



FEDERAL RESERVE BANK *of* NEW YORK

Inside and outside liquidity provision

James McAndrews, FRBNY, ECB Workshop on Excess Liquidity and Money Market Functioning, 19/20 November, 2012

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Outline

Large Cash Pools have created the demand for safe money in large denominations.

Inside money, represented by repos, securities lending programs, MMMFs, and bank deposits have all expanded to meet the supply of large cash pools, but are all risky and led to costly runs.

Various proposals would provide an outside money alternative.

Another proposal: Segregated Cash Accounts and how they would interact with monetary policy

Large Cash Pools, repos, and the demand for safe money

In recent decades, large amounts of wealth has accumulated in pension and mutual funds.

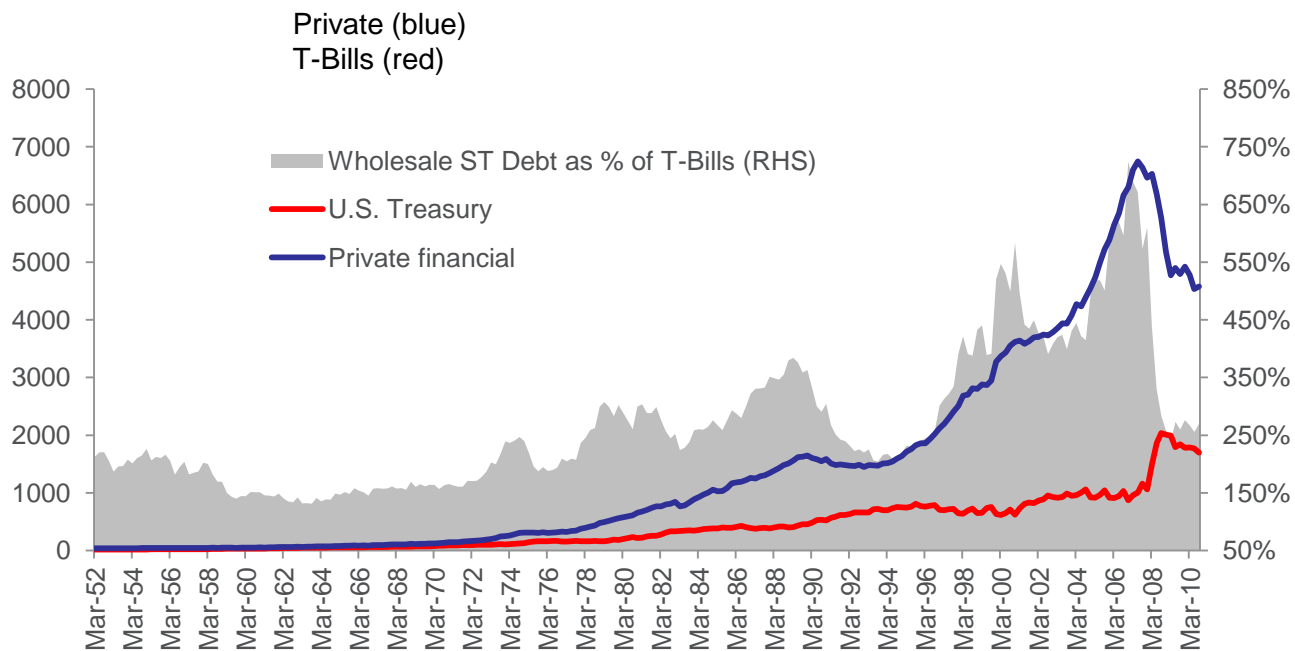
- Between 1980 and 2006 the ratio of cash to assets for U.S. industrial firms increased from 10.5 to 23.2 percent.
- Represents high demand for a liquid store of value.

These cash balances were invested in a variety of ways:

- Bank accounts
- Repos
- Money market mutual funds

Important to design a safe store of wealth to accommodate the demand of these large cash pools.

Wholesale Short-Term Debt: U.S. Treasury vs Private Financial



Financial: financial CP, large time and checking deposits, net bank and broker dealer repo
 Treasury: bills only

Each of the forms of investment listed is risky

- Bank accounts—deposit insurance is limited
- Repos—risk of getting stuck with illiquid collateral, or a security that is costly to sell
- Money market mutual funds—risk of getting caught after a run on the fund

Another type of cash investment is “cash collateral” provided to a lender of securities. This investment, like a repo, is in some respects like a bank account, but it too is risky. The lender might have invested the cash collateral in illiquid securities.

