

Monetary Policies of Major Central Banks and Their Role in Enhancing Economic Stability Amid Global Crises: A Comparative Study of the Federal Reserve and European Central Bank (2007–2025)

Mansouri Saadane ¹

Laboratory of Partnership and Investment in SMEs in the Euro-Maghreb Area,
Faculty of Economics, Commerce and Management Sciences, University of Setif1, Algeria,
Email: smansouri@univ-setif.dz

Received: 25/10/2025

Accepted: 15/12/2025

Published: 29-12-2025

Abstract:

This study conducts a comparative analysis of Federal Reserve (Fed) and European Central Bank (ECB) monetary policies from 2007 to 2025, evaluating their efficacy in enhancing economic stability amid cascading global crisis, including the 2008 financial collapse, Eurozone debt crisis, COVID-19 pandemic, and Russia-Ukraine conflict. Through a tripartite methodological framework (descriptive, analytical, inductive), we assess conventional and unconventional tools (quantitative easing, negative rates, forward guidance) deployed by both institutions. Key findings indicate that while Fed and ECB policies successfully mitigated recessionary risks and prevented financial fragmentation, they struggled to control inflation post-2020 due to supply-side shocks and geopolitical volatility. The Fed demonstrated superior agility in crisis response, achieving lower unemployment (3.5% by 2023), while ECB interventions were hampered by multi-sovereign governance structures, exacerbating Eurozone stagflation. Critically, unconventional tools amplified wealth inequality and fiscal dominance risks when unaccompanied by coordinated supply-side reforms. The study establishes central bank independence, policy flexibility, and fiscal-monetary coordination as indispensable for crisis resilience. We recommend institutional innovations, including early-warning systems, digital/climate-integrated policy tools, and enhanced transparency, to fortify economic stability against future compound crises.

Keywords:: Monetary policy, Federal Reserve, European Central Bank, economic stability, quantitative easing, inflation control, crisis management.

Jel Classification Codes : E52, E58, G01, H12.

المخلص:

قدمت الدراسة الحالية تحليلاً مقارناً للسياسات النقدية للاحتياطي الفيدرالي (Fed) والبنك المركزي الأوروبي (ECB) من عام 2007 إلى عام 2025، مع تقييم فعاليتها في تعزيز الاستقرار الاقتصادي في ظل الأزمات العالمية المتتالية، بما في ذلك الانهيار المالي عام 2008، وأزمة ديون منطقة اليورو، وجائحة COVID-19، وصراع روسيا وأوكرانيا. من خلال إطار منهجي ثلاثي (وصفي، تحليلي، استقرائي)، نقوم بتقييم الأدوات التقليدية وغير التقليدية (التيسير الكمي، أسعار الفائدة السلبية، التوجيه المستقبلي) التي استخدمتها كلا المؤسسات. تشير النتائج الرئيسية إلى أنه بينما نجحت سياسات الاحتياطي الفيدرالي والبنك المركزي الأوروبي في تخفيف مخاطر الركود ومنع التفكك المالي، إلا أنها واجهت صعوبة في السيطرة على التضخم بعد عام 2020 بسبب صدمات جانب العرض والتقلبات الجيوسياسية. أظهر الاحتياطي الفيدرالي مرونة أكبر في الاستجابة للأزمات، حيث حقق معدل بطالة أقل (3.5% بحلول 2023)، بينما كانت تدخلات البنك المركزي الأوروبي معوقة بسبب هياكل الحوكمة متعددة السيادة، مما زاد من تفاقم الركود التضخمي في منطقة اليورو. ومن المهم أن الأدوات غير التقليدية زادت من عدم المساواة في الثروة ومخاطر الهيمنة المالية عندما لم تُرافق بإصلاحات منسقة في جانب العرض. تؤكد الدراسة على أن استقلالية البنك المركزي، ومرونة السياسات، والتنسيق بين

السياسات المالية والنقدية تعتبر عوامل لا غنى عنها في تعزيز القدرة على مواجهة الأزمات. نوصي بالابتكارات المؤسسية، بما في ذلك أنظمة الإنذار المبكر، وأدوات السياسة المدمجة مع الرقمية/المناخية، وزيادة الشفافية، لتعزيز الاستقرار الاقتصادي ضد الأزمات المركبة المستقبلية.

الكلمات المفتاحية: السياسة النقدية، الاحتياطي الفيدرالي، البنك المركزي الأوروبي، الاستقرار الاقتصادي، التيسير الكمي، التحكم في التضخم، إدارة الأزمات.

تصنيف JEL: M00; L78 ; L53.

¹. Corresponding author: MANSOURI SAADANE, Email: smansouri@univ-setif.dz

I. Introduction

The global economy has endured profound instability over the past two decades, marked by a succession of interconnected crises that exposed systemic vulnerabilities in the international financial architecture. Beginning with the 2008 global financial crisis, triggered by the collapse of major financial institutions and a severe contraction in worldwide growth, these disruptions were compounded by the European sovereign debt crisis (2010–2012), which threatened the integrity of the Eurozone. Subsequent shocks, including the COVID-19 pandemic and the inflationary fallout from the Russia-Ukraine war, further strained economic systems, generating unprecedented price pressures and supply-chain disruptions (IMF, 2022; ECB, 2023). Throughout these tumultuous periods, central banks emerged as critical institutional bulwarks against systemic collapse. The U.S. Federal Reserve (Fed) and the European Central Bank (ECB) deployed unconventional monetary tools, such as quantitative easing (QE), zero/negative interest rate policies (ZIRP/NIRP), and targeted liquidity provisions, to mitigate recessionary risks, stabilize financial markets, and sustain economic activity (Bernanke, 2013; Draghi, 2012).

