Cohen, Lior

Working Paper

Globalization and Monetary Policy

Suggested Citation: Cohen, Lior (2022) : Globalization and Monetary Policy, ResearchGate, Berlin, https://doi.org/10.13140/RG.2.2.35201.67688

Working Paper

2022

Globalization and Monetary Policy

Lior Cohen*

Abstract:

I examine how globalization affects monetary policy, focusing on the labor market, imported inflation, and international spillovers by exploring the flattening of the Phillips Curve, where the traditional link between inflation and unemployment has weakened, potentially allowing central banks to pursue more accommodative policies. I also analyze how global integration complicates taming inflation and investigate how central banks' policies impact other economies. By integrating empirical evidence and theoretical perspectives, this study provides insights into central banks' evolving challenges in a globalized economy, offering implications for policy adjustments in response to global economic dynamics.

Keywords: Globalization, unconventional monetary policy, inflation dynamics, Philips curve flattening, labor market, unemployment
JEL Classification Codes: E42; E52.

*Freelance economist and writer; Lior@tradingnrg.com

Central banks aim to maintain a stable currency, liquid financial markets, and low inflation. However, these goals are becoming more challenging as countries turn to the global economy and are more interconnected. This paper examines how globalization could influence monetary policy via employment, inflation, and financial markets.

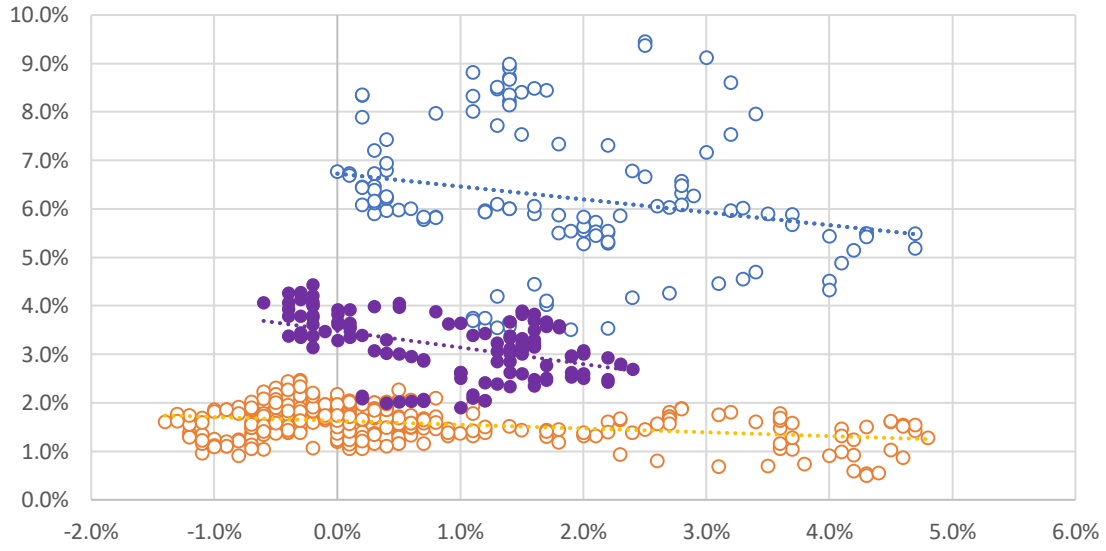
1. Employment

One channel through which globalization could have influenced monetary policy is by changing the labor market structure. Let us see how starting with the Philips curve.

The Philips curve captures the negative correlation between inflation and cyclical unemployment. The labor market tightens when unemployment falls, leading to higher wages – causing inflationary pressures. However, the relationship between inflation and unemployment has weakened in many countries over the last 30 years (see Stock and Watson (2020), Hazell et al. (2020), McLeay and Tenreyro (2020), and Del Negro et al. (2020)). This phenomenon is known as the Philips curve's flattening.

Consider the development of the Philips curve in the U.S. Figure 1 shows that from the 70s to the mid-90s, the correlation between inflation and unemployment was negative. In contrast, since the mid-90s, this correlation has weakened – as indicated by the flattening of the orange trend line.

