VII. Negative Interest Rates in Europe: An Effective Policy Tool or a Failing Last Ditch Effort?

A. Introduction

The 2008 Financial Crisis threw economies of the world into the Great Recession.[1] Some economies have since recovered, but others, specifically those in the Eurozone, have stagnated.[2] Because Eurozone countries do not control their own monetary policy, they were unable to pay back sovereign debt that they had taken on to finance government operations during the Great Recession; this resulted in the European Debt Crisis of 2009.[3] Leading up to these events, the interest rate throughout the Eurozone peaked at 3.25%.[4] In an attempt to jumpstart Eurozone economies, the European Central Bank (ECB) advanced a zero-interest rate policy, starting in 2012.[5] When a zero-interest rate policy failed to shore up the flagging Eurozone economies, the ECB, in June 2014, moved interest rates

---

[1] Jim Chappelow, *The Great Recession*, INVESTOPEDIA (July 25, 2019), https://www.investopedia.com/terms/g/great-recession.asp [https://perma.cc/LD2X-ERSB] ("The term Great Recession applies to both the U.S. recession, officially lasting from December 2007 to June 2009, and the ensuing global recession in 2009.").

[2] *Gross Domestic Product at Market Prices – Italy*, EUR. CENT. BANK STAT. DATA WAREHOUSE (Oct. 6, 2019), https://sdw.ecb.europa.eu/quickview.do?SERIES_KEY=320.MNA.Q.Y.IT.W2.S1.S1.B.B1GQ._Z._Z._Z.XDC.LR.GY [https://perma.cc/Q6GC-JZMP] (For instance, since 2010 Q1 (the first instance of positive GDP growth following the Great Recession), Italian GDP has grown at a paltry average rate of around 0.23% per quarter).

[3] Beverly Bird & Will Kenton, *European Sovereign Debt Crisis*, INVESTOPEDIA (May 12, 2019), https://www.investopedia.com/terms/e/european-sovereign-debt-crisis.asp [https://perma.cc/9GV4-TVXD] ("By the end of 2009, the peripheral Eurozone member states of Greece, Spain, Ireland, Portugal, and Cyprus were unable to repay or refinance their government debt or bail out their beleaguered banks without the assistance of third-party financial institutions.").

[4] *Key ECB Interest Rates*, EUR. CENT. BANK (Sept. 18, 2019), https://www.ecb.europa.eu/stats/policy_and_exchange_rates/key_ecb_interest_rates/html/index.en.html [https://perma.cc/PX26-BCMP] [hereinafter *Key Rates*] (data showing that in October 2008, the key interest rate for deposit facilities in the eurozone peaked at 3.25%).

[5] *Id.* (data showing that the key interest rate for deposit facilities in the eurozone was set to 0.00% on July 11, 2012).

into the negatives,[6] following a similar policy decision by Sweden's central bank just five years prior.[7] Since then, interest rates have remained in the negatives, with no signs of rising into positive territory in the near future.[8] This article will discuss the economic and legal implications of negative interest rates in Europe. Part B provides a brief history of negative interest rates in the Eurozone and their economic underpinnings. Part C discusses negative rates' effects on the general economy and banking institution profitability. Part D looks to the future and the potential impacts of a negative interest rate policy (NIRP) on future ECB decisions, as well as the potential economic and legal implications such policy may have in the United States.[9]

B. Background Information

To understand how negative interest rates in Europe work, one must first understand the controlling force behind such interest rates: the ECB. The ECB succeeded the European Monetary Institute in June 1998, but was unable to control monetary policy as it does now until the Eurozone was officially formed on January 1, 1999.[10] The ECB is

---

[6] *Id.* (data showing that the key interest rate for deposit facilities in the eurozone was first set to -0.10% on June 11, 2014).

[7] Morten Bech & Aytek Malkhozov, *How Have Central Banks Implemented Negative Policy Rates?*, BANK FOR INT'L SETTLEMENTS Q. REV. (Mar. 2016) at 31, 34 ("However, negative policy rates were not entirely new. The Riksbank had flirted with negative policy rates in 2009–10. . . . The repo rate was cut to 25 bp on 8 July 2009 and the overnight deposit rate was lowered to -25 bp.").

[8] *Key Rates*, *supra* note 4 (data showing that interest rates have remained negative since June 2014, and given that the ECB generally raises rates by only 25 basis points at a time—when it raises rates at all, which has been quite rare—there is little to suggest that the ECB will change its mind on its NIRP).

[9] This Article is not meant to be an economics treatise on NIRPs. Its purpose is rather to give a broad overview of the topic, to explore *both* the economic and legal implications of a NIRP, and to posit questions for the future of such policies. I am not attempting to ascribe all of the economic data discussed here solely to the ECB's NIRP.

[10] *Economic and Monetary Union (EMU)*, EUR. CENT. BANK, https://www.ecb.europa.eu/ecb/history/emu/html/index.en.html [https://perma.cc/T4VF-UZPL] (describing the development plan that led to the creation of a single monetary policy for eurozone economies, beginning on January 1, 1999).

broadly structured as a set of two decision-making bodies.[11] This article focuses on the Executive Board (EB), as it is responsible for the implementation of monetary policy (and therefore the setting of interest rates), as defined by the Governing Council (GC).[12] Christine Lagarde is the current President of the ECB and has served in that position since November 1, 2019 following the end of former President Mario Draghi's term and a vote by the European Parliament on September 17, 2019.[13]

The ECB is an organization governed by European law and differs considerably in structure and operation from the United States Federal Reserve (Fed).[14] The ECB's funding comes from national central banks of participating Eurozone countries, who then become

---

[11] Consolidated Version of the Treaty on the Functioning of the European Union art. 129(1), Oct. 26, 2012, 2012 O.J. (C 326) 47, 103 [hereinafter TFEU] ("The [European System of Central Banks] shall be governed by the decision-making bodies of the European Central Bank which shall be the Governing Council and the Executive Board.").

[12] *Organisation: Executive Board*, EUR. CENT. BANK (last visited Oct. 6, 2019), https://www.ecb.europa.eu/ecb/orga/decisions/eb/html/index.en.html [https://perma.cc/TBX9-UQJ9] ("Responsibilities: to implement monetary policy for the euro area in accordance with the guidelines specified and decisions taken by the Governing Council. In so doing, it gives the necessary instructions to the euro area NCBs."); *Organisation: Governing Council*, EUR. CENT. BANK (last visited Oct. 6, 2019), https://www.ecb.europa.eu/ecb/orga/decisions/govc/html/index.en.html [https://perma.cc/PJ2W-5P9J] ("Responsibilities: to formulate monetary policy for the euro area. This includes decisions relating to monetary objectives, key interest rates, the supply of reserves in the Eurosystem, and the establishment of guidelines for the implementation of those decisions.").

