SPEECH

Fisher: Money Market and the Century Date Change

December 01, 1999

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Remarks by Executive Vice President Peter R. Fisher before the Money Marketeers of New York University For several years now we have all been preparing for the new millennium and the singular calendar transition of the century date change. Because of the collective failure of software programmers everywhere to anticipate correctly the extended useful lives of their products, we have had the pay these same programmers a king's ransom to fix the ubiquitous digital clocks which control modern life.

In discussing money markets and the century date change with you this evening, my interest is not in the narrow, ex post problem of whether these clocks have been fixed so that, come January first, our computers, our elevators and our Mister Coffee machines all perform their expected functions. Rather, my interest is in the ex ante problem of human behavior: How will human beings react to the uncertainties about whether or not the clocks will work?

Given the role that money markets play intermediating credit across time, we have, of course, already been engaged all year in a collective effort to price the uncertainties associated with the century date change. Tonight, I will first describe how this effort has unfolded by reviewing the evolution of the money market's assessments of "Y2K" risks. I will then describe the special, temporary measures adopted by the Federal Reserve for our own year-end money market operations.

I have perceived three stages of "Y2K awareness" among financial market participants.

The first stage, easily recognizable, is characterized by denial that the event could be of relevance for financial markets. Individuals in this stage of awareness make frequent references to the hyperactive imaginations of the technology-obsessed and to the self-interested conspiracy of computer consultants.

The second stage is characterized by extreme risk aversion. During this stage, individuals try to curtail all business activities during December and January to avoid any risks or exposures that could be accentuated by a Y2K problem.

The third stage is characterized by perspective and the recognition that deviations from normal behavior in anticipation of the century date change are as likely —perhaps more likely—to create problems than are any computer-induced date errors. This stage reflects a mature appreciation of the risk that human beings are as likely to screw things up as are computers, that "defensive" human reactions could trigger perverse consequences, and—to translate FDR into financial market jargon: the only thing we have to fear is an extreme imbalance of fear and greed.

The attitude of extreme risk aversion, characteristic of the second stage, was clearly evident in market sentiment last spring. The widely expressed view at the time was that the best defense against unforeseen Y2K risks was to reduce settlement and trading volume in the weeks immediately surrounding year-end.

It seemed quite reasonable for customers and bankers to agree to shift settlements of forward transactions away from the first few days of January. However, we became more troubled by the escalating efforts, of a number of market participants, to discourage normal trading, issuance and investment activities during the Y2K transition. The destruction of market liquidity implied by these efforts presented the risk of a self-fulfilling prophecy, whereby extreme risk aversion would create expectations—and the reality—of exceptionally thin market conditions, making it more likely that markets could be jarred by even a modest external shock—Y2K related or otherwise.

The abrupt jump in six-month cash LIBOR rates with the June 30 roll into the turn of the year underscored just how strong this sentiment was. At the same time, this sudden rate surge created self-reinforcing momentum to market anxieties. Later in July, in his Humphrey-Hawkins testimony, Chairman Greenspan stated the Federal Reserve's intention to be "prompt and forceful" in combating any emergence of inflationary pressures. With an expectation of thin year-end markets and the exaggerated spike in six-month financing rates, market participants began to reappraise their year-end financing strategies.

Many had been planning to clean up their balance sheets for year-end window dressing purposes in October, so as to avoid the holiday rush to shed riskier assets and unsightly bulges in leverage. With the painful experiences of the fourth quarter of 1998 still in many minds, and looking at the schedule of upcoming FOMC meeting dates, market participants came to the realization that the most likely dates for the Fed to be "prompt" would be either late August or early October.

As a consequence, some issuers came quickly to market, other borrowers tried to lock in lower rates in the swap market, while a number of financial institutions began shedding riskier assets. This led to a considerable widening of credit spreads and year-end butterflies which, in turn, heightened Y2K anxieties, leading to more position adjustments. Instead of a fourth quarter race to clean up balance sheets beginning in October, we had a third quarter race to clean up balance sheets before the end of August.

With the benefit of hindsight, I think the widening of spreads during the summer, and the shifting back in time of the balance-sheet clean up race, was fortuitous and may have been one of the most important steps in creating more stable year-end markets. By making position adjustments during the third quarter, many more firms put themselves into the position to be able to undertake an active arbitrage and intermediation function during the fourth quarter. Moreover, the widening of spreads in August was sufficiently far in advance of the year-end to draw investors' attention to take advantage of the wider spreads

The market reaction of last summer also captured our attention.