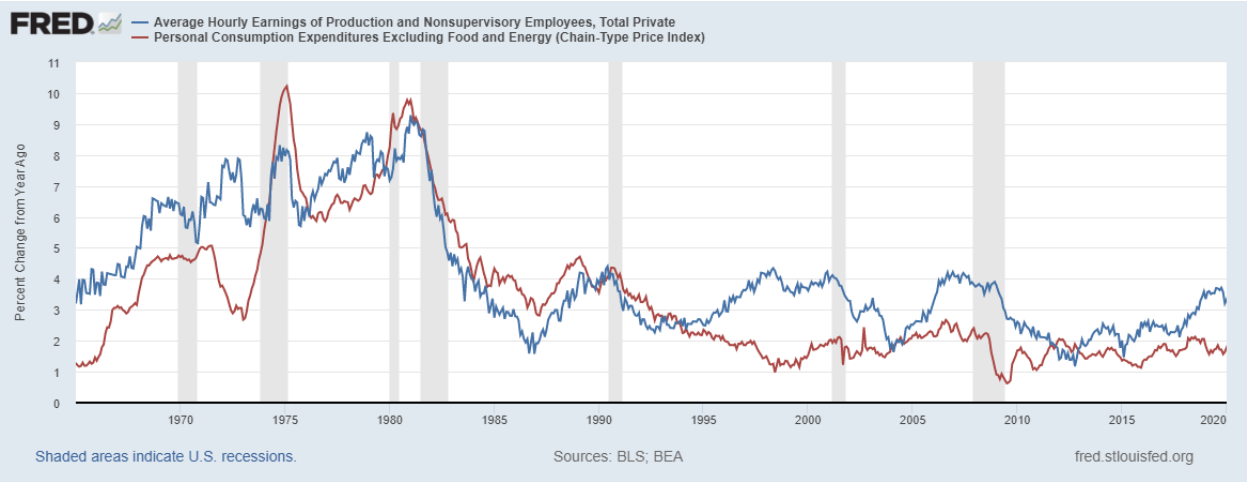
Figure 1: U.S. Philips Curve: Cyclical Unemployment* (X-axis) and Annual Change in Core PCE ((Y-axis). Percentages. 1975-1984 in Blue, 1985-1994 in Purple, 1995-2019 in Orange



Source: FRED and Author's calculations. *Actual unemployment minus nairu

Another sign of a flatter Philip curve is the weaker relation between wage growth and inflation. Figure 2 demonstrates how inflation and wages used to move in tandem, and by the mid-90s, even when wages rose, core inflation had not increased by much.

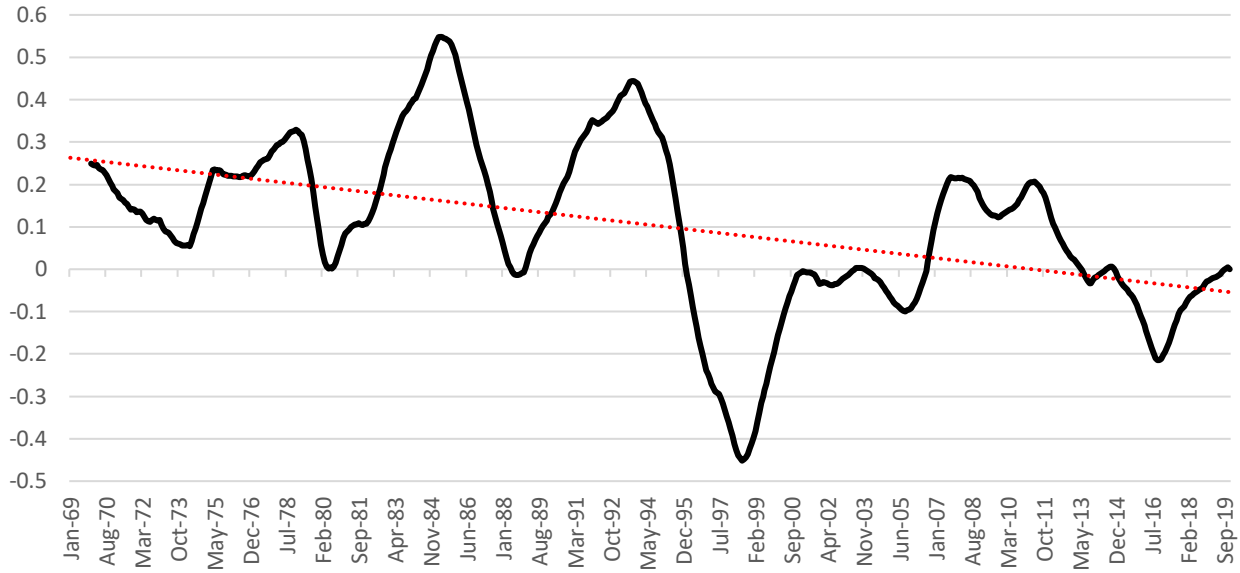
Figure 2: Percent Change from a year ago in Personal Consumption Expenditures Ex. Food and Energy and Average Hourly Earnings of Production and Nonsupervisory Employees, Total Private (Dollars per Hour), 1965-2019



Source: FRED

Figure 3 shows the linear correlation between wages and inflation in the U.S. While the correlation has shifted from positive to near zero in the 70s to mid-90s, they have mostly remained positive, as the red trend line indicates. However, from the mid-90s, correlations were mainly near zero or negative, and the trend line fell close to zero by 2019.

