

History Lessons for the Fed and the ECB on Monetary Tightening and Financial Stability

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ECB Watchers Conference, Goethe University

Frankfurt March 22, 2023

Introduction

- My presentation puts the recent inflation in historical context and provides some lessons from the past to avoid future policy mistakes
- Three big lessons from monetary history that the Fed should have heeded in its policy responses to the Covid 19 Pandemic
- 1. There are close analogies between the fiscal and monetary responses to the pandemic and the financing of world war, especially WWII, that resulted in inflation
- 2. Since 1920 the Fed has frequently remained easy too long, resulting in inflation and its subsequent tightening have proved costly
- 3. Fed tightening and disinflation is frequently followed by financial instability and credit crunches

I. WWII Analogies to the Covid 19 Pandemic

- Monetary and fiscal authorities treated the pandemic as an existential threat (US more so than other countries) like the 20th Century World Wars
- World War II led to a massive U.S. fiscal expansion ([Bordo and Levy 2020](#))
- G/Y rose to 32% and G-T/Y peaked at 27.6%, the Debt/Y rose to 120%
- The wartime expenditures were financed by taxes (42%), bonds (34%) and seigniorage (24%) ([Friedman and Schwartz 1963](#))
- The Fed accommodated the Treasury with a low interest rate peg policy (yield control): short rates, 3/8%; long-term yields, 2.5%
- The Fed's independence was subsumed to the Treasury
- The Fed became an engine of inflation with total M2 expansion at 102%

WWII Analogies continued

- War-time inflation averaged 4.5%, constrained by wage price controls
- Real cash balances increased with rationing of consumer goods and credit restrictions, pent up demand
- Post-WWII fears of repeating the deflation following WWI led to a continuation of the interest pegs and extended monetary accommodation
- The removal of the wartime controls and **surge** in aggregate demand (rebound of money velocity) combined with supply constraints fueled average 11.5% inflation from 1945 to 1948; widespread housing boom
- Fed tightening in 1948 by raising reserve and capital requirements generated a mild recession in 1949 and ended the inflation
- The Fed's independence was restored and the interest rate pegging policy ended with the Federal Reserve Treasury Accord of February 1951

Post-WWII Surge in Demand and Inflation has Analogies to the Pandemic

- The aggressive fiscal response to the pandemic in U.S. (G-T/Y increased over 25%) part of war-type response; lesser in other nations
- Monetary policy accommodation: zero interest rates, Fed effectively purchased one-half of the new Treasury bonds, and M2 surged 40%
- As in WWII, real cash balances increased (M2 velocity and Divisia velocity decreased in 2020) and since has bounced back ([Anderson, Bordo and Duca 2017, Bordo and Duca 2023](#))
- Aggregate demand surged and supply shortages led to peak CPI inflation of 9% and cumulative increase in the CPI of 15%
- The Fed attributed inflation to transitory supply shocks, ignoring the surge in aggregate demand
- It forgot about what happened during and following WWII

II. The Fed has often been behind the curve

- The Fed has had a long history of mis-timing monetary policy around business cycles and is a well documented phenomena. See [Friedman and Schwartz \(1963\)](#), [Brunner and Meltzer \(1964\)](#), [Bordo and Landon Lane \(2010\)](#), [Bordo and Levy \(2022\)](#), Hetzel (2023)
- Its delayed exits from expansionary policy following recessions has lead to rising inflation, followed by tightening that has frequently contributed to recessions
- Bordo and Levy (2022) document the Fed's exits from monetary ease since WWI and the evolving theoretical doctrines of the 1960s-1970s, Volcker and the Great Moderation, the early 2000s, Post –Great Financial crisis and the pandemic; misreads of economic and financial conditions; and political pressures; and concludes the Fed has not heeded important lessons of history

