APPENDIX SUMMARIZING NARRATIVE EVIDENCE ON FEDERAL RESERVE INTENTIONS FOR THE FEDERAL FUNDS RATE

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To accompany "A New Measure of Monetary Shocks: Derivation and Implications," <u>American Economic</u> <u>Review</u>, September 2004, *94*(4), pp. 1055-1084. This appendix documents the derivation of our measure of the intended funds rate around FOMC meetings for the period 1969 to 1996. The date refers to the date of the meeting of the Federal Open Market Committee. The first number is the level of the federal funds rate that the FOMC intended to prevail at the time of the forecast. The second number is the level of the funds rate that the FOMC intended on the basis of its decision at that meeting. For each observation we give a brief summary of the reasoning behind our identification of the intended level. Section I.A of the paper describes the sources and general criteria we use in making these decisions. We discuss each FOMC meeting that occurs during our sample period. Some of these intentions, however, do not end up being used in the estimation of the shock series because there is no corresponding Greenbook forecast with the appropriate horizon.

<u> 1969</u>

- 1/14/69 6.4375, no change. The FOMC agrees that open-market operations should attempt to maintain current credit market conditions.
- 2/4/69 6.4375, no change. The FOMC again agrees that open-market operations should attempt to maintain current credit market conditions. There is a suggestion of a slight asymmetry toward easing, but not enough to point to a noticeable expected fall in the funds rate.
- 3/4/69 6.75 to 6.625. The FOMC again agrees to attempt to maintain current monetary conditions. But there is an explicit asymmetry toward easing: conditions should be eased if bank credit appears to be contracting any more rapidly than projected, but tightened only if bank credit appears to be growing substantially faster than projected. The asymmetry suggests an expected reduction of roughly 1/8 point (since a typical move is 1/4 point and the asymmetry does not guarantee a move).
- 4/1/69 6.75 to 7.25. The FOMC agrees that it wants the funds rate to rise by roughly the same amount as the pending increase in the discount rate, which is 1/2 point.
- 4/29/69 7.6875 to 7.9375. The meeting summary states that open-market operations were modified in the direction of greater firmness during the intermeeting period, and that one consequence was a rise in the funds rate late in the month. Thus there was a rise in the desired rate between the time of the forecast and the time of the meeting. Although the magnitude is difficult to gauge, a rise of 1/8 point seems roughly correct. At the meeting, the FOMC agrees to maintain at least the current degree of restraint, but with a clear asymmetry toward tightening. Thus there is an additional expected increase in the funds rate of roughly 1/8 point.
- 5/27/69 8.5 to 8.625. The FOMC agrees to attempt to maintain current conditions in money and credit markets, but with a clear asymmetry toward tightening.
- 6/24/69 9, no change. The FOMC again agrees to attempt to maintain current conditions in money and credit markets. There is some discussion of continued asymmetry toward tightening, but the summary of the meeting states that the consensus is against asymmetry.
- 7/15/69 9 to 9.125. The FOMC agrees to attempt to maintain current conditions in money and credit markets, but with a clear asymmetry toward tightening.
- 8/12/69 9.5 to 9.75. The meeting summary states that the funds rate has risen by more than a point over the two weeks prior to the meeting. At the meeting, the FOMC agrees to attempt to maintain current conditions in money and credit markets, with no clear asymmetry in either direction. Thus policy is clearly aiming for a higher funds rate than prior to the forecast. The exact magnitude is difficult to gauge. Given how much the actual rate rose prior to the meeting, a rise of 1/8 point in the desired rate appears too small. But there is nothing dramatic enough in the meeting summary to warrant an inference of a rise of 1/2 point or more.
- 9/9/69 9, no change. The FOMC decides to make no change in policy.
- 10/7/69 9.125, no change. The FOMC decides to attempt to maintain current conditions in money and credit markets.
- 10/28/69 9.125, no change. There is a marginal rise in the funds rate sought by policy between the time of the forecast and the time of the meeting. But at this meeting, the FOMC agrees to no

change in policy with an asymmetry toward easing. The net effect of these two decisions is no change.

- 11/25/69 9.125, no change. The FOMC agrees on no change in policy. There is a suggestion of a slight asymmetry toward easing, but not enough to point to a noticeable expected fall in the funds rate.
- 12/16/69 9, no change. Same as previous meeting.

<u>1970</u>

- 1/15/70 9 to 8.75. The FOMC agrees to aim for a funds rate of 8.75-9%, with a clear asymmetry toward additional easing.
- 2/10/70 9.125 to 8.625. The FOMC agrees to ease somewhat immediately and ease further after that, with an objective of moving the funds rate down cautiously and gradually to somewhere in the range of 8-9%. This suggests that a reasonable expectation of the funds rate is slightly over 8.5%.
- 3/10/70 8.3125 to 8.125. The FOMC agrees to aim for a funds rate in the range of 8-8.5%, with a clear asymmetry toward ease.
- 4/7/70 7.75, no change. The FOMC agrees to aim for growth rates of money and the bank credit proxy that correspond to the staff's projections under the assumption of no change in money market conditions.
- 5/5/70 8.25 to 8.375. The FOMC agrees to aim for growth rates of money and the bank credit proxy that correspond to the staff's projections under the assumption of unchanged or slightly firmer money market conditions. However, the FOMC's interest in raising the funds rate slightly is tempered by concern about Treasury financing and financial market disruptions. Thus, the decision corresponds to a small expected tightening, or roughly 1/8 point.
- 5/26/70 8, no change. The FOMC agrees to attempt to keep interest rates approximately unchanged in light of recent problems in financial markets.
- 6/23/70 7.875 to 7.625. The FOMC agrees that it wants to give greater priority to moderating pressures on financial markets, and that it is willing to accept temporarily high growth of money and the bank credit proxy. It therefore desires to nudge interest rates down, with an asymmetry toward further easing.
- 7/21/70 7.3125 to 7.0625. The FOMC again agrees to attempt to reduce interest rates slightly, with an asymmetry toward further easing.
- 8/18/70
 6.75 to 6.25. The FOMC agrees to aim for a funds rate of 6-6.75%, with an asymmetry toward ease. Thus it appears to be agreeing on a direct reduction in the expected funds rate of roughly 3/8 point, plus an additional expected reduction of roughly 1/8 point from the asymmetry.
- 9/15/70 6.375 to 6.1875. The FOMC agrees that some easing in credit market conditions is appropriate, and that it desires a growth rate of the money stock consistent with staff projections of a funds rate toward the low end of 6.125-6.5%.
- 10/20/70 6.25 to 6.125. The FOMC agrees to a slight and gradual easing, but still wants the funds rate to remain in the range of 6-6.5%.
- 11/17/70 5.75 to 5.125. The FOMC agrees to aim for a funds rate in the lower half of 5-5.75%, with a possibility of letting the rate go below 5% if circumstances warrant.
- 12/15/70 5.125 to 4.75. The FOMC agrees to aim for a funds rate of 5%, with a strong asymmetry toward further ease. Given the volatility of the funds rate in this period, the asymmetry suggests an additional expected fall in the funds rate of roughly 1/4 point.

- 1/12/71 4.5 to 4. The FOMC agrees to aim for a funds rate around 4.25% immediately, with a strong asymmetry toward further easing. The lower bound of its range for the funds rate is 3.75%. Given the volatility of the funds rate in this period and the strength of the asymmetry, this suggests an additional expected reduction of roughly 1/4 point.
- 2/9/71 3.75 to 3.625. The FOMC agrees on no immediate change, but a clear asymmetry toward ease.
- 3/9/71 3.5 to 3.625. The FOMC agrees on no immediate change, but a clear asymmetry toward tightening.
- 4/6/71 3.75 to 4.125. The FOMC agrees to tighten. There is no explicit discussion of the magnitude. But the summary of the next meeting implies that most but not all of the overall rise of 1/2 point in the intermeeting period was an implementation of the policy agreed to at this meeting.
- 5/11/71 4.25 to 4.5. The FOMC had been seeking a funds rate of around 4.25%, but the actual rate had been around 4.5% despite its efforts. At this meeting, the FOMC decides that it wants the rate to remain around its current level of 4.5%. In addition, there is a complicated asymmetry: the FOMC wants to move aggressively to reduce rates if money growth is less than expected, and to raise them moderately if money growth is greater than or roughly equal to expected. This does not point to an expected rate clearly above or below 4.5%.
- 6/8/71 4.75 to 5.125. The FOMC agrees to tighten gradually. The Federal Reserve Bank of New York open-market desk's series for the expected funds rate rises immediately by 1/4 point; this suggests an expected tightening of somewhat more than this. Further, the summary of the next meeting does not attribute any of the moves in the Desk's expected rate in the intermeeting period, which total 3/8 point, to news.
- 6/29/71 5.125 to 5.375. The FOMC agrees to tighten policy. The Committee's focal rate for the funds rate is 5-5.5%, with a clear expectation that it will be in the upper half of the range.
- 7/27/71 5.5 to 5.625. The FOMC agrees that it wants more moderate money growth. But there is no explicit reference to any firming of money market conditions. Thus there appears to be a slight expected tightening. The behavior of the Desk's expected rate is consistent with this: there is no immediate change, and then a rise from "5-5.5, upper end" to "5.5-5.75, upper end."
- 8/24/71 5.625, no change. The FOMC agrees on no change in policy, with a slight asymmetry toward tightening. The asymmetry is quite weak, however, and the range for the Desk's expected rate in fact moves down slightly.
- 9/21/71 5.5 to 5.25. The FOMC agrees to ease. The Committee appears to want the funds rate to be in the lower half of 5-5.625%, suggesting a rate around 5.1875%. But in the face of low money growth over the intermeeting period, the Desk's expected rate falls only to "5.25, or a shade under." Balancing these somewhat conflicting pieces of evidence suggests an expected rate of about 5.25% on the basis of the policy adopted at this meeting.
- 10/19/71 5.1875 to 5.0625. The FOMC agrees that some easing might be indicated. The Committee wants the funds rate to stay above 5% barring unexpected developments, and the Blue Book for the next meeting suggests that the level of the funds rate expected on the basis of this meeting was about 5.0625%. Consistent with this, the Desk's expected rate falls to 5-5.125% over the two weeks after the meeting.
- 11/16/71 4.75 to 4.375. The FOMC agrees to seek appreciably easier money market conditions. The Committee appears to want a funds rate in the lower half of the range 4.25-4.875%, and the material from the next meeting suggests that the fall in the funds rate to 4.375% over the intermeeting period was not a response to adverse news.
- 12/14/71 4.375 to 3.75. The FOMC in effect adopts a lower bound for the funds rate of 3.625%, with a policy that is expected to lower the rate to near this bound with substantial probability.

