Environmental and social sustainability in the mandate of the Federal Reserve

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Introduction

This chapter analyses the evolution of the Federal Reserve's mandate and statutory objectives since it was established in 1913 and assesses whether its mandate allows it to manage the economic risks arising from environmental and social sustainability challenges. In doing so, the chapter considers the development of the Federal Reserve's primary statutory objectives – "price stability", "maximum employment" and "financial stability" – and how its mandate can serve as a basis for the Federal Reserve to use its monetary policy and financial regulatory instruments to mitigate the economic risks from unsustainable environmental and social activity. Specifically, the chapter suggests that the potential consequences of climate change and social inequality for the economy mean that it falls squarely within the Fed's existing mandates.

The conventional wisdom in academia and in the Federal Reserve itself,[1] however, is that the Federal Reserve's mandate and objectives do not grant it the competence to address the potential price stability risks that arise from climate change and other environmental sustainability risks. For example, Skinner (2021) argues that the Fed has limited legal authority to address climate change through its

[1] Jerome H. Powell, Panel on 'Central Bank Independence and the Mandate – Evolving Views', Remarks by Jerome H. Powell Board of Governors of the Federal Reserve System at Symposium on Central Bank Independence, Sveriges Riksbank, Stockholm, Sweden (January 10, 2023).

monetary policy tools and it is unclear whether Congress has given power to the Fed to address climate change.[2] Also, Lastra and Skinner (2023) state that the Fed does not have an explicit mandate or a legal ground to address climate change. By contrast, the European Central Bank (ECB) has a secondary objective set forth Article 127(1) section 2 of the Treaty for the Functioning of the European Union ("TFEU")[3] to support the policies of the Union including protecting the environment. Similarly the Bank of England's Monetary Policy committee has a secondary objective to support the policies of His Majesty's Government including reaching a net-zero carbon target for the UK economy by 2050. .[4]

Historical origins of US central banking

US economic history has been one of repeated banking crises that brought the financial system to a halt on many occasions resulting in sharp economic contractions. These contractions were caused in part by an underregulated banking system that caused numerous banking crises throughout the nation's history and the absence of a central bank that could serve as a lender of last resort. The lack of federal banking regulation and a national central bank was the result of a strong populist tradition that was suspicious of concentrations of power in finance and government. Populist influences helped to explain why the United States lacked a well-established central bank until the creation of the Federal Reserve System in 1913. The creation of a US central bank occurred much later than other more established

[2] Christina P. Skinner, 'Central Banks and Climate Change' (2021) 74(5) *Vanderbilt Law Review*, 1301, 1308-1310 ("[T]he Fed currently lacks legal authority to engage its monetary policy tools in pursuit of "offensive" programs like "green quantitative easing."). See also, Christina P. Skinner, 'Central Bank Activism' (2021) 71(2) *Duke Law Journal* 247, 254 ("when the Fed bends or stretches its legal mandates to address social or economic problems of the day (if and as they might emerge), it engages in "activism").

[3] Rosa M. Lastra and Christina P. Skinner, 'Sustainable Central Banking' (2023) 63(3) *Virginia Journal of International Law,* 398, 403 ("The Fed, for its part, has no explicit mandate to address climate change or sustainability").

[4] See Alexander and Fisher, Chapter 1 'The Green Mandate of the Bank of England', .

central banks, such as the Bank of England (1694) and Sweden's RiksBank (1668).

One of the most important advocates for creating a US central bank was Alexander Hamilton, the first Treasury Secretary appointed by George Washington in 1791. Hamilton understood that America would one day wield substantial industrial and financial influence, and that it needed a strong central bank to manage the country's economic growth and development. Under Hamilton's leadership, the US Congress adopted legislation that authorized the Treasury to issue a charter in 1791 for the First Bank of the United States to carry out many of the main functions of a central bank for a twenty-year period until 1811. The charter could only be extended for another twenty-year period based on a majority vote in Congress. Unfortunately, the Bank's charter was lapse by a majority vote of Congress led by the Democratic-Republican Party and supported by President James Madison.Madison and Thomas Jefferson were suspicious of concentrated financial powers vested in a federal central bank. Later, by 1830, Congress had passed legislation to extend the charter of the Second Bank of the United States for another twenty years, but the legislation was vetoed by President Andrew Jackson in 1831, who opposed the centralization of financial powers in a federal central bank.

