Banking & Payments Federation Ireland

Irish Mortgage RWA Density Analysis Project

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Executive Summary

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- Risk Weighted Asset (RWA) density on mortgage loans in Ireland is significantly higher than the average for comparable European countries, and the gap has widened after the recent European wide regulatory review, the Targeted Review of Internal Models (TRIM). Compared to European averages at c13.3%, Irish mortgage RWA density has reached 37% on a proforma basis, using data gathered from the Irish retail banks for the year end 2019. The higher RWA density in Ireland now **represents a c€2.5bn additional equity requirement** for the 5 banks for "unexpected losses" on the €83 billion of Irish mortgages calculated using internal models, when compared to the Eurozone average*. This requirement for additional capital, due to elevated RWA density, increases the cost of mortgages in Ireland, when compared to other countries, by significantly increasing the capital required for a bank when underwriting for an Irish mortgage.

- Despite the significant reduction in problem loans and the vast increase in higher quality loans being added to the mortgage pool in the past four years under the Central Bank of Ireland (CBI) Macro Prudential rules, the RWA density of Irish mortgages has increased through the TRIM process. Among the driving factors of this increase, TRIM has reinforced the impact of "Downside" Loss Given Default (LGD) in RWA calculations, from the experience of 2007 to 2013, effectively trapping the crisis in the RWA calculation for mortgages in Ireland.

- Overall collateral levels are much stronger in the total loan pool than expected (estimated at c€184 bn), supporting an average Loan to Value (LTV) of 47%, and weighted LTV of 61%. This collateral strength is also true for the problem loan pool (€20bn Collateral V €12 bn of loans). However, the "bad" pool, of just 13% of the accounts is capturing 33% of the RWAs for the sector, illustrating that loans which have impaired at any time, despite recovery, continue to require significant levels of additional capital in the long run.

- Recent work by EBA confirms that Ireland has one of the worst outcomes in Europe in the recovery of security for mortgages under judicial processes (just 11% v 46% in Europe). The combination of legal costs, time to recover, and lack of success in securing collateral is therefore a factor in driving up the level of capital required for unexpected losses in the Irish mortgage pool. This is ultimately driving up the cost of Irish mortgages for both the banks who supply mortgages and the mortgage holders in Ireland, performing or otherwise.

- Loans written in recent years (since 2017) have significantly better underlying quality than pre 2009 and have lower than average RWA density (29% V 37%), but still have significantly elevated RWA density compared to other countries. Improvements in Loan to Income (LTI) when compared to European peers, appear to be having a relatively limited impact in driving RWA density downward, which is a disappointing outcome. For example, according to European Central Bank (ECB) data Austria and Belgium lend at twice the LTI compared to Ireland, with similar LTVs, but have RWA Density of 10/11% compared with an RWA Density of 29% in new loans written in Ireland in recent years.

- Models on future loan growth on the sector (excluding the impact of COVID), show that average RWA density may only fall slowly over the next 5 years. If "Downside" LGD is locked into RWA calculations from the previous crisis, even as better quality mortgages replace older higher risk ones , Irish mortgages will continue to attract much higher RWA Density than other European countries due to historical experience.

- There is a strong argument to suggest that a greater weight must attached to a) significant improvements in underwriting quality, b) macro prudential robustness of the mortgage system and c) the success of forbearance measures, when calculating the RWA density for bank mortgage books across Europe. Unfortunately, the current framework imposed through TRIM, in calculating capital requirements for unexpected loss, is potentially failing to reward major improvements in behaviour and quality in the mortgage system, with knock on impacts to the cost of mortgage pricing.

*Based on a 12.5% CET1 Level Capital Requirement.

Project Background

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- The European banking sector is undergoing a major review of the levels of capital required which banks require for different types of lending through the Targeted Review of Internal Models (TRIM) program run by the ECB in conjunction with local regulators. This level of capital is driven by the Risk Weight Assets (RWA) attached density to different loans, based on their potential for creating an unexpected future loss for the bank.

- The TRIM program has been rolled out across the European banking sector over the past two years, and is as described by the ECB, as focused on the **"unwarranted variability in risk weighted assets (RWA)".** It is seeking to harmonise the assumptions used in internal bank models in the calculation of RWAs for different loan pools under the Internal Risk Based (IRB) approach. RWA calculations are designed to capture the level of unexpected losses which could emerge from a loan pool and drive the level of capital which a bank must hold against those type of loans.

- The BPFI RWA project examined the impact of TRIM for the Irish banks, particularly on the Irish mortgage pool, which historically carried a RWA density which was already significantly higher than European averages. The RWA analysis project gathered key information from the Irish banks about the composition of the total Irish internal model based mortgage pool at the year end to December 2019, to assess the change in quality over the past 10 years, and to gain insight into the drivers of the higher RWA density which has resulted from the TRIM process.

- The project conducted the analysis from two approaches: a) top down comparison with the economic conditions driving mortgage loan pool performance across the past 15 years and b) a bottom up assessment of the drivers in the RWA calculation from detailed information gathered from the Irish banks. The analysis covering c12 million data points across 613K mortgage accounts across €83 billion of mortgage loans, generating RWA Density for a range of queries based on the quality of the data provided from each back. This work was supported by additional analysis of ECB and EBA data, and Pillar 3 data available from the European sector on Probability of Default (PD) and Loss Given Default (LGD).

- The project to date has benefited from the cooperation of all the 5 banks in Ireland who provide mortgages (AIB, Bank of Ireland, Ulster Bank, Permanent TSB and KBC), in sharing a level of data for the period ending 31st December 2019. Not all banks are fully through TRIM reviews at this stage and not all data initially requested was sought or delivered after consultation. The banks also provided feedback on the initial findings of the research.