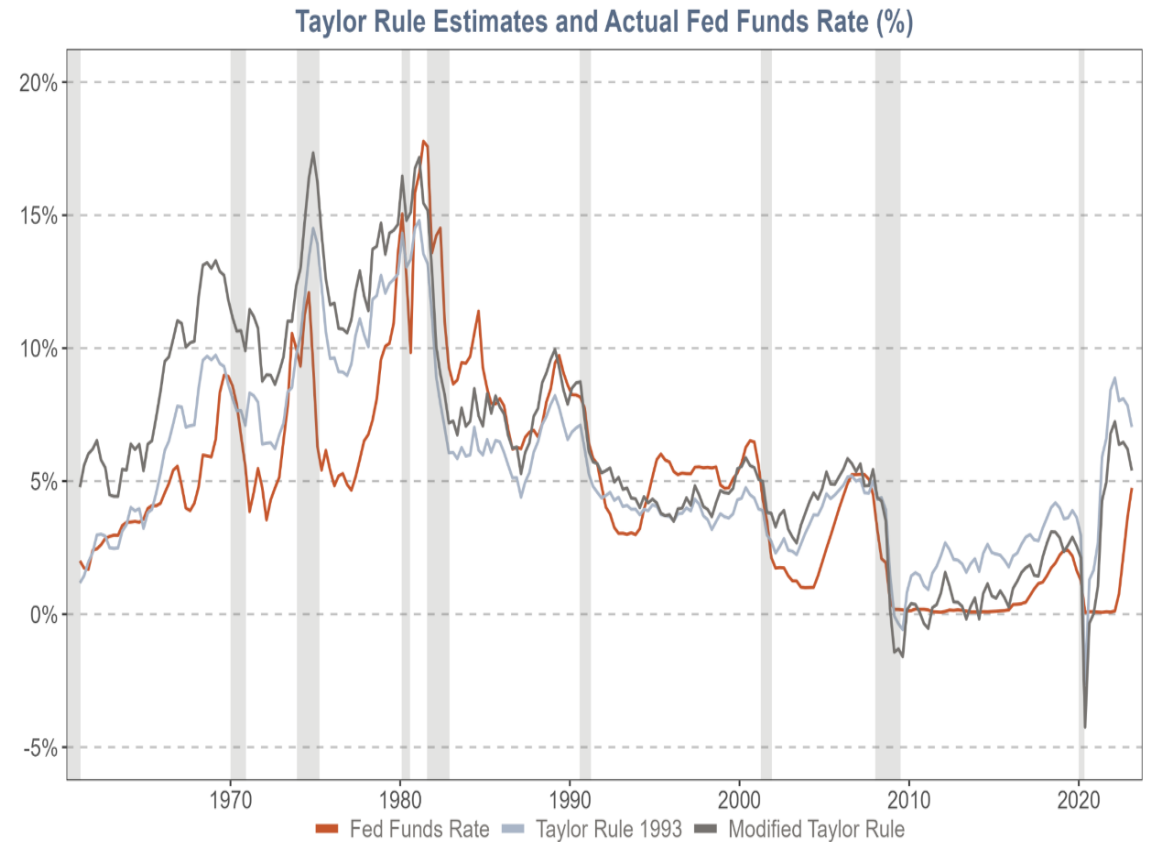
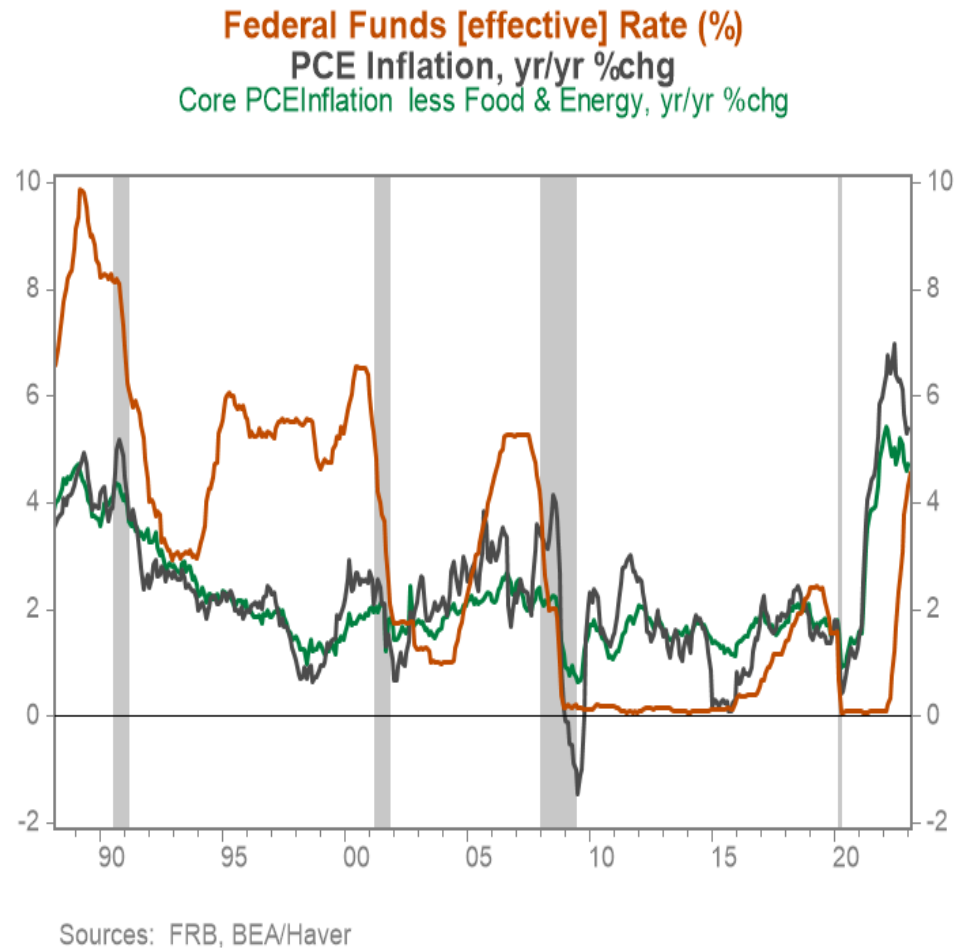
Disinflation and Financial Instability

