BANK OF ENGLAND

Speech

‘An annuity is a very serious business’[1]

Speech given by

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Bulk Annuities – The Expanding Market, Westminster and City

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[1] Chapter 2, Sense and Sensibility, Jane Austen, 1811

I am grateful to my colleagues in Insurance Supervision for their assistance in preparing these remarks. In particular, Milton Cartwright and Anu Ralhan.

Today I am going to talk about the bulk purchase annuity market, the increasing use by life insurers of illiquid assets – and in particular equity release mortgages – to back these annuities and the significance of the Solvency II matching adjustment. First, though, I want to reflect briefly on the UK life insurance sector as a whole. Standing here in 2018 it is a very different market to the one I might have been describing just 20 years ago. The big change is that most new life and pension products do not guarantee returns. The great majority of savings products are unit linked. And individual pensioners are increasingly choosing draw down products rather than annuities. In both cases, investment risks lie with the policyholders. Other things being equal, that should mean a less risky life insurance sector and fewer sleepless nights for a prudential supervisor like me. The other side of the current life insurance market though is managing the legacy of past promises. Two trends are clear here: first, a very active market in transfers of books of annuities and closed life books between firms, with insurers specialising in particular niches; second, transfers of annuities to life insurers from corporate, defined benefit pension schemes – the bulk purchase annuity market that is the subject of this conference.

Risks for insurers in the bulk purchase annuity market

The bulk purchase market has grown over recent years from a flow of around £5bn in 2010 to over £10bn in each of the past four *years*. With the funding position of many defined benefit schemes improving and company boards still keen to shed pension risks, commentators expect the market to expand further. Transfers in excess of £15bn are predicted this year[2].

The number of life insurers active in this market has increased, with most of them seeing it as a priority for future growth. Our sense is that the market has become more competitive. This is good news for UK companies seeking to shed pension risks. For the insurers, finer margins make it more important that they understand the risks on deals and get the pricing right. A concern is that firms might relax risk management standards or take short cuts in order to win deals and meet new business targets. I want to highlight three areas of risk: data due diligence; longevity and its reinsurance; and asset selection, rating and valuation. I will touch briefly on the first two before spending more time on the third.

On data due diligence, it seems obvious to say that insurers should not enter into bulk purchase transactions without understanding in some depth the nature of the annuity liabilities they are taking on. But this is an area where we see firms taking different approaches and willing to price with different levels of risks. One particular aspect is whether insurers have a full picture of their potential obligations to pensioner spouses and dependents. Insurers need to be clear about their appetite in relation to data risks.

Most of the longevity risk on new transactions is currently being reinsured, often outside of the UK.

[2] Estimates of BPA market from LCP and Towers Watson market reports

One reason is to mitigate the impact of the risk margin. As Sam Woods and I have said before, we recognise that the risk margin on long-dated insurance risks such as longevity is too sensitive to the level of interest rates and therefore too high currently. We are actively looking at further steps available to us within the constraints of Solvency II to address this issue. We expect that a more appropriate level of risk margin – similar to that envisaged when Solvency II was negotiated – would lead to a better balance between longevity risk being retained and reinsured by UK insurers on new business. While significant reinsurance continues, insurers should be paying close attention to counterparty and operational risks.

With most of the longevity risk currently being reinsured, the primary determinant of pricing in the bulk annuity market is the investment return on the assets backing the annuities. The big change here is diversification out of bonds into direct lending (Chart 1). Spreads over risk-free rates on investment grade bonds have been narrow for some time. Insurers have been finding wider spreads in a variety of other long-term financing markets, including social and student housing, financing public infrastructure such as hospitals, commercial real estate lending, wind and solar power financing, rail stock leasing and ground rents (Chart 2). These 'illiquid assets' (broadly defined as assets other than traded debt securities) currently make up more than 25% of the assets backing annuities across UK insurers. Insurers' business plans suggest this proportion might increase to around 40% by 2020.

Illiquid assets can be a good match for annuities. Diversification may lower overall portfolio risks. And long-term infrastructure investment has wider economic benefits. But these assets bring a wider range of risks than those familiar to bond investors. Insurers need to ensure they have the skills to understand and manage them. To take some diverse examples, the failure of Carillion left some insurers needing to replace a contractor on construction projects; financing student accommodation exposes insurers to the risk of changing UK student numbers; and financing railway stock creates a risk at the point when a new train operator wins a franchise. These assets also typically lack external ratings and observable market prices. More focus is therefore needed on internal rating and valuation processes. Insurers need to ensure that they are meeting all the elements of the Prudent Person Principle in Solvency II. Finally, when these exposures deteriorate, it is important that insurers have the work-out expertise to mitigate the impact on value, as ultimately disposal is unlikely to be a straightforward option.

Equity release mortgages

The illiquid asset category in which exposures have been growing most quickly is equity release mortgage lending. A typical equity release mortgage comprises an advance to a person sixty to eighty years old of 25-50% of the value of their home. Most borrowers do not pay interest which instead accrues over time, increasing the value of the debt. Assuming the borrower does not pre-pay the loan, the insurer is repaid from the proceeds of the house sale when the borrower either dies or moves into long-term care. Insurers guarantee that the amount of the loan cannot exceed the value of the house (the 'no-negative-equity guarantee').

