

# Money Market Mutual Funds

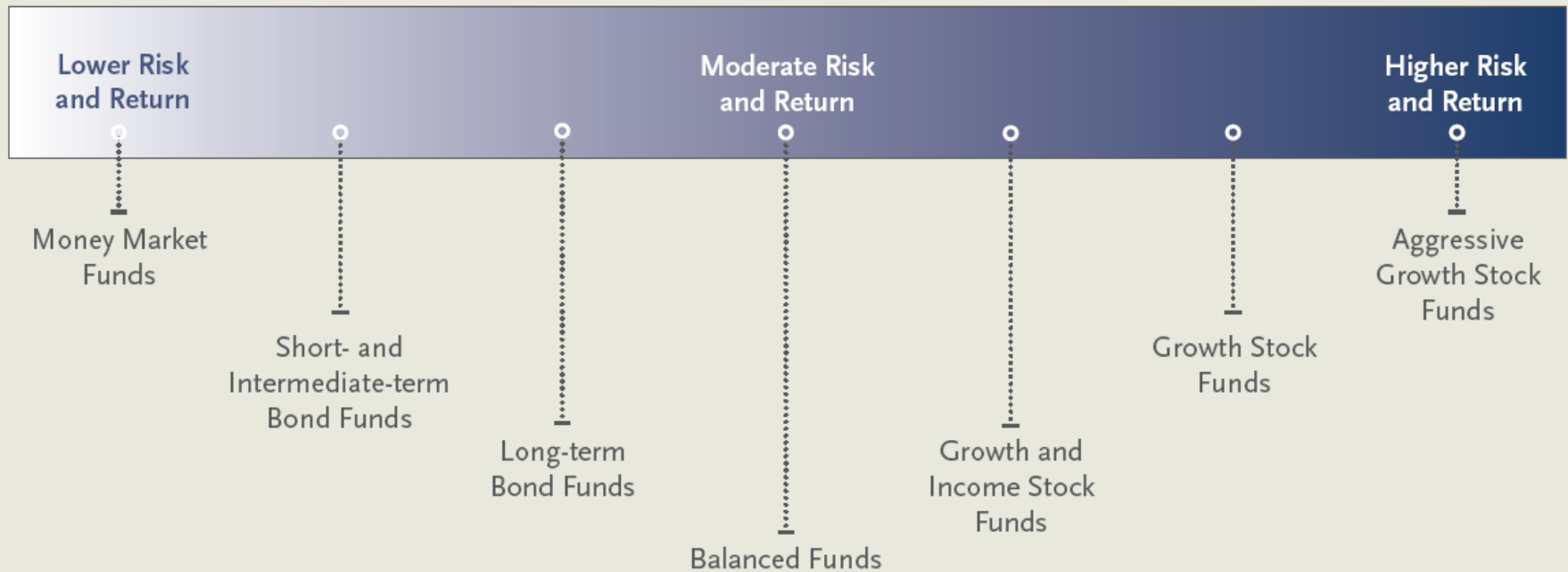
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# Mutual Funds Spectrum

## RISK AND REWARD POTENTIAL FOR TYPES OF FUNDS

Generally, risk and reward go hand in hand with mutual fund investments.



# Money Market Funds

- Low Risk Mutual Funds
- Investments in highly liquid securities
  - Govt. Securities, CDs, CPs etc.
- Pay regular dividends
  - Typically monthly
- Maintain a Net Asset Value of \$1/share
  - Yield varies
  - Breaking the buck

# Reserve Fund

- First Money Market Fund in the US
  - Bruce R. Bent & Henry B. R. Brown
  - 1971/72
  - Bank rates much lower than T-Bills
  - T-Bills required a minimum of \$10,000
- Center of recent crisis
  - Three of its funds broke the buck
  - Hurt by Lehman's bankruptcy
  - Closed majority of their funds

# Regulations

Investment Company Act of 1940 - Rule 2a-7

- Quality
  - Minimal Credit Risk, highest rated
  - 5% limit on A2 type securities
- Weighted Average Maturity (WAM)
  - 90 days or less for the portfolio
  - Individual securities 13 months or less
- Diversification
  - 5% limit on individual issuer holding
  - Limit doesn't apply to Govt. Holdings