In July the Federal Reserve announced the creation of a special Y2K facility for liquidity for the fourth and first quarters: the Special Liquidity Facility—or SLF—which began operations in October. The SLF is designed to help banks manage their balance sheets flexibly in the face of risks of large deposit drawdowns to meet demand for currency or deposit transfers. The terms of SLF lending are also designed to provide the funds market more broadly with an alternative source of liquidity for meeting daily clearing and settlement, albeit one that comes at a premium of 150 basis points over the Fed Funds target rate. However, the impact of this facility in shaping

expectations about the availability of year-end liquidity in the money markets appeared to be hampered during the summer by banks' unwillingness to commit themselves to extend its benefits to their customers.

While we had not expected the SLF to solve all problems associated with year-end funding, the widening spreads of August began to concentrate our minds on the two-fold challenge that we faced in conducting open market operations around the turn of the year. First, we faced potentially large year-end reserve needs and, second, we faced the challenge of meeting those needs in what could be highly illiquid year-end financing markets.

As is commonly understood, the operations of the New York Fed's trading desk are directed to meet the FOMC's objective for the overnight federal funds rate to trade, on average, around the Committee's target. The basic arithmetic is that we supply sufficient reserves to the banking system to enable banks to meet their reserve requirements over the two-week maintenance period as well as their daily demand to hold sufficient reserves, in "excess" of their requirements, to meet payment obligations and to avoid incurring overnight overdrafts in their accounts with Reserve Banks.

Around year-end, we usually face elevated reserve needs for several reasons. Increased demand for currency, as consumer-spending picks up with the holidays, adds to reserve needs in the banking system as banks pay the Federal Reserve for notes by drawing down their reserve balances at the Fed. In addition, normal uncertainties about year-end payment flows lead banks to hold higher levels of excess reserves as a precaution against being overdrawn.

Demands for currency and for excess reserves are both expected to be particularly elevated this year-end as precautions against "something going wrong" with Y2K. So far, we have not seen unusually elevated consumer demands for currency. But, just as we have been encouraging banks to do, we have seen elevated demands for currency from banks as a precaution against the risk of high consumer demand for notes—even before the dreadful TV movie.

But whatever the demand for reserves turns out to be, our job is to meet that demand consistent with the Funds rate trading around the Committee's target. If—for whatever reason—we could not expand our balance sheet sufficiently to meet that demand, the overnight interest rate will rise above the Committee's target.

The more we thought about that happening around the year-end, the less we liked it and the more we focused on the practical problem we would face if the financing market dried up in late December and early January. The more dealers and bankers talked about their unwillingness to make year-end markets, particularly in repurchase transactions, as well as about their reluctance to expand their balance sheets over the turn of the year, the more we realized that we could face constraints on our ability to expand our balance sheet to meet potential reserve needs.

To ensure our ability to meet elevated reserve needs and to encourage market liquidity around the turn of the year, we adopted several new measures. First, we extended the maximum maturity of our repo operations to 90 days. Second, we expanded the collateral we take in these operations to include mortgage-backed securities. Third, we shifted our normal settlement and custody arrangements for repo transactions to tri-party custodians. And fourth, we conducted seven auctions of options on repo transactions that can be exercised during the days around the year-end.

At its August 24th meeting, the FOMC made the necessary amendments to its domestic authorization for open market operations to permit these operations during the fourth and first quarters. New York Fed staff, working closely with the dealer and clearing bank community, made all the necessary adaptations to our procedures to put these initiatives in place by mid-October.

By extending the maximum maturity of our repurchase agreements to 90 days (from 60 days previously), we were able to begin meeting the seasonal and Y2K-related buildup in year-end reserve needs starting in October, as we layered in longer-term repos into January. As of today, we have outstanding seven long-term repos carrying original maturities in this extended range that will run through the year-end, for a total of $37 billion. These operations are being used to help address both typical seasonal needs and a portion of the exaggerated demand for currency anticipated around this year-end.

Beyond their direct reserve impact, these long-term operations have allowed the dealer community to pre-fund a significant share of their inventories through the year-end. This advance funding appears to have helped reduce the financing uncertainty the dealers faced around year-end.

