ESRI Research Note

Standard Variable Rate (SVR) Pass-Through in the Irish Mortgage Market: An Updated Assessment

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Standard Variable Rate (SVR) Pass-Through in the Irish Mortgage Market: An Updated Assessment

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1. Introduction

In this note we re-examine the "pass-through" relationship between the European Central Bank (ECB) policy rate and the standard mortgage variable rate (SVR) charged by Irish credit institutions. The issue, which was examined in some detail by Goggin et al. (2012), has attracted renewed interest in recent times owing to the continued observed difference between the SVR and the rate of interest charged on other variable rate mortgages in the Irish market.

The Irish mortgage market consists of loans issued at both fixed and variable rates of interest. However, the latter form of finance dominates with over 85 per cent of loans issued at variable rates.

There are two types of variable rates: "Tracker" mortgages, which were particularly popular during the boom period, are linked contractually to the ECB policy rate. Therefore, when the ECB rate changes, the tracker rate changes automatically. SVRs (which are variable rates other than trackers) are not specifically linked to an underlying market or wholesale rate. The lender may change this rate at their discretion.

Consequently, with so many mortgages financed with either tracker or standard variable rates, particularly when compared with other European countries, the Irish mortgage book is more vulnerable to changes in the policy rate.

However, the relationship between the policy, tracker and standard variable rate has been complicated considerably by the aftermath of the financial crisis. The relatively large presence of tracker mortgages on the balance sheets of some Irish

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financial institutions has had significant implications for the profitability of these banks. As the cost of funding these mortgages increased substantially after the financial crisis, these products were no longer offered to prospective customers.

The emergence of the wedge between the policy rate and the SVR comes in the context of the response of the monetary authorities to the financial crisis; in September of 2014, for example, the ECB announced the lowering of its main refinancing rate to a historic low of 0.05 per cent. In Figure 1 we plot the actual ECB policy rate and the average SVR for the Irish mortgage market over the period 2005 to 2014. The change in the relationship between the two rates is evident from 2009 onwards.

Goggin et al. (2012) assess the "pass-through" relationship between the ECB policy rate and SVRs for a number of leading Irish domestic institutions over the period 1999 to 2011 and find clear evidence of a "break" in the relationship at the end of 2008. Namely, in the lead up to the financial crisis, a close relationship existed between the policy rate and the variable rate. However, thereafter, this relationship appeared to weaken considerably.

Goggin et al. (2012) also posit reasons for the increasing wedge observed. They argue, in the main, profitability considerations are the key reason for distortions in the pass-through relationship. Relevant factors, in that regard, are funding costs, the degree of competition in the retail market and the degree of mortgage arrears on the balance sheets of Irish institutions.

From a competition perspective, if there were enough competitors in the market one might expect margins to be competed down to some extent. But if there is no entry *and* no effective competition, lenders are in a tight oligopoly. This is likely to reduce the extent of pass-through, and has been shown to do so by international authors (Van Leuvensteijn et al., 2013). The fall-out from the financial crisis has made the possibility of households switching from one mortgage provider to another more difficult for those with existing mortgages. It has also reduced the number of institutions active in the market and made entry more difficult as there are few housing transactions requiring new loans.

In the more recent period, the size of the wedge between the SVR and the policy rate appears to be also influenced by the amount of impaired mortgage loans carried by an individual bank. Therefore, it would appear that the most effective way to repair the monetary transmission mechanism in the domestic market is to

improve competition in the domestic banking sector, while also addressing the structural issues which are still afflicting the balance sheets of Irish credit institutions.

In this paper, in light of the increased attention devoted to this issue recently, we update some of the empirical work conducted in Goggin et al. (2012). Their sample period covered the period 1999-2011; however over the past number of years, it is likely that many of the trends which emerged immediately post-2008, have, if anything been exacerbated. Therefore, we think there is significant merit in revisiting this issue with data up to the end of 2014. We also discuss some of the conclusions of Goggin et al. (2012) in terms of the relevant policy implications which arise.

The rest of the note is structured as follows; in the next section we update previous estimates of the pass-through of the ECB policy rate to the Irish market, we then discuss the policy implications of the reasons proposed by Goggin et al. (2012) as determinants of the wedge between the policy rate and the SVR. A final section offers some concluding comments.

