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ASSESSING THE MONETARY NATURE OF INFLATION AND UNEMPLOYMENT: A THEORETICAL AND EMPIRICAL REVIEW

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ABSTRACT

This paper analyses key theoretical and empirical debates that seek to clarify the scope to which inflation and unemployment can be treated as monetary phenomena. They continue to be of central concern in macroeconomic discourse, as scholars argued what induces these two important complications for the economy, given that monetary explanations have always been common and remain to be of great consideration to the economic policy makers. This study integrates the empirical evidence which accompanies the various strands of economic thought, as well as those traditionally considered classic and monetarist, also, with New Keynesian and Rational Expectations models, in order to explain the ways monetary impacts, interact with the real economy. It is true that monetary factors elucidate inflation and have a significant, often dominant role, specifically in the long run. Their relation with unemployment, though, is more intricate, as theory and evidence propose a short run trade-off but limited long run effect, mostly under rational expectations. The results reinforce the central bank's dominating actions to attain price stability, nevertheless also demonstrate the severe bounds of what can be done with monetary policy to reduce unemployment and highlight the natural rate of unemployment feature.

Keywords: Inflation, Unemployment, Monetary Policy, Phillips Curve, Quantity Theory.

Introduction

Inflation and unemployment are two major and problematic issues that economists and policymakers around the world continue to pay more attention to. Their pervasiveness in economic discourse emphasizes how key it is to understand their underlying dynamics and causes. A long-run debate in macroeconomic theory lies at the heart of this understanding: to what extent are inflation and unemployment are fundamentally monetary phenomena, especially in the developing economy? That is, do they primarily result from changes in the money supply or from the actions of monetary authorities, or are they under their control? The answer to this question is beyond just an academic exercise; it is the foundation for effective policy formulation with the goals of full employment and price stability.

This debate is augmented by the rich tapestry of macroeconomic thought's historical development. Classical economics, particularly when viewed through the perspective of the Quantity Theory of Money (QTM) prism, which postulated a different distinction: that is, money set the price level, whereas real variables like output and employment were influenced by real factors. Inflation was regarded as exclusively a monetary phenomenon under the "money neutrality" theory, and monetary policy had no influence or connection over long-term unemployment rate. This was fought against by the Keynesian revolution, which underlined the significance of aggregate demand management and postulated for monetary policy to play a more vigorous role in influencing concrete economic activity at least in the short run. The belief that monetary policy could influence an exploitable trade-off was further fuelled by the discovery of the Phillips Curve in the middle era of the 20th century, which showed an inverse relationship between unemployment and inflation.

However, the 1970s' stagflation era, that is a time of high unemployment and high inflation, broke the perception of the Phillips Curve's stability and gave a new way for the monetarist counter revolution movement championed by Edmund Phelps and Milton Friedman. They introduced the critical idea of the Natural Rate of Unemployment (NRU), therefore, arguing that an attempts to reduce unemployment below this rate through monetary expansion would only further accelerate inflation. They also reiterated the neutrality of money in the long run. This argument was further advanced by proponents of the subsequent Rational Expectations revolution, as well as Robert Lucas, Thomas Sargent, and Neil Wallace. They contended that anticipated alterations to monetary policy would have no real effects even in the short run, implying a vertical Phillips Curve across all horizons.

The level to which inflation and unemployment are key monetary phenomena remains a subject of considerable contention in spite of decades of rigorous theoretical development and extensive empirical research. Diverse schools of thought offer conflicting explanations and policy prescriptions, influenced by their assumptions about market flexibility, expectations formation, and the nature of economic shocks. Making these complicated arguments and critically evaluating the empirical evidence that has accumulated over the past few years is necessary at all times.

Literature Review

This section examines the fundamental theories that explain unemployment and inflation, demonstrating their intellectual development and shifting perceptions on the significance of monetary factors and a critical analysis.

Frameworks for Theories

Various schools of macroeconomic thought have taken or interpreted inflation and unemployment as monetary phenomena from different points of view. These points are:

1. The Quantity Theory of Money (QTM) and Classical Economics

Classical economics, specifically the Quantity Theory of Money (QTM), serves as the foundation for the monetary theory of inflation. MV = PY is based on the exchange equation, where M is the money supply, V is the money velocity (assuming it stays the same in the short run), P is the price level, and Y is real output (assuming it stays the same at full employment or the natural rate).