- This episode of Fed rate increases to lower inflation has generated financial instability: SVB, Signature and First Republic in the U.S., and Credit Suisse in Europe
- Historically, Fed has cut short rate tightening to protect the financial system: 1966 credit crunch, 1982 Latin America debt, 1991 credit crunch, 1997 Asian Financial Crisis, 2007 Financial Crisis
- Similar underlying source: rising rates reveals underlying imbalances
- Moreover, episodes of deflation and disinflation, like today have often been associated with financial instability
- See Bordo and Wheelock (2002), Bordo, Dueker and Wheelock (2003) for evidence for U.S. and UK in last 200 years

The Fed's Current Challenge

- The Fed's excessive monetary ease and delayed exit with deeply negative real Fed funds rate and surge in money was a big error
- Fed's current dilemma: how to reduce high inflation and maintain financial stability
- A well-seasoned solution: follow Tinbergen's principle
 - Use lender of last resort tools for financial stability and
 - Monetary policy for price stability
- The ECB is following this principle. Will the Fed?
- Will the Fed maintain its anti-inflation resolve if its tightening generates financial instability and recession?

Figure 1. The Fed Funds Rate, Inflation and Taylor Rule Estimates

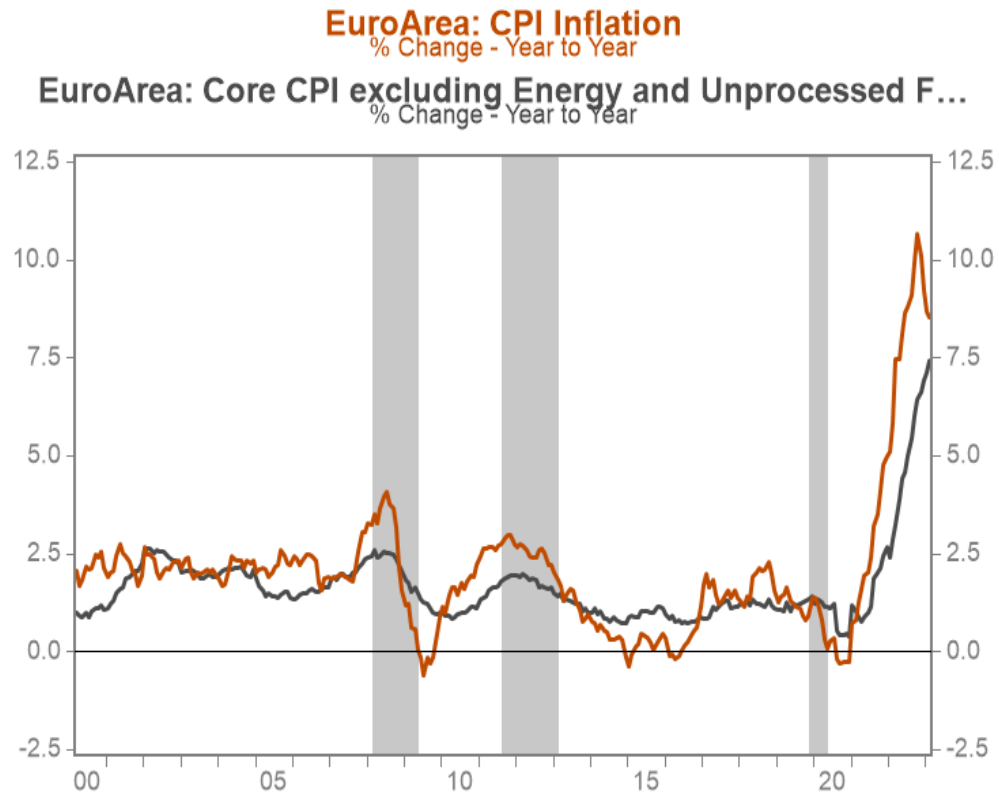


Source: Federal Reserve Bank of Atlanta, authors' calculations

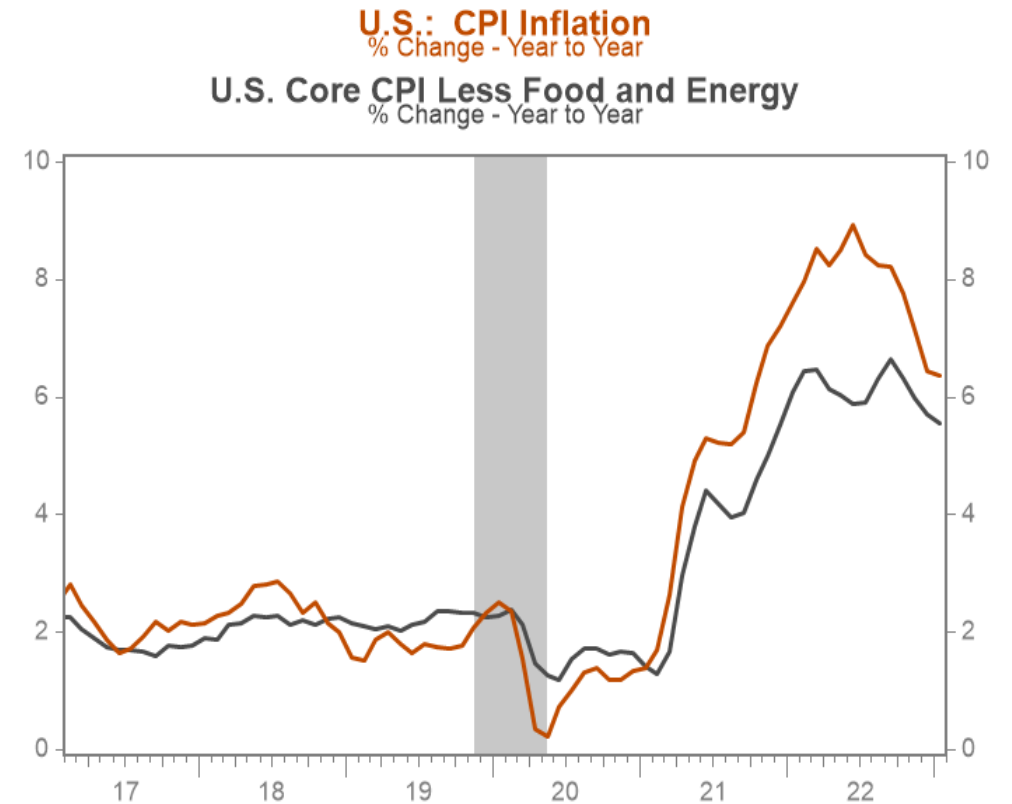
III. Comparing the ECB and Fed

- The ECB has a shorter history and a different mandate than the Fed and faces different obstacles, but it could have learned from member nations' histories
 - Some have chequered records like the Fed, eg Greece, Italy and France
 - The Bundesbank , Netherlands Bank and the Austrian Central Bank had a better post-WWII records and could have provided valuable guidance
- Today, how far behind the curve is the ECB?
- Figure 2 shows harmonized European inflation is 8.5%, higher than the 6.3% U.S. inflation
- Figure 3 shows the ECB's policy rate relative to Taylor Rule estimates
- It suggests the ECB has more tightening ahead than the Fed

Figure 2. Inflation in Europe vs the U.S.