Figure 3: Moving Average (12 months) of Linear Correlation (60 months, moving correlation) between Personal Consumption Expenditures Ex. Food and Energy, and Average Hourly Earnings of Production and Nonsupervisory Employees, Total Private (Dollars per Hour), 1969-2019



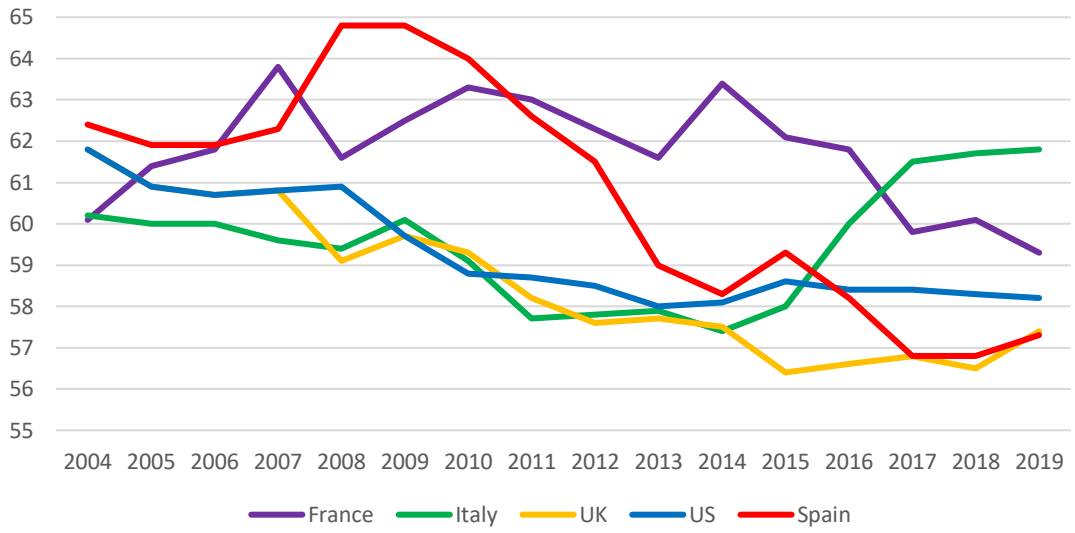
Source: FRED and Author's calculations

A flatter Philip curve suggests the natural interest rate – the rate at which it does not raise or reduce inflation – is lower than previously thought and allows central banks to keep an accommodative monetary policy without being concerned about overheating the economy. So, a flatter Phillips curve could influence central banks' decisions and allow them to focus on the labor market and less on inflation surprises (see Iakova (2007)).

One explanation for this phenomenon (see Hazell et al. (2020)) relates to central banks' inflation targeting since the 90s. This target "anchored" people's inflation expectations and kept them in check. In other words, people and firms that set wages and prices believe that future inflation will run low – usually at 2% – and do not update their belief even when inflation sometimes rises above the central bank's inflation target.