The US banking system then suffered a series of crises in the 1840s, 1870s, and severe one in the 1890s. In the early twentieth century Congress began to debate seriously the It was not until early in the twentieth century that Congress began to debate seriously the possibility of creating a federal central bank. This was precipitated by the banking crisis of 1907 (known as the 'Panic of 1907') in which another banking crisis in 1907 resulted in a group of large New York-based banks providing liquidity to banks in need under the leadership J.P. Morgan and Company.

The Panic of 1907 was the primary factor that led to the creation of the Federal Reserve System with legislation adopted by Congress and signed by President Woodrow Wilson in December 1913. Also, the

political environment of the Progressive era, between 1890 and 1920, was conducive for establishing a central bank. The Federal Reserve Act of 1913 was consistent with progressive notions of public policy, which advocated scientific and rational policies to improve the economy. The Fed's mandate and statutory objectives were interpreted broadly to give the Fed discretion to support Government policy and not to be constrained by narrow interpretations of its mandate and statutory objectives.

On December 23, 1913, Congress enacted the Federal Reserve Act after lengthy debate and many pages of testimony favouring and opposing a central bank.[5] Despite the extensive discussions, detailed investigations of different financial systems, and the number of alternative draft bills that were considered and dismissed, the final legislation says very little about the broader purposes of the legislation. The legislative title and summary stated the importance of furnishing an elastic currency that affords the means of rediscounting commercial paper, and improving the supervision of the banking sector, and the act speaks to the Federal Reserve setting discount rates "with a view of accommodating commerce and business", particularly during periods of market distress. However, the legislation provided no other text regarding its objectives.

The Federal Reserve System's Mandate and Objectives

The Federal Reserve System's mandate can be defined as the functions and powers that it exercises to achieve or promote its statutory objectives. The evolution of the Fed's mandate and its statutory objectives have always been interpreted broadly to allow the Fed discretion to use its policy instruments to fulfil its mandate and objectives and to be held legally accountable for the exercise of its powers based on a narrow scope of judicial review.[6]

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[5] See Federal Reserve History, 'Before the Fed: The Historical Precedents of the Federal Reserve System' (December 2015), discussing the work of the National Monetary Commission that issued more than thirty volumes of research with extensive findings, https://www.federalreservehistory.org/essays/before-the-fed, accessed 21 August 2024.

[6] See *Horne v. Federal Reserve Bank of Minneapolis*, 344 F 2d 725 (8th Cir. 1965).

Under the 1913 legislation, the Federal Reserve System began its operations in 1914 by creating a decentralized central bank system consisting of 12 regional reserve banks that had their own member banks and governing boards. After 1914, however, banking crises did not disappear, they just became less frequent. The Federal Reserve Act reflected the different views of what its functions, powers, objectives were, and the accountability a central bank should have in a modernising economy. The US central banking system remained essentially decentralized, as most of its functions lay with the regional reserve banks. This decentralized framework failed to prevent the greatest financial crisis in US history in the 1930s. Indeed, the depth and duration of the Great Depression resulted from the failure of US monetary policy and banking supervision.[7] After the crisis began, the Fed allowed the money supply and the price level to fall drastically.[8] Because the US adhered to the gold standard during the 1920s until 1933, its restrictive monetary policy had the effect of transmitting the US financial crisis to foreign countries, particularly in Europe where the world's leading central banks at the time operated.

The decentralized federal structure of the Federal Reserve System reflected the importance of states' rights views in Congress that intended a weak federal governance structure that relied on the regional reserve banks to take the initiative in most areas of monetary policy whilst leaving the regional New York Federal Reserve Bank responsible for taking the lead on international financial market matters with the money center banks in New York and for maintaining currency stability under the gold standard system with foreign central banks.[9]

The Federal Reserve Act 1913 did provide a broad set of functions as part of its mandate that included the responsibility of managing the money supply as determined by the gold standard, discounting

[7] See Milton Friedmann and Anna Schwartz, 'A Monetary History of the United States: 1867-1960', Princeton, NJ, Princeton University Press (1971).

[8] Ibid.