[13] Mark Potter, *Lagarde Wins EU Lawmakers' Approval to Lead ECB*, REUTERS (Sept. 17, 2019, 6:30 AM), https://www.reuters.com/article/us-ecb-lagarde-parliament/lagarde-wins-eu-lawmakers-approval-to-lead-ecb-idUSKBN1W213F [https://perma.cc/F72E-KQCE] ("The European Parliament backed Christine Lagarde on Tuesday as the next president of the European Central Bank."); *The President of the European Central Bank*, EUR. CENT. BANK (last visited Nov. 1, 2019), https://www.ecb.europa.eu/ecb/orga/decisions/html/cvlagarde.en.html [https://perma.cc/F3ZA-GJX4] ("Since November 2019: President of the European Central Bank.").

[14] Protocol (No. 4) on the Statute of the European System of Central Banks and of the European Central Bank arts. 7–50, 2016 O.J. (C 202) 230, 232–250 (explaining in broad terms the fundamental structure, organization, and oversight principles of the ECB).

capital shareholders of the ECB.[15] The Fed, on the other hand, is an independent central bank, not directly funded by the U.S. government. The Fed is made up of a seven-member Board of Governors (which is an independent federal agency, responsible for setting monetary policy); the Federal Open Market Committee (charged with implementing monetary policy by buying and selling on the open markets); twelve regional Federal Reserve Banks; and other various member banks.[16] The ECB's policy mandate is restricted solely to maintaining price stability (unlike the Fed's, which is to promote stable prices *and* maximize employment),[17] which the GC has adopted to mean "a year-on-year increase in the Harmonised Index of Consumer Prices (HICP) for the euro area of below 2%," and an inflation level of close to 2% over the medium term.[18] In its quest to meet these inflationary goals, the ECB participates in open market operations, which include

---

[15] *Capital Subscription*, EUR. CENT. BANK (last visited Nov. 2, 2019), https://www.ecb.europa.eu/ecb/orga/capital/html/index.en.html [https://perma.cc/4PHY-XK2V] ("The capital of the ECB comes from the national central banks (NCBs) of all EU Member States. . . . The NCBs' shares in this capital are calculated using a key which reflects the respective country's share in the total population and gross domestic product of the EU.").

[16] 12 U.S.C. § 241 (2018) (providing that "[t]he Board of Governors of the Federal Reserve System . . . shall be composed of seven members, to be appointed by the President, by and with the advice and consent of the Senate"); 12 U.S.C. §263 (2018) (creating the Federal Open Market Committee, "which shall consist of the members of the Board of Governors of the Federal Reserve System and five representatives of the Federal Reserve banks to be selected as hereinafter provided," in order to carry out open market transactions); 12 U.S.C. § 222 (2018) (creating the Federal Reserve districts).

[17] 12 U.S.C. § 225(a) (2018) ("The Board of Governors of the Federal Reserve System and the Federal Open Market Committee shall maintain long run growth of the monetary and credit aggregates commensurate with the economy's long run potential to increase production, so as to promote effectively the goals of maximum employment, stable prices, and moderate long-term interest rates.").

[18] *Benefits of Price Stability*, EUR. CENT. BANK (last visited Oct. 6, 2019), https://www.ecb.europa.eu/mopo/intro/benefits/html/index.en.html [https://perma.cc/QX7C-86XN] (explaining that promoting price stability helps to improve price transparency, lower inflation risk premia, and avoid unproductive economic activity); *Objective of Monetary Policy*, EUR. CENT. BANK (last visited Oct. 6, 2019), https://www.ecb.europa.eu/mopo/intro/objective/html/index.en.html [https://perma.cc/8P8N-MPRH] ("To maintain price stability is the primary objective of the Eurosystem and of the single monetary policy for which it is responsible.").

collateralized lending and repurchase agreements to guide interest rates to levels set by the GC.[19]

Furthermore, it is also important to define *which* interest rate is being discussed, as the ECB controls three main rates: (1) the deposit facility rate, which is the rate at which banks pay to hold deposits overnight at central banks (and the rate with which this article is most concerned);[20] (2) the main refinancing operations interest rate, which is the rate banks pay when borrowing money from the ECB for one week; and (3) the marginal lending facility rate, which "offers overnight credit to banks from the Eurosystem."[21]

There is also an important distinction between real and nominal interest rates. Nominal interest rates are the rates which central banks manipulate in their quest to control monetary policy.[22] When the ECB or the Fed pushes rates down, nominal rates fall.[23] Unlike the nominal rate, which merely reflects how a central bank has manipulated rates, the real interest rate takes inflation into account.[24] Negative real interest rates are not of particular importance to this article; plenty of countries have had real negative interest rates when inflation has surpassed its central bank's interest rate.[25] Negative

---

[19] *Monetary Policy: Instruments*, EUR. CENT. BANK (last visited Oct. 6, 2019), https://www.ecb.europa.eu/mopo/implement/html/index.en.html [https://perma.cc/3RMF-55CJ] ("Five types of financial instrument are available to the Eurosystem for its open market operations. The most important instrument is the reverse transaction, which may be conducted in the form of a repurchase agreement or as a collateralised loan.").

[20] Any mentions of a negative interest rate in this Article refers to a negative deposit facility rate.

[21] *Key Rates*, *supra* note 4 (defining the differences between the deposit facility interest rate, the main refinancing operations interest rate, and the marginal lending facility interest rate).

[22] Steven Nickolas, *Real vs. Nominal Interest Rates: What's the Difference?,* INVESTOPEDIA (Oct. 2, 2019), https://www.investopedia.com/ask/answers/032515/what-difference-between-real-and-nominal-interest-rates.asp [https://perma.cc/G8QW-ZCQP] ("A nominal interest rate refers to the interest rate before taking inflation into account. . . . Short-term nominal interest rates are set by central banks.").

[23] *Id.* ("Short-term nominal interest rates are set by central banks. . . . Central banks may decide to keep nominal rates at low levels in order to spur economic activity.").

[24] *Id.* ("A real interest rate is the interest rate that takes inflation into account. This means it adjusts for inflation and gives the real rate of a bond or loan.").

[25] *Compare Key Rates*, *supra* note 4 (data showing that interest rates in the eurozone have been negative since June 2014) *with* CPIH Annual Rate 00: All

nominal interest rates, which are a purposeful policy choice by central banks to charge commercial banks to hold their deposits, are a new economic phenomenon, however.[26]

Negative interest rates may be relatively untested, but they operate in an intuitive manner. Instead of commercial banks being paid to store their money at central banks, they are charged to do so, guaranteeing negative returns by simply parking their deposits.[27] The economic theory underlying a NIRP is twofold. First, low or negative rates are meant to encourage banks to lend instead of to hold their reserves at a central bank, and to encourage consumers and corporations to borrow rather than be charged to save, thus spurring demand for loans and increasing consumer spending and investment activity.[28] Second, low and negative rates (and thus low returns on European debt) weaken foreign demand for the Euro.[29] This lowered demand for

---

Items 2015=100, OFF. FOR NAT'L STATS. (Sept. 18, 2019), https://www.ons.gov.uk/economy/inflationandpriceindices/timeseries/l55o/mm23 [https://perma.cc/Z7K9-ZFUD] (data showing that the UK's official Consumer Price Inflation Including Owner-Occupiers' Housing Costs index has been hovering around 2% since the ECB instituted negative interest rates).