Against this background, the core research problem of this paper is to evaluate how far the monetary policy responses of the Fed and the ECB have succeeded in stabilizing output, inflation, and financial conditions across successive crises, and to what extent differences in their institutional frameworks explain the divergence in macroeconomic outcomes. Specifically, the study aims to: (i) trace the evolution of conventional and unconventional policy instruments employed by both central banks since 2008; (ii) assess their effects on key macroeconomic indicators, growth, unemployment, inflation, and financial stress; and (iii) identify the channels through which balance-sheet policies and forward guidance have influenced expectations, term premia, and risk-taking behavior (Constâncio, 2015). The analysis is guided by three main hypotheses: first, that large-scale asset purchases and prolonged low interest rates were effective in averting deflationary spirals and supporting aggregate demand; second, that institutional constraints and the degree of fiscal–monetary coordination generated systematic

differences between the U.S. and Eurozone trajectories; and third, that the cumulative use of unconventional tools has created new medium-term challenges, including financial vulnerabilities and complex exit dynamics (Hernández de Cos, 2021; Yellen, 2014). Methodologically, the paper combines a descriptive and analytical approach, documenting the sequence and scale of policy measures, with an empirical assessment based on comparative time-series evidence for both economies, while situating the results within the existing central-bank and academic literature on crisis management and unconventional monetary policy.

II. Literature Review: Monetary Policy Efficacy in Crisis Contexts

II.1 Conceptual Foundations of Economic Stability & Central Banking

Economic stability represents a state of sustained equilibrium where full employment, predictable price levels, and balanced output growth coexist, forming the foundation for long-term prosperity (Crockett, 1981). The International Monetary Fund (2023) emphasizes that this equilibrium extends beyond technical metrics to encompass systemic resilience, the capacity of financial architectures to absorb external shocks without propagating dysfunction to real economic sectors. Central banks have undergone fundamental evolution in their relationship with stability: transitioning from passive currency issuers to active guardians of monetary order (2012، كنعان). This transformation accelerated post-2008, as conventional policy tools proved inadequate against systemic risks, compelling institutions to embrace broader stabilization mandates that integrate price stability with financial system robustness (BIS, 2022; Carstens, 2019).

The effectiveness of central banks as stability architects hinges critically on operational autonomy, with empirical evidence confirming that institutional independence enhances policy credibility and transmission efficiency (Weerasinghe, 2025; Blancheton, 2016). This autonomy establishes what غربي (2018) terms a "credibility anchor", enabling central banks to manage inflation expectations while mitigating output volatility. Contemporary frameworks recognize that such independence operates within complex constraints: the Federal Reserve's dual mandate (price stability and maximum employment) contrasts with the European Central Bank's primary price stability focus, creating divergent crisis-response capacities. Furthermore, unconventional tools like quantitative easing have triggered substantive debates regarding distributional equity and exit strategy challenges, reflecting tensions between expanded stabilization roles and traditional monetary boundaries (2017، الألفندي). These dynamics underscore central banking's paradigmatic shift toward active ecosystem stewardship rather than reactive regulation.

II. 2. Unconventional Monetary Policy: Theoretical Underpinnings & Evolution

When nominal interest rates approach the zero lower bound (ZLB), central banks deploy unconventional instruments:

- **Quantitative Easing (QE):** Large-scale asset purchases to suppress long-term yields (Bernanke, 2013; **Draghi, 2012**).
- **Negative Interest Rate Policy (NIRP):** Penalizing bank reserves to incentivize lending (ECB, 2015; **Constâncio, 2015**).
- **Forward Guidance:** Managing expectations through strategic communication (Yellen, 2014).

Seminal works by Bernanke et al. (2004) first theorized QE's portfolio rebalancing effects, while Svensson (2003) modeled NIRP's transmission mechanisms. However, post-2020 inflation revealed limitations: these tools struggle with supply-side shocks, risking "fiscal dominance" when coordination with treasury policies falters (Drautzburg & Uhlig, 2015).

II.3. Empirical Assessments of Crisis Responses

II.3.1 Global Financial Crisis (2008–2010)

The Fed's \$1.7T QE program lowered corporate bond spreads by 120 bps (Bernanke, 2013), while ECB's Long-Term Refinancing Operations (LTROs) prevented interbank market seizures (Gauvin, 2016). Critically, both institutions prioritized financial stability over inflation control, a strategy later scrutinized during 2021–2023 inflation surges (Hernández de Cos, 2021).

II.3.2 COVID-19 & Geopolitical Shocks (2020–2025)

Pandemic-era policies (Fed's corporate bond purchases, ECB's €1.85T PEPP) averted depressions but fueled asset bubbles (IMF, 2022). Post-2022, war-driven supply shocks exposed structural inflation persistence, challenging the "transitory" narrative (Clarida et al., 2021). Recent analyses confirm asymmetric outcomes:

- Fed policies reduced U.S. unemployment to 3.5% by 2023 but left inflation 300 bps above target.
- ECB's fragmented governance delayed rate hikes, exacerbating Eurozone stagflation (Benchmark et al., 2023).

II.3.3. Critiques & Emerging Consensus

Scholars increasingly question the *long-term* efficacy of unconventional tools:

- Distributional inequalities: QE inflated wealth for asset holders (+15% S&P returns) while wage growth lagged (ودو, 2021).
- Fiscal-monetary misalignment: Post-COVID stimulus without coordinated supply-side reforms worsened inflation.

- Institutional credibility: Repeated forward guidance failures eroded market trust (Benchmark et al., 2023).