Repos, MMMFs, and cash collateral accounts all experienced runs during the crisis

Repo runs were seen in Bear Stearns, Lehman, Morgan Stanley.

The Reserve Primary Fund MMMF was run, initiating a panic.

AIG securities lending was run by its cash collateral providers in its securities lending program.

Why do we need safe money or deposit accounts?

Desirable for savers to have access to a safe and non-systemically-risky form of money.

- Reducing wasteful economizing on liquidity moves the money market closer to following the Friedman Rule.

More important is that safe money would provide a safeguard against runs. The recent financial crisis was intimately associated with the runs in repo, MMMFs and securities lending accounts.

What could substitute for repos, MMMFs, and securities lending accounts?

Some form of outside money have been used to provide safe money in various historical cases: currency backed by U.S. Treasury bonds in the National Bank period, deposit insurance of bank accounts (not “outside” money, but backed by full faith and credit of government).

While outside money would not satisfy for the borrowers’ demand for funding provided by repos or MMMFs, it would provide an alternative to suppliers of funds.

What are some of the alternatives?

- Greenwood, Hanson, and Stein: the Treasury should issue more short-term bills to meet the demand for safe money
- Central bank bills (various)
- MMMFs that invest solely in central bank reserves (Cochrane)
- Unlimited deposit insurance for cash management purposes
- Narrow banks of various sorts (such as Treasury-only MMMFs)
- Limit collateral for repo

Each has pros and cons

Alternative approaches and limitations

Have the Treasury issue more short-term bills to accommodate the demands for safe money.

- Bills may not be as technologically seamless as account-based money, as bid-ask spreads and increased transaction costs may be involved in settling bill sales.
- Treasury's debt management goals are not primarily monetary – requires a significant change of philosophy on how to manage debt that focuses on supplying liquidity rather than establishing a predictable method of minimizing the costs of debt.

Central bank bills

- CB bills may cause contention with Treasury bills. Integration with other monetary operations, purpose, size, variable yields, all potential concerns.

Alternative approaches, continued

MMMFs that invest solely in central bank reserves

- May erode the position of banks; deposit insurance available for accounts up to \$250 k. A stable NAV is, in this case, a promise that is credible despite an absence of capital. Sidesteps leverage ratio concern for banks.

Unlimited deposit insurance

- Moral hazard Issue

Narrow banking

- May move useful financial intermediation outside of banks

Limit collateral in repo

- May not fully eliminate run problem, as lenders don't wish to handle securities sales

Key characteristics

They either

- Provide a guarantee, as with deposit insurance

or

- Are designed using only “safe” assets (a technological solution)

Segregated Cash Accounts: a(nother) proposal

Segregated Cash Account (SCA): a “narrow account” within a bank.

A new legal right: a depositor in a Segregated Cash Account can perfect a collateral interest in specific assets (reserves) on the balance sheet of the bank.

I'll argue that SCAs have features that improve upon many of the existing proposals.

- Amount of provision is governed by the central bank (rather than Treasury or banks)
- Integrated with “ordinary” monetary policy implementation
- Avoids the complication of deposit insurance and moral hazard
- “Privatized” in a way that generates good information on liquidity conditions

Segregated Cash Accounts: Design

SCAs are created at the bank by a three-party agreement with a lender, a bank, and the Fed. The account has several unique features:

1. Funds can be wired into the account, which directs reserve balances into the account.
2. Only the lender–depositor can issue instructions to make payments out of the account (reserves are segregated and can't be moved by the bank).
3. Consequently, the lender can perfect a collateral interest in the reserve balances in the account. The bank's promise to repay the lender is collateralized by reserves.
4. The bank earns interest on reserves on the balances in the account.
5. The interest rate earned by the lender into the account is determined privately by the lender and borrower.