- 1/11/72 3.625 to 3.3125. The FOMC agrees to seek a large increase in total reserves to support faster monetary growth. The Committee appears to want to reduce the funds rate immediately to around 3.25%, with a possibility of lowering it further. The Desk's expected rate, however, moves only to slightly below 3.5% and remains there for two weeks despite favorable news about money and reserve growth. Balancing these conflicting considerations suggests an expected funds rate of slightly above 3.25%.
- 2/15/72 3.25, no change. The FOMC agrees that it wants to avoid large changes in money market conditions in either direction. The Committee agrees to seek a rate of growth of reserves available to support private nonbank deposits (RPD's) that the staff projection suggests may possibly be associated with some firming. But one member dissents on the grounds that he believes the policy will in fact lead to easing. Thus, the Committee does not appear to be agreeing on any clear expected change in the funds rate. The Desk's expected rate is not available for the two weeks after the meeting, and is therefore not informative.
- 3/21/72 3.9375 to 4.25. The FOMC agrees not to let the funds rate exceed 4.25% without consultation, but also adopts a goal for RPD's that the staff projects will be likely to require a rate over 4.25%. This suggests that 4.25% is a reasonable estimate for the likely outcome for the funds rate.
- 4/18/724.25 to 4.375. The FOMC agrees to a goal for RPD's that the staff projects will lead to a funds rate of 4-5%. But it also agrees to aim to keep the funds rate around 4.25% unless reserve and money growth appear likely to be outside the Committee's desired ranges. These considerations suggest an expected funds rate between 4.25% and 4.5%.
- 5/23/72 4.25 to 4.5625. The FOMC adopts a range for the funds rate of 4.25-5.5%, but with a desire to avoid a large increase and a strong reluctance to let it exceed 5%. This suggests an expected rate slightly below the midpoint of 4.25-5%. Consistent with this, the Desk's expected rate rises gradually over the intermeeting period to just under 4.5% despite low RPD growth.
- 6/19-20/72 4.4375 to 4.5625. The FOMC agrees to a goal for RPD's that the staff projection suggests might be associated with some firming. The Committee appears to want a funds rate above its current level and below 4.75%. The Desk's expected rate rises marginally soon after the meeting.
- 7/18/72 4.625, no change. There is a clear sense that little or no change in interest rates is needed. There is more sentiment on the FOMC for a slight updrift than a slight downdrift, but no important support for any significant change. Further, there is essentially no change in the Desk's expected rate for two weeks after the meeting, and the summary of the next meeting suggests that the small change that did occur after two weeks was a response to high RPD growth.
- 8/15/72 4.75 to 4.875. The FOMC adopts a range for the funds rate of 4.5-5.25%, with a focus on the narrower range 4.75-5%. Consistent with this, the Desk's expected rate rises quickly by 1/8 point; it then rises gradually by another 1/8 point in response to high RPD growth.
- 9/19/72 5 to 5.1875. The FOMC adopts a range for the funds rate of 4.75-5.375%, but with an expectation that the rate is unlikely to go below 5%. The Desk's expected rate moves immediately to 5.125%, and at the next meeting the open-market manager reports that at the time he believed that it was very likely that additional firming would be needed.
- 10/17/72 5.0625 to 5.1875. The FOMC agrees that a fair amount of emphasis should be put on interest rates in implementing policy. It also agrees to seek no immediate change in interest rates, but with a clear asymmetry toward tightening.
- 11/20-21/72 5.0625 to 5.1875. There is again a clear asymmetry toward tightening: the FOMC agrees that the funds rate is unlikely to go below 5% or above 5.5%. This suggests an expected rate between its current level and the midpoint of 5-5.5%.
- 12/19/72 5.375 to 5.625. The funds rate had risen by about 1/8 point between the time of the forecast and the time of the meeting. At the meeting, the FOMC agrees to a range for the funds rate of

<u>1973</u>

- 1/16/73 5.75 to 6.25. The FOMC agrees to a range for the funds rate of 5.75-6.375%, but with a clear sense that the rate will move to between 6.125% and 6.375%.
- 2/13/73 6.375 to 6.6875. The FOMC agrees to a range for the funds rate of 6-6.75%, but with a clear sense that the rate will be in the upper part of this range, and with an asymmetry to further tightening. This suggests and expected rate slightly above the midpoint of the upper half of this range, which is 6.5625%.
- 3/19-20/73 7 to 7.125. The FOMC agrees to a range for the funds rate of 6.75-7.5%, with a focus on the narrower range of 7-7.25%.
- 4/17/73 7 to 7.1875. The FOMC adopts a range for the funds rate of 6.875-7.5%, but with money and RPD targets the staff projects are most likely to be consistent with a funds rate in the lower part of this range. The Desk's expected rate moves immediately to 7.25%, however. Balancing these somewhat conflicting pieces of evidence suggests an expected rate of around 7.1875%.
- 5/15/73 7.5 to 8. The FOMC adopts a stated range for the funds rate of 7.25-7.875%, but with a fairly explicit acknowledgement that the range is probably too low to be consistent with its money and RPD targets, and that intermeeting adjustments may be needed. The Desk's expected rate moves immediately to 7.875%, and then gradually to 8.5% over the intermeeting period in response to high money growth. At the next meeting, the open-market manager comments that the stated upper limit of 7.875% had little impact on how policy was conducted. These considerations suggest an expected rate slightly above 7.875%.
- 6/18-19/73 8.5 to 9. The FOMC agrees to a lower target range for RPD growth than the one the staff analysis suggests would be associated with little change in money market conditions, and agrees that money market conditions might be permitted to vary more in the intermeeting period than previously. The Committee adopts a range for the funds rate of 7.75-9.25%, but with a clear expectation that interest-rate increases are likely.
- 7/17/73 9.75 to 10. The FOMC adopts money and RPD targets that the staff projects will be associated with little change in interest rates, but with an asymmetry toward tightening and a willingness to accept non-trivial fluctuations in interest rates.
- 8/21/73 10.5 to 10.75. The FOMC adopts a range for the funds rate of 10-11%, but with a clear expectation that the rate will be in the upper part of the range.
- 9/18/73 10.75 to 10.375. The FOMC agrees to seek a funds rate of 10.5% immediately, with a modest asymmetry toward further easing.
- 10/16/73 10.5 to 9.75. The FOMC agrees to seek a funds rate of 9.75-10%, with a modest asymmetry toward further easing.
- 11/19-20/73 10.125, no change. The FOMC agrees to a range for the funds rate of 9-10.5%, with a focus on the narrower range of 10.125-10.25%. Given the asymmetry of 9-10.5% around 10.125-10.25%, this suggests an expected rate slightly below the midpoint of 10.125-10.25%.
- 12/17-18/73 10.25 to 9.625. The FOMC agrees that in general it will place more emphasis on money market conditions. It also agrees to seek a funds rate of 9.75% initially, with an asymmetry toward further ease.

<u>1974</u>

- 1/21-22/74 9.75 to 9.375. The FOMC agrees to attempt to move the funds rate promptly to 9.25-9.5%.
- 2/20/74 9 to 8.875. The FOMC agrees to seek no immediate change in the funds rate, but with a modest asymmetry toward ease.

