Outline of talk on "Payment System Risk" before the St. Louis Cash Management Association, at Centerre Bank, February 18, 1988

I. Introduction

I welcome the opportunity to talk about the Fed's payment system risk policy, which is currently being reviewed. As you know, I am a member of the System's Payments System Policy Committee and have been since its inception about a year and a half ago. In addition, Alton Gilbert, Assistant Vice President in our Economic Research division, is a member of the task force evaluating policy options as part of the review. Most of my remarks this evening will be devoted to a discussion of two possible future approaches to policy and their implications: first, a continuation of the present policy based on sender net debit caps (or implicit pricing), and second, explicit pricing of daylight overdrafts. Before getting into the details of these approaches, let me first distinguish between payments system risk, daylight overdrafts, and Federal Reserve risk. Also, I should review what our policy has been and why it is being re-evaluated now.

II. Payment system risk and the role of the Federal Reserve in the payment system

A. Definition of payment system risk

It is the risk that the operation of the payment system will be disrupted as a result of some participant in the payment system failing to meet its obligations.

B. Daylight overdrafts

1. What are they?

a. Fedwire -- negative reserve balances of individual banks during the business day.

b. CHIPS -- net debit positions on payments messages during the business day.

2. Role of daylight overdrafts in the operation of the payment system

A payment system that permits daylight overdrafts facilitates rapid payments without forcing depository institutions to coordinate incoming and outgoing payments throughout each business day.

3. Relation of daylight overdrafts to payment system risk

Failure of a depository institution during a business day when in an overdraft position may impose losses on other

participants in the payment system. The larger the potential daylight overdrafts, the larger the potential losses to other payment system participants.

4. How large are daylight overdrafts?

The daylight overdraft of a bank on a given business day is measured by combining its reserve balance with its net position on CHIPS throughout the day. The relevant measure is the greatest negative balance at any time during the business day. Measured in this way, aggregate daylight overdrafts for the banking system averaged about $80 billion in 1987. Some daylight overdrafts are tied directly to transfers of securities. A bank has its reserve account debited when it receives book entry Treasury securities. Daylight overdrafts generated through transactions in book entry securities are netted out of the $80 billion figure. Including overdrafts related to securities transfers raises average daylight overdrafts to about ~~$120~~ 125 billion.

C. Federal Reserve risk

1. How does the involvement of the Federal Reserve in the payment system expose the Federal Reserve to risk?

The Federal Reserve provides final payment for funds transferred over Fedwire. The Federal Reserve absorbs any losses resulting from the failure of a bank with an overdrawn reserve balance.

2. Why does the Federal Reserve assume this risk?

Since the Federal Reserve was founded, it has had a mandate to promote a safe and efficient payment system. This risk is incidental to the pursuit of those goals.

III. ~~Federal~~ Reserve policy on payment system risk

A. Nature of Policy

1. Limit the amount of daylight overdrafts that can be incurred by a depository institution based on a self-assessment.

2. Self-assessment to be based on an analysis of the institution's creditworthiness, credit policies, and operational controls.

B. Purpose of Phase I of Policy (May 1985)

1. Control of the level of daylight overdrafts.

2. Improve operational and credit controls.

I mi

II. What principles; impact

A. Adopted in two phases: Phase I effective March 1985, Phase II January 1988

B. Phase I

1. ~~Limit~~ level of daylight overdrafts (cross-system net debit caps)

2. Improve quantification and control (self-assessment)

3. Reduce risk on private-sector networks (bilateral net credit limits)

4. Improve awareness of payment system risk (board approval)

C. Phase II

1. Include ~~the~~ ~~Act~~ broker-dealers in ~~payment~~ (~~$50~~ million limit)

for each Treasury 7 securities)

2. Reduce administrative burden (de minimus caps)

3. 25% cap retention (15% - January 1988; 10% - May 1988)

D. Import

1. Cross-border funds movements have been trending upward substantially but remain slightly relative to payments & other flows