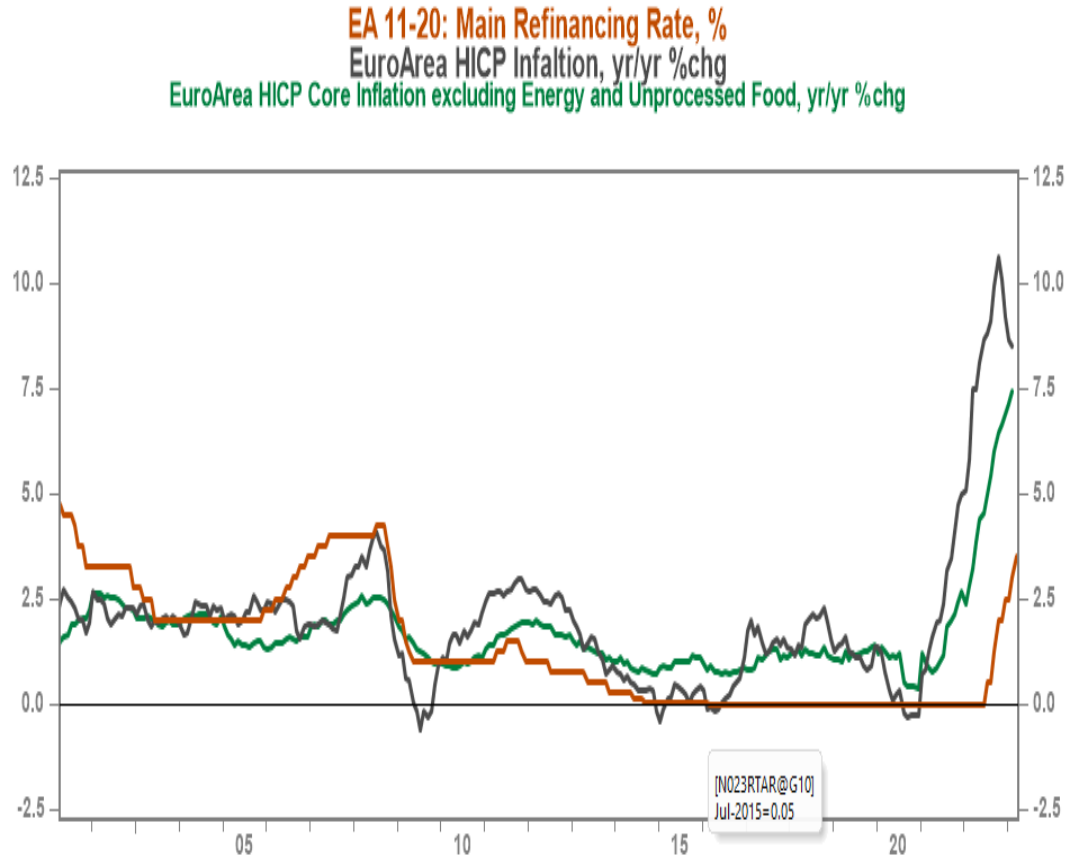


Source: European Central Bank/Haver Analytics

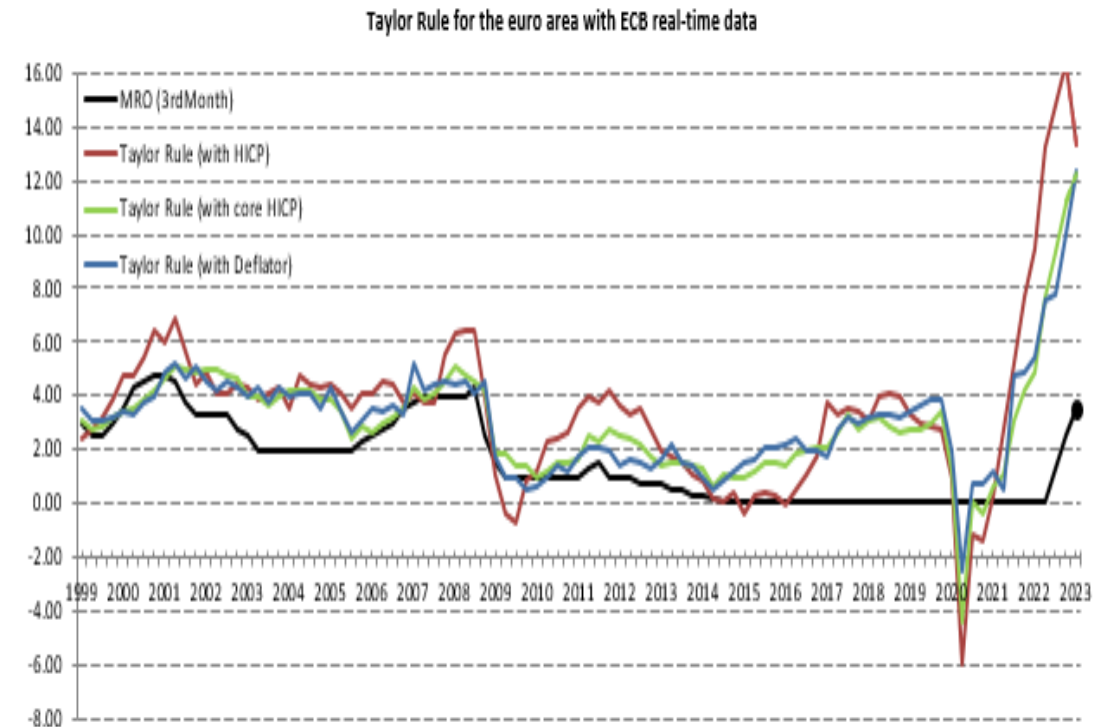


Source: Bureau of Labor Statistics/Haver Analytics

Fig 3.ECB Policy Rate vs Inflation and Taylor Rule Estimate



Source: European Central Bank/Haver Analytics



Source: Volker Wieland Estimates

Key Differences between the ECB's and Fed's Challenges

- Key differences: Europe has larger exposure to negative supply shocks (energy) but slower aggregate demand (less fiscal stimulus)
- Larger portion of inflation in Europe driven by transitory supply shock (2/3rds) than in the U.S's 1/3 (Hall, Tavlas and Wang 2022)
- The ECB faces three challenges not facing the Fed
- 1. The EU does not have a complete fiscal union and has different fiscal regimes across EU nations
- 2. The ECB must maintain overall fiscal stability, including in problematic nations such as Italy and Greece
- 3. Europe does not have a complete banking union: no uniform U.S. FDIC style FDIC deposit insurance

