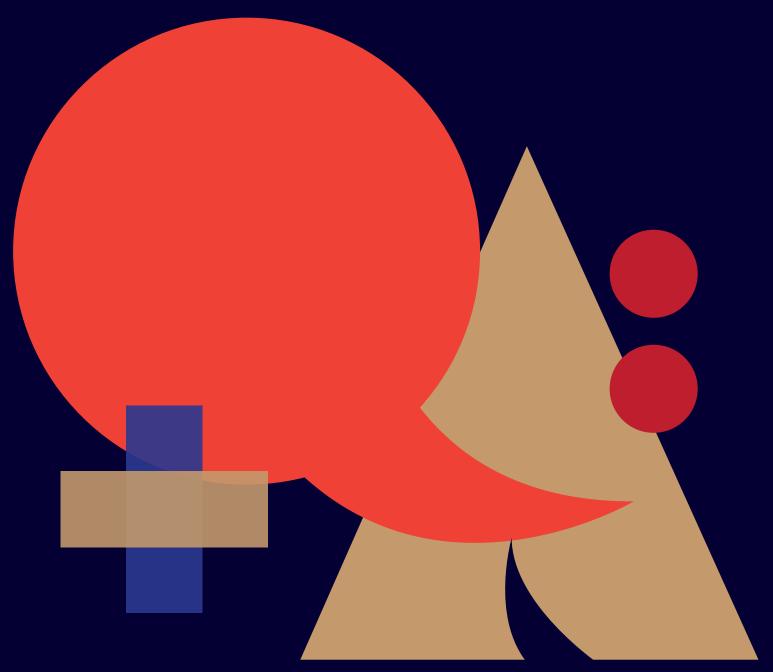
AERIAL VIEW

ACCESS A BROADER MARKET PERSPECTIVE



Q&A: DEBATING ZERO RATES

BY KATY BURNE

"The Fed's goal in taking this action... is to encourage the extension of credit and remove headwinds in response to worsening financial conditions. We've seen zero rates in the US before, during 2009-2014, and expect the market to adapt similarly."

DAVID FISHMAN, HEAD OF LIQUIDITY SOLUTIONS AT GOLDMAN SACHS ASSET MANAGEMENT

AS THE GLOBAL ECONOMY GRAPPLES WITH THE FALLOUT FROM THE CORONAVIRUS, MARKETS ARE WEIGHING THE EFFICACY OF EMERGENCY FED LIQUIDITY AND EXPECTATIONS THAT THE CENTRAL BANK WILL USE ITS FULL RANGE OF TOOLS.

BY KATY BURNE

quities across the world have tumbled from record highs in mid-February into bear market territory in less than a month, as fears have intensified over the likely economic impact of the coronavirus outbreak.

In response, central banks around the world have instituted extreme stimulus measures to arrest the slide and restore investor confidence. Now markets are weighing the impact of emergency actions by the Federal Reserve, which set rates in a target range of zero to 0.25%, and other tools to help support the flow of credit to households and businesses.

In an interview with Aerial View, experts from JP Morgan, Goldman Sachs and BNY Mellon discuss the impact of a zero – or even negative – rate environment on money market funds and the amount of supply available. Below are edited excerpts of those interviews with: John Donohue, Head of Global Liquidity at J.P. Morgan Asset Management; David Fishman, Head of Liquidity Solutions at Goldman Sachs Asset Management; and Jonathan Spirgel, Head of Liquidity at

BNY Mellon Markets.

AERIAL VIEW: This was the fastest correction in history. What makes this volatility shock different than past market collapses?

JOHN DONOHUE: "It only took six trading days for the S&P 500 to fall from its peak into correction territory. Given the rise of high-frequency/algorithmic trading – which we estimate to be roughly 60% of trading volume – and the rise of passive funds, market moves are now occurring faster than in previous periods. The market was primed for a correction. It just needed a catalyst and the spread of COVID-19 was it."