[26] Bech, *supra* note 7, at 32 (stating that the ECB, the Swiss National Bank, the Danish National Bank, and the Swedish National Bank all moved nominal rates into negative territory for the first time in 2014 or early 2015, in order to confront a host of new economic challenges).

[27] Adam Hayes, *Negative Interest Rate Policy (NIRP) Definition*, INVESTOPEDIA (May 7, 2019), https://www.investopedia.com/terms/n/negative-interest-rate-policy-nirp.asp [https://perma.cc/QXC7-5LVB] ("Instead of receiving money on deposits, depositors must pay regularly to keep their money with the bank."). This negative interest rate, however, is only charged on deposits in excess of a certain threshold amount, so-called "excess reserves." *See* Apolline Menut & Alessandro Tentori, *Q&A: The ECB and Tiering*, RES. & STRATEGY INSIGHTS (AXA Investment Managers, Puteaux, Fr.), Apr. 2019, at 1 (explaining that the ECB has instituted a system of "tiering" deposit interest rates, which "reduces the amount of excess liquidity subject to a negative interest rate, without moving the headline deposit rate").

[28] Hayes, *supra* note 27 ("This is intended to incentivize banks to lend money more freely and businesses and individuals to invest, lend, and spend money rather than pay a fee to keep it safe.").

[29] Nick K. Lioudis, *How National Interest Rates Affect Currency Values and Exchange Rates*, INVESTOPEDIA (July 13, 2019), https://www.investopedia.com/ask/answers/040315/how-do-changes-national-interest-rates-affect-currencys-value-and-exchange-rate.asp [https://perma.cc/FPM6-Y2DE] ("Conversely, lower interest rates tend to be unattractive for foreign investment and decrease the currency's relative value.").

European debt in turn weakens the relative value of the currency, which should increase demand for exports as European goods become cheaper relative to their worldwide counterparts.[30] The ECB hopes that these negative rates will therefore stave off deflationary periods.[31]

In addition to a NIRP, the ECB bought nearly $3 trillion worth of assets from commercial banks (a policy known as quantitative easing) to help assist their recovery plans.[32] The idea behind the ECB's asset purchase program is not unlike that of a NIRP: by issuing new money to pay for bank assets, the central bank injects money into the economy, which encourages commercial banks to lend more freely.[33] Again, such a program should help avoid deflation.[34]

C. Effects of a NIRP

Economic theory and real-world data are not always congruent, however, and neither the effects nor the implementation of a NIRP

---

[30] WORLD BANK GROUP, GLOBAL ECONOMIC PROSPECTS, JUNE 2015: THE GLOBAL ECONOMY IN TRANSITION 13 (2015) ("Negative rates may help boost exports by encouraging currency depreciation and may support lending and domestic demand by further easing credit conditions."); *Negative Interest Rates*, PIMCO (last visited Oct. 6, 2019), https://global.pimco.com/en-gbl/resources/education/investing-in-a-negative-interest-rate-world [https://perma.cc/NU2J-B4MQ] ("For Switzerland, Denmark and Sweden, the rationale for lowering policy rates below zero had more to do with their currencies and the associated exchange rates than credit creation.").

[31] *See* WORLD BANK GROUP, *supra* note 30, at 13 ("The main motivation for [introducing negative interest rates] was to further ease the already accommodative monetary policy stance to fight the growing threat of deflation amid downward pressures to inflation expectations.").

[32] *Asset Purchase Programmes*, EUR. CENT. BANK (last visited Nov. 3, 2019), https://www.ecb.europa.eu/mopo/implement/omt/html/index.en.html [https://perma.cc/WSG5-P4ET] ("The stock of Eurosystem APP bonds stood at EUR 2,648 bn as of end of September 2019.").

[33] Jim Chappelow, *Quantitative Easing*, INVESTOPEDIA (Sept. 6, 2019), https://www.investopedia.com/terms/q/quantitative-easing.asp [https://perma.cc/Q6YJ-YJ4Y] ("Quantitative easing is an unconventional monetary policy in which a central bank purchases government securities or other securities from the market in order to increase the money supply and encourage lending and investment.").

[34] *See id.* (explaining that central banks have employed quantitative easing in order to fight deflation, but that the results of such programs have been mixed).

in Europe has gone quite as expected.[35] The most obvious effect of such a policy has been to reduce the profitability of commercial banks.[36] European banks not only now have to pay a fee to hold deposits above a certain level at the central bank, but are losing money as the spread between the interest they award on consumer deposits and the rate at which they charge consumers and corporations to borrow declines.[37] The ECB's latest bank lending survey in which it asked commercial banks about the effects of negative interest rates on their business, showed that commercial banks reported a 68% decrease in net interest income between March and September of 2018.[38] Broken down, this can be traced to a decrease in loan margins of between 24% and 31% (with these variations attributable to whether one focuses on enterprise loans, housing loans, or consumer credit and other lending) with a simultaneous increase in lending volumes of only between 2% and 11%.[39] Asset prices of Eurozone lenders have plummeted as well following the ECB's move into negative rates, a further indication of ailing profits.[40] Banks have attempted to cut costs and raise fees instead of passing negative rates on to consumer deposits, but have thus far clearly been unsuccessful in meaningfully reducing

---

[35] Brian Blackstone, *Negative Rates, Designed as a Short-Term Jolt, Have Become and Addiction*, WALL ST. J. (May 20, 2019) (describing European countries' inability to "wean their economies off" negative interest rates).

[36] *See* EUR. CENT. BANK, THE EURO AREA BANK LENDING SURVEY: THIRD QUARTER OF 2018 29–31 (2018) (presenting the results of surveys showing that commercial banks' lending volumes and interest incomes decreased after the introduction of negative interest rates in the eurozone).

[37] *See id.* at 29 (explaining that surveyed banks reported a net negative impact on their net interest income due to the ECB's negative interest rate policy).

[38] *Id.* ("As regards the effect [of negative interest rates] on banks' net interest income, euro area BLS banks again reported a negative impact over the past six months (with a net percentage of -68%, compared with -77% in the April 2018 BLS round)." (footnote omitted)).

[39] *Id.* at 30–31 (explaining the decrease in banks' loan margins, broken down by the type of loan). The loan margin "is defined as the spread of the bank's lending rates for new loans over a relevant market reference rate." *Id.* at 30 n.10.