2. ~~Both sides markets have~~ Trended demand in fourth quarter both absolute ~~and relative~~ & other 7 securities transfers

2. Most cross-border fund movements are dominated by U.S. Treasury securities than $400 billion (45%) (35%) followed by foreign bonds

3. Aggregate loan demand from new institutions increasing loans (15% prior to January 14, 20% subsequently)

4. Loan renewals showing increased frequency / overdrafts increased from 5% to 7% with loan charge-offs rising from 7% to 15%; still, these institutions account for only 20% of overdrafts [illegible]

5. Generally, rate on new deposit capital, not in hand from institutions with loans to finance overdrafts, [illegible] have been generally

6. BIE overdrafts ~~[illegible]~~ demand pressures for others of previous examples [illegible]

Continued:

7. From major clearing banks [illegible] from 7% of BIE overdrafts

8. Jackson Hole absolutely and relatively in the age of mass tourism and market economy

3rd

III. Why retreat?

A. As land prices rise [illegible] proposals, more and more detailed regulation necessary — is this what we want?

B. Will top production want more objectives? Futures

C. Now, [illegible]

[illegible]

[illegible] → [illegible]

[illegible]

D. Internal strife

~~evaluate long term issues and strategies~~

~~[illegible]~~

consultation of Long-Term Payments System

~~[illegible]~~

10 pm

IV. What are possibilities?

A. Caps (and continued [illegible] actions)
re Status Quo

1. No further reductions in Govt positions and with caps

2. But when increasing constraint comes binding, over time

3. Imposition cost from lower caps; cost of unfair equity above

4. Pros and Cons

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Pros and Cons of Caps. The arguments for and against caps and continued cap reductions summarize the discussion presented above. The pros of this policy include:

* Caps represent an existing and accepted program whose parameters are reasonably understood by most if not all payments participants. A policy which continued to reduce the level of cross-system caps would thus be the easiest to implement and, like pricing, would continue to provide incentives to reduce overdrafts and risk.

* A single cap applies to all large dollar wire transfer networks together--CHIPS and Fedwire. Thus cross-system cap reductions would not lead to shifts in risk from one network to another, although incentives may exist to shift payments and risk to offshore clearing arrangements (unless these too were deemed similar by regulatory authorities and net debits incurred by banks there included with those measured on CHIPS and Fedwire).

* Caps are set to reflect differences in the underlying operational capabilities, credit procedures, and creditworthiness of banks. This translates into an assessment of a given bank's riskiness to the payments system and thereby equitably distributes incentives to reduce/control overdrafts among payments participants. These distinctions are likely greater than those which may exist in a free market environment (e.g., the small tiering which arises in the overnight market for funds or in markets for bank CDs).

A listing of the cons would include:

* Caps impose an implicit price on daylight overdrafts above a certain level. This price is around 750 basis points when the cap multiple is 2 (where overdrafts can be twice capital) and somewhat lower for higher cap multiples. Since overdrafts below the cap carry no explicit or implicit price, the system of caps is essentially a way of pricing overdrafts on the margin, rather than treating each dollar of overdrafts more equally.

* Caps are relatively inflexible and do not allow choice by participants to incur overdrafts even if they may be willing to incur a fee to do so. This lack of choice often makes quantitative limits inferior to policy options where some choice is permitted (e.g., pricing below a cap versus continued cap reductions).

* ~~Reductions~~ in caps, at least on the order of the 25 percent decrease planned ~~for 1988~~, if continued in the future can be very disruptive to the smooth ~~operation~~ of financial markets. Consequently, a status quo policy on caps ~~(after~~ the 1988 reductions) can be less disruptive but, over time, ~~still provide~~ incentives to reduce overdrafts as payments value continues to grow.

