sophisticated investors. Some institutional

investors tended to increase their market activity because of official operations, but these investors accounted for a smaller amount of market activity or holdings of Government securities than those investors whose activity tended to decrease because of official operations. It appears, therefore, that official activity in the coupon area may have reduced market activity somewhat. The influence of official activity on institutional investors' expectations about interest rates appears to have been relatively short for most respondents, although investors accounting for some 20 per cent of holdings and activity indicated that their expectations tended to be influenced over a period of several months.

II. Institutional Investors and the Market for Outstanding U. S. Government Securities

This section explores the institutional investors' views on how the Government securities market functioned during the first half of the 1960's, with, at times, a retrospective view of the 1955-60 period. The investigation included such factors as the type of dealer organizations used by investors to carry out their transactions in Government securities, how many dealers an institutional investor typically used, and what dealer characteristics were most important for the institutional investor. Particular attention was given to the size of transactions that the dealers were willing to undertake in various maturity sectors.

A. Type of Dealer Chosen by Institutional Investors for Transactions in Government Securities

In 1965, as in 1961, outright market transactions in U. S. Government securities by institutional investors were heavily concentrated in the primary dealers in such securities.¹ In both years, about two-thirds (some 250) of the respondents conducted all their outright transactions with primary dealers (see Table I). Another 12 per cent (or about 45) of the respondents in 1965 transacted all their business in Government securities with banks (other than banks which were primary dealers), approximately the same percentage as in 1961. Most of the remaining respondents divided their business between primary dealers and banks (other than dealer banks); only a very small percentage of the respondents channeled any business in Government securities to other types of firms.

¹ For the purposes of this study, a primary dealer in U. S. Government securities was defined as a dealer that makes primary markets in obligations of the United States and reports its activities regularly to the Federal Reserve Bank of New York. A list of such dealers was included with the questionnaire sent to each respondent.

Table I

Type of Dealer Used by Institutional Investors to
Trade in U. S. Government Securities*
Comparison Between 1961 and 1965

	<u>Number of</u> <u>respondents</u>		<u>Percentage</u> <u>distribution†</u>	
	<u>1961</u>	<u>1965</u>	<u>1961</u>	<u>1965</u>
Primary dealers only	249	247	66	65
Other banks only#	50	46	13	12
Other security firms only	3	0	1	0
Combination of primary dealers and other banks	45	55	12	15
Combination of primary dealers and other securities firms	9	7	2	2
Combination of other banks and other securities firms	4	3	1	1
Combination of primary dealers, other banks, and other securities firms	7	7	2	2
Combination of primary dealers and direct transactions	2	4	1	1
Combination of primary dealers, other banks, other securities firms, and direct transactions	3	4	1	1
Combination of primary dealers, other banks, and direct transactions	<u>3</u>	<u>3</u>	<u>1</u>	<u>1</u>
Total	375	376	100	100

* Question 7.

"Other banks" refers to commercial banks other than those with a primary dealer function.

† Details may not add to totals because of rounding.

Investors transacting all their business with primary dealers were larger, on average by some 60 per cent or more, than those investors transacting all their business with commercial banks other than dealer banks (see Table A-1).¹ This preference for primary dealers by the larger investor remained stable during the 'sixties in the sense that the size averages for 1965 were similar to those for 1961.

Average size of investor for this study was computed in three ways:²

1. Holdings of U. S. Government securities: size as indicated by the amount of Government securities held by the investor as of December 31, 1965. Such averages will be referred to as holdings.

2. Market activity in U. S. Government securities: size as indicated by amount of market activity in outstanding Government securities (i.e., purchases and sales) by the respondent during the year 1965. Such averages will be referred to as market activity.

3. Assets: size as indicated by total assets as of, or statement date closest to, December 31, 1965. Such averages will be referred to as assets.³

The size averages, however, do not fully suggest the relative importance of the primary dealer in the Government securities market. The size of total dollar holdings of Government securities and the total dollar market activity in Government securities during 1965 for those institutional

¹ All tables with identification numbers prefixed by the letter "A" are in the appendix.

² The data for these size criteria were provided by each respondent. See appendix for a further discussion of the size criteria.

³ Categorizing some respondents, particularly State and local governments, by asset size was not possible. Thus, their responses are not reflected in this average.

investors doing business with primary dealers as compared to those using other types of dealers suggests that at least two-thirds and possibly as much as 85 per cent of the transactions in Government securities have been transacted through the primary dealers.

B. Number of Primary Dealers Used

The number of dealers with whom institutional investors transacted their business in U. S. Government securities remained quite stable in the first half of the 1960's. The most notable trend, comparing 1965 with 1961, is the increase in the percentage of respondents who dealt with more than 10 dealers. Although there are some variations by maturity sectors in both years, roughly 70 per cent of the respondents doing business with primary dealers traded with three or more dealers in all maturity sectors. As noted in Table II, approximately one-third of all respondents traded with 3 to 5 dealers in almost all maturity sectors, making this the modal group (the largest single group) of dealers used by investors.

Table II

Number of Primary Dealers in U. S. Government Securities with Which Institutional Investors Trade, by Selected Types of Securities*

(Percentage distribution of responses)

<u>Number of dealers</u>	<u>Bills</u>		<u>Coupon issues under 5 years</u>		<u>Coupon issues over 5 years</u>	
	<u>1961</u>	<u>1965</u>	<u>1961</u>	<u>1965</u>	<u>1961</u>	<u>1965</u>
1	15	18	14	15	15	15
2	13	11	14	10	13	15
3-5	34	30	36	36	40	36
6-10	27	28	27	26	24	23
More than 10	<u>11</u>	<u>14</u>	<u>9</u>	<u>14</u>	<u>7</u>	<u>12</u>
Total	100	100	100	100	100	100

* Question 8

Note: Details may not add to totals because of rounding.

Not far behind in relative importance, more than one-fourth of the institutional investors transacted their business with 6 to 10 dealers. These data suggest that most investors, and in particular the larger investors as noted below, shop around when they are buying or selling Government securities, thus helping to make the market competitive.

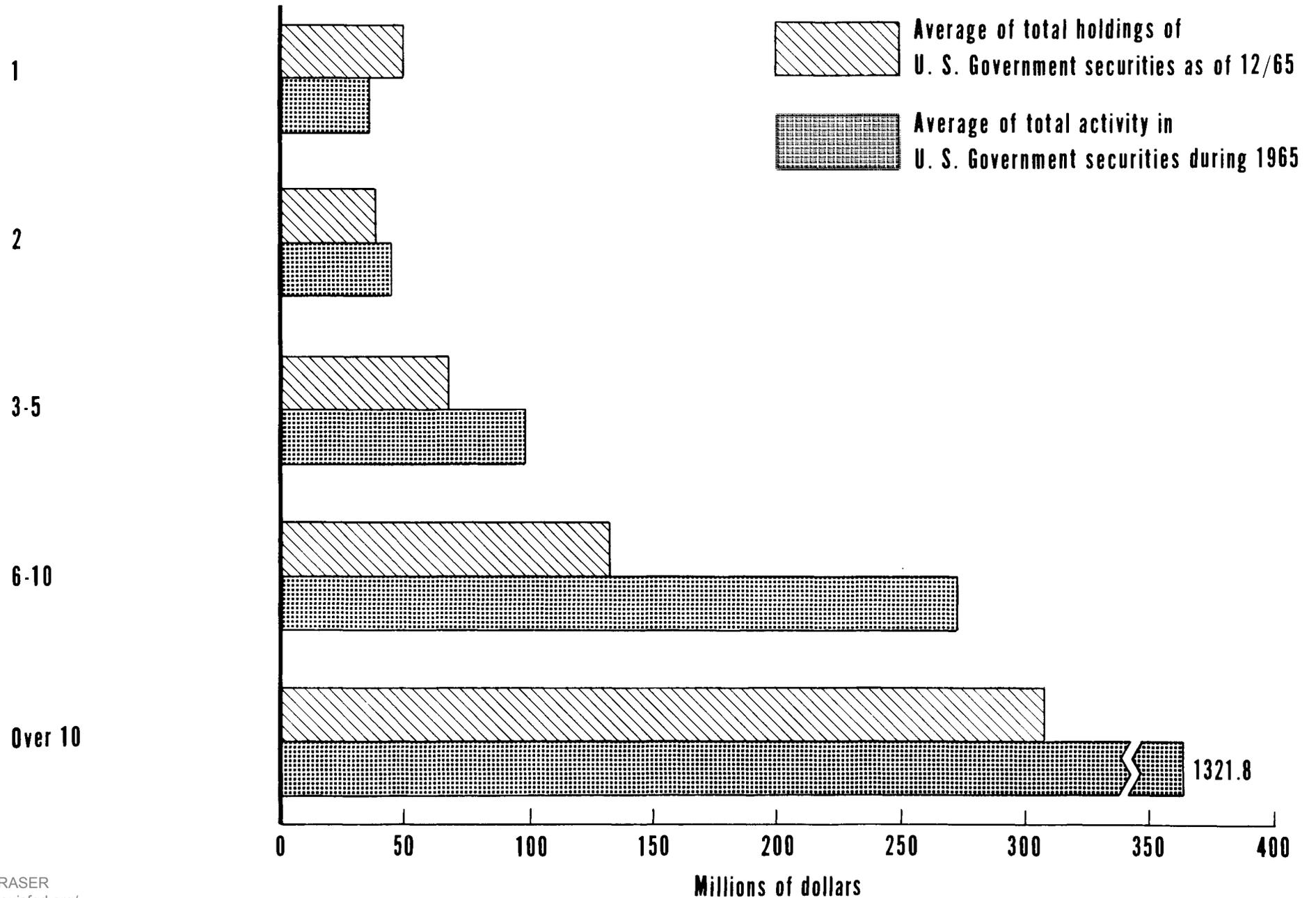
The number of primary dealers with whom institutional investors transacted their business was directly related to the size of the institutional investor, with only minor exceptions. Moreover, this relationship held for both 1961 and 1965, indicating yet another stable aspect of the way the Government securities market has functioned over the period covered by this survey. Broadly summarizing the relationship between number of dealers used and average size of investor, as measured by holdings, market activity, and asset size: investors using over 10 dealers, on average, tended to be from two to three times larger than those who used 6 to 10 dealers, who in turn tended to be about twice as large as those who used 3 to 5 dealers. For investors trading with less than three dealers, the size pattern is somewhat irregular but they are almost always smaller, on average, than investors doing business with 3 to 5 dealers (see Table A-2).

Consistent with the finding that larger investors tended to trade with a larger number of dealers, market activity and holdings, as reported by the survey respondents, were heavily concentrated among those who used more than 10 dealers--a fact which adds significance to the increase, noted earlier, in the percentage of respondents who trade with over 10 dealers. While this group represented only 14 per cent of the respondents, in 1965 they accounted for 62 per cent of the market activity reported by all respondents and 38 per cent of the holdings in Treasury bill issues held by all respondents. The percentages were similar for the coupon issues.

Chart I

RELATIONSHIP BETWEEN AVERAGE SIZE OF INSTITUTIONAL INVESTORS AND NUMBER OF PRIMARY DEALERS USED FOR TRANSACTIONS IN U. S. TREASURY BILLS, 1965

NUMBER OF PRIMARY DEALERS



Institutional investors, who used 6 to 10 dealers, represented 26 per cent of the respondents and accounted for 25 per cent of the activity and 33 per cent of the holdings. Thus, these two groups together, which represented 40 per cent of the institutions trading with primary dealers, accounted for more than 70 per cent of the holdings and almost 90 per cent of the market activity.

C. Factors Determining Selection of Dealer

Price--the primary dealer's bid or offer price--was by far the most important single factor determining which dealer was selected for transactions in Government securities by an investor. The price factor was not only checked as of considerable importance by the largest number of investors (316 respondents) but it was also checked as the most important single factor by about 54 per cent of those who answered the question (see Table III). Second in terms of the number of votes, both in ranking as of considerable importance and as most important, was "other banking or financial business with primary dealer or bank"; it was rated as the most important factor by slightly less than 20 per cent of the respondents. Third in order of number of votes was the factor "size of the transaction that a primary dealer was willing to undertake on quoted markets" which was rated as the most important factor by about 10 per cent of the respondents. Other factors which ranked high as matters of "considerable" importance, although relatively unimportant as a "most important factor", were the speed at which the primary dealer completed a transaction, the importance of the dealer as a source of investment counsel, and the initiative of the dealer in contacting the investor. It is interesting to note, as shown in Table III, that the order of importance of the various factors is about the same for all maturity sectors.

Table III

Factors Determining Selection of Primary Dealer by
Institutional Investor for his Business in Government Securities*

Factors	Ranking by number of "Votes"				"Votes" (Number of times checked as of considerable importance)	"Votes" (Number of times checked as the most important factor)		
	Considerable importance	Most important		Coupons under 5 years#		Coupons over 5 years	Coupons under 5 years	Coupons over 5 years
		Bills	Bills					
a. Other banking or financial business with primary dealer or bank	2	2	2	3	178	68	46	37
b. Size of transaction primary dealer will usually under- take on quoted markets	3	3	3	2	167	35	33	38
c. Primary dealer's bid or offer prices in past transactions tended to be best quotation	1	1	1	1	311	187	198	184
d. Importance of primary dealer as source of investment counsel	4	4	4	4	153	18	30	23
e. Importance of primary dealer as outlet for funds through repurchase agreements	8	7	8	9	62	6	3	1
f. Speed at which primary dealer completes transactions	5	5	5	5	150	16	6	8
g. Primary dealer contacts you	6	6	5	6	117	8	6	6
h. Primary dealer also provides trading facilities in a broad range of obligations other than Government securities	7	9	8	7	98	1	3	3
i. Miscellaneous	9	8	7	8	8	4	4	2

* Questions 10 and 11.

