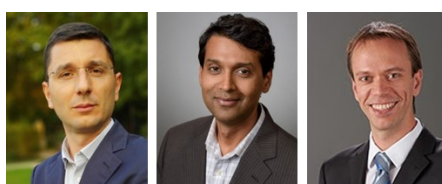


Quantitative easing, accounting and prudential frameworks, and bank lending*



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A new paper by Andrea Orame, Rodney Ramcharan, and Roberto Robatto shows that widely used regulations that rely on historical cost accounting (HCA)—to insulate banks' balance sheets from financial market volatility—significantly affect the transmission of monetary policy. Using detailed supervisory data from Italian banks, the authors find that HCA mutes the transmission of quantitative easing on bank lending supply, weakening the effectiveness of monetary policy in reducing firm credit constraints. In addition, the paper suggests regulations alternative to HCA that might impose a much smaller policy tradeoff.

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The 2008-2009 financial crisis fundamentally changed both the conduct of monetary policy and financial regulation around the world. These changes were especially far reaching in the European Union (EU). With limited capacity for coordinated fiscal policy among the EU member states to address the sovereign-bank nexus, that is, the twin banking and sovereign debt crises (see Figure 1A), the European Central Bank (ECB) quickly became the continent's lead policy-making institution.

In its lead role, the ECB used various tools to contribute to stabilizing the banking system and eventually experimented with quantitative easing (QE)—the large-scale purchase of government debt—as low economic growth and subdued demand led to low or even negative inflation.

Figure 1A

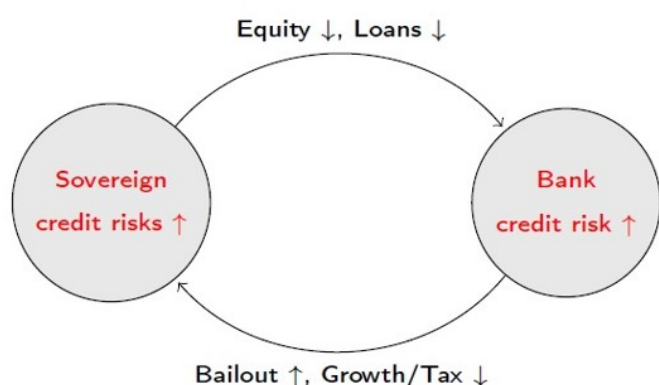
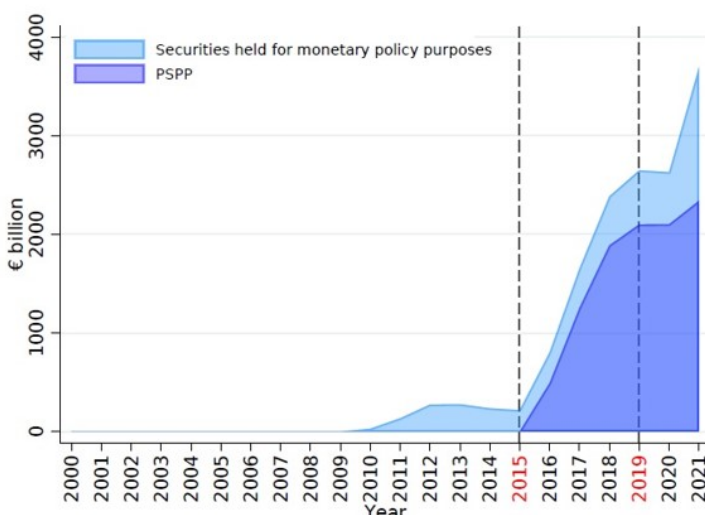


Figure 1B



While several papers have documented the effects of ECB's QE on financial markets, little is known about its ability to increase credit supply. To help address this gap, in a new paper, Andrea Orame, Rodney Ramcharan, and Roberto Robatto study the effectiveness of the ECB's largest quantitative easing program, the Public Sector Purchase Program (PSPP; see Figure 1B). In particular, the paper examines whether the PSPP's ability to increase the supply of credit to firms and spur economic growth in Italy were hampered by some of the accounting and prudential tools used to stabilize the banking system and limit the risk of a twin banking and sovereign debt crisis.

The paper's main result centers on the role played by historical cost accounting (HCA), under which assets are valued at cost rather than at current market prices. HCA is a powerful tool that shields banks from volatility in financial markets and can limit the risk of a joint sovereign-bank default. However, the key result of the paper is that HCA substantially reduces the effectiveness of monetary policy interventions like the PSPP in increasing bank credit to firms. That is, policymakers must grapple with the fact that some accounting tools like HCA create an important policy tradeoff, achieving short-term stability in the banking sector at the cost of limiting credit growth induced by QE and in turn, economic growth. By early 2010, Italian banks had a large fraction of their assets in sovereign debt, mainly Italian government debt. As tensions mounted in Italy and other countries in the EU periphery, sovereign debt prices gyrated, imposing large losses on banking systems across the EU. With the bloc's banking system already straining from losses incurred during the 2008-2009 financial crisis and facing new capital and liquidity requirements, regulators became concerned that this volatility in sovereign debt prices might induce a banking system collapse. Therefore, to shield the banking system from these potential losses in the sovereign debt portfolio and forestall a collapse, banks were allowed to value most of their sovereign assets at historical cost rather than at prevailing market prices. This move to HCA gave the banking system valuable "breathing room" to meet regulatory capital requirements without adverse effects on lending.