[40] Avantika Chilkota, *European Banks Face a Triple Whammy*, WALL ST. J. (Mar. 26, 2019) (explaining that negative rates, along with a slowing economy and money-laundering scandals, have caused bank stocks to steadily underperform the market); Patricia Kowsmann & Patrick Margot, *Plunging Yields Expose Sorry State of European Banks*, WALL ST. J. (June 3, 2019) (discussing both a fall in the Euro Stoxx Banks index and particular poorly performing banks as compared to a contemporaneous rise in the S&P 500).

costs.[41] Then-ECB President Mario Draghi was unfazed by this downward trend of bank profitability, saying in April 2019 that the "[b]anking system in Europe is overcrowded" and that the "[n]eed for consolidation is very, very significant," instead laying the retail banks' trouble at the feet of "[o]vercapacity in terms of the number of people, the number of branches, [and] costs."[42] The ECB seems to be largely unconcerned about the effect of negative rates on banks' profitability, as the central bank cut rates again in September 2019, from -0.4% to -0.5%.[43] ECB President Christine Largarde too has praised this policy of negative rates, stating that she sees the introduction of negative rates "as [a] net positive[] in current circumstances," although "not without side effects that warrant vigilance."[44] However, careful inquiry as to whether negative interest rates have had a net positive effect on Eurozone economies, despite their negative effects on retail banks' profitability, is still necessary.

A cursory look at general economic data from the Eurozone gives mixed answers to this question.[45] On the one hand, some indicators reveal positive results. Unemployment in the Eurozone has

---

[41] *See, e.g.*, *Negative Interest Rates: Impact on the European Savings and Retail Banks*, 3 (Eur. Sav. & Retail Banking Grp., Document No. 0631/2016, 2016) (explaining commercial and legal reasons why retail banks have so far been unable to cut costs effectively in response to negative interest rates); Derya Guzel, *European Banks: Cost-Cutting Continues*, MORNINGSTAR (Oct. 13, 2017, 9:03 AM), http://www.morningstar.co.uk/uk/news/161956/european-banks-cost-cutting-continues.aspx [https://perma.cc/YJ47-MQUG] ("As indicated by EU banks' restructuring plans, which aim to cut costs in the environment of lower interest rates and declining net interest margins (NIMS), European banks closed over 9,000 branches last year and shed 50,000 staff.").

[42] Iain Rogers, *Stop Moaning About Rates and Consolidate, Draghi Tells Banks*, BLOOMBERG (Apr. 10, 2019, 11:11 AM), https://news.bloomberglaw.com/banking-law/stop-moaning-about-rates-and-consolidate-draghi-tells-banks?context=article-related (reporting on comments made by Draghi at a press conference in that banks were facing cost pressure because of overcrowding in the European banking sector).

[43] *See Key Rates*, *supra* note 4 (showing that the ECB again reduced its interest rates in September 2019).

[44] Christine Lagarde, Managing Director, Int'l Monetary Fund, Lecture at Goethe University 7 (Apr. 5, 2016).

[45] While the ECB sets monetary policy for the entire European Union, and individual countries adopt the ECB's policies, local government regulation and the simple fact that different countries in the eurozone operate differently from an economic standpoint make generalized data of limited use.

fallen from approximately 11.5% since the NIRP was introduced to its current level of about 7.5%, and exports have grown by more than 27% (versus U.S. exports growing only about 5.9% over the same time period).[46] Given that the volume of both corporate and consumer borrowing has increased slightly, and coupled with this positive data, some believe that the ECB's NIRP has been working according to plan, including former ECB President Mario Draghi.[47] Other indicators, however, give cause for concern. Negative rates did not prevent deflation between December 2014 and March 2015 or during February and March of 2016.[48] Moreover, even those "positive" indicators mentioned above are not all that positive; Spain, whose economy has admittedly outperformed most other Eurozone countries'

---

[46] *Compare Euro Area Unemployment Rate*, EUR. CENT. BANK STAT. DATA WAREHOUSE (last visited Oct. 6, 2019), https://sdw.ecb.europa.eu/quickview.do?SERIES_KEY=132.STS.M.I8.S.UNEH.RTT000.4.000 [https://perma.cc/UVU8-B3EM] (showing the precipitous decrease in the unemployment rate in the European Union since the introduction of negative interest rates by the ECB), *and Euro Area Exports of Goods and Services*, EUR. CENT. BANK STAT. DATA WAREHOUSE (last visited Oct. 6, 2019), http://sdw.ecb.europa.eu/quickview.do?SERIES_KEY=MNA.Q.Y.I8.W1.S1.S1.D.P6._Z._Z._Z.EUR.V.N [https://perma.cc/R6WY-AA29] (showing the growth in EU exports since the introduction of negative interest rates by the ECB), *with Real Exports of Goods and Services*, FED. RES. BANK OF ST. LOUIS (last visited Oct. 6, 2019), https://fred.stlouisfed.org/series/EXPGSC1 [https://perma.cc/X469-7LFD] (showing that U.S. exports grew at a slower rate than EU exports over the relevant time period).

[47] *See, e.g.*, James Mackintosh, *Negative Rates Are Working (a Bit)*, WALL ST. J. (Sept. 7, 2016) (arguing that increased borrowing volumes have led to lower unemployment and stronger growth in the eurozone than the U.S. in the same time period); Mario Draghi, President, ECB, Governing Council Press Conference at ECB Headquarters 3 (Oct. 24, 2019) ("As a matter of fact, the overall assessment of negative rates is generally positive. For us, it's very positive; it's been a very positive experience. Negative rates have stimulated the economy and affected positively employment.").

[48] *See* Tom Fairless & Paul Hannon, *Eurozone Slides Back into Deflation*, WALL ST. J. (Feb. 29, 2016) (describing the fall in consumer prices by 0.2% year-over-year and other "economic indicators [that] are starting to flash red"); *Euro Area HICP*, EUR. CENT. BANK STAT. DATA WAREHOUSE (last visited Oct. 6, 2019), http://sdw.ecb.europa.eu/quickview.do?SERIES_KEY=122.ICP.M.U2.N.000000.4.ANR [https://perma.cc/XF4V-DWA7] (displaying data showing that the European Harmonized Index of Consumer Prices, a headline index of inflation, entered negative territory during the time periods mentioned).

economies post-NIRP implementation,[49] still has an unemployment rate currently hovering around 14.4%, a level which has not been seen since before Spain joined the European Union (EU).[50] Furthermore, there are concerns regarding Eurozone economies in general, with some warning of a future recession.[51] It is also worth noting that because bank profitability has fallen, the ECB risks causing unwanted bank failures.[52] Central bank policies in Japan have led to a similar financial sector instability, with the fear that the Eurozone is not far behind.[53] The ECB itself has gone so far as requesting that some Eurozone countries amend their local laws to allow the ECB to

---

[49] Jesús Aguado, *Spanish Economy Seen Hit by Lower Consumption, Eurozone Slowdown*, REUTERS (Sept. 24, 2019, 6:42 AM), https://www reuters.com/article/us-spain-economy-idUSKBN1W918B [https://perma.cc/77QK-CAX3] ("Spain's economy—the euro zone's fourth largest—has consistently outperformed much of Europe since it emerged from a five-year slump in 2013, and the 2019 forecast still points to nearly double the projected 1.1% growth rate in the common currency area.").

[50] *Spain Unemployment Rate*, EUR. CENT. BANK STAT. DATA WAREHOUSE (last visited Oct. 6, 2019), http://sdw.ecb.europa.eu/quickview.do?SERIES_KEY=139.AME.A.ESP.1.0.0.0.ZUTN [https://perma.cc/BR5T-8XNC] (presenting data showing that the unemployment rate in Spain is currently 14.4%).