Two factors receiving the same number of "votes" are ranked by the same number. In such cases, the next higher number is skipped in the numerical listing.

Chart II

FACTORS DETERMINING SELECTION OF PRIMARY DEALERS IN U. S. GOVERNMENT SECURITIES BY INSTITUTIONAL INVESTORS

FACTOR

Availability of repurchase agreements

Makes market in other securities

Primary dealer contacts investors

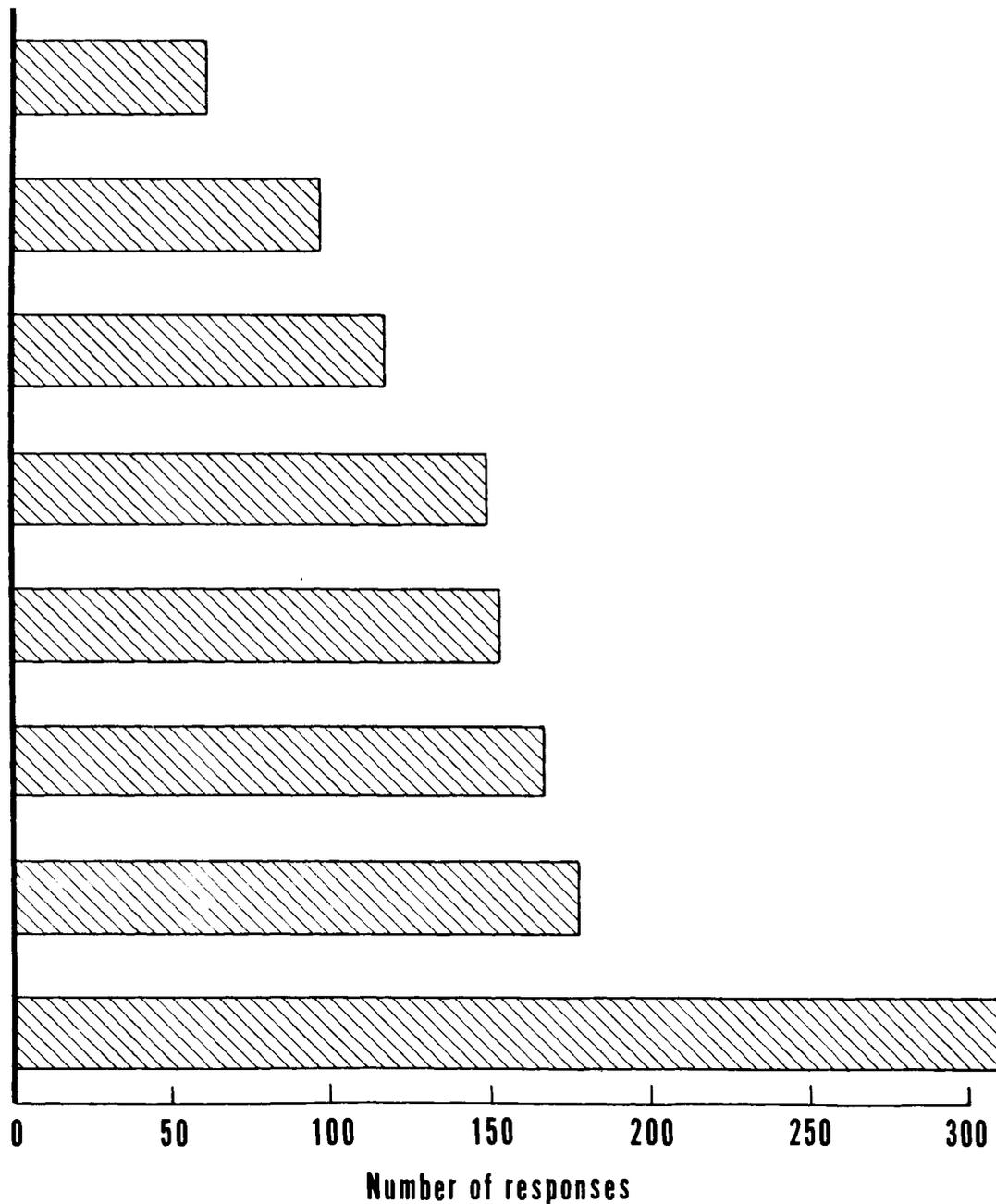
Speed in executing transaction

Investment counsel

Size of transaction

Other financial business with dealer

Quotes best price



The heavy stress on the factors of price, size of transaction, and speed at which a transaction is completed, coupled with the tendency of institutional investors to conduct their Government securities business with a relatively large number of dealers, adds further weight to the hypothesis that the market is highly competitive. Such customer behavior fosters competition by dealers for the available business.

There are, however, factors which suggest that there may be some segments of the market in which the competitive aspect is less strong because of offsetting considerations. For example, the factor "other banking or financial business with primary dealer or bank" was rated second, both as a factor of considerable importance and as one which is most important. However, while this factor may provide a partial shelter for a particular dealer for some portion of the business he transacts, it is unlikely to be much of an influence on overall market competition because the average size of the respondents selecting this factor as most important was appreciably smaller than those who selected the other factors which received a greater number of "votes" (see Table A-3).

D. Transaction Size

The size of transaction that a primary dealer is willing to undertake is widely viewed as an important measure of the efficiency of the Government securities market. Transaction size is likely to be a particularly significant concern for the large investor who may wish to buy or sell in volume a specific issue with little delay. In order to explore this aspect of market operation, respondents were asked to indicate whether the willingness of dealers to make transactions in each maturity sector (bills, coupon issues under 5 years, and coupon issues over 5 years)

had remained the same, had increased or had decreased during the 'sixties as compared to 1955-60. In addition, since market uncertainties loomed much larger after mid-1965 as compared to the earlier 'sixties, respondents were asked whether any changes had occurred after mid-1965. As in other aspects of market functioning, the answers tended to differ by maturity sector.

The bulk of the investors--from about 60 per cent to 75 per cent, depending on the maturity sector--reported that the size of transactions that primary dealers were willing to undertake as principals in the first half of the 'sixties, including the period after mid-1965, was about the same as in 1955-60 (see Table IV). The largest percentage, 74 per cent, reported transaction size unchanged for bill issues, while the smallest percentage, 61 per cent, was for coupon issues over 5 years to maturity.

Table IV

Size of Transactions that Primary Dealers were Usually Willing to Undertake*
(Percentage of respondents)

Size of transaction	1961 - mid-1965 compared to 1955-60			Since mid-1965 compared to 1961 - mid-1965		
	Bills	Coupons under 5 years	Coupons over 5 years	Bills	Coupons under 5 years	Coupons over 5 years
Same	74	67	61	75	64	59
Increase	21	20	20	4	3	3
Decrease	4	12	19	20	33	38
Total	100	100	100	100	100	100

* Questions 12 and 13.

Note: Details may not add to totals because of rounding.

The mirror image of this variation by maturity sector can be found in the reports of those investors who indicated that dealer willingness to undertake transactions had declined as compared to 1955-60.

It ranged from 4 per cent of the respondents in the bill sector to almost 20 per cent for coupon issues over 5 years. A comparison of the "increase" group with the "decrease" group shown in Table IV for the time period 1961 - mid-1965 compared to 1955-60 suggests that the bill market had improved in the early 'sixties while the coupon area was about unchanged. This hypothesis, however, will be modified for the coupon area when the same data are viewed from another perspective, as described below.

On the other hand, the responses suggest that the size of transactions that dealers were willing to undertake declined sharply after mid-1965. For that period, some 20 per cent of the respondents reported that the size of transactions dealers were willing to undertake as principals tended to be smaller in the bill area and about one-third of the respondents reported similar experiences in coupon issues. These responses take on added significance in view of the respondents' size in terms of holdings of Government securities or their market activity. As shown in Table V-B, those who reported a decline in size of transactions accounted for well over 50 per cent of the holdings and market activity in the coupon sectors. Moreover, it becomes apparent that a serious decline in the size of transaction that dealers were willing to undertake had already set in by the early 'sixties for the coupon area when responses are weighted by holdings and activity.

Further accentuating the indicated deterioration of the market is the fact that the size of transactions reportedly declined by 20 per cent or more for a substantial number of investors. In other words, for the larger investors in particular, there appears to have been an appreciable decline in the size of transactions that dealers were willing to undertake, especially in the coupon area (see Tables A-7 to A-12).

Table V

Size of Transactions that Primary Dealers were Usually Willing to Undertake*A. 1961 - mid-1965 compared to 1955-60

<u>Size of transaction</u>	<u>Comparison by per cent of total holdings</u>			<u>Comparison by per cent of total activity</u>		
	<u>Bills</u>	<u>Coupons under 5 years</u>	<u>Coupons over 5 years</u>	<u>Bills</u>	<u>Coupons under 5 years</u>	<u>Coupons over 5 years</u>
Same	64	54	48	47	34	26
Increase	24	19	16	36	33	27
Decrease	<u>12</u>	<u>27</u>	<u>37</u>	<u>17</u>	<u>33</u>	<u>48</u>
Total	100	100	100	100	100	100

B. Since mid-1965 compared to 1961 - mid 1965

Same	61	44	39	57	32	22
Increase	7	3	3	7	6	1
Decrease	<u>32</u>	<u>53</u>	<u>59</u>	<u>36</u>	<u>61</u>	<u>77</u>
Total	100	100	100	100	100	100

* Questions 12 and 13.

Note: Details may not add to totals because of rounding.

E. Rating of Primary Dealers for Selected Characteristics1. Dealer Competitiveness and Competition from Other Markets

It was noted earlier that customer behavior in the Government securities market, as interpreted from answers to the questionnaire, probably tended to encourage competition among the sellers (in particular, the primary dealers). Specifically asked to comment on whether competitiveness among the dealers they dealt with had changed since 1961 as compared to 1955-60, about half of the investors in the survey reported that competitiveness had increased. Only 7 per cent reported less competitiveness, while 43 per cent said it was about the same. The question did not define competitiveness so that the word had whatever characteristics the respondent

considered important in his own scale of values, but certainly the customer's attitude is one important factor in judging the effectiveness of a market.

The validity of the responses about dealer competitiveness gains added credence from the fact that investors made a similar report on the aggressiveness with which dealers solicited business. Thus, 47 per cent said that dealers were more aggressive in soliciting business since 1961 as compared to 1955-60, while only 9 per cent said that dealers were less aggressive.

This wider ranging competitiveness in the Government securities market in the 'sixties probably reflected the entry of new dealers into the market, the development of new financial instruments (such as C/D's), and the growth of existing instruments which could serve as substitutes for Government securities. At the same time, as noted earlier, the behavior of the institutional customer, such as shopping among a relatively large number of dealers, reinforced the competitive pressures which the dealers were experiencing from these other directions.

The questionnaire also explored the extent to which institutional investors broadened their investment horizons for a number of financial instruments which both supplement and compete with U. S. Government securities. Perhaps most surprising, in light of the widespread publicity about how large investors had been extending their investment activities into new areas in recent years, was the fact that more than half of the respondents reported no activity in any of the several types of financial paper specifically listed--commercial paper of all types, bankers' acceptances, and short-term municipal bonds. Nevertheless, there were significant increases for each type. Thus 36 per cent of the respondents increased their activity in finance company commercial paper, 24 per cent increased their activity in

other commercial paper, 27 per cent increased their activity in short-term municipal bonds, 22 per cent increased their activity in bankers' acceptances, and 51 per cent increased their activity in a variety of other instruments (see Table VI).¹ In summary then, while more than half of the respondents had not moved into any of these other financial markets, more than one-fourth did expand their investment horizon. Furthermore, these were the larger firms so that the dollar amounts involved were probably quite sizable.

Table VI

Comparison of Institutional Investor Activity in Selected Short Term
Financial Instruments 1961 - mid-1965 compared to 1955-60*

(Percentage of respondents)

	<u>No activity</u>	<u>Increase</u>	<u>Decrease</u>	<u>Same</u>	<u>Total</u>
Finance company commercial paper	53	36	3	8	100
Other commercial paper	63	24	5	8	100
Bankers' acceptances	70	22	3	5	100
Short-term municipal bonds	55	27	8	10	100
Other short-term investments (specified by respondent)#	37	51	5	7	100

* Question 19.

Certificates of deposit made up less than half of the "increase" portion of this category and Federal Agency issues about 20 per cent. Of course, marketable C/D's were not available prior to 1961 and therefore were not listed as a separate type of investment in the questionnaire.

Note: Details may not add to totals because of rounding.

The trends just described for institutional investor activities in short-term instruments other than Government securities followed a path similar to the one traced by institutional investors in certain aspects of the Government securities market itself. In general, these activities

¹ See footnote to Table VI for more details on "other instruments".

involved some of the more sophisticated points of Government securities market operations, so that the trend toward greater activity suggests that investors had become more knowledgeable about the intricacies of the market. Broadly speaking, while half or more of the respondents reported no change during the period 1961 - mid-1965 compared to the period 1955-60 in the activities specified below, some 25 per cent or more reported they were more active. Thus, 32 per cent of the respondents were more active in buying longer Treasury bills in the market and selling them before maturity to increase their yield by riding the yield curve (compared to 13 per cent who reduced such activities), and 25 per cent were more active in bidding in Treasury bill auctions with a view toward quick resale, compared to 17 per cent who were less active (see Table VII).

In the longer end of the market, about 25 per cent were more active in trading to take advantage of changing price relationships between different coupon issues (arbitraging) compared to 15 per cent who were less active. Moreover, for commercial banks in the survey more than 40 per cent were more active in trading coupon issues to increase their after-tax yield compared to 24 per cent who were less active.

2. Loans and Repurchase Agreements

In another important area of primary dealer operations--dealers as an outlet for investor funds through loans or repurchase agreements--48 per cent of the respondents reported increased loan activity with dealers since 1961 as compared to 1955-60, while another 45 per cent reported that such activity was about the same. Again, the investors who reported that dealers were more important as an outlet for funds were among the larger investors on average.