# Investment Categories

- Taxable Funds
  - Returns subject to Federal, State and Local taxes
- Non-Taxable/Tax-Free Funds
  - Returns exempt from Federal taxes
  - May be exempt from State and Local taxes
  - Returns lower than taxable funds
  - Benefit higher tax bracket investors

# Taxable Funds Investments

- US Treasury securities
- Agency Debt
- Bank Certificate of Deposits
- Commercial Paper (CP)
  - Unsecured, less than 270 days
- Repurchase Agreements (Repos)
  - Typically overnight

# Tax Free Funds Investments

- Restricted investing space
- Municipal Securities
  - Issued by State and Local Municipalities
- Tax Exempt Commercial Paper
  - Non-Profit Organizations
  - Universities, etc.



# Types of Funds

- *Institutional:*
  - high minimum investment, low expense share classes
  - marketed to corporations governments, high net worth individuals and fiduciaries
  - as of November 2008, institutional funds hold 66% of all money market fund assets

# Major Fund Managers

- *Institutional:*
  - JPMorgan
  - BlackRock
  - Goldman Sachs
  - Bank of New York Mellon
  - Wells Fargo
  - Citigroup

# Types of Funds

- *Retail:*

- offered primarily to individuals with moderate-sized accounts
- primary use: as temporary holding funds at stock brokerage firms
- as of November 2008, retail funds hold 34% of all money market fund assets

# Major Fund Managers

- *Retail:*
  - Fidelity
  - Vanguard
  - Charles Schwab
  - UBS
- Not just some obscure corner of financial markets

## What they are not

- Not the same thing as *money market accounts*
  - which are FDIC-insured bank accounts
  - which offer higher yields than traditional savings accounts, but with higher minimum balance requirements and limited transactions.
- Money market funds are not FDIC insured and typically offer higher rates than money market accounts.