RWA Analysis – Headline Numbers

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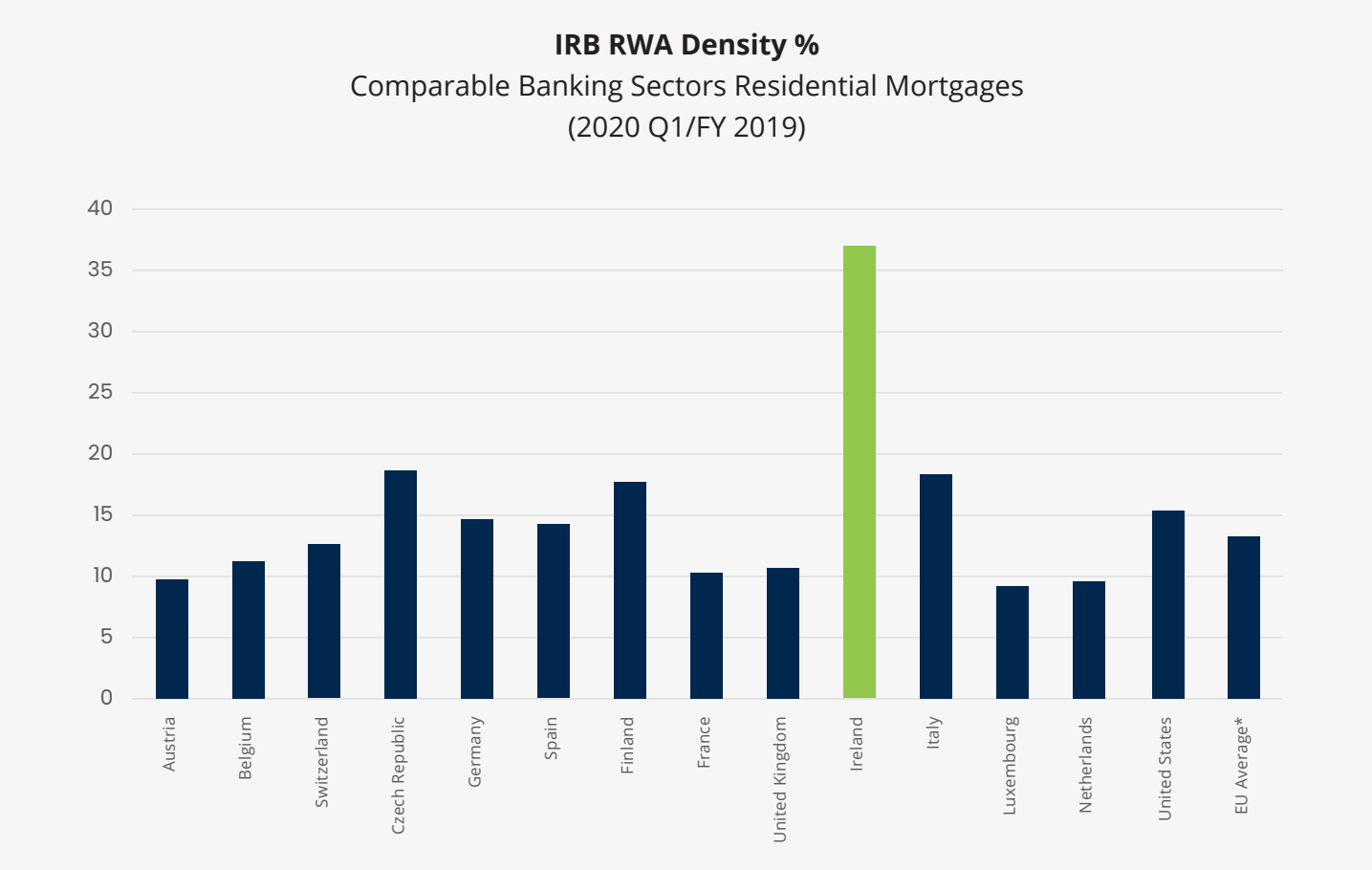
Type	Accounts No.	Balance Dec-19 €bn	RWA Dec-19 €bn	RWA Density	AVG LTV Dec-19 (est)	Balance Origination €bn	AVG LTV Origination (est)	Bal Now / Orig Bal Amortisation Dec-19	% RWA Overall
PDH	541,844	73.8	24.6	33.3%	45.1%	101.8	66%	72.5%	79.1%
BTL	71,991	10.0	6.5	64.8%	49.1%	15.7	70%	64.1%	21%
All	613,870	83.9	31.1	37.1%	45.5%	117.5	66%	71.4%	100%

- **Total Book:** Mortgage pool, which is risk weighted according to internal models (IRB) analysed as part of this analysis covered of €83.9 billion (93%) of outstanding mortgages in the five Irish banks (with the exclusion of c€6bn of mortgages that are risk weighted using standard models).
- **Accounts:** The data set covered 613k accounts across the €83.9 bn of mortgages, split at 541K in Primary Dwelling House (PDH) mortgages and 72k in Buy To Let (BTL) mortgages.
- **Mix:** PDH covers 88% of book in terms of outstanding amount but just 79% of the total RWA outstanding while BTL covers 12% of the amount of the book outstanding but 21% of RWAs, illustrating the higher RWA density of BTL mortgages (nearly twice that of PDH). It is worth noting that BTL mortgages as a percentage of total mortgage outstanding have been reducing aggressively, as this product was dropped/scaled back by most banks since the crisis and replaced by mainly institutional investors.
- **RWA Density:** The total pool had a 37% average RWA density on a proforma basis at the end of December 2019 (€31 billion of RWA on €83.9 billion of mortgages) with an average PDH density of 33.3% against 65% for BTL mortgages.
- **Collateral:** Outstanding collateral backing is approximately €184 bn of residential property assets (c34% of the outstanding value in CBI Wealth data for property in Ireland (€540 bn)).
- **Loan to Value:** Average unweighted LTV for total pool is c45.5% compared with c71.4% at Origination. Weighted average LTV is currently c61% for the total pool.
- **Maturity:** Average mortgage length is c26 years with around 15-year average time to maturity (2036). This is increasing in recent years as volumes picked up in mortgages written.
- **PDH Characteristics:** PDH have the bulk of the collateral at c€164 bn and have paid down an average of 27.5% of principal. The health of the mortgage book has improved significantly, up until COVID-19, in recent years on key metrics (LTV, Default rate, LTI etc).
- **BTL Characteristics:** BTL loans have a noticeable shorter length to maturity (avg: 2030) with a 23 year average issuance length and 36% of principal paid. BTLs held a RWA Density of 65% and 21% of all RWAs.
- **Quality:** The total loan book has been improving in quality since 2017 under all major metrics: Loan to Value, impairment occurrence, and LTI.