SCAs are a technological means to provide safety

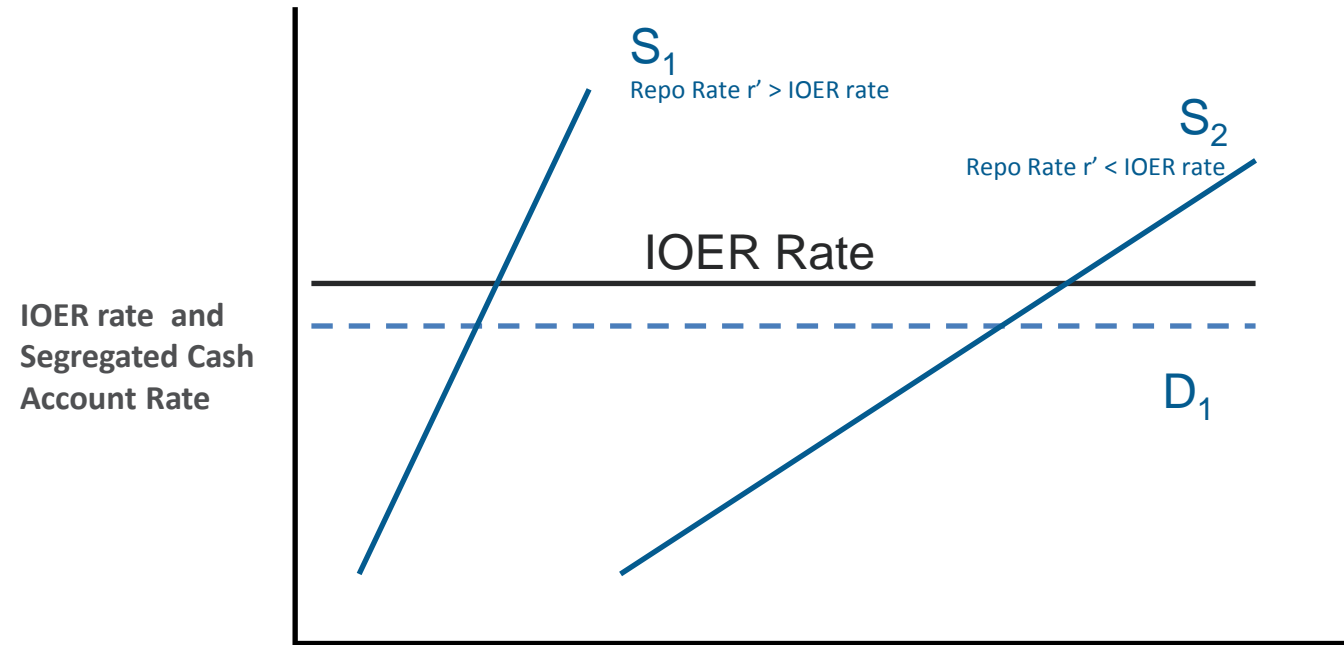
SCAs can both accommodate the demand for large safe overnight investment opportunities and improve the transmission of interest on reserves into other short-term rates.

Crucially, in addressing these issues, SCAs:

1. Do not rely on expanding deposit insurance.
2. Do not have fire-sale risk.
3. Are not runnable, as they are liquid and they are not credit risky.
4. Availability is heavily influenced by the central bank's willingness to supply reserves.
5. Are likely to be provided competitively, as rates are set privately and any bank can provide equally creditworthy SCAs.

Additionally, holding fixed the quantity of reserves, the interest rate on SCAs would be a good measure of liquidity demand.

The market for Segregated Cash Accounts



D_1 : Demand for Segregated Cash Account

S_1 : Supply of Segregated Cash Accounts at Repo Rate $r' > \text{IOER rate}$

S_2 : Supply of Segregated Cash Accounts at Repo Rate $r' < \text{IOER rate}$

Key Features:

Banks demand segregated cash accounts and depositors (large cash pools) supply the balances.

Demand at the banking industry level for segregated cash balances is independent of the supply of reserves

When the repo rate moves above the IOER rate the supply of segregated cash balances contracts because repos are a close substitute for SCAs.

Segregated Cash Accounts can improve the efficiency of policy transmission

SCAs allow a lender to supply funds to a much wider set of counterparties, as the risk exposure, fully collateralized by central bank reserves, is minimal.

A lender could place all of its funds lent in one counterparty, as it is not exposed to greater risk for larger deals.