[51] Ira Kalish, *Global Economic Brief: Recession Watch Hits Markets*, WALL ST. J.: CFO JOURNAL (Aug. 19, 2019) https://deloitte.wsj.com/cfo/2019/08/19/global-economic-brief-recession-watch-hits-markets/ [https://perma.cc/5Q6V-4FRY] (discussing recessionary warning signals in the eurozone, including lack of growth among major European economies and a decline in industrial production levels).

[52] Abigail Ng, *Europe's Banks May be at Risk of Failing if Negative Rates Continue: EIU*, CNBC (Sept. 17, 2019, 10:31 PM), https://www.cnbc.com/2019/09/18/eiu-sees-risk-of-bank-failure-in-europe-that-could-lead-to-recession.html [https://perma.cc/C2EH-QPFH] (featuring comments by Simon Baptist, global chief economist of the Economist Intelligence Unit, who states that in regards to falling bank profitability as a result of the ECB's monetary policy, "[t]here's either going to have to be consolidation . . . maybe some bank failures, or some really radical changes in business models." He adds that the ECB's attempt to alleviate pressure due to falling margins with a tiered rate system, would not "save the day").

[53] Mike Bird, *Japanese Banks are Circling the Drain*, Wall St. J. (Aug. 6, 2019) (explaining that Japan's NIRP has resulted in profits that "simply aren't sufficient to run a bank").

intervene to help failing banks.[54] It appears then that negative rates have not been a panacea.

The divide between those who believe that negative rates have had a net positive effect on the overall European economy and those that believe that negative rates carry with them more risk than reward extends into the scholarly realm as well.[55] Two economists from the International Monetary Fund have detailed a positive effect on Eurozone economies, pointing out that negative rates have led to a boost in asset prices and a modest credit expansion.[56] Other commentators have described the opposite effect, arguing that the ECB's policy of quantitative easing and negative rates has instead led to asset bubbles, a reduction in the ability of consumers to save, and the loss of the signaling function of bond prices.[57] Those in favor of a NIRP argue

---

[54] Balazs Koranyi, *ECB Needs Fresh Powers to Intervene in Bank Failure, Supervisor Says*, REUTERS (Aug. 25, 2017, 10:17 AM), https://uk.reuters.com/article/uk-eurozone-banks-ecb-idUKKCN1B51QY [https://perma.cc/62EX-83AT] (featuring comments made by ECB supervisor Daniele Nouy in a letter to a member of the European Parliament that "the introduction of adequate moratorium power for authorities [in individual eurozone countries] is needed in order to react with the needed flexibility, if the situation of a bank deteriorates rapidly").

[55] *See, e.g.*, David Wessel et al., Director, Hutchins Center on Fiscal and Monetary Policy at Brookings Institution, Remarks at the Brookings Institution Event: Negative Interest Rates: Lessons Learned . . . So Far (June 6, 2016) (transcript available at https://www.brookings.edu/wp-content/uploads/2016/05/20160606_negative_rates_transcript.pdf) (containing numerous presentations made by economic academics including Jean-Pierre Danthine of the Paris School of Economics and CEPR and Torsten Slok, chief international economist and managing director at Deutsche Bank, regarding the lessons and unanswered questions relating to negative interest rates).

[56] Adreas Jobst & Huidan Lin, *Negative Interest Rate Policy (NIRP): Implications for Monetary Transmission and Bank Profitability in the Euro Area* (European Department, Int'l Monetary Fund, Working Paper No. 16/172, 2016) 27 ("Negative interest rates so far have had a positive effect on the economy, helping to lower bank funding costs and boost asset prices. . . . In some countries, rate cuts have been passed through to corporate and household borrowers thereby contributing to a modest credit expansion and bolstering the economic recovery.").

[57] David Folkerts-Landau, *The Dark Sides of QE: Backdoor Socialisation, Expropriated Savers and Asset Bubbles*, DBSTANDPUNKT (Deutsche Bank, Frankfurt am Main, Ger.), Nov. 1, 2016, at 1, 2 (concluding that "ECB intervention has not been a net positive for eurozone savers," that "bond prices have lost their market-derived signalling function," and that "the misalloca-

that without negative rates, the Eurozone economy would be worse off than it is today, even if one believed that the NIRP had failed to thrust the Eurozone into an economic boom.[58] Others who would agree with the commentators who take a more skeptical view of the ECB's negative interest rate policy argue that the NIRP has failed to promote real growth and has structurally weakened the financial sector in the Eurozone.[59] Despite vigorous academic commentary on the subject, no decisive answers to the many important policy questions raised by negative interest rates have emerged.

D. Guidance

1. Eurozone

As the Eurozone continues to recover from the Great Recession and policymakers and economists attempt to understand and come to grips with negative rates, the United States appears to be heading to the end of the current economic cycle.[60] The headline unemployment

---

tion of capital caused by ECB policy is preventing creative destruction and causing asset bubbles").

[58] *Draft Report of the Committee on Economic and Monetary Affairs on the Council Recommendation on the Appointment of the President of the European Central Bank*, at 18 (Aug. 29, 2019), https://www.europarl.europa.eu/meetdocs/2014_2019/plmrep/COMMITTEES/ECON/PR/2019/09-04/1187645EN.pdf (featuring remarks by then-IMF Director Christine Lagarde in response to a European Parliament questionnaire, in which, when asked about the ECB's monetary policy, she concluded, "All things considered, in the absence of the unconventional monetary policy adopted by the ECB—including the introduction of negative interest rates—euro area citizens would be, overall, worse off").

[59] *See* Matt Egan, *How Negative Interest Rates Helped Turn Deutsche Bank Into a Disaster*, CNN BUSINESS (July 29, 2019), https://www.cnn.com/2019/07/29/business/deutsche-bank-ecb-negative-rates/index.html [https://perma.cc/G469-9ECS] (featuring comments by Claus Vistesen, chief eurozone economist at Pantheon Macroeconomics, to the effect that "negative interest rates have been another nail in the coffin" for Deutsche Bank, reflecting the stresses they have put on European retail banks generally).

[60] *See* Press Release, BofA Merrill Lynch 2019 Market Outlook: From Peak to Trough, the Market Unfriends Stocks and Bonds, Likes Volatility, and Swipes Right on Cash 1 (Dec. 4, 2018), https://newsroom.bankofamerica.com/print/pdf/node/9421 [https://perma.cc/2X4U-KT5Y] ("Showing its age, the long bull market cycle of excess stock and bond returns is expected to

rate has recently fallen to 3.5%, a level not seen since the Vietnam War.[61] Annual gross domestic product (GDP) growth is close to 3%.[62] The S&P 500 has more than quadrupled since it hit a low of 676.53 in 2009.[63] With the United States having recovered and reached new heights since the 2008 Financial Crisis and other countries following in its footsteps,[64] the ECB should carefully consider its options before a global slowdown occurs.

