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Abstract

This note provides insights into interest-only mortgage lending in Ireland. Most interest-only loans outstanding as at 2017 were extended to buy-to-let (BTL) investors before 2007. Loans originated as interest-only are more likely to be on low tracker interest rates and to have relatively higher loan-to-value (LTV) ratios, with significant shares of negative equity and non-performing loans. Since 2015, less than 2 per cent of BTL loans were agreed on an interest-only repayment schedule. These loans are subject to Central Bank of Ireland mortgage measures, under which recent BTL lending has had average originated LTV ratios significantly below the 70 per cent threshold. Across Europe, only a small number of regulators impose minimum principal repayment requirements.

1 Introduction

This note identifies and addresses the characteristics of interest-only lending and mortgages for non-occupier investment in Ireland, and the regulation of these mortgages in Ireland and other jurisdictions.

Interest-only mortgages currently hold a small market share in Ireland, having reduced from over 15% of new lending in 2007 to below 0.15% in 2012 (Department of Housing, Planning and Local Government, 2017). Data on legacy interest-only loans indicate that a large minority of non-occupier property investors and a small number of owner-occupiers chose this product, and that most interest-only loans in Ireland eventually switched to principal repayments. By examining new lending to investors since the introduction of the Central Bank of Ireland mortgage measures, we illustrate important changes in the market for investor mortgages in the last ten years, such as rules on maximum borrower leverage.

The note proceeds as follows: Section 2 describes the intrinsic nature of interest-only products. Section 3 characterises outstanding interest-only mortgages in Ireland. Given the prevalence of BTL borrowers using this product, section 4 examines new mortgage lending to BTLs. Section 5 provides an overview of regulatory approaches to loan amortisation. Section 6 summarises the most important points.

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2 Interest-Only Loans

An interest-only mortgage entails no scheduled principal repayments during an agreed initial period of the loan term; in some cases, principal repayment is completely deferred until maturity. In contrast to a standard annuity mortgage, the borrower typically has the option, but no obligation, to repay principal at irregular intervals. At the end of the interest-only period, the borrower begins an annuity schedule including principal and interest, though in some cases, new interest-only periods may be negotiated.

Interest-only mortgages offer low payments early in the life of the loan, but require larger repayments and impose a higher interest burden in later years. For this reason, BTL property investors find interest-only mortgages to be tax-efficient in countries where interest expenses can be deducted against rental income.[1] Borrowers enjoy higher cash flow by forgoing capital repayments, which may appeal to those who intend to re-sell a property at maturity, given an expectation of price growth. The unorthodox repayment schedule may suit borrowers who expect significant future income growth or volatility, or who require flexibility at the beginning of the mortgage, while expecting to bear higher payments later.

The characteristics of interest-only loans may also give rise to distinctive risks (Kent, 2018). Figure 1 compares a range of interest-only and annuity loan options. Payments on interest-only loans increase significantly when the annuity period begins, to above those of a mortgage that began as an annuity. A borrower's ability to pay is therefore not fully tested in practice until the end of the interest-only period. If borrowers are not adequately prepared, they face the prospect of mortgage arrears, default and loss of control of the property. Furthermore, when the principal is not redeemed quickly, debt levels and interest costs are higher than a comparable annuity loan until maturity. This exposes interest-only loan payments to greater sensitivity to movements in interest rates, and to higher lifetime debt levels, which may affect household decision-making and interaction with the real economy.

Lenders also face risks from interest-only loans. If the borrower defaults after little or no principal repayment, the exposure at risk will be large relative to an annuity loan (Figure 1b). In the Irish market, initial interest-only periods were offered for up to ten years (Kelly et al., 2014), while certain new products now offer a 15-year interest-only period. With a maximum loan term of 35 years and an average of 18 years observed among new BTL loans, and an average borrower age of 45, 10 to 15 years of interest-only payments imply that the loan must be repaid over a substantially shorter time period than an annuity.

3 Interest-Only Lending in Ireland

3.1 Data source

Using the loan-level database submitted to the Central Bank of Ireland by a sample of banks every six months, we assess Irish residential mortgages as at 31 December 2017 to identify interest-only, pension and endowment loans. We consolidate all split loans and exclude mortgages with no payment schedule.

In this section, "interest-only" mortgages at origination are compared to loans originated as annuities. Less than one-third of interest-only mortgages are lifetime products,[2] while the remainder had either moved to regular annuity repayments by 2017 or were scheduled

[1] In Ireland, this relief was usually limited to 75% of interest between 2009 and 2016.

