

Beyond the Phillips Curve Orthodoxy: Reconsidering the Inflation–Unemployment Trade-Off Under Secular Stagnation and Structural Labor Market Fragmentation

Sam Thomas

Professor

Goethe University Frankfurt

Theodor-W.-Adorno-Platz 4, 60323 Frankfurt am Main, Germany

Cameron Moore

Associate Professor

University of Toronto

100 St. George Street, Toronto, Ontario M5S 3G3, Canada

Rowan Lee

PhD

Seoul National University

1 Gwanak-ro, Gwanak-gu, Seoul 08826, Republic of Korea

Jordan Davis

D.Sc

Erasmus University Rotterdam

Burgemeester Oudlaan 50, 3062 PA Rotterdam, Netherlands

Abstract. The canonical Phillips Curve framework has long underpinned monetary policy calibration across advanced and emerging economies; however, its empirical reliability has deteriorated markedly in the post-2008 macroeconomic environment. This study employs a panel error-correction model augmented with time-varying parameter estimation across 34 OECD economies (2000–2023) to reassess the inflation–unemployment nexus under conditions of secular stagnation, labor market dualization, and anchored inflation expectations. Controlling for hysteresis effects, gig-economy proliferation, and central bank forward guidance credibility, our findings indicate a statistically significant flattening of the short-run Phillips Curve slope, rendering conventional demand-side stimulus increasingly ineffectual. We further identify structural breaks coinciding with the COVID-19 labor supply shock and post-pandemic wage-setting dynamics. Policy implications challenge inflation-targeting regimes predicated on a stable non-accelerating inflation rate of unemployment.

Keywords: Phillips Curve flattening, secular stagnation, labor market dualization, time-varying parameter model, NAIRU instability, inflation expectations anchoring, hysteresis effects, panel error-correction model, monetary policy transmission

Introduction

The relationship between price inflation and unemployment has constituted one of the most consequential empirical regularities in macroeconomic theory since A.W. Phillips's seminal 1958 contribution. For decades, this inverse trade-off provided the operational backbone of demand management policies across both advanced industrialized economies and developing market systems, guiding the calibration of monetary instruments by central banks committed to dual or singular mandate frameworks. Yet the prolonged era of subdued inflation coexisting with historically low unemployment rates—most conspicuously observed across the United States, the Euro Area, and Japan in the period spanning 2014 to 2019—has exposed deep structural fissures in the conventional model, reigniting scholarly and policy debate over its continued applicability in the contemporary macroeconomic landscape. The post-2008 global financial crisis environment introduced a confluence of structural forces that the standard New Keynesian Phillips Curve and its adaptive-expectations predecessors were not designed to accommodate. Secular stagnation, as systematized by Summers (2014) and empirically elaborated by Eggertsson and Mehrotra (2014), posits a persistent insufficiency of aggregate demand rooted in demographic deceleration, declining real neutral interest rates, and chronic investment shortfalls—conditions that fundamentally alter the slope and stability of the inflation–unemployment schedule. Simultaneously, the accelerating fragmentation of labor markets through platform-mediated gig arrangements, involuntary part-time employment, and zero-hours contractual structures has rendered aggregate unemployment statistics increasingly inadequate as proxies for genuine labor market slack. The measured unemployment rate, by concealing underemployment, discouraged worker withdrawal, and precarious employment proliferation, may systematically mislead monetary authorities relying on Phillips Curve gap estimates in their reaction functions. Furthermore, the extraordinary monetary policy experimentation of the post-crisis decade—comprising quantitative easing, forward guidance, and negative nominal interest rate policies—has profoundly altered the expectational formation processes of households and firms, producing remarkably well-anchored inflation expectations even in the face of substantial cyclical fluctuation. This anchoring mechanism, while stabilizing in one dimension, paradoxically attenuates the short-run inflation responsiveness to unemployment deviations from equilibrium, contributing to the empirically documented flattening of the Phillips Curve slope documented across multiple OECD jurisdictions. The COVID-19 pandemic and its aftermath introduced an additional layer of complexity: an unprecedented simultaneous supply-side labor shock, a surge in sectoral mismatch unemployment, and subsequent wage acceleration driven by compositional and bargaining-power dynamics rather than traditional demand-pull pressures. These developments have further complicated the interpretation of unemployment–inflation co-movements and raised fundamental questions about the validity of the non-accelerating inflation rate of unemployment (NAIRU) as an operational policy benchmark. Against this backdrop, the present study proceeds as follows. Section 2 reviews the theoretical evolution and empirical contestation of the Phillips Curve framework, situating the current critique within the broader literature on

monetary policy effectiveness. Section 3 describes the panel data construction, variable operationalization, and the time-varying parameter panel error-correction methodology. Section 4 presents and interprets the main empirical findings, including structural break detection and heterogeneity decomposition across economy-type subgroups. Section 5 discusses policy implications for inflation-targeting central banks and proposes directions for framework revision. Section 6 concludes.

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