Reinhart & Rogoff (2009) warn that prolonged balance sheet expansion risks fiscal crises, advocating clearer exit frameworks, a view echoed regionally (مزهر، 2019; 2019، مرغيث).

III. Methodology:

III.1. Research Approach

This study employs a **tripartite methodological framework** combining descriptive, analytical, and inductive approaches to evaluate monetary policies of the Federal Reserve (Fed) and European Central Bank (ECB) during 2007–2025, as established in the original research design:

III.1.1 Descriptive Methodology

Utilized for theoretical conceptualization of:

- Economic stability parameters (employment, inflation, growth equilibrium)
- Institutional frameworks of central banking
- Taxonomy of conventional vs. unconventional policy tools

Data Sources: Foundational economic literature (Crockett, 1981; IMF, 2023) and central bank statutes.

III.1.2. Analytical Methodology

Applied to:

- Decode policy implementation sequences across crises
- Quantify economic impacts through comparative trend analysis
- Assess institutional constraints in policy execution

Data Sources: Primary ECB/Fed policy announcements, macroeconomic databases (World Bank, Eurostat), and time-series datasets (2007–2025).

III.3. Inductive Methodology

Employed to:

- Generalize patterns from empirical observations
- Derive institutional lessons from crisis responses
- Formulate policy recommendations based on observed outcomes

Data Sources: Case-based evidence from four crisis periods and retrospective policy evaluations (Bernanke, 2013; Constâncio, 2015).

III.4. Spatial and Temporal Boundaries

Consistent with the original study's parameters:

Table 1: Spatial and Temporal Boundaries

Dimension	Scope	Rationale
Spatial	- United States (Federal Reserve) - Eurozone (European Central Bank)	Represents dominant monetary systems with global spillover effects
Temporal	From 2007–July 2025	Encompasses four major crisis cycles with distinct policy responses

III.5. Analytical Procedure

Phase 1: Policy Instrument Mapping

Cataloged interventions using the original taxonomy:

Table 2: Policy Instrument

Policy Type	Fed Tools	ECB Tools
Conventional	Federal funds rate adjustments Open market operations	Main refinancing operations Deposit facility rate
Unconventional	Quantitative easing (QE) Credit easing programs	Targeted longer-term refinancing operations (TLTROs) Outright Monetary Transactions (OMT)

Phase 2: Outcome Trend Analysis

Compared policy efficacy through three core stability indicators:

1. **Inflation control:** CPI deviations from 2% target
2. **Employment stability:** Unemployment rate trends
3. **Growth sustainability:** GDP fluctuation ranges

Phase 3: Institutional Pattern Extraction

Inductively derived:

- Crisis-specific response patterns
- Governance constraints (e.g., ECB's multi-sovereign coordination challenges)
- Success/failure correlates from cross-crisis comparisons

The Role of the European Central Bank and Federal Reserve in Supporting Economic Stability.

IV. Applied Section: The Role of the European Central Bank and Federal Reserve in Supporting Economic Stability

Amid the multifaceted economic challenges confronting the global economy over the past two decades, central banks have assumed increasingly critical roles in crisis management and stability preservation. Both the European Central Bank (ECB) and U.S. Federal Reserve (Fed) have deployed unconventional monetary policies to counter deflationary pressures, unemployment, and financial market disruptions. This pattern emerged decisively following the 2008 global financial crisis, recurred during the COVID-19 pandemic, and intensified with the inflationary wave triggered by the Russia-Ukraine conflict. This chapter examines the monetary policies implemented by these institutions during these periods and analyzes their impact on key economic stability indicators, particularly inflation, unemployment, and growth.

IV.1 Institutional Profiles: A Comparative Analysis of the World's Leading Central Banks

IV.1.1 European Central Bank (ECB)

The ECB constitutes the primary institution responsible for monetary policy across the Eurozone, which comprised 20 member states as of 2023. Established on June 1, 1998, under the Maastricht Treaty and headquartered in Frankfurt, Germany, it manages the euro, the world's second-largest reserve currency after the U.S. dollar, enhancing the ECB's systemic significance (ECB, 2023, p. 1).

Primary Objectives:

- **Price Stability:** The ECB's primary mandate is maintaining price stability within the Eurozone, targeting inflation rates "below, but close to, 2%" over the medium term. This preserves purchasing power and ensures market equilibrium.
- **Economic Growth Support:** It advances sustainable economic development aligned with EU economic policies.

Core Functions:

- Formulating and implementing monetary policy through interest rate decisions and liquidity operations.
- Managing foreign exchange reserves to ensure euro exchange rate stability.
- Exclusive authority for issuing euro banknotes.
- Supervising banking systems to preserve financial stability within the Eurozone (ECB, 2023, p. 2).

Governance Structure:

- **Governing Council:** Comprises the Executive Board members and governors of national central banks of Eurozone countries; determines monetary policy.
- **Executive Board:** Includes the President, Vice-President, and four members; implements Governing Council decisions.
- **General Council:** Includes governors of all EU national central banks, including non-euro area members.

IV.1.2 Federal Reserve (Fed)

The Federal Reserve serves as the central bank of the United States, established in 1913 under the Federal Reserve Act to enhance U.S. financial system stability. It oversees the world's largest economy and manages the U.S. dollar, the dominant global reserve currency (Federal Reserve, 2023, p. 3).

Primary Objectives:

- **Price Stability:** Maintaining long-term inflation stability to preserve dollar credibility.
- **Maximum Employment:** Minimizing unemployment rates.
- **Financial System Stability:** Monitoring systemic risks and crisis management.