[2] Defined here as having an interest-only end date after nine-tenths of scheduled payments have been made, requiring final repayments tantamount to full redemption of principal.

to move at some time during or after 2018. Mortgages originated as interest-only share many risk characteristics with loans that remain interest-only (Figure 1). We therefore use the origination condition to classify lending as interest-only. Throughout this section, we analyse three banks in our data set which report interest rate at origination.

3.2 Statistics

Table 1 summarises shares of mortgage loans by characteristic and presents averages of important statistics. Interest-only mortgages are associated with non-occupier investors, and Ireland is no exception. Most outstanding mortgages that originated as interest-only were secured on BTL properties at the peak of Irish property prices, with originated balances persistently higher than among annuities.[3] Most pay interest at low tracker rates.

Interest-only loans are at greater risk of negative equity due to low principal repayment. In Ireland, this problem was exacerbated by high LTV ratios at origination. Legacy originated LTV ratios on interest-only loans are typically in excess of the 70% standard maximum now permitted for buy-to-let mortgages under the Central Bank of Ireland mortgage measures. Negative equity was more significant when property prices were lower, and has been mitigated by price recovery (Figure 2). Nevertheless, non-amortising loans remain more affected by negative equity than annuities. In particular, the prevalence of high current LTV ratios among BTL loans is entirely explained by interest-only lending (Figure 3).

Most interest-only mortgages are now making annuity repayments after an initial grace period of one to five years. In 2018, ten-year products issued in 2008 are scheduled to switch to annuities. Historically, some borrowers have extended their interest-only periods in agreement with their banks. Bearing this in mind, figures from Central Bank of Ireland data indicate that 35% of borrowers currently paying interest-only are scheduled to commence principal repayment in 2018-22, whereas 47% are scheduled to continue making interest-only payments until the 2030s.

There is a significantly higher share of non-performing loans among interest-only loans. This can be explained by several factors, including the high-risk characteristics described in the introduction, the weak performance of buy-to-let lending after the crisis and the high NPL share among loans originated between 2004 and 2008. However, the exact figure depends on the measurement of arrears, impairment or loan performance. In Table 1, using the harmonised definition of non-performing exposures adopted by the European Commission (2015), the share of NPLs among interest-only mortgages is 11% higher than among annuities. This wide-ranging definition produces a larger difference than measurements of default or impairment.

Interest-only mortgages are found to face significant repayment increases when switching to annuity. Figure 4a shows that interest-only mortgage instalments are lower than annuities when not repaying principal, but higher when they switch to full repayments. The high repayment burden is necessary to repay all principal after low or zero amortisation.

The popularity of interest-only loans grew as property prices rose, which suggests that this product may have affected the composition of the buy-to-let investor market. Any composition effect would be ambiguous, as short-term payments are smaller while the long-term repayment burdens is more demanding.

Recently, interest-only lending has been a niche product. As shown in Figure 4b, there was a significant decline in issuance of these mortgages after 2008 in our sample, corresponding to the fall in market-wide share from 15% to 0.15% between 2008 and 2012, in

[3] Interest-only loans account for 46% of buy-to-let lending in our data, and just 2% of lending for other purposes.

a market that was itself in significant decline (Department of Housing, Planning and Local Government, 2017). Interest-only lending recovered slightly by 2017, due to one-year arrangements and refinancing of existing debt as lifetime interest-only products. By contrast, interest-only periods up to ten years were common in the mid-2000s.

4 Buy-To-Let New Lending

Given the prevalence of interest-only loans among BTL borrowers established in Section 3, we provide an overview of the loan and borrower characteristics of new lending to BTL borrowers. We focus on new property purchase loans originated between 2015 and 2017 that are in-scope of the Central Bank macroprudential measures, using loan-by-loan data submitted to the Central Bank of Ireland by the 5 main banking institutions; AIB, BOI, KBC, PTSB and Ulster Bank Ireland. BTL lending remains subdued, with approximately 3% of the value of new mortgage lending originated by these institutions in 2017, extended for investment purposes (Kinghan et al., 2018).