RWA Density- Comparison with Europe

- Comparable European data illustrates the extent of the differential between European and Irish averages in terms of RWA density. Average Irish RWA Density of 37.1% is substantially higher than European norms of 13.3%.
- This gap has increased since TRIM began and will likely rise further as TRIM finishes out in Ireland over the next year.
- Additionally, the impact of COVID-19 is likely to lead to further increases in RWA density and potentially widen the gap between average RWA density in Europe and in Ireland.
- The increased RWA density for IRB mortgages in Ireland, now represents a €2.5 billion additional equity* buffer/requirement for unexpected losses in mortgages, compared to average EU countries* (reporting countries). This additional capital requirement has a significant impact on the pricing of Irish mortgages compared with other European countries due to the much higher level of capital which must be held against an Irish mortgage.



*Based on 12.5% CET1 Ratio minimum.

RWA Density- "Good" Book V "Bad" Book

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Impairment Status	% RWA of Overall	% No Acc'D19 of Overall	% Bal'D19 of Overall	Number a/c	Outstanding €'bn	RWA €'bn	RWA Density	Avg LTV Now	Avg LTV Org
Never Impaired	66.2%	86.6%	84.9%	531,720	71.2	20.6	29.0%	45%	66%
Now/Past Impaired	33.8%	13.4%	15.1%	82,150	12.7	10.5	83.0%	45.6%	66.9%
Total	100%	100%	100%	613,870	83.9	31.1	37.1%	45.4%	66.2%

- As a key part of the analysis, the total loan pool was broken into a "Good" Book with no impairment/never credit impaired status, which made up 87% of loan balances, capturing 66% of all RWAs, and had an average RWA density of 29%. The remaining pool was called the "Bad" Book.
- The "Bad" book, impaired now or previously, showed an RWA Density of 83% and trapping c1/3 of all RWAs in the IRB system for just 13% of the outstanding accounts. This illustrates the highly negative impact of any level of impairment on the RWA density outcome.
- Effectively, just 13% of accounts are inflating system wide RWAs by around 37% to 50% due to the knock-on impact in not only the treatment of impaired or previously impaired loans but also the impact on Probability of Default feeding RWA density in to the "Good" book. A number of factors which are noted later in this report including, the length of time to settle impairment issues, the impact of the "Downside" LGD, and the ability to recover collateral, are all driving this density figure. The banks also mentioned the impact of the use of the discount rate in forbearance situations as having a distortive impact on outcomes on the "Bad" book in Ireland, due to the high levels of repaired loans and the length of the forbearance period, compared with other countries.
- The "Bad" book has €12.6 bn of mortgages, €10.5 bn of RWAs, against €27.8bn of property on average LTV of 45%. Therefore, there was a substantial level of collateral evident in the "Bad" Book, providing strong support for remediation measures.
- The severity of RWA outcomes for the "Good" Book, given its history, with an RWA density of 29%, is surprisingly higher and significantly ahead of European norms. This illustrates that even the best performing mortgages in Ireland are attracting much higher RWA densities than good performing loans in other parts of Europe. In effect, the historical performance of the "Bad" pool is heavily impacting the level of capital required for good performing loans.
- Recent "Good" Book loans are attracting lower RWA (29%) but not significantly lower than average (37%), despite much stronger fundamentals in underwriting quality. While the macro prudential rules are improving loan quality, the impact on RWA density appears to be lagging this as a driver of lower RWA density.

RWA Density- "Good" Book V "Bad" Book

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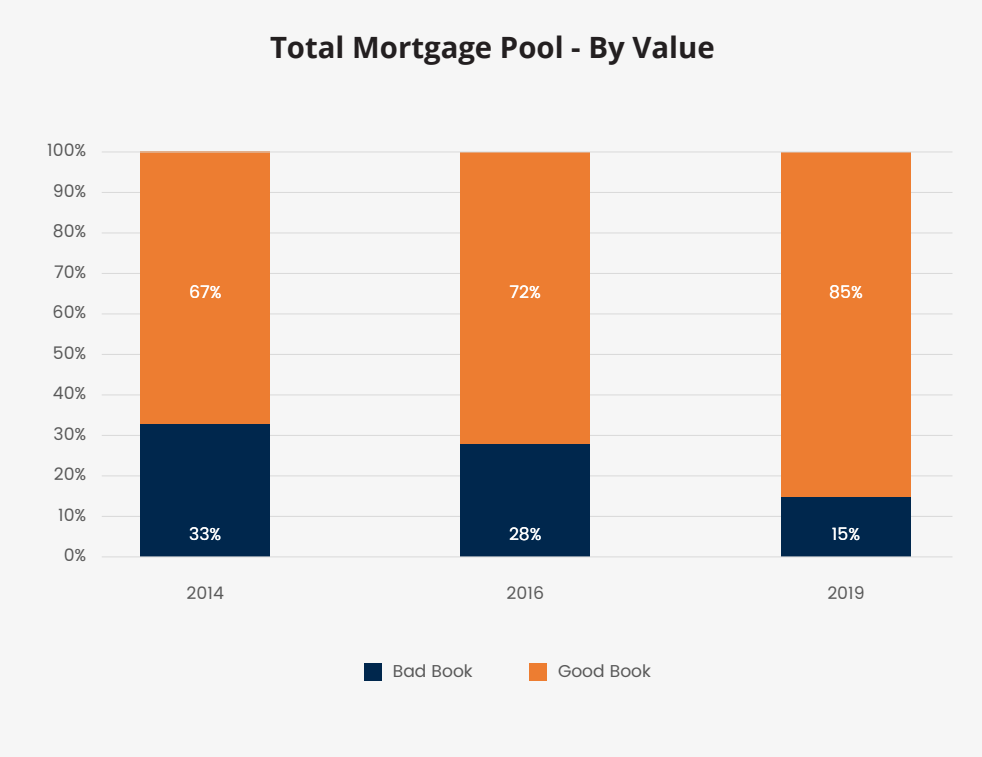
Impairment Status	Number a/c	Outstanding €'bn	RWA €'bn	RWA Density	Avg LTV Now	Avg LTV Org	Avg Origination Year	Avg Maturity Year	Avg Mgt Size Now	Balance @ Drawdown €'bn	O/DD
Never Impaired	531,720	71.2	20.6	29.0%	45%	66%	2010	2035	133,911	96.9	66%
Now/Past Impaired	82,150	12.7	10.5	83.0%	45.6%	66.9%	2006	2034	154,204	20.6	66.9%
Total	613,870	83.9	31.1	37.1%	45.4%	66.2%			136,626	117.5	66.2%

- The "Bad" book, impaired now or historically, has significantly reduced in size over the past four years to an estimated 15%of outstanding mortgages (less than 50% of the level in 2014). Disposals of Non-Performing Loans (NPLs) are the key driver of this reduction, in line with recent regulatory and supervisory requirements to reduce NPL levels. A significant portion of repaired loans remain in the Irish system.