Core Functions:

- **Conduct Monetary Policy:** To promote maximum employment, stable prices, and moderate long-term interest rates in the U.S. economy.
- **Promote Financial System Stability:** To minimize and contain systemic risks through active monitoring and engagement in the U.S. and abroad.
- **Supervise Individual Financial Institutions:** To promote the safety and soundness of individual financial institutions and monitor their impact on the overall financial system.
- **Ensure Safe & Efficient Payment Systems:** To foster payment and settlement system safety and efficiency through services facilitating U.S.-dollar transactions and payments for the banking industry and U.S. government.
- **Promote Consumer Protection & Community Development:** Through consumer-focused supervision/examination, research on consumer issues/trends, community economic development activities, and administration of consumer laws and regulations. (Federal Reserve, 2023, p. 4).

Governance Structure :

- **Board of Governors:** Seven presidentially appointed members (Senate-confirmed) overseeing monetary policy.
- **Federal Open Market Committee (FOMC):** Combines Board members with 12 regional Reserve Bank presidents; sets interest rates.
- **Regional Reserve Banks:** 12 institutions serving designated U.S. geographic districts.

IV. 2 Federal Reserve Policies During Crises

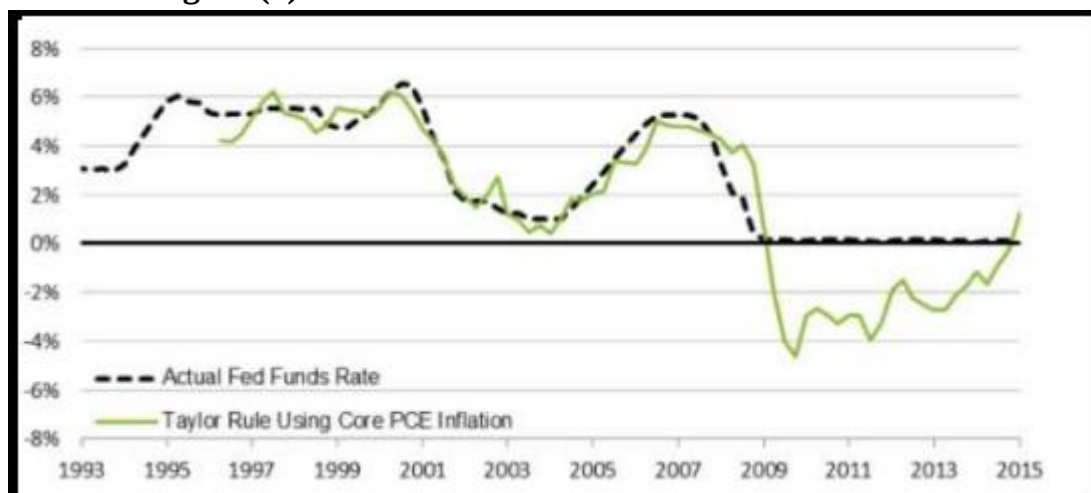
IV. 2 .1 During the Global Financial Crisis (2008–2010)

As the 2008 mortgage crisis intensified, the Federal Reserve implemented unprecedented measures:

- Reduced the benchmark interest rate to near-zero levels.
- Launched the **Quantitative Easing (QE)** program to purchase Treasury bonds and mortgage-backed securities.
- Expanded its role as lender of last resort through emergency lending facilities to protect financial institutions.

These policies averted the collapse of the U.S. financial system and provided moderate economic stimulus, though critics highlighted concerns over the Fed's balance sheet expansion.

Figure (1): Evolution of the Effective Federal Funds Rate



Source: Kamkoun, Arnaud Cedric, Munich PersonalRePEc Archive Bursa Uludag University 20 May 2023, p. 42.

The Federal Reserve gradually lowered interest rates in conjunction with quantitative easing operations, reaching zero rates to stimulate economic activity.

The figure plots the effective federal funds rate against a Taylor-rule benchmark based on core PCE inflation from 1993 to 2015, allowing an assessment of how closely U.S. monetary policy followed a simple rule. From the mid-1990s through roughly 2000, the policy rate tracks the Taylor-implied rate relatively closely, consistent with an implicit rule-like response to the strong expansion and gradually rising inflation. Following the 2001 recession, however, the actual rate is kept well below the Taylor benchmark for several years, indicating an unusually accommodative stance that may have contributed to easier financial conditions and the build-up of pre-crisis leverage. The subsequent tightening cycle from 2004 to 2007 brings the actual rate back toward the rule, as the Federal Reserve reacts to robust growth and emerging inflationary and financial-stability concerns.

The most pronounced divergence appears around the 2008 global financial crisis. As output collapses and inflation falls, the Taylor-rule prescription drops sharply into negative territory, while the actual federal funds rate becomes constrained by the zero lower bound and remains near zero for an extended period. This persistent positive gap between the actual and rule-implied rates highlights the limitations of conventional interest-rate policy in deep recessions and helps rationalize the Federal Reserve's resort to unconventional tools, large-scale asset purchases and forward guidance, to provide additional accommodation. Only toward the end of the sample, when the Taylor-implied rate turns positive again, does the figure suggest the beginning of a transition toward policy normalization.

IV. 2 .2 During the Sovereign Debt Crisis (2010–2013)

The sovereign debt crisis (2010–2012), centered in the Eurozone (Greece, Italy, Spain, Portugal, Ireland), impacted global markets through financial and trade channels. The Fed played a critical role in containing financial contagion and ensuring global stability by:

- Maintaining near-zero interest rates to support liquidity and growth (Federal Reserve, 2012, p. 15).
- Launching QE programs (government/MBS purchases) to lower long-term yields and stimulate investment (Bernanke, 2013, p. 42).
- Establishing **dollar swap lines** with the ECB and other central banks to provide dollar funding for European banks, preventing liquidity crises (Obstfeld, 2013, p. 7).
- Deploying **forward guidance** to clarify policy paths and reduce market uncertainty.