The U.S. Fiscal Union vs Europe's

- The U.S. fiscal union evolved from the famous 'Alexander Hamilton moment' in 1790 which consolidated the Revolutionary War debt of the 13 states into a long-term U.S. government bond convertible into specie to be serviced by excise taxes collected by the Federal government (Sargent2014).
- 10 states defaulted on their debts and created a debt crisis, and were not bailed out by the Congress, which led most states to follow balanced budget rules
- A limited 'night watchman' fiscal federal state in the nineteenth century evolved into the present fiscal federal system with the Roosevelt's New Deal creation of an automatic stabilization mechanism of interstate transfers of Federal income tax revenues and the establishment of federal Social Security in the 1930s (Bordo and James 2017)
- By contrast, in Europe the Maastricht Treaty laid groundwork for a common currency, the euro, and a common monetary policy administered by the ECB, which followed the Federal Reserve's regional system for the former national central banks
- However, in the Euro Area, fiscal sovereignty was retained by the member states whose fiscal space was limited by the strictures of the Stability and Growth Pact

Fiscal Union in the ECB?

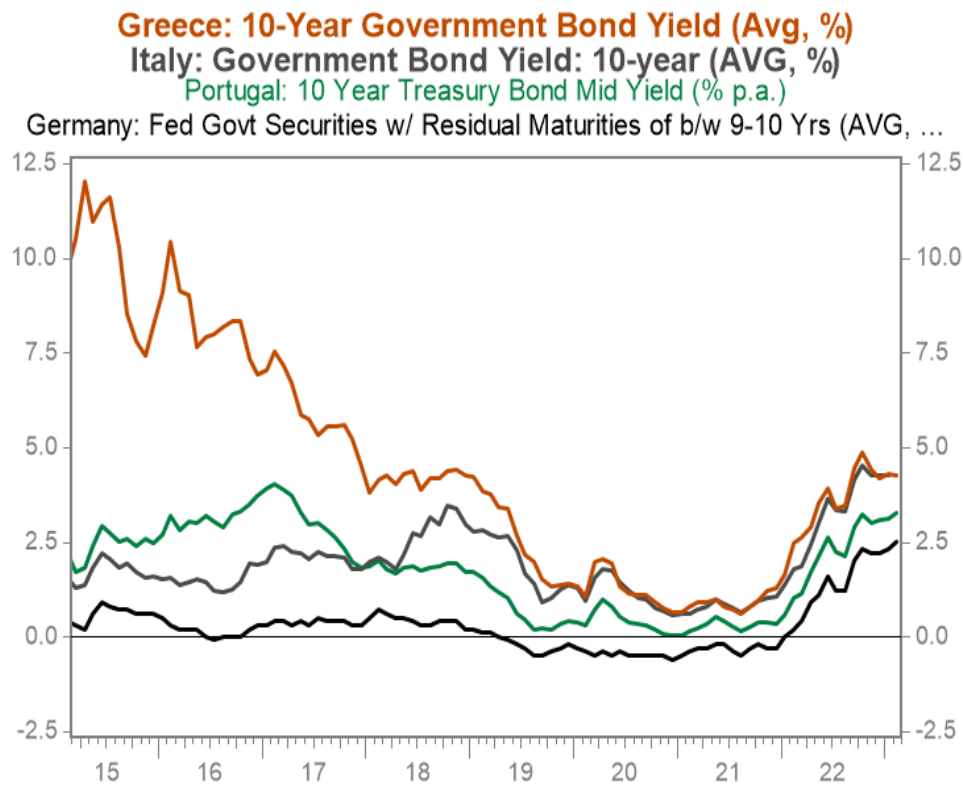
- This meant that the main responsibility for macroeconomic stability rested with the ECB whose primary mandate was to maintain price stability
- During the pandemic the euro area's fiscal space and flexibility was temporarily increased with the NGEU (Next Generation EU Recovery Fund 2021)
- It involved significant grants and loans from the European Commission to the member states (euro 850B). These, in turn, were financed by bonds issued by the EC to be serviced by future EU taxes (Fabrinni 2022)
 - Politically contentious issues of tax burdens and redistribution across EU nations
- Whether this temporary arrangement will be sustained into the future and create a true EU fiscal union is unknown

ECB Monetary Policy and Financial Stability Concerns

- The absence of fiscal and banking unions creates several challenges to the ECB as it normalizes monetary policy to reduce inflation
- **First**, Different EMU members have different fiscal institutions and political economies,
- ECB policy rate increases could exacerbate debt service costs in EU nations with high debt/GDP ratios and wide bond yield spreads
- This could lead to a downgrading of sovereign ratings and create the potential for a debt crisis as occurred in 2010 (Orphanides 2020)
- The ECB resolved the European debt crisis through extraordinary actions. Will it have to do it again?
- Without a complete banking union, the ECB will be severely challenged if tight money and disinflation induced financial instability leads to a banking crisis.