B. Pricing Federal overdrafts

1. Fed sets price (or lets market set price by limiting quantity, charges fee to Treas) for Federal overdrafts

2. Assess [illegible] on CHIPS — provide [illegible] cost of [illegible] Federal

3 Pros and Cons

(3)

3

flow and speed of payments as each bank attempts to minimize costs by delaying its payments until its reserve balance is positive, and the payment can be made without charge. To limit potential disruption, pricing would have to start at a very low level, way below any target long run price. The price could then be slowly raised over time so that institutional adjustments which reduce overdrafts can be implemented and, importantly, the market adopts customer pricing arrangements which compensates banks for their overdraft costs. Once these two aspects of institutional structure are altered, further increases in the price to significant levels should not lead banks to delay sends and degrade the speed of the payments system.

Pros and Cons of Pricing Fedwire Overdrafts. The pros and cons listed here summarize the discussion presented above for this policy alternative. The pros would include:

* Reduces Reserve Bank credit risk.

* Less disruptive to financial markets and payments speed than quantitative limits as can allow for "emergency credit" when needed.

* Decision failure in payments markets is corrected as costs of overdrafts are borne more fully (and equitably) by beneficiaries of daylight credit.

* Treats each dollar of overdrafts equally whether below or at the cap since the cost per overdraft dollar is constant.

* Easy to set price, if private market is to supply all credit.

A listing of the cons would include:

* If pricing is not also implemented on CHIPS, Fedwire pricing can increase systemic risk by shifting overdraft risks to CHIPS, to new offshore clearings, or to sellers of rollovers or continuing contracts. But offsetting market responses should be expected and would concern increased monitoring and control of this risk to maintain the previous risk/return ratio in the payments area. This can also include new institutional arrangements such as netting by novation and the likelihood that the net increase in systemic risk will be spread thinly enough to reduce the average institution's probability of failure.

* Difficult to set price if Federal Reserve is to supply the overdraft credit, and especially if such a price is to reflect differing risks posed by overdrafting banks. The range of reasonable market or Federal Reserve prices is from 20 to 100 basis points (annual rate) per dollar of overdraft.

* Operationally difficult to do. Will somehow need to correct for Reserve Bank computer outages.

* As proposed, treats overdrafters and holders of "excess" daylight reserves differently, unless the private market supplies most or all of the daylight credit and holders of excess daylight balances can sell them in an intraday funds market.

* Expensive to users, unless price is set very low or phased-in over time. If a high price were not carefully phased-in, starting very low and slowly rising over time, payments speed could be degraded as users delay sends to minimize overdraft costs. This response, however, should be temporary and be reduced once it became industry practice to recover overdraft costs from customers who order the payments to be made.

C. Implications

1. Differences in timing — pricing imputes some

2. Changes in payments services / pricing

a. Higher fees for [illegible] payments

b. Lower fees for [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

3. Attitude of Fed funds market

4. Pricing customers' [illegible] → shift in emphasis to limits by [illegible] capacity

5. Netting and other institutional changes

6. [illegible] Fed [illegible]

3 pm

V. Conclusions

A. Confusion between FR risk and PS risk — but necessity and payments system to get FR mandate done

B. Don't know what study will do — When Committee / Fed will know enough

C. But perhaps demonstrate intervention / how planning & shortened it; Could be easy to pricing below the cost

D. Result will be Continued changes in payments practices

E. Hope Congress accepted to workout; Confusion could lead to disruption in short run;

not quite ready
even negotiation of payments system

F. Fundamental question
raised by elimination
from Treasury and of
gold account to payment
system — Fed
as lender of last resort
responsibility

G. Also, questions left regarding
to implementation of
monetary policy
of Fed and the
provision of adequate
bank reserves
from nonborrowed
sources will
remain by necessity?
Also what about liquidity
in reserve balances?

Item

VI. Other

A. Expedited Funds Availability Act of 1987

1. As you recall, we requested the authority for collecting [illegible] — [illegible]

2. FDIC has requested comments on ways to limit amount of [illegible] — especially large [illegible]

B. Secondary market

A. Also [illegible] to remove [illegible] — [illegible]

4