- Noticeably in the analysis, the problem pool had a much higher average drawdown size at origination at €251K against€182K at initiation of the loan in the "Good" Book and LTVs are similar now. This is due to the fact that the "Bad" Book has also paid down more of its drawdown capital (39%) as a percentage of that originally drawn. This is a very positive development for the strength of the Bad Book and to a certain extent illustrates the success of long-term forbearance measures.

- High level analysis shows that the exit of problematic loans (through disposal) is potentially still more capital effective than repairing loans, which requires continued high levels of capital for future unexpected loss. The use of a high discount rate for the cashflow from repaired loans is also distorting the benefit of the repair process according to feedback from the banks.

- This is potentially problematic in penalising the banking sector for engaging in widespread forbearance processes, by saddling repaired loans, which return to full performance, with high capital requirements for unexpected loss.



PDH Mortgage Pool Dynamics

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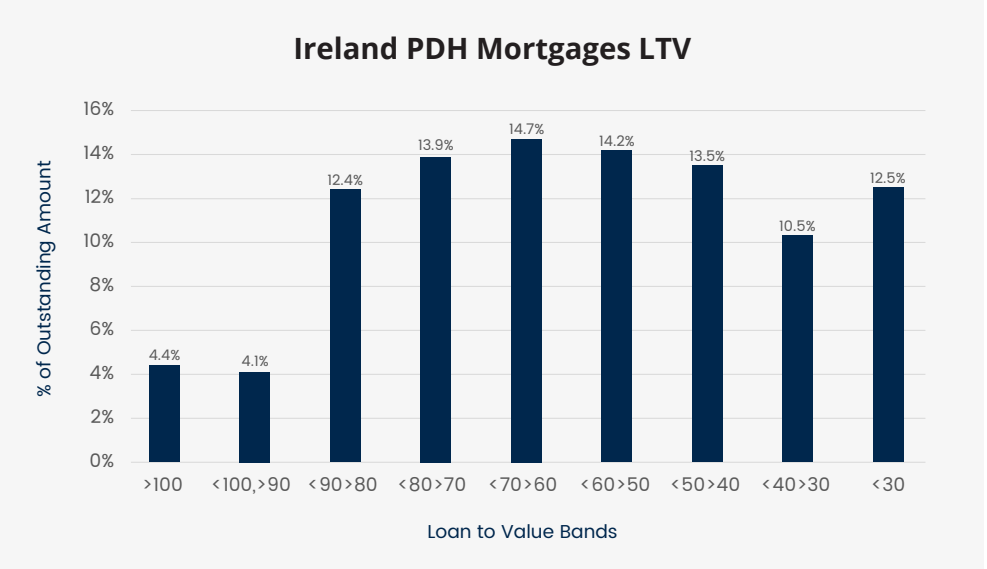
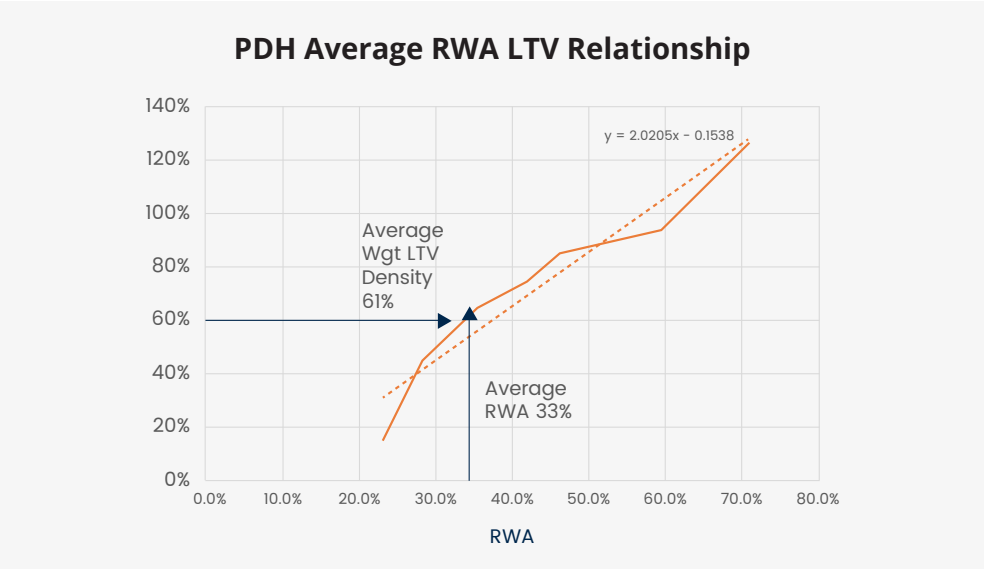
- In a further illustration of the improved quality of the loan pool overall, just 8% of mortgages carry an LTV above 90%. Around 4% of the total loan book is in negative equity, which is vastly lower than the 32% of the pool which hit negative equity in 2013.
- Of note, 36% of mortgages have LTV below 50%, representing another major improvement over the past 10 years and providing an illustration of the much safer nature of the total PDH pool. Total collateral for the PDH pool stands at c€165 bn V € 74bn of outstanding mortgages (88% of total loan pool).
- The average LTV on the newer loans, less than four years is closer to 70%, reflecting the impact of the Macro Prudential rules on the industry LTV for new lending.
- RWA Density averages for PDH is 33% which is substantially higher than European averages.
- As expected, RWA density in the Irish PDH pool, tracks Loan to Value upwards, with the highest RWA loans in the PDH book, exhibiting the highest RWA density of the pool (mortgage with more than 70% LTV).
- On average, the weighted LTV of 61%, is consistent with the average RWA density of 33%. However, even at very low LTV levels, RWA density is still significantly ahead of European norms.
- Newer mortgages written in Austria for example, at similar LTV levels as Ireland of 75%, have an RWA density of c10% compared with c28% in Ireland.
- It is not clear why the RWA density of even the safest pool of Irish mortgage in terms of collateral backing is not rewarded with lower levels of RWA density (protection against unexpected loss), comparable with the risk which the banking system is facing. The analysis suggests that even the safest portion of the book is still seeing an elevated unexpected loss requirement compared to European norms.
- There also appears to be a lag in the reduction in RWA density for different parts of the loan pool, when LTV levels are falling below 30% (with RWA remaining at over twice the average European levels).