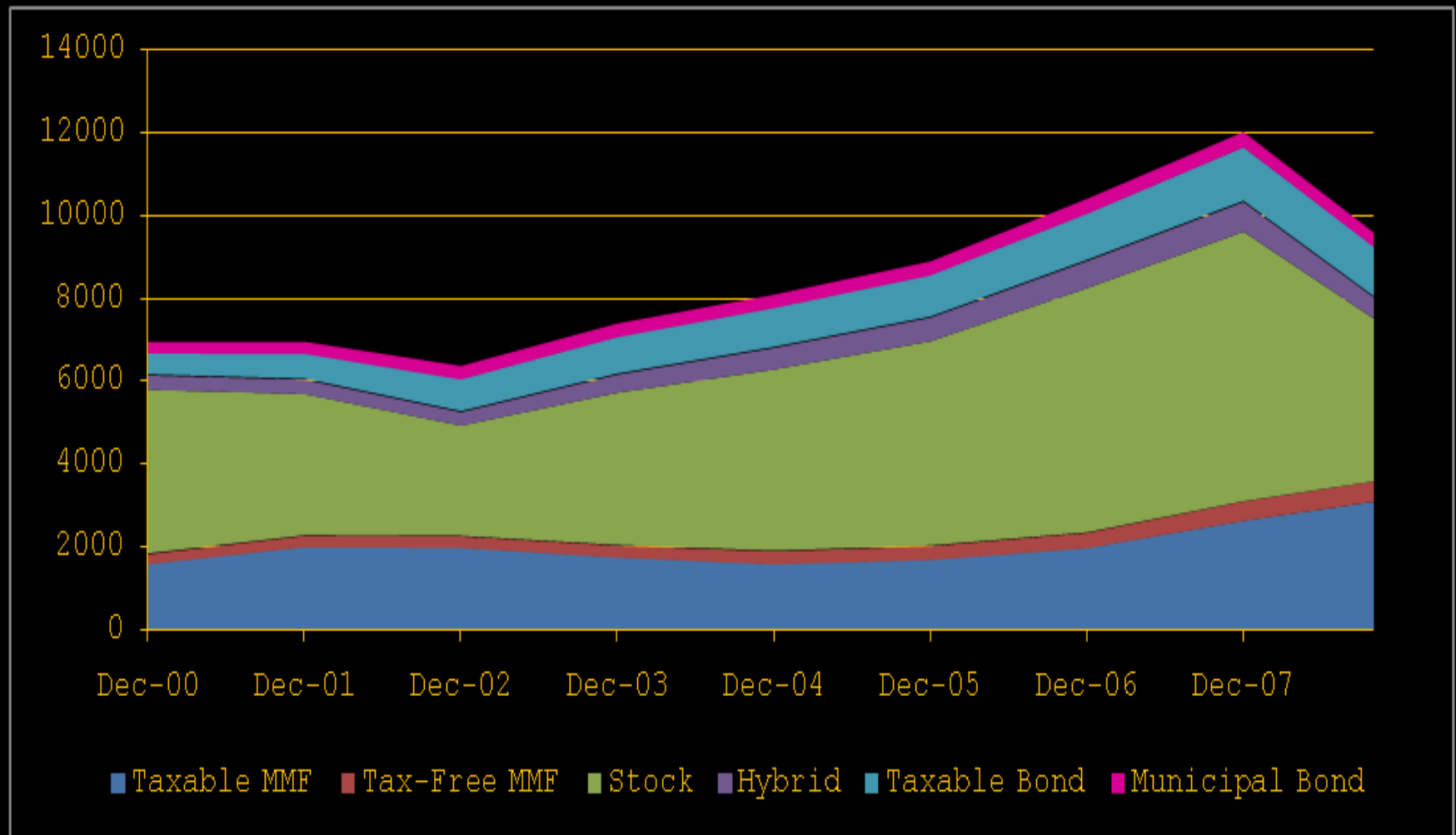
## What they are not

- Not the same thing as *enhanced cash funds*
  - which also aim to provide liquidity and principal preservation;
  - but invest in a wider variety of assets, and do not meet the restrictions of SEC Rule 2a-7;
  - aim for higher returns;
  - have less liquidity;
  - do not maintain a stable NAV.

## Percentage of mutual funds

- Money market fund assets account for 30% of all mutual fund assets.
- As of November \$3.714 trillion was invested in money market funds.
  - \$4.4 trillion in bank deposits

# Total Net Assets of Mutual Funds (billions of dollars)





# Money Market Funds AUM



# Fed Funds Target Rate



# Money Market Funds AUM



# Breaking the Buck

- In the 37 years of existence, only two funds have broken the buck
  - In September 1994, Community Assets Management US Government Fund
  - In September 2008, the Reserve Primary Fund
- There have been a number of instances where funds had to be bailed out
  - Primarily during the times of the two failures in 1994 and 2008

# US Government Fund Failure (1994)

- Small, institutional money market fund with approximately \$80 million in assets
- Held \$35.5 million in US government agency structured notes
  - Derivatives tied to Treasury yields and prime rate
  - Highly volatile when interest rates quickly increase
- Effective federal funds rate increases from 3% to 6% in 1994
  - Market dries up for the derivatives and value falls sharply
  - The fund is liquidated at 94 cents on the dollar
- Other money market funds also ran into trouble during this time due to derivatives

# The Reserve Primary Fund

- Founded by Bruce Bent, “original” money market fund
  - \$60 billion in assets (half of company’s AUM)
  - Institutional fund, but many retail investors through sweep accounts
- “unwavering discipline focused on protecting your principal”
  - May 2007: 0.9% of assets in commercial paper
  - May 2008: 54% of assets in commercial paper
  - Changed prospectus in 2006 to hold CP
  - Outperformance subsequently increases from 25 to 50 basis points
- On September 15<sup>th</sup>, 2008, Lehman Brothers files for bankruptcy
  - The fund writes off \$785 million in Lehman debt reducing NAV to \$0.97
  - More than 60% of investors redeem on September 15<sup>th</sup> and 16<sup>th</sup>
  - Subsequent redemption requests are frozen to provide for an orderly unwind

# The Reserve Primary Fund (cont)

- The failure causes a run on money market funds
  - By September 17<sup>th</sup>, investors had withdrawn \$173 billion from money funds, 7% of total money assets
- On September 18<sup>th</sup>, Putnam Investments \$12.3 billion Prime Money Market Fund closes due to redemptions
- Investors also shift money from riskier funds that invest in CP to safer funds that only invest in treasuries and CDs
- On September 19<sup>th</sup>, Treasury announces insurance program to stop outflows and stabilize the system
- Why was it critical to stabilize the money market fund industry?