To be clear, the PRA recognises the value of this product to consumers especially given the aging UK population with high levels of wealth concentrated in housing. £1.8 trillion of £2.6 trillion homeowner equity in England belongs to people aged over 55[3]. Equity release mortgages give older people the opportunity to unlock this wealth as an alternative to moving into a cheaper house. One motivation may be to pass on wealth to children, who otherwise may not inherit until well past the most expensive child-rearing years. Other motivations can include supplementing pension income, repaying debt and making home improvements.

The risks in this market though are very different to those on insurer's other assets. It is a retail product bringing conduct risks that fall under the FCA's responsibilities. From a prudential perspective, the main risk is long-term stagnation in UK house prices. Economically, the no-negative-equity guarantee is a written option on house prices. Where insurers have recently entered the market and/or are growing their loanbooks rapidly, the average expected maturity of these options is likely to be some decades in the future. Low loan-to-value ratios mean the short-run risks to insurers are limited. They can ride out a property market crash as long as the market subsequently recovers. But loan-to-value ratios increase over time unless house price growth keeps pace with the rate at which interest is accruing. So what you have is a sort of race to the value of the property illustrated by Chart 3. The time it takes for the value of the loan to exceed the value of the property will be governed by: the interest rate charged (higher is more risky), the loan-to-value ratio (higher is more risky), house price inflation (lower is more risky) and the age of the borrowers (younger is more risky).

Underwriting standards do appear to have weakened a little over recent years. Chart 4 shows a slight increase in the share of lending to younger customers, aged 65 or younger. Average loan-to-value ratios for these borrowers have also increased a little. We would expect risk functions to be monitoring these trends and keeping boards informed.

As well as loosening of lending standards, another concern might be if insurers are making more loans outside those standards. Chart 5 plots loan-to-value ratios against age for equity release mortgages sold by life insurers in 2017. The pink swathe shows insurers' risk limits. The great majority of mortgages are within risk appetites, but some loans exceed the limits. This may or may not be a problem. For example, it could be explained by medical underwriting of the mortgage that justifies a higher loan-to-value ratio for a younger customer if their life expectancy is impaired. Again this an area that risk functions should be watching.

The most important risk factor, however, is the long-term path of UK house prices. Plausibly the risk of a long-term correction in UK house prices has increased as houses have become less affordable and rental yields have fallen. In England and Wales the ratio of median house prices to median individual annual

[3] *Equity release rebooted: the future of housing equity as retirement income,* Rob Thomas and Dr Louise Overton, April 2017

earnings has increased from 3.6 times in 1997 to 7.6 times in 2016[4]. But economist David Miles makes a reasonable argument that this ratio might continue to increase and I am not going to make any predictions[5]. I will though make a couple of observations. First, simple projections suggest that equity release mortgage books could face difficulties in scenarios of flat, as well as falling, nominal house prices[6]. Second, UK experience is that although house prices do diverge across regions, they tend to move in the same direction. So insurers might not be able to diversify away the risk to any significant extent. Third, the experiences of, for example, the Japanese property market between 1990 and 2010 and the Italian property market between 2007 and 2017 show that it is possible for house prices in an advanced economy to fall over a period of decades (Chart 6).

The Matching Adjustment

The other major influence on insurers' asset allocation since the introduction of Solvency II is the Matching Adjustment. The rationale for the Matching Adjustment is that annuity writers are buy-and-hold investors with locked-in funding. Provided they match the cash flows of their assets to those of their liabilities, they should rarely need to sell assets prior to maturity. They are not therefore exposed to changes in the market price of credit risk in the same way as other investors. The Matching Adjustment allows them to benefit from this advantage in two ways. First, they do not have to hold capital against the full risk that credit spreads will move against them in the market; Second, they are allowed to discount their annuity liabilities at higher than risk-free rates, reducing their liabilities and therefore boosting their current available capital. For UK insurers, the Matching Adjustment currently amounts to a capital benefit of some £66 billion, split roughly evenly between lower capital requirements and higher capital resources.

The Bank of England supports the Matching Adjustment framework. Properly implemented, it does appropriately reflect the risks to which annuity writers are exposed. As the Financial Policy Committee concluded[7], it also has important financial stability benefits. It allows insurers to 'look through' short-term volatility in credit spreads, avoiding any undesirable incentives to act procyclically by selling risky assets as market prices fall.