2. Modelling Framework

For customers with tracker interest rates in the Irish market, the change in mortgage servicing costs of an increase in the ECB policy rate is easily assessed. Owing to the contractual link between tracker rates and the ECB rate, these rates are automatically affected by changes in the official rate. Thus a tracker rate, typically, would be the policy rate plus a fixed margin of, say, 100 basis points above the policy rate. SVRs, on the other hand, are set with no specific link to an underlying market or wholesale rate and the lender in question can choose to increase or decrease the rate at its discretion.

We revisit the empirical application in Goggin et al. (2012) and re-estimate the following pass-through panel data model using quarterly observations over the period 1999 to 2014. The panel model, which follows the marginal cost pricing model outlined by Rousseas (1985) specifies retail lending rates as a function of the cost of funds and a mark-up, which is typically referred to as the interest rate spread.

$$SVR_{it} = \alpha_0 + \alpha_1 POL_{it} + \alpha_{1+i} \sum_{i=1}^{5} BANK_i + \alpha_{7+i} \sum_{i=1}^{5} BANK_i * POL_{it}$$

SVR_{it} is institution *i's* standard variable rate, POL_t is the ECB policy rate and $BANK_i$ is the institution-specific fixed effect. Note we also include an interaction term between the institution-specific dummy and the policy rate to examine whether the degree of pass-through varies across the different institutions. The model is now estimated over the period 1999 to 2014.

Following Goggin et al. (2012) we initially conduct two estimations: one for the entire period and a second for the sub-sample period 1999 Q1 to 2008 Q4. The results are in Tables 1 and 2. From the table it can be observed that the coefficient on the policy variable (0.05) suggests that the policy variable has a relatively small influence on the SVR of individual institutions. We find that there are individual bank-specific effects as the dummies for the banks are all significant. However, there does not appear to be any significant difference across the institutions in terms of the pass-through effect irrespective of the two different sample periods; the coefficients on the interactive dummies between the banks and policy rates are all insignificant.

In Table 2, we repeat the same estimation except this time for the sub-period 1999 Q1 to 2008 Q4. There is a sizeable difference in the pass-through rate with the coefficient on the policy variable now 0.57. The model also fits the data much better with a significantly higher $\overline{R^2}$. Clearly a sizeable change has occurred in the pass-through rate over the two periods.

Similarly, if we compare the estimates in Table 1, with estimates of the pass-through rate for the sub-period 1999 Q1-2012 Q4 estimated in Goggin et al. (2012) (Table 3), we see that the pass-through rate has also declined over the past three years; the coefficient on the policy variable for this period is 0.184.

3. Reasons for the Wedge?

In general over the entire sample period 1999-2011, Goggin et al. (2012) find a number of factors impacting the pass-through relationship between the ECB policy rate and the SVR. They find strong evidence to support competition effects; the lower the level of competition in the market, the higher the mortgage interest rate. For example, the introduction of Bank of Scotland had a significant impact on the residential mortgage market in 1999, when, following the banks entry into the Irish market, mortgage rates were reduced by up to 100 basis points.

Post-2008, one of the main factors cited for the breakdown in the pass-through relationship is the importance of crisis-related measures of funding costs such as the Eligible Liabilities Guarantee (ELG) fee and Eonia spreads. The ELG, introduced in December 2009, provided a guarantee by the Irish State for certain liabilities of a number of credit institutions. As such it was one of a number of measures introduced in the aftermath of the financial crisis to generate confidence and stability in the Irish financial sector.[2] The Eonia spread captures financial market uncertainty and risk, which increases funding costs for banks. Both the ELG and the Eonia spread increased funding costs over and above the policy rate.

Furthermore, Goggin et al. (2012) contend that costs associated with increased credit risk were an increasingly important factor in setting variable rates post-2008. Credit institutions with higher rates of mortgage arrears tend to exhibit higher variable rates. This suggests that some lenders are charging higher variable rates to compensate for the losses being incurred due to the presence of tracker loans. Goggin et al. (2012) also find evidence to suggest that banks which have higher shares of tracker loans on their books have higher rates.

Ongoing balance sheet difficulties, however, are neither necessary nor sufficient for persistent high lending margins. In a competitive market, loans that become "impaired" would be marked to market and these losses would be realised. If they weren't, financial institutions from outside the market would enter and "cherry pick" the good quality loans until the incumbent institutions either failed or altered their standard variable rates.

