Primer: Money Market Funds and the Commercial Paper Market

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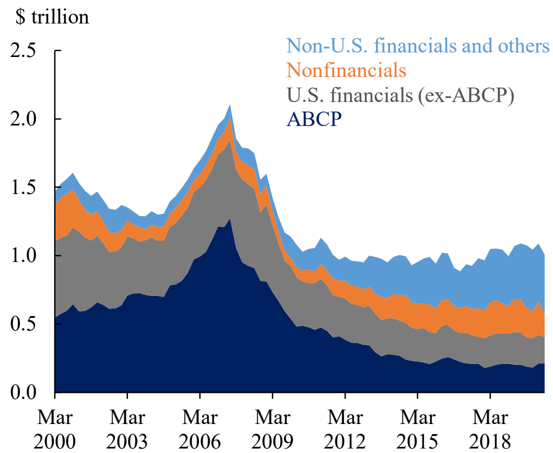
What is commercial paper?

Commercial paper (CP) is unsecured, short-term debt issued for a specified amount to be paid at a specified date. CPs are issued at a discount, with minimum denominations of $100,000 and terms normally ranging from 1 to 270 days.

What is the size of the U.S. CP market?

Total U.S. CP outstanding was at $1,007 billion at the end of June 2020, down by $37 billion since the end of 2019 (Figure 1). This is around one half of $2.2 trillion, the all-time high in CP outstanding reached in July 2007. The majority of the decline in CP outstanding since the financial crisis can be attributed to reduction in the asset-backed commercial paper (ABCP) issuance.

Figure 1: CP outstanding declined sharply after the financial crisis and stayed at around $1 trillion



Source: Financial Accounts of the United States as of Jun 2020

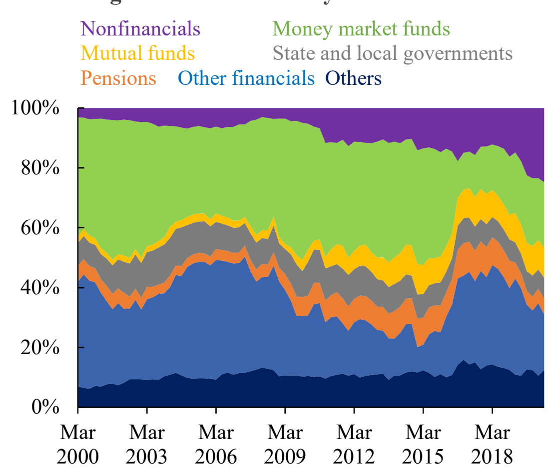
Who are the main CP issuers?

As of June 2020, ABCP outstanding were at $214 billion accounting for 21% of the total CP outstanding (Figure 1). CP issued by U.S. financial firms were at $189 billion (or 19% of the total); CP issued by nonfinancial firms were at $166 billion (or 17% of the total); and non-U.S. financial and other firms were at $438 billion (or 43% of the total).

Who are the main investors in the CP market?

Many types of institutional investors participate in the CP market, including investment companies, retirement accounts, state and local governments, financial and nonfinancial firms. As of June 2020, nonfinancial firms were the largest investors accounting for 25% of the total CP market followed by money

Figure 2: Nonfinancials account for the largest share of CP holdings at 25% followed by MMFs at 22%



Source: Financial Accounts of the United States as of Jun 2020

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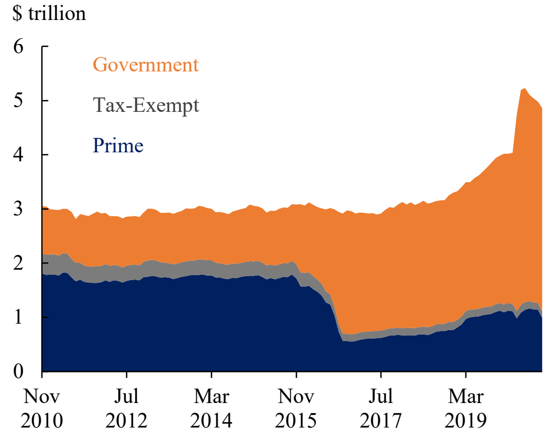
market funds (MMFs) at 22% (Figure 2). Investments by financial firms were at 19% of the total. Other large CP investors are mutual funds (ex-MMFs) at 10%, state and local governments at 7% and pension accounts at 5%. The "Others" category includes smaller CP investors that collectively account for around 13% of the total CP outstanding.

