To Federal Open Market Committee — July 22, 1966

From Alan R. Holmes — Subject: Use of Matched Sale-Purchase Operations, July 13-20, 1966

The matched sale-purchase transactions discussed at the telephone meeting of the Committee on Monday, July 11, have enabled the System to offset the reserve effects of the current airline strike without interfering with the normal functioning of the Government securities market. As set forth more fully in the attached memorandum, the Desk employed the new technique on four separate occasions over the July 13-20 period, involving the sale and repurchase of $1,438.5 million of Government securities. In this way the System was able to withdraw $734 million in reserves on average during the week ended July 20 compared with the $1 billion in extra float caused by the airline strike. In consequence of this and a higher Treasury balance, the Desk was able to maintain reserve availability near the levels desired by the Committee with the aid of moderate-sized sales of Treasury bills to foreign accounts and to the market.

The Desk was able to adapt its operating procedures quickly to the use of the matched sale-purchase technique, which has long been employed by dealers in the market. Experience with the matched sale-purchase transaction in this brief interval suggests that it is a very useful means of absorbing reserves in large volume for short periods of time with a minimum of disturbance to the Treasury bill market. In my judgment it would not have been possible to absorb reserves in the volume actually accomplished in this period through outright sales of Treasury bills.

There was active competition among dealers for the contracts, with offerings more than double the amount accepted by the System. The net return to dealers from entering the matched transactions--as far as we can measure them--does not appear to have been excessive in any way; the rates at which securities were offered to us appear to be roughly consistent with the return that dealers expect when they have an opportunity to match off an outright purchase and sale on the same day and considerably less than the spreads which dealers quote to customers.

The attached memorandum reviews in some detail the experience that we have had to date with matched purchase-sale transactions.

SYSTEM USE OF MATCHED SALE-PURCHASE CONTRACTS JULY 13-20, 1966

This memorandum provides a special review of the background and results of the recent use of matched sale-purchase transactions to offset part of the surplus reserves created by the bulge in float during the current airline strike. This operating technique was outlined in a telegram sent to Reserve Bank presidents on Friday, July 8, and its use was discussed at a telephone conference of the Federal Open Market Committee on Monday, July 11.

The matched sale-purchase technique, which has long been employed by dealers in the market, has enabled the Trading Desk to offset most of the reserve effects of the current airline strike without interfering with the normal functioning of the Government securities market. The Desk employed the new technique on four occasions over the July 13-20 period, involving the sale and repurchase of $1,438.5 million of Government securities. Through this channel the System was able to withdraw $734 million in reserves on average during the week ended July 20 of the approximately $1 billion reserve injection caused by the airline strike, maintaining reserve availability near the levels desired by the Committee.

Background

The airline strike began at 6 a.m. on Friday, July 8, and involved five major carriers which collectively serve 231 U.S. cities and account for 60 per cent of the domestic passenger miles and 70 per cent of air mail service flown each year. Estimates suggested that the strike might disrupt the collection of checks sufficiently that float would ultimately rise anywhere from $500 million to $2 billion. Money market conditions were quite firm on Friday, but it was expected that the likely bulge in reserves would begin to create easy conditions after the weekend.

In view of the existing market conditions, it appeared to the officers on the Trading Desk that it might be quite difficult for the System to make outright sales of securities on the scale necessary to absorb the likely bulge in reserves and maintain the firm money market conditions desired by the Committee--sales which would likely have to be reversed with outright purchases in roughly the same magnitude once the strike was settled and float returned to its normal level. It was felt that actions of the size likely to be needed would have a considerable impact on market rates. The Manager of the System Open Market Account thus proposed an alternative procedure, involving simultaneous sale-purchase transactions, to deal with the situation.

Very little concrete evidence bearing on the float situation was available by the time of the telephone meeting of the Committee on Monday morning. As expected, float had remained around its normal level on Friday and over the weekend, as the checks sent out from the Reserve Banks on Thursday while the airlines were still flying were cleared without unusual difficulty. Early indications suggested that the money market would still be quite firm that day, with Federal funds quoted at 5 5/8 per cent bid-5 3/4 per cent offered.