Assumptions: Classical economists are of the view that wages and prices could change at any given point in time, thereby keeping markets open at all times. Full employment would be the natural trend in the economy, implying a fixed or externally determined level of real output (Y). The institutional factors that determined velocity (V) were thought to be stable.

Implications for Inflation: Given fixed V and Y, any change in the money supply (M) directly corresponds to a change in the price level (P) in proportion to that change. Therefore, inflation is ultimately solely a monetary phenomenon.

Implications for Unemployment: Under orthodox assumptions, unemployment was regarded as a short-run deviation from full employment brought on by market imperfections (such as unions and minimum wages) or voluntary choices. It was not thought to be influenced by financial factors. Money had no effect on real or nominal variables because it was neutral.

2. The Keynes Economy

The General Theory of John Maynard Keynes, published in 1936, dared the conventional idea of automatic full employment by dramatically shifting the emphasis of macroeconomics away from supply-side factors and toward demand-side ones.

Concentrate on Aggregate Demand: Keynes argued that economies could reach equilibrium below full employment if aggregate demand was insufficient. It was believed that fiscal policy could effectively control demand.

Money's Role: The primary channel through which money influences aggregate demand is through interest rates. Interest rates fall when there is more money in circulation, which encourages investment and, as a result, aggregate demand. However, if the economy is caught in a "liquidity trap" or if investment is unresponsive to interest rates, this connection may be weak.

Implications for Inflation: Inflation could be brought on by "demand-pull" (that is, excess aggregate demand) or "cost-push" factors (for example, like wage increases and supply shocks). Demand could be influenced by monetary policy, but inflation wasn't just seen as a monetary issue.

Implications for Unemployment and the Phillips Curve: Keynesians argued that sticky wages and prices could cause unemployment to last indefinitely. The empirical discovery by A.W. Phillips (1958) showing an inverse relationship between wage inflation and unemployment (the Phillips Curve) appeared to provide a direct trade-off that monetary policy could exploit. According to a stable short-run Phillips Curve, monetary expansion could lower unemployment at the expense of higher but stable inflation.

3. Monetary exploitation (Friedman and Phelps)

Monetarism, led by Milton Friedman, launched a powerful counter-revolution against Keynesian orthodoxy in the 1960s and 1970s, particularly challenging the stable Phillips Curve.

Reassertion of QTM: Friedman (1963) famously declared, "Inflation is always and everywhere a monetary phenomenon," reaffirming the long-run proportionality between money growth and inflation.

The Natural Rate of Unemployment (NRU) and the Non-Accelerating Inflation Rate of Unemployment (NAIRU): Friedman and Phelps independently developed the idea of the NRU, which became more commonly known as the NAIRU. According to this theory, there is a unique unemployment rate that is in line with stable inflation. Policymakers would only accelerate inflation as workers and businesses adjust their inflation expectations if they used monetary expansion to bring unemployment below the NRU.

The Role of Expectations (Adaptive Expectations): Monetarists characterized the short-run Phillips Curve as a temporary illusion founded on adaptive expectations, in which agents construct expectations based on inflation in the past. Unemployment falls when actual inflation exceeds expected inflation. However, as expectations rise, the short-run curve moves upward, resulting in a vertical long-run Phillips Curve at the NRU, indicating that there is no long-term trade-off between unemployment and inflation. Long-term, monetary policy is neutral.

4. New Classical Economics (Expectations Based on Reason)

In the 1970s, New Classical economists such as Robert Lucas, Thomas Sargent, and Neil Wallace, building on monetarism, introduced the radical assumption of rational expectations. The Rational Expectations Hypothesis states that agents create their expectations by incorporating any and all relevant information they have access to, such as knowledge of the economic model and anticipated policy actions. They do not make consistent mistakes.

The Policy Ineffectiveness Proposition (PIP) holds that anticipated monetary policy adjustments have no immediate effect on real variables like output and employment. Because they surprise agents and cause brief deviations from equilibrium, only unanticipated monetary policy shocks can have real effects. If planned and systematic policy is implemented, this suggests a vertical Phillips Curve even in the short term.

Implications for Inflation: Unlike monetarism, inflation is entirely a monetary phenomenon because any systematic attempt to influence real output through monetary policy will simply be incorporated into expectations, resulting in price changes.