[9] See Liaquat Ahamed, 'The Lords of Finance: 1929, The Great Depression, and the Bankers who Broke the World', London , Penguin Press (2009).

commercial paper, and serving as a lender-of-last-resort for banks that joined the Federal Reserve system. Banks with national charters were required to join the Federal Reserve System as 'member banks' and were eligible for lender of last resort support. State-chartered banks could choose whether or not to join the Fed system, but could not be eligible for LOLR unless they joined the system as 'state-chartered banks'.[10] Banks that were eligible for LOLR were required to be supervised by the regional Fed banks to ensure solvency.[11]

Nevertheless, the decentralized structure of the federal reserve system contributed to the lack of a concerted effort to prevent the bank runs and failures that occurred from late 1929 through to the late 1930s. During the 1930s, the stock market collapse had caused bank runs and banking sector distress to spread to Wall Street and to other financial centres in the US and abroad. This resulted in a prolonged contraction known as the 'Great Depression'. Further the stock market collapse led Congress and President Roosevelt to adopt wide-ranging regulatory reforms creating new federal regulatory agencies, such as the Federal Deposit Insurance Corporation,the Securities and Exchange Commission and important amendments to the Federal Reserve Act.

Congress amended the Federal Reserve Act in 1935 to provide an institutional restructuring that led to more centralized powers for the Board of Governors in Washington DC to have systemwide responsibility for the whole federal reserve system.[12] Under the leadership of Utah banker Marriner Eccles as Board chairman, the Federal Reserve assumed most of the powers that it has today. Eccles used his personal influence and the Board's new centralized powers to establish more independence for the Fed from the US executive branch, particularly the Treasury. Nevertheless, the Fed's objectives and its legal mandate were defined broadly (vaguely) and not clearly

[10] The third category of US banks were known as 'state non-member banks' and were ineligible for LOLR and subject to a different set of state regulators.

[11] The Fed's regional banks were given the power to examine member banks' balance sheets.

[12] See Ben S. Bernanke, '21st Century Monetary Policy, The Federal Reserve from the Great Inflation to COVID-19', New York, NY, W.W. Norton & Company (2022 xvii-xviii.

circumscribed in statute resulting in the Board of Governors assuming enormous centralised powers in pursuit of its monetary policy and banking supervision objectives.

The new centralised structure, however, did not prevent the Fed continuing to pursue misguided monetary policy that, among other things, led to the absorption of excessive bank reserves which reinforced deflationary pressures, resulting in higher unemployment and negative economic growth. It was not until the early 1940s that the Federal Reserve began to pursue a more stimulative economic policy by, for instance, purchasing US Treasury debt to keep the price of those securities within a relatively low range in order to support the Treasury's wartime finance policies. This led to the Fed falling under the direct policy influence of the Treasury. Fed independence from the Treasury was not restored until 1951 when the Treasury and Fed agreed on the 'Treasury Accord' in which the Treasury recognised the Fed's independence in managing monetary policy.[13]

The Fed's powers grew in the 1950s and 1960s as Keynesian demand management policies were generally accepted and applied in US economic and monetary policy. Lacking specific definition of its mandate or objectives, the Fed's policies followed an approach that largely followed economic theories based, among others, on the Phillips curve that stated that there was a trade-off in interest rate policy between inflation and unemployment.[14] Essentially, there is an inverse relationship between inflation and unemployment: when inflation is high, output increases lead to lower unemployment, whereas when inflation is lower (usually in response to monetary tightening), output declines leading to higher unemployment.[15]

[13] See discussion in Bateman, Chapter 13, this volume.

[14] See Allan Meltzer, 'The History of the Federal Reserve Bank System. Volume 2 Book 1: 1951-1969', University of Chicago Press (2010), pp. 109-120.

[15] The Phillips Curve is based on a short-run aggregate supply curve: as inflation rises, producers increase the quantity of output supplied in the economy. By contrast, increased interest rates (intended to reduce inflation) can result in lower output (higher unemployment). See Stephen G. Cecchetti and Kermit L. Schoenholtz, 'Money, Banking and Financial Markets', 4th edn., New York, NY, McGraw-Hill Education (2014), p. 600.

In the 1970s, however, growing inflation and unemployment together (so-called ‘stagflation’) contradicted the main assumptions of the Phillips curve. Under Fed chairman Arthur Burns, the Federal Reserve had not adequately limited inflation and reduced unemployment. In 1977, Congress adopted amendments to the Federal Reserve Act that would increase the Fed’s accountability by defining more clearly its objectives and goals in fulfilling its mandate.