By expanding the types of securities we accept as collateral in our repo operations, most importantly to include mortgage-back pass-through securities, we significantly increased the pool of assets from which we can draw to expand temporarily our balance sheet around the year end. Over the last five years, there have only been a handful of occasions when we wanted to add more reserves to the banking system than we were able to because insufficient amounts of securities were submitted by dealers in their propositions to the trading desk. The single most important objective of our special year-end operations is to make sure that this does not happen in December or January. Since we expanded the pool of acceptable collateral on October 6th, we have seen bid-to-cover ratios in our repo operations on the order of 7 to 1, noticeably up from the typical 4 to 1 we saw previously.

Thus, broadening the pool of acceptable collateral helps ensure that we will be able to address reserve shortages of almost any imaginable size. It also puts us in a position where we can avoid taking Treasury securities out of the market just at a time when other market participants may be seeking to hold Treasuries around year-end as a credit substitute or simply because of a decline in the issuance of high-quality, short-term securities.

In conducting repo operations since October, each time we have entered the market we have given primary dealers the opportunity to price separately repo propositions in Treasury securities, straight agency debt, and in mortgage-backed securities. The sum total of all propositions accepted is always dictated by our estimates of reserve needs prepared by our projections staff. However, in determining what the mix of collateral will be among the three categories, we have used a relative cost method. We take market quotes on current financing rates for each of the three different collateral types, and we use these as benchmarks for assessing the relative value of the propositions we receive. Thus, for each operation, the allocation of accepted propositions among the three collateral categories is "market neutral" with respect to then-existing market rates.

Previously, we had been pricing Treasury securities and straight agency debt together. Given the modestly higher rates at which agency securities are financed, these propositions had been crowding out Treasury securities in our operations, making it harder for those dealers who had been seeking to finance Treasuries with us. This situation was counterproductive, given our interest in maximizing the volume of propositions we receive.

In the event of severe strains in financing markets around year-end, we could alter our current relative value pricing method. If heightened demand for Treasury securities drives their financing rates lower, while aversion for other collateral drives their repo rates higher, we could choose to favor one asset category over the others in the selection process. We could do this by returning to our previous method of a single pricing or by using historical, rather than current, spreads for our three pricing benchmarks.

We have not done this yet because the dealers' propositions to us show no signs of widening spreads associated with unusual strains. On the contrary, dealer pricing of

agency debt and mortgage-back collateral has, on the whole, been optimistically low. Given the spreads at which we were offered different collateral, for us to have accepted a disproportionate amount of mortgage-backs would be more than a little naïve on our part. If the dealers wish to finance even more agency debt or mortgage-back collateral with us, they know how to do the pricing.

The third measure we adopted is the use of tri-party settlement arrangements with the clearing banks for accepting delivery of collateral on our repurchase agreements, in place of the delivery-versus-payment method, in which we acted as our own custodian. All repo operations since October have settled using tri-party arrangements. The trading desk has always had the option to use whatever settlement procedure best meets its needs, but tri-party agreements were needed to facilitate our accepting mortgage-backed securities. Use of the delivery-versus-payment method was simply not a realistic alternative in the short time frame that we set for ourselves for expanding the pool of eligible collateral.

A major difference for the dealers is that under tri-party settlement they can substitute collateral on outstanding repo transactions with us, within the given collateral class, on a daily basis. In our own custody operations, we are much stingier in providing rights of substitution. Thus, because of our use of tri-party settlement, continuous daily substitution gives dealers much greater flexibility in managing their inventories.

The fourth measure has been our sale of options on repos with the Desk for the weeks surrounding the year-end: our "Standby Financing Facility".

Holders of these options have the right, but not the obligation, to execute overnight repos with the New York Fed at a preset strike "price" (a financing rate) 150 basis points above the then-prevailing target federal funds rate. Holders must notify us of their intention to exercise the options by 10 a.m. We have auctioned daily options in three separate weekly "strips", running from December 23rd through January 12th. The options for the middle week of this period have the additional feature that allows the holder to exercise as late as 11:30 a.m. at a strike price 250 basis points above the Fed funds target.

This afternoon we conducted the seventh of our seven planned auctions of these options. For each day in the week surrounding the year-end, running from Thursday, December 30th through Wednesday, January 5th, $223 billion of these options are now outstanding. For the week running from December 23rd to December 29th, the total outstanding amount is $114 billion, and for the week from January 6th to 12th, $144 billion is outstanding.

The purpose of these options is to provide tangible encouragement to primary dealers to continue to make markets, and undertake their normal intermediation function in securities markets, so as to sustain the liquidity of these markets around the turn of the millennium.