Table VII

Comparison of Activity in Selected Types of
Operations for 1961 - mid-1965 vs. 1955-60*

(Number of respondents and percentage of respondents)

	<u>Number of respondents</u>	<u>Percentage of total respondents</u>
<u>A. Institutional Investors Bidding in Treasury Bill Auctions with View of Quick Resale</u>		
More active	60	25
Less active	41	17
About the same	<u>140</u>	<u>58</u>
Total	241	100
<u>B. Institutional Investors Riding the Yield Curve in Treasury Bills</u>		
More active	84	32
Less active	34	13
About the same	<u>148</u>	<u>56</u>
Total	266	100
<u>C. Institutional Investors Arbitraging in Coupon Issues</u>		
More active	69	25
Less active	43	15
About the same	<u>166</u>	<u>60</u>
Total	278	100
<u>D. Commercial Bank Trading in Coupon Issues to Increase the After Tax Yield of their Portfolios</u>		
More active	32	43
Less active	18	24
About the same	<u>24</u>	<u>32</u>
Total	74	100

* Question 6.

Note: Details may not add to totals because of rounding.

The large increase in the number of respondents who found primary dealers a more important outlet for funds through loans or repurchase agreements since 1961 is especially significant since more than half (55 per cent) of the respondents reported that they entered into repurchase or resale agreements with dealers, banks, or others in direct U. S. Government securities. The percentage of such investors far exceeded the percentages for investors who entered into repurchase or resale agreements in other securities such as Federal Agency issues (29 per cent), municipal securities (5 per cent), and other types of securities (14 per cent).

3. Other Dealer Services

In some other area of dealer services--as a source of information and furnishing investment counsel--only about 3 per cent of the respondents reported that these services were not as good since 1961 as compared to 1955-60. Forty-two per cent considered that the dealers were a better source of information than before and 29 per cent reported that they received more astute investment counsel than before. Well over 50 per cent reported both these aspects of dealer operations as about the same.

F. Miscellaneous Comments by Institutional Investors about the Market

Investors were specifically invited to comment about the functioning of the Government securities market as it related to their investment activities and to include any suggestions that they might have for improving its operations. About a fourth (or about 100) of the respondents took advantage of this invitation to comment. The most frequent single comment was one of satisfaction with the market. Other comments ranged over a wide variety of topics so that there were usually less than five respondents associated with any one comment. For convenience, the comments have been grouped.

One group of comments concerned the desirability of achieving broader markets in the longer maturity areas or pointed out that this sector of the market had deteriorated. Suggestions by investors to broaden the long end of the market included the dropping of the 4 1/4 per cent interest rate ceiling on bonds; the reduction of the number of different issues in the longer maturity areas in order to have fewer issues of larger size; and a request that the Federal Reserve and Treasury Trust funds stay out of the long-term market.

A number of suggestions concerned "housekeeping" type arrangements. These included the elimination of the wire transfer fee in transferring securities between Reserve Districts; the reduction in the length of time it takes to transfer securities from bearer form to registered form or the reverse; the extension of the tax anticipation bill to make it available for all corporate tax payment dates and perhaps for other tax payment dates as well, such as for withheld individual and social security taxes; and increasing the size of the maximum amount of Treasury bills which could be purchased through a non-competitive tender in the bill auctions.

A few investors also registered complaints about Government securities dealers: that dealers' spreads became too wide in coupon issues in a falling market; that dealers, at times, gave "phantom" quotations on which they were not willing to make transactions or could not make transactions because they did not have the security in their inventory. One investor complained that the dealers are in a favored position relative to other investors as to information about what the System Open Market Committee is doing.

"Operation twist" was criticized for introducing a distortion between market "fundamentals" and what in fact did take place in the market.

Along similar lines, Treasury or Federal Reserve support activities around a Treasury refunding date were criticized as a distortion of the free market.

Finally, there was an implied criticism of the Government securities market by some investors who simply stated that they no longer invested as much in Government securities as they had previously because competing instruments now served their needs better. This criticism was sometimes coupled with specific suggestions along lines mentioned above on how the Government securities market might once again become more attractive.

III. Institutional Investors and Advance Refundings

A. Institutional Investor Participation in Advance Refundings

The Treasury had completed eleven advance refundings between June 1960 (when this new debt financing technique was introduced) and the end of 1965. Fifty-nine per cent of the institutional investors in the survey participated in these advance refunding operations. These investors were the larger investors as measured by the criteria used in the survey--market activity, holdings of Government securities, and asset size--so that they accounted for 85 per cent of the market activity of the survey group, 72 per cent of the total holdings, and 64 per cent of the assets (see Table VIII).

The exchange of "rights" held prior to the announcement date of an advance refunding was the form of participation mentioned most frequently (by 165 out of the 227 respondents who participated in advance refundings). More than half of the institutions which exchanged rights participated in four or more advance refundings. The second most popular form of participation--selling rights--was mentioned by 122 institutions and approximately one-third of these institutions sold rights in four or more advance refundings. The high percentage of institutions participating in four or more (out of a possible eleven) advance refundings during the period covered by the questionnaire is consistent with the respondents' generally favorable views about advance refundings, to be noted later. Other forms of participation included purchase of when-issued securities (71 respondents) purchase of rights (55 respondents) and selling when-issued securities (27 respondents).

An investor who exchanges rights held prior to an advance refunding operation is maintaining the size, but changing the maturity structure, of his position in U. S. Government securities. No market transaction in the traditional sense takes place under these circumstances.

Chart III
PARTICIPATION IN ADVANCE REFUNDINGS
BY INSTITUTIONAL INVESTORS

PARTICIPATED VS DID NOT PARTICIPATE

Participated

Did not participate

FORM OF PARTICIPATION

Exchange of rights

Selling rights

Purchase when-issued securities

Purchase rights

Sell when-issued securities

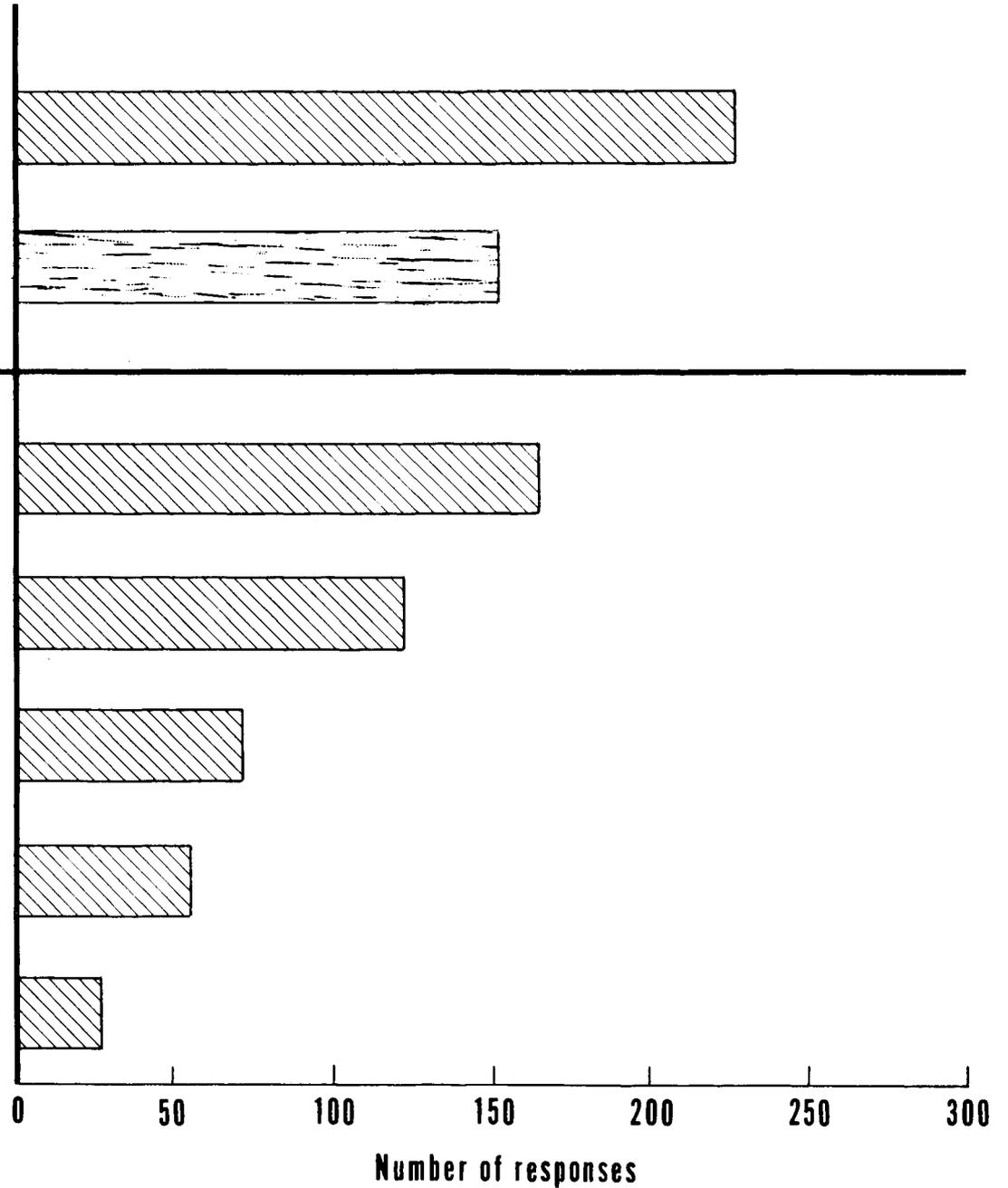


Table VIII

Participation in Advance Refundings Offered by the Treasury in the Period 1960-65
Comparison by Size of Respondents*

(Dollar amounts in millions)

<u>Size criteria</u>	<u>Total dollar size for group</u>			<u>Per cent distribution of total dollar size</u>			<u>Average dollar size per respondent</u>		
	<u>Participated</u>	<u>Did not</u>	<u>Total</u>	<u>Participated</u>	<u>Did not</u>	<u>Total</u>	<u>Participated</u>	<u>Did not</u>	<u>Total</u>
		<u>participate</u>			<u>participate</u>			<u>participate</u>	
Holdings	27,510	10,797	38,307	71.8	28.2	100	121.7#	71.5#	101.6
Activity	80,824	14,228	95,052	85.0	15.0	100	379.4#	100.9#	268.5
Assets	293,301	165,853	459,154	63.9	36.1	100	1,416.9###	1,247.0###	1,350.4

* Question 15a.

Statistically different at the 1 per cent significance level.

Not statistically different at the 10 per cent significance level.

On the other hand, some investors used advance refunding operations as an opportunity to change the size of their portfolios of Government securities--either disinvesting (by selling rights or when-issued securities) or investing (by buying rights or when-issued securities). For that part of the survey group which undertook market transactions during the advance refunding operations, it appears that these refundings may have been a vehicle for some net disinvestment in Government securities since a total of 149 institutions disinvested (i.e. sold rights or when-issued securities) as compared to a total of 126 institutions which invested (i.e. bought rights or when-issued securities). But the conclusion about net disinvestment cannot be pushed very far because the data give only the number of institutions engaging in a particular form of transaction--there is no information on the size of each transaction. Moreover, over the cycle of the eleven advance refundings on which they reported, many respondents participated in several (in some instances, all) of these possible market transactions (i.e. bought rights or when-issued securities, sold rights or when-issued securities). It appears, therefore, that advance refunding operations generated not only a substantial shift in the maturity composition of portfolios held by institutional investors but also a substantial amount of trading in rights and when-issued securities--particularly in later refundings when securities with less than one year to maturity were made eligible for exchange.

B. Impact of Advance Refundings on Market Transactions in Outstanding Issues

Did advance refunding operations affect the extent to which institutional investors participated in the market for outstanding Government securities? Sixty-six per cent of the respondents said that their market

activities in outstanding issues were not affected by advance refunding operations; 21 per cent reported that their market participation actually increased during the period. These two groups together, representing 87 per cent of the respondents, accounted for 73 per cent of market activity during 1965, 79 per cent of total holdings as of the end of 1965, and 82 per cent of total assets.

Although only 13 per cent of the respondents reported that advance refundings reduced their activity in outstanding issues in the market, this "decrease" group was composed of the larger institutions, on average, by all the criteria of size used in this survey. Consequently, they represented a more than proportionate amount of total activity or of total holdings, accounting for 27 per cent of market activity, 21 per cent of holdings, and 18 per cent of total assets (see Table A-28). Nevertheless, even though the group which increased its activity was smaller in all the size criteria than the group which decreased its market activity, the increase group had sufficiently more institutions in its group so that it accounted for a substantially larger amount of aggregate total holdings at the end of 1965, total market activity during 1965, and total assets. Thus, the survey tends to support (though not very strongly) the view that advance refundings may have increased market activity in outstanding issues in the period 1960-65.

C. Institutional Investors' Attitudes Toward Advance Refundings

Almost all institutional investors held a favorable attitude toward advance refundings or at least were neutral. Less than 4 per cent held an unfavorable view of advance refundings; these represented about 4 per cent of holdings by respondents and about 8 per cent of market activity by respondents

(see Table A-29). The remainder either held favorable views of advance refundings (more than 50 per cent of the holdings, market activity, and assets) or were neutral about the advance refunding technique (roughly 40 per cent of holdings, market activity, and assets).

The lack of any widely held unfavorable views of advance refundings by institutional investors seems reasonable. Advance refundings opened up options to the market as a whole which otherwise would not have been available, notably for longer term issues some of which could not have been marketed in a cash offering owing to the limited demand for such issues that exists at any given time. Even though the size of the debt was unaffected, advance refundings did change the debt structure, which, of course, was the objective of the Treasury.¹ With a greater variety of maturities to choose from, a wider range of investors could be attracted to invest in Government securities, not only in an advance refunding operation but also in subsequent periods when the maturity range of the debt continued to be broader because of the securities made available through already completed advance refundings. Finally, those who might have been anxious to sell an outstanding low coupon issue, but were deterred by potential capital losses and other considerations, were better able to market these holdings by selling rights to issues eligible in the various advance refundings.