Given how novel negative rates are, assessing the ECB's options is not a simple task. One might look to a post-2008 Japan for guidance. Like the ECB, the Bank of Japan moved interest rates into negative territory in 2016, and participated in an asset purchase program funded by a massive printing of money.[65] Because Japan implemented negative rates even later than the ECB, it may still be too soon to draw firm conclusions about negative rates' effectiveness. Economic signs are similar in Japan as they are in the Eurozone: inflation is hovering around 1% and GDP growth has yet to hit 1%

---

finally wind down next year, but not before one last hurrah, according to BofA Merrill Lynch Global Research.").

[61] *Labor Force Statistics from the Current Population Survey*, BUREAU LAB. STATS. (last visited Nov. 3, 2019), https://data.bls.gov/timeseries/LNS14000000 [https://perma.cc/W5T3-L8QN] (presenting statistical data showing that the U.S. unemployment rate is currently hovering around a level last observed in 1969).

[62] *Real Gross Domestic Product*, FED. RES. BANK OF ST. LOUIS (last visited Oct. 6, 2019), https://fred.stlouisfed.org/series/GDPCA [https://perma.cc/E7UW-HMGE] (presenting data showing that GDP growth in the U.S. has recently approached 3% on an annualized basis).

[63] *S&P 500 Historical Data*, YAHOO FINANCE (Oct. 6, 2019), https://finance.yahoo.com/quote/%5EGSPC/history [https://perma.cc/36E6-XNQY] (presenting statistical data showing the precipitous upward track of the S&P 500 since the recovery from the Great Recession began in 2009).

[64] Moody's Analytics, *Webinar: The Next Recession*, Moody's (Sept. 2019), https://www.moodysanalytics.com/webinars-on-demand/2019/next-recession (suggesting that numerous other countries are reaching the "slowdown" phase of their respective economies before entering a recession; slide five).

[65] Daniel Shane, *Why Japan's Economy Still Needs Help After $3 Trillion Binge*, CNN BUSINESS, https://money.cnn.com/2018/03/09/news/economy/japan-economy-central-bank-stimulus/index.html [https://perma.cc/5F9Y-R5E5] ("Under [Bank of Japan Governor Haruhiko] Kuroda, the bank embarked on a huge buying spree of government bonds in 2013 and stunned markets by expanding it the following year.").

annually since the implementation of negative rates.[66] Given the novelty of negative rates however, even a country that has adopted similar monetary policy measures like Japan does not hold the answers.

Some have suggested that the real problem facing the ECB is not so much the ineffectiveness of negative interest rates, but rather what the ECB can (or cannot do) when another economic downturn hits.[67] If the ECB pushes rates even lower, banks will continue to lose profits and may have to pass negative rates on to consumer deposits.[68] No one knows the lower bound of interest rates—the point at which people refuse to pay for the convenience of holding money at a bank instead of cash and run to withdraw their money—though some

---

[66] *Inflation Consumer Prices – Japan*, WORLD BANK (last visited Oct. 6, 2019), https://data.worldbank.org/indicator/FP.CPI.TOTL.ZG?locations=JP [https://perma.cc/JC9Y-VC82] (presenting data showing that inflation has remained low, even after the introduction of quantitative easing and negative rates in Japan); *GDP Growth – Japan*, WORLD BANK (last visited Oct. 6, 2019), https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=JP [https://perma.cc/G8G9-VKB4] (presenting data showing that Japan's GDP growth has stayed below 1% on an annualized basis since the introduction of quantitative easing and negative rates).

[67] Ryan Browne, *Deutsche Bank CEO Warns Central Banks Have No Tools Left to 'Cushion' a 'Real Economic Crisis'*, CNBC (Sept. 25, 2019, 5:32 AM), https://www.cnbc.com/2019/09/25/deutsche-bank-ceo-central-banks-have-no-tools-left-to-cushion-crisis.html [https://perma.cc/8DHD-ELG9] (featuring comments made by Christian Sewing, chief executive officer of Deutsche Bank, to the extent that central banks like the ECB "have used their tools to a large extent already" and have "no conventional measures left to effectively cushion [a future economic crisis]"); Yusuf Khan, *Three of Europe's Biggest Economies are Probably in Recession—and the ECB is Out of Bullets* (Aug. 10, 2019, 3:03 AM), https://markets.businessinsider.com/news/stocks/germany-italy-uk-are-headed-for-recession-and-ecb-is-out-of-tools-2019-8-1028435638 [https://perma.cc/2LP9-F7X3] (explaining that the ECB will likely cut rates to respond to weak economic data out of Germany, the U.K., and Italy, but that such a move would do little to help given that "[g]oing further negative would create logistical problems that might, counter-intuitively, reduce further bank lending (because banks would lose money by doing so)").

[68] Eur. Sav. & Retail Banking Grp., *supra* note 41, at 14 (including a survey of various European banks wherein some admit that negative rates may have to be passed on to consumer deposits).

commentators have attempted to find it given the ECB's policies.[69] If the ECB oversteps and causes rates to fall below that lower bound, bank runs could occur, which would have devastating impacts on the financial sector and economy as a whole.[70]

Given that the current logic of the ECB is to lower rates to spur economic growth, raising rates during a recession would not be a plausible alternative option either, since raising rates tends to slow demand as the cost of borrowing increases.[71] Additionally, raising rates could have potentially deleterious effects on negative-yield bonds held by institutions such as pension funds (as well as the solvency of these funds in general) and on asset markets, especially the European housing market.[72] When rates went negative, interest rates on

[69] *See* Ruchir Agarwal & Miles S. Kimball, *Breaking Through the Zero Lower Bound* 3 (Middle East and Central Asia Department, Int'l Monetary Fund, Working Paper No. 15/224, 2015) ("The zero lower bound arises when a government issues pieces of paper (or coins) guaranteeing a zero nominal interest rate, over all horizons, that can be obtained in unlimited quantities in exchange for money in the bank. This acts as an interest rate floor, making people unwilling to lend at significantly lower rates. The zero lower bound has proved to be a serious obstacle for monetary policy, as shown by the recent efforts of central banks to stimulate economic growth in the wake of the Global Financial Crisis.").

[70] Stefan Kerbl & Michael Sigmund, *Negative Interest Rates: Forecasting Banks' Profitability in a New Environment* 3 (Oesterreichische Nationalbank) ("[E]ven in countries where negative deposit rates are legally possible, banks seem to shy away from such measures, at least form charging the classical small retail depositors. For example, Swiss banks knew that imposing negative interest rates on ordinary retail customers would risk a disastrous bank run." (citation omitted)).

[71] James Garrett Baldwin, *The Impact of Interest Rate Changes by the Federal Reserve*, INVESTOPEDIA (Sept. 18, 2019), https://www.investopedia.com/articles/investing/010616/impact-fed-interest-rate-hike.asp [https://perma.cc/EVM5-A3BL] ("A rise in borrowing costs traditionally weighs on consumer spending. Both higher credit card rates and higher savings rates due to better bank rates provide fuel a downturn in consumer impulse purchasing.").

