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Animal spirits, investment and unemployment: An old Keynesian view of the Great Recession☆

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Abstract

This paper develops a DSGE model with investment and capital accumulation build along demand-driven explanations of the Great Recession. Specifically, following Farmer (2013), I set forth a search framework in which households decide about consumption while firms decide about recruiting effort as well as investment. This setting closed with market clearing in good and asset markets has one less equation than unknowns. As a consequence, in order to solve such an indeterminacy, I assume that investment is driven by self-fulfilling expectations about the adjustment cost of capital. Consistently with the view of business cycles pushed by stock price fluctuations, this model has the potential to provide a more comprehensive rationale for the consumption–investment patterns observed during the years of the crisis.

JEL classification: E24; E32; E52; J64

Keywords: Investment; Capital accumulation; Finance-induced recession; Search; DSGE models

Resumo

O artigo apresenta um modelo DSGE com investimento e acumulação de capital para explicar a Grande Recessão pelo lado da demanda. Seguimos Farmer (2013) propondo uma estrutura de search no qual familias decidem o quanto consumir e firmas investem e recrutam mão de obra. Nesse arcabouço há uma equação a menos do que incógnitas. De maneira a resolver essa indeterminação supomos que o investimento tem expectativas auto-realizáveis sobre o custo de ajustamento do capital. Consistente com a visão de que os ciclos de negócios são influenciados pelas flutuações dos preços de ações, esse modelo tem o potencial de prover uma rationale mais compreensiva para os padrões de consumo-investimento observados durante os anos de crise.

Palavras-chave: Investimento; Acumulação de capital; GRande Recessão; Modelos DSGE

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Table 1
US data (1950–2012), quantity indexes.

		$\Delta \ln(Y)$	$\Delta \ln(C)$	$\Delta \ln(I)$	$\Delta \ln(U)$
Standard deviation		0.945	0.842	4.450	6.827
Autocorrelation		0.388	0.088	0.199	0.616
Correlation matrix	$\Delta \ln(Y)$	1	0.617	0.782	−0.707
	$\Delta \ln(C)$	–	1	0.257	-0.473
	$\Delta \ln(I)$	–	–	1	−0.558
	$\Delta \ln(U)$	–	–	–	1

1. Introduction

According to a widespread view, the Great Recession of 2007–2008 can be thought as the upshot of a dramatic loss of confidence triggered by the burst of a financial bubble that abruptly reduced house and stock prices (cf. Hurd and Rohwedder, 2010; Bell and Blanchflower, 2011; Christelis et al., 2011). A prominent backer of this view is Farmer (2012a,b, 2013, 2015), who depicts the finance-induced recession as a self-fulfilling reduction of households' financial wealth value that led to a sudden consumption contraction that, in turn, drove GDP (unemployment) downwards (upwards).

Farmer's (2012a,b, 2013) theoretical framework reformulates into a Walrasian setting two important ideas from Keynes's (1936) *General Theory*. The first is that the economy can be consistent with a continuum of steady-state unemployment equilibria, while the second is that beliefs of asset market participants might have an independent influence on the economic activity by selecting a perfect-foresight equilibrium in which private consumption, according to its dominant weight in GDP quotas, is assumed to be the crucial component of aggregate demand.

This theoretical proposal, sometimes referred as new 'Farmerian' economics, provides new interesting insights on business cycles fluctuations and gives the chance to dig out into the Keynesian view according to which market confidence is essential in determining realized macroeconomic outcomes.[1] However, it is well known that in the *General Theory* the component of private expenditure mainly driven by market psychology instead of economy's fundamentals is not consumption but corporate investment; indeed, Keynes (1936) coined the term 'animal spirits' just to describe the non-fundamental based behaviour of entrepreneurs regarding investment spending. Moreover, according to Keynes (1936), private investment – via the multiplier effect – was the main driver of business cycles (cf. Smith and Zoega, 2009).

As far as US data are concerned, the importance of investment in explaining macroeconomic fluctuations is still hard to neglect. For instance, Table 1 collects the volatility, the persistence and the correlation matrix of GDP (Y), consumption (C), private investment (I) and unemployment (U) over the last sixty years on a quarterly basis.[2] The figures show that the correlation of investment both to GDP and unemployment – in absolute value – is slightly higher than the one of consumption. Moreover, among the components of private aggregate demand, investment appears as the more volatile variable so, at least in principle, the more prone to mirror sudden switches in market confidence.

Additional intriguing elements about investment behaviour can also be derived from the inspection of recent data. Specifically, the two panels of Fig. 1 draws the paths of the real values of consumption (left scale) and investment (right scale) both in levels and as percentage of GDP starting from the beginning of the century. The diagram above (a) shows that the wave of pessimism triggered by the finance-induced recession of 2008–2009 had a strong impact on the two components of private aggregate spending. However, while consumption already recovered its pre-crisis level at the end of 2010, investment, as pointed out by Lavander and Parent (2012-2013), is still below its 2007 magnitude.[3]

[1] An extensive review of the new Farmerian approach is given by Guerrazzi (2012).

[2] Data on GDP, consumption and investments are retrieved form the seasonally adjusted quantity indexes provided by the Bureau of Economic Analysis (Index Numbers, 2009 = 100). See www.bea.gov. Moreover, data on unemployment are retrieved from the Bureau of Labor Statistics. See www.bls.gov.

[3] Along these lines, Zoega (2010) points out the simultaneous deficiency of employment and investment that characterized the latest financial crisis.