



RBC Capital Markets Corporation

US Interest Rate Strategy

Head of US Rates Strategy

Michael Cloherty

(212) 437-2480

michael.cloherty@rbccm.com

Head of US Market Economics

Tom Porcelli

(212) 618-7788

tom.porcelli@rbccm.com

Head of US Municipals Strategy

Chris Mauro, CFA

(212) 618-7729

chris.mauro@rbccm.com

Associate Strategist, Treasury & TIPS

Keith Blackwell

(212) 858 6077

keith.blackwell@rbccm.com

US Associate Economist

Jacob Oubina

(212) 618 7795

jacob.oubina@rbccm.com

Associate

Dan Grubert

(212) 618 7764

dan.grubert@rbccm.com

September 9, 2010

This report is priced at 3:00 PM on
September 9, 2010 ET.

All values in U.S. dollars unless
otherwise noted.

For Required Conflicts Disclosures,
please see page 11.

US Fixed Income Weekly

Basel III and the Front of the Curve

Basel III proposals will reduce the supply of short maturity spread product, increase demand for short Treasuries and agencies, and cause banks to more aggressively compete for deposits. Inside, we begin our analysis of the potential broader implications of the impact of the proposals as they currently stand.

Municipals: Bond fund flows are strong but legislative uncertainty overshadows the market

Fed: The Next Round of Treasury Purchases: We give a preview of our thoughts on the next round of The Fed's Treasury Purchase Program

Basel III and the Front of the Curve	2
Municipals – Fund Flows Remain Strong	8
Fed: The Next Round of Treasury Purchases.....	9

Basel III and the Front of the Curve

Michael Cloherty

Press reports have suggested the Basel Committee on Banking Supervision are close to agreeing on minimal capital requirements for banks, requirements that are expected to be finalized at their November 11th - 12th meeting. While the equity market has paid some attention to banks' need to raise capital due to the new framework, the fixed income markets have largely ignored Basel III due to a long phase-in period (the proposals will not be fully implemented until 2018) and the fact that Basel rules have changed significantly in the past. However, we note that this is an accelerated process this time—these are the final rules, not the proposed rule changes that have been altered in the past. Change is likely to be difficult once the rules are finalized.

These new proposals are much farther reaching than the Basel II changes, as entirely new framework for factors like a liquidity coverage ratio are being introduced. Despite that these changes are far more fundamental, the time spent before final rules are rolled out are much more compressed than they were under Basel II.

We think the new proposals will have a profound effect on the front of the curve, particularly in muni variable rate demand obligations, commercial paper, short Treasuries and agencies, ABS, and possibly the RP markets. These will all have meaningful spill over effects on longer maturities.

Among other effects, we expect:

- An even steeper money market curve
- A substantial drop in CP outstanding, with issuance moving to 1-year and longer maturities
- High corporate cash balances, which will act as a headwind to the economy
- Heightened demand for short Treasuries and Agencies
- A shift in many short end assets from a money market fund investor base to a bank investor base, helping lower LIBOR
- A smaller muni VRDO market, creating more muni supply out the curve

Basel 3 proposals

Effectively, the proposals require that banks:

- hold higher quality Tier 1 capital (which is also more expensive capital);
- hold more capital due to higher expected default rates, the potential for spread widening, minimum leverage ratios on a non-risk adjusted basis;
- and have a minimum liquidity coverage ratio.

The liquidity coverage requires banks to have liquidity in excess of all cash outflows (including a 100% draw on all outstanding credit lines) without relying on traditional funding mechanisms for a 30-day period. That liquidity requirement needs to be met with a pool of “high quality liquid assets”. We still do not know the exact definition of high quality liquid assets (does agency MBS count?) and whether there will be a discount for longer duration assets similar to the higher haircuts for longer maturity instruments in the repo market.

It is safe to assume that banks will want shorter maturity Treasuries, sovereigns and supras (and possibly agencies) in order to cover this liquidity pool. In addition, the liquidity test should cause a change in bank liabilities, putting a premium on bank deposits (the BIS looks like it will assume a low run-off rate on bank deposits in its test) and longer than 1-year debt.

New proposals and bank credit lines

The Basel III proposals will dramatically increase the regulatory cost of providing a credit line: Currently, bank credit lines tend to be used as a loss leader to capture higher margin business with clients. After the proposed change, capital requirements for an undrawn credit line will actually be larger than the capital required on a fully drawn credit line, and more than \$2 of bank balance sheet will be needed to provide a \$1 credit line due to the need to have a liquidity reserve larger than \$1 to support the credit line (since the liquidity reserve needs to be funded and any debt less

than 30-days factors into the liquidity requirement, the reserve must be larger than the credit line). Overall, it appears the cost to a bank of providing a credit line to a Single A corporation will rise by more than 100bps.

Even before the official implementation of the Basel III requirements, we should see a dramatic repricing of bank liquidity facilities when they come up for renewal.

That inflated cost is likely to cause many corporations to shift toward simply holding more cash as a liquidity backstop. Corporate cash that is diverted to liquidity rather than new investment, hiring, etc. will provide an economic headwind going forward, although it is difficult to quantify the exact impact on GDP/Fed funds/etc. In addition, the lack of a credit line is likely to make both issuers and their investors less comfortable about using the CP market for financing—we would expect nonfinancial CP to drop.