When the money market is trading actively—when dealers carryout the function of actively arbitraging and intermediating between different classes of customers and among different credits—it acts as a shock absorber for changes in the financing needs of the various sectors of the economy. However, as we observed last fall, when money and securities markets become extremely illiquid, they can act as transmitters of shocks, magnifying rather than muting their consequences.

By providing these options, in effect, we are writing "flood insurance" to the dealer community against potential "worst case" financing market contingencies around the year-end. Our intention is to make it easier for the dealer community to make markets, to their customers and to one another, inside the 150-basis-point umbrella that our options provide. In keeping with their role as a form of "flood insurance," these options were sold at rates that were deeply out of the money, with the highest premium paid being 16 basis points and most options sold for under 10 basis points.

Having sold all these options, we have given some thought to the risk that they might be exercised. First, a few points of background information.

The Fed funds market clears on total operating balances of $10- to $15-billion for most of the year, and $25- to $30-billion around typical year-ends. Daily repo market volume is in the hundreds of billions of dollars.

In managing the quantity of reserves in the banking system to achieve the FOMC's objective of having the Fed funds rate trade, on average, around the target rate—now at 5.50 percent—we are adding or draining reserves to keep supply and demand in the Fed funds market in balance. In doing this, however, we do not seek to achieve an "average" rate around the target by consciously offsetting deviations from target on previous days.

If the rate is high on a Monday, we do not seek to create a low rate on Tuesday in order to "average" around the Committee's target. Rather, we strive to guide the funds rate on a path toward the target over all of the remaining days of each two-week maintenance period, and to let bygones be bygones with respect to higher or lower rates on previous days.

However, there is an important sense in which we live with the consequences of prior days in the accumulated average excess reserves in the banking system. To the extent that we under- or over-supply reserves on a given day, this will affect the level of reserves that we can or have to achieve in subsequent days and, thus, may complicate the task of getting the funds rate to trade around the target over subsequent days. In short, the two-week maintenance periods still matter.

In the event that dealers begin to exercise some of the options we have written, we will have to think through our reaction with some care.

Our normal operating time with the market is 9:30 a.m. As I mentioned, the cut-off time for exercising the options is 10:00 a.m. and, then also, 11:30 a.m., for the turn-of-the-year week options. Thus, we will be able to observe financing market conditions and also have made our initial attempt to balance supply-demand conditions in the funds market, before we know whether, and how many, options may be exercised.

In the event options are exercised, our first inclination may well be to operate again, this time to offset the injection of reserves (created through execution of the options-related repos) with reserve draining operations (through matched-sale-purchase transactions), in order to return the funds market to our original estimate of supply-demand balance. This is most likely to be the case in the event that "modest" amounts of options are exercised for reasons that are idiosyncratic to one or a few firms. If the options are exercised more broadly our response cannot be easily predicted because it would depend significantly on the nature of the event that triggered the options' exercise.

Any shock significant enough to cause widespread exercise—whether Y2K-related or otherwise—is also likely to exert upward pressure on other market interest rates, including the Fed funds rate. In this setting, we are unlikely to spend much time fretting about that one day's supply-demand imbalance and are more likely to simply allow an unscientifically measured overabundance of reserves, generated by the options exercise, to provide the market with what should be a "sufficiency" of liquidity. However, this would create a super-abundance of cumulative excess reserves in the banking system for that maintenance period, and our efforts would be aimed at attempting to manage that amount over the remaining days of that period. On the other hand, we might well drain some of the options-related injection of reserves back out that same day, while still leaving ample reserves in the system; this would depend entirely on the market conditions we observed.

Of course, our goal is to have none of these options exercised and, thus, we will strive to manage banking system liquidity so that these options expire worthless.

Collectively, the various measures we have adopted are intended to promote the smooth functioning of financing markets around the year-end and to ensure that open market operations will be able to manage banking system reserves during the turn of the millennium. They will place the trading desk in a position of being able to offset any shortages of reserves that potentially could arise if demand for currency reaches extraordinary levels, even if heightened market demands for the Treasury collateral reduces the available supply.

These measures also offer our counter-parties more flexibility in managing their inventories of collateral which, in turn, will enhance our ability to arrange operations of the needed size and will also encourage dealers to maintain normal levels of market activity. By providing assurance to market participants that the Desk will maintain an active presence in financing markets throughout this period in several ways, these measures further promote the maintenance of existing levels of market liquidity.

To a large degree, our special year-end facilities operate on the principle that market participants determine their own level of liquidity through their collective behavior. As one market participant, I think that we have been doing our part to promote the liquidity of the markets on which we rely. I hope the bankers and dealers now do theirs.