LGD as Driver of RWA Outcome

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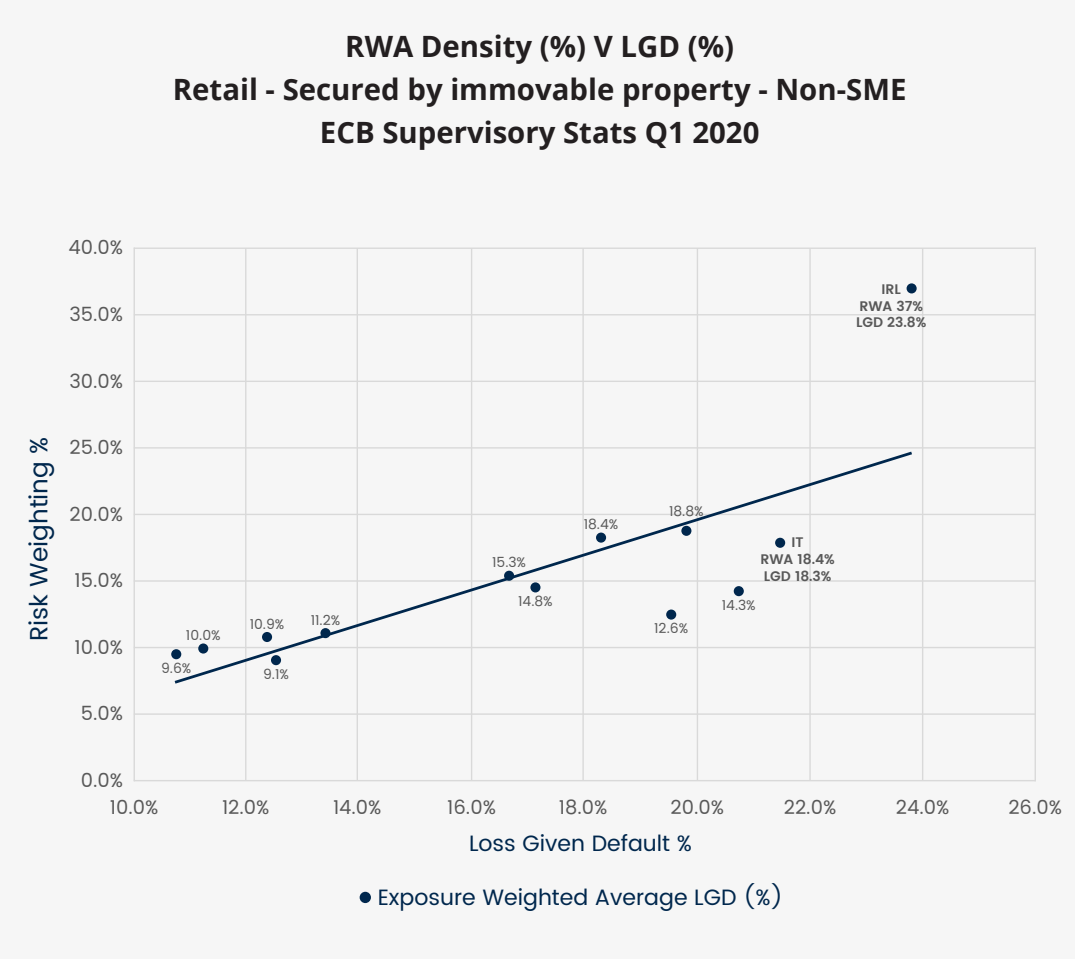
- Comparison of the Irish mortgage pool RWA density with European averages, illustrated the extent of difference between the average density in Ireland of 37% compared with European peers at 13.3%.
- Regression analysis shows a very strong relationship between the level of LGD and the level of RWA density in Europe. The higher LGD countries see higher RWA density outcomes along a relatively consistent relationship.
- The regression analysis also shows that Ireland's RWA density as against LGD is significantly higher than European peers and is an outlier on the projected line.
- This appears to be due, according to feedback, from the use of "Downside" LGD in the calculation of RWA density. "Downside" LGD is significantly more aggressive in Ireland compared with other European countries due to the much larger drop in property prices during the last crisis.
- The use of "Downside" LGD in this manner, traps the impact of last crisis in the calculations of RWA, despite the significantly improved state of the Irish property market and Irish mortgage pool.



Residence of Obligor	LGD	RWA*
AT	11.2%	10.0%
BE	13.4%	11.2%
CH	19.5%	12.6%
CZ	19.8%	18.8%
DE	17.1%	14.8%
ES	20.7%	14.3%
FI	21.5%	18.0%
FR	12.4%	10.9%
GB	7.1%	11.4%
IE	*23.8%*	*37.0%*
IT	18.3%	18.4%
LU	12.5%	9.1%
NL	10.8%	9.6%
US	16.7%	15.3%
Average	**16.0%**	**15.1%**

Vintage Impact on RWA Density

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Maturity Vintage	% RWA Of Total	% No Acc'D19 Of Total	% Bal'D19 Of Total	Accounts Number	Outstanding €'bn	RWA €'bn	RWA Density	Avg LTV Now	Avg LTV DD	Avg Mortgage Size Now €	Avg Mortgage Size Drawdown €	Outstanding V Drawdown
2021 to 2025	4%	12%	4%	73,734	3.3	1.3	40.2%	16.1%	54.0%	45,427	144,386	31.5%
2026 to 2030	12%	17%	11%	106,912	9.4	3.6	38.6%	32.2%	60.3%	87,627	172,100	50.9%
2031 to 2035	23%	20%	20%	122,045	16.7	7.2	43.4%	47.8%	67.0%	136,763	202,921	67.4%
2036-2040	17.9%	16.5%	19.3%	101,236	16.2	5.6	34.3%	56.3%	72.1%	160,265	205,003	78.2%
>2041	42.2%	31.2%	45.2%	191,249	37.9	13.1	34.7%	67.7%	78.8%	198,062	215,347	92.0%
	99%	97%	100%	595,176	83.5	30.9	37.0%	45.4%	66.2%	140,316	194,480	72.1%