These actions mitigated the crisis's impact on the U.S. economy.

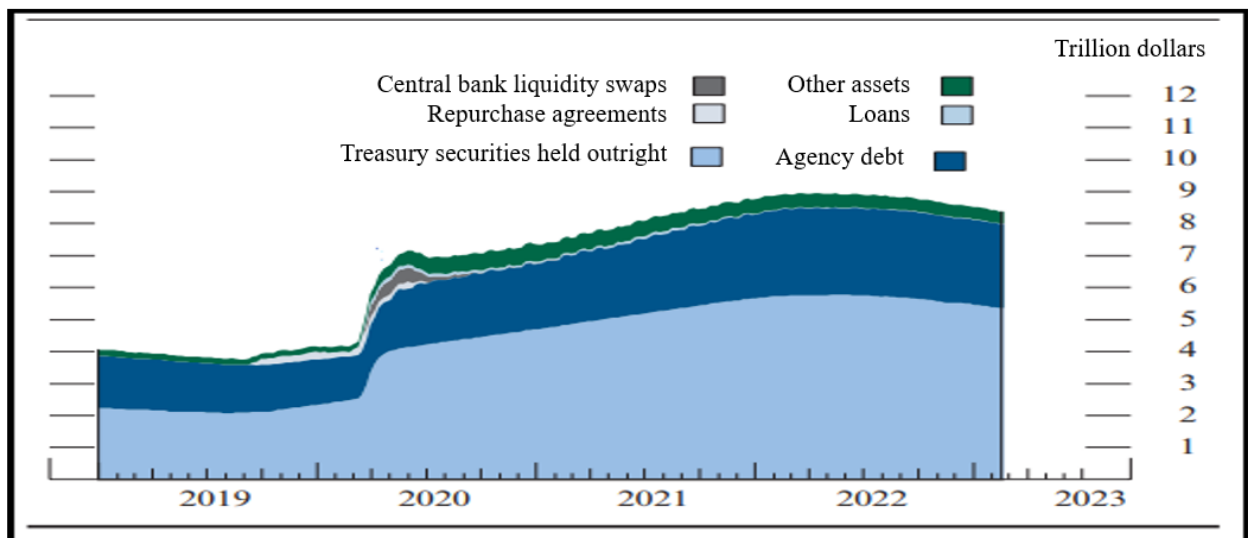
IV. 2 .3 During the COVID-19 Crisis (2019–2021)

The pandemic posed a dual health/economic challenge. The Fed responded aggressively:

- Cut rates to **0.25%**.
- Reactivated QE at record volumes.
- Supported SMEs via specialized credit facilities.
- Coordinated with the U.S. Treasury to fund fiscal stimulus.

As noted by Benchimol et al., the Fed's communication strategy emphasized "societal support" over technical frameworks, reflecting an evolution in central banking functions.

Figure (2): Evolution of Federal Reserve Assets



Source: Federal reserve, *Monetary Policy Report*, March, 2023, p.40

Asset size continued to rise due to the large-scale quantitative easing programs implemented by the U.S. Federal Reserve.

The figure displays the evolution of Federal Reserve assets from 2019 through early 2023, highlighting the dramatic balance sheet expansion associated with the COVID-19 crisis and its subsequent partial reversal. Prior to 2020, total assets are relatively stable and dominated by Treasury securities held outright, with a modest contribution from agency debt. Beginning in early 2020, total assets rise steeply as the Fed undertakes large-scale purchases of Treasuries and agency securities and activates a range of emergency facilities, visible in temporary increases in repurchase agreements, central bank liquidity swaps, loans, and other assets. While these short-term liquidity tools peak quickly and then recede, the stock of securities held outright remains structurally higher, reflecting the shift toward a much larger and more duration-heavy balance sheet. From 2021 onward, total assets level off and then begin to decline gradually, consistent with the

tapering of asset purchases and the onset of balance sheet runoff (quantitative tightening). Overall, the composition and scale of the Fed's assets over this period underscore the central role of unconventional monetary policy and liquidity provision in stabilizing financial markets and supporting the macroeconomy during and after the pandemic shock.

IV. 2 .4 Russia-Ukraine War (2022–2025)

The war disrupted supply chains, spiking global energy/food prices and triggering severe inflation. The Fed's response:

- Consecutive rate hikes to curb inflation.
- Gradual tapering of asset purchases (QE).
- Commitment to "monetary discipline" despite recession risks.

Data shows persistent above-target inflation, underscoring the difficulty of balancing price stability and growth.

IV. 3 European Central Bank Policies During Crises

IV.3.1 Role of the European Central Bank During the Global Financial Crisis (2007–2010)

During the global financial crisis, the European Central Bank (ECB) played a pivotal role in stabilizing the European financial system. It lowered interest rates to stimulate borrowing (Draghi, 2012, p. 34). It launched programs to provide liquidity to banks, helping ensure financial system stability (Constâncio, 2015, p. 78). Additionally, the ECB implemented quantitative easing programs to purchase government bonds and enhance market liquidity (Gauvin, 2016, p. 112) and provided financial support to affected member states like Greece through conditional bailout programs (Moch, 2014, p. 45).