The 1977 amendments to the Federal Reserve Act signed into law by President Carter increased the Fed’s accountability by requiring it to report to Congress “concerning ranges of monetary and credit aggregates for the upcoming 12 months.” It also required separate Senate confirmation hearings for appointment of the Fed’s chairman and vice chairmen. More significantly, however, the 1977 Act also explicitly adopted a dual mandate for monetary policy – “to promote maximum employment, production, and price stability.” This mandate, which distinguishes the Federal Reserve from other central banks by placing employment on a par with inflation, had the effect of increasing the scope of the Fed’s powers to use monetary policy tools to steer and balance the economy to achieve both low inflation and low unemployment.

Later, in 1978, President Carter signed into law the Humphrey-Hawkins Act (the Full Employment and Balanced Growth Act). The Humphrey-Hawkins Act 1978 attracted more attention because it set an ambitious numerical target for the Fed to achieve a 4% unemployment rate and establish semi-annual congressional hearings at which the Fed chair was required to explain the central bank’s actions to Congress. The Act also made a modest change to the wording of the monetary policy mandate to “maximum employment, stable prices, and moderate long-term interest rates.” Because economists consider the last of these three to be redundant (if prices are stable, nominal interest rates will be low), this is called the Fed’s dual mandate. But that mandate dates from the 1977 act, not the 1978 act. The 1977 and 1978 acts were landmarks in the US legislative development of monetary policy.

Under this legislation, it was now explicitly clear that the Fed could use its extensive powers in pursuit of broad objectives, to maintain price stability (the definition of which the Fed defines) while supporting economic growth and employment in the US economy. Despite the broad authority vested in the Fed for monetary policy, the Fed's powers over banking supervision remained constrained by the supervisory powers of other federal regulators, such as the Comptroller of the Currency (OCC) and the Federal Deposit Insurance Corporation (FDIC). Also, some state bank regulators had limited the powers of federally-chartered banks to have only branches in one state as late as the early 1990s, and with many banks some states were confined and limited to one city or office (so-called 'unit banking').

In 1994, growing political pressure on Congress to liberalize and eliminate most restrictions on cross-border banking led to the enactment of the 1994 Riegle-Neal Interstate Banking Reform Act. In 1999, Congress enacted the Financial Services Modernization Act (the Graham, Leach, Bliley Act) that eliminated the Glass-Steagal provisions of the Banking Act of 1933 that had prohibited banks from owning and trading through investment banking subsidiaries.

In summary, the 1977 amendments to the Federal Reserve Act codified into statute for the first time what had been accepted as a broad policy mandate for the Fed in monetary policy to promote maximum employment, production, and price stability. This so-called dual mandate went beyond the powers of most other central banks by placing employment on a par with inflation and providing a legal basis for the Fed to use its monetary policy tools to achieve "maximum employment" while maintaining "price stability". As discussed later, this broad mandate arguably empowers the Fed to use monetary policy tools to steer and balance the economy away from the economic risks posed by climate change and other environmental or social sustainability challenges that might threaten or undermine the "maximum employment", "production" and "price stability" objectives.

The banking crisis of 2007-08 demonstrated significant weaknesses in US financial regulation. The focus of financial regulation had been largely on individual financial institutions and ignored the interconnections between financial markets and individual firms, and the broader systemic risks across the financial system. The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 expanded the Federal Reserve's mandate by adding to its then mandate of price stability and full employment an additional objective to maintain financial stability. This is stated in section 1108b as follows: 'The Board of Governors shall identify, measure, monitor and mitigate risks to the financial stability of the United States'.[16]

Following the crisis of 2007–2008, central bank mandates have come under increasing scrutiny by policymakers and, in some cases, are being reviewed to consider how they can be interpreted to support broader monetary policy objectives and financial regulatory reforms that aim to generate strong, sustainable and balanced growth, while achieving price and financial stability. In this respect, Congress adopted more changes to the scope, powers and responsibilities of the Federal Reserve by amending the Federal Reserve Act to add the objective of financial stability to the Fed's mandate.

This has led to more intensive regulatory scrutiny of individual banks and their interconnections with other institutions, such as asset management and private credit firms and the financial infrastructure through which these institutions trade and transfer risk. These new financial risks are evolving in response to financial innovations arising from digital finance and cryptocurrencies. As discussed below, the environmental and social sustainability challenges of climate change and economic and social inequality are contributing to the ability of central banks to achieve price stability and financial stability objectives.