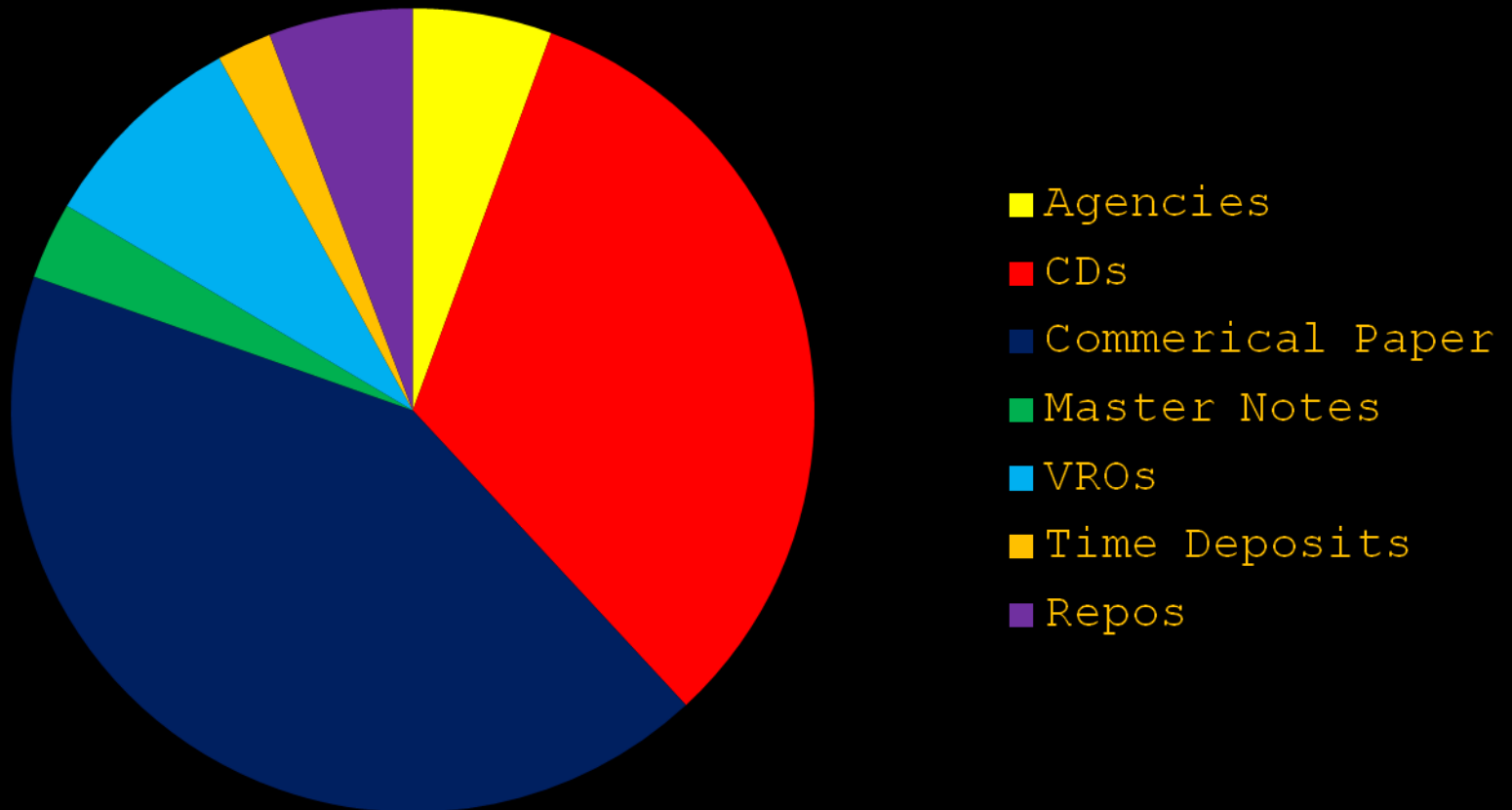
# Implications of systematic failure

- Money funds play two important roles
  - Provide investors with convenient way to manage cash
  - Serve as a large provider of short-term debt financing
- Funds invest in:
  - US Treasuries and Agencies
  - Certificates of deposit and bankers' acceptances
  - *Commercial paper and repurchase agreements*