¹ This altered structure of the outstanding debt undoubtedly affected to some degree the kinds of securities offered in new cash financings. Of course, this does not imply that there were not other forces at work during the same period which also altered the mix of securities offered in new cash financings--for example, innovations in the amounts and forms of the bill issues designed to help improve the balance of payments, among other objectives.

IV. Institutional Investors and Official Operations in Coupon Securities

The U. S. Government securities market is unique among financial markets in several respects. One facet of the uniqueness of this market is the active participation of two very large official customers--The Federal Reserve System and the U. S. Treasury--both as buyers and sellers of outstanding securities. Since transactions of these official agencies are likely to be large and at times affect interest rate expectations of other investors, the questionnaire sought to determine whether Federal Reserve and Treasury operations in coupon issues have affected the investment operations of institutional investors.

A. Influence of Official Operations in Coupon Issues on Investment Activity of Institutional Investors

The institutional investors were asked, "have purchases of Treasury coupon issues in the open market by the Federal Reserve System to supply bank reserves, or by the U. S. Treasury trust accounts for their investments tended to affect your investment operations?" Seventy per cent of the respondents answered "no", their investment operations were not affected, while 30 per cent responded "yes", their investment operations were affected.

The institutions comprising the 30 per cent who were influenced in some way were the larger institutions in terms of the three size criteria reported in the survey--holdings of U. S. Government securities, market activity, and assets (see Table IX). It is not surprising that the larger institutions were influenced more than smaller institutions since larger organizations are likely to have more employees concerned with financial management, as well as more sophisticated personnel. In addition, a large

proportion of the "yes" answers came from industries (such as commercial banks and insurance companies) that would be most likely to have highly specialized financial staffs.

Table IX

Average Size of Institutions whose Investment Activities were Affected
or Not Affected by Federal Reserve and U. S. Treasury Trust
Account Operations in the Coupon Market

Size Comparison Among Respondents*

(In millions of dollars)

<u>Size criteria</u>	<u>Affected</u>	<u>Not affected</u>
Holdings	126.0#	89.4#
Activity	474.9##	169.7##
Assets	1,661.7†	1,183.9†

* Question 18.

Statistically different at the 8 per cent significance level.

Statistically different at the 1 per cent significance level.

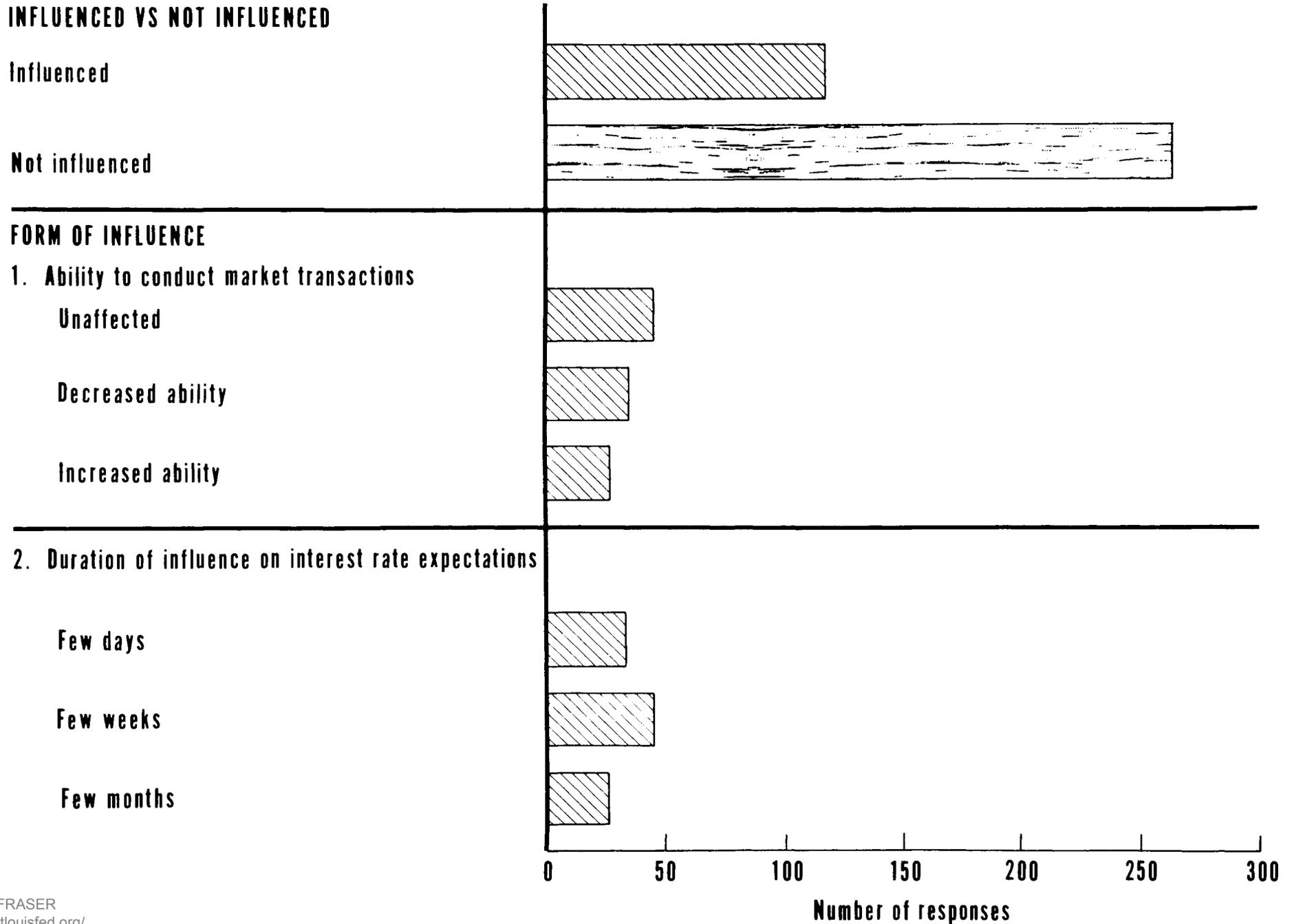
† Not statistically different at the 10 per cent significance level.

B. Influence on the Ability of Institutional Investors to Conduct Market Transactions

The preceding statistics while accurate and interesting, nonetheless skirt an important issue; that is, the extent to which market behavior was influenced for those who were affected by official transactions and the proportion of the total market activity these investors represented of the survey group. Aspects of this problem were placed in perspective when investors who were influenced by official activity in coupon issues indicated whether the official activity tended to increase, decrease, or left unaffected their ability to conduct swaps or other transactions in the market.

Chart IV

INFLUENCE OF OFFICIAL OPERATIONS IN COUPON ISSUES ON INVESTMENT ACTIVITY OF INSTITUTIONAL INVESTORS



Respondents who were affected by official operations and whose ability to conduct swaps or other transactions in the market tended to decrease accounted for 31 per cent of market activity in U. S. Government securities and for 18 per cent of the holdings of Government securities (see Table A-30). Stated another way, respondents accounting for 69 per cent of the market activity reported in the survey and 82 per cent of holdings of Government securities were not affected in their investment operations or found that official activity tended to increase their ability to conduct transactions in the market. Since our survey covered the larger holders of Government securities, and within this universe the large holders were influenced more by official operations than the smaller institutions, it seems reasonable to conclude that the percentages for those unaffected by official operations probably would be somewhat higher if the universe of all holders of marketable U. S. Government securities could have been surveyed.

On the other hand, respondents whose investment operations were influenced by official purchases in the coupon area and whose ability to conduct transactions in the market tended to decrease held a larger average amount of Government securities at the end of 1965 and engaged in a larger average volume of market activity in Government securities than the groups whose investment operations were unaffected by official transactions or whose ability to conduct transactions in the market increased. Consequently, the "decrease" group may have exerted an influence out of proportion to its numbers. As just noted, this group accounted for 31 per cent of the total market activity reported in the survey although it constituted less than 10 per cent of the respondents. Moreover, the decrease group was more than twice as large as the increase group in terms of total holdings, total market activity, and total assets.

It is also reasonable to expect that the views and activities of members of the decrease group probably exerted a more than proportionate influence on attitudes in the dealer market since these institutions tend to be more visible in the market because of the size of their individual transactions and it is likely that individually they are in the market more frequently than the other institutions. It is also possible that members of this group maintain a closer touch with the dealer organizations than the rest of the market so that their views exert an influence even when they are not trading.¹ Although no precise quantitative estimate is possible, the factors discussed above suggest that official activity in the coupon area may have reduced activity of institutional investment to some extent.

C. Influence of Official Activity on Expectations of Institutional Investors Concerning Interest Rates

Respondents who reported that official activity tended to affect their investment operations were also asked whether the official activity in coupon issues influenced their judgment about the future course of interest rates. In general, institutions with the larger average holdings and with the larger average market transactions were influenced over a shorter time-horizon than those who had smaller holdings and engaged in less gross market activity.

¹ As already noted, the institutions which indicated that their ability to conduct market transactions had decreased were, as a group, the ones with the largest average market activity. It would have been interesting to find out by how much their market activity did in fact decline as a consequence of official operations in the coupon area. Unfortunately the survey does not have information on this question. Had an attempt been made to obtain such information, the interpretation of the results would have had to be very cautious indeed, since so many other factors influencing institutional investors in their market activities were at work at the same time.

Institutions which reported that they were influenced for only a "few days" had total Government portfolios averaging \$158 million and an average volume of transactions in 1965 of \$674 million (see Table A-31). These institutions accounted for about one-third of total dollar holdings and a similar percentage of total market activity for respondents in the survey. Institutions which reported that they were influenced "over the next few weeks" had average holdings of \$151 million and an average volume of market transactions of \$592 million, somewhat smaller averages than for the previous group. This group of institutions accounted for half of all holdings and half of all market activity. Thus, a combination of these two groups, those influenced for a few weeks, at most, accounted for at least 80 per cent of total holdings and total market activity. The institutions influenced in their views about the future course of interest rates for the longest period of time--"over the next few months"--accounted for 20 per cent or less of total holdings and of total market activity and these institutions were substantially smaller in average size of holdings (\$84 million) and in average market activity (\$271 million) than the previous two categories which were influenced for much shorter periods.

V. Appendix
Details of the Survey

A. Survey Sample

The questionnaire was sent to institutional investors who are major holders of U. S. Government securities in order to obtain their views about the performance of the Government securities market. Four hundred and seventy-three questionnaires were mailed and 397 replies were obtained. Respondents to the questionnaire held almost 24 per cent of the total marketable U. S. Government securities outstanding as of December 1965, excluding those held by the U. S. Treasury and the Federal Reserve. Among the 75 no responses were 10 questionnaires which were returned with insufficient information to be useful. The largest "no response" group was State and local governments--both general funds and retirement funds. Some details of the industry distribution of the questionnaire are shown below:

<u>Industry</u>	<u>Number of respondents</u>	<u>No response</u>	<u>Holdings of Government securities by respondents as % of industry group*</u>
Commercial banks	79	3	24
Mutual savings banks	49	4	48
Life insurance companies	47	5	86
Casualty, fire and marine insurance companies	42	10	59
Savings & loan associations	42	8	35
Nonfinancial corporations	49	3	69
State & local governments			
General funds	37	14	68
Pension & retirement funds	20	16	55
Miscellaneous			
Includes colleges, foundations, trade unions and mutual funds	<u>32</u>	<u>12</u>	n.a.
Total	397	75	

n.a. - Not available.

* Holdings of respondents taken as a percentage of industry group as reported in Treasury Survey of Ownership, December 1965, in Treasury Bulletin.

B. Limitations of the Data

1. Averages

The averages computed for asset size of the respondents are based on a smaller number of respondents than averages computed for holdings or market activity since a meaningful asset figure was not available for some respondents, most particularly State and local governments. Also all asset figures were not for exactly the same period because some respondents had fiscal years which were different from the calendar year.

Averages based upon market activity during 1965 also posed some difficulties. One very knowledgeable respondent indicated that it was difficult for his institution to answer the question about its market activity during 1965 because the form of its record-keeping made no distinction between market transactions and subscriptions to new issues or maturities of old issues. He believed that this situation may well have been true of other institutions. He wondered, therefore, whether other respondents had been willing to devote the large amount of top level staff resources to answering the questionnaire as was required for his institution. In addition, despite the instructions to respondents to separate outright market transactions from repurchase agreements, this distinction may not be uniformly reflected in the data. Most, if not all, institutions (other than commercial banks) record repurchase agreements as a simultaneous purchase and sale. And it is doubtful that many of these firms would have been able, or willing, to remove from their transactions data those purchases and sales that represent the acquisitions and redemptions of repurchase agreements.

It should be noted, however, that three different averages were computed for determining size and that in most cases all three averages

tended to give similar results. In addition, many of the interpretations in the paper were based on aggregates rather than averages. Finally, results often were given simply by number of respondents. Where there is substantial variation in the results for the same question when different summary measures are used, the interpretation must necessarily be somewhat cautious but, as noted earlier, in most cases the preponderance of evidence seemed to be pointing in the same direction.

2. Significance tests

Averages for the three size criteria (holdings of Government securities as of December 1965, market activity during 1965, and assets as of, or statement date closest to, December 31, 1965) computed for groupings of survey respondents discussed in this memorandum generally were significantly different for two of these criteria--holdings and market activity--while the results obtained for the asset size criterion were mixed. For the most part, the averages for holdings and activity were different at the 5 per cent significance level or less. In those instances when the averages were not significantly different, this fact was not damaging for the point under discussion.

