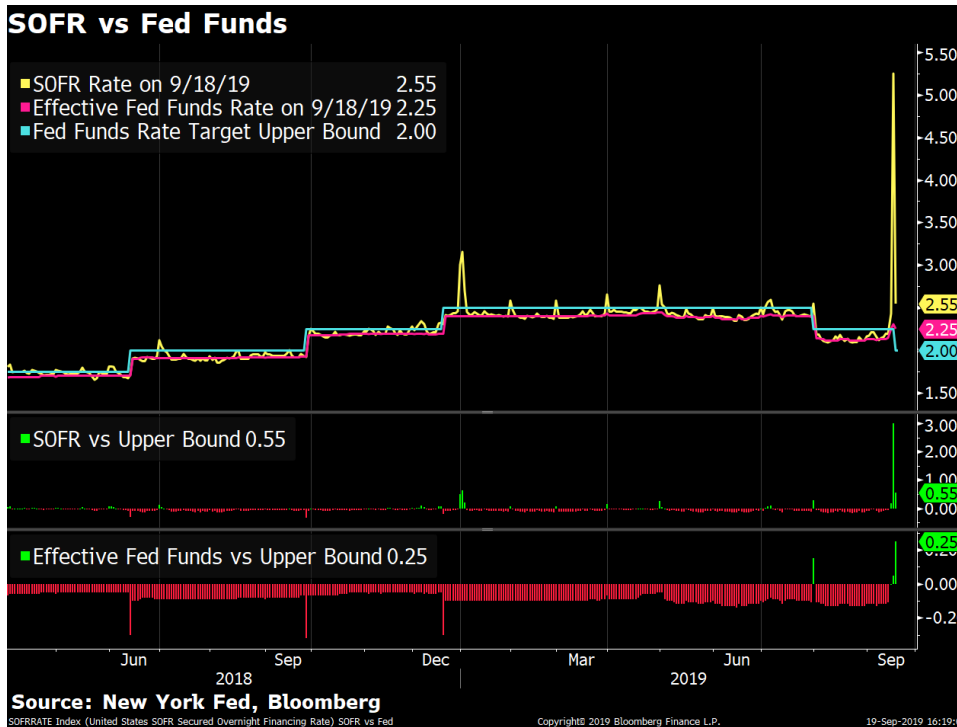
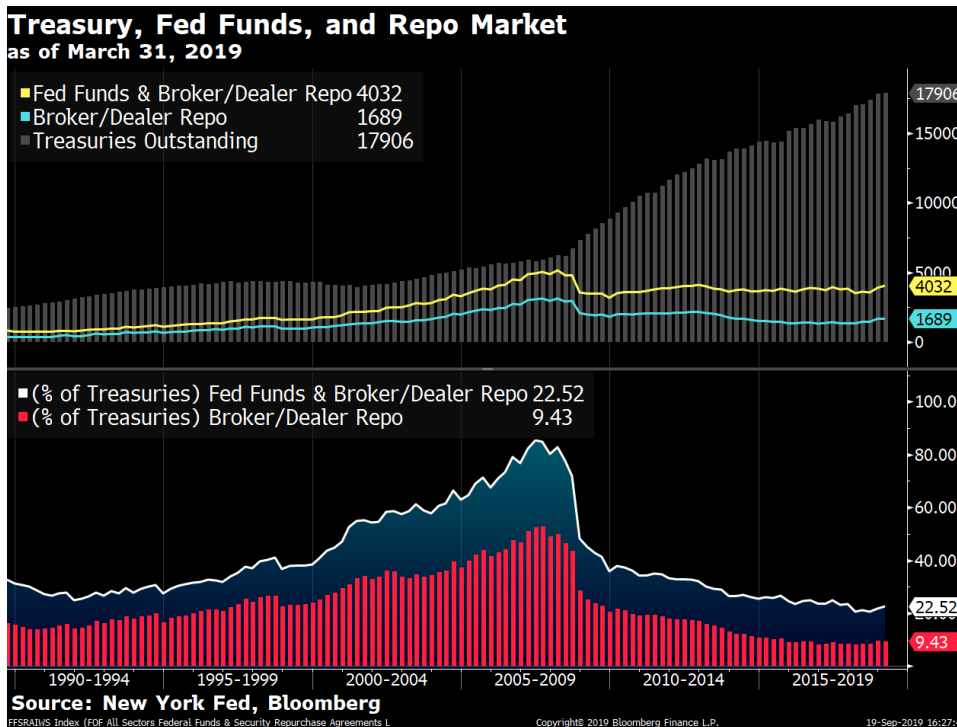


<p>The situation</p>	<p>The rate on overnight repo surged on Monday, 9/16 and remained elevated through the week causing the federal funds rate to rise above the higher end of the Fed’s target range. This spooked market participants as short-term rates were a harbinger for worsening financial conditions pre-Great Recession.</p>
<p>What caused the strain in the repo market to occur?</p>	<p>Corporate tax payments (~\$100bn into the Treasury’s account along with a commensurate decrease in reserves in the banking system).</p> <p>Money market fund (MMF) outflows to fund tax payments (~\$30bn). MMFs now finance \$1.28tn of dealer collateral up from ~\$300bn in 2014.</p> <p>Large treasury coupon settlement on Monday (~\$54) financed on dealer balance sheets that already had elevated Treasury positions.</p> <p>Fed balance sheet normalization has decreased banks’ excess reserves; those reserves would have previously been used by the banks to step in as marginal buyers of repo.</p>
<p>What was the Fed’s response?</p>	<p>On Tuesday the Fed injected \$53bn in overnight liquidity and followed up with \$75bn on each of the ensuing three days. Following these actions the Fed showed further resolve to control money market rates by announcing plans to continue daily overnight repo operations of at least \$75bn through Oct. 10th and offer three 14-day term repo operations of at least \$30bn each to satisfy cash needs over quarter-end. After Oct. 10th, the Fed will continue operations as necessary to maintain the federal funds rate within the target range.</p> <p>In addition to the repo operations, interest on excess reserves (IOER) was lowered to 20bps below the top of the federal funds rate target range compared to 15bps previously. A reduction in IOER is intended to encourage banks to lend in the repo market rather than hoard cash.</p> <p>Chairman Powell also alluded to balance sheet expansion to ensure sufficient supply of reserves going forward and avoid future Fed intervention.</p>
<p>What are implications for the market?</p>	<p>While volatility in repo rates has been a regular occurrence around month- and quarter-end when cash needs are the greatest, a smaller repo market, dwindling excess reserves at banks, and sizable treasury issuance will likely increase liquidity dislocations until structural changes are implemented. The Fed’s swift reaction was a silver lining, and market participants should expect the Fed to use its toolbox to stabilize the transmission of monetary policy.</p> <p>In the event of a true funding squeeze, enhanced bank regulation since the financial crisis including the liquidity coverage ratio and net stable funding ratio (still pending) requirements should provide assurance that banks are better protected against adverse market events.</p>



The secured overnight financing rate (SOFR) is a volume weighted median for repo transactions that have occurred during the day. SOFR regularly increases above the upper bound of the federal funds target range at month/quarter end when cash is in demand. However, the rate had typically normalized over 1 to 3 days without intervention from the Fed.



The size of the repo market has shrunk substantially since the financial crisis from over \$3.1 trillion to \$1.6 trillion as of 3/31/19. Prior to the crisis, broker/dealer repo comprised more than 50% of outstanding treasuries. Sizable treasury issuance and fewer broker/dealers engaged in repo trading has resulted in a reduced market size.