DAVID FISHMAN: "2008 was a financial crisis in which markets suffered a lack of confidence in exposures and counterparties. As market participants were looking to exit positions, banks and broker-dealers did not have sufficient liquidity and balance-sheet capacity to warehouse them. This time, while we have seen an extreme bout of volatility,

prices have been adjusting, and any liquidity dislocations have not been due to concerns with banks."

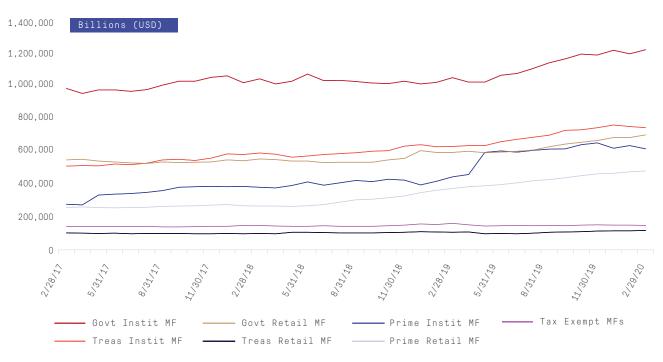
JONATHAN SPIRGEL: "This time, no one is questioning large banks about their liquidity. The set of market actors that used to cushion these events pre-crisis has changed, with bank-affiliated broker-dealers having lower risk appetite and more computer-driven trading taking place. But the Fed still sees banks as critical to smooth market functioning so it took action with their liquidity and capital buffers, reserve requirements and reducing rates at the discount window."

AV: What will lead the next leg of this? What does it mean if the Fed cuts rates and it wastes bullets because stocks close down anyway?

DONOHUE: "While the Fed has few bullets left in its arsenal, it is operating under the philosophy of an ounce of prevention is worth a pound of cure. The cuts to date have not stabilized

SWITCHING GEARS

US prime money funds are down \$12bn through March 12, while government money funds are up



SOURCE: CRANE DATA

the markets, but the hope is that they ease financial conditions and help boost business sentiment."

FISHMAN: "Market participants are debating the efficacy of the Fed's inter-meeting rate cuts alone. I think we need three responses here. First, we need a health response. Second, we need a monetary response designed to help offset the demand shocks – even if it may not provide an immediate observable benefit to the economy. Here's where we've seen the most significant signal from the Fed this week. The third is a fiscal response. Pockets of the economy such as cruise lines, airlines and hotels could be helped through a targeted fiscal response, such as Small to Medium Enterprise (SME) loans, debt forgiveness, and debt guarantees."

SPIRGEL: "If mortality rates pick up,

that constrains growth and could put the US into a recession. The next question the Fed will have to answer is what tools will be deployed if more aggressive action is needed to calm markets now that we are already at the zero lower bound. They have said they still have power in their liquidity tools and room to adjust their policy."

AV: In the last crisis, the government used programs like TARP to flood the banking system with cash. How could the Fed/Treasury increase the velocity of credit in pockets of the economy, like leisure/tourism?

FISHMAN: "In 2008, the government took two approaches in order to help stabilize the system: 1) the US Treasury injected capital in the banks via TARP; 2) the Fed created an alphabet soup of liquidity programs. This time around the stress in the system doesn't stem from

concerns with banks, but rather from fears of a slowdown in the real economy, which can manifest itself in reductions in economic activity."

DONOHUE: "The Fed has been trying to stoke inflationary pressure for a while without much luck. We need to recognize the limits of policymakers' actions. Inflation is a two-part equation: money supply times the velocity of money. The Fed really has control over money supply. But the velocity of money is controlled by factors like regulation, demographics, inequality and sentiment. Many of these cannot be directly influenced by the Fed. There just isn't that much the Fed can do to increase velocity because the virus is turning into both a supply and demand shock, which will likely lead to sharp dips in velocity regardless of Fed actions."

AV: What do you see as the

"[The Fed's] monthly purchase program will now target a wider array of Treasury security types including coupons...
This will certainly help lift some of the pressure on money market fund T-bill supply."

JOHN DONOHUE, HEAD OF GLOBAL LIQUIDITY AT J.P. MORGAN ASSET MANAGEMENT

implications of the Fed having acted aggressively to take rates to the zero lower bound. Will it work?

