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The Irish macroeconomic response to an external shock with an application to stress testing

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Abstract

The Irish economy has recently endured a period of turbulence as a result of the collapse of the domestic property market bubble and the onset of the global financial crisis. There are two critical vulnerabilities in the Irish economy at present. The first is the potential for sluggish economic growth due to a slowdown in external demand, which impacts on the government's ability to meet budgetary targets. The second concern relates to the financial stability of the banking system given the escalating mortgage crisis. Our results show that Irish economic growth is highly sensitive to the performance of its trading partners and any international slowdown will hinder Ireland's growth prospects. The model used suggests that the appropriate policy response is to pursue further gains in competitiveness. We estimate the impact of an external slowdown on mortgage delinquency using a new dataset on the loan books of the commercial banking sector. The results suggest that a negative one standard deviation shock to US GDP growth leads to an increase of 1600 in the number of mortgages in arrears for at least 90 days. Arrears are driven by unemployment and negative equity in the model. We discuss policies to contain the mortgage crisis by improving these intermediate target variables.

JEL classifications: F47; G21

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1. Introduction

The Irish economy has experienced a dramatic reversal of fortunes in recent years. The Celtic tiger period witnessed a startling increase in living standards, with real average GDP growth of 7.1% over the period 1995–2007. There was a commensurate improvement in the public finances. The budget surplus stood at 2.9% in 2006 and the debt to GDP ratio had fallen to 24.7%. However, the latter stages of this boom were increasingly driven by a bubble in house prices, fuelled by the easy availability of mortgage credit. The bursting of this bubble meant that many loans to the property sector turned sour and the government was required to recapitalise the banking system. This came at a cost of 63 billion euro or 39% of GDP, rapidly increasing the national debt.[1] During the boom, the public purse had also become too reliant on transient, transaction-based property taxes. This source of revenue dried up and expenditure increased on social welfare benefits as unemployment soared from 4.3% to 14.5% in the space of four years. By 2011, the government ran a budget deficit of 13.1% and had a debt pile equivalent to 108.2% of GDP.

The Irish government has performed well to date in terms of meeting the budgetary targets under the program of international financial assistance administered by the troika of the IMF, ECB and European Commission. However, two key concerns remain for policymakers and Ireland's international partners. The ability of the country to continue to meet its budgetary targets depends on a resumption of GDP growth. With domestic demand likely to remain sluggish over the short-term as a result of ongoing household sector deleveraging, contractionary fiscal policy and a weak banking system, there is a consensus among a range of domestic and international forecasters (Central Bank of Ireland, 2011a; European Commission, 2011; International Monetary Fund, 2011) that the recovery in the Irish economy will be export-led.

Our first contribution in this paper is to assess the likelihood of such a recovery using a large scale VAR model of the Irish economy. Our results suggest that the Irish economy is highly sensitive to developments in the economies of our main trading partners. In this sense, any adverse developments to world economic growth will limit Ireland's growth prospects. In an analysis of our three main trading partners (the US, the UK and the euro area), we find that the Irish economy is most responsive to changes in euro area GDP, which is in line with our export shares to these regions. Based on the transmission mechanisms in our results, we discuss policy options to improve trade performance for Ireland.

The second major concern for policy makers is the high level of mortgage distress. The National Asset Management Agency (NAMA), a bad bank used to warehouse large property loans, has cleansed commercial bank balance sheets of the largest impaired property loans. Mortgages, however, remain on the banks' books and delinquency rates are increasing. The most recent figures from the Irish Central Bank (end-March 2012) show that 10.2% of mortgage holders are in arrears on their mortgages of more than 90 days. Given that external demand is the most likely source of growth for Ireland, our second contribution in the paper is to quantify the impact of a fall in external demand on the level of mortgage delinquency in Ireland.

We take the results from our VAR analysis and feed them into a mortgage delinquency model. The delinquency model is estimated using a unique dataset on the loan books of commercial banks in Ireland, available as a result of a recent stress testing exercise. Our results show that

[1] This excludes 5 billion euro paid by the National Asset Management Agency to the commercial banks. In terms of GNP, which is often considered a more reliable measure of national income in Ireland due to the presence of a large multinational sector, the cost of the bank recapitalisation is equivalent to 49% of GNP.