Overall, these results suggest that the most effective way for the continuing wedge between the different mortgage variable interest rates to be remedied is for a more efficient resolution of the mortgage arrears issue and greater competition within the domestic banking sector.

These results find significant resonance in the international literature. For example, in assessing interest rate setting across different countries, Pautkuri (2010), Cecchin (2011), Gambacorta (2004), De Graeve et al. (2007) and Van Leuvensteijn et al. (2013) include factors such as banks' costs, competition, risk, capital, structural breaks, non-linearities (menu costs and switching costs) and asymmetric adjustment. To varying degrees, they find a role for all of these factors in explaining the pass-through relationship. Most of these papers use panel data and find that the pass-through relationship can vary considerably

[2] More information on the scheme is available from the Irish Department of Finance: http://www.finance.gov.ie/viewdoc.asp?DocID=7071.

across institutions, even after including a range of institution-specific controls. Raknerud et al. (2011) use a dynamic factor model to analyse the effect of banks' funding costs on retail rates in Norway. The results point to incomplete pass-through and that, when market funding costs increase, banks' net interest margins decrease. However, there is considerable heterogeneity between institutions, with those that have a large share of market financing more vulnerable to increases in the market rate. Finally, short-term deposits and lending have been shown to exhibit quicker and more complete pass-through than longer-term ones (e.g. De Bondt, 2005).

4. Concluding Comments

The persistence of the relationship between the ECB policy rate and key interest rates in the Irish mortgage market highlights the extent to which the domestic economy is still suffering the after-effects of the financial crisis of 2007-2008.

The results presented here, along with earlier analysis of this issue, indicate that the wedge between the policy rate and the SVR owes much to the weak levels of competition currently within the Irish financial sector. Furthermore, the continuing and growing nature of this wedge underscores the need for domestic credit institutions, currently in the market, to accelerate the speed at which impaired balance sheets are being repaired.

Since 2012, it would appear that the non-standard monetary policy measures of the ECB have had no discernible impact on repairing the transmission mechanism; in that regard, it will be interesting to see if the recent adoption of quantitative easing by the ECB will lead to any improvement in the pass-through relationship.

REFERENCES

Cecchin I. (2011). "Mortgage rate pass-through in Switzerland". Swiss National Bank Working Paper Series, 2011/08.

De Bondt, G.J. (2005). "Interest Rate Pass-Through: Empirical Results for the Euro Area". *German Economic Review,* Vol 6, No. 1, pp. 37-78.

De Graeve, F., O. De Jonghe and R. Vander Vennet (2007). "Competition, transmission and bank pricing policies: Evidence from Belgian loan and deposit markets". *Journal of Banking and Finance,* Vol. 31, pp. 259-278.

Gambacorta, L. (2004). "How do banks set interest rates?" NBER Working Paper Series No. 10295.

Goggin J., S. Holton, J. Kelly, R. Lydon and K. McQuinn (2012). "The financial crisis and the pricing of interest rates in the Irish mortgage market: 2003-2011". Central Bank of Ireland Research Technical Paper 1/RT/12.

Pautkuri, H. (2010). "Housing loan rate margins in Finland". Bank of Finland Research Discussion Papers 10/2010.

Raknerud, A., B.H. Vatne and K. Rakkestad (2011). "How do banks funding costs affect interest margins?" Norges Bank Working Paper, No. 2011/09.

Rousseas, S. (1985). "A mark-up theory of bank loan rates". *Journal of Post Keynesian Economics,* Vol. 8, No.1, pp. 135-144.

Van Leuvensteijn, M., C.K. Sørensen, J.A. Bikker and A. van Rixtel (2013). "Impact of bank competition on the interest rate pass-through in the euro area". *Applied Economics*, Vol. 45, No. 11, pp. 1359-1380.

TABLE 1 Results from Updated Panel Data Model: Q1 1999 – Q4 2014

Variable	Coefficient	Standard Error	P-Value
POL	0.05	0.02	0.07
Bank 1	1.35	0.03	0.00
Bank 2	1.40	0.03	0.00
Bank 3	1.42	0.03	0.00
Bank 4	1.43	0.03	0.00
Bank 5	1.46	0.03	0.00
Bank 1 * POL	0.01	0.03	0.76
Bank 2 * POL	0.02	0.03	0.50
Bank 3 * POL	0.00	0.03	0.94
Bank 5 * POL	0.02	0.03	0.65
$\overline{R^2}$		0.08	
Number of Observations		320	

Source: Authors' own estimates.

