Office of the Comptroller of the Currency

ON POINT

ECONOMIC AND POLICY INSIGHT FROM THE OCC

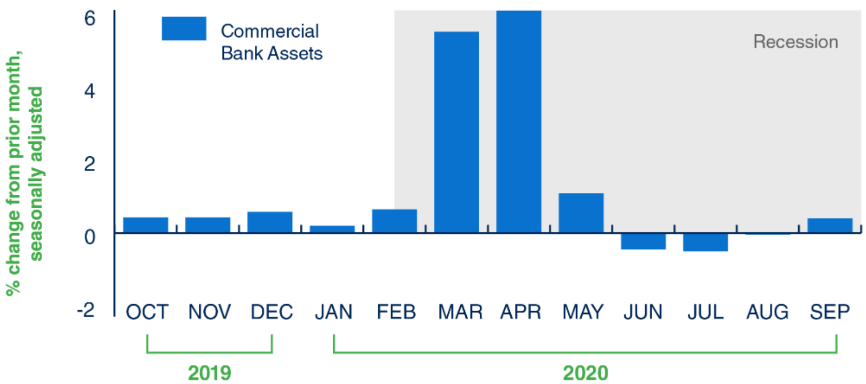
Inflation, Further Surge in Bank Assets Unlikely

Commercial bank assets expanded by nearly 14 percent from February to May due to a surge in the Federal Reserve System's (Federal Reserve) large scale asset purchases and unprecedented fiscal measures under the Coronavirus Aid, Relief, and Economic Security (CARES) Act. However, more recently, balance sheet growth slowed as the Federal Reserve reduced the pace of its security purchases and many CARES Act programs wound down. Any further Federal Reserve balance sheet expansion is expected to be modest and should prove relatively benign in terms of its impact on commercial banks. An ongoing concern among some analysts is banks' assets and liabilities would "explode" from an unrestrained expansion in loans and deposits, assuming a multiplier effect magnifies initial loan and deposit growth. However, that is unlikely to be the case without a rapid acceleration in the U.S. economy. What we actually observe is that a steep rise in bank deposits, and the money supply reflects, in part, households ratcheting back spending in favor of building a buffer stock of cash. As a result, the expansion of banks' balance sheets is unlikely to be inflationary.

COVID-19 Response and Precautionary Cash Demand Swell Bank Balance Sheets

Elevated precautionary cash holdings swelled bank balance sheets in the spring. From February to May of this year, total bank assets surged by $2.4 trillion or 13.2 percent. On the liability side, deposits also rose sharply. From February to May, total deposits at all commercial banks climbed by $1.9 trillion or 14.5 percent. Large nonfinancial companies that drew from lines of credit as a precautionary measure initially placed the money in banks that had extended the loans. Paycheck Protection Program (PPP) proceeds also initially ended up in the deposit accounts of businesses at banks processing the loans. Transfers under the CARES Act, such as expanded unemployment benefits and direct checks to individuals boosted deposits still further as did the low interest rate environment engineered by the central bank. Historically, low interest rates have tended to encourage reintermediation of funds into bank deposits. Households and businesses are displaying an elevated precautionary demand for cash in reaction to pandemic uncertainty and are hesitant to invest these funds in a risky manner.

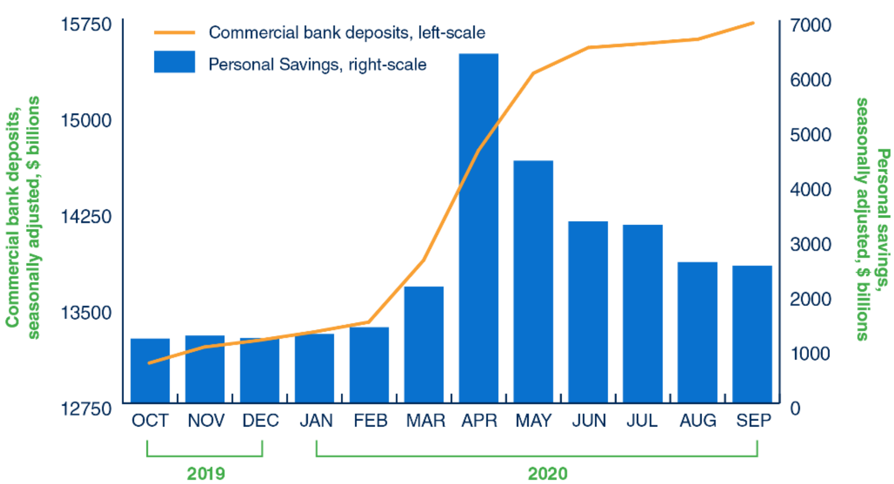
Figure 1: COVID-Related Surge in Bank Balance Sheets Is Tapering



Source: Federal Reserve Board/Haver Analytics

When the Federal Reserve buys a security from an individual or a nonbank, deposits (and reserves) are created. And, in fact, most of the recent Federal Reserve security purchases appear to have been from individuals and nonbanks rather than from private depository institutions.[1] Now that drawdowns have largely faded, deposit growth has eased back in lockstep. The PPP lending decline restrained growth in associated deposits as did the sharply slowing pace of Federal Reserve large scale asset purchases. In addition, household income and savings growth decelerated when many of the CARES Act benefits expired. This also reduced deposit growth in the May to September period.