According to estimates by the New York Bank staff, it seemed possible that float would remain at a normal level on that Monday, as the checks sent out on Friday had the full weekend to reach their destinations, but that a rise of $600 million over and above normal was likely on Tuesday, with the higher level continuing through the duration of the strike. Board Staff estimates suggested that the major impact might not hit until Wednesday, at which time float might bulge by $1 billion. Part of this likely bulge in reserves had already been offset by the Treasury's calls on the "C" banks on Friday and Monday, which raised its balance at the Reserve Banks to $1,046 million over the weekend and to an estimated $1,082 million on Monday. Even assuming a $1.1 billion balance over the rest of the week, New York Bank staff projections pointed to net borrowed reserves of $140 million for the current week (later revised to $183 million) and to net free reserves of $45 million for the following week. Board

Staff projections pointed to net borrowed reserves of about $280 million in the current week and net free reserves of about $440 million in the following week. Given the Committee's reluctance to have the Manager engage in simultaneous sale-purchase transactions, unless it appeared absolutely necessary, the Manager's plan of action on Monday involved the sale of only a modest amount of Treasury bills for cash to foreign accounts.

On Tuesday, it was learned that reserves had turned out about $190 million a day higher than expected over the weekend, and that float on Monday had been $600 million more than had been anticipated. In the light of this, the New York Bank's estimates were revised upward, pointing to $1 billion of extra float on Tuesday and each day thereafter during the assumed period of the airline strike. After allowing for these and other revisions, including the results of the country bank sample, estimates by both the New York Bank and the Board Staff pointed to net borrowed reserves of around $50 million for the week ended July 13, with free reserves of at least $300 million estimated for the following week.

Despite the indication of relatively ample reserve availability, the money market was still firm at the opening on Tuesday with Federal funds trading at 5 5/8 per cent. In these circumstances, the Trading Desk sold some Treasury bills to foreign accounts both for cash and regular delivery, but hesitated to take further action in the market unless the money market quickly showed signs of easing significantly. On the regular morning conference call, however, it was indicated that if the money market should ease during the afternoon the Desk would consider informing the dealers in a general way that it was thinking of engaging in simultaneous sale-purchase transactions so that when and if such transactions were carried out they would not come as a complete surprise to the market.

The money market did ease slightly during the morning, with Federal funds quoted at 5 1/2 per cent bid-5 5/8 per cent offered by noon, but this seemed an insufficient basis for undertaking the new operating technique for cash that day. By 3 p.m., however, funds were freely offered at 5 per cent. Accordingly, at 3:15 p.m. each of the 20 primary dealers were contacted and read the following statement:

> "In view of the airline strike, we have been thinking of ways to absorb the extra reserves created by the large bulge in float that is expected with as little adverse impact as possible on the market's normal functioning. If there should be a need to absorb reserves over the next few days, we are now contemplating the possibility of asking all dealers to buy selected issues of Treasury bills for cash delivery and simultaneously to offer the same issue back to us for delivery a few days later. Specifically, we would be selling bills at our composite bid rate, and request competitive reofferings of these issues for delivery on a specific future date. If we decide to carry out such operations, dealers will be notified sometime during the morning and given about one hour to make the necessary calculations and to arrange financing or reversals of these transactions with other investors."

On Wednesday, it was learned that reserves on Tuesday had turned out about as expected, thus confirming that float was running at an unusually high level. Revised estimates pointed to net borrowed reserves of around $100 million for the current week and net free reserves of somewhere above $420 million in the following week. The money market was comfortable at the opening with Federal funds trading mostly at 4 1/2 per cent and most of the weight on the offered side. In these circumstances, the Trading Desk initiated the matched sale-purchase type of transactions, and a go-around contact with the dealers was begun at about 11:40 a.m.

Operations of this type were also conducted on Thursday and Friday, July 14 and 15, and on Tuesday, July 19. The rationale behind the operations on each of these days was similar to that outlined above--namely, money market conditions and reserve estimates both suggested a need for the System to absorb a sizable volume of reserves--operations which in the judgment of the Trading Desk could not be accomplished to the desired extent through outright sales of securities. System outright sales to foreign accounts amounted to $188.8 million over the period and sales in the market on Friday, July 15, totaled $150.8 million.