- 3/18-19/74 9.1875 to 9.875. The FOMC agrees to seek a funds rate of 9.75% after a few days, with a modest asymmetry toward further tightening.
- 4/15-16/74 9.875 to 10.5. The Desk's expected rate rose from "9.75, or a shade higher" to "10, or somewhat above" between the time of the forecast and the time of this meeting. At the meeting, the FOMC agrees to seek a funds rate of 10.25-10.5%, with a modest asymmetry toward further tightening.
- 5/21/74 11 to 11.375. The Desk's expected rate rose from 11% to 11.25% between the time of the forecast and the time of this meeting. At the meeting, the FOMC agrees to a range for the funds rate of 11-11.5%, with a modest asymmetry toward tightening.
- 6/18/74 11.625 to 11.875. The Desk's expected rate rose from roughly 11.625% to roughly 11.75% between the time of the forecast and the time of this meeting. At the meeting, the FOMC agrees to a range for the funds rate of 11.25-12.25%, with a focus on the narrower range of 11.75-12%.
- 7/16/74 12.75 to 12.25. Although the stated upper limit of the FOMC's target range remained at 12.25% over the entire intermeeting period, the actual rate was generally over 13% and the FOMC decided in an intermeeting teleconference not to press hard to bring the rate within the target range. Thus it appears that initially the FOMC was aiming for a rate between 12.25% and 13-13.5%. At this meeting, the FOMC agrees to ease, and chooses a new target range centered on 12.25%. The Desk's expected rate moves quickly to around 12.25% and remains there.
- 8/20/74 12.25 to 11.875. The FOMC agrees to a range for the funds rate of 11.5-12.5%, with a focus on 11.75-12%. The Desk's expected rate goes quickly to "12, or a shade below."
- 9/10/74 11.75 to 11.125. The FOMC agrees to seek a funds rate of about 11.25% if money growth rates are within its target ranges, with an asymmetry toward further ease.
- 10/14-15/74 10.4375 to 9.625. The FOMC agrees to seek a funds rate of about 9.75% if money growth rates are within its target ranges, with an asymmetry toward further ease.
- 11/19/74 9.5 to 9.25. The FOMC agrees to ease slightly further, and agrees to a target range for the funds rate of 8.5-10% with no asymmetry.
- 12/16-17/74 8.875 to 8.25. The Desk's expected rate fell from around 8.875% at the time of the forecast to around 8.75% at the time of this meeting. At the meeting, the FOMC agrees to some further easing, with a range for the funds rate of 7.5-9% and an emphasis on the midpoint of the range. The Desk's expected rate falls immediately to 8.25%.

<u>1975</u>

- 1/20-21/75 7.25 to 6.6875. The Desk's expected rate fell from around 7.25% to around 7.125% between the time of the forecast and the time of this meeting. At the meeting, the FOMC agrees to a range for the funds rate of 6.5-7.25%, but with a focus on the bottom part of the range. The Desk's expected rate moves immediately to 6.75-7%, and then gradually to 6.25% over the intermeeting period in response to news. The midpoint of the bottom half of the FOMC's range seems a reasonable estimate of the expected funds rate based on this meeting.
- 2/19/75 6.25 to 5.75. The FOMC agrees that money market conditions will probably have to ease further for its money growth targets to be achieved, and it chooses a range for the funds rate centered on 5.75%. At the next meeting, the open-market manager reports that he had expected to move the funds rate to roughly 5.75% over the intermeeting period.
- 3/18/75 5.75 to 5.25. The FOMC agrees to seek a funds rate of 5.5% immediately. It also agrees that in all likelihood it will soon seek a rate of 5.25%, although unusual circumstances could cause it to aim either higher or lower. At the next meeting, the open-market manger reports that he had expected to move the rate to 5.25%.

- 4/14-15/75 5.5 to 5.375. The FOMC chooses a range for the funds rate of 4.75-5.75%. But it agrees to initially seek a range around 5.5%, and then to let the rate drift gradually down toward 5.25% but to avoid aggressive efforts to reach that rate.
- 5/20/75 5.125, no change. The FOMC agrees to emphasize money market conditions more than before, and to seek to attempt to maintain conditions similar to those now prevailing. There is a hint of a slight asymmetry toward ease, but not enough to point to a noticeable expected fall in the funds rate.
- 6/16-17/75 5.25 to 5.625. The FOMC agrees to a range for the funds rate of 5-6% and to initially seek a rate of 5.5%, but with an asymmetry toward further tightening.
- 7/15/75 6 to 6.125. The FOMC agrees to seek roughly unchanged money market conditions, with an asymmetry toward tightening. Its new range for the funds rate is centered on 6.125%.
- 8/19/75 6.1875, no change. The FOMC agrees to seek a funds rate in its current range of 6.125-6.25%, with no asymmetry.
- 9/16/75 6.125 to 6.375. The FOMC agrees to a range for the funds rate of 6-7%, but not to go above 6.75% without consultation. The Desk's expected rate moves quickly to 6.25-6.5%.
- 10/21/75 5.75 to 5.5. The FOMC agrees that in the absence of significant news, it will seek a funds rate of around 5.5%.
- 11/18/75 5.25 to 5. The FOMC agrees to a range for the funds rate of 4.5-5.5%, and to seek to move the rate to 5% barring unusual developments. At the next meeting, the open-market manager reports that he had expected to move the rate to 5%.
- 12/16/75 5.25, no change. The FOMC agrees to seek to keep the funds rate around its current level of 5.25%. There is a slight asymmetry toward ease, but not enough to point to a noticeable expected fall in the funds rate.

<u>1976</u>

- 1/20/76 4.75, no change. The FOMC agrees to seek to keep the funds rate around its current level of 4.75%.
- 2/17-18/76 4.75, no change. Same as previous meeting.
- 3/15-16/76 4.75, no change. Same as previous meeting.
- 4/20/76 4.75 to 4.875. The FOMC agrees to seek a funds rate around 4.875%, and the Desk's expected rate moves promptly to this level.
- 5/18/76 5.125 to 5.375. The Desk's expected rate rose from 5.125% to 5.25% between the time of the forecast and the time of this meeting. At the meeting, the FOMC agrees to a policy that is likely to involve some modest further firming, and to a range for the funds rate centered on 5.375%. The Desk's expected rate moves promptly to this level.
- 6/22/76 5.5, no change. Although there is some sentiment in the FOMC for a slight tightening, the Committee agrees to a range of 5.25-5.75% for the funds rate, and the Desk's expected rate does not change.
- 7/19-20/76 5.25, no change. There is slightly more sentiment on the FOMC for tightening than for easing, but not enough to point to a noticeable expected rise in the funds rate. Further, the Committee agrees to a range for the funds rate centered on 5.25%, and the Desk's expected rate does not change.
- 8/17/76 5.25, no change. The FOMC agrees to seek to keep the funds rate around its current level of 5.25%.
- 9/21/76 5.25, no change. There is slightly more sentiment on the FOMC for easing than for tightening, but not enough to point to a noticeable expected fall in the funds rate. The midpoint of the new range is 5.125%. However, the Desk's expected rate does not change initially, and the summary of the meeting indicates that the later fall was a response to news.
- 10/19/76 5 to 4.875. The FOMC agrees to seek a funds rate of around 4.875%. In fact, however, the Desk never lowers its expected rate, because the money growth data on 10/21 are unexpectedly high. Nonetheless, the expected reduction agreed to at this meeting is 1/8 point.

- 11/16/76 5 to 4.75. The FOMC agrees to seek a reduction of the funds rate in two steps to 4.75% unless money growth is surprisingly strong. The Desk's expected rate makes these falls.
- 12/20-21/76 4.6875 to 4.625. The Desk's expected rate fell from 4.625-4.75% to 4.625% between the time of the forecast and the time of this meeting. At the meeting, the FOMC agrees to seek to keep the funds rate around its current level.

<u>1977</u>

- 1/17-18/77 4.625 to 4.6875. The FOMC agrees to seek a funds rate between 4.625% and 4.75%.
- 2/15/77 4.6875, no change. The FOMC agrees to seek to keep the funds rate around 4.625-4.75%.
- 3/15/77 4.6875, no change. Despite some sentiment for a slight tightening, the FOMC agrees to seek to keep the funds rate in the area of 4.625-4.75%.
- 4/19/77 4.6875 to 4.8125. The Desk's expected rate rose from 4.625-4.75% to 4.75% between the time of the forecast and the time of this meeting. At the meeting, the FOMC agrees to seek a funds rate of about 4.75%. There is some discussion of a target of 4.875%, however, and the Committee's new range for the rate is centered on 4.875%. The Desk's expected rate moves promptly to "4.75, or a shade higher."
- 5/17/77 5.25 to 5.375. The FOMC agrees to seek a funds rate around 5.375%.
- 6/21/77 5.375, no change. The FOMC agrees to seek to keep the funds rate around its current level of 5.375%.
- 7/19/77 5.375, no change. Although there is a little sentiment for tightening, the FOMC agrees to seek to maintain the funds rate at its current level of 5.375%. The summary of the next meeting states that the change in the targeted rate later in the month was a response to news.
- 8/16/77 5.875 to 6. The Desk's expected rate rose from 5.875% to 6% between the time of the forecast and the time of this meeting. At the meeting, the FOMC agrees to seek to maintain the funds rate at about the prevailing level of 6%.
- 9/20/77 6.125 to 6.25. The FOMC agrees to seek a funds rate of about 6.25%, and the Desk's expected rate rises promptly to this level.
- 10/17-18/77 6.5, no change. Although there is a little sentiment for tightening, the FOMC agrees to seek to maintain the funds rate around its current level of 6.5%. The Desk's expected rate does not change.
- 11/15/77 6.5, no change. The FOMC agrees to seek to maintain the funds rate around its current level of 6.5%.
- 12/19-20/77 6.5, no change. Same as previous meeting.