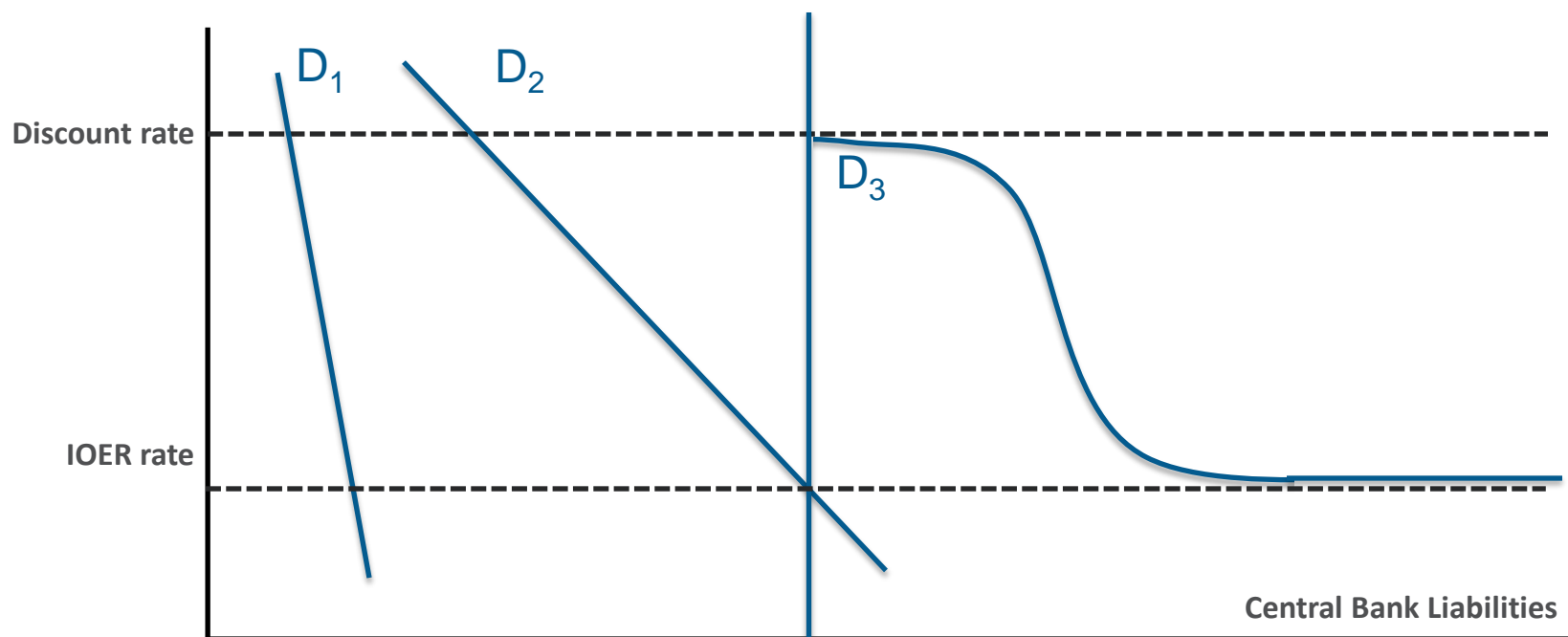
These features of SCAs accounts encourage a much more competitive market for funds:

- Many more “buyers” of funds are eligible counterparties.
- Lenders supply curves would be much more rate-elastic as a rate increase could be applied to all of its funds to be lent.

Consequently, the “Segregated Cash Account rate” would be just slightly below the rate of interest on reserves (after accounting for any FDIC assessment fee and the cost of capital, given the leverage ratio requirement).

An important benefit of SCAs is that they would strengthen the floor on interest rates provided by interest on reserves.

Effect on Monetary Policy Implementation



D_1 : Demand for currency

D_2 : Demand for Segregated Cash Accounts

D_3 : Demand for bank reserve balances

How large might be the demand for SCAs?

One comparison might be provided by the balances in the Transactions Account Guarantee program.

Transaction Account Guarantee Program

The TAG program insured non-interest-bearing deposits of more than \$250,000 at participating financial institutions.

It was first created in October 2008 to end in December 2009, but was subsequently extended through June 2010, then December 2010, and finally until December 2012. The program is mandatory for all banks.

The price was originally 10 basis points per deposit up until 2010q1, at which point the fee of no more than 25 basis points was paid based on the risk category of the institution.