Matched Sale-Purchase Operations

Mechanics. Each of the operations involving matched sale-purchase transactions was conducted in a go-around. The dealers were contacted simultaneously at some point during the morning and presented a situation in which the System offered to sell selected issues of Treasury bills at stated rates for cash delivery and asked the dealers to specify how much they would be willing to take and at what price they would offer to sell the bills back to the System for delivery several days later. In the operation on Wednesday, July 13, five issues of bills maturing in September were involved, but it proved practical in subsequent operations to limit the number of issues to two or three.

The first operation was offered with a two-day "life", as the System offered to sell for cash on Wednesday, July 13, and committed to rebuy the bills for delivery on Friday, July 15. The operations on Thursday and Friday both were for five days, with the redelivery of the securities to the System scheduled for Tuesday, July 19, and Wednesday, July 20, respectively. The securities sold on Tuesday, July 19, were scheduled for redelivery to the System three days later, on Friday, July 22. In each case, the intent of the operation was to absorb the reserves for as long a period as seemed practicable and yet keep a close string on the sales in case the airline strike should suddenly be settled and float return to normal.

The first time the operation was attempted, initial contact with the dealers was made at about 11:40 a.m. and they were given until 12:30 p.m. to make the necessary calculations, line up whatever financing they needed, and then submit their reofferings. On subsequent days, the initial contact was made a little earlier--generally by 11:15 a.m.--and the commitment time was cut to half an hour. Once all reofferings were submitted, execution of the operation took about 15 minutes. These time dimensions are roughly comparable to those involved in go-arounds in Treasury bills.

Contracts Offered. Table I shows that the total amounts of contracts offered by the dealers has ranged from $660 million in the operation conducted on Thursday, July 14 (which had a five-day life), to $991 million in the operation on Tuesday, July 19 (which had a three-day life). The System has accepted on a best-price basis a little less than half of all contracts offered, with a slightly greater share of those accepted going to the nonbank dealers than to the bank dealers. On the other hand, the bank dealers show a slightly higher "acceptance ratio" in the aggregate on their offerings than do the nonbank dealers.

Table I

Contracts Offered and Accepted
(In millions)

Date of Operation	7/13/66	7/14/66	7/15/66	7/19/66	Combined Total
"Life-span" of contracts	2 days	5 days	5 days	3 days	
Contracts offered-total	$689.5	$660	$714	$991	$3,054.5
Nonbank dealers	420.5	375	394	700	1,889.5
Bank dealers	269.0	285	320	291	1,165.0
Contracts accepted-total	205.5	440	382	411	1,438.5
Nonbank dealers	95.5	235	207	265	802.5
Bank dealers	110.0	205	175	146	636.0

Sixteen out of 20 dealers have entered into matched transactions with the System, in amounts ranging from $15 million to $250 million in the four operations. One dealer has chosen not to participate in any of the four operations conducted to date, in the belief that the System should confine itself to outright operations. Two bank dealers and one nonbank dealer have participated in the operations, but have not been successful in their offerings.

Dealer Profitability

The profitability of the matched sale and repurchase transactions to the Government securities dealers is a compound of the spread between the price the dealer pays the System and the price at which the System purchases the securities, his financing costs, transfer charges, and miscellaneous operating costs. Because each of these elements may differ on individual contracts, no precise measurement of dealer profits on these transactions can be presented, although some rough estimates are given below. From available information, a very rough estimate indicates that aggregate dealer profits on the $1.4 billion in contracts executed to date may have ranged between $25,000 and $50,000 with no allowance for overhead and miscellaneous operating costs. This is roughly equivalent to one basis point on a three-month bill, which is about the same as most dealers would trade on a quickly reversed trading transaction and considerably less than the normal spread prevailing between dealers' quoted bids and offers. As far as the System is concerned, the prices received on sales and the prices paid for the securities purchased were undoubtedly far more favorable than if transactions had been conducted on an outright basis. Sales of that magnitude would have driven prices sharply lower, while subsequent purchases would in turn have driven prices sharply higher. The real advantages of the transactions to the System cannot, of course, be measured in any such mechanical price terms.

The spread between prices received by the System on Treasury bill sales and the prices paid ranged from 2 to 14 basis points. Since the value of a basis point depends on the maturity of the security involved, selection of individual dealer offerings in the go-arounds was based on the gross yield to the dealer implied by his reoffering price. Table II shows the amount of contracts accepted and rejected in each of the four operations, together with the range of gross yields on individual dealer offerings.