<u>1978</u>

- 1/17/78 6.75, no change. The FOMC agrees to maintain the funds rate around its current level of 6.75%. There is a slight asymmetry toward tightening, but not enough to point to a noticeable expected rise.
- 2/28/78 6.75, no change. Similar to previous meeting, though the asymmetry appears even milder.
- 3/21/78 6.75, no change. Similar to the January meeting. When money growth is unexpectedly high during the intermeeting period, the Desk does not act to raise the funds rate; this supports the view that the intended policy is not strongly asymmetric.
- 4/18/78 6.75 to 7. The FOMC agrees to seek a funds rate slightly above its current level of 6.75%. The Desk's expected rate moves immediately to 7%, and the summary of the next meeting states that this move was taken in accordance with the Committee's decision at this meeting.
- 5/16/78 7.3125 to 7.5. The FOMC agrees to seek a funds rate slightly higher than its current level, which is described as between 7.25% and 7.375%, or as slightly above 7.25%. The Desk's expected rate moves immediately to 7.5%, and the summary of the next meeting states that this move was taken in accordance with the Committee's decision at this meeting.

- 6/20/78 7.5 to 7.75. The FOMC agrees to seek a funds rate of 7.75%, and the Desk's expected rate moves promptly to this level.
- 7/18/78 7.75 to 7.875. The FOMC agrees to seek a funds rate between 7.75% and 8%, and the Desk's expected rate moves promptly to 7.875%.
- 8/15/78 7.875 to 8. The FOMC agrees to seek a funds rate of around 8%, and the Desk's expected rate moves promptly to this level. Somewhat surprisingly, its expected rate then moves to 8-8.125% on 8/21; there is no evidence that this is a response to a decision reached at this meeting, however.
- 9/19/78 8.375 to 8.5. The FOMC agrees to seek a funds rate of around 8.5%, and the Desk's expected rate moves promptly to this level. There is a little sentiment for more tightening, but it is not strong and no asymmetry is agreed to. The Desk's expected rate rises to 8.625% on 9/22, but there is no evidence that this is a response to a decision reached at this meeting, and the summary of the next meeting suggests that it may have been a response to news.
- 10/17/78 8.75 to 9. The FOMC agrees to seek a funds rate around 9%, and the Desk's expected rate moves promptly to this level.
- 11/21/78 9.6875 to 9.875. The FOMC agrees to seek a funds rate of around 9.875%, and the Desk's expected rate moves promptly to this level.
- 12/19/78 9.875 to 10.0625. The FOMC agrees to seek a funds rate of 10% or slightly higher, and the Desk's expected rate moves promptly to "10, preferring slightly above to below."

<u>1979</u>

- 2/6/79 10.0625, no change. The FOMC agrees to seek to maintain the funds rate at about its current level of 10% or slightly higher, and the Desk's expected rate remains unchanged at "10, or slightly above."
- 3/20/79 10.0625, no change. Same as previous meeting.
- 4/17/79 10.0625, no change. Same as previous meeting.
- 5/22/79 10.25, no change. The FOMC agrees to seek to maintain the funds rate at about its current level of 10.25%, and the Desk's expected rate is unchanged at this level.
- 7/11/79 10.25, no change. Same as previous meeting.
- 8/14/79 10.625 to 11. The FOMC agrees to seek a funds rate of about 11%, and the Desk's expected rate moves promptly to this level.
- 9/18/79 11.375 to 11.5. The FOMC agrees to seek a funds rate of about 11.5%, and the Desk's expected rate moves promptly to this level.
- 10/6/79 11.5 to 14.5. As part of its change in operating procedures, the FOMC widens its range for the funds rate to 11.5-15.5%, and agrees to place much less emphasis on the funds rate. The Committee anticipates that the policy adopted at this meeting will lead to a prompt increase in the funds rate. Two pieces of evidence suggest that 14.5% is a reasonable estimate of the expected level of the rate implied by the policy adopted at this meeting. First, the Committee believes that the rate is much more likely to be in the upper half of its target range than in the lower half; the midpoint of the upper half is 14.5%. Second, the Desk's expected rate moves immediately to 13%, and then to "might be pushed into upper portions of 11.5-15.5." It then rises to 15.5% or above, but the summary of the next meeting makes it clear that this was in part a response to news.
- 11/20/79 13.5, no change. The FOMC agrees to keep the range of 11.5-15.5%, which is centered on the current level of 13.5%, with no indication that it expects the funds rate to move in one direction or the other. The Desk's expected rate remains steady at 13-14%.

<u>1980</u>

- 1/8-9/80 13.5, no change. The FOMC agrees to keep the range for the funds rate at 11.5-15.5%, and there is no indication that it desires any change in the rate from the generally prevailing recent level, neglecting transitory factors, of around 13.5%. The Desk's expected rate is "down somewhat from the 14 recent level."
- 2/4-5/80 13.5 to 14. The FOMC agrees that the monetary aggregates are more or less on course, and agrees to keep the range for the funds rate at 11.5-15.5%. But it wants money growth to slow, and does not appear to think that this will happen on its own. Thus there appears to be a modest tightening. In light of the volatility of the funds rate, this suggests an expected move of roughly 1/2 point. The Desk's expected rate is missing for the two weeks after the meeting, and is then 14.5-15%. The summary of the next meeting suggests that there was significant news by mid-February, however.
- 3/18/80 16.5 to 18.25. It is clear that the FOMC is choosing a policy that it anticipates will produce a funds rate higher than the current level of both the actual rate and the Desk's expected rate of about 16.5%. The Committee raises the lower limit of its range for the rate by 1.5 points and the upper limit by 2, suggesting an expected tightening of about 1.75 points. Similarly, the average of the current level of the rate and the upper limit of the range is 18.25%. The Desk's expected rate is not very informative: it is missing for a week, then 16-18%, and then suggests that the rate could go close to 20%.
- 4/22/80 18.375 to 14.5. It is clear that the FOMC expects a substantial fall in the funds rate. For example, the one member who wants only a moderate loosening dissents on the grounds that he believes that policy adopted will lead to an excessive fall in rates. The Desk's expected rate moves immediately to 14-15%.
- 5/20/80 10.875 to 9.5. Again, it is clear that the FOMC expects the funds rate to fall. The Desk's expected rate moves immediately to "decline .. to not below 9.5%," and the summary of the next meeting does not attribute any of the decline in the rate to about 9.375% in the intermeeting period to news. Similarly, the average of the current rate and the bottom of the Committee's range is 9.6875%, and the midpoint of the lower half of the Committee's range is 9.875%. All of this suggests an expected fall to the vicinity of 9.5%.
- 7/9/80 9.375, no change. There is no discussion of expectations about the funds rate in the meeting summary, and the Desk's expected rate is missing around this meeting. But the fact that the Committee leaves the lower end of its range unchanged at 8.5%, only moderately below the current level, suggests that it does not expect a noticeable decline in the rate. And the fact that the summary indicates that the Committee will accept higher money growth if demand rises suggests that it does not expect a noticeable rise.
- 8/12/80 9.625 to 9.875. Most members support a policy that would not be expected to lead to any clear change in the funds rate in either direction. But a few members favor a more restrictive policy, and the FOMC adopts objectives for money growth marginally lower than those the majority had been discussing. This suggests a slight tightening. Consistent with this, the Desk's expected rate rises slightly.
- 9/16/80 10.25 to 11.25. The funds rate rose from about 10.25% to about 10.75% between the time of the forecast and the time of this meeting. At the meeting, the FOMC expresses a strong desire to reduce money growth, although it thinks that this may not require an immediate change in money market conditions. Thus there appears to be a clear asymmetry toward tightening. In light of the volatility of the funds rate, this suggests an additional expected increase of roughly 1/2 point. Broadly consistent with this, the Desk's expected rate changes little initially but ends up rising above 12% in response to news.
- 10/21/80 12.125 to 13.625. The Desk's expected rate rose from "12, or somewhat higher" to 12.5-13% between the time of the forecast and the time of this meeting. At the meeting, the FOMC adopts targets for money growth somewhat lower than ones it believes would lead to little expected change in money market conditions. This suggests some immediate tightening.

Consistent with this, the Desk's expected rate rises immediately to "13, or somewhat higher." Further, there is a clear asymmetry toward tightening. In light of the volatility of the funds rate, this suggests an additional expected increase in the rate of roughly 1/2 point.

- 11/18/80 14.5 to 16.25. The funds rate rose from about 14.5% to about 16.25% between the time of the forecast and the time of this meeting; much of this rise was associated with an increase in the discount rate on November 14. At the meeting, the FOMC gives no clear indication of any noticeable expected additional change in the rate in either direction. Surprisingly, the Desk's expected rate goes directly from 14-15% to "might go above 17." In light of the discussion at this meeting and the fact that the Committee chooses an upper end of 17% for its range, however, it is not possible to attribute all of this move to a decision made at this meeting.
- 12/18-19/80 18.75 to 18. Shortly before the forecast, the FOMC agreed to not be precisely bound by its upper limit for the funds rate of 18%, and the actual rate rose to around 18.75% at the time of the forecast. By the time of this meeting, the rate had risen to around 19.75%. At the meeting, the FOMC wants and expects the rate to fall from its recently prevailing level of 18.75-19.75%. The Desk's expected rate is missing for a week and then falls to 17-18%. The summary of the next meeting attributes some of this decline to news, however. All of this suggests an expected fall to the vicinity of 18%.