Many other short-term assets—ABCP (a \$399bn market), muni variable rate demand obligations (a \$390bn market), etc— will require at least a partial bank liquidity backstop. The increased cost of a bank liquidity facility is likely to make these markets less competitive against term debt, causing issuers to move out the curve.

Less supply, more demand. And more competition for 2a-7 funds

At the same time that supply declines, bank demand for high quality assets in their liquidity reserve will rise. That increase will be less acute as long as there is more than \$1T of excess reserves at the Fed (those reserves will count in the liquidity bucket), but it will become meaningful once reserve balances start to fall (we expect the reserve drain to begin in earnest in roughly Q2 2012). Note that banks will be very sensitive to risk weights in their money market investments—0% risk weighted assets like Treasuries will be popular, while 100% risk weighted assets like non-bank CP will be avoided.

In addition, assuming corporations who forgo a credit line start to hold more cash as a backstop, we should see more demand from corporate investors in the money market space. Since these corporations will be issuing longer and investing shorter, they will be in a negative carry trade and will have a substantial amount of interest rate risk. Accordingly, we expect to see a surge in interest in separate account and enhanced cash funds that can go beyond the 2a-7 limits.

Finally, bank deposits will receive more attractive treatment under the new rules. On a smaller scale, the FDIC is also changing its insurance fees to make deposits more attractive, a change that caused some small banks to raise concerns that large banks becoming more aggressive in gathering deposits will hurt smaller banks. The larger effect of the Basel III rules should increase bank deposit gathering activity, making deposit rates more competitive against money market funds.

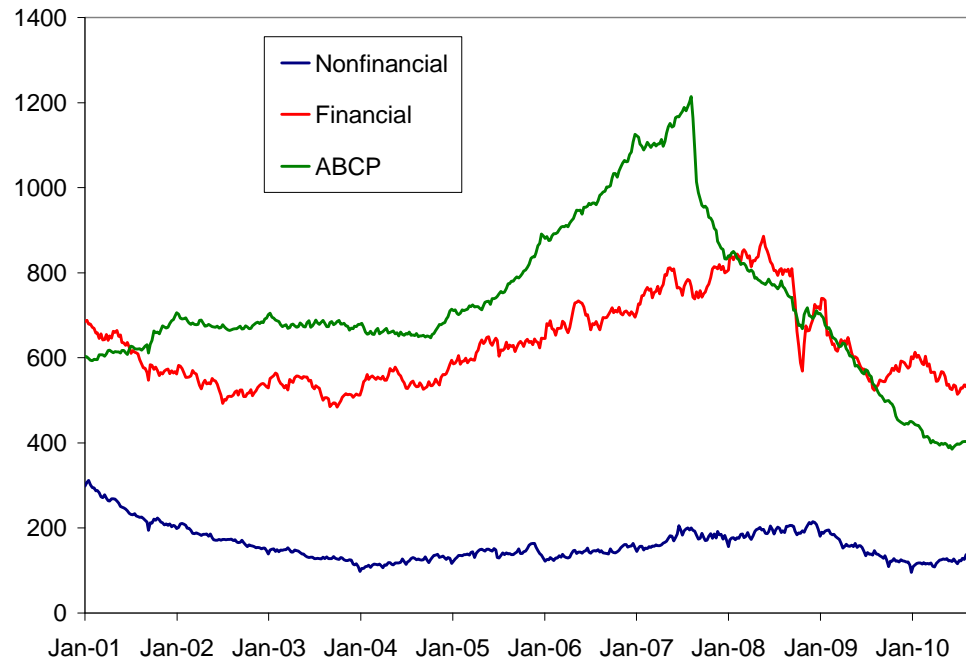
CP supply and the shape of the money market curve

The increase in bank credit line cost should have the largest impact in the ABCP market. The commercial paper market peaked at \$2.18T in August 2007, and is now \$1.06T. Basel 3's liquidity requirements will also discourage banks from issuing short term debt, depressing Financial CP outstanding further. Finally, nonfinancial firms may feel less comfortable about rolling large amounts of short CP if they have no backup liquidity source, suggesting they are likely to run a mismatch by funding short-term inventories with longer term debt.

That less short issuance/more 1+ year issuance pattern is completely at odds with the new 2a-7 rules that are trying to keep investors in extremely short maturities. We already see this investor/issuer mismatch creating a massive term premium at the front of the curve—12m LIBOR is at 82bps, while 1y swaps (3m LIBOR rolling four times) is at 47bps. That premium should persist going forward (note that the basis swaps market is pricing for a somewhat more normal shape to the money market over time).

Therefore, we like receiving 6m versus 3m over both shorter terms and longer terms (when 3m LIBOR has settled down somewhat, but Basel 3 drives up longer maturities).

Exhibit 1: Commercial Paper outstanding is down 51% from its peak. Basel 3 should extend the slide.

