Layoffs and economic crisis:

a VAR approach on the Italian labour market

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Abstract

The economic crisis that starts in 2007 in the U.S. has had dramatic effects in Italy. The level of GDP in 2009 falls of 5 percentage points, followed by production, employment and wages (ISTAT 2015). This scenario underlines the weaknesses of the Italian labor market and a significant recourse to layoffs especially during the downswing (Mariani et al., 2012; Tiraboschi and Spattini, 2010). Although the evidence indicates that there is a link between aggregate supply and labour, researches on this topic are fragmented and they are not as straightforward as they appear. In particular, there are no works that analysis in deep the effect of the layoffs on the labour market and whether it can be used to contrast the economic cycle.

In order to fill this lacuna, by applying a traditional production function we use a VAR framework to assess whether aggregate supply is driven by labour force (and/or vice versa). We use the industrial production index as proxy of GDP and layoffs as proxy for unemployment. Data are derived from two sources: the Eurostat database and the National Social Security Institute (INPS) database, both series are expressed at monthly level over the period 2005-2012.

To take into account the events connected with the recession we add a dummy variable as an exogenous variable. The Granger causality test (1969) shows that a relationship from industrial production index to layoffs exists. However, the test does not confirm the existence of a significant inverse causal relationship from layoffs to industrial production index. From these results emerge that layoffs cannot be used as a policy to contrast the economic cycle but only to support the labour market.

Keywords: Economic crisis; Layoffs; VAR approach; Granger causality; aggregate supply.

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