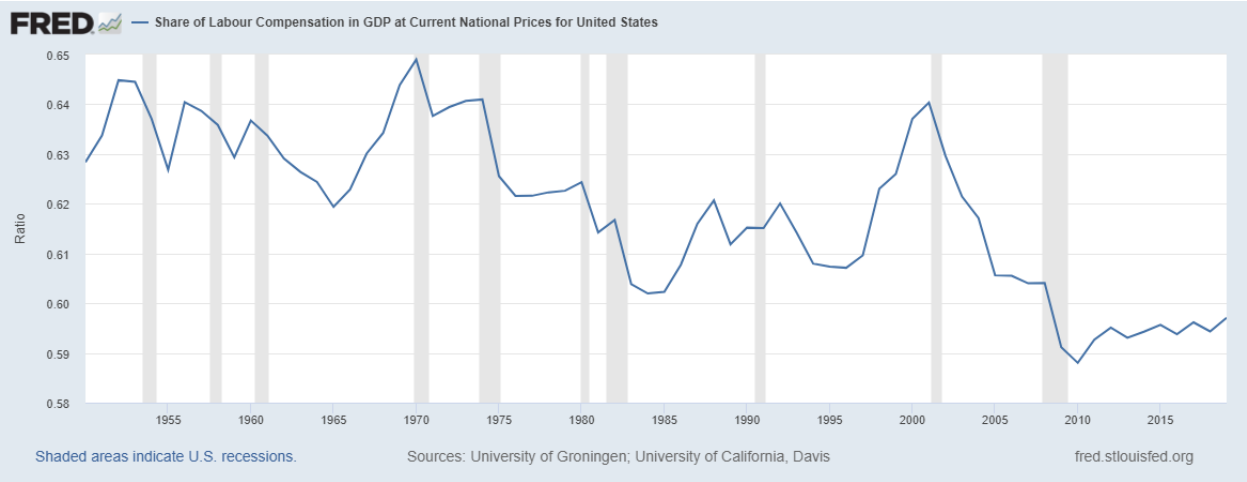
Another explanation is the decline in the labor share in many advanced economies, see Figures 4 and 5. If so, when wages rise, they have a smaller impact on local inflation, and advanced economies are less likely to experience a wage-inflation spiral than the U.S. experienced in the late 70s and early 80s.

Figure 4: Labor share of GDP, comprising wages and social protection transfers, %, 2004-2019



Source: United Nations Global SDG Database

Figure 5: Share of Labor Compensation in GDP at Current National Prices for the United States, 1950-2019



Source: FRED

There are several explanations for the decline in labor share. For example, Karabarbounis and Neiman (2014) show that lower relative investment goods prices explain nearly half of the labor share's fall. In addition, Stansbury and Summers (2020) show that the U.S. has seen a decline in workers' power, which could explain the downward trend in the share of income attributed to labor.

Could globalization flatten the Philips curve by reducing labor's share in the economy? One way is via firms' relocation. Many labor-intensive corporations move their operations overseas to reduce labor costs, thus reducing the share of labor in the economy. Also, if globalization weakened workers' bargaining power, labor costs would not rise and would not force companies to raise prices.

Guscina (2007) finds that the fall in labor share is part of a long-term trend attributed to the structural changes of economies that shift towards capital-enriched sectors and take a more significant role in the economy as the world becomes more globalized. Kohlscheen and Moessner (2022) analyze the impact of globalization on the Philips curve for 35 countries and argue that it has been a key contributing factor to its flattening – especially in open and global viewing economies. Harrison (2005) researched globalization's role in income distribution to capital and labor and showed that from 1960 to 2000, the share of labor was not constant. Indeed, the labor share declined in low-income countries while the share rose in high-income countries. Globalization-related issues such as a shift in investment and currency crises could partly explain this divergence. However, as noted, the labor share has fallen in high-income countries. More updated research could reach a different conclusion. Conversely, Maurice (2020) acknowledges globalization could have flattened the Philips curve. Still, he could not find enough evidence to establish globalization's role, if at all, in shaping the structure of the labor market.

One related way globalization could affect the labor market is by reducing the natural unemployment rate[1]. The non-accelerating inflation rate of unemployment (NAIRU) or u* is the rate where unemployment is stable – neither rising nor falling. When unemployment is below u*, there are many job openings and insufficient workers to fill them –leading firms to raise salaries to attract new employees and causing inflation to rise. Alternatively, when unemployment is above u*, many people search for work, allowing firms to lower wages, which reduces inflation. Phelps (1967) and Friedman (1968) show that the Phillips curve is not a stable relationship because sustained inflation becomes "built-in" to wage and price settings. I.e., maintaining unemployment low would require not just high but ever-accelerating inflation.

NAIRU cannot be directly observed; it is only estimated. And its estimation has declined in many countries. In the U.S., u* stood at 6.3% in 1978 and has since declined to 4.2% by 2022[2]. The rate declined from 9.6% in 1998 to 7.2% in 2020 in the Euro Area. According to the OECD (2015), the decline in labor share has been most noticeable in many G20 countries besides the U.S., including Spain, Italy, and Korea.

[1] While we use here the terms NAIRU and natural rate of unemployment interchangeably, they are not exactually the same. But most economists use as if they are the same and for our discussion, using them as if they are, will not change the discussion or conclusions.
[2] https://fred.stlouisfed.org/series/NROU

When u* falls, as it has been in recent years, it allows central banks to reduce their estimate of the natural interest rate so that more people could return to the labor market without risking creating inflationary pressures.