Table 2 provides information on the characteristics of this lending from 2015 to 2017. We find that average loan sizes are stable, particularly in the context of aggregate house price growth. Originating LTV is similarly stable and below 60 in each year, with the average BTL borrower providing more than 40% own-equity into the purchase in each year. This feature is important in the context of the discussion regarding the possible risks associated with interest-only mortgages. In this context, the risk to lenders is reduced by the Central Bank of Ireland mortgage measures, which require 90% of buy-to-let lending to provide downpayment of at least 30%. Loan term, interest rates and borrowers' age are also stable over the three years. Regarding the geographic distribution of BTL lending, over 50% of new BTL loans were for properties based in Leinster (with 30% in Dublin alone). Only 3.5% of BTL lending took place in Ulster.

Table 3 shows the repayment type for these loans. Less than 2% of BTL loans in each year originated on an interest-only or hybrid interest-only repayment schedule. Interest-only loans are therefore not a key feature of new lending to BTLs.

Figure 5a compares BTL origination LTV ratios among customers in-scope of the regulations (i.e. between 2015 and 2017) to LTV ratios in this segment between 2012 and 2014. The impact of the regulations is evident: whereas an LTV of 75 was a common product in the earlier period, the mode of the distribution has moved to 70 in the recent period i.e. a bunching effect at the 70 limit. The chart also shows the erosion of high-risk lending in the right tail, as a result of higher lending standards after the crisis, continued during this era. In particular, lending at LTV above 80 continued to fall between the two periods.[4]

Figure 5b places current lending activity in a longer-term historical context. Currently, both the 75th and 90th percentiles of the BTL LTV distribution are at 70, reflecting the bunching of a large share of borrowers at the regulated maximum. This contrasts sharply with the 2006-2007 period, when the 90th percentile BTL loan received a 90 LTV mortgage, and close to half of mortgages received an LTV above 80. At the mean, median, 75th and 90th percentiles, there has been stability in LTVs in the BTL market since 2012.

[4] The use of exemptions is very small in the BTL segment. Analysis of Monitoring Templates data for 2017 indicates just 34 BTL mortgages received an exemption to receive an LTV above 70 (Kinghan et al., 2018).

5 Regulatory Approaches to Loan Amortisation

Amortisation requirements on lending to households are imposed by a number of financial authorities, especially in Scandinavia and central Europe (Budnik and Kleibl, 2018; European Systemic Risk Board, 2018). In general, these may be characterised as macroprudential measures, and may be intended to curb excessive credit growth and leverage, minimise the impact of house prices shocks or maintain prudent underwriting standards. These measures are tailored to the specific characteristics of national markets, and operate in conjunction with prudential regulation as well as other macroprudential policies, such as debt service-to-income (DSTI) ratios.

Certain jurisdictions require minimum amortisation schedules for new mortgages above a certain LTV threshold. In Norway, loans above 60% LTV must repay at least 2.5% of principal per annum. In Sweden, the equivalent figures are 50% LTV and 1% of principal, plus an extra 1% in two situations, to a maximum of 3%: if LTV exceeds 70% and if the financed amount is more than 4.5 times a borrower's annual income. Other authorities require all mortgages to repay principal, such as Slovakia and Portugal. In all these cases, a certain share of interest-only lending may be permitted as "allowances" above the limits.

In Ireland, interest-only mortgages are subject to the LTV and loan-to-income (LTI) mortgage measures affecting all homebuyers. Notably, purchasers must provide a minimum deposit, varying between 10% and 30% depending on purchaser status, and owner-occupiers may not borrow more than 3.5 times income; in each of these cases, a share of exemptions and allowances is permitted. Since these measures apply to balances rather than payments, there is no difference between the treatment of an interest-only mortgage and an annuity of equal value. This may be contrasted to a DSTI ratio based on loan payments which are lower when amortisation does not occur.

6 Conclusions

This note uses loan-level data to examine interest-only mortgage lending in Ireland, considering historical data, current outstanding loans and recent trends. The most significant characteristics of originally interest-only loans outstanding as at 2017 are the high shares of issuance in 2004-08 and to buy-to-let investors. These loans are especially likely to have high LTV ratios, and a significant portion are in negative equity. In addition, loans originated as interest-only are more likely to be non-performing relative to annuities.

By examining regulatory approaches to interest-only mortgages, we find that explicit amortisation requirements are rare in European mortgage markets. Some countries have imposed minimum regular principal repayment ratios based on risk profile. We note that the Central Bank of Ireland's mortgage measures impose minimum requirements on initial borrower equity and maximum LTV ratios, which ensures that the risk profile of new BTL lending is lower than previously (e.g. through lower origination LTVs). Additionally, LTI rules for owner-occupiers are effective in controlling the risks of interest-only lending that may not necessarily be fully measured in a DSTI ratio.