By 2014, euro-area countries, including Italy, began experiencing bouts of deflation, and GDP growth remained weak. With policy rates close to their effective lower bound and little likelihood of additional expansionary fiscal policy to jump-start economic growth in the euro area, the ECB announced the PSPP in January 2015—its largest quantitative easing program. To counter the risk of deflation, the ECB promised to buy approximately €50 billion per month in government and other public sector securities.

The mechanisms through which QE affects the economy are still debated and not fully understood. Theoretically, some explanations note that, because withdrawing QE takes considerable time and effort, QE can credibly signal to financial markets that the central bank intends to keep the policy rate low for a long period of time. These expectations of prolonged accommodative monetary policy can bring down longer-term interest rates in the economy and offer firms lower borrowing costs. QE can also lower risk premia in the economy, helping banks to raise fresh capital and increase lending. Another mechanism centers on liquidity. By committing to purchase sovereign assets *en masse*, central banks can make it easier to sell these assets without lowering asset prices and rebalance their portfolios toward new loans.

Perhaps the most salient QE mechanism relates to bank capital. A central bank that commits to buying large amounts of sovereign assets can increase the current price of these assets and also reduce uncertainty about their future value. Banks holding these assets on their balance sheets benefit from the increase in sovereign debt prices, which raises banks' regulatory capital. This improvement in net worth can then allow those banks with substantial holdings of assets eligible for purchase under QE to make new loans. In this way, QE can recapitalize exposed banks and increase bank lending via the bank capital channel.

If QE primarily stimulates the economy through the bank capital channel, then the impact of QE might be relatively small when most banking sector sovereign assets are valued using HCA. That is, for the bank recapitalization capital channel to operate, banks must be able to revalue their balance sheet holdings of sovereign debt using market prices to increase their regulatory net worth. However, the HCA accounting framework prevents banks from reflecting the higher market price of sovereign debt in their regulatory capital ratios, and with no increase in their regulatory net worth, banks would not be able to increase lending, despite QE.

Orame, Ramcharan, and Robatto use Italian credit registry and supervisory data to test whether HCA reduces the effect of QE on bank lending. The authors exploit the fact that, in 2015, most eligible assets in the Italian banking system were classified as HCA, while during the late 2019 incarnation of the program, mark-to-market (MMA) accounting was the prevailing accounting standard. The firm-month-bank level credit registry data allow the authors to rule out most alternative explanations, while the supervisory data enables them to measure precisely each individual bank's exposure to the PSPP based on whether the asset is eligible for purchase under the PSPP, and its accounting classification—HCA versus MMA.

In both 2015 and 2019, the authors find that banks exposed to the PSPP through their holdings of MMA assets that were eligible for purchase under the PSPP significantly increased their lending compared to less-exposed banks. However, because MMA exposure was relatively limited in 2015, the economic impact of the PSPP on lending to firms varied sharply across the two periods. In 2019, the PSPP is associated with an almost €12 billion increase in lending supply within 3-4 months of the program's announcement. But in 2015, the increase was only €0.2 billion. This result implies a sharp policy tradeoff. While HCA can preserve financial stability, it interferes with QE's ability to increase bank lending to the real sector.

In summary, policymakers might want to consider other approaches to HCA accounting. Notably, combining MMA with countercyclical capital requirements might impose a much smaller policy tradeoff. MMA would allow QE-induced changes in asset prices to pass through onto the balance sheet of banks, while reduced capital requirements during periods of sovereign distress might preserve banks' lending capacity. Another approach is based on fixing sovereign spreads at the time of purchase but passing through changes in the risk-free rate. This approach would insulate the balance sheet of banks from volatility in debt markets, while allowing central bank policies that influence the risk-free rate to affect the value of bank assets and lending capacity. ■

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Orame, Andrea, Rodney Ramcharan, and Roberto Robatto "[Quantitative Easing, Accounting and Prudential Frameworks, and Bank Lending](#)", Bank of Italy Working Paper.

About the authors

Andrea Orame is an Economist at the Bank of Italy. Andrea's research interests are in the domain of financial intermediation and applied econometrics. His work covered the role of bank supply during European debt crisis, the interaction of unconventional and macropudential policy and the functioning of credit market during the COVID crisis. He developed an expertise on loan officers' survey data on which he is currently working to improve our understanding on how banks' expectations shape the business and the credit cycle.

Rodney Ramcharan is Professor of Finance and Business Economics at the Marshall School of Business, University of Southern California. Rodney is an economist who worked at the Board Governors of the Federal Reserve System, serving as the first chief of the Systemic Financial Institutions and Markets Section from 2012-2015. He has been a visiting scholar at the Dutch National Bank, Federal Reserve Bank of Philadelphia, and the Federal Reserve Bank of New York. He won the Dean's Award for Research Excellence from the Marshall School in 2019.

Roberto Robatto is Assistant Professor in Finance at the Wisconsin School of Business, University of Wisconsin-Madison. Roberto completed his doctorate in economics at the University of Chicago. He also holds a M.Sc. in Economics from Bocconi University and Pompeu Fabra University. His main research interests are at the intersection of banking, macroeconomics, and monetary policy. In his dissertation, he analyzed the macroeconomic impact of systemic financial crises and the effects of monetary policies aimed at mitigating and preventing such crises. His more recent research focuses on the regulation of financial intermediaries and how the financial sector affects the transmission of fiscal and monetary policy.

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