The details of the statistically significance differences between the averages is given at the bottom of each appendix table or on the page following the table. Significance levels are given only when such differences were at the 10 per cent level or less.

Table A-1

Type of Dealer Used by Institutional Investor Transacting
All Business with One Type of Dealer*

Size Comparison Among Respondents

(Dollar amounts in millions)

	<u>1965</u>			<u>1961</u>			<u>1965</u>		
	<u>Total dollar size for group</u>			<u>Per cent distribution of total dollar size</u>			<u>Average dollar size per respondent</u>		
	<u>Holdings</u>	<u>Activity</u>	<u>Assets</u>	<u>Holdings</u>	<u>Activity</u>	<u>Assets</u>	<u>Holdings</u>	<u>Activity</u>	<u>Assets</u>
Primary Dealers	25,295	56,662	333,281	90.0	90.9	96.7	102.4	246.3	1,468.1
Other Banks	2,824	5,660	11,381	10.0	9.1	3.3	61.3	134.7	355.6
Other Security Firms	0	0	0	0	0	0	0	0	0
Direct Transactions	0	0	0	0	0	0	0	0	0
Primary Dealers	25,297	59,028	342,117	88.0	88.8	96.1	104.2	257.7	1,493.9
Other Banks	3,395	7,379	12,659	11.8	11.1	3.6	67.9	157.0	361.6
Other Security Firms	68	75	1,055	0.2	0.1	0.3	22.6	37.5	351.6
Direct Transactions	0	0	0	0	0	0	0	0	0

* Question 7

Table A-1a
Results of Statistical Significance Tests
for Table A-1
(Per cent levels)

<u>Size criteria</u>	<u>Between "Primary Dealers Only"</u> <u>and "Other Banks Only"</u>	
	<u>1965</u>	<u>1961</u>
Holdings	2	3
Activity	7	-
Assets	1	1

Table A-2

Number of Primary Dealers in U. S. Government Securities
Used by Institutional Investors*

Size Comparison Among Respondents

(Dollar amounts in millions)

Number of dealers	Size criteria	Bills					
		Total dollar size for group		Per cent distribution of total dollar size		Average dollar size per respondent	
		1961	1965	1961	1965	1961	1965
1	Holdings	2,740	2,705	8.2	8.1	60.8	50.0
	Activity	2,332	1,818	2.6	2.1	53.0	35.6
	Assets	46,599	53,491	11.0	12.6	1,059.0	1,009.2
2	Holdings	1,911	1,222	5.7	3.7	50.2	38.1
	Activity	6,097	1,340	6.9	1.5	174.2	44.6
	Assets	29,433	19,549	7.0	4.6	774.5	592.3
3-5	Holdings	6,937	5,934	20.6	17.8	69.3	66.6
	Activity	14,966	8,745	17.0	9.9	154.2	99.3
	Assets	66,614	75,966	15.7	17.8	774.5	999.5
6-10	Holdings	11,335	10,869	33.7	32.6	145.3	132.5
	Activity	23,372	22,030	26.5	25.0	303.5	271.9
	Assets	145,116	128,858	34.3	30.2	1,934.8	1,695.5
More than 10	Holdings	10,678	12,589	31.8	37.8	323.5	307.0
	Activity	41,524	54,195	47.0	61.5	1,258.3	1,321.8
	Assets	135,327	148,181	32.0	34.8	4,510.9	3,899.5
<u>Coupons Under 5 Years</u>							
1	Holdings	2,213	1,862	7.1	6.1	56.7	44.3
	Activity	1,675	1,452	1.9	1.7	50.7	37.2
	Assets	36,758	24,164	9.5	6.6	1,021.0	589.3
2	Holdings	1,964	986	6.3	3.2	49.1	32.8
	Activity	4,636	1,768	5.4	2.0	125.2	63.1
	Assets	21,064	19,375	5.4	5.3	540.1	625.0
3-5	Holdings	7,618	6,690	24.4	21.8	73.2	64.9
	Activity	18,516	13,266	21.4	15.3	190.8	134.0
	Assets	82,387	66,522	21.2	18.1	858.1	731.0
6-10	Holdings	11,269	11,310	36.0	36.8	144.4	152.8
	Activity	28,261	22,651	32.7	26.2	367.0	310.2
	Assets	159,563	154,149	41.1	42.1	2,127.5	2,171.1
More than 10	Holdings	8,199	9,889	26.2	32.2	303.6	253.5
	Activity	33,455	47,450	38.7	54.8	1,239.0	1,248.6
	Assets	88,252	102,357	22.7	27.9	3,677.1	2,843.2
<u>Coupons Over 5 Years</u>							
	Holdings	1,836	2,863	6.8	10.2	48.3	77.3
	Activity	1,559	3,106	2.2	4.3	43.3	97.0
	Assets	25,358	30,800	9.2	9.5	724.5	905.8
2	Holdings	2,290	2,208	8.5	7.9	71.5	59.6
	Activity	4,070	5,754	5.6	7.9	140.3	159.8
	Assets	27,209	29,032	9.8	9.0	877.7	784.6
3-5	Holdings	7,938	6,917	29.5	24.7	79.3	76.8
	Activity	21,619	10,967	30.0	15.1	234.9	127.5
	Assets	88,351	118,739	32.0	36.7	1,003.9	1,503.0
6-10	Holdings	8,113	7,415	30.2	26.5	135.2	125.6
	Activity	18,937	16,750	26.3	23.1	315.6	288.7
	Assets	88,061	80,077	31.9	24.7	1,544.9	1,455.9
More than 10	Holdings	6,686	8,578	24.9	30.7	371.4	295.7
	Activity	25,869	35,876	35.9	49.5	1,437.1	1,237.1
	Assets	47,272	64,995	17.1	20.1	2,954.5	2,407.2

Table A-2a
Results of Statistical Significance Tests
for Table A-2

The averages for groups using 3-5, 6-10, or more than 10 dealers for bill trading in 1961 and 1965, were different from each other at the 1 per cent significance level for virtually all size criteria (holdings of Government securities, market activity, and assets). The same was true for investors trading bills with 2 as compared with 3-5 dealers in 1965, except that the averages for assets for the two groups were not statistically different at the 10 per cent significance level.

For coupon issues maturing in less than 5 years, all the averages for the institutions who traded with either 3-5, 6-10, or more than 10 dealers during 1961 and 1965 differed from each other mostly at the 5 per cent significance level with only one major exception. The averages for holdings and activity of the respondents using 3-5 as against 1 or 2 dealers during 1965 were statistically different from one another at least at the 6 per cent level, but no differences were apparent in their respective asset sizes at the 10 per cent confidence level.

In 1961 and 1965 trading of coupon issues maturing in more than 5 years, the averages for holdings and activity of those investors using either 3-5, 6-10, or more than 10 dealers were usually different from each other at the 5 per cent level and below except for the asset averages which again showed no differences at the 10 per cent significance level.

Table A-3

Factors of Considerable Importance in the Selection of
Primary Dealer by Institutional Investors*

Size Comparison Among Respondents

(Dollar amounts in millions)

	<u>Total dollar size for group</u>			<u>Per cent distribution of total dollar size</u>			<u>Average dollar size per respondent</u>		
	<u>Holdings</u>	<u>Activity</u>	<u>Assets</u>	<u>Holdings</u>	<u>Activity</u>	<u>Assets</u>	<u>Holdings</u>	<u>Activity</u>	<u>Assets</u>
Other banking or financial business with primary dealer or bank	15,286	38,522	177,881	11.3	10.5	10.7	85.8	227.9	1,111.7
Size of transaction primary dealer will usually under- take on quoted markets	26,874	76,190	339,694	19.8	20.8	20.5	160.9	485.2	2,220.2
Primary dealer's bid or offer prices in past transactions tended to be best quotation	35,083	83,486	422,367	25.9	22.7	25.5	112.8	285.9	1,476.8
Importance of primary dealer as source of investment counsel	12,488	44,155	169,176	9.2	12.0	10.2	81.6	306.6	1,199.8
Importance of primary dealer as outlet for funds through repurchase agreements	7,517	21,601	111,881	5.5	5.9	6.8	121.2	366.1	1,928.9
Speed at which primary dealer completes transactions	17,166	38,248	181,981	12.7	10.4	11.0	114.4	273.2	1,348.0
Primary dealer contacts you	13,170	44,209	156,607	9.7	12.0	9.5	112.5	401.9	1,477.4
Primary dealer also provides trading facilities in a broad range of obligations other than Government securities	7,357	19,615	92,263	5.4	5.3	5.5	75.0	213.2	1,002.8
Miscellaneous factors	536	949	4,404	<u>0.4</u>	<u>0.3</u>	<u>0.3</u>	67.0	118.6	629.1
Total				100.0	100.0	100.0			

* Question 10

Table A-3a
Results of Statistical Significance Tests
for Table A-3
 (Per cent levels)

<u>Size criteria</u>	<u>Between "Size of Transaction" and</u>			
	<u>"Other Financial Business"</u>	<u>"Bid and Offered Prices"</u>	<u>"Investment Counsel"</u>	<u>"Speed of Completion"</u>
Holdings	1	2	1	6
Activity	1	3	10	5
Assets	1	4	1	3

Table A-4

Most Important Factor Determining Selection of Primary Dealer by
Institutional Investors for Trading in Treasury Bills*

Size Comparison Among Respondents

(Dollar amounts in millions)

	Total dollar size for group			Per cent distribution of total dollar size			Average dollar size per respondent		
	<u>Holdings</u>	<u>Activity</u>	<u>Assets</u>	<u>Holdings</u>	<u>Activity</u>	<u>Assets</u>	<u>Holdings</u>	<u>Activity</u>	<u>Assets</u>
Other banking or financial business with primary dealer or bank	3,498	6,803	37,596	10.2	7.6	8.7	51.4	106.2	637.2
Size of transaction primary dealer will usually under- take on quoted markets	9,033	25,713	132,346	26.3	28.9	30.6	258.0	803.5	4,411.5
Primary dealer's bid or offer prices in past transactions tended to be best quotation	17,604	49,063	233,709	51.2	55.2	54.0	94.1	275.6	1,335.4
Importance of primary dealer as source of investment counsel	984	2,730	6,056	2.9	3.1	1.4	54.6	160.5	432.5
Importance of primary dealer as outlet for funds through repurchase agreements	517	288	7,732	1.5	0.3	1.8	86.1	57.6	1,288.6
Speed at which primary dealer completes transactions	1,916	1,038	8,544	5.6	1.2	2.0	119.7	64.8	657.2
Primary dealer contacts you	452	2,785	3,680	1.3	3.1	0.9	56.5	348.1	525.7
Primary dealer also provides trading facilities in a broad range of obligations other than Government securities	22	109	422	0.1	0.1	0.1	22.0	109.0	422.0
Miscellaneous factors	332	418	2,588	<u>1.0</u>	<u>0.5</u>	<u>0.6</u>	83.0	104.5	647.0
Total				100.0	100.0	100.0			

* Question 11

Table A-4a

Results of Statistical Significance Tests
for Table A-4

(Per cent levels)

<u>Size criteria</u>	<u>"Other Financial Business"</u>	<u>Between</u>		<u>"Speed of Completion"</u>
		<u>"Bid and Offered Prices"</u>	<u>"Investment Counsel"</u>	
		<u>and "Size of Transaction"</u>		
Holdings	1	1	1	8
Activity	1	5	2	1
Assets	1	1	1	1
		<u>and " Bid and Offer Prices"</u>		
Holdings	1	-	6	-
Activity	1		-	1
Assets	1		1	3

Table A-5

Most Important Factor Determining Selection of Primary Dealer by
Institutional Investors for Trading in Coupon Issues Under 5 Years to Maturity*

Size Comparison Among Respondents

(Dollar amounts in millions)

	<u>Total dollar size for group</u>			<u>Per cent distribution of total dollar size</u>			<u>Average dollar size per respondent</u>		
	<u>Holdings</u>	<u>Activity</u>	<u>Assets</u>	<u>Holdings</u>	<u>Activity</u>	<u>Assets</u>	<u>Holdings</u>	<u>Activity</u>	<u>Assets</u>
Other banking or financial business with primary dealer or bank	2,582	4,446	27,159	7.9	5.1	6.4	56.1	103.3	678.9
Size of transaction primary dealer will usually under- take on quoted markets	8,170	23,813	130,387	24.9	27.4	30.8	247.5	744.1	4,206.0
Primary dealer's bid or offer prices in past transactions tended to be best quotation	18,173	50,666	212,682	55.4	58.3	50.2	91.7	273.8	1,143.4
Importance of primary dealer as source of investment counsel	1,758	3,769	13,988	5.4	4.3	3.3	58.6	125.6	538.0
Importance of primary dealer as outlet for funds through repurchase agreements	150	30	3,152	0.5	0.0	0.7	50.0	10.0	1,050.6
Speed at which primary dealer completes transactions	579	720	4,014	1.8	0.8	0.9	96.5	120.0	802.8
Primary dealer contacts you	817	2,792	26,974	2.5	3.2	6.4	136.1	465.3	5,394.8
Primary dealer also provides trading facilities in a broad range of obligations other than Government securities	218	187	2,767	0.7	0.2	0.7	72.6	62.3	922.3
Miscellaneous factors	332	418	2,588	<u>1.0</u>	<u>0.5</u>	<u>0.6</u>	83.0	104.5	647.0
Total				100.0	100.0	100.0			

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* Question 11

Table A-5a
Results of Statistical Significance Tests
for Table A-5
 (Per cent levels)

<u>Size criteria</u>	<u>"Other Financial Business"</u>	<u>Between</u>		<u>"Speed of Completion"</u>
		<u>"Bid and Offered Prices"</u>	<u>"Investment Counsel"</u>	
		<u>and "Size of Transaction"</u>		
Holdings	1	1	1	7
Activity	1	8	2	2
Assets	1	1	1	1
		<u>and "Bid and Offer Prices"</u>		
Holdings	3	-	3	
Activity	1	-	3	
Assets	2		1	