- On an analysis of the vintages of the total loan pool, we note that more recent loans, with average maturity of beyond 2041, have better underlying RWAs than previous vintages based on the years outstanding and the expected paydown level.
- RWA density is moving down slightly for longer maturities, especially in relation to LTV (as expected). However, the +2041 pool RWA density is still only 2.3% points below the long term RWA average, which suggest that the improvement in underwriting quality is yet to significantly flow into a lower RWA density.
- Approximately 4% of outstanding balances retire (15% of accounts) by 2025 as mortgages written in the late 1990s and early 2000 comes to maturity.
- The biggest problem "cohort" 2031 -2035, contains highest density RWA loans (43% with average LTV of 47.8%). Significant levels of collateral are now in this pool, after principal paydown and the recovery in the property market (Pool would have originated pre 2010). Around 33% of principal has been paid down in this pool, reflecting strong and consistent deleveraging over the period.
- The youngest pool, the +2041 maturity, contains 45% of outstanding mortgages, at much better underwriting quality, but has an average RWA density which is still a very high at around 35%. It contains 42% of all RWAs outstanding, which illustrates the increasing influence of newer mortgages are having on improving the quality of the Irish mortgage pool.

Pre & Post 2017 Comparison (LTV & LTI) - Impact of Macro Prudential Rules

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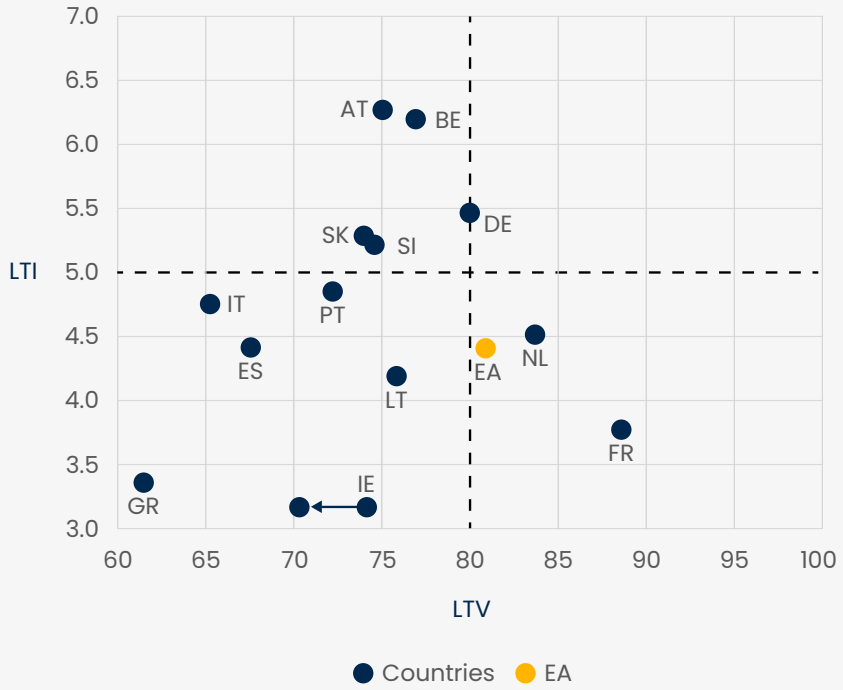
Origination Status	% RWA of Overall	% No Acc'D19 of Overall	% Bal'D19 of Overall	Number a/c	Outstanding €'bn	RWA €'bn	RWA Density	Avg LTV Now	Avg LTV Org	Avg Origination Year	Avg Maturity Year	Avg Mgt Size Now €	Balance at Drawdown €
Post Jan 2017	21.9%	18.1%	25.4%	110,947	21.1	6.6	31.3%	63.8%	70.0%	2018	2044	190,481	193,533
Pre Jan 2017	77.5%	81.5%	73.9%	500,070	62.1	24.3	39.1%	44.3%	67.4%	2007	2033	124,261	190,673

- According to the ECB data, Ireland is now consistently underwriting mortgages over recent years at the lowest LTI level (3.2 X) in Europe and one of the lowest LTV (c71% v 80%average) in Europe. Data on the most recently draw down loan pool in the analysis is consistent with LTV levels illustrated in European data.
- According to the latest CBI data, as of end-June 2020, 34 per cent of outstanding mortgage lending at Irish retail banks had been issued since the introduction of the Central Bank's mortgage measures.
- RWA density on this pool is still extraordinarily high at 31%, highly elevated against the rest of the European banks despite much tighter LTV, and LTI ratios at the lowest level in Europe.
- On similar LTV levels, banks in Austria and Belgium seems to be able to lend at double the LTI levels in Ireland (6.1/6.2X compared with 3.2X) but have on average RWA density of just 10% and 11% respectively (a third of the comparable levels in Ireland).
- This illustrates that the RWA calculation (on average) is failing to capture the improvement in loan underwriting quality, and very much to the exclusion of better lending practise. For example, the level of capital required for unexpected loss is still three times higher in Ireland when compared to other similar LTV countries, but with significantly lower Loan to Income.
- Effectively, the historical the impact is overpowering better lending practise as a driver of the level of unexpected loss capital.