<u>1981</u>

- 2/2-3/81 17.5 to 17. The Desk had been expecting a funds rate of 17-18%, neglecting some transitory factors. At this meeting, there is little discussion of the funds rate, though the tone of the discussion suggests that the FOMC thinks a fall is much more likely than a rise. In addition, the FOMC adopts a borrowings target that both the open-market manager and the staff expect to be associated with a small decline in the funds rate. The Desk's expected rate goes promptly to 16-18%.
- 3/31/81 15 to 15.875. The FOMC agrees to a range for the funds rate centered on 15.5%, and to a policy that the staff expects will be associated with some increase in interest rates. In addition, there is a clear asymmetry toward additional tightening; given the volatility of the funds rate, this suggests a non-negligible further expected increase in the funds rate. The Desk's expected rate is missing for a week, but then moves to "some firming above 15.5."
- 5/18/81 18.5 to 20. The FOMC agrees that it wants to maintain restraint, and to reduce money growth rather quickly. The staff expects a funds rate of 19-20%. However, the FOMC agrees to an asymmetry toward further tightening, and the Desk's expected rate moves immediately to 20%. The summary of the next meeting indicates that the news in the intermeeting period suggested low money growth, so it is not possible to attribute any of the move to 20% to news.
- 7/6-7/81 18.5 to 17.5. The FOMC lowers its range for the funds rate despite the fact that the current rate is near the middle of the initial range, and chooses a borrowings target that the staff expects to produce a funds rate of 17-18%. The Desk's expected rate, neglecting some temporary factors, falls from 18-19% to 17-18%.
- 8/18/81 18 to 17.5. The summary of the meeting suggests that no major change in policy is intended. But there are indications of a modest loosening. Some Committee members want policy to focus more on interest rates and explicitly advocate a small decline. And the Committee agrees to discount the rapid growth in M2. The Desk's expected rate is missing for a week and then falls to 17%; the summary of the next meeting indicates that some of this fall was a response to news, however.
- 10/5-6/81 15.5 to 14.5. There again appears to be a modest loosening without a major change in policy. In particular, the Committee wants money growth to rise. The FOMC adopts a borrowings target that the staff expects will lead to a funds rate of 14.5-15.5%, with an asymmetry toward further easing. The Desk's expected rate moves promptly to 14.5-15.5%.

- 11/17/81 13.5 to 12.5. The FOMC agrees that it wants interest rates to fall. It agrees to a borrowings target that it expects will produce a funds rate around 13%, and to an asymmetry toward further easing.
- 12/21-22/81 12.125 to 11.875. The FOMC agrees not to seek an immediate change in the funds rate, but with a mild asymmetry toward easing.

<u>1982</u>

- 2/1-2/82 14 to 14.5. The FOMC adopts reserve and money targets slightly tighter than ones the staff expects would be associated with little change in interest rates, and the Desk's expected rate rises immediately to 14-15% and remains there.
- 3/29-30/82 14.75 to 14.25. The Desk's expected rate moves from "close to 15" at the time of the forecast, to 14-15% before this meeting, and to 14% and then to 14-14.5% after the meeting. The discussion at this meeting does not point to any large expected change in interest rates in either direction from the level prevailing at the time of the meeting, though there appears to be more support for lower than for higher interest rates.
- 5/18/82 14 to 13.25. The FOMC adopts a reserves target that the staff expects will be associated with a funds rate around 13.5%, with a mild asymmetry toward further easing. The Desk's expected rate falls from 14% before the forecast, to "14, or somewhat under" at the time of the meeting, to 13.5% immediately after.
- 6/30-7/1/82 14 to 13.5. The FOMC adopts a borrowings target that it expects will lead to a funds rate of 13.5-14%, with an asymmetry toward further easing.
- 8/24/82 10.25 to 9.5. The FOMC appears to desire a funds rate in the 9-10% range. The Desk's expected rate is unclear for a week, but is then "around 9.5."
- 10/5/82 10.25 to 9.5. Beginning roughly with this meeting, credit market conditions play a more prominent role in discussions of policy. Here, the FOMC agrees that it wants somewhat reduced pressures in credit markets, and is willing to accept money growth above its target. It adopts a range for the funds rate of 7-10.5%, but with an expectation that the rate is more likely to be above than below the middle of the range. The Desk's expected rate falls quickly to 9.5%.
- 11/16/82 9.5 to 9. The FOMC agrees to ease; a funds rate around 9% is often mentioned. The Desk's expected rate falls quickly to 9%.
- 12/20-21/82 8.5, no change. Although there is slight sentiment for some easing, it is not enough to point to a noticeable expected fall in the funds rate. The Desk's expected rate is steady at 8.5%.

<u>1983</u>

- 2/8-9/83 8.5, no change. The FOMC agrees to maintain the existing degree of restraint on reserve positions. The Desk's expected rate is steady at 8.5%.
- 3/28-29/83 8.5 to 8.625. Policy shifted to a slightly less accommodate stance between the time of the forecast and the time of this meeting. Here the FOMC agrees to a policy that it expects to yield a funds rate of 8.5-8.75%, and the Desk's expected rate is steady at "slightly above" 8.5%.
- 5/24/83 8.625 to 8.875. The FOMC votes for a policy of marginally more restraint. The Desk's expected rate rises from "8.5, close to or slightly above" to "8.75, or somewhat higher."
- 7/12-13/83 9.0625 to 9.375. The FOMC agrees to seek a funds rate above its current level but below 9.5%. The Desk's expected rate moves from "9, or somewhat higher" to 9.25-9.5%.
- 8/23/83 9.5625 to 9.5. The FOMC agrees to a policy that it expects will produce a funds rate around 9.5%
- 10/4/83 9.375, no change. The FOMC agrees to make no further adjustment in the degree of reserve restraint.

- 11/14-15/83 9.375, no change. Although there is some sentiment for slight tightening, the FOMC agrees to maintain the current degree of restraint, and the Desk's expected rate is steady at 9.25-9.5%.
- 12/19-20/83 9.5 to 9.625. The FOMC agrees to maintain at least the existing degree of restraint, with a strong asymmetry toward tightening. The Committee expects that if there is a tightening, it will be 1/4 point. This suggests an expected increase in the funds rate of roughly 1/8 point.

<u>1984</u>

- 1/30-31/84 9.375, no change. The FOMC agrees to seek to maintain the existing degree of restraint. There is a slight asymmetry toward loosening, but not enough to point to a noticeable expected fall in the funds rate.
- 3/26-27/84 10.125 to 10.5. The FOMC adopts a policy that it expects will yield a funds rate of around 10.25-10.5% if the Board of Governors does not increase the discount rate, and around 10.5-10.75% if it does. The FOMC appears quite uncertain about whether the discount rate will rise; thus a reasonable estimate of the likely funds rate is 10.5%.
- 5/21-22/84 10.5, no change. The FOMC agrees that no change should be made in the degree of pressure on reserve positions.
- 7/16-17/84 11 to 11.375. The Desk's expected rate rose from 11 to "11, or a touch higher" between the time of the forecast and the time of this meeting, and the actual rate rose to around 11.25%. At the meeting, the FOMC agrees to maintain the existing degree of restraint on reserve positions, with a clear asymmetry toward further tightening. This suggests an expected level of the funds rate slightly above its current level of 11.25%. The Desk's expected rate rises immediately to 11.25%, and then further over the course of the intermeeting period.
- 8/21/84 11.5625 to 11.5. The evidence from this meeting reveals no signs of a clear desire to move the funds rate in a particular direction, but does suggest some preference for a marginal easing. Thus the evidence is consistent with a slight fall in the expected funds rate. Both the behavior of the Desk's expected rate and the open-market manager's discussion at the next meeting suggest the same conclusion.
- 10/2/84 11.25 to 10.875. The Desk's expected rate fell from 11.25% to 11% immediately after the forecast. At this meeting, the FOMC agrees to maintain the lesser degree of pressure on reserve positions attained in recent weeks, but with a modest asymmetry toward further easing.
- 11/7/84 10 to 9.25. The FOMC agrees to ease, and most members favor doing so in steps. The Desk's expected rate falls immediately to 9.5%, then to 9% two weeks after the meeting, then to 8.75% two weeks after that. The summary of the next meeting suggests, however, that some of this overall reduction was a response to news. This suggests that the expected reduction as of this meeting was roughly 3/4 point.
- 12/17-18/84 8.75 to 8.125. The FOMC agrees to seek a funds rate of 8.5% or somewhat lower. In addition, the Committee believes that a cut in the discount rate is likely, and that this will lead to a further reduction in the funds rate. The Desk's intended funds rate falls quickly to 8.5%, then to 8-8.25% a week later following a cut in the discount rate.

<u>1985</u>

- 2/12-13/85 8.5, no change. The FOMC agrees to seek to keep the funds rate around its current level of 8.5%.
- 3/26/85 8.5, no change. Similar to previous meeting.
- 5/21/85 8.125 to 7.75. The Desk appears to have been aiming for a funds rate of about 8-8.25% before the forecast, but lowered its intended rate to 7.75% between the time of the forecast and the time of this meeting. At this meeting, the FOMC agrees to maintain the current degree of restraint.

- 7/9-10/85 7.625, no change. The FOMC agrees to maintain the current degree of pressure on reserve positions. There is a slight asymmetry toward tightening, but not enough to point to a noticeable expected rise in the funds rate. The immediate reduction in the Desk's intended rate from 7.75% to 7.625-7.75% appears to be simply an alignment of the intended rate with how policy was being conducted.
- 8/20/85 7.8125, no change. The FOMC agrees to maintain the slightly firmer degree of reserve restraint sought in recent weeks. The Desk's intended rate in fact rises immediately from 7.75% to 7.75-8%. The summary of the meeting suggests, however, that the change is simply an alignment of the intended rate with how policy was being conducted.
- 10/1/85 7.875, no change. The FOMC agrees to maintain the degree of reserve pressure sought in recent weeks.
- 11/4-5/85 8 to 7.9375. The FOMC agrees to maintain about the current degree of reserve restraint, but with the expectation of a slight downdrift in the funds rate and a slight asymmetry toward further ease. The Desk's intended rate moves from 8% to "8-."
- 12/16-17/85 7.9375 to 7.75. The FOMC agrees to a slight easing, and the Desk's intended rate falls immediately from "8-" to 7.75%. There is a slight asymmetry toward further easing, but not enough to point to an expected funds rate noticeably below 7.75%.