[72] Jim Edwards, *How Europeans' Household Net Worth is 'Now Exclusively Driven' by Negative Interest Rates*, BUS. INSIDER (May 21, 2019, 8:12 AM), https://www.businessinsider.com/negative-interest-rates-europe-property-prices-2019-5 [https://perma.cc/K744-LECD] (featuring commentary by Pantheon Macroeconomics analyst Claus Vistesen to the effect that the ECB's NIRP has led to European banks issuing mortgages with unprecedentedly low interest rates, which have caused more people to purchase houses and driven up European house price precipitously, so that now "[t]he increase in

mortgages fell significantly (going negative in some countries, such as Denmark).[73] As a result, house prices went up as buyers acted quickly to take advantage of near-costless financing.[74] If rates were to be raised into positive territory, demand for housing would fall, erasing the gains in housing prices.[75]

Some economists, such as Paul Krugman, have acknowledged the problem posed by negative interest rates during economic downturns, and have admitted that central banks have few options.[76] However, Krugman believes that European governments such as Germany can do more than central banks can to boost economic health, because governments can take advantage of negative interest

---

eurozone household net worth is now exclusively driven by rising house prices"); William Horobin, *Low Interest Rate are Threat to Pension Funds, Life Insurers, Says OECD*, WALL ST. J. (June 24, 2015) (explaining warnings by the OECD that "low rates on bonds, which typically make up about 40% of pension fund portfolios, could push some financial institutions to invest in riskier, higher-yielding assets such as private equity and derivatives," which could in turn affect the funds' solvency).

[73] *See* Erik Sherman, *This Danish Bank Is Offering 'Negative' Mortgage Rates—Here's What That Means*, FORTUNE (Aug. 13, 2019), https://fortune.com/2019/08/13/negative-mortgages-rates-denmark-investors/ (discussing the economic effects of negative-rate mortgages and mortgage bonds in Denmark).

[74] Edwards, *supra* note 72 ("'The ECB's decision to push rates below zero in 2014 coincided with a pivotal shift in eurozone house prices, which increased by 16% between 2015 and 2018,' Vistesen said in a research note recently. 'The increase in eurozone household net worth is now exclusively driven by rising house prices.'").

[75] *See id.* (explaining that because "[t]he cheaper you make mortgages—via negative interest rates for banks—the more house prices go up as the supply of buyers enjoying easy cash increases," so too should the opposite be true); Art Patnaude, *Rising Rates Threaten Global Property Investments*, Wall St. J. (Nov. 22, 2016) (explaining that as bond yields rise, "commercial property look[s] less desirable in comparison").

[76] Paul Krugman, Opinion, *The World Has a Germany Problem*, N.Y. TIMES, Aug. 20, 2019, at A23 ("[W]hat's clear is that with monetary policy stretched to its limits, Europe has no way to respond when things go wrong. . . . There is, however, an obvious solution: European governments, and Germany in particular, should stimulate their economies by borrowing and increasing spending. The bond market is effectively begging them to do that; in fact, it's willing to pay Germany to borrow, by lending at negative interest.").

rates by instituting fiscal stimulus programs.[77] This proposal too has its critics though, namely those who disagree with Krugman's assertions that (a) Germany has been too hawkish in limiting public debt[78] and (b) government fiscal stimulus can be the main tool in recovering from a recession.[79] It seems as though there is simply no agreed upon solution to the ECB's current situation.

2. *United States*

As the U.S. economy is still fairly healthy, it might initially seem that the EU's monetary policy is of little import to American institutions and investors. However, in today's globalized economy, the ECB's policies have made negative rates nonetheless relevant as Federal Reserve Banks continue to research their impact.[80] The Fed

---

[77] *Id.* (discussing ways in which fiscal stimulus can work hand-in-hand with negative rates to boost economic health).

[78] *See* Donato Di Carlo, *Germany is Quietly Rebalancing its Economy — But this will not Fix the Eurozone's Flaws,* LONDON SCH. ECON. & POL. SCI.: EUROPP BLOG (Sept. 14, 2018), https://blogs.lse.ac.uk/europpblog/2018/09/14/germany-is-quietly-rebalancing-its-economy-but-this-will-not-fix-the-eurozones-flaws/ [https://perma.cc/58PE-4ZLR] (questioning the focus by some on Germany's budget surplus, and explaining that "it would be a mistake to insist that Keynesianism in Germany will fix the Eurozone's problems: Germany should not and cannot be the fixer of last resort for the single currency [merely by increasing government spending]").

[79] *See* Steven Horwitz, *The Work of Friedrich Hayek Shows Why EU Governments Cannot Spend Their Way Out of the Eurozone Crisis*, LONDON SCH. ECON. & POL. SCI.: EUROPP BLOG (Aug. 21, 2012), https://blogs.lse.ac.uk/europpblog/2012/08/21/hayek-eurozone-crisis/ [https://perma.cc/U2Y2-6JU6] ("Politicians and bureaucrats lack the knowledge to know which pieces fit with which pieces as they cannot know the nature of the idled resources and what consumers want. They are unable to know what is needed to create a sustainable recovery. One of the most fundamental insights of Hayek and the Austrians was that prices, profits, and losses serve as knowledge surrogates to coordinate the decentralised decisions of producers and consumers, themselves often based on knowledge that they could not communicate any other way.").

[80] Brian Reinbold & Yi Wen, *Looking for the Positives in Negative Interest Rates*, FED. RES. BANK OF ST. LOUIS (Dec. 11, 2017), https://www.stlouisfed.org/~/media/publications/regional-economist/2017/fourth_quarter_2017/pos_neg.pdf ("[W]hen aggregate demand for investment and consumption is extremely weak, it is optimal for central banks to implement negative interest

recently moved the Federal Funds Target Rate down to between 1.50% and 1.75%,[81] and in doing so, brought up the question of whether the Fed could have rates go negative despite current Fed Chairman Jerome Powell's insistence otherwise.[82] A 2019 San Francisco Federal Reserve Board paper examined such a possibility, exploring how negative rates could have actually sped up the recovery from the Great Recession, had they been implemented.[83]

The economic theory behind such a decision is not much different here than in Europe.[84] However, given that the Fed is a structurally different entity than the ECB,[85] whether or not negative rates are even permissible is a novel question with few answers. Former Fed Chairman Ben Bernanke pointed out that "the Fed can pay banks interest on their reserves, but it is not immediately clear whether

---

rates. This policy would potentially reduce the cost of borrowing and stimulate investment spending." (citation omitted)).

[81] *Federal Funds Data*, FED. RES. BANK OF N.Y. (last visited Nov. 3, 2019), https://apps.newyorkfed.org/markets/autorates/fed%20funds [https://perma.cc/APA2-9H7L] (presenting historical interest rate data showing that the federal funds rate was reduced on October 31 to a target range of between 1.50% and 1.75%).