ECB data – LTV and LTI of new mortgage loans written



Improvements in Ireland Macro Drivers & RWA Density

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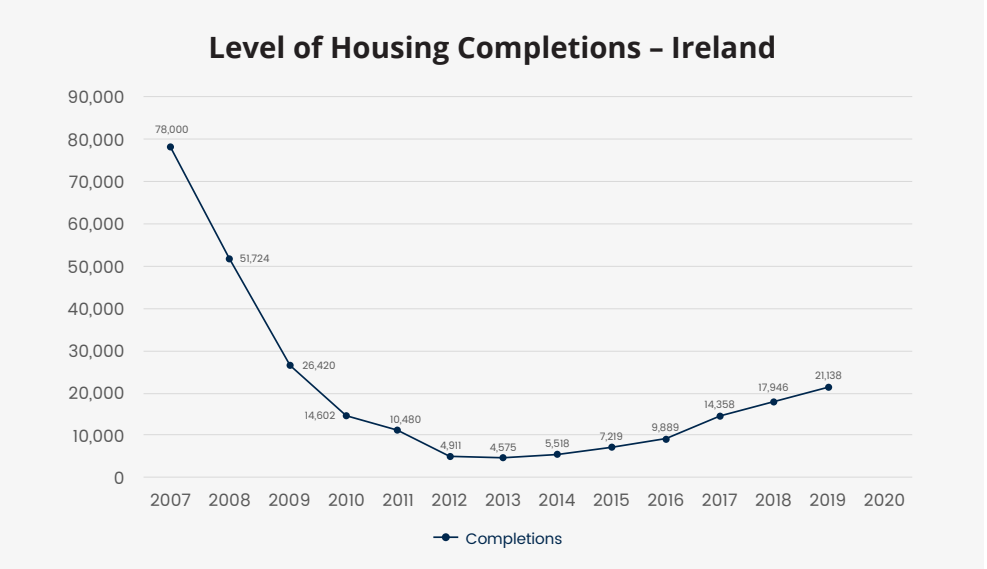
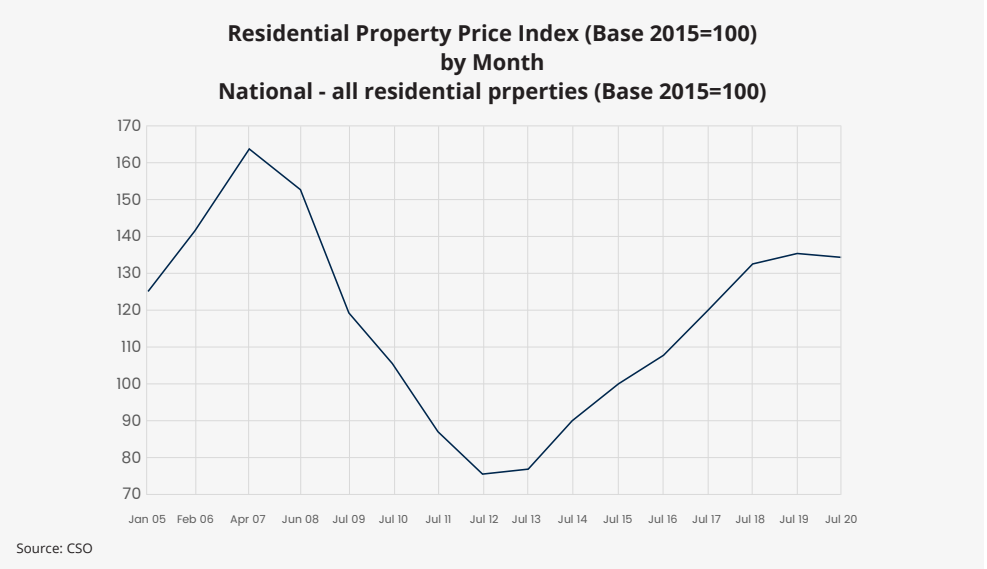
- One of the major drivers of the differential between Ireland and other European countries on RWA density is the impact of the imposition of "Downside" LGD in the calculations of RWA.
- Ireland had the most severe property market crash of any European country and therefore will be intuitively carrying the largest "Downside" LGD impact of any European country based on the impact of the crisis.
- Unfortunately, this has the effect of trapping the worst period in Irish property market, a -59% fall in residential property prices between 2007 and 2013, into the RWA density calculation for future "unexpected losses" for Irish mortgages. This level of price decline in asset prices and the accompanying default levels were the highest in Ireland the last cycle among the European peer group, including Spain and Italy.
- The health of the Irish property market and the background health of the banking sector, in terms of capital and liquidity, has vastly improved over the past 10 years.
- From a major overhang of residential units in 2007 to a vast undersupply of property in 2019/2020, the underlying property market (and mortgage book) in Ireland holds vastly less risk than in 2007. For over 10 years, Ireland has failed to produce adequate housing based on demographics, leaving a major supply deficit in place. However, RWA calculations, following TRIM, are dominated by the impact of last crisis, rather than even the most conservative outlook for the local market.
- RWAs cover a bank for unexpected losses based on the capture of a downside driven by the crisis years. Unfortunately, this use of historical data in TRIM, permanently imbeds the last crisis into capital requirements on Irish mortgages, and despite a major shortage of housing in Ireland, the "Downside" LGD is hugely driven by events 10 years ago, and not by even the most conservative outlook for housing/ Irish house prices today .





Source: CSO

Loan Enforcement & RWA Density

- Recent data from the EBA, confirms that there are a number of loan enforcement problems in Ireland which are impacting the banking sector's ability to limit losses from defaulted loans in the Irish mortgage pool. Specifically, Ireland performs very poorly compared to other European countries when comparing recovery rates and time to recovery in judicial settlements accord to the data gathered by the EBA.

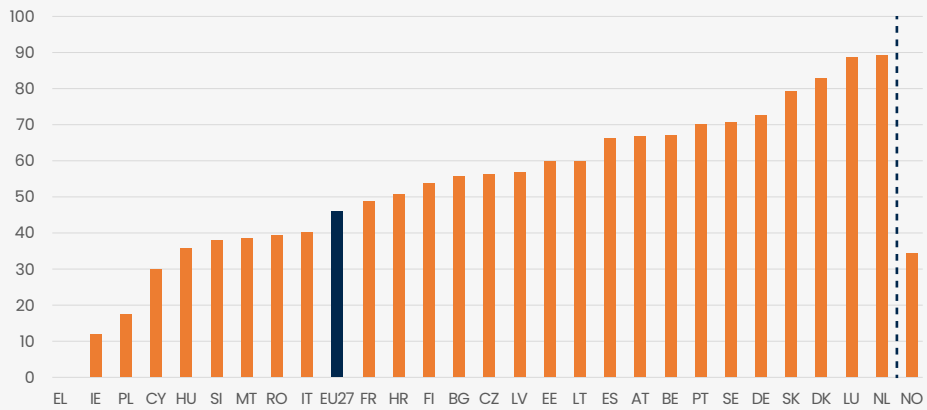
- On average across the EU27, the average recovery rate from a defaulted Residential Real Estate loan (mortgage loan), was 46%. The highest countries Luxembourg and Netherlands are securing 90% recovery on a defaulted loan. Ireland is the second lowest at just 11% recovery of outstanding liability when engaged in a court process to secure enforcement on defaults.

- In addition, Ireland also has a longer than average time to recovery 3.7 years against 3.1 years for the EU.