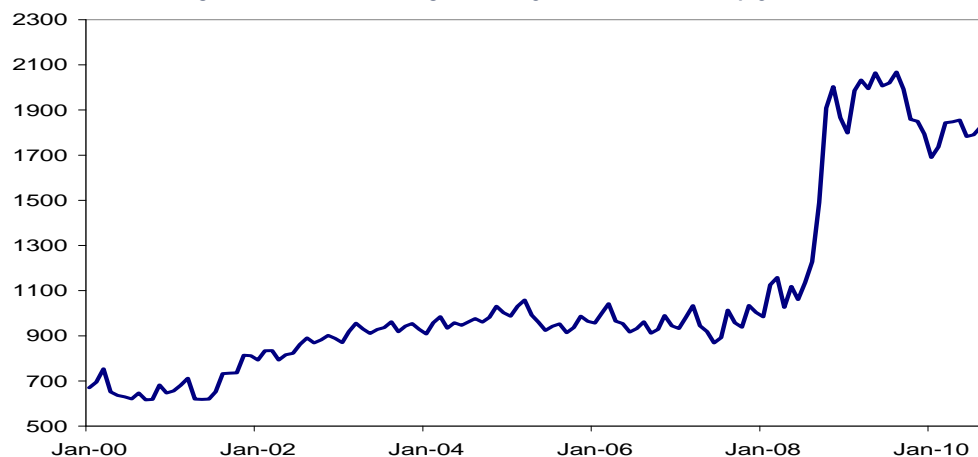


Source: RBC Capital Markets, Bloomberg (\$ billions)

Bill and Discount note supply outlook

The surge in bill supply in 2008 has helped ease the supply shortage in money market spread product. While forecasting the 2011 financing need is extremely difficult due to both economic and political uncertainty, we think bill supply will be relatively flat. In 2012, supply should turn up again as the Treasury faces a sharp increase maturing coupons that need to be rolled over. However, that additional supply is likely to be easily digested by banks that need high quality assets and corporate cash investors who have more cash to put to work.

Exhibit 2: Bills outstanding have flattened, are likely to be little changed in 2011, then should start rising in 2012 as maturing Treasury debt climbs sharply.



Source: RBC Capital Markets, Bloomberg (\$ billions)

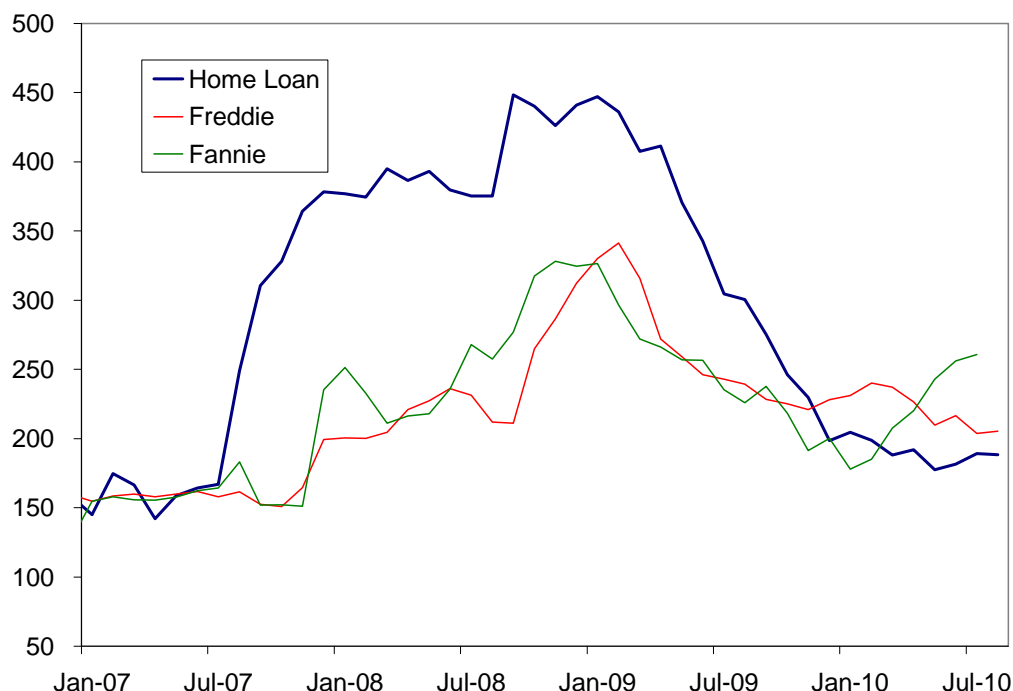
Meanwhile, discount note supply has dropped more than 40% from its peak. With Fannie and Freddie's portfolios scheduled to shrink by 10% per year (with the risk of a more rapid drop), discount note supply from the housing GSEs should continue to drift lower. The largest drop in

discount note supply has been from the home loan system, as they face a smaller financing need due to a massive drop in advances outstanding from the peak of the crisis.

The home loan system will continue to face some headwinds in the coming years. New FDIC insurance fees will penalize banks that use secured financing, which is the financing that the home loans provide. And new the Basel III liquidity rules will effectively penalize any debt that encumbers assets (those assets then cannot be applied to any liquidity pool). While the collateral that tends to back loans from the home loan banks does not tend to be the type of collateral that would count to a liquidity pool, the new rules may provide some headwinds also.

Overall, we think discount note supply will continue to shrink, moving back to levels last seen in 2007. That means less “high quality” short duration spread product, which means bank Net Interest Margins will be more severely impacted by their liquidity pool unless they take duration risk in that pool.