[82] Maggie Fitzgerald, *Powell Doesn't See the Fed Ever Using Negative Interest Rates, Even in Times of Crisis*, CNBC (Sept. 18, 2019, 5:46 PM), https://www.cnbc.com/2019/09/18/powell-doesnt-see-the-fed-ever-using-negative-interest-rates-even-in-times-of-crisis.html [https://perma.cc/7VKS-RMCA] ("'I do not think we'd be looking at using negative rates, I just don't think those will be at the top of our list,' Powell told reporters on Wednesday after the Federal Open Market Committee meeting, when asked about what tools the Fed would consider using if economic weakness continues.").

[83] Vasco Cúrdia, *How Much Could Negative Rates Have Helped the Economy?*, FED. RES. BANK OF SAN FRANCISCO (Feb. 4, 2019), https://www.frbsf.org/economic-research/files/el2019-04.pdf (relying on an empirical model developed by the himself in 2015, concluding that "[w]hile it's difficult to capture all the complexities of the economy in a model, this analysis suggests that negative rates could have mitigated the depth of the recession and sped up the recovery").

[84] Hayes, *supra* note 27. That is to say, the economic *theory* is not much different here than in Europe, though the large differences in the organization and functioning of these two economies might well play a role in the potential differences in a NIRP's effect.

[85] *See supra* Section II (providing a brief introduction into the differences between the organization and functioning of the ECB and the Fed).

that authority extends to 'paying' *negative* interest."[86] Bernanke argued that the Fed may attempt to avoid the novel problem of "paying" negative interest by charging a fee instead of taxing deposits—since the net result would be the same—but according to section 11A of the Federal Reserve Act, "[o]ver the long run, fees shall be established on the basis of all direct and indirect costs actually incurred in providing the Federal Reserve services priced."[87] Instead, the Fed might attempt to avoid the problem altogether by invoking its power under section 318 of the Dodd–Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank) "to collect assessments, fees, or other charges (assessments) . . . equal to the expenses the Board estimates are necessary or appropriate to carry out its supervision and regulation of those companies."[88] The scope of this provision is unclear, and no reported cases have dealt with attempting to define the expenses that are "necessary or appropriate" to carry out such supervision and regulation.

Bernanke's blog post is probably more of a thought experiment than a realistic policy proposal, however; it is unlikely that the Fed would invoke section 318 of Dodd-Frank, both from a policy standpoint and from a legitimacy standpoint. Policy-wise, the Fed has never before set a target limit on the federal funds rate lower than 0% (even in the aftermath of the Great Recession).[89] Additionally, former Fed Chair Janet Yellen and current Chair Jerome Powell have pointed out that negative rates were not "a preferred tool" (large-scale asset purchases were instead contemplated with more seriousness) and

---

[86] Ben Bernanke, *What Tools Does the Fed Have Left? Part 1: Negative Interest Rates*, BROOKINGS INSTITUTION: BEN BERNANKE'S BLOG (Mar. 18, 2016), https://www.brookings.edu/blog/ben- bernanke/2016/03/18/what-tools-does-the-fed-have-left-part-1-negative-interest-rates/ (considering whether the Fed would have the authority to charge banks for their deposits).

[87] 12 U.S.C. § 248(a)(c)(3) (2018) (providing the structure for how the Fed shall set its fees for member banks); *and see id.* (arguing that the Fed might have the authority to charge negative interest from member banks).

[88] Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 318(c), 124 Stat. 1376 (2010) (providing that the fees collected by the Fed should generally be equal to the bank's operating expenses); *and see* Bernanke, *supra* note 86 (arguing that the Fed might have the authority under this statute to charge negative interest rates from member banks).

[89] *Federal Funds Target Range—Lower Limit*, FED. RES. BANK OF ST. LOUIS (last visited Nov. 3, 2019), https://fred.stlouisfed.org/series/DFEDTARL [https://perma.cc/S4G2-MYKD] (presenting statistical data showing that the lower bound of the federal funds rate has never fallen below 0%).

might have negative consequences on money markets.[90] From a legitimacy standpoint, the Fed is unlikely to invoke section 318 of Dodd-Frank to promulgate a policy that it admits would have only a moderate effect in helping the economy recover than an interest rate of zero, while simultaneously opening itself up to new criticism regarding its invocation of previously untested law. This is particularly true given the backlash the Fed received from economists and politicians about credit being too cheap in the run up to the Great Recession and the lack of an auditing process (as such a bold monetary policy might encourage greater oversight).[91]

E. Conclusion

The recent implementation of negative interest rates around the globe, and specifically in Europe, has shed new light and prompted new questions about the way they function and their effects on the economy. The ECB was and still is confident in the effectiveness of negative interest rates, but their use has had mixed results since the 2008 Financial Crisis.[92] In the wake of a global slowdown, negative rates may well leave the Eurozone primed for a recession and do not leave the ECB with many policy tools at its disposal.[93] Meanwhile, negative rates have yet to be used in the United States, and it is unclear

[90] Jeff Cox, *Fed's Janet Yellen: Not Sure We Can Do Negative Rate; Rate Cut Unlikely*, CNBC (Feb. 11, 2016, 5:32 PM) https://www.cnbc.com/2016/02/10/yellen-conditions-less-supportive-of-growth-reiterates-rate-path-is-data-dependent.html [https://perma.cc/5HGW-DWBA] (Video, 4:41 in length) (featuring Yellen's comments about inadvisability of a negative interest rate policy); Fitzgerald, *supra* note 82 (Video, 4:33 in length) (featuring Powell's comments about the inadvisability of a negative interest rate policy).

[91] Federal Reserve Transparency Act of 2009, H.R. 1207, 111th Cong. (2009); John B. Taylor, Opinion, *The Fed and the Crisis*, WALL ST. J., Jan 11, 2010, at A19 ("My critique . . . is based on the simple observation that the Fed's target for the federal-funds interest rate was well below what the Taylor rule would call for in 2002-2005. By this measure the interest rate was too low for too long, reducing borrowing costs and accelerating the housing boom.").

[92] Lagarde, *supra* note 44 at 3 (commenting that even after the introduction of negative interest rates and quantitative easing by the ECB, "[i]n the absence of decisive action to address lingering problems, downside risks remain and have probably increased"); *and see supra* Section II (discussing systemic economic risks in the eurozone).

[93] *See supra* Section III (discussing the economic risks that remain after the introduction of negative interest rates and quantitative easing the eurozone).

whether such usage would be legally permitted, but many have begun to sing their praises nonetheless.[94] The next few decades will be vitally important to better understanding NIRPs, their effect, and their legality.

Jake Rosen[95]

---

[94] *See, e.g.*, Donald J. Trump, @realDonaldTrump, TWITTER (Sept. 11, 2019, 3:42 AM), https://twitter.com/realdonaldtrump/status/1171735691769929728 [https://perma.cc/W62J-YGC7] (suggesting emphatically that the Fed should lower U.S. interest rates to "ZERO, or less"); *see supra* Section III (discussing commentators who have argued that negative interest rates are a useful tool for improving economic health).

[95] Student, Boston University School of Law (J.D. 2021).