DONOHUE: "Clearly they were concerned at the sell-off in Treasuries last week and the stress in credit. The cut to zero and the additional \$700bn in large scale asset purchases should hold Treasury and mortgage yields at lower levels. We are back to global central bank coordination to provide an abundance of liquidity to markets. This, coupled with the other actions such as bank capital relief and discount window borrowing availability, should help to calm markets. If not, expect them to continue to take action in order to do so."

FISHMAN: "The Fed's goal in taking this action, in addition to other policy fee cuts and easing measures, is to encourage the extension of credit and remove headwinds in response to

worsening financial conditions. We've seen zero rates in the US before, during 2009-2014, and expect the market to adapt similarly."

SPIRGEL: "The difference between rates at real zero and in a range of 0-0.25%, where the Fed took them on March 15, is significant because the latter means people will get paid something on their money. The Fed can take away the range and say the overnight rate is zero, but doing so would have broader implications for clients. They have already expanded their asset purchases."

AV: With coronavirus and recent repo dislocation, is there enough T-bill supply to handle a huge influx into government-only funds in a flight to quality?

SPIRGEL: "There is a balancing act

between the Treasury issuing more bills and the programs it has implemented to buy a range of Treasury maturities and mortgage-backed securities through its asset purchase program. It will have to issue its way around any supply problems. With tens of billions of dollars flooding into government money market funds since the start of the year, the supply to absorb those flows needs to come from somewhere. There has to be a mechanism to support increased demand of government securities in money markets."

FISHMAN: "Thankfully there are a number of outlets for government fund demand. Notably, the Federal Reserve's overnight reverse repurchase program allows money market funds to invest at least \$30 billion each overnight in repo with the Fed. There is also the FICC-sponsored repo

"You used to be able to get around a 20bp pickup in spread by investing in a prime fund instead of a government fund, which is worthwhile in a stable market. In a falling market, it's a different story and prime funds see liquidations. But so far everything is orderly."

JONATHAN SPIRGEL, HEAD OF LIQUIDITY AT BNY MELLON MARKETS

program, which has offered the system a considerable amount of capacity in a capital-efficient manner."

DONOHUE: "Seasonal issuance trends leading into the US tax filing deadline in April and the Fed's continued purchases of T-bills do pose challenges to the supply dynamics in the short-term Treasury market. On the other side of the coin, a large fiscal stimulus package would likely lead to a significant increase in T-bill issuance. The Fed announced on March 12 that its monthly purchase program will now target a wider array of Treasury securities, including coupons, Treasury Inflation-Protected Securities, and Floating Rate Notes. This will certainly help lift some of the pressure on money market fund T-bill supply."

AV: How are the recent money market reforms impacting the

market's capacity to handle stress?

FISHMAN: "In 2008 we observed that many participants in the industry held liquidity buffers that, in retrospect, were far too small. When the regulators implemented reforms they added variable NAVs (VNAVs) to institutional prime funds, which were designed to ensure that investors were not incentivized to rush out at the \$1.00 NAV for fear that remaining shareholders would be stuck with losses if funds 'broke the buck.' Because of the high-quality nature of prime funds' investable universe and higher liquidity positions than 2008, the industry comes into this market in a stronger position. As a result, the volatility we are seeing now is much more manageable."

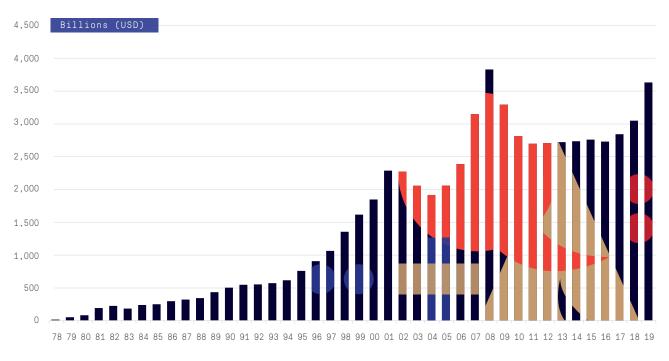
DONOHUE: "So far, the current bout of volatility has not put undue stress

on money market funds, apart from the rapid and steep decline in interest rates. The regulatory reforms enacted in the US and Europe have made money funds more resilient in times of market stress by helping to reduce run risk and improve liquidity, credit quality, and transparency. We have seen significant upward movement in VNAVs in recent weeks as rates have declined and positions have been re-marked at significant unrealized gains. So investors in these products have actually seen capital appreciation."