Exhibit 3: Discount note supply is \$450bn (41%) off its peak.



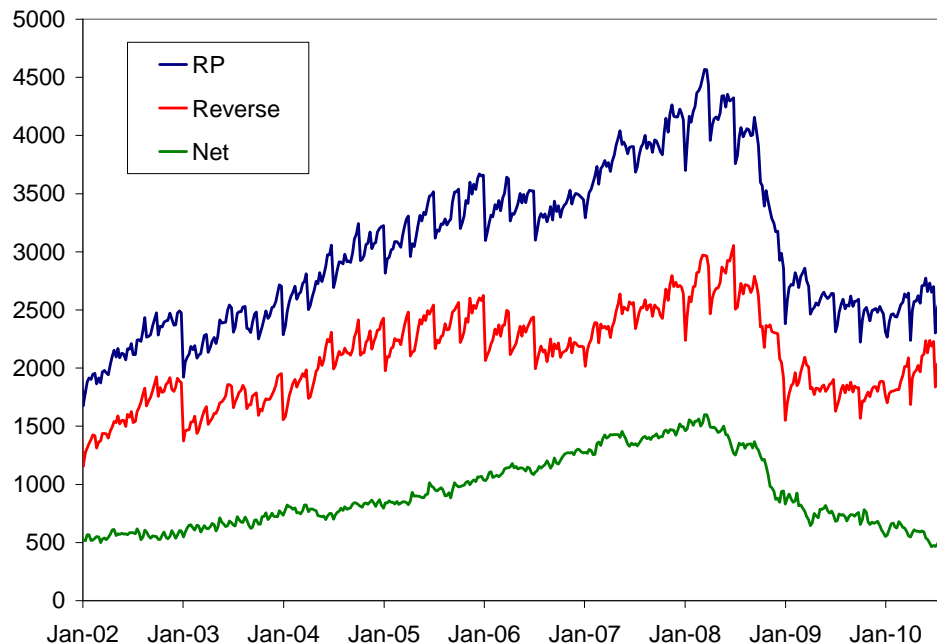
Source: RBC Capital Markets, Bloomberg (\$ billions)

RP Outlook

The one money market asset that is widely expected to climb in the coming years is RP, as the Fed has said it intends to drain excess reserves with reverse RPs (since its portfolio is slowly shifting from MBS to Treasuries, we expect the bulk of the reverses to be backed by Treasury collateral rather than MBS collateral). This increase in Tsy RP financing has been a key component of our belief that the spread curve should be more inverted between 2- and 5-years, and that 5-year spreads should remain at very tight levels.

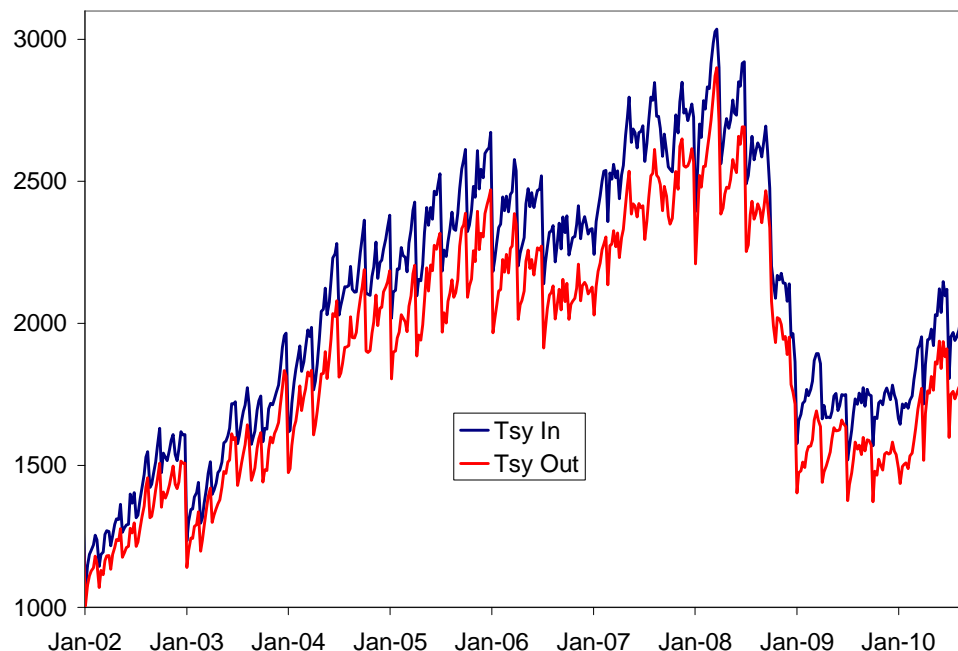
However, we are beginning to soften our expectations of Treasury repo in the coming years. First, we note that repo volumes are down massively. Net dealer financing in the repo market peaked at \$1.6T in March 2008, and is now \$0.6T (that is all repo, rather than just Treasury repo). Even if the Fed did \$400bn to \$500bn of reverses and that collateral moved through two dealers' hands before it found its way to an investor, volumes in Treasury repo would only match the 2008 peak.