The investor base in the CP market has changed over time. For example, MMFs used to account for a substantially larger share of the CP market at close to 47% in September 2001. Over the last 20 years, MMF participation in the CP market has declined markedly. One reason for the decline is that assets under management in government MMFs, which do not invest in the CP market, have grown (Figure 3).[2] Assets in prime MMFs have declined resulting in lower demand for CP from MMFs.[3] On the other hand, CP investments of nonfinancial corporations have increased almost six-fold since 2000 to $250 billion in June 2020 (or 25% of the total CP market) from $46 billion in March 2000 (or 3% of the total CP market).

Figure 3: Total MMF assets reached $5.2 trillion in April, up 29% from February levels

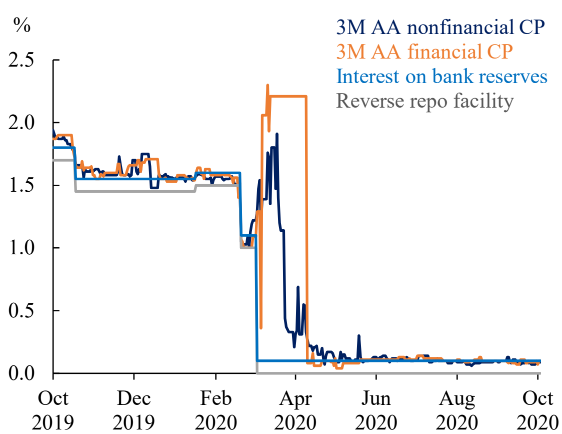


Source: Form N-MFP

What happened in the CP market in mid-March 2020?

In mid-March 2020, CP rates increased, which is normally associated with a lack of investor demand (Figure 4). However, the broad scope of market developments at the onset of the COVID-19 pandemic complicates the attribution analysis. Corporate investors in the CP market may have reduced their allocations in anticipation of reduction in revenues. MMFs and mutual funds may have decreased their CP investments in anticipation of investor redemptions. Available data show that prime MMFs and short-term and ultra-short corporate bond mutual funds experienced significant outflows in March (Figures 5 and 6). Prime MMFs lost around 11% of their net assets in March. Similarly, short-term and ultra-short bond mutual funds lost around 10% of their assets.

Figure 4: CP rates spiked in mid-March, but remained subdued in the recent months



Sources: Bloomberg, Federal Reserve

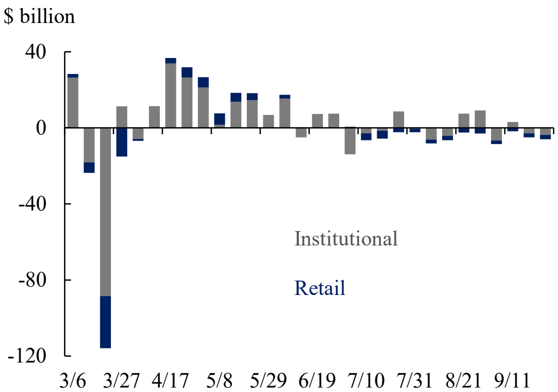
At the same time, some CP issuers may have turned to the CP market to bridge their funding needs. Overall, the CP outstanding increased in the first quarter of 2020 by $44 billion, despite the spike in the CP rates. During the second quarter, CP issuers had fewer immediate

[2] Government MMFs invest 99.5% or more of their total assets in short-term Treasury securities, securities issued by governmental agencies, repurchase agreements backed by these securities, or cash.

