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Imperfect transparency and shifts in the central bank's output gap target

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ABSTRACT

In the New Keynesian framework, the public's expectation about the future path of monetary policy is an important determinant of current economic conditions. This paper examines the impact of unobservable shifts in the central bank's output gap target on inflation and output dynamics. I show that when the degree of persistence of a shock is private information of the central bank, and policy is discretionary in nature, it is optimal for the central bank *not* to reveal the future expected path of the output gap target. Perfect transparency unambiguously increases inflation and output volatility and thus lowers welfare.

1. Introduction

Traditionally, central bankers have been reluctant to disclose their objectives or intended future actions. Indeed, the U.S. Federal Reserve did not make it a practice to officially announce its instrument target until February 1994, and post-meeting statements were not released until May 1999. The economic reasoning for this secrecy has been less than obvious. One common argument in favor of imperfect transparency (IT) is that it shields the monetary authorities from political oversight, thus protecting the central bank's independence. This reasoning has become increasingly less convincing. Blinder (1998) effectively argues that improved transparency is likely to reduce political influence over monetary policy since it increases accountability and thereby enhances public support for central bank independence. Additionally, with the rise of the New Keynesian synthesis, which emphasizes the importance of forward-looking expectations in price-setting behavior, there has been an increasing realization that transparency can potentially anchor inflation expectations and improve the trade-off between inflation and output variability (e.g., Woodford, 2004).

Inflation targeting central banks have generally been the strongest advocates for increased transparency. By announcing an explicit inflation target and publishing periodic inflation-reports, which provide a basis for monetary policy decisions, inflation targeting central banks hope to provide enough transparency to stabilize inflation expectations around the target. Although such practice is likely to increase both accountability and the public's understanding of the objectives of monetary policy, there are still measures that can be taken to further enhance transparency about future policy actions. The most obvious measure would be to publish the intended future path of the policy instrument. Yet, very few central banks

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are willing to provide such degree of transparency.[1] Theoretically, of course, central banks need not go as far as publishing the projected path of the policy instrument. If the public knows the targeting rule used by the monetary authorities when setting the instrument, all that is really needed for the public to infer future policy actions is either: (i) complete transparency regarding the bank's belief about the future path of variables used as inputs in the decision process or (ii) a projection of the future path of target variables such as output and inflation based on the intended future path of the policy instrument. Although most inflation targeting central banks do publish inflation forecasts, these forecasts are typically not based on the intended future path of policy. Instead, they are either based on market expectations of the policy instrument or simply derived under the assumption of a constant instrument rate. Thus, even inflation targeting central banks seem to be reluctant to embrace perfect transparency (PT).

Whether a central bank should go as far as displaying the future projected path of the instrument rate is currently a widely debated subject. Mishkin (2004) argues that too much transparency can be counterproductive as far as it complicates communication with the public and distracts from the central bank's long-run goals of low and stable inflation. Goodhart (2005) also points out that committing to a future path of the policy instrument can be interpreted as unconditional, thus constraining desired policy flexibility in the future. Svensson (2006) and Woodford (2004), on the other hand, argue that if the purpose of transparency is to increase the predictability of monetary policy, then revealing future policy intentions should be preferable.

The theoretical literature has provided ambiguous conclusions about the desirability of transparency. A common theme across studies, however, is that increased transparency improves the public's understanding of the central bank's objectives and actions.[2] As a result, transparency renders expectations more responsive to current policy actions. The transparency literature has highlighted two channels through which the increased responsiveness of expectations impacts welfare. First, if monetary policy only affects the real economy through unanticipated policy actions, then increased transparency may reduce the effectiveness of monetary policy as it can no longer surprise the public. Thus, publishing economic forecasts makes it harder for monetary policy to mitigate real shocks and would therefore be welfare reducing. This argument, of course, hinges on the assumption that the central bank has some degree of informational advantage about real shocks and that anticipated policy has no real impact.[3] Second, increased responsiveness of expectations may induce reputational effects which discourage the central bank from engaging in inflationary policy. If agents understand the incentives that the central bank is faced with, then inflation expectations rise when the marginal cost of expansionary policy is perceived as low, preventing these inflationary actions to be realized in the first place.[4] Publishing forecasts would thus impose an external disciplinary mechanism on the central bank which would have welfare improving effects. These reputational effects do not generally depend on whether anticipated policy has a real effect on the real economy. Nonetheless, the bulk of the transparency literature typically makes use of a Lucas-type supply curve and abstracts from the forward-looking nature of expectations as exhibited by the stylized New Keynesian Phillips curve.[5]

The purpose of this paper is to take a new look at the desirability of transparency with an emphasis on forward-looking expectations.[6] Consistent with the core of the transparency literature, I examine the case where the preferences of the central bank are time varying and unobservable to the public. In particular, I assume that the central bank's output gap target is subject to temporary and persistent shifts. In a perfectly transparent policy regime, the central bank reveals the true nature of the preference shock to the public. In practice, this can be done by publishing forecasts of the instrument rate or the goal variables (e.g., inflation and output gap) from which the public can infer the true nature of the preference shock. Under IT, however, the public must form an optimal forecast of the output gap target. I show that, when expectations are forward-looking and monetary policy is discretionary in nature, it is optimal for the central bank *not* to reveal the future expected path of the output gap target. In fact, IT lowers both inflation and output gap volatility and hence raises welfare.

The key to this result is the impact that future expected policy has on inflation expectations. Under PT, the cost of expansionary policy, in terms of higher inflation, is always lower when the preference shock is transitory than when it is persistent. This is because inflation expectations are more responsive to persistent shocks than to transitory policy shocks. Under IT, however, agents assign some probability that a shock is temporary when the shock in reality is persistent and vice versa. Thus, IT *reduces* the responsiveness of expectations when the output gap shock is persistent but *increases* the responsiveness of expectations when the shock is transitory. Thus, lack of transparency increases the cost of achieving an overoptimistic output gap target when the perceived trade-off between inflation and output is low (i.e., when the shock is transitory) but decreases the cost when the trade-off between inflation and output is high (i.e., when the shock is persistent). As a result, IT lowers both inflation and output gap volatility by smoothing inflation and output gap dynamics.

[1] The Federal Reserve Bank of New Zealand, the Bank of Norway, and most recently the Swedish Central Bank (Riksbanken) publish the projected path of the policy instrument.

[2] See Carpenter (2004) for a comprehensive review of the theoretical literature on policy transparency.

[3] See Cukierman and Meltzer (1986) and Geraats (2007).

[4] See Faust and Svensson (2001), Jensen (2002) and Geraats (2005) for models emphasizing the reputational effects of transparency.

[5] One notable exception is Jensen (2002) who use a two-period New Keynesian Phillips curve.

[6] The fundamental reason for using the New Keynesian Phillips curve is twofold. First, it provides a more realistic depiction of the transmission mechanism of monetary policy by allowing both current and future policy actions to affect real activity. Second, underpinning the discussion on the publication of forecasts is the presumption that the central bank can affect current expectations by revealing expected future actions. A Lucas-type Phillips curve only allows for current actions to matter in the formation of today's expectations.