Exhibit 4: Despite marketable Treasury debt growing from \$4.7T in mid-2008 to \$8.4T today, total repo volumes are down dramatically, and dealer net financing in the repo market is down \$993bn (62%) from its peak



Source: RBC Capital Markets, Bloomberg, (\$ billions)

Exhibit 5: Repo volumes in the Treasury market are at 2004 levels



Source: RBC Capital Markets, Bloomberg, (\$ billions)

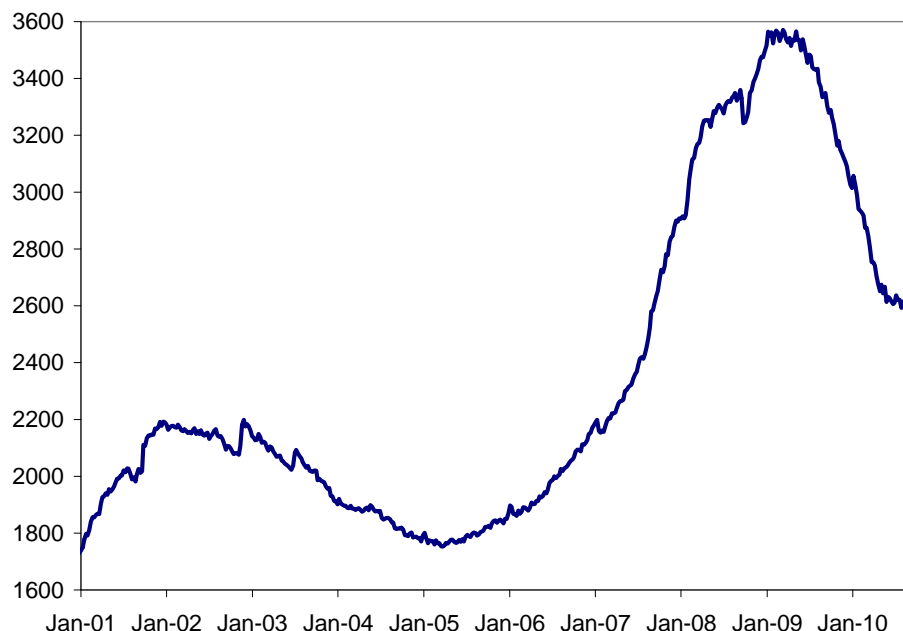
In addition, while we thought that banks would no longer be potential investors in Treasury RP once reserve balances fell, the need for a pool of liquid assets opens the door for banks to continue to invest their cash in the repo market as long as Tsy GC is above interest on reserves. In fact, there is a chance that the Basel rules divert much of the banking system's demand for term

deposits at the Fed into reverse RPs, since that RP collateral might then be eligible to be used as a liquid asset (the Fed reverse RPs will be breakable in order to make them viable investments for money funds, so even an RP longer than 30-days will not interfere with Basel III's 30-day liquidity requirement).

The ultimate outlook for Treasury GC will be highly dependent on how money market fund assets hold up in the coming years. Money funds are already down 27% from their peak, but we have been surprised at the resilience of the industry in the face of significant headwinds. Money fund assets are still 49% above their 2005 lows.

Since the Treasury only money funds provide a captive investor base for Treasury RP (the only relative value trade available to them is against bills), that investor base is critical to the spread between Treasury RP and other money market assets. We think that the Treasury-only money fund universe will shrink enough to cause Tsy GC to trade at much cheaper levels, but it is difficult to predict just how much Treasury-only money funds will shrink. Overall, we think Tsy GC will move as far as interest on reserves + 10bp, but more extreme movements would require a much more pronounced collapse of the money fund investor base.

Exhibit 6: Money fund assets are \$964bn (27%) off their peak, but are holding up better than we would have expected at this stage of the cycle



Source: RBC Capital Markets, Bloomberg (\$ billions)

LIBOR Outlook

While the common perception will be that all of the excess cash that banks hold will keep LIBOR low, we think the more important issue is a heightened focus on risk weighting as banks become increasingly important relative to money funds at the front of the curve. Bank debt has a lower risk weighting than other short term debt, so bank CP should trade rich relative to higher risk weighted assets. And since bank CP is the most important input to the LIBOR setting, we think LIBOR will be low relative to other money market spread product. Forward FRA/OIS in the low 30s seems too wide once the Basel III effect fully kicks in.