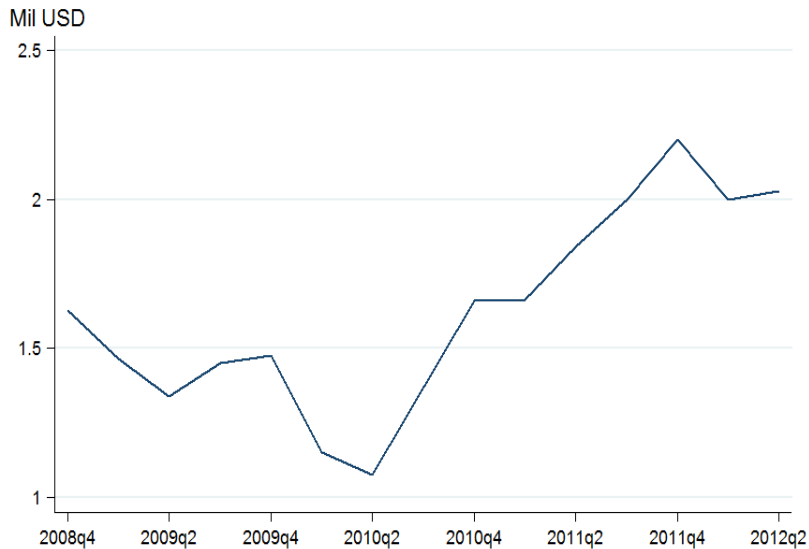
The interest rate on those accounts is zero, not related to the fed funds rate or the repo rate, and the accounts are guaranteed for any size of deposit

Transaction Account Guarantee Program

We might expect the balances to be small, because the repo rate is strictly above the rate earned on these accounts, and in fact recently the repo rate has been 25 basis points and higher as there has been an increased holdings of MBS by broker-dealers in conjunction with the current MBS purchase program, which increased demand for repo borrowing.

Nonetheless, as you can see in the diagrams, the demand for guaranteed transactions account balances has been high (in excess of \$1.5 trillion, and fairly steady)

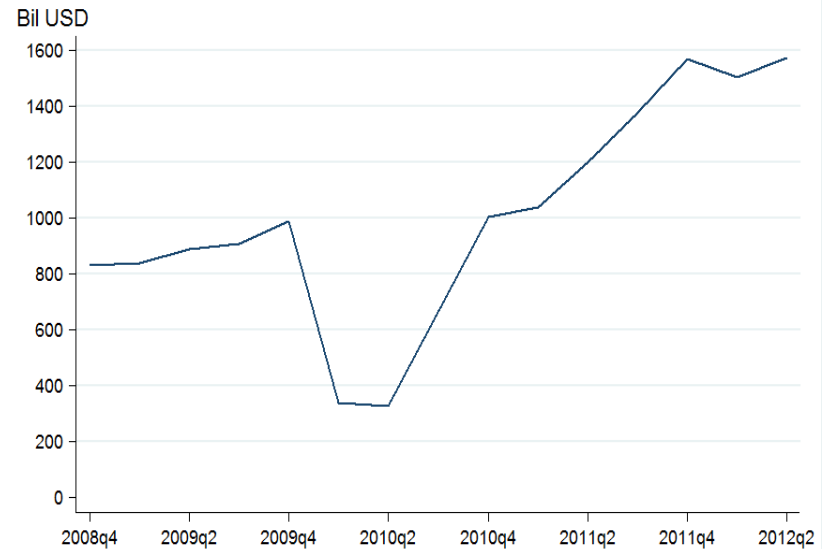
Average Amount in Transaction Account Guaranteed Deposits



Source: FFIEC031

Due to changes in reporting forms, no consistent data was available for 2010 Q3. That observation has therefore been dropped from the series.

Total Amount in Transaction Account Guaranteed Deposits



Source: FFIEC031

Due to changes in reporting forms, no consistent data was available for 2010 Q3. That observation has therefore been dropped from the series.

Potential costs of Segregated Cash Accounts

Primarily costs associated with the central bank having a large balance sheet.

Consolidated public sector issues more debt on a short-tenor, incurring more interest rate risk as a result.

- Similar to the risk of Greenwood, Hanson, and Stein's proposal.

Reputational cost for the central bank bearing this risk.

High demand for SCAs would likely occur during periods of market turbulence, in which the yield curve is generally upward-sloping, at the same time that the central bank seeks to lower policy rates.

Summary

High demand for safe, liquid forms of money led to the growth in systemically-risky repos, MMMFs and securities' lending accounts.

Segregated Cash Accounts, by providing lenders with a direct claim on reserves through a specific, segregated, account at a bank can both assist in meeting the demand for safe forms of money and can tighten the link between interest on reserves and market rates.

The central bank, rather than the Treasury, is the logical government agent to manage their provision.