Central Banking and Environmental Sustainability

[16] See Dodd-Frank Act 2010, section 1108b.

Since the late seventeenth century, the role of central banks has evolved significantly. In its earliest years, the Bank of England, after it was created in 1694, illustrated the primary function of central banks to act as fiscal agents for governments. Later, in the nineteenth century, Walter Bagehot elaborated on the function of the central bank as a lender of last resort.[17] The central bank's policy role in broader economic stabilization – setting policy interest rates and managing the money supply – did not emerge as a key function until the middle of the twentieth century.

During this period, central banks have become influential and revered public institutions, largely since the 1990s when many were given independent authority to set monetary policy to achieve anti-inflationary objectives. This model is now recognised as good practice globally across a number of developed and developing countries.[18] By 2018, over forty central banks had an explicit inflation target framework and over twenty had a price stability objective operationalised in much the same way.[19]

Central banks have other core responsibilities, including the issuance of domestic currency in the form of bank notes, providing clearing and settlement accounts for the banking system and maintaining the smooth functioning of the payment systems. All these core responsibilities relate to the broad concept of 'sound money' or 'monetary stability' and its role in supporting economic welfare over the medium term.

The primary tools of monetary policy are open market operations – involving the purchase and sale (or repurchase) of bank assets and government debt – to guide short-term market interest rates and to manage the supply of the narrow money base to the banking system. As post-crisis interest rates fell close to zero, the focus in many larger countries (the United States, Euro area, Japan, the United

[17] Walter Bagehot, Lombard Street: A Description of the Money Market, Henry S King Co., 1872, Chapter 7, paragraphs 57–58, lending by the central bank in order to stop a banking panic.

[18] See IMF (2019) pp. 3-19.

[19] Ibid.

Kingdom) has been on expanding the supply of money through quantitative easing (QE) to prevent deflation. However, interest rates have risen since the pandemic period of 2020-21 mainly because of the massive fiscal support programmes adopted by most developed and many developing countries to prevent a massive deflation and the subsequent inflation that has followed.

Most central banks also have an actual or implied remit to preserve financial stability, either as a primary or as a secondary objective. This focus has grown as a result of the global financial crisis and can now be treated as a principal objective in most countries.

Throughout history, economists have demonstrated relationships between weather, agricultural markets and financial markets to show that there are linkages between natural disasters, such as drought and severe storms and flooding, and financial market instability. The United States farm belt states suffered severe economic downturns from the dust bowls of the 1880s, 1890s, 1920s, and the early 1930s that resulted from unsustainable farming methods and unexpectedly intense weather phenomenon.[20]

More recently, the International Panel on Climate Change (IPCC) has documented the scientific evidence in support of the proposition that carbon-intensive activities lead in the longer-term to global warming, rising sea levels and ocean acidification, while in the shorter term they can lead to increasingly volatile weather patterns, including extreme temperatures and intensified flooding of coastal and low-lying areas, water shortages and the health costs arising out of pollution.[21]

The linkages between environmental sustainability and economic and monetary stability raise the fundamental question of whether, and if so how, central banks should respond to the risks associated with environmentally and socially unsustainable activity.

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[20] Richard Hornbeck, 'The Enduring Impact of the American Dust Bowl: Short- and Long-Run Adjustments to Environmental Catastrophe' (2012) 102(4) *American Economic Review,* 1477, 1481-1483.

[21] IPCC Sixth Assessment Report (2023).p. 6.

Politicians are often tempted to overstimulate the economy for political gain in the short-term. Committing to keep inflation low and stable is a prerequisite for maintaining sustainable growth and is in the broader public interest. Similar medium-term considerations apply to both financial stability and micro-prudential supervision: seeking to steer a medium-term, resilient path for the economy rather than maximising (or allowing financial firms to maximise) short-run gains which can lead to subsequent, costly crashes.

In the context of climate change, the imperative is to take a longer-term view of sustainability than just the five-to-seven years of the business cycle or the somewhat longer credit cycle. Sustainability needs to be considered across generations if the right policy choices are to be made.[22] Carney[23] described this as the 'Tragedy of the Horizons', in which the costs of preventing or mitigating the effects of climate change are lower, the sooner action is taken. But since the benefits largely accrue to later generations, current generations may not be willing to bear the costs. The likely consequence is that future generations will have to take much more costly actions later.