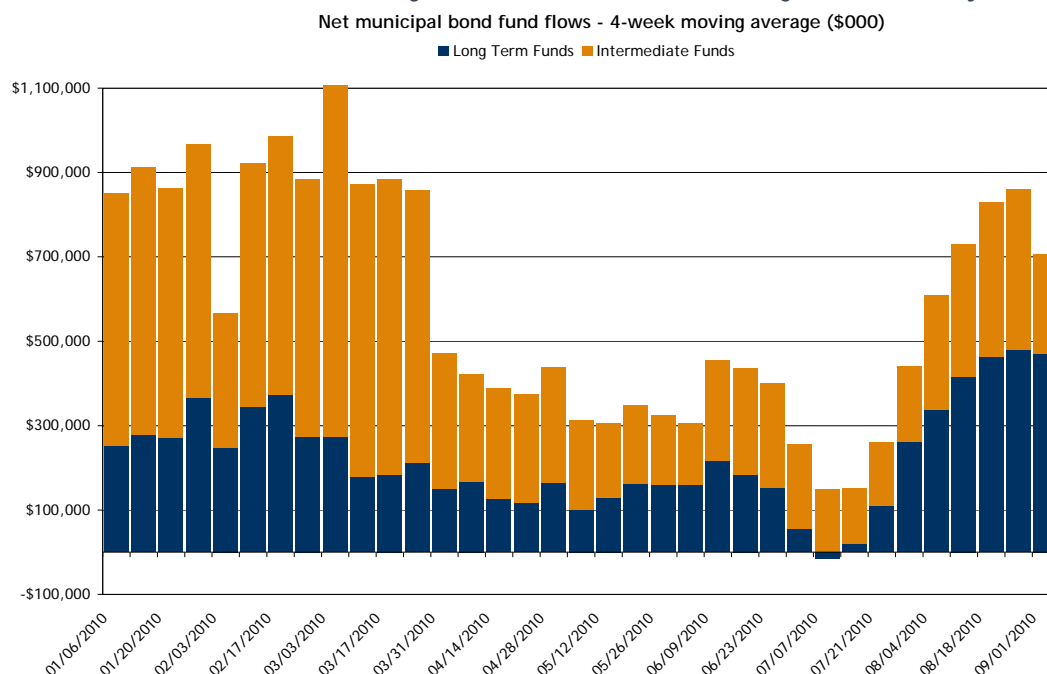
Municipals - Fund Flows Remain Strong

Chris Mauro

Despite very low absolute yields and muni/treasury ratios that are not overly attractive, flows into municipal bond funds, particularly into long funds, have been strong since mid-summer. Like their taxable counterparts, muni funds have benefited from the shift by investors out of equity and money market funds into fixed income product. **Early this year, municipal intermediate funds attracted a good portion of the cash that was leaving tax-exempt money market funds. However, over the last several weeks, flows into long bond funds have increased significantly.**

As the chart in Exhibit 7 indicates, the four-week moving average of net flows into long muni funds, as tabulated by Lipper FMI, is currently at the highest level it has been all year. Additionally, the mix between flows into long funds and intermediate funds has decidedly shifted in favour of long bond funds. This is a notable turnaround since the late June/early July period, when the net flow rate into long funds had actually turned negative. While current fund flows are not as strong as they were during the same period in 2009, we note that last year's fund flow activity, particularly in the second half of the year, was exceptionally strong.

Exhibit 7: Recent Net flows into long muni bond funds are at their highest levels this year



Source: Lipper FMI

A continuation of this trend should help to cushion the impact of the widely anticipated increase in supply this fall. Volume in the municipal market has been very light throughout the summer. Issuance in August 2010 was 25% below year earlier levels and volume in each of the first two weeks of September was only about \$3 billion. However, we expect new issue volume to kick back up in the fall, especially given the existing low rate environment.

While this continued demand for muni product is a positive element, **the uncertainty regarding the expiration of the Bush-era tax cuts and the extension of the Build America Bond (BAB) program beyond its current December 31, 2010 expiration, will overshadow the muni market over the next two months.** With political gridlock the order of the day, it seems increasingly doubtful that much of anything will get accomplished during the short election-year Congressional session that begins next week. A relatively lower profile item like BABs seems particularly vulnerable to falling through the legislative cracks. In that regard, the likelihood of a post-election BABs issuance deluge appears to be increasing by the day.

Fed: The Next Round of Treasury Purchases

Mike Cloherty, Dan Grubert

Each Fed purchase should be roughly 30% larger over the next month.

On Monday at 2pm the NY Fed will announce the schedule for the next round of Treasury purchases. Faster MBS prepayment speeds in August suggests roughly 30% more runoff from the Fed's portfolio than we saw in July, suggesting the Fed will need to buy back slightly more than \$23bn of Treasuries over the next month to keep its portfolio constant. We expect the same distribution of purchases in the coming month, with the 6- to 10-year sector seeing roughly 40% of the purchases and the 4- to 6-year sector seeing almost 30% of the purchases.

Exhibit 8: We expect the size of Fed's second round of purchases to increase in accordance with MBS prepayments received, suggesting more than \$9bn of 6- to 10-year purchases. (estimated purchases are not necessarily in order)

Operation Date	Sector	Amount (Bn. \$)	Estimated for Next Round (Bn. \$)
September 13, 2010	8/2016 - 8/2020	Est. 3.7	4.8
September 9, 2010	2/2013 - 7/2014	Est. 1.4	1.9
September 7, 2010	8/2014 - 7/2016	2.7	3.5
September 1, 2010	2/2012 - 1/2013	0.9	1.2
August 30, 2010	TIPS	0.4	0.5
August 26, 2010	2/2021 - 8/2040	1.4	1.8
August 24, 2010	2/2013 - 7/2014	1.4	1.8
August 19, 2010	8/2016 - 8/2020	3.6	4.7
August 17, 2010	8/2014 - 7/2016	2.6	3.3
Total		18.0	23.5

Source: RBC Capital Markets, NY Fed

RBC Capital Markets Fixed Income & Currency Strategy

Royal Bank of Canada Europe Limited:

Global Head of Rates Strategy

Ian Beauchamp +44-20-7653-4865 ian.beauchamp@rbccm.com

Global Head of FX Strategy

Adam Cole +44-20-7029-7078 adam.cole@rbccm.com

Europe

Royal Bank of Canada Europe Limited:

Sam Hill	UK Fixed Income Strategist	+44-20-7029-0092	sam.hill@rbccm.com
Christian Lawrence	Fixed Income Strategist	+44-20-7029-7085	christian.lawrence@rbccm.com
Elsa Lignos	G10 Currency Strategist	+44-20-7029-7077	elsa.lignos@rbccm.com
Taotao Xing	Fixed Income Strategist	+44-20-7029-7212	wen.taotao.xing@rbccm.com

Asia-Pacific

Royal Bank of Canada - Sydney Branch:

Su-Lin Ong	Head of Australian and New Zealand FIC Strategy	+612-9033-3088	su-lin.ong@rbccm.com
Michael Turner	Fixed Income Strategist	+612-9033-3088	michael.turner@rbccm.com

Royal Bank of Canada - Hong Kong Branch:

Sue Trinh	Senior Currency Strategist	+612-9033-3111	sue.trinh@rbccm.com
-----------	----------------------------	----------------	---------------------

North America

RBC Dominion Securities Inc.:

Mark Chandler	Head of Canadian FIC Strategy	(416) 842-6388	mark.chandler@rbccm.com
Matthew Strauss	Senior Currency Strategist	(416) 842-6631	matthew.strauss@rbccm.com
David Watt	Senior Currency Strategist	(416) 842-4328	david.watt@rbccm.com
Kam Bath	Fixed Income Strategist	(416) 842-6362	kam.bath@rbccm.com
George Davis	Chief Technical Analyst	(416) 842-6633	george.davis@rbccm.com
Paul Borean	Associate	(416) 842-2809	paul.borean@rbccm.com

RBC Capital Markets Corporation:

Michael Cloherty	Head of US Rates Strategy	(212) 437-2480	michael.cloherty@rbccm.com
Tom Porcelli	Head of US Market Economics	(212) 618-7788	tom.porcelli@rbccm.com
Jacob Oubina	US Associate Economist	(212) 618-7795	jacob.oubina@rbccm.com
Keith Blackwell	Associate Strategist, Treasury & TIPS	(212) 858-6077	keith.blackwell@rbccm.com
Chris Mauro	Head of US Municipals Strategy	(212) 618-7729	chris.mauro@rbccm.com
Dan Grubert	Associate	(212) 618-7764	dan.grubert@rbccm.com

Required Disclosures

Conflicts Disclosures

The analyst(s) responsible for preparing this research report received compensation that is based upon various factors, including total revenues of the member companies of RBC Capital Markets and its affiliates, a portion of which are or have been generated by investment banking activities of the member companies of RBC Capital Markets and its affiliates.

Conflicts Policy

RBC Capital Markets Policy for Managing Conflicts of Interest in Relation to Investment Research is available from us on request. To access our current policy, clients should refer to <https://www.rbccm.com/global/file-414164.pdf> or send a request to RBC CM Research Publishing, P.O. Box 50, 200 Bay Street, Royal Bank Plaza, 29th Floor, South Tower, Toronto, Ontario M5J 2W7. We reserve the right to amend or supplement this policy at any time.

Dissemination of Research and Trade Ideas

RBC Capital Markets endeavors to make all reasonable efforts to provide research simultaneously to all eligible clients, having regard to local time zones in overseas jurisdictions. RBC Capital Markets' research is posted to our proprietary websites to ensure eligible clients receive coverage initiations and changes in targets and opinions in a timely manner. Additional distribution may be done by the sales personnel via email, fax or regular mail. Clients may also receive our research via third party vendors. Please contact your investment advisor or institutional salesperson for more information regarding RBC Capital Markets' research. RBC Capital Markets also provides eligible clients with access to SPARC on the Firm's proprietary INSIGHT website. SPARC contains market color and commentary, and may also contain trade ideas. SPARC may be accessed via the following hyperlink: www.rbcinsight.com. Trade ideas discussed by the author of this communication may not be suitable for all investors and have not been tailored to individual investor circumstances and objectives, and investors should make their own independent decisions regarding any securities or strategies discussed herein.

To be added to the Trade Idea email distribution please contact your local Research Analyst as named in this communication.

Analyst Certification

All of the views expressed in this report accurately reflect the personal views of the responsible analyst(s) about any and all of the subject securities or issuers. No part of the compensation of the responsible analyst(s) named herein is, or will be, directly or indirectly, related to the specific recommendations or views expressed by the responsible analyst(s) in this report.