As the Table indicates, the gross yield on all contracts accepted by the System averaged about 6.05 per cent. In dollar terms, this represents about $967,200 on the $1,438.5 million of contracts accepted.

Table II

Gross Yields to Dealers on Contracts
(Dollar in millions)

Date of Operation	7/13/66	7/14/66	7/15/66	7/19/66	Combined Total
"Life-span" of contracts	2 days	5 days	5 days	3 days	
Accepted contracts-total	$205.5	$440	$382	$411	$1,438.5
Gross yield to dealers:					
Low	5.420%	5.760%	5.776%	5.485%	5.420%
Average	5.987	6.145	6.059	5.897	6.052
High	6.270	6.364	6.346	6.122	6.364
Rejected contracts-total	$484	$220	$332	$580	$1,616
Gross yield to dealers:					
Low	6.303%	6.276%*	6.040%*	6.170%	6.040%
High	7.410	6.940	6.728	7.534	7.534

* For various reasons, mostly involving limitations on the amount which the System was able to sell of particular bill issues, some contracts were rejected even though their gross effective yield to the dealer was less than or equal to the yield on other contracts that were accepted.

No detailed information is available on how much dealers actually paid for financing the securities acquired in these operations. Most of the evidence suggests, however, that funds were not unduly cheap. Dealer lending rates at the New York City banks during the period under consideration did not fall below 6 per cent. Some money was available outside New York at lower rates, though the lowest rate indicated to the Trading Desk by a nonbank dealer in routine coverage of the money market was around 5 5/8 per cent. Assuming that dealers were able to finance all of their contracts at an average cost of somewhere in the 5 5/8-5.75 per cent range (a heroic but not unreasonable assumption), total dealer financing costs may have amounted to roughly $902,000 to $927,000. Clearing charges at $10 per million would have added another $15,000 to direct costs. On this basis, net returns to the dealers might approximate $25,000 to $50,000--or roughly $25 per million.

As scanty as the statistical evidence is, it conforms with information supplied by a number of dealers that they were figuring their offerings on matched contracts with the System on the basis of a return after cost of $15 to $40 per million. Experience to date indicates that there is sufficient competition among dealers to keep the costs to the System and profits to the dealers at minimal levels.

Effects on Reserves

As noted earlier, while the bulge in float resulting from the airline strike actually began to show up on Monday, July 11, it was not fully apparent until Wednesday morning, July 13. This bulge raised float to a level about $390 million above normal, on average, for that week as a whole. Action taken earlier in the week in raising the Treasury balance and selling bills to foreign accounts offset some of the rise in float and only a modest additional offset could be accomplished by action on Wednesday. As a result, net borrowed reserves declined to an average of $93 million in the week ended July 13 (revised from initial estimates of $155 million).

Float in the week ended July 20 averaged about $1 billion above normal. Use of the matched sale-purchase transactions had the effect of offsetting $734 million of this bulge in reserves, in daily average terms, during the week, as shown in Table III. The maximum amount of reserves absorbed by this technique on an individual day came to $822 million.

Table III

The Bulge in Float and its Major Offsets
(In millions of dollars)

	Effect on Weekly Average in Week Ending:	
	7/13/66	7/20/66
Extra float caused by airline strike	390	1,015
Actions to absorb reserves:		
Treasury balance above normal $900 million level	154	256
System outright sales of Treasury bills:		
To foreign accounts	26	161
To market	0	129
Matched sale-purchase transactions	29	734
Cumulative change in all other factors	+189	+ 249
Level of net borrowed reserves	93	479

In the opinion of the Officers at the Trading Desk, operations on this scale on an outright basis would have been extremely difficult--if not impossible--to accomplish. This was a period when the market was very nervous about the possibility of a change in the Federal Reserve discount rate. While dealers would have taken some bills into position, System sales of a large volume of Treasury bills--much less $700-800 million--would probably have led to a rise of at least a 10 to 20 basis points in bill rates over and above what did occur, and very likely to disorderly conditions. The System did sell $151 million of bills in a low-key go-around on Friday, and the additional $250 million of bids submitted by dealers that were rejected were as much as 10 basis points higher than what in fact was accepted.

Securities Department
Federal Reserve Bank of New York
July 22, 1966