5. Economics under New Keynesianism

Recognizing the empirical failures of the Policy Ineffectiveness Proposition, New Keynesian economists emerged in the 1980s, combining the rational expectations framework with Keynesian insights on market imperfections.

a. **Market Imperfections:** New Keynesians place an emphasis on the sources of real and nominal rigidities (such as imperfect competition, information asymmetries, sticky prices, and sticky wages). Prices and wages cannot be immediately adjusted by these rigidities, allowing monetary policy to have a real effect in the short term.
b. **Short-Run Phillips Curve:** A monetary expansion can still reduce unemployment below its natural rate in the short term by surprising agents or taking advantage of nominal stickiness because of these rigidities. As a result, a New Keynesian Phillips Curve (NKPC) that takes into account future inflation expectations and the output gap/real marginal costs emerges.
c. **Long-Run Neutrality:** New Keynesians generally accept long-run money neutrality and the natural rate of unemployment/output, just like monetarists and New Classical

economists. •Emphasis: Focus on monetary policy's role in stabilizing the economy in the short run by addressing price stickiness and managing aggregate demand shocks.

Inflation: Long Run Evidence

The Quantity Theory of Money is supported by cross-country studies and analyses of hyper-inflationary occurrences in the long run. The duo, McCandless and Weber's (1995) seminar research conducted over 30 years in 110 countries discovered a nearly 1:1 correlation between inflation and long-run money growth. Similarly, Fischer et al. (2002) revealed a strong relationship between the growth of money and inflation, mainly at higher rates of inflation. This agreement recommends that sustained inflation is undeniably a monetary phenomenon.

Owing to the complexities of the Nigerian economy, the evidence regarding the long-run association between inflation and money supply is mixed. In addition, Danlami et al.'s (2020), in his investigation on "Money Supply and Inflation in Nigeria: The Myth of the Monetarist Theory of Inflation" gave a clear view that GDP has a greater influence on inflation in the long run than money supply does in the period. In Nigeria setting, this challenges the strict monetarist viewpoint. According to many scholars on the study of "The influence of money supply on inflation in Nigeria" (Bello & Saulawa, 2013, cited in Biblioteka Nauki), money supply has little effect on inflation over the long run and short run, probably because of the recession in the economy. Conversely, using the ARDL bounds F-test for cointegration, a NDIC (2016) report on "Money Supply Growth and Its Inflationary Effects in Nigeria" discovered evidence of a long-run relationship between money supply growth and inflation and a unidirectional causality linking money supply growth to inflation, which is consistent with the classical quantity theory discovery. According to a more recent study by (Williams, 2020), while interest rates had a positive impact on Nigeria's inflation in the long run, money supply had a significant and negative impact. The wide range of findings advocates that specific economic conditions, time periods, and the inclusion of further macroeconomic variables may stimulate the long-run connection in Nigeria.

Cross-Border Studies on Money Supply and Inflation: Long-Run Evidence

The long-term relationship between money supply and inflation is better understood via cross-border studies, which frequently confirm a strong relationship. According to 2009 ECB study titled "Long run evidence on money growth and inflation," the proportion of inflation's long run disparity that is explained by long-run money growth has consistently been close to one hundred percent, demonstrating a strong relationship, even if the proportionality is not always on a one-to-one basis. It brings to a lime light of a fact that might otherwise go unnoticed: the one-for-one correlation occurs during inflationary outbursts. Another cross-country study my International Monetary Fund (IMF) on "Public Debt, Money Supply, and Inflation", (Kwon et al., 2006) established that an increase in public debt is naturally inflationary in nations with a lot of debt, which can have a consequence on the money supply in the long-run, this relationship holds strong in developing nations with debt. According to De Resende et al., (2022) investigated on "Monetary Policy and Inflation"," the investigation outcome revealed a one percentage point increase in the money supply led to a rise in the consumer price index across a number of WAEMU nations over the course of time. However, the magnitude of the effect varied and was largely negligible in some countries due to administered price regimes. This study also showed that over a four-year period, fluctuations in the money supply account for 27% of the forecast error for Nigerian inflation, further indicating a link in the long run. According to Investopedia (2025), inflation will occur in the long run if the money supply grows faster than the economy as a whole. This relationship is consistent with the quantity theory of money. Finally, "Money

Supply, Banking, and Economic Growth: A Cross-Country Analysis" (AlHarbi et al., 2024) opined that broad money causes loans in the long run and that effective coordination between monetary policies and banking practices is essential for sustainable economic development and stability, which indirectly advocates that inflation can be controlled in the long run.