# Example: BlackRock TempFund

Asset Allocation (\$62bn total AUM)



# Repurchase Agreements

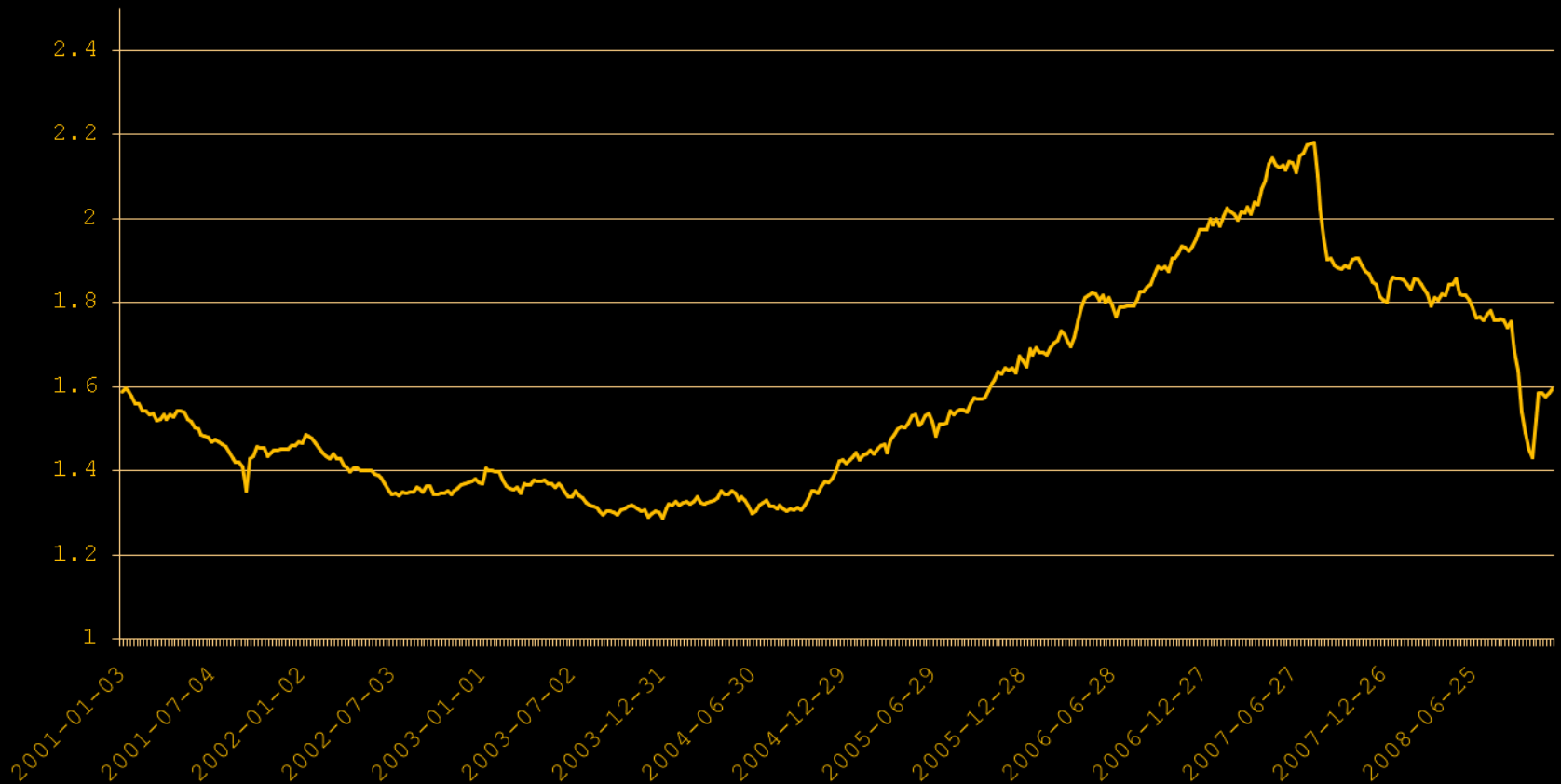
- Borrower agrees to sell a security to a lender and buy it back at later date
  - Essentially a secured loan
  - Usually Treasuries or Agencies, but can be any security
  - Most are “overnight repo”
  - Also “term repo” – up to 3 months
- Used extensively by banks and other financial institutions
  - Important source of short-term liquidity
- \$5 trillion market as of 2004