Figure 2: Pace of Household Savings Has Declined, Pulling Down Deposit Growth



Sources: Federal Reserve Board, Bureau of Economic Analysis/Haver Analytics

Pace of Bank Balance Sheet Expansion May Remain Subdued

The Federal Reserve expanded its balance sheet more rapidly during the pandemic than during the financial crisis, albeit by a smaller amount. The balance sheet of the Federal Reserve

[1] From the fourth quarter of 2019 to the second quarter of 2020, household and nonfinancial business holdings of Treasury, agency-, and GSE-backed securities fell by $505 billion. Over that same period, commercial bank holdings of those same securities rose by $522 billion. This suggests that a large share of Federal Reserve security purchases was from individuals and nonbanks and thus resulted in new deposit creation in an immediate accounting sense.

expanded to $7.0 trillion in September from $4.1 trillion at the end of February, an increase of $2.9 trillion. To provide context, from 2008 to 2014, a period that encompassed a series of Federal Reserve large scale asset purchase efforts, the central bank's balance sheet expanded by $3.6 trillion to $4.5 trillion. The expansion of the Federal Reserve's balance sheet this year, though far more rapid than the 2008–2014 experience, was somewhat smaller in absolute magnitude. A close reading of the September Federal Open Market Committee (FOMC) minutes implies the central bank will keep balance sheet growth at a modest one percent per month (or slightly higher) pace. This is far below the 20 percent per month pace of the February to May period and would be relatively benign for commercial banks.

Cash assets and reserves at commercial banks are currently 15 percent of total assets, well below their 20 percent peak reached in September 2014 at the tail end of the Federal Reserve's last series of large scale asset purchase efforts. However, in the three years following that period, from September 2014 to September 2017, total assets at commercial banks grew by a modest 3.6 percent average annual rate. This was well below the 8 percent annual pace of total asset growth during the 1990s and early 2000s just prior to the severe 2007–2009 recession and the extraordinary expansion of the central bank's balance sheet. Meanwhile, deposits at commercial banks grew at a 5 percent average annual rate from 2014–2017, also significantly below the 8 percent pace of the 1990s–early 2000s. In other words, sizeable quantities of reserves and cash assets in the banking system do not necessarily result in a subsequent, rapid multiple expansion of bank loans and deposits or of total bank assets.

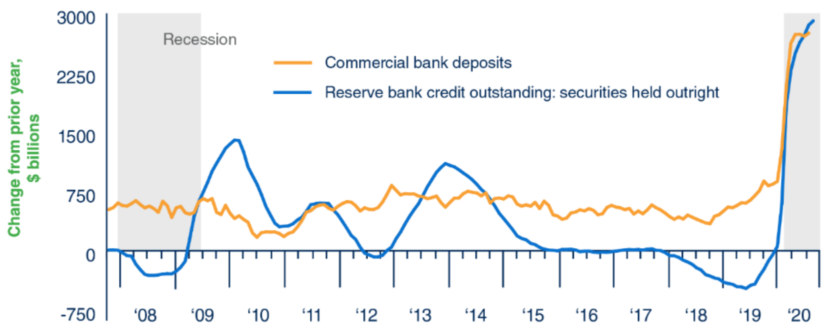
Even during periods when commercial bank cash assets and reserves are surging, total assets, loans, and deposits do not necessarily increase rapidly. From 2008–2014, cash assets at commercial banks rose by nearly $2.0 trillion or 189 percent, but, total bank assets and deposits over that period rose at a more modest pace. Moreover, real economic activity was either declining or sluggish and inflation remained at historic lows. The 2008–2014 experience illustrates that the Federal Reserve has limited power to boost economic activity, bank loans, deposits, and total assets simply by increasing bank reserves and cash assets. Rather, the Federal Reserve controls interest rates, and it is through these rates either directly via intermediation or indirectly via economic activity that the Federal Reserve influences total commercial bank assets and deposits.

During the immediate response to the pandemic, the rapid pace of bank balance sheet growth, and in particular deposits, was attributed to special factors such as the Paycheck Protection Program (PPP), credit-line drawdowns, various CARES Act transfers, and Federal Reserve large scale security purchases. In an immediate accounting sense, these factors do have a tangible influence on deposits (and other segments of banks' balance sheets). However, it is not these special factors per se that are ultimately the main drivers of deposits. Rather, it is the preferences of the public that drive deposit behavior. If the public's demand for the relative safety of deposits had not increased due to the pandemic, then deposits probably would not have surged (except perhaps momentarily) despite Federal Reserve large scale asset purchases, the PPP, drawdowns, or CARES Act transfers. Nonfinancial firms paid out the PPP and other loans they received from banks over several months, mostly in the form of employees' wages. But, here too, there is no assurance these funds will remain in the bank that extended the loan or in the banking system altogether. Whether these funds remain in the banking system depends on whether someone in the chain of transactions (initiated by the initial borrower's spending) deposits the funds.