Short-run Deviations

Though the run is strong over the long run, empirical research consistently demonstrates that the short run connection between money growth and inflation is less clear. Short run deviations from the QTM predictions can be significant due to supply shocks (such as oil price shocks in the 1970s), shifts in fiscal policy, fluctuations in the exchange rate, and shifts in velocity. For instance, in the 1980s, a number of nations experienced "disinflationary recessions," during which tight monetary policy reduced inflation but increased unemployment.

This suggests that the path of short-run inflation is influenced by other factors, even though monetary policy has ultimate control. Even though the connection is strong over the long term, empirical research consistently demonstrates that the short-run relationship between money growth and inflation is less clear. Short-run deviations from the QTM predictions can be significant due to supply shocks (such as oil price shocks in the 1970s), shifts in fiscal policy, fluctuations in the exchange rate, and shifts in velocity. For instance, in the 1980s, a number of nations experienced "disinflationary recessions," during which tight monetary policy reduced inflation but increased unemployment. This suggests that the path of short-run inflation is influenced by other factors, even though monetary policy has ultimate control.

In Pakistan, studies by Vega et al. (2024) and Stylianou et al. (2024) consistently demonstrated a positive short-run cointegration between inflation and money supply. This suggests that changes in inflation are directly linked to changes in the money supply in the short term. The findings from Pakistan's highlight the immediate effect that monetary policy has on the dynamics of inflation.

In Sri Lanka, Madurapperuma (2023) also supports the idea that an increase in the money supply leads to inflation in the short term. Classical economic theories suggest a connection between the two. Their wavelet analysis specifically revealed significant causality from money growth to inflation and strong co-movements between the two variables around the Great Recession at a typical business cycle frequency. In contrast, Ryczkowski (2021) observed a generally weak and statistically nonsignificant link between broad money growth and inflation in inflation-targeting regimes over a longer period (post-1990). This recommends that even under inflation-targeting regimes, short-run increases in money growth can have a significant impact on inflation and call for policy responses.

Other Short-Run Determinants of Inflation (Less Direct Money Supply Connection)

Other short-run Inflation Determinants (Without a Direct Connection to the Money Supply) In addition to focusing on the money supply, other abstracts shed light on other short run factors that influence inflation. According to Chayterjee et al. (2024), capacity utilization and per capita GDP have a short run impact on inflation in developed nations, but this effect is inconsistent in developing nations. According to Mohammed and Ahmed (2021), inflation had a short run negative impact on economic growth, and remittances had a short run negative impact on inflation. Also, for Ethiopia, Ali & Asfaw (2023) found a bidirectional causality between inflation and economic growth in the short run. In the short run, Abubakar et al. (2021) discovered that the inflation rate is highly susceptible to lagged exchange rate, lagged exchange rate, and lagged broad money, highlighting the significance of exchange rate and previous monetary conditions. According to Chundama (2023), historical price controls and other policy

measures account for the fact that decomposed oil price shocks do not have a short run impact on inflation. This submits that other factors can sometimes dampen the immediate impact of certain shocks on inflation.

Money and the Unemployment Rate (Phillips Curve Dynamics)

The Original Phillips Curve: Early empirical research, such as Samuelson & Solow's 1960 study on the United States, initially revealed an exploitable trade-off, which appeared to support Phillips's explanations. As a result, policies were implemented in an effort to "buy" lower unemployment by raising inflation.

Breakdown in the 1970s: The 1970s' stagflation presented a significant empirical challenge to the stable Phillips Curve. Countries could not attain a stable trade-off because they had high unemployment rate and high inflation rate at the same time. Friedman's Natural Rate Hypothesis and Phelps's work on expectations were strengthened by this empirical failure.

Expectations-Augmented Phillips Curve: The expectations-augmented Phillips Curve was largely confirmed by subsequent empirical studies. The short-run Phillips Curve shifts upwards when inflation expectations rise, preventing a sustained decrease in unemployment below its natural rate (Gordon, 1997). The monetarist view that there is no long-term trade-off is bolstered by this.