Disclaimer

RBC Capital Markets is the business name used by certain subsidiaries of Royal Bank of Canada, including RBC Dominion Securities Inc., RBC Capital Markets Corporation, Royal Bank of Canada Europe Limited and Royal Bank of Canada - Sydney Branch. The information contained in this report has been compiled by RBC Capital Markets from sources believed to be reliable, but no representation or warranty, express or implied, is made by Royal Bank of Canada, RBC Capital Markets, its affiliates or any other person as to its accuracy, completeness or correctness. All opinions and estimates contained in this report constitute RBC Capital Markets' judgement as of the date of this report, are subject to change without notice and are provided in good faith but without legal responsibility. Nothing in this report constitutes legal, accounting or tax advice or individually tailored investment advice. This material is prepared for general circulation to clients and has been prepared without regard to the individual financial circumstances and objectives of persons who receive it. The investments or services contained in this report may not be suitable for you and it is recommended that you consult an independent investment advisor if you are in doubt about the suitability of such investments or services. This report is not an offer to sell or a solicitation of an offer to buy any securities. Past performance is not a guide to future performance, future returns are not guaranteed, and a loss of original capital may occur. RBC Capital Markets research analyst compensation is based in part on the overall profitability of RBC Capital Markets, which includes profits attributable to investment banking revenues. Every province in Canada, state in the U.S., and most countries throughout the world have their own laws regulating the types of securities and other investment products which may be offered to their residents, as well as the process for doing so. As a result, the securities discussed in this report may not be eligible for sale in some jurisdictions. This report is not, and under no circumstances should be construed as, a solicitation to act as securities broker or dealer in any jurisdiction by any person or company that is not legally permitted to carry on the business of a securities broker or dealer in that jurisdiction. To the full extent permitted by law neither RBC Capital Markets nor any of its affiliates, nor any other person, accepts any liability whatsoever for any direct or consequential loss arising from any use of this report or the information contained herein. No matter contained in this document may be reproduced or copied by any means without the prior consent of RBC Capital Markets.

Additional information is available on request.

To U.S. Residents:

This publication has been approved by RBC Capital Markets Corporation (member FINRA, NYSE), which is a U.S. registered broker-dealer and which accepts responsibility for this report and its dissemination in the United States. Any U.S. recipient of this report that is not a registered broker-dealer or a bank acting in a broker or dealer capacity and that wishes further information regarding, or to effect any transaction in, any of the securities discussed in this report, should contact and place orders with RBC Capital Markets Corporation.

To Canadian Residents:

This publication has been approved by RBC Dominion Securities Inc. (member IIROC). Any Canadian recipient of this report that is not a Designated Institution in Ontario, an Accredited Investor in British Columbia or Alberta or a Sophisticated Purchaser in Quebec (or similar permitted purchaser in any other province) and that wishes further information regarding, or to effect any transaction in, any of the securities discussed in this report should contact and place orders with RBC Dominion Securities Inc., which, without in any way limiting the foregoing, accepts responsibility for this report and its dissemination in Canada.

To U.K. Residents:

This publication has been approved by Royal Bank of Canada Europe Limited ('RBCEL') which is authorized and regulated by Financial Services Authority ('FSA'), in connection with its distribution in the United Kingdom. This material is not for general distribution in the United Kingdom to retail clients, as defined under the rules of the FSA. However, targeted distribution may be made to selected retail clients of RBC and its affiliates. RBCEL accepts responsibility for this report and its dissemination in the United Kingdom.

To Persons Receiving This Advice in Australia:

This material has been distributed in Australia by Royal Bank of Canada - Sydney Branch (ABN 86 076 940 880, AFSL No. 246521). This material has been prepared for general circulation and does not take into account the objectives, financial situation or needs of any recipient. Accordingly, any recipient should, before acting on this material, consider the appropriateness of this material having regard to their objectives, financial situation and needs. If this material relates to the acquisition or possible acquisition of a particular financial product, a recipient in Australia should obtain any relevant disclosure document prepared in respect of that product and consider that document before making any decision about whether to acquire the product.

To Hong Kong Residents:

This publication is distributed in Hong Kong by RBC Investment Services (Asia) Limited and RBC Investment Management (Asia) Limited, licensed corporations under the Securities and Futures Ordinance or, by Royal Bank of Canada, Hong Kong Branch, a registered institution under the Securities and Futures Ordinance. This material has been prepared for general circulation and does not take into account the objectives, financial situation, or needs of any recipient. Hong Kong persons wishing to obtain further information on any of the securities mentioned in this publication should contact RBC Investment Services (Asia) Limited, RBC Investment Management (Asia) Limited or Royal Bank of Canada, Hong Kong Branch at 17/Floor, Cheung Kong Center, 2 Queen's Road Central, Hong Kong (telephone number is 2848-1388).

To Singapore Residents:

This publication is distributed in Singapore by RBC (Singapore Branch) and RBC (Asia) Limited, registered entities granted offshore bank status by the Monetary Authority of Singapore. This material has been prepared for general circulation and does not take into account the objectives, financial situation, or needs of any recipient. You are advised to seek independent advice from a financial adviser before purchasing any product. If you do not obtain independent advice, you should consider whether the product is suitable for you. Past performance is not indicative of future performance.

® Registered trademark of Royal Bank of Canada. RBC Capital Markets is a trademark of Royal Bank of Canada. Used under license.

Copyright © RBC Capital Markets Corporation 2010 - Member SIPC

Copyright © RBC Dominion Securities Inc. 2010 - Member CIPF

Copyright © Royal Bank of Canada Europe Limited 2010

Copyright © Royal Bank of Canada 2010

All rights reserved.