# Commercial Paper

- Promissory note with fixed maturity
  - 1 to 270 days
  - Unsecured
  - Issued primarily by large banks and corporations
- Used to fund operating expenses or current assets
  - Not for financing fixed assets
- 1700 US companies issue CP
  - In general, the most credit worthy
- Over \$2 trillion outstanding at peak
  - 45% asset-backed, 46% financial, 9% non-financials

# The CP binge

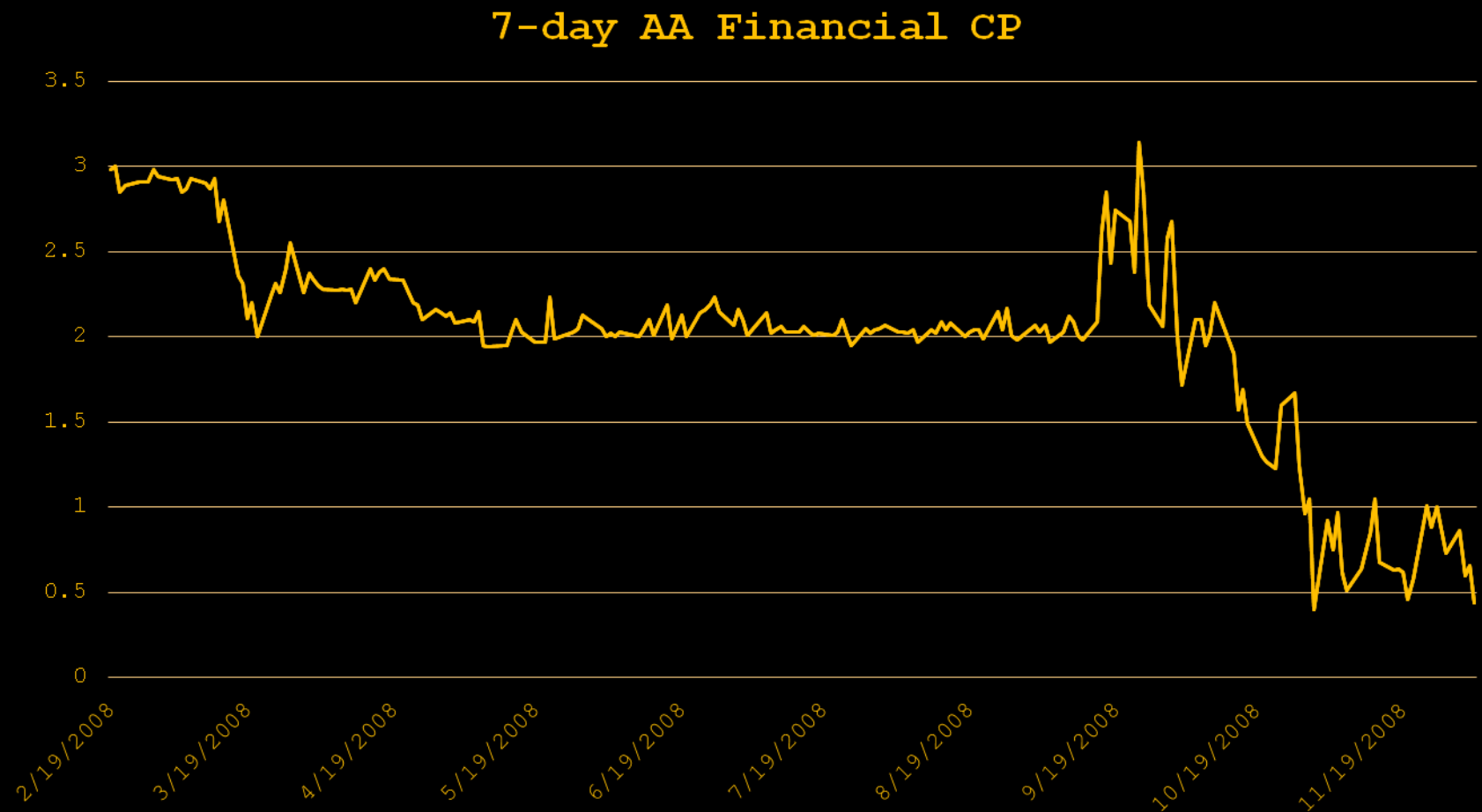
Weekly Outstanding CP (in trillions of \$)