Globalization could have lowered u*, especially in the labor-intensive sector. For example, in the U.S., labor share mostly declined in manufacturing due to firms moving their operations abroad. Gordon (1997) estimated NAIRU and found that its decline during the 80s and 90s has been due to, among other factors, global competition.

So, globalization could have reshaped labor markets by flattening the Philips curve and lowering u*. While some research shows that it has done so, which allowed central banks to lower their estimate of the natural interest rate, identifying how much of it is due to globalization requires further research.

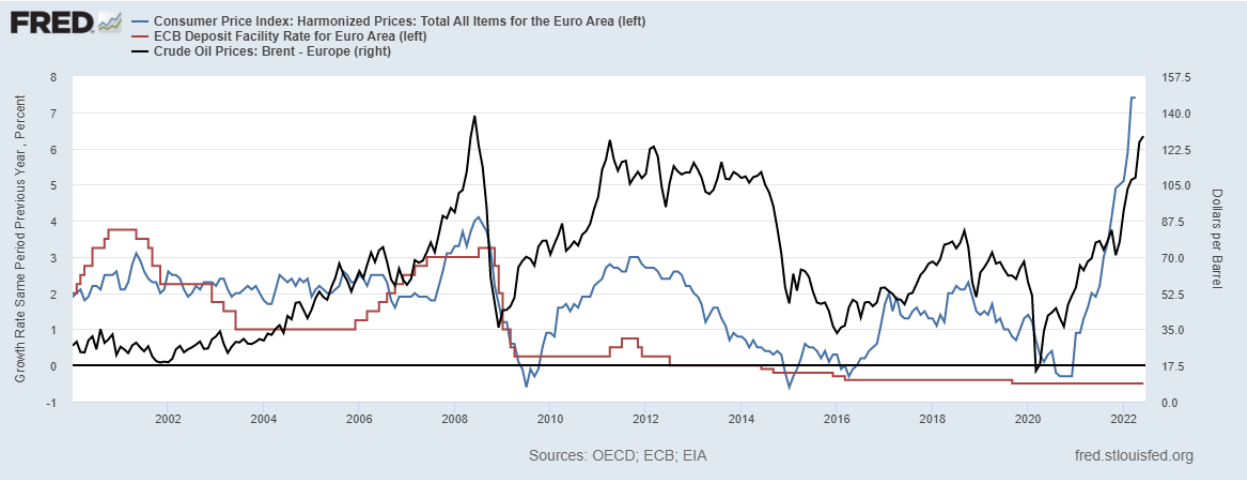
2. Imported Inflation

Since the 90s, many central banks have started targeting the inflation rate to determine their policy. However, as the global economy became more integrated, the pass-through of inflation made central banks' jobs harder. For example, when imported goods and services from abroad increase, which raises local prices, a central bank cannot directly affect imported inflation. The bank must then decide whether to dampen demand to curb inflationary pressures at the cost of depressing the economy and causing a recession. Or the bank could allow inflation to rise further, risking it would influence people's long-term inflation expectations. This shift could lead to a spiral of rising inflation that would eventually require a more aggressive policy intervention (as was the case in the early 80s in the U.S.). However, the research on this subject does not show a consensus on globalization's role. For example, Forbes (2019) studies globalization's effect on U.S. inflation and concludes that it has not contributed to the decline in long-term inflation. Whereas, according to Auer, Borio, and Filardo (2017), the rise in globalization and the interconnectedness of economies made domestic inflation more sensitive to global economic slack. As a result, increased globalization may have made inflation less responsive to domestic demand.

What should a central bank do when inflation rises and mostly comes from abroad? The answer depends on the state of the economy. Let us consider three case studies.

In 2011, oil prices surged during the Arab Spring (see Figure 6). This inflationary buildup led the ECB to raise interest rates at the height of the European debt crisis. ECB President Trichet said the bank would maintain "strong vigilance" to inflation risks. In effect, the ECB signaled that inflation is more important to contain than the European debt crisis or the weak economic recovery. This rate hike and the bank's forward guidance may have contributed to the European Monetary Union's 2012 recession. However, once the new ECB president, Mario Draghi, entered office in late 2011, he immediately reversed the bank's stance and slashed interest rates.