We observe that interest-only lending was a common buy-to-let product prior to the financial crisis, and it is clear that these loans have performed worse than annuities issued at the same time, and have had higher LTVs and negative equity propensity through their terms. The performance of interest-only loans depends critically on borrower repayment capacity throughout the lifetime of the loan, including choices as to investment and principal redemption. However, interest-only mortgages are no longer a important feature of BTL

lending, comprising at most 2% of the market. Nonetheless, given the potential risks inherent in interest-only lending, it is important to continue to monitor trends of interest-only lending and characteristics of loans originated on this repayment schedule.

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Tables and Figures

Table 1: Loan characteristics at end of 2017 by payment type at origination

		Interest-only	Annuity
Shares (%)	Buy-to-let	70	6
	Tracker rate	74	36
	Originated in 2004-08	91	52
	In negative equity	26	7
	Currently on annuity repayments	70	99
	Lifetime interest-only	28	
	Difference in NPL share	+11	
Averages	Interest rate, %	1.8	2.9
	Median current balance, EUR th	198	98
	Median originated balance, EUR th	250	150
	Current LTV, %	78	51
	Originated LTV, %	78	72
	Year of origination	2006	2007
	Year of maturity	2031	2034
	N	30,562	394,073
	of which lifetime interest-only	8,460	0
	of which buy-to-let	21,251	24,750

Source: Central Bank of Ireland loan-level mortgage data sample. Non-performing follows EBA ITS on supervisory reporting on forbearance and non-performing exposure.

Table 2: Loan characteristics for buy-to-let new lending 2015 - 2017

	2015	2016	2017
Loan Characteristics			
Loan Size (€)	119,654	119,008	126,615
LTV (%)	54.9	56.0	57.5
Loan Term (Years)	19	18	19
Total Installment (€)	798	821	886
Property Value (€)	248,913	232,339	245,465
Property Size	1,154	1,077	993
Interest Rate (%)	4.9	4.8	4.7
Interest Rate Type, of which:			
Fixed	6.3	10.4	12.8
SVR	93.8	89.5	86.9
Other	0.0	0.1	0.3
Property Type, of which:			
Detached	14.7	17.6	17.0
Apartment	27.7	30.6	37.5
Other	6.7	1.2	0.8
Semi-Detached	28.8	28.6	23.5
Terraced	22.1	22.0	21.2
Borrower Characteristics			
Borrower Age (Years)	44	44	45
Region, of which:			
Dublin	35.6	33.2	35.8
Leinster (exclu. Dublin)	20.5	19.9	19.8
Munster	28.7	30.7	28.1
Connaught	12.4	12.9	12.9
Ulster	2.9	3.3	3.5
n=	736	1,376	1,315

Source: Central Bank of Ireland Monitoring Templates Data

Note: In-scope new property purchase loans only

Note: Outliers have been omitted by removing the 1st and 99th percentile

Table 3: Payment type for buy-to-let lending

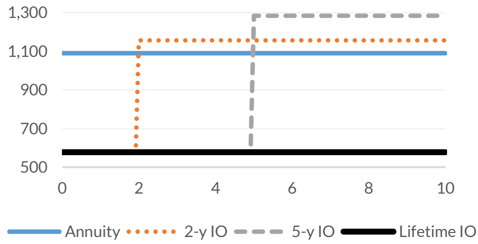
	2015	2016	2017
Amortising	98.10%	98.62%	99.47%
Interest Only / Hybrid Interest Only then Amortising	1.09%	0.73%	0.46%
Hybrid Moratorium then Amortising	0.8%	0.7%	0.08%
n=	736	1,376	1,315

Source: Central Bank of Ireland Monitoring Templates Data

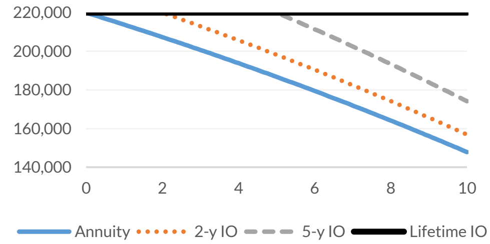
Note: In-scope new property purchase loans only

Figure 1: Impacts of repayment schedule choice

(a) Customer payment per month



(b) Outstanding balance



We consider the first ten years of a hypothetical loan of €220,000, lent at 3.2% for 24 years.