Table A-6

Most Important Factor Determining Selection of Primary Dealer by
Institutional Investors for Trading in Coupon Issues Over 5 Years to Maturity*

Size Comparison Among Respondents

(Dollar amounts in millions)

	<u>Total dollar size for group</u>			<u>Per cent distribution of total dollar size</u>			<u>Average dollar size per respondent</u>		
	<u>Holdings</u>	<u>Activity</u>	<u>Assets</u>	<u>Holdings</u>	<u>Activity</u>	<u>Assets</u>	<u>Holdings</u>	<u>Activity</u>	<u>Assets</u>
Other banking or financial business with primary dealer or bank	2,262	2,985	25,094	7.6	4.0	6.9	61.1	85.2	809.4
Size of transaction primary dealer will usually under- take on quoted markets	7,182	17,230	119,462	24.0	22.9	33.1	189.0	465.6	3,413.2
Primary dealer's bid or offer prices in past transactions tended to be best quotation	17,390	48,899	187,378	58.1	65.1	51.9	94.5	291.0	1,102.2
Importance of primary dealer as source of investment counsel	1,528	3,318	12,143	5.1	4.4	3.4	66.4	144.2	607.1
Importance of primary dealer as outlet for funds through repurchase agreements	13	8	953	0.0	0.0	0.3	13.0	8.0	476.5
Speed at which primary dealer completes transactions	737	791	4,594	2.5	1.1	1.3	92.1	98.8	765.6
Primary dealer contacts you	455	1,435	7,142	1.5	1.9	2.0	75.8	239.1	1,428.4
Primary dealer also provides trading facilities in a broad range of obligations other than Government securities	218	187	2,767	0.7	0.2	0.8	72.6	62.3	922.3
Miscellaneous factors	171	311	1,826	<u>0.6</u>	<u>0.4</u>	<u>0.5</u>	85.5	155.5	913.0
Total				100.0	100.0	100.0			

* Question 11

Table A-6a
Results of Statistical Significance Tests
for Table A-6
(Per cent levels)

<u>Size criteria</u>	<u>"Other Financial Business"</u>	<u>Between</u>		<u>"Speed of Completion"</u>
		<u>"Bid and Offered Prices"</u> <u>and "Size of Transaction"</u>	<u>"Investment Counsel"</u>	
Holdings	1	1	1	8
Activity	4	-	10	6
Assets	1	2	1	2
		<u>and "Bid and Offer Prices"</u>		
Holdings	10	-	-	
Activity	1		9	
Assets	-		2	

Table A-7

Size of Transactions that Primary Dealers were Usually Willing to Undertake
1961-mid 1965 Compared to 1955-60 for Trading in Treasury Bills*

Size Comparison Among Respondents

(Dollar amounts in millions)

<u>Size of transaction</u>	<u>Size criteria</u>	<u>Total dollar size for group</u>	<u>Per cent distribution of total dollar size</u>	<u>Average dollar size per respondent</u>
Increased up to 20%	Holdings	2,115	6.5	88.1
	Activity	3,859	4.4	175.4
	Assets	45,339	11.9	1,813.5
Increased more than 20%	Holdings	5,695	17.6	167.5
	Activity	27,571	31.5	861.5
	Assets	62,686	16.5	2,089.5
Decreased up to 20%	Holdings	2,494	7.7	498.8
	Activity	12,319	14.1	2,463.8
	Assets	23,418	6.2	4,683.6
Decreased more than 20%	Holdings	1,518	4.7	216.8
	Activity	2,895	3.3	413.5
	Assets	17,723	4.7	2,531.8
Remained the same	Holdings	20,606	63.5	101.0
	Activity	41,004	46.8	210.2
	Assets	231,541	60.8	1,258.3

* Question 12

Statistical significance (Per cent levels):

<u>Size criteria</u>	<u>Between "Increased more than 20%" and:</u>	
	<u>"Increased up to 20%"</u>	<u>"Remained the same"</u>
Holdings	3	5
Activity	1	1
Assets	-	-

Table A-8

Size of Transactions that Primary Dealers were Usually Willing to Undertake
1961-mid 1965 Compared to 1955-60 for Trading in Coupons Under 5 Years*

Size Comparison Among Respondents

(Dollar amounts in millions)

<u>Size of transaction</u>	<u>Size criteria</u>	<u>Total dollar size for group</u>	<u>Per cent distribution of total dollar size</u>	<u>Average dollar size per respondent</u>
Increased up to 20%	Holdings	2,858	9.3	109.9
	Activity	8,427	9.8	351.1
	Assets	41,526	11.1	1,661.0
Increased more than 20%	Holdings	3,057	9.9	109.1
	Activity	19,954	23.2	798.1
	Assets	33,663	9.0	1,346.5
Decreased up to 20%	Holdings	3,435	11.2	180.7
	Activity	11,731	13.6	617.4
	Assets	45,970	12.3	2,704.1
Decreased more than 20%	Holdings	4,791	15.6	342.2
	Activity	16,444	19.1	1,174.5
	Assets	49,565	13.2	3,540.3
Remained the same	Holdings	16,639	54.1	93.4
	Activity	29,418	34.2	174.0
	Assets	204,432	54.5	1,246.5

* Question 12

Statistical significance (Per cent levels):

<u>Size criteria</u>	<u>Between "Decreased more than 20%" and:</u>	
	<u>"Increased up to 20%"</u>	<u>"Remained the same"</u>
Holdings	4	3
Activity	-	7
Assets	7	5

Table A-9

Size of Transactions that Primary Dealers were Usually Willing to Undertake
1961-mid 1965 Compared to 1955-60 for Trading in Coupons Over 5 Years*

Size Comparison Among Respondents

(Dollar amounts in millions)

<u>Size of transaction</u>	<u>Size criteria</u>	<u>Total dollar size for group</u>	<u>Per cent distribution of total dollar size</u>	<u>Average dollar size per respondent</u>
Increased up to 20%	Holdings	1,334	4.6	63.5
	Activity	4,341	5.7	241.1
	Assets	14,155	4.5	745.0
Increased more than 20%	Holdings	3,156	10.9	112.7
	Activity	15,711	20.8	628.4
	Assets	44,519	14.1	1,780.7
Decreased up to 20%	Holdings	2,749	9.5	152.7
	Activity	12,175	16.1	716.1
	Assets	30,493	9.6	1,905.8
Decreased more than 20%	Holdings	8,003	27.6	266.7
	Activity	23,744	31.4	791.4
	Assets	95,895	30.3	3,306.7
Remained the same	Holdings	13,789	47.5	89.5
	Activity	19,594	25.9	135.1
	Assets	131,416	41.5	952.2

* Question 12

Statistical significance (Per cent levels):

<u>Size criteria</u>	<u>Between</u>	
	<u>"Increased up to 20%"</u>	<u>"Remained the same"</u>
	<u>and "Increased more than 20%"</u>	
Holdings	1	-
Activity	-	-
Assets	7	-
	<u>and "Decreased more than 20%"</u>	
Holdings	1	1
Activity	8	2
Assets	1	1

Table A-10

Size of Transactions that Primary Dealers were Usually Willing to Undertake Since
mid 1965 Compared to 1961-mid 1965 for Trading in Treasury Bills*

Size Comparison Among Respondents

(Dollar amounts in millions)

<u>Size of transaction</u>	<u>Size criteria</u>	<u>Total dollar size for group</u>	<u>Per cent distribution of total dollar size</u>	<u>Average dollar size per respondent</u>
Increased up to 20%	Holdings	868	2.7	144.6
	Activity	1,275	1.4	255.0
	Assets	12,320	3.3	2,053.3
Increased more than 20%	Holdings	1,294	4.0	215.6
	Activity	4,988	5.6	831.3
	Assets	3,974	1.1	794.8
Decreased up to 20%	Holdings	6,467	19.9	195.9
	Activity	23,504	26.5	734.5
	Assets	83,750	22.1	2,537.8
Decreased more than 20%	Holdings	3,996	12.3	166.5
	Activity	8,747	9.9	380.3
	Assets	43,802	11.6	1,825.0
Remained the same	Holdings	19,873	61.2	94.1
	Activity	50,219	56.6	249.8
	Assets	234,628	62.0	1,254.6

* Question 13

Statistical significance (Per cent levels):

<u>Size criteria</u>	<u>Between "Remained the same" and "Decreased up to 20%"</u>
Holdings	10
Activity	6
Assets	8

Table A-11

Size of Transactions that Primary Dealers were Usually Willing to Undertake Since mid 1965 Compared to 1961-mid 1965 for Trading in Coupons Under 5 Years*

Size Comparison Among Respondents

(Dollar amounts in millions)

<u>Size of transaction</u>	<u>Size criteria</u>	<u>Total dollar size for group</u>	<u>Per cent distribution of total dollar size</u>	<u>Average dollar size per respondent</u>
Increased up to 20%	Holdings	581	1.9	145.2
	Activity	723	0.8	241.0
	Assets	10,084	2.7	2,521.0
Increased more than 20%	Holdings	310	1.0	77.5
	Activity	4,902	5.6	1,225.5
	Assets	3,321	0.9	830.2
Decreased up to 20%	Holdings	6,936	22.3	154.1
	Activity	18,855	21.6	428.5
	Assets	83,675	22.2	1,901.7
Decreased more than 20%	Holdings	9,482	30.4	206.1
	Activity	34,732	39.8	789.3
	Assets	100,455	26.6	2,391.7
Remained the same	Holdings	13,837	44.4	79.0
	Activity	28,065	32.2	169.0
	Assets	179,685	47.6	1,130.0

* Question 13

Statistical significance (Per cent levels):

<u>Size criteria</u>	<u>Between</u>	
	<u>"Decreased up to 20%"</u>	<u>"Decreased more than 20%"</u>
	<u>and "Increased more than 20%"</u>	
Holdings	10	1
Activity	-	-
Assets	3	1
	<u>and "Remained the same"</u>	
Holdings	4	1
Activity	4	1
Assets	-	3

Table A-12

Size of Transactions that Primary Dealers were Usually Willing to Undertake Since
mid 1965 Compared to 1961-mid 1965 for Trading in Coupons Over 5 Years*

Size Comparison Among Respondents

(Dollar amounts in millions)

<u>Size of transaction</u>	<u>Size criteria</u>	<u>Total dollar size for group</u>	<u>Per cent distribution of total dollar size</u>	<u>Average dollar size per respondent</u>
Increased up to 20%	Holdings	552	1.9	138.0
	Activity	704	0.9	352.0
	Assets	9,995	3.1	3,331.6
Increased more than 20%	Holdings	163	0.6	40.7
	Activity	404	0.5	101.0
	Assets	2,424	0.8	606.0
Decreased up to 20%	Holdings	4,197	14.7	131.1
	Activity	18,547	24.2	598.2
	Assets	58,230	18.3	1,819.6
Decreased more than 20%	Holdings	12,452	43.7	191.5
	Activity	40,090	52.4	646.6
	Assets	133,820	42.2	2,230.3
Remained the same	Holdings	11,106	39.0	74.5
	Activity	16,823	22.0	120.1
	Assets	112,979	35.6	862.4

* Question 13

Statistical significance (Per cent levels):

<u>Size criteria</u>	<u>Between</u>	
	<u>"Decreased up to 20%"</u>	<u>"Decreased more than 20%"</u>
	<u>and "Increased more than 20%"</u>	
Holdings	2	1
Activity	3	1
Assets	3	1
	<u>and "Remained the same"</u>	
Holdings	-	1
Activity	2	1
Assets	10	1

Table A-13

Changes in Selected Characteristics of Primary Dealers,
1961-65 Compared to 1955-60--Competitiveness*

Size Comparison Among Respondents

(Dollar amounts in millions)

<u>Degree of characteristic</u>	<u>Size criteria</u>	<u>Total dollar size for group</u>	<u>Per cent distribution of total dollar size</u>	<u>Average dollar size per respondent</u>
More	Holdings	20,577	58.6	124.7
	Activity	51,674	57.1	327.0
	Assets	223,579	50.2	1,490.5
Less	Holdings	3,981	11.3	189.5
	Activity	18,328	20.2	916.4
	Assets	56,523	12.7	2,826.1
About the same	Holdings	10,534	30.0	73.1
	Activity	20,513	22.7	155.4
	Assets	165,016	37.1	1,231.4

* Question 14

Statistical significance:

With minor exceptions the averages for the various size groupings were not statistically different at the 10 per cent significance level.

Table A-14Changes in Selected Characteristics of Primary Dealers,
1961-65 Compared to 1955-60--Information Source*Size Comparison Among Respondents

(Dollar amounts in millions)

<u>Degree of characteristic</u>	<u>Size criteria</u>	<u>Total dollar size for group</u>	<u>Per cent distribution of total dollar size</u>	<u>Average dollar size per respondent</u>
Better	Holdings	13,335	38.0	95.2
	Activity	34,967	38.7	260.9
	Assets	172,650	38.7	1,392.3
Worse	Holdings	1,655	4.7	165.5
	Activity	8,669	9.6	866.9
	Assets	18,745	4.2	1,874.5
About the same	Holdings	20,134	57.3	110.6
	Activity	46,665	51.7	277.7
	Assets	254,791	57.1	1,481.3

* Question 14

Statistical significance:

The averages for the various size groupings were not statistically different at the 10 per cent significance level.