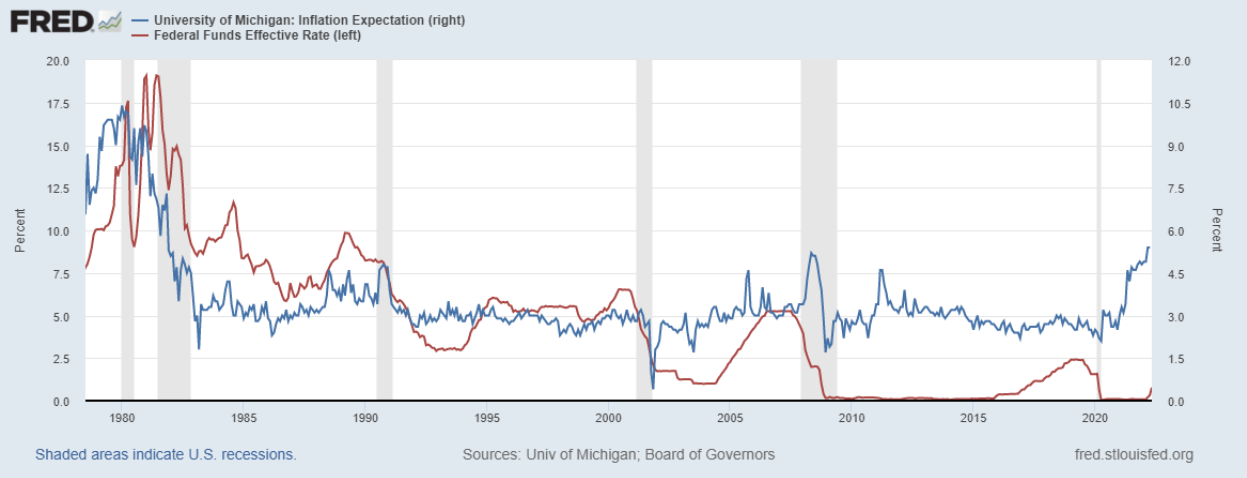
Figure 6: Euro Area Consumer Price Index (annual growth rate, left), ECB Deposit Rate (left) Brent Crude Oil Prices (in U.S. dollar), 2000-2022



Source: FRED

The second case was in the 70s and 80s when the U.S. experienced high inflation because of rising oil prices following OPEC's 1972 oil embargo. The rise in inflation led unions to demand higher salaries for their workers, forcing firms to raise prices due to higher labor costs. This sequence led workers to demand even higher wages to keep up with rising living costs, so the cycle continued. This inflationary cycle halted when Paul Volker, Fed Chair, decided to raise short-term interest rates and bring down inflation. As seen in Figure 7, inflation expectations surpassed 10% in the late 70s, and only years of high interest rates – peaking at 20% – and a double-dip recession brought inflation expectations between 2% and 3%.

Figure 7: University of Michigan: Inflation Expectation and Federal Funds Effective Rate (left), 1978-2022



Source: FRED

The third case is set in 2022, when supply chain issues and high commodities prices, partly due to the Russia-Ukraine war, led to a surge in global inflation. As a result, inflation expectations rose past 5% for the first time in over a decade (see Figure 7). This rise in inflation expectations could become embedded into people's expectations, making it harder to control inflationary pressures. So, the Federal Reserve raised interest rates to curb demand. This time, the U.S. labor market had low unemployment, a high quit rate, and numerous job openings – suggesting the economy was overheating. So, raising interest rates when the economy is overheating and the labor market is robust could be appropriate. Whether this rate hike cycle leads to a severe recession as in the early 80s is yet to be determined and will depend on how much the Fed will keep raising interest rates and for how long the supply-side issues persist.

Suppose the rise in inflation expectations is transitory. Also, assume past trends, such as rising savings rates and falling birth rates, continue to reduce inflationary pressures. In this case, the Federal Reserve would not have to raise rates much for extended periods as it did in the 80s. Conversely, if supply chain issues persist over unstable geopolitical conditions for years, these factors may offset the long-term trends of falling inflation expectations. This case may require higher interest rates for extended periods, perhaps even tilting the economy into a recession.

These case studies demonstrate that due to the interconnection of economies, inflationary pressures from abroad could force central banks to adjust their monetary policy stance and make it more daunting to tread the line between controlling inflation and not depressing the economy.

3. Spillover of monetary policy to currencies and interest rates

Another aspect of globalization is a spillover of central banks' policies, especially of the Federal Reserve, to other economies. We focus on two possible channels: The U.S. dollar and sovereign bond yields. While both are related, they could affect certain countries differently, depending on their reliance on foreign debt and currency regimes.