[3] Prime MMFs can invest in a broad range of short-term, high quality assets such as U.S. Treasury bills, federal agency notes, certificates of deposit, corporate commercial paper, repurchase agreements, and obligations of states, cities, or other types of municipal agencies.

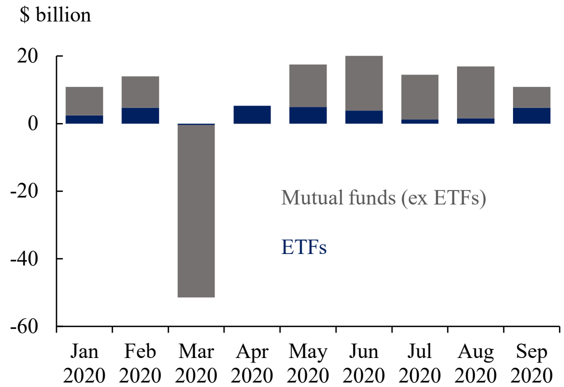
borrowing needs amidst reduced economic activity and the CP outstandinding declined by $82 billion.[4]

Figure 5: Prime MMFs saw large redemptions in March and reversal of flows in subsequent weeks



Note: Weekly asset changes take into account asset flows and valuation changes.
Source: Form N-MFP

Figure 6: Short-term and ultrashort corporate bond mutual funds experienced significant outflows in March and reversal of flows in subsequent months



Note: ETF - exchange-traded funds.
Source: Morningstar

What was the impact of the Federal Reserve's Money Market Fund Liqudity Facility?

The Federal Reserve established the Money Market Mutual Fund Liquidity Facility (MMLF) on March 18, 2020, to broaden its program of support for the flow of credit to households and businesses.[5] MMLF makes loans available to banks to finance assets purchased from prime and tax-exempt MMFs. MMLF started its operations on March 23 and initially intended to provide loans for purchases of CPs, but was extended to included purchases of certificates of deposit (CDs) and certain municipal securities. MMLF also enabled banks that purchased assets from affiliated MMFs to finance these purchases with loans from MMLF. In addition, since March, financial regulatory agencies have announced multiple emergency relief provisions for banks, advisers and funds. Following these actions, both market conditions and broader economic conditions in the U.S. appeared to improve.

The outstanding amount of MMLF loans has been declining since April. The maximum MMLF utilization reached $51 billion in the first two weeks of April, or under 5% of the net assets in eligible MMFs. For context, lending by a similar Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility (AMLF) utilized in September 2008 reached about $150 billion in its first 10 days of operation, or around 7.5% of assets in prime MMFs at that time.[6] As of September 30, 2020, the total amount of oustanding MMLF loans was around $7 billion; MMLF accrued revenues from interest and fees

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[4] Additional information about the effects of the COVID-19 economic shock on the CP market can be found in the SEC staff report entitled "U.S. Credit Markets: Interconnectedness and the Effects of the COVID-19 Economic Shock."

[5] See the description of MMLF. In the Coronavirus Aid, Relief, and Economic Security Act (H.R. 748, CARES Act), signed into law as P.L. 116-136 on March 27, 2020, Congress appropriated up to $500 billion for the Treasury's Exchange Stabilization Fund (ESF) to support Fed programs and temporarily permitted the use of the ESF to guarantee the money market fund industry. With respect to MMLF, the ESF provided $10 billion as credit protection to the Fed.

[6] See analysis of AMLF utilization here.

to the Federal Reserve were around $166 million.[7] Initially MMLF was scheduled to stop providing new loans after September 30, 2020, but was recently extended by three months through December 31, 2020.

[7] See "Periodic Report: Update on Outstanding Lending Facilities Authorized by the Board under Section 13(3) of the Federal Reserve Act," October 7, 2020.