The Federal Reserve and Climate Change

As discussed above, in the late nineteenth century and 1920s, environmentally unsustainable agricultural practices along with intensified weather patterns contributed significantly to a high number of agricultural loan defaults and many bank failures, particularly in the US farm belt states, that led to a severe economic downturn in many regions of the US. This shows that man-made unsustainable practices can exacerbate the economic costs of unsustainable economic activity. Economists and other expert commentators argue that central banks can use their policy tools and instruments to guide the economy toward more sustainable goals for the economy and financial system. The US Treasury's Financial Stability Oversight Council has begun to recognise the critical impact of climate change to the financial sector (that can increase credit and market risks associated with loss of income, defaults and changes in the values of assets, and legal risks).

[22] Stern Review (2006).
[23] Carney, (2015)

.[24] The Fed's Board of Governors Chairperson, Jerome Powell, however, took a more skeptical position when he stated that the Fed should "not wander off to pursue the perceived social benefits that are not tightly linked to our statutory goals and authorities."[25]

As some scholars have argued, the pursuit of climate change-related policies is not within the scope of the Fed's mandates. For example, Skinner (2021) argues that Fed has limited legal authority to address climate change through its monetary policy tools and it is unclear whether Congress has given power to the Fed to address climate change.[26] Also, Lastra and Skinner (2023) state that the Fed does not have an explicit mandate or a legal ground to address climate change in contrast to the ECB's secondary objective provided by Article 127(1) section 2 of the Treaty for the Functioning of the European Union ("TFEU"), or the Bank of England's secondary objectives to support the economic policies of the UK government. .[27]

As discussed earlier, the Federal Reserve has a three-part mandate: price stability, full employment and financial stability. Many other central banks, such as the European Central Bank (ECB), have a single primary mandate to maintain price stability. The ECB has a strong form of independence, insulating its decision-making from direct political influence. Nevertheless, the ECB President and Executive Board are required to give evidence to the European Parliament and to communicate its monetary policy strategy.[28] The ECB has a secondary objective of supporting the general policies of the European Union. EU policies include a comprehensive EU Green

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[24] See Financial Stability Oversight Council (2021) 1-23

[25] Jerome H. Powell, Panel on 'Central Bank Independence and the Mandate – Evolving Views', Remarks by Jerome H. Powell Board of Governors of the Federal Reserve System at Symposium on Central Bank Independence, Sveriges Riksbank, Stockholm, Sweden (January 10, 2023).

[26] Skinner, 'Central Banks and Climate Change' 74(5), 1308-1310 ("[T]he Fed currently lacks legal authority to engage its monetary policy tools in pursuit of "offensive" programs like "green quantitative easing."). See also, Skinner, 'Central Bank Activism', 254 ("when the Fed bends or stretches its legal mandates to address social or economic problems of the day (if and as they might emerge), it engages in "activism").

[27] Lastra and Skinner, 'Sustainable Central Banking,', 403 ("The Fed, for its part, has no explicit mandate to address climate change or sustainability").

[28] See Munoz and Ramos, chapter 3, in this volume.

Deal that consists of a Sustainable Finance Action Plan that has led to the adoption of major pieces of EU financial services legislation to support the transition to a green economy.[29] It is maintained that the ECB should pursue its price stability mandate with a view to supporting the economic transition to a sustainable economy.

Some argue, by contrast, that the function of a central bank should only be monetary policy, and that any broader responsibilities would distract the central bank from accomplishing its monetary policy objective. Other central bankers argue that central banks should focus only on their explicit objectives, such as price stability, financial stability and (in the case of the Fed) promoting full employment.[30] This view, however, ignores important links between monetary and financial stability policy *and* the broader economic, social and physical environment that can undermine these primary objectives. During the financial crisis of 2007-2008, the Federal Reserve resorted to a wide-range of policy tools that had not been used previously to stabilize the financial system and ensure that its 2% inflation target had been reached. This was supported by the Fed's historic and prominent role in stabilizing the US economy and financial system.

