Chapter 3

THE RELATIONSHIP BETWEEN INFLATION AND ECONOMIC GROWTH: A CASE OF EU-15 COUNTRIES

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1. INTRODUCTION

Although theoretical and empirical analysis of the relationship between inflation and economic growth attracted considerable attention in macroeconomics and especially in monetary policy models, it has not been reached a common conclusion yet.

Even though the phenomenon of inflation historically dates back to the period of Mercantilism, the theoretical framework began to be laid in the period beginning with Adam Smith. Afterwards, the relationship between inflation and economic growth was investigated based on cyclical observations until World War II. However, because of the chronic inflation that had been experienced just after World War II, the inflation issue became the centre of academic research in economics increasingly.

When the empirical literature examining the theoretical models developed in the historical process was revised, it is seen that different results have been reached and policy recommendations have been advertised due to the differences in the selected country or country groups, the variables used and the methods employed.

Although recent studies have shown that inflation cause to delay or/and adversely affecting growth, it is seen that the early studies revealed evidence of a positive relationship between inflation and economic growth. In this regards, empirical findings in the current literature can be categorized into four groups:

i. Inflation does not have an effect on economic growth (Sidrauski 1967; Cameron, Hum & Simpson, 1996).
ii. Inflation has a positive impact on economic growth (Rapach, 2003; Benhabib & Spiegel, 2009).

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select the appropriate estimation method, the homogeneity of the parameters was tested by preforming Swamy S test and it was concluded that the parameters are heterogeneous. Prior to the model estimation, the Pedroni Co-integration Test was conducted to determine whether there is a long-term relationship between the variables. The results revealed that series are cointegrated; therefore, there is a long-term relationship between the series.

After these preliminary tests, the model was tested by employing Pooled Average Group (PMG) Estimator. According to *the long-term results of the PMG Estimator*: (i) a 1% rise in investments increases economic growth by 0.82%; (ii) a 1% rise in inflation reduces economic growth by 0.037%; (iii) a 1% rise in labour force stock increases growth by 0.88%.

According to *the short-term results of PMG Estimator*: (i) a 1% rise in investments increases the economic growth by 0.004%; (ii) a 1% rise in inflation increases economic growth by 0.34%; (iii) a 1% rise in labour force stock increases 0.18% real economic growth.

Consequently, it is concluded that inflation has a positive impact on economic growth in the short-term and has a negative impact on the long-term. However, considering the long-term coefficient of inflation as 0.037, it can be said that this effect is negligible.

The long-term results support the researches of Stockman (1981), Fischer (1983) and Barro (1995), which concluded that inflation affects economic growth adversely. On the other hand, the short-term results support the researches of Rapach (2003), Benhabib and Spiegel (2009), which revealed that inflation has a positive impact on economic growth.

The interesting result of this study is that the relationship between inflation and economic growth produces different results in the short term and the long term. Accordingly, despite the negligible negative effects of inflation on economic growth in the long term, the positive effects of inflation on growth can be exploited in the short term.

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