Fig 4. Bond Yields, Government Debt and Debt Service Costs in Select EU Nations

- Government Debt & Interest Cost



Sources: BoG, Bdlt, TPI, Bbk/Haver

	Total Government Debt (billions, Euros) *	Debt as % of GDP	Debt Service Costs (billions, Euros) **	Debt Service Costs as % of GDP **
Germany	2,527	67%	26.1	0.7%
Italy	2,743	147%	75.2	4.1%
Portugal	280	120%	4.8	2.0%
Greece	357	178%	4.5	2.2%

Source: Eurostat, Haver Analytics

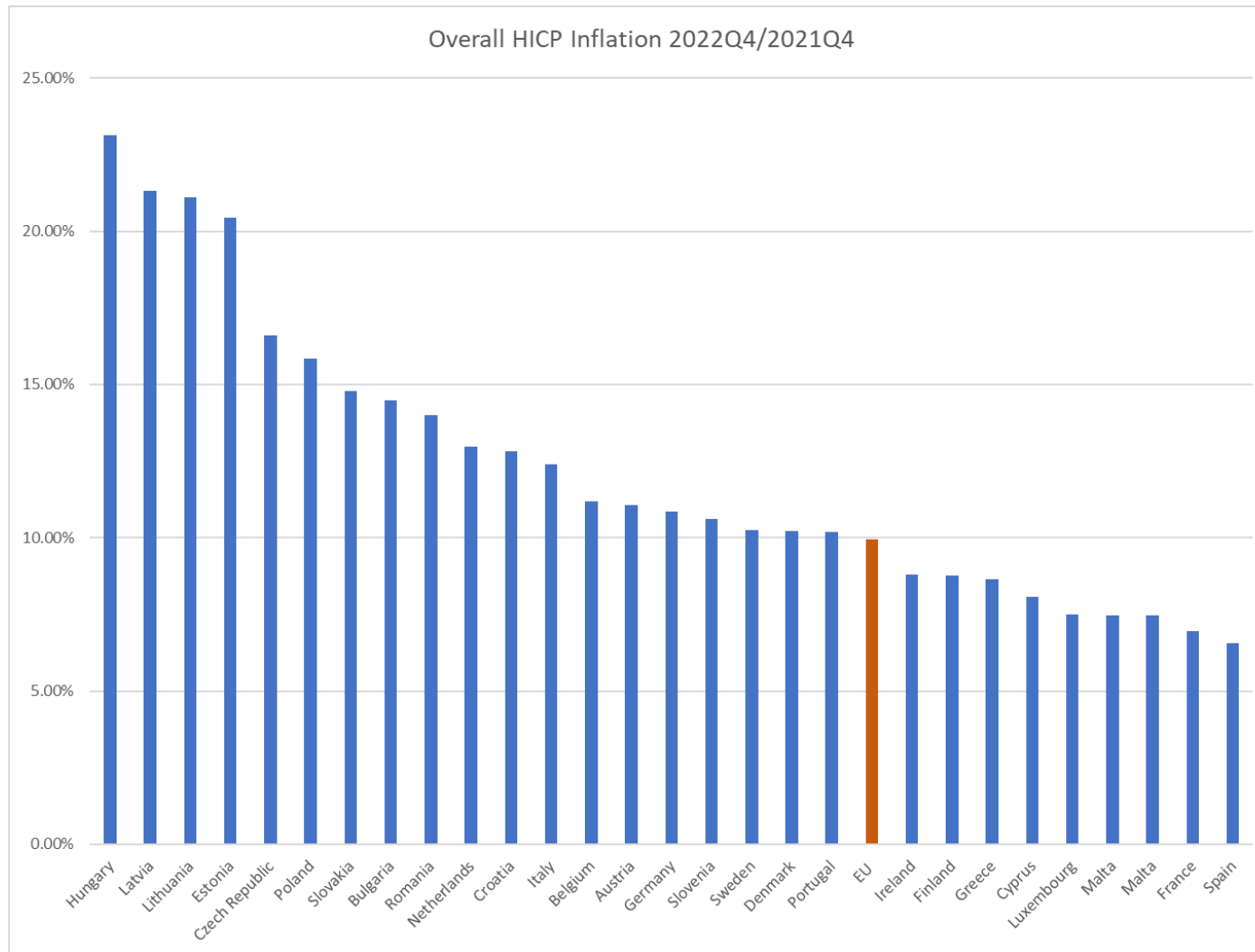
*Data as of 2022 Q3

**Data for Italy and Portugal from Q4 2021-Q3 2022

Possible Uneven Economic Effects Across EU Nations of ECB Tightening

- **Second**, while the ECB's monetary policy focuses on harmonized inflation, the wide dispersion of inflation rates across Europe is striking, ranging from 4% in Belgium to 22% in Lithuania (Figure 5)
- This reflects differing degrees of economic development and energy exposure
- ECB tightening may generate diverse effects on real output, depending on the extent that nominal rigidities in different EU nations
- The U.S.'s fiscal and monetary union with automatic fiscal transfers and greater labor mobility dampens regional divergences
- Lessening divergences in economic performance across EU nations would depend on the fiscal arrangements (and space) of the member states—even if restrictions of the SGP were removed like during the pandemic