<u>1986</u>

- 2/11-12/86 7.8125, no change. The FOMC agrees to seek unchanged conditions of reserve availability.
- 4/1/86 7.375, no change. Similar to previous meeting.
- 5/20/86 6.875, no change. The FOMC agrees to seek no change in the degree of pressure on reserve conditions. There is a slight asymmetry toward tightening, but not enough to point to a noticeable expected rise in the funds rate. The immediate rise in the Desk's intended rate from 6.75% to 6.75-6.875% appears be an alignment of the intended rate with how policy was being conducted.
- 7/8-9/86 6.875 to 6.375. The FOMC agrees to ease in conjunction with the pending 1/2 point cut in the discount rate, and the Desk's intended rate falls from 6.75-7% to 6.25-6.5% on July 11.
- 8/19/86 6.3125 to 5.9375. The FOMC agrees to some slight easing. It clearly wants the funds rate to decline by less than the pending reduction of 1/2 point in the discount rate. The Desk's intended rate falls to 5.75-6%. Since the FOMC expresses a clear desire for a fall of less than 1/2 point, we conclude that it wanted the Desk to aim for the upper part of this range.
- 9/23/86 5.875, no change. The FOMC agrees to seek no change in the degree of pressure on reserve conditions. There is a slight asymmetry toward tightening, but not enough to point to a noticeable expected rise in the funds rate.
- 11/5/86 5.875, no change. The FOMC agrees to seek no change in the degree of pressure on reserve conditions.
- 12/15-16/86 6, no change. The FOMC agrees to seek no change in the degree of pressure on reserve conditions, with a very slight asymmetry toward ease.

<u>1987</u>

- 2/11-12/87 6, no change. The FOMC agrees to seek no change in the degree of pressure on reserve conditions. There is a slight asymmetry toward tightening, but not enough to point to a noticeable expected rise in the funds rate.
- 3/31/87 6.0625 to 6.25. The FOMC agrees that it wants the funds rate to remain around its current level of about 6.25%, rather than at the Desk's intended level of around 6-6.125%. The Desk's reported intended funds rate does not change for several weeks, but the open-market manager reports at the next meeting that reserve provision immediately became more cautious.

- 5/19/87 6.5 to 6.75. The FOMC agrees that it wants the funds rate to remain around its current level of about 6.75%, rather than at the Desk's intended level of 6.5%. The Desk's intended rate rises immediately to 6.75%.
- 7/7/87 6.75, no change. The FOMC agrees to seek no change in the degree of pressure on reserve positions. Although the Desk's intended rate fell from 6.75% to 6.5-6.75% shortly before the meeting, the actual rate did not fall, and at this meeting the baseline level is clearly viewed as 6.75%.
- 8/18/87 6.625, no change. The FOMC agrees to seek no change in the degree of pressure on reserve conditions. There is a slight asymmetry toward tightening, but not enough to point to a noticeable expected rise in the funds rate.
- 9/22/87 7.25, no change. The Desk had been seeking a funds rate of 7.25% since early September, although the actual rate had generally been somewhat lower. The FOMC agrees that it wants to achieve the degree of reserve pressure sought in recent weeks, clearly implying that it wants the Desk to continue to aim for a rate around 7.25%.
- 11/3/87 7.125 to 6.8125. The Desk's intended rate was reduced from 7-7.25% at the time of the forecast to 7% at the time of this meeting. At the meeting, the FOMC agrees that it would like the rate to fall to 6.75-6.875%, with a slight asymmetry toward further ease. The Desk's intended rate immediately falls to 6.75-6.875%.
- 12/15-16/87 6.8125, no change. The FOMC agrees to seek to maintain the degree of reserve pressure sought in recent days. The Desk's intended rate of 6.75-6.875% does not change.

<u>1988</u>

- 2/9-10/88 6.625 to 6.5. The FOMC agrees to a borrowings target that it expects will produce a funds rate of around 6.5%.
- 3/29/88 6.5 to 6.75. The FOMC agrees to a slight increase in the degree of pressure on reserve positions, and the Desk's intended rate rises immediately from 6.5% to 6.75%.
- 5/17/88 7 to 7.25. The FOMC agrees to a slight firming after a short interval unless there are significant unexpected developments, with a slight asymmetry toward further tightening. The Desk's intended rate moves from 7% to 7.25% on May 25.
- 6/29-30/88 7.375 to 7.625. The FOMC agrees to a policy that it expects will lead to a funds rate of 7.5% or a shade higher, with a slight asymmetry to further tightening.
- 8/16/88 8.125, no change. The FOMC agrees to maintain the current degree of pressure on reserve positions. There is a slight asymmetry toward tightening, but not enough to point to a noticeable expected rise in the funds rate.
- 9/20/88 8.125, no change. The FOMC agrees to a policy that it expects will keep the funds rate around 8.125%. There is an asymmetry toward tightening, but the Committee feels that it is unlikely to be acted on before the next meeting.
- 11/1/88 8.25, no change. The FOMC agrees to maintain roughly the current degree of pressure on reserve positions. There is a somewhat complicated asymmetry. On the one hand, the stated policy is asymmetric toward tightening, though to a degree that is explicitly less than at the previous meeting. On the other hand, policy is still to some extent being formulated in terms of its implications for borrowings, and some members believe that the policy agreed to is more likely to lead to a slight decline than to a slight rise in the funds rate. In any event, the evidence does not point to any clear expected change in the funds rate.
- 12/13-14/88 8.4375 to 9. The FOMC agrees to seek some immediate firming, followed by some further tightening at the start of 1989 unless there are significant unexpected developments. The Committee expects the funds rate to end up either slightly above or slightly below 9% by the end of the intermeeting period. The Desk's intended rate rises gradually to 9% by early January.

<u>1989</u>

- 2/7-8/89 9 to 9.1875. The FOMC agrees that, depending on circumstances, policy should aim either to maintain the funds rate around its current level of 9-9.125% (rather than at the Desk's intended level of 9%) or to increase it by roughly 1/4 point from that level.
- 3/28/89 9.75 to 9.875. The FOMC agrees to maintain the current degree of pressure on reserve positions, but with a clear asymmetry toward tightening.
- 5/16/89 9.8125, no change. The FOMC agrees to seek no change in the degree of pressure on reserve positions.
- 7/5-6/89 9.5625 to 9.3125. The FOMC agrees to attempt to reduce the funds rate from 9.5-9.625% to 9.25-9.375%.
- 8/22/89 9.0625, no change. The FOMC agrees to maintain the current degree of pressure on reserve positions. There is a slight asymmetry toward easing, but not enough to point to a noticeable expected fall in the funds rate.
- 10/3/89 9, no change. Similar to previous meeting.
- 11/14/89 8.5, no change. Similar to previous meeting.
- 12/18-19/89 8.5 to 8.25. The FOMC agrees to a slight easing, and the Desk's intended rate falls immediately from 8.5% to 8.25%.

<u>1990</u>

- 2/6-7/90 8.25, no change. The FOMC agrees to seek an unchanged degree of pressure on reserve positions, with no asymmetry.
- 3/27/90 8.25, no change. Same as previous meeting.
- 5/15/90 8.25, no change. Same as previous meeting.
- 7/2-3/90 8.25 to 8. The FOMC agrees to seek no immediate change, but to seek to lower the funds rate by 1/4 point fairly soon in the absence of unexpected developments. The Desk's intended rate falls from 8.25% to 8% on July 13.
- 8/21/90 8, no change. The FOMC agrees to seek an unchanged degree of pressure on reserve positions. There is an asymmetry toward ease, but the FOMC agrees that policy will not change unless something relatively unexpected occurs.
- 10/2/90 8 to 7.75. The FOMC agrees that it will not seek any immediate change, but that there is a presumption that it will seek to lower the funds rate by 1/4 point if the anticipated budget agreement between Congress and the President is reached. The Desk's intended rate falls from 8% to 7.75% on October 29, immediately after the agreement.
- 11/13/90 7.75 to 7.5. The FOMC agrees to seek to lower the funds rate by 1/4 point, with a modest asymmetry toward further easing. The Desk's intended rate immediately falls from 7.75% to 7.5%.
- 12/18/90 7.25 to 7. The FOMC agrees to seek to lower the funds rate by 1/4 point, and the Desk's intended rate immediately falls from 7.25% to 7%. There is a slight asymmetry toward further easing, but not enough to point to an expected rate noticeably below 7%.

<u>1991</u>

- 2/5-6/91 6.75 to 6.25. The Desk's intended rate was lowered from 6.75% to 6.25% between the time of the forecast and the time of this meeting. At the meeting, the FOMC agrees to seek an unchanged degree of pressure on reserve positions, with a slight asymmetry toward ease.
- 3/26/91 6, no change. The FOMC agrees to seek an unchanged degree of pressure on reserve positions, with no asymmetry.
- 5/14/91 5.75, no change. Same as previous meeting.
- 7/2-3/91 5.75, no change. Same as previous meeting.