During the Bretton Woods era, the participating nations did not have an independent monetary policy under a fixed exchange rate regime. This system provided financial stability for countries to expand their international trade without concerns over exchange rate fluctuations. However, in 1971, President Nixon ended the fixed exchange rate regime. This regime change led many countries to turn to a free-floating exchange rate system that includes independent monetary policy and free capital flow. However, a country can only pick two (of three) options when establishing a currency and monetary policy system known as the "impossible trinity": Set a fixed currency exchange rate, allow free capital flow, and establish an independent monetary policy. Due to the nature of this system, it is impossible to utilize all three. So, if a country decides to have free capital flow and a fixed currency, it does not have an independent monetary policy.

Countries such as Bolivia, UAE, Saudi Arabia, Oman, and Qatar maintain a fixed exchange rate regime – their currencies are pegged to the U.S. dollar. Ecuador and Panama do not have a legal tender and rely on the U.S. dollar. As derived from the impossible trinity, these countries do not

have an independent monetary policy, so changes to Federal Revere's policies affecting the U.S. dollar could also influence these countries' economies.

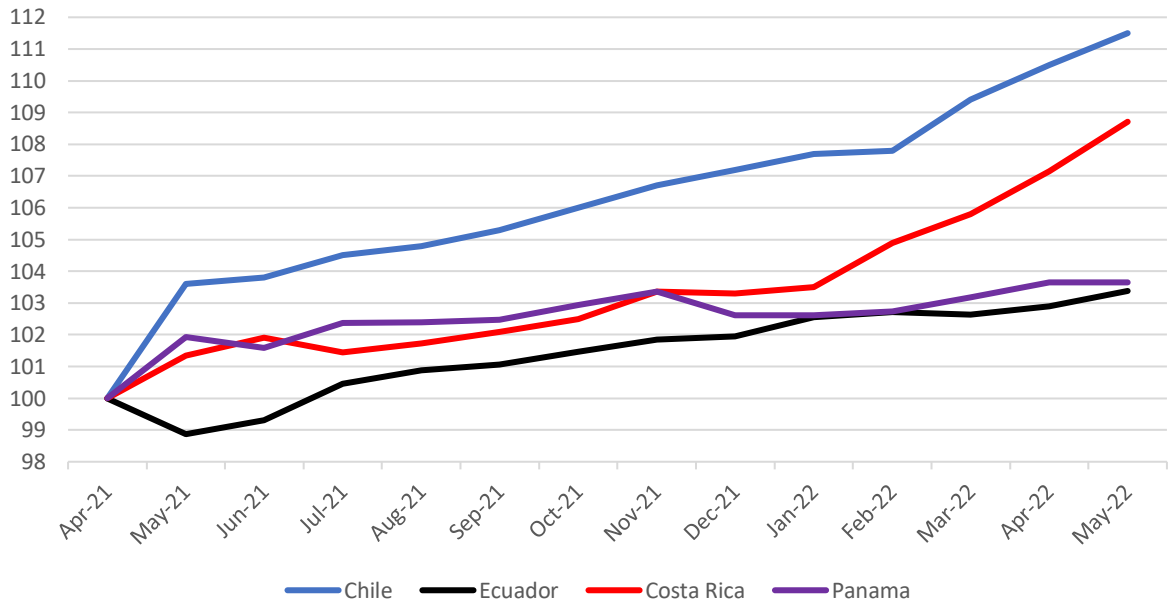
For example, in 2022, the Federal Reserve raised interest rates to combat rising global inflation rates. Yet, despite rising prices, Latin American countries with fixed exchange rates or U.S. dollars have seen lower inflation than those with a floating currency.

Figure 8 compares the inflation rate of Latin American countries with geographical proximity and demography similarity. For example, Ecuador and Panama, countries with a fixed currency regime, have experienced lower inflationary pressures than Chile or Costa Rica – countries with a floating currency. However, the currency regime could have contributed to the divergence in these economies' inflation rates: Countries with free-floating currency – and an independent monetary policy – saw higher inflationary pressures because their currencies devalued against the U.S. dollar, which only exacerbated the inflation problem. As a result, these countries' central banks were forced to raise interest rates to curb inflation and strengthen their currency relative to the U.S. dollar. Indeed, the Bank of Chile raised its short-term rates to 9% and the Central Bank of Costa Rica to 4% by June 2022 (in comparison, by early June, the Fed's rate was 0.8%). These rate hikes could lead to even harsher economic conditions and risk tilting their economies into a recession.