The New Keynesian Phillips Curve (NKPC): According to Clarida et al. (1999), empirical estimations of the NKPC, which typically specify inflation as dependent on expected future inflation and real marginal costs (or the output gap), have gained traction. Due to price stickiness, these models generally demonstrate that monetary policy can influence the output gap and, consequently, unemployment in the short term. But they also show that there isn't a trade-off in the long run because agents eventually change their expectations. The degree of "stickiness" and the anticipatory nature of expectations are frequently the topics of discussion in the empirical literature.

Non-neutrality and effectiveness of policies

Empirical Challenges to the Policy Ineffectiveness Proposition (PIP): The Policy Ineffectiveness Proposition (PIP) from New Classical Economics is theoretically sound if strict assumptions are made. However, empirical evidence has generally demonstrated that monetary policy does have real effects, at least in the short to medium term. Unanticipated contractionary monetary policy typically results in a brief decline in output and employment before prices fully adjust, according to studies using vector autoregression (VAR) models to identify monetary policy shocks (Christiano et al., 1999, for example). This suggests that the real world has some kind of nominal rigidity, giving monetary policy a window of opportunity to influence real variables.

Limits on Effectiveness: These empirical studies, on the other hand, consistently show that the actual effects are only temporary. The Natural Rate is returned to over time as the effect of monetary policy on unemployment tends to diminish.

Research Gap

Lack of Research Understanding the monetary nature of unemployment and inflation has changed significantly over time, according to the literature. From Classical to New Keynesian, major schools of thought all agree that inflation is fundamentally a monetary phenomenon over the long term. Over expansion of the money supply ultimately drives persistent inflation. Even though monetary policy remains the ultimate anchor, non-monetary factors like supply shocks and fiscal policy can have a significant impact on inflation dynamics

in the short term. In terms of unemployment, there is a general agreement that it is not a monetary phenomenon in the long run.

Real structural factors in the labour market (such as labour market institutions, demographics, technology, and skill mismatch) determine the Natural Rate of Unemployment (or NAIRU). According to the Phillips Curve, monetary policy can influence unemployment in the short term, resulting in a temporary trade-off. Nominal rigidities and the time it takes for expectations to change cause this short run influence. However, attempts to permanently reduce unemployment through monetary stimulus only result in accelerating inflation rather than a sustained drop in unemployment.

Even though a lot of research has been done, a thorough and organized critical review that combines these different theoretical developments and empirical findings is still needed. Moving beyond individual school perspectives to a more integrated view of the capabilities and limitations of monetary policy, such a synthesis helps clarify the evolving understanding of these fundamental macroeconomic relationships. The purpose of this paper is to present such a consolidated viewpoint, bringing to light the distinctions and ongoing debates that exist within this important field of macroeconomics.

Analysis of the Study

The theoretical expositions and empirical evidence are combined in this section to provide a comprehensive response to the fundamental research questions. It critically examines the distinctions between inflation and unemployment as monetary phenomena, making a distinction between short run and long-run dynamics and taking into account the significance of expectations.

How Inflation Affects Money

There is a strong and consistent consensus regarding the monetary nature of inflation, particularly in the long run, according to an analysis of macroeconomic theories and empirical findings.

Long-Term Consensus: Inflation as a Purely Monetary Phenomenon

There is widespread agreement that sustained inflation is fundamentally a monetary phenomenon across classical, monetarist, New Classical, and New Keynesian frameworks. Despite its initial simplicity, the Quantity Theory of Money (QTM) encapsulates a profound truth: the price level will rise proportionally if the money supply grows consistently faster than the economy's real output. This is because prices rise as a result of too much money chasing too few goods.

Theoretical Basis: This agreement is based on the long-run neutrality of money, which means that once all adjustments have been made, money only affects nominal variables (such as prices) and not real variables (such as output or employment). Long-run, the classical dichotomy typically holds.

Empirical Support: This viewpoint is overwhelmingly supported by the empirical literature. McCandless and Weber's (1995) research on a wide range of countries and analyses of hyper-inflationary incidents (such as Germany after World War I, Zimbabwe in the 2000s, and Venezuela recently) vividly demonstrate that periods of high and sustained inflation are always accompanied by equally high rates of money supply expansion. The correlation is strong and widespread. In these instances, inflation is clearly a monetary phenomenon because there is a clear causal link between the creation of new money by the central bank and price increases.