TABLE 2 Results from Updated Panel Data Model: Q1 1999 – Q4 2008

Variable	Coefficient	Standard Error	P-Value
POL	0.57	0.04	0.0
Bank 1	0.78	0.05	0.0
Bank 2	0.88	0.05	0.0
Bank 3	0.72	0.05	0.0
Bank 4	0.85	0.05	0.0
Bank 5	0.82	0.05	0.0
Bank 1 * POL	0.00	0.06	0.9
Bank 2 * POL	-0.03	0.06	0.6
Bank 3 * POL	0.08	0.06	0.2
Bank 5 * POL	0.03	0.06	0.6
$\overline{R^2}$		0.84	
Number of Observations		200	

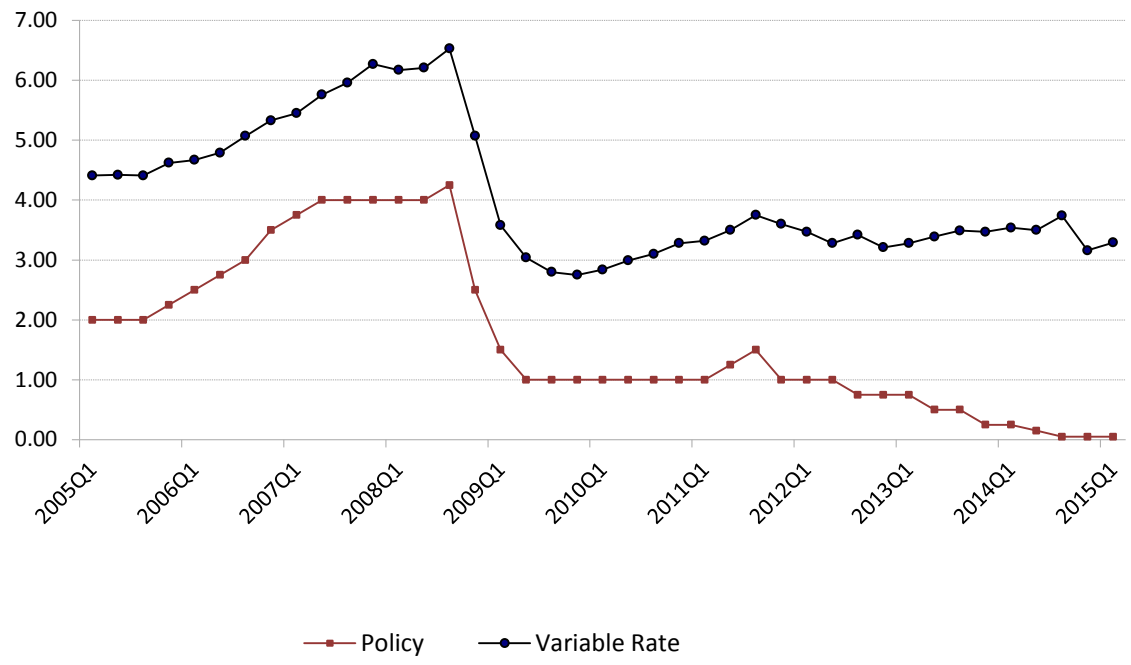
Source: Authors' own estimates.

TABLE 3 Results from Updated Panel Data Model: 1999 Q1 – 2012 Q4

Variable	Coefficient	Standard Error	P-Value
POL	0.18	0.03	0.00
Bank 1	1.21	0.04	0.00
Bank 2	1.26	0.04	0.00
Bank 3	1.31	0.04	0.00
Bank 4	1.29	0.04	0.00
Bank 5	1.38	0.04	0.00
Bank 1 * POL	0.01	0.05	0.83
Bank 2 * POL	0.03	0.05	0.58
Bank 3 * POL	-0.03	0.05	0.51
Bank 5 * POL	-0.04	0.05	0.39
$\overline{R^2}$	0.33		
Number of Observations	280		

Source: Authors' own estimates.

FIGURE 1 European Central Bank (ECB) Main Refinancing Rate and the Variable Rate (%) Charged in the Irish Mortgage Market: 2005 Q1 - 2015 Q1



Source: Central Bank of Ireland.