Conversely, economies with fixed exchange rates benefited from tightening the Fed's monetary policy – the stronger U.S. dollar allowed them to acquire commodities and products without suffering from a weaker currency[3].

[3] The strong U.S. dollar is not the only reason these countries face low inflation; for example, in Ecuador, the government has subsidized gasoline and food and kept local prices from rising. Nonetheless, it has contributed to these economies suffering less from high inflation, like countries with free-floating currency exchange.

Figure 8: Annual Rate of Inflation Normalized (100= April 2021), Chile, Ecuador, Costa Rica, and Panama, April 2021 to May 2022



Source: Trading Economies

Developing economies could also find raising capital in foreign markets harder when the Federal Reserve lifts interest rates. These economies require raising their bond yields to attract investors to acquire debt. Moreover, since many countries borrow in the U.S. dollar, the appreciation of the U.S. dollar would force their central banks to raise rates to curb their currencies' devaluation. In short, these countries are forced to raise interest rates to compete in the global markets and maintain their bonds attractive to investors.

These two scenarios demonstrate how changes in the monetary policy of one central bank, primarily the Federal Reserve, could affect countries and pressure them to raise interest rates to keep their currency from devaluating.

4. Concluding remarks

There are several ways globalization could influence central banks' monetary policy. First, it could have flattened the Philips curve and reduced NAIRU, allowing central banks to keep the natural interest rate lower than previously estimated with less concern over rising inflationary pressures.

Second, the interconnection of the global economy and the practice of inflation targeting for many central banks make their job more tasking when imported inflation affects local prices. Indeed, global shocks could require central banks to raise interest rates when there is an inflationary buildup or slash them when there is a deflationary shock. On such occasions, central banks need to consider how likely inflationary pressures could affect long-term inflation expectations and how their actions could impact the state of the economies.

Finally, some countries face spillover effects from other countries' central bank actions, mainly from the Federal Reserve. As such, these spillovers influence their decisions on monetary policy and could adversely affect their economies and raise their borrowing costs from abroad.

Bibliography

Auer, R., Borio, C. E., and Filardo, A. J. (2017). The globalisation of inflation: the growing importance of global value chains.

Del Negro, M., Lenza, M., Primiceri, G. E., and Tambalotti, A. (2020). What's up with the Phillips Curve? (No. w27003). National Bureau of Economic Research.

Friedman, M. (1968). The Role of Monetary Policy. American Economic Review, 58, 1–17.

Forbes, K. (2019). Has Globalization Changed the Inflation Process? BIS Working Paper No. 791.

Gordon, R. J. (1997). The time-varying NAIRU and its implications for economic policy. Journal of Economic Perspectives, 11(1), 11-32.

Guscina, A. (2007). Effects of globalization on labor's share in national income. Available at SSRN 956758.

Harrison, A. (2005). Has globalization eroded labor's share? Some Cross-Country Evidence. UC Berkeley and NBER.

Hazell, J., Herreno, J., Nakamura, E., and Steinsson, J. (2020). The slope of the Phillips Curve: evidence from U.S. states (No. w28005). National Bureau of Economic Research.

Iakova, D. (2007). Flattening of the Phillips curve: Implications for monetary policy. IMF Working Paper No. 07/76

ILO, OECD (2015). The Labour Share in G20 Economies, Report prepared for the G20 Employment Working Group.

Karabarbounis, L., and Neiman, B. (2014). The global decline of the labor share. The Quarterly journal of economics, 129(1), 61-103.

Kohlscheen, E., and Moessner, R. (2022). Globalisation and the Slope of the Phillips Curve. Economics Letters, 216, 110587.

Maurice, O. (2020). Global Dimensions of U.S. Monetary Policy. International Journal of Central Banking, International Journal of Central Banking, vol. 16(1), pages 73-132.

McLeay, M., and Tenreyro, S. (2020). Optimal inflation and the identification of the Phillips curve. NBER Macroeconomics Annual, 34(1), 199-255.

Phelps, E. S. (1967). Phillips Curves, Expectations of Inflation and Optimal Unemployment over Time. Economica, 34, 254–281.

Stansbury, A., and Summers, L. H. (2020). The declining worker power hypothesis: An explanation for the recent evolution of the American economy (No. w27193). National Bureau of Economic Research.

Stock, J. H., and Watson, M. W. (2020). Slack and cyclically sensitive inflation. Journal of Money, Credit and Banking, 52(S2), 393-428.