IV.3.2 During the Sovereign Debt Crisis (2010–2013)

The global financial crisis was followed by a sovereign debt crisis in the Eurozone, particularly affecting Greece, Italy, Spain, and others. The European Central Bank responded by:

- Launching the **Outright Monetary Transactions (OMT)** program to support bonds of distressed countries.
- Adopting zero interest rates, later turning negative.
- Strengthening its role as guarantor of financial stability in the Union.

While these policies alleviated market pressures, unemployment rates remained high, especially in Southern European countries.

IV.3.3 During the COVID-19 Crisis

The ECB responded rapidly to the pandemic through:

- Launching the **Pandemic Emergency Purchase Programme (PEPP)** exceeding €1.8 trillion.
- Supporting bank lending with favorable terms.
- Public commitment to maintaining financial market stability without predefined limits.

As noted by the Governor of the Bank of Spain, (Hernández de Cos, 2021), the ECB adopted a policy of "**cross-country flexibility**" due to varying pandemic impacts across member states.

IV.3.4 Russia-Ukraine War

Mirroring the Federal Reserve, the ECB initiated interest rate hikes for the first time in over a decade. It also implemented a clear strategy for gradual balance sheet reduction while closely monitoring Eurozone inflation expectations and growth. Despite internal divisions on tightening pace, the ECB delivered strong signals to markets about its commitment to fighting inflation.

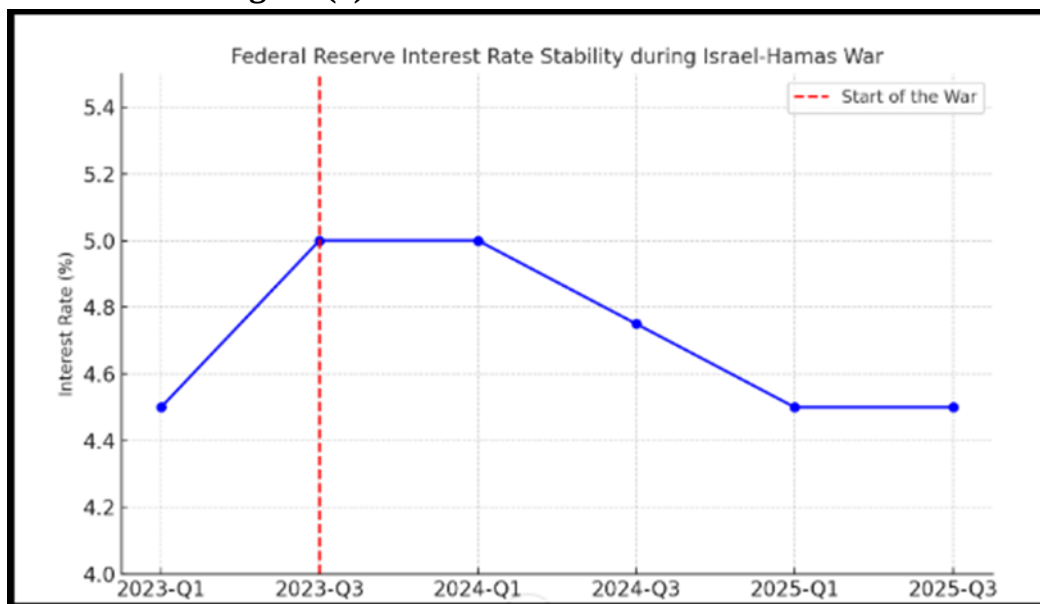
IV.3.5 Implications of Israeli Aggression in Gaza and Iran

The Israeli military operations complicated global economic conditions due to the region's strategic importance:

- Contains **over 48% of global energy reserves**
- Controls critical maritime chokepoints (Bab El-Mandeb Strait, Strait of Hormuz).

Despite calls for rate cuts, both the Federal Reserve and ECB **maintained prevailing interest rates**.

Figure (3): Federal Reserve Interest Rates



Source: Researcher's compilation based on
<https://www.federalreserve.gov/monetarypolicy/openmarket.htm>

The figure demonstrates interest rate stability after October 2023 events, despite political pressure for cuts in the United States. The Federal Reserve's non-response reinforces **monetary policy independence**, a critical factor in maintaining economic stability.

The figure illustrates that the Federal Reserve maintained a relatively stable policy stance around the onset of the Israel– Hamas war, with the federal funds rate peaking at about 5 percent in 2023-Q3 (the start of the conflict) and remaining at that level through 2024-Q1 before gradually easing to about 4.5 percent by 2025-Q3. This pattern suggests that the Fed’s decisions were driven primarily by domestic macroeconomic conditions, particularly inflation and labor-market dynamics, rather than by the geopolitical shock itself. The absence of abrupt rate hikes or cuts following the outbreak of the war indicates that, while the conflict may have contributed to uncertainty and localized commodity-price pressures, it did not fundamentally alter the underlying U.S. inflation trajectory or output gap in a way that required an emergency policy response. Instead, the moderate decline in rates after 2024-Q1 is consistent with a controlled transition from a restrictive stance, aimed at bringing inflation back toward target, toward a more neutral posture as inflationary pressures gradually recede and the Fed seeks to balance price stability with sustaining economic growth.

IV.3.6 Comparative Analysis of Both Banks' Monetary Policies

Table 3: Comparative Analysis between Federal Reserve and European Central Bank Policies

Element	Federal Reserve	European Central Bank
Crisis Type	Banking crisis → Pandemic	Sovereign debt crisis → Pandemic
Intervention Tools	QE, direct support, rate cuts	QE, negative rates, sovereign guarantees
Response Nature	Faster and more flexible	Gradual due to EU's federal structure
Geographic Focus	Unified domestic market	Multiple states with economic disparities
Policy Impacts	Market rescue, inflation resurgence	Financial stability support, slow recovery

Source: Researcher's compilation based on both banks' reports

The U.S. and European experiences demonstrate that monetary policies, both conventional and unconventional, remain pivotal tools for supporting economic stability during crises. Evidence confirms that response speed, monetary policy independence, and communication transparency are decisive factors in central banks' effectiveness. With the return of global inflation post-2022, monetary policy has entered a new phase of tightening and discipline, reshaping central banks' priorities for coming years.