- 8/20/91 5.5, no change. The FOMC agrees to seek an unchanged degree of pressure on reserve positions, with a slight asymmetry toward ease.
- 10/1/91 5.25, no change. Same as previous meeting.
- 11/5/91 5.25 to 4.75. The Desk's intended rate was lowered from 5.25% to 5% between the time of the forecast and the time of this meeting. At the meeting, the FOMC agrees to lower its target for the funds rate to 4.75%, and the intended falls rate immediately falls to 4.75%. There is also a slight asymmetry toward further ease.
- 12/17/91 4.5 to 4.25. The FOMC agrees to seek no immediate change, but with a strong presumption that there will be a subsequent easing of 1/4 point. The Desk's intended rate in fact falls from 4.5% to 4% on December 20. The account of the next meeting indicates, however, that this move was prompted by news that arrived after the meeting.

<u>1992</u>

- 2/4-5/92 4, no change. The FOMC agrees to seek no change in policy, with a slight asymmetry toward ease.
- 3/31/92 4, no change. The FOMC agrees to seek no change in policy, with a slight asymmetry toward ease. The summary of the next meeting attributes the cut in the Desk's intended rate to 3.75% on April 9 to news.
- 5/19/92 3.75, no change. The FOMC agrees to seek no change in policy, with no asymmetry.
- 6/30-7/1/92 3.75 to 3.625. The FOMC agrees to seek no change, but with a clear asymmetry toward ease. The Desk in fact reduces its intended rate to 3.25% on July 2, but this is the result of highly unexpected news.
- 8/18/92 3.25 to 3.125. The FOMC agrees to seek no change, but with a clear asymmetry toward ease.
- 10/6/92 3 to 2.75. The FOMC agrees that it will seek no immediate change, but that it will ease in the absence of unexpected developments. In fact, the Desk's intended rate remains unchanged; the summary of the next meeting attributes this to unexpected news, however.
- 11/17/92 3, no change. The FOMC agrees to seek no change, with a slight asymmetry toward ease.
- 12/22/92 3, no change. The FOMC agrees to seek no change, with no asymmetry.

<u>1993</u>

- 2/2-3/93 3, no change. Same as previous meeting.
- 3/23/93 3, no change. Same as previous meeting.
- 5/18/93 3 to 3.125. The FOMC agrees to seek no change. But there is substantial support for an immediate tightening, and the Committee agrees to an asymmetry toward tightening with an expectation that it is more likely than not that the Committee will at least confer during the intermeeting period.
- 7/6-7/93 3, no change. The FOMC agrees to seek no change, with a slight asymmetry toward tightening.
- 8/17/93 3, no change. The FOMC agrees to seek no change, with no asymmetry.
- 9/21/93 3, no change. Same as previous meeting.
- 11/16/93 3, no change. Same as previous meeting.
- 12/21/93 3, no change. Same as previous meeting.

<u>1994</u>

2/3-4/94 3 to 3.25. The FOMC agrees to seek to raise the funds rate by 1/4 point, with no asymmetry. For the first time, the Committee announces the change in the target funds rate.

- 3/22/94 3.25 to 3.5. The FOMC again agrees to seek to raise the funds rate by 1/4 point, with no asymmetry.
- 5/17/94 3.75 to 4.25. The FOMC agrees to seek to raise the funds rate by 1/2 point, with no asymmetry.
- 7/5-6/94 4.25, no change. The FOMC agrees to seek no immediate change, with a slight asymmetry toward tightening.
- 8/16/94 4.25 to 4.75. The FOMC agrees to seek to raise the funds rate by 1/2 point, with no asymmetry.
- 9/27/94 4.75 to 4.875. The FOMC agrees to seek no immediate change, but with a clear asymmetry toward tightening and a clear sense that there is a good chance of a tightening during the intermeeting period.
- 11/15/94 4.75 to 5.5. The FOMC agrees to seek to raise the funds rate by 3/4 point, with no asymmetry.
- 12/20/94 5.5, no change. The FOMC agrees to seek no immediate change. There is an asymmetry toward tightening, but with a clear sense that an intermeeting move in unlikely.

<u>1995</u>

- 1/31-2/1/95 5.5 to 6. The FOMC agrees to seek to raise the funds rate by 1/2 point, with no asymmetry.
- 3/28/95 6, no change. The FOMC agrees to seek no immediate change, with a slight asymmetry toward tightening.
- 5/23/95 6, no change. The FOMC agrees to seek no immediate change, with no asymmetry.
- 7/5-6/95 6 to 5.75. The FOMC agrees to seek to lower the funds rate by 1/4 point, with a slight asymmetry toward further ease.
- 8/22/95 5.75, no change. The FOMC agrees to seek no immediate change, with no asymmetry.
- 9/26/95 5.75, no change. Same as previous meeting.
- 11/15/95 5.75, no change. Same as previous meeting.
- 12/19/95 5.75 to 5.5. The FOMC agrees to seek to lower the funds rate by 1/4 point, with no asymmetry.

<u>1996</u>

- 1/30-31/96 5.5 to 5.25. The FOMC agrees to seek to lower the funds rate by 1/4 point, with no asymmetry.
- 3/26/96 5.25, no change. The FOMC agrees to seek no immediate change, with no asymmetry.
- 5/21/96 5.25, no change. Same as previous meeting.
- 7/2-3/96 5.25, no change. The FOMC agrees to seek no immediate change, with a slight asymmetry toward tightening.
- 8/20/96 5.25, no change. Same as previous meeting.
- 9/24/96 5.25, no change. Same as previous meeting.
- 11/13/96 5.25, no change. Same as previous meeting.
- 12/17/96 5.25, no change. Same as previous meeting.