SPIRGEL: "We have seen money flowing out of US dollar prime funds into US government funds in recent weeks. You used to be able to get around a 20bp pickup in spread by investing in a prime fund instead of a government fund, which is worthwhile in a stable market. In a falling market, it's a different story

FLIGHT TO SAFETY

US money markets, now standing at \$3.7Tr, stand to grow as investors seek to safeguard cash



SOURCE: ICI, CRANE DATA

and prime funds see liquidations. But so far everything is orderly."

AV: The Fed has been reticent to cut rates into negative territory in the past. Do current market conditions warrant a rethink of that policy?

DONOHUE: "We think negative rates are unlikely because there is an unknown about how markets would perceive them. The Fed recognizes the importance of money funds to funding markets, so it's our base case that the Fed would stop at the zero lower bound and then pivot to other tools and operations like quantitative easing.

"You could see some of the government funds today convert to the floating NAV. As a result, these VNAV funds could actually be better suited than their stable-NAV counterparts to quickly adapt to a negative rate

regime."

FISHMAN: "The Fed continues to be vocal that negative rates are not on the table and instead it will focus on other tools. With so much in flux, it will likely continue to weigh the benefits versus the costs of this approach. In any case, one of the reasons the US money market industry holds \$3.7 trillion in assets is that market participants assign a high value on the product's utility besides yield. And the utility isn't only for fund shareholders finding value in liquidity but also for issuers, including the US government and corporations, seeing benefits of funding. We believe money market funds remain a critical component of the financial markets."

SPIRGEL: "Negative rates are unlikely and the Fed has said they are not an appropriate policy response in the US at this

time. But from a client perspective, the consequences would be significant. For example, if you had 100 units of a fund one day, we would remove the requisite number of shares to make that negative yield a reality. The fund value would still be \$1 but you would have 99.90 units instead of 100—so you would lose a bit of your principal. It's a different mindset and essentially getting out less than what you put in is something that people will need to get their heads around."

Katy Burne is editor-in-chief of Aerial View Magazine.
Questions or Comments? Contact George.Maganas@bnymellon.com in the US;
Jason.Garwood@bnymellon.com in EMEA; or
Filippo.Santilli@bnymellon.com in APAC. Alternatively, reach out to your usual relationship manager.

BNYMELLON.COM

BNY Mellon is the corporate brand of The Bank of New York Mellon Corporation and may be used as a generic term to reference the corporation as a whole and/or its various group entities. This material and any products and services may be issued or provided under various brand names of BNY Mellon in various countries by duly authorized and regulated subsidiaries, affiliates and joint ventures of BNY Mellon, which may include any of those listed below:

The Bank of New York Mellon, a banking corporation organized pursuant to the laws of the State of New York, whose registered office is at 240 Greenwich St, NY, NY 10286, USA. The Bank of New York Mellon is supervised and regulated by the New York State Department of Financial Services and the US Federal Reserve and is authorized by the Prudential Regulation Authority (PRA). Details about the extent of our regulation by the PRA are available from us on request.

The Bank of New York Mellon operates in the UK through its London branch (UK companies house numbers FC005522 and BR000818) at One Canada Square, London E14 5AL, and is subject to regulation by the Financial Conduct Authority (FCA) at 12 Endeavour Square, London, E20 JJN, UK, and limited regulation by the PRA at Bank of England, Threadneedle St, London, EC2R 8AH, UK.