Fig 5. Inflation Rates in EU Nations



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Assessment of Fed Exits 1960 to the Present

Bordo and Levy (2022), Table 1

(1) Cyclical Expansion	(2) Inflation ¹	(3) Unemployment rate ²	(4) Fed Policy		(5) Fed Funds Rate minus Taylor Rate ⁴	(6) Comments
	Start → End	Start → End	Real FFR ³	Money		Result
1961 Q2 - 1969 Q4	1.2% → 5.5%	6.4% → 3.5%	0.9% - 3.7%	↓ real MB & M2	1966 - 1969: -2.4pp	1970 recession
Note: 1965 Q4 - 1967 Q1	1.6% → 3.2%	4.5% → 3.8%	Credit tightening (Reg Q ceilings)			sharp slowdown, sustained expansion
1971 Q1- 1973 Q4	5.6% → 6.2%	5.4% → 4.9%	1.5% - 3.4%	↓ real MB & M2	1971 - 1973: -1.6pp	Oil price shock & deep recession
1975 Q2 - 1980 Q1	11.1% → 12.4%	7.3% → 6.0%	-2.1% - 2.8%	↓ real MB & M2	1975 - 1979: -4.0pp	oil price spike & recession
1980 Q4 - 1981 Q3	13.6% → 11.1%	7.2% → 7.4%	2.6% - 7.2%	↓ real MB, M2 unchanged		recession
1983 Q1 - 1990 Q3	5.2% → 5.0%	10.1% → 5.4%	5.7% - 4.2%	↓ real MB & M2	1983 - 1987: +2.3pp 1988 - 1989: +1.1pp	mild recession
Note: 1987 Q1 - 1987 Q4	17% → 3.7%	6.9% - 6.2%	Fed hikes until Oct '87 stock market crash then eases (↑ MB & M2)			extended expansion
1991 Q2 - 2001 Q1	4.3% → 2.5%	6.3% → 4.0%	2.7% - 3.7%	↓ real MB, ↑ M2	1991 - 1993: -0.3pp 1994 - 1999: +1.4pp	recession in 2001
Note: 1994 Q1 - 1995 Q1	2.4% → 2.1%	6.8% → 5.8%	0.7% - 2.7%	↓ real MB & M2		extended expansion
2002 Q1 - 2007 Q4	1.6% → 2.6%	5.1% → 4.6%	1.3% - 2.5%	↑ real MB & M2	2001 - 2006: -0.9pp 2007 - 2008: -0.7pp	GFC recession
2009 Q3 - 2019 Q4	-0.3% → 1.5%	8.5% → 3.7%	0.5% - 0.7%	decline in 2018-19	2009 - 2019: -1.7pp	pandemic recession
Note: 2015 Q4 - 2018 Q4	0.2% → 2.1%	5.3% → 3.9%	-0.1% to -0.3%	↓ real MB, ↑ M2	2015 - 2018: -2.0pp	extended expansion
2020 Q1 - present	1.6% → 6.3%	3.7% → 3.6% ⁵	0.3% to -6.3% ⁶	surge in MB & M2	2022 Q1 ⁷ : -8.1pp; Modified TR = -6.5pp	?

Source: Bureau of Labor Statistics, Bureau of Economic Analysis, Federal Reserve Board, Haver Analytics, author's calculations

1. CPI before 1991, PCE after 1991, 4-Quarter average of yr/yr inflation

2. 4-Quarter average unemployment rate

3. 4-Quarter average of Real Fed Funds rate

4. Fed Funds Rate minus Taylor Rule estimate, average measured in percentage points.

Taylor Rule: $r^* + \pi^* + 1.5(\pi_t - \pi^*) + 0.5\text{CBO GDP Gap}$, where $r^* = 2\%$, $\pi^* = 2\%$ and π is core PCE. See Chart 1.

5. March 2022 unemployment rate

6. As of February 2022

7. Based on Q1 core PCE inflation of 5.2% and Q1 effective Fed funds rate of 0.12%.

- Table 1 provides a summary assessment of the Fed's exits
- In each cycle and some intra-cycle periods, it shows the trends in inflation (Col 2) and unemployment (Col 3), the pattern of the real Federal funds rate and real money (Col 4)
- Column 5 measures deviations of the Fed funds rate from estimates of the Taylor Rule
- The right Column 6 describes the economic result
- In 1987, 1994, 2015-2018, the Fed tightening orchestrated economic soft-landings
- But more frequently, the Fed's exits resulted in recessions