# Temporary Insurance Program

- Temporary Guarantee Program for Money Market Funds
  - Created to stop the money fund outflows and stabilize the CP market
  - All Rule 2a-7 money market funds covered, taxable and non-taxable
  - Guarantees that investors will receive \$1 for each share held as of COB on September 19<sup>th</sup>
  - Upfront fee of 1 basis point, with 0.5 cent deductible
- Program quickly stanching the outflow from funds
- Yields on commercial paper retreated

# CP Yields: Before and After



# The Future of Money Market Funds

"They're putting up a firewall," said Paul McCulley, managing director at Pacific Investment Management Co., which oversees \$830 billion including money funds. "It's the ultimate nightmare to have a run on the money markets -- that is truly the Armageddon outcome -- and they're not going to allow that to happen."

-- Bloomberg, September 19, 2008

# The Future of Money Market Funds

Near Term: April 30th, 2009

- Extended from December 19th, 2009 because of persistent market turmoil
- Insurance program expires (unless renewed)
- FDIC unlimited guarantee goes through December 2009
- Likely to see outflows from money market funds into bank accounts
- Depending on continuing of crisis, expanding the term of the insurance program is possible



# The Future of Money Market Funds

Medium Term - Private and ad hoc solutions

- TD Ameritrade (Broker)
  - pledged to "make whole" any of its customers who had invested in the Reserve Fund
  - \$0.03 per Reserve Fund share translated to \$0.05 hit to Earnings per share
- Legg Mason (Fund Manager)
  - Set aside additional funds in order to make sure their money market funds remain at \$1.00 NAV
- Private solutions are viable, although difficult when firms are already in trouble

# The Future of Money Market Funds

## Long Term Outlook

The American Bankers Association objected to the insurance program, saying it may compromise the ability of banks to attract and keep deposits.

"Today's action will undermine the role of banks during this current crisis and has the potential to have an extremely negative impact," Edward Yingling, chief executive officer of the Washington-based group, said in a statement. "Our bankers are understandingly very upset."

-- Bloomberg, September 19, 2008

# The Future of Money Market Funds

## Long Term Outlook

- Money Market Funds are critical to financial stability
- Investors expect high liquidity (check-writing)
- Investors expect asset value protection
- Fear of withdrawal freezes is not viable long-term

# The Future of Money Market Funds

## Long Term Outlook

- Runs on Money Market Funds could lead to the safest assets falling to "firesale" prices
- Government will likely continue to see protection of faith in Money Market Funds as critical
- But how big can the Fed's and Treasury's balance sheets get?

# The Future of Money Market Funds

## Long Term Outlook

- Relative safety of Money Market funds and Bank accounts
- Used for similar purposes
- Keep an eye on Money Market Fund insurance vs. FDIC limits
- Significant implications for flow of capital

# The Future of Money Market Funds

## Long Term Outlook: Investment Universe

- Money Market Funds buy:
  - Government Securities
  - Agencies & Munis
  - High grade corporate debt
  - Commercial Paper
    - Asset-backed and other
  - Repo
- Effect of disruptions in these asset classes on funds
- Effect of disruptions in funds (e.g., runs) on these asset classes
- Potential for feedback effects

# The Future of Money Market Funds

Long Term Outlook: Investment Universe

- Safety of assets previously determined by ratings agencies
- Loss of confidence and potential regulatory changes
- AAA vs. AAA.sf
- (Lack of) Due diligence by fund managers
- Common theme of Credit Crisis:
  - What once seemed safe no longer does

# The Future of Money Market Funds

## Long Term Outlook: Investment Universe

- Overnight repo increased in popularity across Wall St. -- accounts for up to 25% of funding
- Regulatory changes on horizon could reduce investment universe of money market funds
  - Less Repo
  - Amount of outstanding Asset-backed Commercial Paper is roughly half its peak
- No more CDOs means fewer "AAA" securities
- Demand for Treasuries already high because of flight-to-quality phenomenon (yields low)



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