Short-Run Variations: Expectations and Non-Monetary Factors

Despite the obvious long-run link, inflation's short-run dynamics are more complex and susceptible to non-monetary factors.

i. **Supply Shocks:** Even if there isn't an increase in the money supply, unexpected supply disruptions like rising oil prices, natural disasters, and global pandemics can raise production costs and cause "cost-push" inflation. This was evident during the oil shocks of the 1970s as well as the recent supply chain disruptions following COVID.

ii. **Fiscal Impulses:** In the short term, expansionary fiscal policies, such as substantial government spending that is not matched by tax increases, have the potential to boost aggregate demand and generate inflationary pressures, particularly if the economy is nearing its maximum capacity.

iii. **Changes in Exchange Rates:** In open economies, currency depreciation can cause foreign goods and services to be more expensive in local currency, which in turn can lead to imported inflation.

iv. **Expectations Formation** The process by which economic agents construct expectations is crucial. Under adaptive expectations, past inflation heavily influences current inflation, creating inertia. Inflation may appear more directly monetary even in the short term because agents immediately adjust prices based on expected policy when rational expectations allow anticipated monetary policy changes to be incorporated into prices more quickly.

The Monetary Nature of Unemployment: Phillips Curve Revisited:

The Monetary Characteristics of Unemployment When taking into account various time horizons, the relationship between monetary factors and unemployment is significantly more nuanced than the relationship between inflation and unemployment.

The Short-Run Trade-Off: The Temporary Effect of Money

Theoretical Basis: Keynesians first theorized the short-run Phillips Curve, which suggested an exploitable trade-off after Phillips first observed it. Nominal rigidities (sticky wages, sticky prices) and imperfect information account for this trade-off. If nominal wages are fixed, an unexpected monetary expansion lowers real wages or boosts demand, prompting businesses to hire more workers and temporarily lowering unemployment below its natural rate.

Empirical Evidence: An inverse relationship between unemployment and inflation was found in empirical studies, particularly from earlier periods (such as the 1960s). Both the New Keynesian Phillips Curve and the expectations-augmented Phillips Curve still have a short-run negative slope. Before prices fully adjust, unanticipated monetary policy loosening by central banks, such as by cutting interest rates, frequently results in a temporary increase in output and decrease in unemployment.

Therefore, unemployment can be influenced by monetary policy in the short term. However, this influence is not solely financial in the sense of a QTM-like direct, stable, and predicable causal link. Instead, it works by combining monetary impulses with existing nominal rigidities and the speed with which expectations are formed.

Unemployment as a real phenomenon: There is no long-term trade-off

Theoretical Basis (Natural Rate Hypothesis): The majority of macroeconomic schools Monetarist, New Classical, and New Keynesian agree that there is no long-term trade-off between unemployment and inflation. The Natural Rate of Unemployment (NRU) or the Non-Accelerating Inflation Rate of Unemployment (NAIRU) both accurately reflect this. Real

structural factors in the labour market (such as minimum wage laws, labour union power, efficiency wages, technological change, demographics, labour mobility, and skills mismatch) determine the NRU, which is the rate of unemployment that is consistent with stable inflation.

Adjustment Mechanism: If monetary policy tries to keep unemployment below the NRU in the long run, workers and businesses will eventually raise their expectations for inflation. Real wages and relative prices return to their equilibrium levels as nominal wages and prices fully adjust, while unemployment returns to its natural rate at a higher inflation rate. A vertical long-run Phillips Curve is the result of this.

Empirical Evidence: The 1970s stagflation provided persuasive empirical evidence in opposition to a stable long-run Phillips Curve. The vertical long-run curve has been confirmed by subsequent empirical research, which has consistently demonstrated that inflation expectations play a significant role in shifting the short-run Phillips Curve. This suggests that unemployment is, in the long run, a real phenomenon influenced by the structure and efficiency of labour markets rather than a monetary one.

