A wedge in the dual mandate: Monetary policy and long-term unemployment ☆

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A B S T R A C T

In standard macroeconomic models, the two objectives in the Federal Reserve's dual mandate—full employment and price stability—are closely intertwined. We motivate and estimate an alternative model in which long-term unemployment varies endogenously over the business cycle but does not affect price inflation. In this new model, an increase in long-term unemployment as a share of total unemployment creates short-term tradeoffs for optimal monetary policy and a wedge in the dual mandate. In particular, faced with high long-term unemployment following the Great Recession, optimal monetary policy would allow inflation to overshoot its target more than in standard models.

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1. Introduction

The Federal Reserve's statutory dual mandate to achieve the goals of full employment and price stability has been a crucial element in the formulation and conduct of U.S. monetary policy. However, although not always appreciated, the term "dual" means more than just the existence of *two* objectives, for it also connotes a link between those goals. The Federal Open Market Committee's (FOMC) Statement on Longer-Run Goals and Monetary Policy Strategy (Federal Open Market Committee, 2014) describes this link:

> In setting monetary policy, the Committee seeks to mitigate deviations of inflation from its longer-run goal and deviations of employment from the Committee's assessments of its maximum level. These objectives are generally complementary. However, under circumstances in which the Committee judges that the objectives are not complementary, it follows a balanced approach in promoting them, taking into account the magnitude of the deviations and the potentially different time horizons over which employment and inflation are projected to return to levels judged consistent with its mandate.

That is, the achievement of full employment is viewed as closely intertwined with the achievement of price stability. Indeed, in standard macroeconomic models, employment and inflation move in the same direction in response to demand-type shocks. This positive comovement, or complementarity, underlies the so-called divine coincidence of monetary policy, in which the central bank can simultaneously stabilize both employment and inflation by altering a single policy instrument—the short-term nominal interest rate. In contrast, supply-type shocks, which push employment and inflation in opposite

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directions, disrupt this complementarity and lead to tradeoffs for monetary policy that must be balanced. In this paper, we introduce a wedge in the dual mandate that gives demand shocks some of the attributes of a supply shock, thus leading to monetary policy objectives that are less complementary and to greater tradeoffs for monetary policymakers over time.[1]

The wedge we introduce is based on the prevalence of long-term unemployment and its distinct properties. For Europe, a well-established literature has argued that the long-term unemployed are less attached to the labor market than the short-term unemployed and, consequently, have little influence on wage and price determination. More recently, a variety of studies have highlighted this same phenomenon in the United States, including Stock, 2011, Gordon, 2013, Krueger et al., 2014, Watson, 2014, and the Economic Report of the President from the Council of Economic Advisers, 2014, pp. 82–83. Given the unprecedented spike in long-term unemployment in the wake of the Great Recession, this research concludes that long-term unemployment has much less influence on inflation than short-term unemployment. Although far from dispositive, this evidence suggests that the measure of slack relevant for determining U.S. inflation may also be more narrowly focused on short-term unemployment than total unemployment.

If the long-term unemployed have little or no effect on wages and prices, a key question for policy is whether the yardstick for measuring full employment should be similarly adjusted. That is, should policymakers focus on closing the short-term unemployment gap or, to the same effect, adjust the natural rate of total unemployment upward to completely offset the greater number of long-term unemployed. So far, the available evidence does not support such an approach. As stated by Federal Reserve Chair Janet Yellen, 2014, the long-term unemployed remain relevant for assessing slack because they "look basically the same as other unemployed people in terms of their occupations, educational attainment, and other characteristics." That is, the evidence suggests that the long-term unemployed are able and willing to work and only differentiated by the duration of their joblessness.

Indeed, rather than narrowing the definition of slack, some Fed policymakers have instead indicated that they are considering a *more expansive* measure for assessing full employment than just the total unemployment rate. Notably, Yellen, 2014 argues for a broad view of full employment that includes not just the short- and long-term jobless in the benchmark unemployment count but also takes account of the number of discouraged job-seekers and part-time employees who want full-time work.[2] This broad definition implies an even greater separation between the slack relevant for forecasting inflation and the slack relevant for assessing full employment.[3] It is thus consistent in spirit with the alternative framework that we propose, and the use of this expanded definition of slack would amplify our quantitative results. Still, for our analysis, we only consider a wedge in the dual mandate resulting from the long-term unemployed and leave for future research any consideration of a more expansive definition of full employment.

We begin our investigation of these issues by first describing how short- and long-term unemployment can be integrated into a simple model built with three macroeconomic relationships. The first of these relates the short-term unemployment share of total unemployment to the overall business cycle. Although this relationship, which determines an endogenous, countercyclical short-term share, is new to the literature, it is both intuitive and well supported in the data. The second equation determines inflation and is consistent with the literature noted earlier that finds that short-term unemployment is the best measure of inflationary gaps in European and U.S. Phillips curves. The third equation is a rudimentary traditional IS curve or Euler equation that relates unemployment to the nominal short-term interest rate, which is the monetary policy instrument. Of course, our simple empirical structure is far from a definitive treatment or the final word on these issues. However, our evidence, along with earlier work, seems to support these macroeconomic relationships as plausible ones that are worthy of further consideration and policy analysis.

Given this simple structure, we then investigate its implications for monetary policy. We compare optimal monetary policy in this alternative model in which the short-term unemployment share is determined endogenously and only the short-term unemployed affect inflation to optimal policy in a standard model without those features. From the perspective of the dual mandate, cyclical movements in the short-term unemployment share create a transitory wedge between the unemployment rate relevant for inflation and that relevant for characterizing maximum employment. This wedge creates a tradeoff for monetary policy because it is not feasible to attain both objectives simultaneously. In our empirical policy analysis, we find that movements in the short-term unemployment share can create sizable monetary policy tradeoffs. In particular, we use model simulations to show that following the Great Recession, when the short-term unemployment share was at a historic low, the optimal monetary policy would allow inflation to rise well above levels implied by the standard model and indeed to overshoot the inflation target for a time.

The paper is structured as follows. Section 2 describes the variation in the share of short- and long-term unemployment over time in the broader context of the economy. Section 3 discusses the relevance of long-term unemployment for monetary policy in a theoretical setting. Section 4 provides an empirical analysis of monetary policy and long-term unemployment. Section 5 concludes.

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[1] Another aspect of the close connection between both parts of the dual mandate in the standard framework arises because the full employment goal is taken as equivalent to the level of employment consistent with price stability. Or, in the usual terminology, the natural rate of unemployment is equivalent to the non-accelerating inflation rate of unemployment, or NAIRU. See, for example, Footnote 17 in the analysis of Yellen, 2012.

[2] Similarly, the minutes of the FOMC meeting on January 29, 2014, noted that several participants "pointed out that broader concepts of the unemployment rate, such as those that include nonparticipants who report that they want a job and those working part time who want full-time work, remained well above the official unemployment rate, suggesting that considerable labor market slack remained despite the reduction in the unemployment rate."

[3] Assuming, for example, that involuntary part-term employees are not integral to wage determination (and the Phillips curve) perhaps because by expressing a desire for more hours of work at their current wage, part-time workers have lost bargaining power.