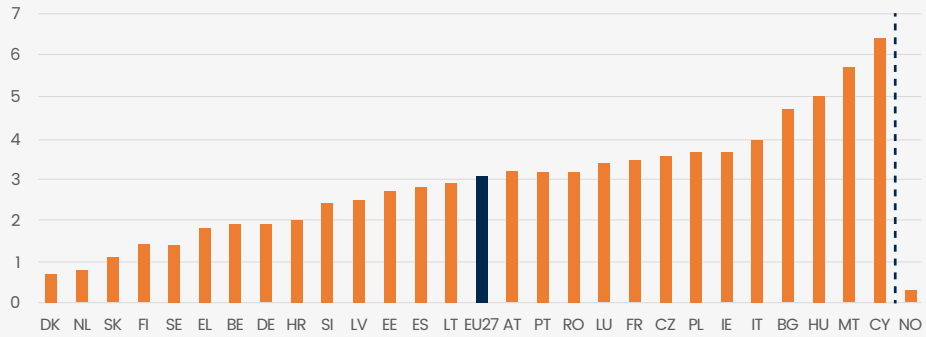
- The EBA does caveat the Irish findings with the comment "where non-judicial debt settlement (i.e., voluntary sale/surrender of property) is a prominent feature of workout in national financial systems distressed debt workout, judicial enforcement benchmarks will not reflect work out recovery, rates, costs, or duration". However, with such a poor average result from judicial settlement, the enforceability of security overall for mortgages is greatly weakened.

- In essence, the impact of poor performance in this critical metric for the Irish mortgage loan pool is certainly a factor in driving higher losses given default (LGD) than in other countries, and therefore higher RWA density compared to other countries. A combination of legal costs, time to recover, and lack of success in enforcement is therefore a key factor in driving up the level of capital required for unexpected losses in the Irish mortgage pool. This is ultimately driving up the cost of Irish mortgages for both the banks who supply mortgages and the mortgage holders in Ireland, performing or otherwise.

EU benchmark, gross recovery rate (%), simple average for each EU Member State – Residential Real Estate Loans



EU benchmark, time to recovery (years), simple average for each EU Member State



Conclusions

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- RWA density on mortgage loans in Ireland at 37% is significantly higher than the average for comparable European countries, at 13.3%, based on ECB data and data gathered from the Irish banks for the year end 2019. The higher RWA density **represents a c€2.5bn additional equity requirement** for the 5 banks for "unexpected losses" on Irish mortgages, compared to the average EU country*. This requirement for additional capital, due to elevated RWA density, increases the interest rates banks must charge in Ireland, when compared to other countries, by significantly increasing the capital demands for an Irish mortgage.

- Despite less problem loans (50% less) in the system since 2014, and higher quality loans being added to the pool in the past four years under the CBI Macro Prudential rules, the RWA density of Irish mortgages has increased through the TRIM process. Among a number of factors, TRIM has reinforced the impact of "Downside" Loss Given Default in RWA calculations, driven from the experience of 2007 to 2013, effectively trapping the crisis in the RWA calculation for mortgages in Ireland. This is despite the improved quality of the mortgage book in years up to 2019, the stronger liquidity position of the banking sector, and the vast change in the fundamentals of the local property market.

- Recent work by EBA, confirms that Ireland has one of the worst outcomes in recovery of security under judicial processes, which is certainly a factor in driving higher losses given default (LGD) than in other countries, and therefore higher RWA density compared to other countries. A combination of legal costs, time to recover, and lack of success in enforcement is therefore a factor in driving up the level of capital required for unexpected losses in the Irish mortgage pool. This is ultimately driving up the cost of Irish mortgages for both the banks who supply mortgages and the mortgage holders in Ireland, performing or otherwise.

- Overall collateral levels are much stronger in the total loan pool than expected (estimated €184 bn), supporting average LTV of 47%, and weighted LTV of 61%. This collateral strength is also true for the problem loan pool (€20bn Collateral V €12 bn of loans). However, the "Bad" pool, of just 13% of the accounts is capturing 33% of the RWAs for the sector. This illustrates that loans which have impaired at any time, despite recovery, continue to require significant levels of additional capital in the long run. In recent work from the EBA, the impact of very poor recovery rates on defaulted mortgages in judicial processes (just 11% versus 46% on average in Europe) and a greater than average period to resolution, is also undermining the quality of security in an Irish mortgage lending contract.

- Loans written in recent years (since 2017) have significantly better underlying quality than pre 2009 and have lower than average RWA density (29% V 37%) but still have significantly elevated RWA density compared to other countries. Improvements in Loan to Income (LTI) lending appears to be having relatively limited impact on driving RWA density downward, which is a disappointing outcome. Austria and Belgium lend at twice the LTI compared to Ireland, with similar LTV, but have RWA Density of 10/11% compared with an RWA Density of 29% in loans written in Ireland in recent years.

- Models on future loan growth on the sector (excluding the impact of COVID), show that average RWA density may only fall slowly over the next 5 years. If "Downside" LGD is locked into RWA calculations from the previous crisis, even as better-quality mortgages replace older higher risk pools, Irish mortgages will continue to attract much higher RWA Density than other European countries due to historical experience.

- Given the COVID impact in moving mortgage loans to Stage 2 in IFRS9, Ireland faces an increase in RWA density again in H2 2020 and H1 2021 aside from the full roll out of the impact of TRIM. There is a danger this movement increases Irish RWA density at a much higher rate than other European countries.

** The information presented here is based on a range of publicly available reports and datasets supplied by the banks, collated and analysed by Martello Strategic for Banking & Payments Federation of Ireland. Sources include:
- the Department of Housing, Community & Local Government
- the Central Statistics Office
- the Central Bank of Ireland
- the European Banking Authority
- European Central Bank
- Banking & Payments Federation of Ireland

Background

- Banking and Payments Federation Ireland (BPFI) is the voice of banking and payments in Ireland. Representing over 70 domestic and international member institutions, we mobilise the sector's collective resources and insights to deliver value and benefit to members, enabling them to build competitive sustainable businesses which support customers, the economy and society.

- Martello Strategic is a leading independent provider of capital analysis and stress testing solutions for the European banking sector. It specialised in supporting banks in developing capital and stress testing architecture, enhancing the bank's ability to deliver consistently strong improvements in performance in both regulatory and internal Stress Tests.

- BPFI gathered data from the 5 main retail banks operating in Ireland, including Allied Irish Bank, Bank of Ireland, Ulster Bank, Permanent TSB and KBC, representing 92% of the outstanding mortgage pool, in order to progress an analysis of drivers of the IRB RWA outputs for the Irish mortgage book.

- Data from the banks covered €83 billion and 612K accounts, representing collateral of over €184 billion.

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