The Bank of New York Mellon SA/NV, a Belgian limited liability company, registered in the RPM Brussels with company number 0806.743.159, whose registered office is at 46 Rue Montoyerstraat, B-1000 Brussels, Belgium, authorized and regulated as a significant credit institution by the European Central Bank (ECB) at Sonnemannstrasse 20, 60314 Frankfurt am Main, Germany, and the National Bank of Belgium (NBB) at Boulevard de Berlaimont/ de Berlaimontlaan 14, 1000 Brussels, Belgium, under the Single Supervisory Mechanism and by the Belgian Financial Services and Markets Authority (FSMA) at Rue du Congrès/Congresstraat 12-14, 1000 Brussels, Belgium, for conduct of business rules, and is a subsidiary of The Bank of New York Mellon.

The Bank of New York Mellon SA/NV operates in Ireland through its Dublin branch at Riverside II, Sir John Rogerson's Quay Grand Canal Dock, Dublin 2, D02KV60, Ireland, and is registered with the Companies Registration Office in Ireland under No. 907126 & with VAT No. IE 9578054E. The Bank of New York Mellon SA/NV, Dublin Branch, is subject to limited additional regulation by the Central Bank of Ireland at New Wapping Street, North Wall Quay, Dublin 1, D01 F7X3, Ireland, for conduct of business rules and registered with the Companies Registration Office in Ireland under No. 907126 & with VAT No. IE 9578054E.

The Bank of New York Mellon SA/NV is trading in Germany as The Bank of New York Mellon SA/NV, Asset Servicing, Niederlassung Frankfurt am Main, and has its registered office at MesseTurm, Friedrich-Ebert-Anlage 49, 60327 Frankfurt am Main, Germany. It is subject to limited additional regulation by the Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht, Marie-Curie-Str. 24-28, 60439 Frankfurt, Germany) under registration number 122721.

The Bank of New York Mellon SA/NV operates in the Netherlands through its Amsterdam branch at Strawinskylaan 337, WTC Building, Amsterdam, 1077 XX, the Netherlands. The Bank of New York Mellon SA/NV, Amsterdam Branch, is subject to limited additional supervision by the Dutch Central Bank ("De Nederlandsche Bank" or 'DNB') on integrity issues only (registration number 34363596). DNB holds office at Westeinde 1, 1017 ZN Amsterdam, the Netherlands.

The Bank of New York Mellon SA/NV operates in Luxembourg through its Luxembourg branch at 2-4 rue Eugene Ruppert, Vertigo Building - Polaris, L-2453, Luxembourg. The Bank of New York Mellon SA/NV, Luxembourg Branch, is subject to limited additional regulation by the Commission de Surveillance du Secteur Financier at 283, route d'Arlon, L-1150 Luxembourg, for conduct of business rules, and in its role as UCITS/AIF depositary and central administration agent.

The Bank of New York Mellon SA/NV operates in France through its Paris branch at 7 Rue Scribe, Paris, 75009, France. The Bank of New York Mellon SA/NV, Paris Branch, is subject to limited additional regulation by Secrétariat Général de l'Autorité de Contrôle Prudentiel at Première Direction du Contrôle de Banques (DCB I), Service 2, 61, Rue Taitbout, 75436 Paris Cedex 09, France (registration number [SIREN] Nr. 538 228 420 RCS Paris - CIB 13733).

The Bank of New York Mellon SA/NV operates in Italy through its Milan branch at Via Mike Bongiorno no. 13, Diamantino building, 5th floor, Milan, 20124, Italy. The Bank of New York Mellon SA/NV, Milan Branch, is subject to limited additional regulation by Banca d'Italia - Sede di Milano at Divisione Supervisione Banche, Via Cordusio no. 5, 20123 Milano, Italy (registration number 03351).

The Bank of New York Mellon SA/NV operates in England through its London branch at 160 Queen Victoria Street, London EC4V 4LA, UK, registered in England and Wales with numbers FC029379 and BR014361. The Bank of New York Mellon SA/NV, London Branch, is authorized by the ECB (address above) and subject to limited regulation by the FCA (address above) and the PRA (address above).

Regulatory information in relation to the above BNY Mellon entities operating out of Europe can be accessed at the following website: https://www. bnymellon.com/RID.