TABLE A-1

Changes in Intended Federal Funds Rate at FOMC Meetings

$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$									
Meeting Date Intended Rate (%) Meeting Date Intended Rate (%) Meeting Rate (%) Intended Rate (%) Meeting Rate (%) Intended Rate (%) Meeting Rate (%) Intended Rate (%) 1/14/69 6.4375 0.0000 7/18/72 4.6250 0.0000 5/18/76 5.1250 0.22 2/4/69 6.4375 0.0000 10/17/2 5.0625 0.1250 6/22/76 5.2000 0.00 4/16/9 6.7500 0.5000 10/17/72 5.0625 0.1250 8/17/76 5.2500 0.00 5/27/69 8.5000 0.1250 12/17/2 5.3750 0.5000 11/16/76 5.0000 0.22 7/15/69 9.0000 0.0000 1/16/73 5.7500 0.3000 1/16/73 5.7500 0.2500 0.000 1/16/73 6.7500 0.10 0.11/6/76 5.0000 0.2500 0.01/16/75 0.02 0.11 1/18/70 4.6875 0.00 1/12/69 9.1250 0.0000 6/17/73 7.5000 0.2500 5/1777 4.6		Initial	Change in		Initial	Change in		Initial	Change in
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Meeting	Intended		Meeting			Meeting	Intended	Intended
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-	<u>Rate (%)</u>	Rate (%)	-	Rate (%)	<u>Rate (%)</u>	Date	Rate (%)	<u>Rate (%)</u>
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$\begin{array}{cccccccccccccccccccccccccccccccccccc$									0.2500
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5/27/69 8.5000 0.1250 12/19/72 5.3750 0.2500 10/19/76 5.0000 -0.12 6/24/69 9.0000 0.0000 1/16/73 5.7500 0.5000 11/16/76 5.0000 -0.23 7/15/69 9.0000 0.2500 3/20/73 7.0000 0.1250 1/18/77 4.6875 -0.06 9/9/69 9.0000 0.0000 4/17/73 7.0000 0.1875 2/15/77 4.6875 0.00 10/2/69 9.1250 0.0000 6/19/73 8.5000 0.5000 3/15/77 4.6875 0.01 11/25/69 9.1250 0.0000 7/17/73 9.7500 0.2500 5/17/77 5.3750 0.12 2/10/70 9.0000 -0.2500 9/18/73 10.7500 -0.3750 7/19/77 5.3750 0.12 3/10/70 8.3125 -0.1875 11/20/73 10.5000 -0.7500 8/16/77 5.8750 0.12 3/10/70 8.3125 -0.1875 11/22/74 9.0000 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.0000</td></t<>									0.0000
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8/12/69 9.5000 0.2500 3/20/73 7.0000 0.1250 1/18/77 4.6250 0.06 9/9/69 9.0000 0.0000 4/17/73 7.0000 0.1875 2.15/77 4.6875 0.00 10/28/69 9.1250 0.0000 6/19/73 8.5000 0.5000 4/19/77 4.6875 0.12 11/25/69 9.1250 0.0000 7/17/73 19.7000 0.2500 6/21/77 5.3750 0.00 21/16/69 9.0000 -0.2500 9/18/73 10.700 0.3750 7/19/77 5.3750 0.10 3/10/70 8.3125 -0.1875 11/20/73 10.1250 -0.0000 9/20/77 6.5000 0.000 5/5/70 8.2500 0.1250 1/22/74 9.7500 -0.3750 11/15/77 6.5000 0.00 6/23/70 8.0000 0.0000 2/20/74 9.0000 -0.120 12/20/77 6.5000 0.00 6/23/70 7.500 -0.2500 3/19/74 9.1875 0.							11/16/76		-0.2500
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	7/15/69	9.0000		2/13/73			12/21/76	4.6875	-0.0625
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	8/12/69	9.5000		3/20/73	7.0000		1/18/77	4.6250	0.0625
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	9/9/69			4/17/73	7.0000	0.1875	2/15/77	4.6875	0.0000
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	10/7/69	9.1250	0.0000	5/15/73	7.5000	0.5000	3/15/77	4.6875	0.0000
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	10/28/69	9.1250	0.0000	6/19/73	8.5000	0.5000	4/19/77	4.6875	0.1250
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	11/25/69	9.1250	0.0000	7/17/73	9.7500	0.2500	5/17/77	5.2500	0.1250
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	12/16/69	9.0000	0.0000	8/21/73	10.5000	0.2500	6/21/77	5.3750	0.0000
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1/15/70	9.0000	-0.2500	9/18/73	10.7500	-0.3750	7/19/77	5.3750	0.0000
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2/10/70	9.1250	-0.5000	10/16/73	10.5000	-0.7500	8/16/77	5.8750	0.1250
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	3/10/70	8.3125	-0.1875	11/20/73	10.1250	0.0000	9/20/77	6.1250	0.1250
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	4/7/70	7.7500	0.0000	12/18/73	10.2500	-0.6250	10/18/77	6.5000	0.0000
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	5/5/70	8.2500	0.1250	1/22/74	9.7500	-0.3750	11/15/77	6.5000	0.0000
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	5/26/70	8.0000	0.0000	2/20/74	9.0000	-0.1250	12/20/77	6.5000	0.0000
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	6/23/70	7.8750	-0.2500	3/19/74	9.1875	0.6875	1/17/78	6.7500	0.0000
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	7/21/70	7.3125	-0.2500	4/16/74	9.8750	0.6250	2/28/78		0.0000
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	8/18/70	6.7500	-0.5000	5/21/74	11.0000	0.3750	3/21/78	6.7500	0.0000
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	9/15/70	6.3750	-0.1875	6/18/74	11.6250	0.2500	4/18/78	6.7500	0.2500
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	10/20/70			7/16/74	12.7500			7.3125	0.1875
$\begin{array}{cccccccccccccccccccccccccccccccccccc$				8/20/74	12.2500	-0.3750	6/20/78	7.5000	0.2500
$\begin{array}{cccccccccccccccccccccccccccccccccccc$					11.7500				0.1250
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$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2/9/71			11/19/74					0.1250
$\begin{array}{cccccccccccccccccccccccccccccccccccc$				12/17/74					0.2500
$\begin{array}{cccccccccccccccccccccccccccccccccccc$									0.1875
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	6/8/71		0.3750		5.7500				0.0000
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12/14/714.3750-0.625010/21/755.7500-0.250010/6/7911.50003.001/11/723.6250-0.312511/18/755.2500-0.250011/20/7913.50000.002/15/723.25000.000012/16/755.25000.00001/9/8013.50000.003/21/723.93750.31251/20/764.75000.00002/5/8013.50000.504/18/724.25000.12502/18/764.75000.00003/18/8016.50001.75									0.1250
1/11/723.6250-0.312511/18/755.2500-0.250011/20/7913.50000.002/15/723.25000.000012/16/755.25000.00001/9/8013.50000.003/21/723.93750.31251/20/764.75000.00002/5/8013.50000.504/18/724.25000.12502/18/764.75000.00003/18/8016.50001.75									3.0000
2/15/723.25000.000012/16/755.25000.00001/9/8013.50000.003/21/723.93750.31251/20/764.75000.00002/5/8013.50000.504/18/724.25000.12502/18/764.75000.00003/18/8016.50001.75									0.0000
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									-1.3750

Meeting	Initial Intended	Change in Intended	Meeting	Initial Intended	Change in Intended	Meeting	Initial Intended	Change in Intended
<u>Date</u>	<u>Rate (%)</u>	<u>Rate (%)</u>	Date	<u>Rate (%)</u>	<u>Rate (%)</u>	Date	<u>Rate (%)</u>	<u>Rate (%</u>
7/9/80	9.3750	0.0000	12/17/85	7.9375	-0.1875	8/20/91	5.5000	0.0000
8/12/80	9.6250	0.2500	2/12/86	7.8125	0.0000	10/1/91	5.2500	0.0000
9/16/80	10.2500	1.0000	4/1/86	7.3750	0.0000	11/5/91	5.2500	-0.5000
0/21/80	12.1250	1.5000	5/20/86	6.8750	0.0000	12/17/91	4.5000	-0.2500
1/18/80	14.5000	1.7500	7/9/86	6.8750	-0.5000	2/5/92	4.0000	0.0000
2/19/80	18.7500	-0.7500	8/19/86	6.3125	-0.3750	3/31/92	4.0000	0.0000
2/3/81	17.5000	-0.5000	9/23/86	5.8750	0.0000	5/19/92	3.7500	0.0000
3/31/81	15.0000	0.8750	11/5/86	5.8750	0.0000	7/1/92	3.7500	-0.1250
5/18/81	18.5000	1.5000	12/16/86	6.0000	0.0000	8/18/92	3.2500	-0.1250
7/7/81	18.5000	-1.0000	2/12/87	6.0000	0.0000	10/6/92	3.0000	-0.2500
8/18/81	18.0000	-0.5000	3/31/87	6.0625	0.1875	11/17/92	3.0000	0.0000
10/6/81	15.5000	-1.0000	5/19/87	6.5000	0.2500	12/22/92	3.0000	0.0000
1/17/81	13.5000	-1.0000	7/7/87	6.7500	0.0000	2/3/93	3.0000	0.0000
2/22/81	12.1250	-0.2500	8/18/87	6.6250	0.0000	3/23/93	3.0000	0.0000
2/2/82	14.0000	0.5000	9/22/87	7.2500	0.0000	5/18/93	3.0000	0.1250
3/30/82	14.7500	-0.5000	11/3/87	7.1250	-0.3125	7/7/93	3.0000	0.0000
5/18/82	14.0000	-0.7500	12/16/87	6.8125	0.0000	8/17/93	3.0000	0.0000
7/1/82	14.0000	-0.5000	2/10/88	6.6250	-0.1250	9/21/93	3.0000	0.0000
8/24/82	10.2500	-0.7500	3/29/88	6.5000	0.2500	11/16/93	3.0000	0.0000
10/5/82	10.2500	-0.7500	5/17/88	7.0000	0.2500	12/21/93	3.0000	0.0000
1/16/82	9.5000	-0.5000	6/30/88	7.3750	0.2500	2/4/94	3.0000	0.2500
2/21/82	8.5000	0.0000	8/16/88	8.1250	0.0000	3/22/94	3.2500	0.2500
2/9/83	8.5000	0.0000	9/20/88	8.1250	0.0000	5/17/94	3.7500	0.5000
3/29/83	8.5000	0.1250	11/1/88	8.2500	0.0000	7/6/94	4.2500	0.0000
5/24/83	8.6250	0.2500	12/14/88	8.4375	0.5625	8/16/94	4.2500	0.5000
7/13/83	9.0625	0.3125	2/8/89	9.0000	0.1875	9/27/94	4.7500	0.1250
8/23/83	9.5625	-0.0625	3/28/89	9.7500	0.1250	11/15/94	4.7500	0.7500
10/4/83	9.3750	0.0000	5/16/89	9.8125	0.0000	12/20/94	5.5000	0.0000
1/15/83	9.3750	0.0000	7/6/89	9.5625	-0.2500	2/1/95	5.5000	0.5000
2/20/83	9.5000	0.1250	8/22/89	9.0625	0.0000	3/28/95	6.0000	0.0000
1/31/84	9.3750	0.0000	10/3/89	9.0000	0.0000	5/23/95	6.0000	0.0000
3/27/84	10.1250	0.3750	11/14/89	8.5000	0.0000	7/6/95	6.0000	-0.2500
5/22/84	10.5000	0.0000	12/19/89	8.5000	-0.2500	8/22/95	5.7500	0.0000
7/17/84	11.0000	0.3750	2/7/90	8.2500	0.0000	9/26/95	5.7500	0.0000
8/21/84	11.5625	-0.0625	3/27/90	8.2500	0.0000	11/15/95	5.7500	0.0000
10/2/84	11.2500	-0.3750	5/15/90	8.2500	0.0000	12/19/95	5.7500	-0.2500
11/7/84	10.0000	-0.7500	7/3/90	8.2500	-0.2500	1/31/96	5.5000	-0.2500
2/18/84	8.7500	-0.6250	8/21/90	8.0000	0.0000	3/26/96	5.2500	0.0000
2/13/85	8.5000	0.0000	10/2/90	8.0000	-0.2500	5/21/96	5.2500	0.0000
3/26/85	8.5000	0.0000	11/13/90	7.7500	-0.2500	7/3/96	5.2500	0.0000
5/21/85	8.1250	-0.3750	12/18/90	7.2500	-0.2500	8/20/96	5.2500	0.0000
7/10/85	7.6250	0.0000	2/6/91	6.7500	-0.5000	9/24/96	5.2500	0.0000
8/20/85	7.8125	0.0000	3/26/91	6.0000	0.0000	11/13/96	5.2500	0.0000
10/1/85	7.8750	0.0000	5/14/91	5.7500	0.0000	12/17/96	5.2500	0.0000
11/5/85	8.0000	-0.0625	7/3/91	5.7500	0.0000			