Table A-15

Changes in Selected Characteristics of Primary Dealers,
1961-65 Compared to 1955-60--Investment Counsel*

Size Comparison Among Respondents

(Dollar amounts in millions)

<u>Degree of characteristic</u>	<u>Size criteria</u>	<u>Total dollar size for group</u>	<u>Per cent distribution of total dollar size</u>	<u>Average dollar size per respondent</u>
More astute	Holdings	8,332	27.1	96.8
	Activity	24,925	29.4	303.9
	Assets	106,248	27.8	1,379.8
Less astute	Holdings	735	2.4	147.0
	Activity	945	1.1	189.0
	Assets	3,301	0.9	660.2
About the same	Holdings	21,713	70.5	107.4
	Activity	58,931	69.5	308.5
	Assets	272,745	71.3	1,435.5

* Question 14

Statistical significance:

With minor exceptions the averages for the various size groupings were not statistically different at the 10 per cent significance level.

Table A-16

Changes in Selected Characteristics of Primary Dealers,
1961-65 Compared to 1955-60--Outlet for Funds Through Loans or RP's*

Size Comparison Among Respondents

(Dollar amounts in millions)

<u>Degree of characteristic</u>	<u>Size criteria</u>	<u>Total dollar size for group</u>	<u>Per cent distribution of total dollar size</u>	<u>Average dollar size per respondent</u>
More important	Holdings	16,027	54.5	136.9
	Activity	48,608	57.2	426.3
	Assets	196,341	49.5	1,784.9
Less important	Holdings	1,643	5.6	117.3
	Activity	9,727	11.4	694.7
	Assets	29,008	7.3	2,072.0
About the same	Holdings	11,730	39.9	104.7
	Activity	26,711	31.4	254.3
	Assets	171,101	43.2	1,614.1

* Question 14

Statistical significance:

The averages for the various size groupings were not statistically different at the 10 per cent significance level.

Table A-17

Changes in Selected Characteristics of Primary Dealers,
1961-65 Compared to 1955-60--General Attitude*

Size Comparison Among Respondents

(Dollar amounts in millions)

<u>Degree of characteristic</u>	<u>Size criteria</u>	<u>Total dollar size for group</u>	<u>Per cent distribution of total dollar size</u>	<u>Average dollar size per respondent</u>
More aggressive in soliciting business	Holdings	18,231	52.6	121.5
	Activity	48,044	53.0	331.3
	Assets	189,260	42.7	1,371.4
Less aggressive in soliciting business	Holdings	3,304	9.5	122.3
	Activity	5,793	6.4	241.3
	Assets	68,857	15.5	2,754.2
About the same	Holdings	13,111	37.8	89.1
	Activity	36,784	40.6	268.4
	Assets	184,781	41.7	1,358.6

* Question 14

Statistical significance:

The averages for the various size groupings were not statistically different at the 10 per cent significance level.

Table A-18

Institutional Investor Activity in Selected Short Term Financial Instruments,
1961-mid 1965 vs. 1955-1960--Finance Company Commercial Paper*

Size Comparison Among Respondents

(Dollar amounts in millions)

<u>Activity</u>	<u>Total dollar size for group</u>			<u>Per cent distribution of total dollar size</u>			<u>Average dollar size per respondent</u>		
	<u>Holdings</u>	<u>Activity</u>	<u>Assets</u>	<u>Holdings</u>	<u>Activity</u>	<u>Assets</u>	<u>Holdings</u>	<u>Activity</u>	<u>Assets</u>
No activity	16,632	36,481	122,928	45.4	39.4	27.4	89.4	209.6	749.5
Increased	17,122	47,054	285,390	46.7	50.8	63.6	133.7	382.5	2,320.2
Decreased	589	2,144	6,236	1.6	2.3	1.4	53.5	268.0	566.9
About the same	2,293	6,940	34,140	6.3	7.5	7.6	81.8	247.8	1,365.6

* Question 19

Statistical significance (Per cent levels):

<u>Size criteria</u>	<u>Between "Increased" and:</u>		
	<u>"No activity"</u>	<u>"Decreased"</u>	<u>"About the same"</u>
Holdings	4	1	6
Activity	8	-	-
Assets	1	1	6

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Table A-19

Institutional Investor Activity in Selected Short Term Financial Instruments,
1961-mid 1965 vs. 1955-1960--Other Commercial Paper*

Size Comparison Among Respondents

(Dollar amounts in millions)

<u>Activity</u>	<u>Total dollar size for group</u>			<u>Per cent distribution of total dollar size</u>			<u>Average dollar size per respondent</u>		
	<u>Holdings</u>	<u>Activity</u>	<u>Assets</u>	<u>Holdings</u>	<u>Activity</u>	<u>Assets</u>	<u>Holdings</u>	<u>Activity</u>	<u>Assets</u>
No activity	20,659	47,421	199,112	57.8	52.4	45.7	96.0	235.9	1,031.6
Increased	11,194	32,634	189,963	31.3	36.0	43.6	138.1	423.8	2,532.8
Decreased	1,310	3,860	19,541	3.7	4.3	4.5	81.8	296.9	1,221.3
About the same	2,610	6,615	27,289	7.3	7.3	6.3	93.2	236.2	1,049.5

* Question 19

Statistical significance:

The averages for the various activity groupings were not statistically different at the 10 per cent significance level.

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Table A-20

Institutional Investor Activity in Selected Short Term Financial Instruments,
1961-mid 1965 vs. 1955-1960--Bankers' acceptances*

Size Comparison Among Respondents

(Dollar amounts in millions)

<u>Activity</u>	<u>Total dollar size for group</u>			<u>Per cent distribution of total dollar size</u>			<u>Average dollar size per respondent</u>		
	<u>Holdings</u>	<u>Activity</u>	<u>Assets</u>	<u>Holdings</u>	<u>Activity</u>	<u>Assets</u>	<u>Holdings</u>	<u>Activity</u>	<u>Assets</u>
No activity	21,400	40,467	206,899	61.3	45.2	48.3	92.6	186.4	1,004.3
Increased	10,847	39,780	187,031	31.1	44.5	43.7	146.5	552.5	2,562.0
Decreased	646	3,015	13,483	1.8	3.4	3.2	71.7	430.7	1,498.1
About the same	2,031	6,212	20,581	5.8	6.9	4.8	112.8	326.9	1,210.6

* Question 19

Statistical significance (Per cent levels):

<u>Size criteria</u>	<u>Between "Increased" and "No activity"</u>
Holdings	2
Activity	1
Assets	1

Table A-21

Institutional Investor Activity in Selected Short Term Financial Instruments,
1961-mid 1965 vs. 1955-1960--Short Term Municipal Bonds*

Size Comparison Among Respondents

(Dollar amounts in millions)

<u>Activity</u>	<u>Total dollar size for group</u>			<u>Per cent distribution of total dollar size</u>			<u>Average dollar size per respondent</u>		
	<u>Holdings</u>	<u>Activity</u>	<u>Assets</u>	<u>Holdings</u>	<u>Activity</u>	<u>Assets</u>	<u>Holdings</u>	<u>Activity</u>	<u>Assets</u>
No activity	16,442	28,541	207,201	46.1	31.4	47.7	88.3	164.9	1,248.1
Increased	12,640	49,450	154,008	35.4	54.4	35.5	138.9	568.3	1,656.0
Decreased	2,688	3,074	22,449	7.5	3.4	5.2	99.5	113.8	1,069.0
About the same	3,933	9,809	50,342	11.0	10.8	11.6	112.3	288.5	1,525.5

* Question 19

Statistical significance (Per cent levels):

<u>Size criteria</u>	<u>Between "Increased" and "No activity"</u>
Holdings	5
Activity	1
Assets	-

5

Table A-22

Institutional Investor Activity in Selected Short Term Financial Instruments,
1961-mid 1965 vs. 1955-1960--Other Short Term Investment*

Size Comparison Among Respondents

(Dollar amounts in millions)

<u>Activity</u>	<u>Total dollar size for group</u>			<u>Per cent distribution of total dollar size</u>			<u>Average dollar size per respondent</u>		
	<u>Holdings</u>	<u>Activity</u>	<u>Assets</u>	<u>Holdings</u>	<u>Activity</u>	<u>Assets</u>	<u>Holdings</u>	<u>Activity</u>	<u>Assets</u>
No activity	6,060	13,324	57,733	21.9	23.7	16.5	58.2	140.2	620.7
Increased	18,340	35,219	249,746	66.2	62.5	71.4	129.1	262.8	1,936.0
Decreased	1,451	4,407	27,715	5.2	7.8	7.9	111.6	367.2	2,131.9
About the same	1,835	3,386	14,452	6.6	6.0	4.1	96.5	178.2	850.1

* Question 19

Statistical significance (Per cent levels):

<u>Size criteria</u>	<u>Between "Increased" and "No activity"</u>
Holdings	1
Activity	6
Assets	1

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Table A-23Institutional Investors Bidding in Treasury Bill Auctions with
View to Quick Resale 1961-mid 1965 Compared to 1955-60*Size Comparison Among Respondents

(Dollar amounts in millions)

<u>Degree of characteristic</u>	<u>Size criteria</u>	<u>Total dollar size for group</u>	<u>Per cent distribution of total dollar size</u>	<u>Average dollar size per respondent</u>
	Holdings	9,736	37.59	162.2
More active	Activity	46,578	57.90	803.0
	Assets	118,209	36.31	2,110.8
	Holdings	4,975	19.21	121.3
Less active	Activity	11,967	14.88	341.9
	Assets	64,366	19.77	1,650.4
	Holdings	11,190	43.20	79.9
About the same	Activity	21,898	27.22	167.1
	Assets	142,961	43.92	1,108.2

* Question 6

Statistical significance:

With minor exceptions, the averages for the various size groupings were not statistically different at the 10 per cent significance level.

Table A-24

Institutional Investors Riding the Yield Curve in Treasury Bills
1961-mid 1965 Compared to 1955-60*

Size Comparison Among Respondents

(Dollar amounts in millions)

<u>Degree of characteristic</u>	<u>Size criteria</u>	<u>Total dollar size for group</u>	<u>Per cent distribution of total dollar size</u>	<u>Average dollar size per respondent</u>
More active	Holdings	9,475	33.17	112.7
	Activity	41,614	49.12	507.4
	Assets	108,860	30.72	1,413.7
Less active	Holdings	3,960	13.86	116.4
	Activity	7,342	8.67	262.2
	Assets	68,319	19.28	2,070.2
About the same	Holdings	15,133	52.97	102.2
	Activity	35,769	42.22	257.3
	Assets	177,156	50.00	1,322.0

* Question 6

Statistical significance:

The averages for the various size groupings were not statistically different at the 10 per cent significance level.

Table A-25

Institutional Investors Arbitraging in Coupon Issues
1961-mid 1965 Compared to 1955-60*

Size Comparison Among Respondents

(Dollar amounts in millions)

<u>Degree of characteristic</u>	<u>Size criteria</u>	<u>Total dollar size for group</u>	<u>Per cent distribution of total dollar size</u>	<u>Average dollar size per respondent</u>
More active	Holdings	9,399	32.26	136.2
	Activity	40,045	47.31	588.8
	Assets	82,546	24.59	1,353.2
Less active	Holdings	4,084	14.02	94.9
	Activity	15,784	18.65	438.4
	Assets	48,991	14.59	1,194.9
About the same	Holdings	15,653	53.72	94.2
	Activity	28,807	34.04	184.6
	Assets	204,196	60.82	1,334.6

* Question 6

Statistical significance:

The averages for the various size groupings were not statistically different at the 10 per cent significance level.

Table A-26Commercial Bank Trading in Coupon Issues to Increase the After Tax Yield of Their Portfolios 1961-mid 1965 Compared to 1955-60*Size Comparison Among Respondents

(Dollar amounts in millions)

<u>Degree of characteristic</u>	<u>Size criteria</u>	<u>Total dollar size for group</u>	<u>Per cent distribution of total dollar size</u>	<u>Average dollar size per respondent</u>
More active	Holdings	5,791	49.97	180.9
	Activity	20,888	46.80	696.2
	Assets	51,815	46.25	1,671.4
Less active	Holdings	2,219	19.15	123.2
	Activity	8,435	18.90	527.1
	Assets	21,662	19.34	1,203.4
About the same	Holdings	3,579	30.88	149.1
	Activity	15,313	34.31	638.0
	Assets	38,551	34.41	1,606.2

* Question 6

Statistical significance:

The averages for the various size groupings were not statistically different at the 10 per cent significance level.

Table A-27

Investor Activity in Repurchase or
Resale Agreements in Selected Financial Instruments*

Size Comparison Among Respondents

(Dollar amounts in millions)

<u>Financial instrument</u>	<u>Total dollar size for group</u>			<u>Per cent distribution of total dollar size</u>			<u>Average dollar size per respondent</u>		
	<u>Holdings</u>	<u>Activity</u>	<u>Assets</u>	<u>Holdings</u>	<u>Activity</u>	<u>Assets</u>	<u>Holdings</u>	<u>Activity</u>	<u>Assets</u>
Direct U. S. Government securities									
Yes	26,086	81,258	341,137	68.0	85.4	74.2	123.6	398.3	1,776.7
No	12,297	13,905	118,431	32.0	14.6	25.8	72.3	90.8	789.5
Federal Agency Issues									
Yes	14,141	52,879	226,789	39.2	58.2	51.1	134.6	513.3	2,290.7
No	21,929	38,031	216,733	60.8	41.8	48.9	90.6	170.5	1,017.5
Municipal Securities									
Yes	1,647	10,593	34,719	4.8	12.1	8.4	96.8	662.0	2,169.9
No	32,870	77,227	380,581	95.2	87.9	91.6	106.7	269.0	1,383.9

* Question 20

Statistical significance:

The averages for those investors who entered into repurchase or resale agreements in direct U. S. Government securities and Federal Agency issues differed in size from those who did not use these techniques, with most of the differences significant at the 1 per cent level, and all the differences significant at least at the 6 per cent level.