V. Quantitative Study

The period from 2010 to 2025 reflects a critical phase in global economic history, where major economies faced successive shocks, from the aftermath of the global financial crisis, through the COVID-19 pandemic, to geopolitical tensions like the Ukraine war and Israeli military operations in Gaza/Iran, global inflation spikes, and monetary policy tightening since 2022. Both the U.S. Federal Reserve (Fed) and European Central Bank (ECB) implemented distinct monetary policies to address these challenges.

V.1 Quantitative Methodology

Quantitative data covering 2010–2025 was analyzed, including the following variables:

- Benchmark interest rate (%)
- Annual inflation rate (%)
- Annual GDP growth (%)
- Unemployment rate (%)
- Money supply (M2)
- Central bank balance sheet size (Quantitative Easing)
- Real interest rate (%)
- Consumer Price Index (CPI)

Data Sources: Researcher's compilation based on Federal Reserve, European Central Bank, IMF, and World Bank databases.

V.2 Data Presentation in Comparative Tables

Table 4: Macroeconomic Indicators Evolution – U.S. Federal Reserve

Year	Int. Rate (%)	Inflation (%)	Growth (%)	Unemp. (%)	Money Supply M2 (\$T)	CB Balance Sheet (\$T)
2010	0.25	1.6	2.6	9.6	8.5	2.3
2015	0.25	0.1	2.9	5.3	11.8	4.5
2020	0.25	1.2	-3.4	8.1	18.3	7.4
2022	4.5	6.5	2.1	3.6	21.6	8.9
2025*	5.25	3.0	1.9	4.1	22.1	8.5

Table 5: Macroeconomic Indicators Evolution – European Central Bank

Year	Int. Rate (%)	Inflation (%)	Growth (%)	Unemp. (%)	Money Supply M2 (€T)	CB Balance Sheet (€T)
2010	1.00	1.6	2.0	10.1	8.7	2.0
2015	0.05	0.0	2.2	9.5	10.6	2.8
2020	0.00	0.3	-6.2	7.9	13.5	7.0
2022	2.5	8.4	3.5	6.7	15.9	8.2
2025*	3.75	2.7	1.6	6.2	16.3	7.4

*2025 data estimated based on H1 figures.

Source: Researcher's compilation using Federal Reserve and ECB data.

V.3. Analysis and Comparison

- **Interest Rates:** The Fed pursued aggressive tightening post-2022, reaching 5.25% in 2025. However, the ECB followed a more cautious path, with relatively lower rates (3.75%).
- **Inflation:** The U.S. peaked at 6.5% (2022), while the Eurozone exceeded 8%. Nevertheless, reflects Europe's fragile supply chains and dependence on Russian energy imports.
- **Economic Growth:** Both economies recovered post-pandemic, but the U.S. maintained higher growth after 2021.

- **Unemployment:** The U.S. reduced unemployment below 4% post-2021. In same time, Europe sustained higher unemployment due to labor market rigidity.
- **Money Supply & Central Bank Balances:** Both Fed and ECB implemented large-scale QE, expanding their balance sheets. This raised inflation concerns later contained through rate hikes.

V.4. Quantitative Findings

- U.S. monetary policy demonstrated **higher efficacy** in achieving economic stability than Europe's, particularly in unemployment control.
- Despite similar tools, constraints of the European Monetary Union **limited the speed and flexibility** of ECB interventions.

VI. Conclusion

Recent decades have witnessed profound global economic disruptions due to accumulating financial, health, and geopolitical crises, culminating in the repercussions of the Russia-Ukraine war. These crises have generated complex challenges for policymakers, particularly in monetary policy, which now bears increasing responsibility for maintaining economic stability and combating inflation.

The study demonstrates that central banks, notably the U.S. Federal Reserve (Fed) and European Central Bank (ECB), played an essential role in crisis management through conventional and unconventional policies like **Quantitative Easing (QE)**, **zero/negative interest rates**, and **liquidity/credit support**. Analysis confirms these policies significantly curbed recessionary pressures and preserved financial stability, despite accompanying challenges:

- Escalating debt burdens
- Widening economic disparities within the EU
- Growing social inequality in the United States

The research further reveals the critical importance of:

- **Central bank independence**
- **Policy tool flexibility**
- **Monetary-fiscal coordination**, particularly during stagflationary periods where price stability and macroeconomic stability are inseparable.

VI.1. Research Findings

The results confirm that central banks play a pivotal role in supporting macroeconomic stability, particularly during periods of acute crisis. The

empirical evidence shows that unconventional monetary policies, most notably large-scale asset purchase programs and, in the Eurozone, negative interest rate policies, significantly mitigated the immediate impact of financial and real-economy shocks, helping to stabilize output and financial markets. At the same time, the post-2020 experience reveals important limitations: despite aggressive interventions, both the Federal Reserve and the ECB struggled to fully contain the surge in inflation following the COVID-19 pandemic and the Russia–Ukraine conflict, reflecting the dominant role of supply-side disturbances and global cost shocks.

