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Another look at global disinflation ☆

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ABSTRACT

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This paper highlights relative price adjustments taking place in the global economy as important sources of the lower levels of inflation rates observed in the recent decades. Using a markup model, it shows substantial effects from declines in wage costs and import prices relative to consumer prices. Out of the five percentage point decline in the inflation rates in eight OECD countries from 1970–1989 to 1990–2006, global shocks to two relative prices account for more than 1.5 percentage points, while a monetary policy shock accounts for another one percentage point. *J. Japanese Int. Economies* **23** (2) (2009) 220–239. Monetary Affairs Department, Bank of Japan, CPO Box 203, Tokyo, Japan.

1. Introduction

The dramatic decline in both the rate and the volatility of global inflation over the past decades can be seen as one of the most remarkable developments in the global economy. Despite extensive research conducted both in central banks and academia, consensus has not yet emerged regarding what factors account for this favourable outcome. Very broadly, they can be classified into those attributable to changes in the structure of the economy, those simply attributable to good luck, and those attributable to changes in the conduct of monetary policy (Melick and Galati, 2006). In this context, an issue regarding how and to what extent "globalisation" has affected this change in the inflation process has recently attracted particular attention from researchers—see Borio and Filardo

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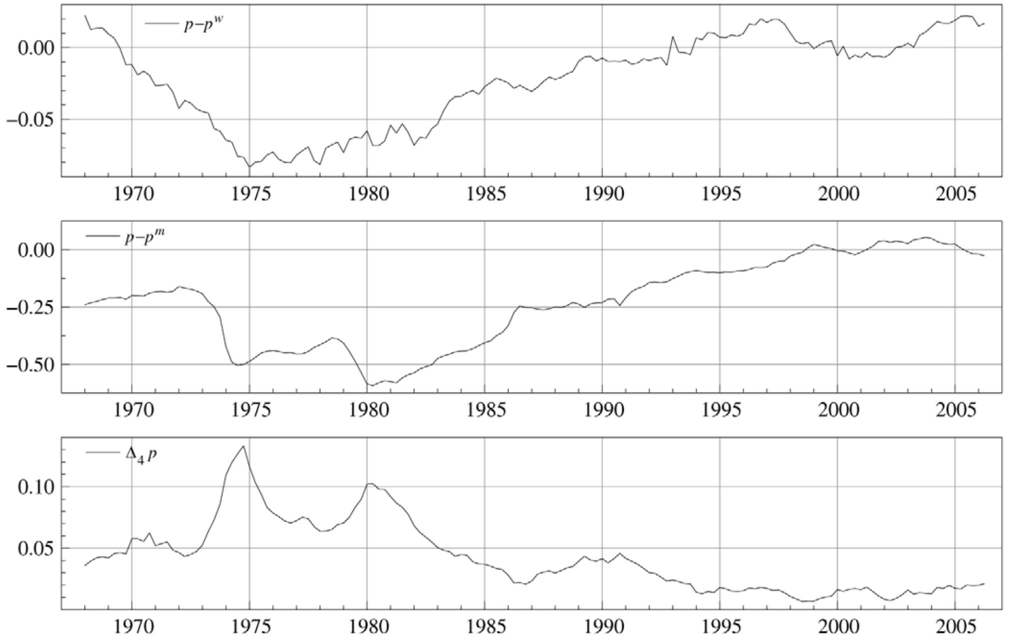

Note: 8 OECD countries averaged by PPP GDP weights in 2000. The two upper panels are normalised at zero in 2000. p is log consumer prices; p^w is log wage costs; p^m is log import prices; and $\Delta_4 p$ is the fourth difference of p.

Fig. 1. Two markups and inflation.

(2007), IMF (2006), Pain et al. (2006), Cecchetti et al. (2007), Ihrig et al. (2007), Sbordone (2007), among others. While many observers refer to globalisation, or the closer integration of labour abundant emerging market economies with the global economy, as one of the most important structural changes that the global economy has experienced, some are quite skeptical about its impact on inflation. These include Ball (2006) who states that "[T]here is little reason to think that globalisation has influenced inflation significantly."

Against this backdrop, this paper focuses on the impacts of relative price adjustments taking place in the global economy. An intuition simply comes from an observation that in industrial countries, two markups, a markup over wage costs $(p - p^w)_t$ and that over import prices $(p - p^m)_t$, have widened significantly in the past decades (Fig. 1). This is equivalent to saying that two relative prices, real wage costs $(p^w - p)_t$ and real import prices $(p^m - p)_t$, have dropped as such. These adjustments in relative prices, which are possibly associated with globalisation, appear to be strongly correlated with past developments of the inflation rate (Fig. 2).

In this paper, the link between relative price adjustments and the levels of inflation rates is established by a markup model. This type of model has a long history and numerous empirical applications—see, for example, the surveys by Bronfenbrenner and Holzman (1963) and Frisch (1983). The paper exploits an open-economy version of a markup model originally developed by de Brouwer and Ericsson (1998) for Australia. Banerjee and Russell (2001), Banerjee et al. (2001), Sekine (2001) and Heath et al. (2004) estimate a similar model for various countries, and more recently, Pain et al. (2006) use it to analyse global disinflation. This paper can be seen as a complement to the last paper, which does not calculate contribution of each factor.

The paper further extends the single equation approach of a markup model to a multivariate analysis, where two *global* shocks to relative prices are identified. These not only appear to track globalisation, but also account for a significant part of global disinflation. More than 1.5 percentage point are due to these shocks out of a 5 percentage points decline in the inflation rate from 1970–1989 to 1990–2006 in the sample industrial countries, while another one percentage point is due to a