Rising Bank Reserves Do Not Automatically Trigger Inflation

Ultimately, deposits created by these special factors do not automatically remain in the banking system. At any particular moment, the public is willing to hold only a given level of deposits based on the public's wealth; income; the structure of interest rates; and the return those deposits earn relative to competing vehicles, such as stocks, bonds, and money market funds. The notion that deposits created by Federal Reserve security purchases (or commercial bank lending) have to remain in the banking system is based on the erroneous idea that the preferences of the public play no role in determining the volume of deposits, and that deposits, once created, can never leave the banking system. In fact, the movement of deposits out of (and into) the banking system occurs regularly as nonbank financial institutions, in effect, exchange the deposits transferred to them for an equal quantity of bank assets.[2]

Figure 3: Bank Deposit Trends Driven More by Public Preferences than Federal Reserve Asset Purchases



Source: Federal Reserve Board/Haver Analytics

For example, as illustrated in figure 3, over the 2008–2020 period, there was no visible, systematic relationship between Federal Reserve large scale asset purchases and deposits. The similarity in movements between Federal Reserve security purchases and deposits occurred for only a brief 3-month period out of that entire span of time and was largely happenstance. Instead, demand for deposits is ultimately driven by public preferences. And these preferences did not change substantially for most of the past twelve years until the pandemic hit. The sudden surge in deposits earlier this year ultimately reflects the pandemic-induced public preference for higher cash balances.

Moreover, the increase in deposits and the money supply from February to May is not inflationary because spending declined in favor of building a buffer stock of cash. Typically, inflation does not pick up unless aggregate spending is strong, and the economy has been running above full potential for an extended period. When the economy runs above full potential, production of goods by the nation's businesses begins to outstrip the ability of these firms to efficiently supply these goods. Under these circumstances, the buyers of goods find themselves waiting longer and longer for delivery and they begin bidding up prices of these goods. Currently, the economy is running far below full potential due to the collapse of economic activity resulting from the pandemic and inflation is expected to remain well contained at least over the next year or two.

[2] Tobin, James, *Commercial Banks as Creators of "Money*," Cowles Foundation Discussion paper No. 159, Cowles Foundation for Research in Economics at Yale University, July 24, 1963, pp. 2, 9, 11.

This inflation containment is underscored by the St. Louis Fed Price Pressures Measure (PPM) shown in figure 4. The PPM assesses the probability that the expected personal consumption expenditures price index (PCEPI) inflation rate over the next 12 months will exceed 2.5 percent. At present, the probability that inflation will exceed 2.5 percent according to the St. Louis Fed measure is a negligible 19 percent. In August, PCEPI inflation was running at just 1.4 percent.

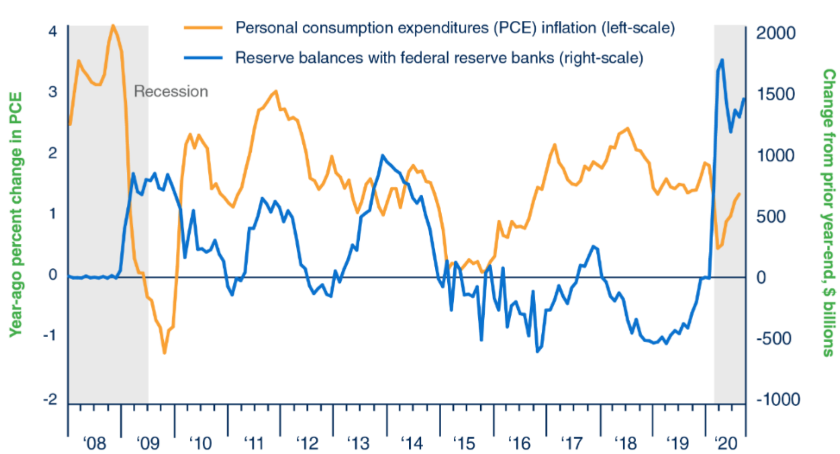
Figure 4: Unlikely Inflation Will Exceed 2.5 Percent

Source: Federal Reserve Bank of St. Louis/Haver Analytics

Note: The price pressures measure (PPM) for personal consumption expenditures measures the probability that the expected inflation rate (12-month percent changes) over the next 12 months will exceed 2.5 percent.

Bank reserves and cash assets nearly doubled from February to May, and reserves are near historical highs of 15 percent of total commercial bank assets. The monetary base, which includes reserves and currency in circulation, also increased sharply. However, as illustrated in figure 5, there is no clear connection between commercial bank reserve balances and inflation. As discussed above, the economy is currently running well below full potential or capacity. In the past half century, inflation picked up markedly only when the economy had been running above full potential for an extended period.

Figure 5: Bank Reserve Levels Don't Fuel Inflation



Sources: Bureau of Economic Analysis, Federal Reserve Board/Haver Analytics

The Point?

Banks' balance sheets are unlikely to "explode" without a surge in economic growth, and we don't expect to see any unrestrained expansion in loans and deposits or inflation anytime soon.