The Federal Reserve and Sustainability

The Fed's broad mandate to pursue its statutory objectives of price stability, financial stability and maximum employment raises the question whether it can address other important societal challenges, such as the environmental, societal, and economic costs of climate change and social inequality. As discussed earlier, some commentators argue that although the Fed does have policy tools, such as open market operations, to address environmental and social challenges, it is constrained by its legal mandate in doing so.[31] Also, that democratically-elected officials, not appointed officials like Fed governors, should adopt and take the lead on national policies. However, this article shows that the Fed's original mandate adopted in

[29] Amtenbrink, chapter 15, in this volume.

[30] See Powell, above n., 26.

[31] See Skinner (2021).

1913 was very broad indeed and with the subsequent amendments to the Federal Reserve Act it now provides a clear legal basis to use its tools to address environmental and social sustainability risks that threaten its ability to promote price stability, financial stability and full employment.

Following the Fed's decision-making and institutional structure becoming more centralised in 1935 and linked directly to Government policy to combat the depression and provide more effective coordination with the Government to provide adequate wartime financing, the 1950 Treasury-Federal Reserve Accord was created to give the Fed more autonomy in pursuing economic growth and maintaining the fixed exchange rate regime. The Fed's discretion in fulfilling its mandate and statutory goals was finally streamlined in the 1977 amendments to the Federal Reserve Act, when Congress explicitly defined the Fed's objectives to be price stability and full employment. After the crisis of 2007-08, the Fed's remit was cast more broadly to include 'financial stability'. Based on the above, the Fed has the legal competence to decide on which of its policy tools and instruments to manage climate finance risks and social sustainability risks.

Regarding climate change, the Fed should attempt to incorporate the effects of climate change in its economic projections and monetary policy analyses, including assessing the financial impact of climate change on inflation and inflationary expectations. Although these effects have been viewed as unpredictable and too distant in the future to provide a meaningful estimate,[32] this may change in the near future as the short-term effects of the changing climate on short-term economic growth, productivity and unemployment becomes more apparent.

As a bank regulator, the Fed has adopted a voluntarily a stress test program for the ten largest US bank holding companies to design their own climate finance stress test framework and report it to the Fed.

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[32] Bernanke, 21st Century Monetary Policy, p. 414.

However, the Fed has made little or no progress to integrate climate finance risks as a factor in its assessment of bank capital requirements and portfolio market risks. In this regard, the Fed is far behind the recommendations of the Basel Committee on Banking Supervision and the more specific and mandatory prudential regulatory frameworks directed against climate finance risks by the ECB's Single Supervisory Mechanism and the Bank of England's Prudential Regulation Authority.

Regarding social sustainability risks, the Covid 19 pandemic crisis highlighted deep divisions in US society, including increasingly wide inequalities in income and wealth, limited economic and social mobility, and persistent disparities in access to health care and educational opportunities. Minority groups across American society have suffered the greatest disadvantages. On issues of inequality and economic mobility, the Fed can make an important policy intervention: using monetary policy to promote higher levels of non-inflationary employment and social mobility. Expanding labour markets disproportionately helps minority groups, lower paid, and less-experienced workers. Also, an increased demand for workers may bring more workers into the labour market, where they can gain experience and make future contacts.

In addition to monetary policy, the Fed has other policy instruments to promote equity in society. For instance, through the regional reserve banks, it maintains relationships with community development organizations, including community development financial institutions and minority-owned banks. The Fed provides training programmes and technical assistance to these organizations. It is also important to emphasize that the Government can – and should - take the lead, where possible, by directly working with the Fed to implement community-focused legislation for banks, such as the Community Reinvestment Act of 1977, which requires that depository institutions meet the broad credit needs of communities where they do business.

Fed researchers at the Board of Governors in Washington and at the regional reserve banks can anticipate and measure many social

sustainability risks by collecting data and conducting research on labour and social inequality, including racial and ethnic disparities. Such research forms the basis of the Fed's annual *Survey of Consumer Finances*, which is an important source of data US income and wealth inequality.

Conclusion

This chapter analysed the Fed's statutory mandate, objectives and functions, and the growing recognition of climate change and social and economic inequality as a financial risk to the US economy and concludes that climate financial risks and other environmental sustainability and social risks are well within the Fed's mandate and that it does not exceed its legal competence for it to use its monetary policy instruments and regulatory tools to manage the economic and financial risks associated with climate change.

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