

Output Persistence in Portugal

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Abstract - The measurement of output persistence in Portugal is the main goal of this paper. By the use of a non-parametric methodology, it is shown that the level of output in Portugal exhibits a relatively high degree of persistence. This result is essential from a (contractionary/expansionary) policy point of view as the magnitude and duration of policy effects depend upon the level of persistence in output.

Keywords: *Output, Persistence, Portugal.*

1. Introduction

The recent world economic and financial crises have been mitigated by several kinds of economic policies, in particular by fiscal measures designed to obtain immediate growth through countercyclical stimulus or to make the economy grow after a period of austerity. Plainly, the success of those policies, in particular the contractionary ones, depend upon the reaction of economic agents, in particular, and of the whole economy, in general.

The presence of persistence, here understood as inertia, can substantially change the reaction of the economy to a policy shock or to innovations. Persistence can reduce the incidence, length, and severity of shocks and of changes in economic conditions. Furthermore, measuring the response of output to a shock is also important because it may show when it is more essential to act to overcome the harmful effect of a shock.

Traditionally, macroeconomic policies play the dominant role in smoothing the business cycle, but the effectiveness of those policies depends upon the economy's resilience. That is, the success of those policies depends upon the ability of the economic system to absorb the policy shocks and to return to the baseline. Therefore, given the presence of persistence in output, the key question is whether it is viable and effective to design countercyclical policies that act through expenditures, even if they are optimal.

The literature on the importance of persistence in macroeconomics is inexplicably insufficient. The first macroeconomic studies incorporating the issue of persistence appeared only in the early 1980s, and only recently did a factual interest, from an empirical

point of view, in the phenomenon emerge. The importance and the need to (theoretically and empirically) study the phenomenon are further strengthened by the current economic and financial crisis, in which the persistence of the recession is a central issue.

The first studies that explicitly considered the importance of persistence were of a macroeconomic nature and began by highlighting the role of both staggered wage-setting and staggered price-setting as a source of persistent real effects of monetary shocks (Taylor, 1980; Rotemberg and Woodford, 1997; Huang and Liu, 2002; see also Ascari (2003) for a critique of the real role of staggered wage-setting and staggered price-setting as sources of inertia). On the other hand, given the alleged inability of standard real business cycle models to reproduce the evolution of output shown under real-world conditions (Cogley and Nason 1995), the inertial hypothesis was also used to explain the (strong) persistence of output that was observed in reality (Bouakez and Kano, 2006; Maury and Tripier, 2003). However, this development did not lead to a consensus, and the possibility of monetary policy shocks affecting aggregate output remained central to the debate. Indeed, the persistence of shocks on aggregate output has been, and still is, one of the issues most often subject to examination, and this will probably be the case for some time.

Multiple theoretical explanations have been proposed for the empirical evidence that monetary policy shocks can have a permanent effect on aggregate output (or unemployment). These explanations include imperfect information and short-run nominal price stickiness (Kiley, 2000; Wang and Wen, 2006). Furthermore, Jonsson (1997), Lockwood (1997) and Svensson (1997) have analyzed the consequences of inflation contracts on output or unemployment persistence. All these studies share the idea that whether or not price rigidity is responsible for output or unemployment persistence, this should be seen as an empirical issue rather than a theoretical one.

Another interesting consequence of output persistence is that it may invert the political business cycle, which is typically associated with depressions at the beginning of the mandate followed by pre-election inflationary expansion (Gärtner, 1996, 1999; Caleiro, 2009). Quite recently, increased interest in