Figure 2: Shares of loans in negative equity, 2013-17

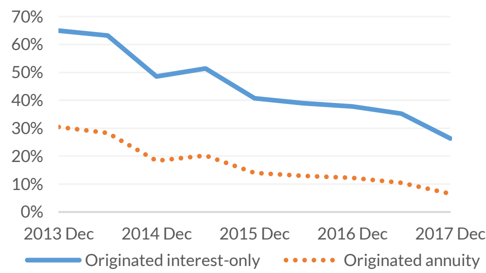
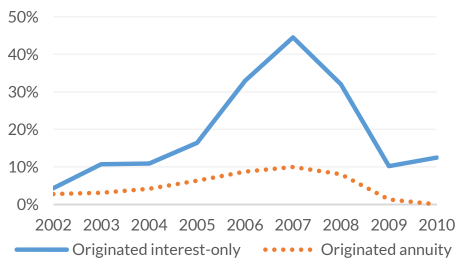


Figure 3: Shares of loans in negative equity at end of 2017, by origination year

(a) Buy-to-let mortgages



(b) Other mortgages

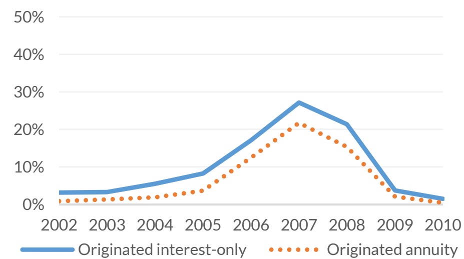
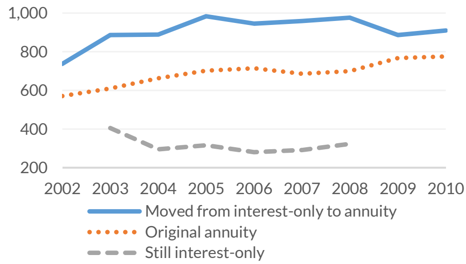
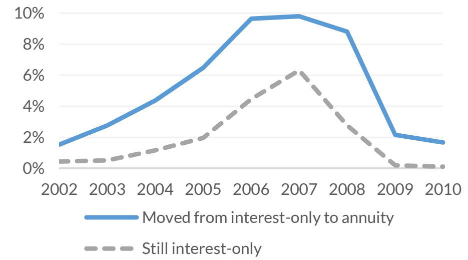


Figure 4: Payments on loans at end of 2017, by origination year

(a) Customer payment (EUR per month)



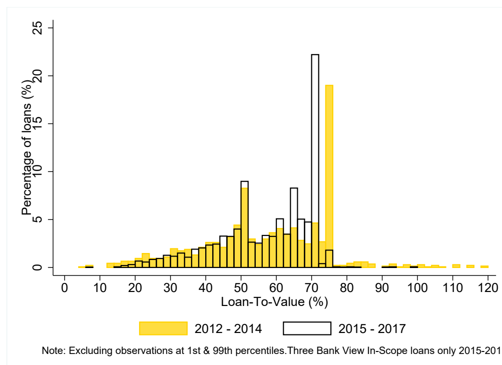
(b) Shares of loans by current payment type



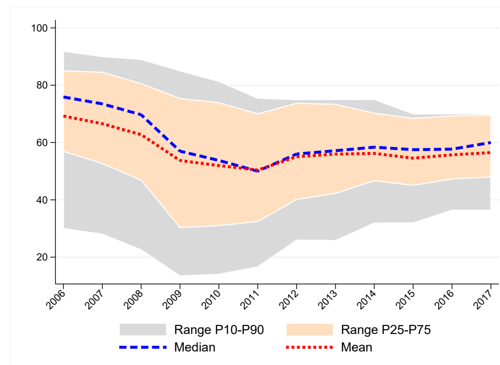
Source: Central Bank of Ireland loan-level mortgage data sample. Small sample sizes of loans on bank balance sheets as at the end of 2017 limit the series to 2002-2010 for current or originated annuities, and 2003-2008 for loans that are still interest-only.

Figure 5: LTV for buy-to-let borrowers: distributional comparison and time trend

(a) Buy-to-let LTV comparison



(b) Buy-to-let LTV over time



Source: Central Bank of Ireland loan-level and monitoring templates mortgage data