The Role of Supply Shocks and Real Factors

Real, non-monetary factors can also have a significant impact on unemployment. Unrelated to monetary policy, supply shocks such as severe recessions, shifts in global trade patterns, and shifts in consumer preferences can cause structural unemployment or cyclical unemployment. For instance, a decline in specific industries due to technological advancements can cause unemployment that monetary policy alone cannot address. Similarly, despite having an impact on monetary policy, a global financial crisis has a fundamental impact on unemployment through real sector dislocations.

The Policy Ineffectiveness Debate and Real-World Evidence

While the Policy Ineffectiveness Proposition of New Classical economics asserts that even anticipated monetary policy changes have no real effects, empirical evidence (such as VAR studies) largely refutes this in the short term. The stickiness of wages and prices, imperfect information, and real-world nominal rigidities make it possible for monetary policy to have short run but significant effects on output and employment. However, the idea that monetary policy is not a tool for permanently altering the natural rate of unemployment is bolstered by the fact that these effects are only temporary.

Growing Awareness of the Expansion of Monetary Policy

The critical analysis reveals an evolving comprehension of monetary policy's capabilities and limitations. Keynesians initially viewed it as a tool for "fine-tuning" the economy, but the experience of stagflation and advances in theory led to a narrower perspective:

i. **Price Stability as the Primary Objective**: The general consensus has shifted toward making price stability the primary objective of monetary policy over the long term. In the long run, central banks have the best tools for inflation control.
ii. **Short run Output Stabilization:** In the short run, monetary policy can be crucial in protecting the economy from demand shocks and reducing cyclical output and unemployment fluctuations. In some New Keynesian models, a "divine coincidence" suggests that stabilizing inflation also stabilizes the output gap, allowing monetary policy to indirectly contribute to unemployment stability.
iii. **Constraints:** Monetary policy is constrained by factors like the Zero Lower Bound (ZLB) on nominal interest rates, which can render conventional instruments ineffective during severe recessions. The importance of financial stability has also increased,

necessitating compromises with immediate targets for unemployment. In addition, structural (non-monetary) solutions are required to address structural unemployment.

Analysis of the Study

The summary of the result, the following are some in-depth responses to the question of whether unemployment and inflation are monetary phenomena:

i. In the long run, inflation is unmistakably a monetary phenomenon. The excessive growth of the money supply over time is the direct cause of persistent inflation. Short run inflation dynamics can be influenced by non-monetary factors, but monetary policy is still the most important factor in determining long run price levels.

ii. In the long run, unemployment is not a monetary phenomenon. Real, structural aspects of the labour market and economy determine the natural rate of unemployment. When it comes to the rate of unemployment over the long run, monetary policy is neutral.

iii. Short-Run Interactions: Monetary policy can affect aggregate demand and unemployment in the short run by taking advantage of nominal rigidities. The short-run Phillips Curve depicts this temporary trade-off. But this effect is only temporary, and using monetary policy to permanently reduce unemployment will only accelerate inflation.

Conclusion

The theoretical and empirical connections between monetary factors, inflation, and unemployment have been critically studied in this comprehensive review. In the long run, inflation is primarily a financial phenomenon. The ratio of money supply growth to real output growth ultimately determines the rate of sustained price increases. Short run deviations can be caused by non-monetary factors such as supply shocks or fiscal impulses, but monetary policy ultimately determines the long-run inflation rate. On the other hand, unemployment is not a monetary issue in the long run. It eventually reaches a natural rate that is established by actual structural factors in the labour market and economy. Any monetary attempt to permanently reduce unemployment below its natural rate will only result in accelerating inflation, with no lasting influence on joblessness, despite being prone to short run influence from monetary policy owing to nominal rigidities and the time it takes for expectations to adjust.

Recommendations

These findings have significant consequences for policymakers, mainly for fiscal authorities and central banks:

i. Price Stability is the primary function of the central bank because monetary policy is the most efficient method for long run price stability. It is consistent with low and stable inflation targets, central banks should give control over the growth of the money supply and anchor inflation expectations first.

ii. Policymakers must acknowledge that monetary policy cannot permanently lower unemployment below its natural rate. It has a short run effect on unemployment, primarily stabilizing the economy against demand shocks and reducing cyclical unemployment.

iii. Governments should concentrate or implement supply-side policy and structural reforms in order to address high and persistent unemployment, particularly structural unemployment.

iv. Effective macroeconomic management necessitates coordination, despite the obvious division of labour between monetary policy (for price stability) and structural policy (for long-term unemployment).

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