The Bank of New York Mellon, Singapore Branch, is subject to regulation by the Monetary Authority of Singapore. The Bank of New York Mellon, Hong Kong Branch, is subject to regulation by the Hong Kong Monetary Authority and the Securities & Futures Commission of Hong Kong. The Bank of New York Mellon, Australia Branch, is subject to regulation by the Australian Prudential Regulation Authority and is exempt from holding an Australian Financial Services License. The Bank of New York Mellon is regulated by the New York State Department of Financial Services under New York banking law, which is different from Australian law. The Bank of New York Mellon has various other branches in the Asia-Pacific Region that are subject to regulation by the relevant local regulator in that jurisdiction.

The Bank of New York Mellon Securities Company Japan Ltd, as intermediary for The Bank of New York Mellon.

The Bank of New York Mellon, DIFC Branch, is regulated by the Dubai Financial Services Authority (DFSA) and located at DIFC, The Exchange Building 5 North, Level 6, Room 601, P.O. Box 506723, Dubai, UAE, on behalf of The Bank of New York Mellon, which is a wholly owned subsidiary of The Bank of New York Mellon Corporation.

Past performance is not a guide to future performance of any instrument, transaction or financial structure and a loss of original capital may occur. Calls and communications with BNY Mellon may be recorded, for regulatory and other reasons.

Disclosures in relation to certain other BNY Mellon group entities can be accessed at the following website: http://disclaimer.bnymellon.com/eu.htm.

This material is intended for wholesale/professional clients (or the equivalent only), is not intended for use by retail clients and no other person should act upon it. Persons who do not have professional experience in matters relating to investments should not rely on this material. BNY Mellon will only pro-

vide the relevant investment services to investment professionals.

Not all products and services are offered in all countries.

If distributed in the UK, this material is a financial promotion. If distributed in the EU, this material is a marketing communication.

This material, which may be considered advertising, is for general information purposes only and is not intended to provide legal, tax, accounting, investment, financial or other professional advice on any matter. This material does not constitute a recommendation or advice by BNY Mellon of any kind. Use of our products and services is subject to various regulations and regulatory oversight. You should discuss this material with appropriate advisors in the context of your circumstances before acting in any manner on this material or agreeing to use any of the referenced products or services and make your own independent assessment (based on such advice) as to whether the referenced products or services are appropriate or suitable for you. This material may not be comprehensive or up to date and there is no undertaking as to the accuracy, timeliness, completeness or fitness for a particular purpose of information given. BNY Mellon will not be responsible for updating any information contained within this material and opinions and information contained herein are subject to change without notice. BNY Mellon assumes no direct or consequential liability for any errors in or reliance upon this material.

This material may not be distributed or used for the purpose of providing any referenced products or services or making any offers or solicitations in any jurisdiction or in any circumstances in which such products, services, offers or solicitations are unlawful or not authorized, or where there would be, by virtue of such distribution, new or additional registration requirements.

Any references to dollars are to US dollars unless specified otherwise.

This material may not be reproduced or disseminated in any form without the prior written permission of BNY Mellon. Trademarks, logos and other intellectual property marks belong to their respective owners.

Neither BNY Mellon nor any of its respective officers, employees or agents are, by virtue of providing the materials or information contained herein, acting as an advisor to any recipient (including a "municipal advisor" within the meaning of Section 15B of the Securities Exchange Act of 1934, as amended, "Section 15B"), do not owe a fiduciary duty to the recipient hereof pursuant to Section 15B or otherwise and are acting only for their own interests.

Whilst The Bank of New York Mellon (BNY Mellon) is authorised to provide financial services in Australia, it is exempt from the requirement to hold, and does not hold, an Australian financial services licence as issued by the Australian Securities and Investments Commission under the Corporations Act 2001 (Cth) in respect of the financial services provided by it to persons in Australia. BNY Mellon is regulated by the New York State Department of Financial Services and the US Federal Reserve under Chapter 2 of the Consolidated Laws, The Banking Law enacted April 16, 1914 in the State of New York, which differs from Australian laws.

The Bank of New York Mellon, member of the Federal Deposit Insurance Corporation (FDIC).

© 2020 The Bank of New York Mellon Corporation. All rights reserved.