Table A-28

Impact of Advance Refunding Technique on Investors' Activity in the Market for Outstanding U. S. Government Issues*

Size Comparison Among Respondents

(Dollar amounts in millions)

<u>Size criteria</u>	<u>Total dollar size for group</u>				<u>Per cent distribution of total dollar size</u>				<u>Average dollar size per respondent</u>			
	<u>Market activity</u>			<u>Total</u>	<u>Market activity</u>			<u>Total</u>	<u>Market activity</u>			<u>Total</u>
	<u>Increased</u>	<u>Decreased</u>	<u>No change</u>		<u>Increased</u>	<u>Decreased</u>	<u>No change</u>		<u>Increased</u>	<u>Decreased</u>	<u>No change</u>	
Holdings	9,353	8,062	20,461	37,876	24.7	21.3	54.0	100	119.9	158.0	83.8	101.5
Activity	29,162	25,504	39,954	94,620	30.8	27.0	42.2	100	388.8	542.6	175.2	270.3
Assets	105,314	81,974	269,119	456,407	23.1	18.0	59.0	100	1,504.4	1,639.4	1,240.1	1,354.3

* Question 16

Statistical significance (Per cent levels):

<u>Size criteria</u>	<u>Between "No change in market activity" and:</u>	
	<u>"Decreased market activity"</u>	<u>"Increased market activity"</u>
Holdings	5	9
Activity	6	2
Assets	-	-

Table A-29

Institutional Investors' Attitudes Toward Treasury Advance Refundings in
Relation to Their Investment Operations*

Size Comparison Among Respondents

(Dollar amounts in millions)

<u>Size criteria</u>	<u>Total dollar size for group</u>				<u>Per cent distribution of total dollar size</u>				<u>Average dollar size per respondent</u>			
	<u>Very favorable and favorable</u>	<u>Neutral</u>	<u>Very unfavorable and unfavorable</u>	<u>Total</u>	<u>Very favorable and favorable</u>	<u>Neutral</u>	<u>Very unfavorable and unfavorable</u>	<u>Total</u>	<u>Very favorable and favorable</u>	<u>Neutral</u>	<u>Very unfavorable and unfavorable</u>	<u>Total</u>
Holdings	21,523	15,079	1,581	38,183	56.4	39.5	4.1	100	113.9	86.6	121.6	101.5
Activity	49,268	37,881	7,921	95,070	51.8	39.8	8.3	100	281.5	226.8	660.1	268.5
Assets	241,812	201,614	15,042	458,468	52.7	44.0	3.3	100	1,483.5	1,244.5	1,157.1	1,356.4

13

* Question 17

Statistical significance:

The averages for the various size groupings were not statistically different at the 10 per cent significance level.

Table A-30

Respondents Affected by Official Operations in Coupon Issues and Ability to Conduct Transactions in the Government Securities Market Decreased vs. All Other Respondents*

Size Comparison Among Respondents

(Dollar amounts in millions)

<u>Size criteria</u>	<u>Total dollar size for group</u>			<u>Per cent distribution of total dollar size</u>			<u>Average dollar size per respondent</u>				
	<u>Total</u>	<u>Affected and ability to conduct transactions decreased</u>	<u>All others</u>	<u>Total</u>	<u>Affected and ability to conduct transactions decreased</u>	<u>All others</u>	<u>Affected and ability to conduct transactions decreased</u>	<u>All others</u>	<u>Components of "all others"</u>		
									<u>Investment operations affected and ability to conduct transactions</u>	<u>Not affected</u>	<u>Investment operations not affected</u>
								<u>Increased</u>	<u>Not affected</u>	<u>not affected</u>	
Holdings	37,687	6,965	30,722	100	18	82	199.0	91.98	125.6	87.2	89.4
Activity	94,088	29,490	64,598	100	31	69	867.3	206.38	499.1	238.7	169.7
Assets	436,578	79,260	357,318	100	18	82	2,264.5	1,207.16	1,369.9	1,244.4	1,183.9

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* Question 18

Statistical significance (Per cent levels):

<u>Size criteria</u>	<u>Between "Decreased" and "All others"</u>
Holdings	4
Activity	2
Assets	10

Table A-31

Duration of Influence of Official Activity in Coupon Issues
on Institutional Investors' Judgment of the Course of Interest Rates*

Size Comparison Among Respondents

(Dollar amounts in millions)

<u>Size criteria</u>	<u>Total dollar size for group</u>			<u>Per cent distribution of total dollar size</u>			<u>Average dollar size per respondent</u>		
	<u>Few days</u>	<u>Few weeks</u>	<u>Few months</u>	<u>Few days</u>	<u>Few weeks</u>	<u>Few months</u>	<u>Few days</u>	<u>Few weeks</u>	<u>Few months</u>
Holdings	4,106	6,797	2,763	30	50	20	157.9	151.0	83.7
Activity	16,861	26,037	8,140	33	51	16	674.4	591.7	271.3
Assets	51,696	81,383	35,711	31	48	21	2,154.0	1,849.6	1,151.9

* Question 18

Statistical significance:

The averages for the various size groupings were not statistically different at the 10 per cent significance level.

Budget Bureau No. 55-6604
June 1966

**U. S. TREASURY-FEDERAL RESERVE QUESTIONNAIRE FOR
INSTITUTIONAL INVESTORS
IN
U. S. GOVERNMENT SECURITIES**

Submitted by:

Name of institution

Location City State

Signature of officer

Return to:

**FEDERAL RESERVE BANK OF NEW YORK
Financial and Trade Statistics Division, Room 513
New York, N. Y. 10045**

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District State Code number

U. S. Treasury-Federal Reserve Questionnaire for Institutional Investors in U. S. Government Securities

(Please give dollar figures, where requested, to the nearest million dollars)

1. As of December 31, 1965, the dollar amount of your institution's holdings (at par) of U. S. Government securities amounted to:

	<i>Held outright*</i>	<i>Held under resale agreement</i>
Total	\$.....	\$.....
Bills
Notes and bonds:		
Maturing in 1966
Maturing in 1967 thru 1970
Maturing in 1971 or later

* Held without any contract calling for their resale to a specified party at a later date.

2. As of December 31, 1965, the dollar amount of your institution's holdings (at par) of Federal Agency securities amounted to: (A list of Federal Agency issues, as defined for this study, outstanding December 31, 1965, is attached.)

	<i>Held outright*</i>	<i>Held under resale agreement</i>
Total	\$.....	\$.....
Maturing in 1966
Maturing in 1967 thru 1970
Maturing in 1971 or later

* Held without any contract calling for their resale to a specified party at a later date.

3. During 1965 your institution (or another institution, such as a bank, acting in your behalf) acquired approximately how many securities *directly* from the Treasury or a Federal Agency through allotment or exchanges?

<u>Direct U. S. obligations</u>		<u>Agency issues</u>	
\$..... Bills	\$.....	Maturing in 1965 and 1966
..... Notes	Maturing in 1967 thru 1970
..... Bonds	Maturing in 1971 or later
..... Others			

4. During 1965 your institution redeemed at maturity approximately how many securities for cash?

<u>Direct U. S. Gov't obligations</u>		<u>Agency issues</u>	
\$..... Bills	\$.....	
..... Coupon issues			

5. During 1965 your institution sold or purchased outright in the market (i.e., not including securities

acquired under resale or repurchase agreements) approximately how many securities (par value)?

	<u>Direct U. S. Gov't obligations</u>	<u>Agency issues</u>
Total	\$.....	\$.....
Bills
Notes and bonds:		
Maturing in 1965 and 1966
Maturing in 1967 thru 1970
Maturing in 1971 or later

6. During the years 1961—mid-65, in terms of dollar volume was your institution more active, or less active in the market for outstanding issues than it was in the period 1955 through 1960 in the following investment activities:

- a. Bidding in Treasury bill auctions with view to quick resale
 more active less active about the same
- b. Buying longer Treasury bills in the market and selling them before maturity to increase yield by riding the yield curve
 more active less active about the same
- c. Trading to take advantage of changing price relationships between different coupon securities (arbitraging)
 more active less active about the same
- d. Other (specify)
 more active less active about the same

For commercial banks only:

- e. Trading in coupon securities to increase the after-tax yield on your portfolio
 more active less active about the same

7. In your outright market transactions in U. S. Government securities, approximately what percentage of your transactions were with:

Percentage in
1961 1965

- a. Primary dealers in such securities, including dealer banks (see attached list)
- b. Other banks (including use of banks as agents)
- c. Other securities firms

- d. Direct transaction with former owner or new owner (other than any of the above)
- e. Other (specify)
- f. If there have been changes since 1961, please explain briefly
-
-

8. If you trade with primary dealers in Government securities, how many firms did you trade with

	in 1961			in 1965		
	Coupon issues			Coupon issues		
	Bills	Under 5 yrs.	Over 5 yrs.	Bills	Under 5 yrs.	Over 5 yrs.
Only one dealer ...	<input type="checkbox"/>					
Two dealers	<input type="checkbox"/>					
Three to five dealers ..	<input type="checkbox"/>					
Six to ten dealers ..	<input type="checkbox"/>					
More than ten dealers	<input type="checkbox"/>					

9. If the number of dealers with whom you trade has increased or decreased, please explain the reason for the change.

10. Which of the following are important in determining with whom you do business in Government securities (check only those of considerable importance):

- a. Other banking or financial business with primary dealer or bank
- b. Size of transaction primary dealer will usually undertake on quoted markets
- c. Primary dealer's bid or offer prices in past transactions tended to be best quotation
- d. Importance of primary dealer as source of investment counsel
- e. Importance of primary dealer as outlet for funds through repurchase agreements
- f. Speed at which primary dealer completes transactions
- g. Primary dealer contacts you
- h. Primary dealer also provides trading facilities in a broad range of obligations other than Government securities
- i. Other (specify)

11. Rank by number (1, 2 and 3) the three most important factors in Question 10 in order of the importance you attached to them for transactions in:

Treasury bills	Treasury coupon issues		Agency issues
	Under 5 years	Over 5 years	
a.	a.	a.	a.
b.	b.	b.	b.
c.	c.	c.	c.
d.	d.	d.	d.
e.	e.	e.	e.
f.	f.	f.	f.
g.	g.	g.	g.
h.	h.	h.	h.
i.	i.	i.	i.

12. During the period of general stability in interest rates that prevailed from 1961 through mid-1965, did you find that in comparison with 1955-60 the size of transactions that primary dealers were usually willing to undertake as principals in:

	Treasury bills	Treasury coupon issues		Agency issues
		Under 5 years	Over 5 years	
Increased by up to 20%	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Increased by more than 20%	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Decreased by up to 20%	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Decreased by more than 20%	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Remained about the same	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

13. In the period since mid-1965, as compared with 1961—mid-1965, have you found that the size of transactions that primary dealers were usually willing to undertake in:

	Treasury bills	Treasury coupon issues		Agency issues
		Under 5 years	Over 5 years	
Increased by up to 20%	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Increased by more than 20%	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Decreased by up to 20%	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Decreased by more than 20%	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Remained about the same	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

14. In the period since 1961, how have you found the primary dealers with whom you deal in regard to the following as compared with 1955-60:

- a. Competitiveness More Less
 About the same
- b. Information source Better Worse
 About the same

- c. Investment counsel More astute Less astute
 About the same
- d. Outlet for funds through loans or RP's More important Less important
 About the same
- e. General attitude More aggressive in soliciting business
 Less aggressive in soliciting business
 About the same

15. As an investor, how have you participated in the advance refundings offered by the Treasury in the period 1960-1965:
 (List of advance refundings is attached.)

- a. Did you buy or sell "rights", or exchange rights for securities offered by the Treasury, during any of the advance refundings held in recent years from the date of the Treasury's announcement through the delivery date of the new securities?
 Yes No
- b. If your answer is yes, in how many advance refundings did you:
 Sell "rights" to the new securities
 Purchase "rights" to the new securities
 Purchase "when-issued" securities
 Sell "when-issued" securities
 Exchange "rights" which were held prior to the announcement date

16. How has the Treasury's use of the advance refunding technique affected the degree to which your firm has participated in the market for outstanding U. S. Government issues?
 Increased market activity in outstanding issues
 Decreased market activity in outstanding issues
 No change in amount of transactions undertaken traceable to the use of the advance refunding technique

17. How do you regard Treasury advance refundings in relation to your investment operations:
 Very favorably
 Favorably
 Neutrally
 Unfavorably
 Very unfavorably

18. Have purchases of Treasury coupon securities in the open market by the Federal Reserve System to supply bank reserves, or by the U. S. Treasury trust accounts for their investments tended to affect your investment operations?
 a. Yes No

- b. If answer to "a" is yes, has such official activity tended to
 (1) increase, decrease or left unaffected your ability to conduct swap or other transactions in the market
 (2) influence your judgement of the course of interest rates over the next few days, next few weeks or next few months
 (3) other influence (please specify)

19. How did your activity in any of the following compare in 1961—mid-1965 with your activity in 1955-60?

	<u>No activity</u>	<u>In-creased</u>	<u>De-creased</u>	<u>About the same</u>
a. Finance company commercial paper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Other commercial paper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Bankers' acceptances	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Short-term municipal bonds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Other short-term investment (please specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

20. Does your firm enter into repurchase or resale agreements with dealers, banks, or others in:

<u>Yes</u>	<u>No</u>	
<input type="checkbox"/>	<input type="checkbox"/>	Direct U. S. Government securities
<input type="checkbox"/>	<input type="checkbox"/>	Federal Agency issues
<input type="checkbox"/>	<input type="checkbox"/>	Municipal securities
<input type="checkbox"/>	<input type="checkbox"/>	Other (please specify)

21. Please make any comments you would like to about the functioning of the Government securities market as it relates to your investment operations (including any suggestions you may have for improving its operations).

(If you need additional space, please attach page(s) to this form.)

22. If you have a published balance sheet and income statement for December 31, 1965 or the end of fiscal year closest to that date, would you please enclose a copy with your answers to the questionnaire.