The comparative analysis highlights the importance of institutional design and central bank independence in shaping policy effectiveness. The Federal Reserve’s more flexible institutional framework and higher degree of operational autonomy translated into faster and more forceful responses than those observed at the ECB, contributing to relatively better macroeconomic outcomes and a more rapid recovery. However, the findings also point to unintended consequences of prolonged unconventional measures, including rising public debt burdens, increased dependence of financial markets on central bank support, and a widening gap between large and small financial institutions. Moreover, the results underscore that successful crisis management depends not only on monetary policy itself but also on the degree of coordination with fiscal authorities, as illustrated by the more effective joint responses during the COVID-19 period. Overall, the modern experience suggests that central bank independence, transparency, and credible fiscal–monetary coordination are essential preconditions for future policy success, and that monetary policy remains one of the most powerful yet sensitive instruments for preserving economic stability in an environment of evolving objectives, including digitalization and environmental sustainability.

VI.2. Recommendations

Based on research outcomes:

- **Strengthen Central Bank Independence:** Safeguard monetary decision-making autonomy, especially in developing economies, to enhance inflation control and stability amid political pressures.
- **Redesign Monetary Policy Tools:** Recent crises prove conventional tools are insufficient. Develop proactive mechanisms integrating **digital finance, climate risks, and geopolitical variables**.
- **Enhance Monetary-Fiscal Coordination:** Foster greater alignment between central banks and fiscal authorities to avoid policy conflicts and direct resources toward clear economic priorities.

- **Build Early-Warning Systems:** Central banks should invest in risk analytics and predictive frameworks for economic/financial crises.
- **Boost Transparency and Market Communication:** Clear messaging and decision-making transparency, as demonstrated by crisis experience, reinforce market trust and stability.

VII. References

- الأفندي، خ. ع. (2017). *الأسواق النقدية والمصرفية*. دار الفكر الجامعي.
- دودو، م. (2021). "السياسة النقدية غير التقليدية ودورها في دعم الاستقرار الاقتصادي". *مجلة العلوم الاقتصادية والمالية*، 7(2)، 145–160.
- غربي، ع. (2018). "فعالية السياسة النقدية في ظل استقلالية البنك المركزي". *مجلة البحوث الاقتصادية والمالية*، 5(1)، 90–103.
- كنعان، س. (2012). *النقود والمصارف والسياسة النقدية*. دار الحامد.
- معيزي، س. (2008). "التضخم في الدول النامية: الأسباب والحلول". *مجلة البحوث الاقتصادية والمالية*، 3(1)، 138–150.
- مزهري، ب. (2019). "تحليل دور البنك المركزي في الاستقرار الاقتصادي". *مجلة الاقتصاد المعاصر*، 9(3)، 410–425.
- مرغيث، ف. (2019). "التضخم والاستقرار الاقتصادي: دراسة تحليلية". *مجلة العلوم الاقتصادية وعلوم التنسيير*، 5(2)، 310–325.
- Bernanke, B. S., Reinhart, V. R., & Sack, B. P. (2004). Monetary Policy Alternatives at the Zero Bound: An Empirical Assessment. *Brookings Papers on Economic Activity*, 2004(2), 1–100. <https://doi.org/10.1353/eca.2005.0002>
- BIS. (2021). The Future of Money and Monetary Policy. *BIS Working Papers, Monetary and Economic Department*, No. 131. <https://www.bis.org/publ/bppdf/bispap131.pdf>
- Blancheton, B. (2016). Central bank independence in a historical perspective. Myth, lessons and a new model. *Economic Modelling*, 52, 101–107. <https://doi.org/10.1016/j.econmod.2015.02.027>
- Carstens, A. (2019). The future of money and the payment system: what role for central banks?. *BIS Working Papers*. <https://www.bis.org/speeches/sp191205.pdf>
- Constâncio, V. (2015). *The Role of the ECB in the Financial Crisis*. European Central Bank.
- Crockett, A. D. (1981). Monetary Policy and Financial Stability. *BIS Economic Papers*, No. 6.
- Draghi, M. (2012). *The ECB's Response to the Crisis*. European Central Bank.
- Drautzburg, T., & Uhlig, H. (2015). Fiscal stimulus and distortionary taxation. *Review of Economic Dynamics*, 18(4), 894–920. <https://doi.org/10.1016/j.red.2015.09.003>



- Federal Reserve System, Official website: <https://www.federalreserve.gov/>
- Gauvin, A. (2016). *Quantitative Easing in the Euro Area*. Journal of European Monetary Studies.
- Hernández de Cos, P. (2021). (The ECB's Policy Response to the Pandemic Crisis: Flexibility in Action. Speech at Banco de España.
- International Monetary Fund (IMF). (2022). *World Economic Outlook: Inflation and Uncertainty* Washington, DC.
- International Monetary Fund (IMF). (2023). *Global Financial Stability Report: Navigating Inflation Shocks*. Washington, DC.
- Moch, R. (2014). *Financial Assistance to Euro Area Countries: The Role of the ECB*. European Central Bank
- Reinhart, C. M., & Rogoff, K. S. (2009). *This Time Is Different: Eight Centuries of Financial Folly*. Princeton University Press.
- Svensson, L. E. O. (2003). Escaping from a Liquidity Trap and Deflation: The Foolproof Way and Others. *Journal of Economic Perspectives*, 17(4), 145–166. <https://doi.org/10.1257/089533003772034934>
- Weerasinghe N. (2025). Why Central Bank Independence Matters – in Crisis, in Recovery, and Beyond. *BIS Economic Papers*, 75th Anniversary Oration of the Central Bank of Sri Lanka <https://www.bis.org/review/r250929e.pdf>
- Yellen, J. L. (2014). *A Midsummer Night's Monetary Policy*. Federal Reserve.