Under Solvency II, Matching Adjustment assets have to meet strict criteria. For example, they must match the liabilities and have fixed cashflows. Insurers are seeking illiquid assets that both offer attractive yields and qualify for the Matching Adjustment. The PRA has allowed insurers some scope to restructure assets in order to meet the requirements. For example, equity release mortgage portfolios may be a good maturity match for an annuity book as part of a diversified portfolio. But they do not have fixed cashflows. So

[4] *Housing Affordability in England and Wales: 2016*, Office for National Statistics, 17 March 2017
[5] Miles, D and J Sefton (2017), "Houses Across Time and Space", CEPR Discussion Paper No. 12103
[6] For further details please refer to https://www.bankofengland.co.uk/speech/2017/changing-risk-and-the-search-for-yield-on-solvency-2-capital
[7] *Financial Stability Report*, December 2016, Bank of England.

insurers have used internal securitisations backed by their equity release mortgage portfolios in order to create a senior tranche with the required fixed cashflows.

Let us dig a little deeper into the Matching Adjustment. In principle, the higher discount rate on liabilities is intended to reflect the component of the spread over risk-free rates that compensates other investors for risks to which the insurers are not exposed. In the case of bonds, this is the liquidity premium for the risk that they might have to sell into secondary bond markets at a time when credit spreads are wide. Annuity writers are not exposed to this risk and can therefore earn the liquidity premium provided they can bear the credit risk and hold the assets until maturity.

Mechanically, however, the Matching Adjustment is not calculated by estimating directly the market premium for any risks to which insurers are not exposed. Rather it is calculated indirectly as a residual by subtracting from the yield on an asset (1) risk-free rates and (2) an estimate of the required premium for risks to which insurers are exposed. In the case of bonds, insurers are exposed to the credit risk that the issuer is unable to pay interest or principal at maturity.[8] Solvency II sets out how to estimate the premium needed to compensate for the risk that the borrower defaults or is downgraded, known as the Fundamental Spread. As an approximation, in equation form:

Matching Adjustment = Yield minus risk-free rate minus Fundamental Spread

The most important determinant of the Fundamental Spread is the credit rating of the asset. Broadly speaking, the higher the yield on an asset for a given credit rating, the bigger the Matching Adjustment. Earlier I showed that insurers were diversifying into illiquid assets because they offered wider spreads than bonds. Chart 7 is the same picture but with the split between the Matching Adjustment and Fundamental Spread added. Not only are the yields on illiquid assets wider but the majority of the additional spread is being captured in the Matching Adjustment. UK insurers estimate the underlying credit quality of these assets, reflected in the Fundamental Spread, to be similar or better than their corporate bond portfolios. So the shift into illiquid assets is giving insurers a double benefit: first wider spreads and second a bigger Matching Adjustment. This helps to explain their eagerness to increase their asset allocation towards illiquid assets.

But why is the Matching Adjustment on illiquid assets larger than on corporate bonds? One possibility is that that the wider spreads are compensating other investors for the risk that they might need to sell into secondary markets that are less liquid than the corporate bond market. The problem with this argument is that insurers are beginning to dominate a number of these markets, notably equity release mortgages.

[8] Similarly, the Solvency II capital requirement for an insurer with an internal model on a Matching Adjustment bond portfolio is based on a one-year default and downgrade stress as opposed to a one-year credit spread widening stress. The insurer is not exposed to a stress in secondary bond markets. But it is exposed to credit deterioration of borrowers.

In at least some of these markets, it seems likely that they are now the marginal lenders and returns should therefore reflect the risks that they face.

Another possibility is that the Matching Adjustment is capturing returns in excess of an appropriate risk premium. If insurers are finding niches where other types of investors face barriers to entry, they may be able to earn profitable returns. The fact that the Matching Adjustment is calculated as a residual means that it captures any factor causing the yield on an asset to be higher, not just compensation for risks to which the insurer is not exposed. If true, it is possible that the Matching Adjustment on some illiquid assets will decline over time as other investors spot the opportunities and markets become more competitive.

As a prudential regulator, my primary concern is that the Matching Adjustment is being calculated correctly. In particular, to quote Solvency II directly, "the Matching Adjustment must not include the Fundamental Spread, reflecting the risk retained by the insurance or reinsurance undertaking"[9]. Since the credit rating is the main driver of the Fundamental Spread, this means the credit rating must reflect the risk retained by the insurer. One key characteristic of illiquid assets is that they are not usually externally rated. Instead, Solvency II permits insurers to use internal ratings to determine the Fundamental Spread. Since illiquid assets will often not have market valuations, insurers will often also base the asset valuation on the internal rating by mapping to equivalent traded assets of the same rating. The internal rating may therefore drive both determinants of the Matching Adjustment: the spread over risk-free rates and the Fundamental Spread. Getting it right is important!

The PRA set out its views on this subject in a supervisory statement (SS 3/17) last year.[10] We said that internal ratings must lie within a plausible range of the ratings that would be given by external rating agencies. Individual ratings may vary, depending on credit judgements, but there should be no overall upward bias in internal compared to external ratings. Supervisors are reviewing insurers' internal ratings and may seek greater assurance where assets have spreads that look large for the rating, leading to a large matching adjustment in absolute or relative terms. We will also consider the complexity of the assets and their materiality to the overall solvency position of the insurer. Where we continue to have concerns about the internal rating of particular assets, we may commission an opinion from an external credit rating agency in the form of a skilled person review.

It should be no surprise that we are paying particular attention to the internal ratings of the securitised notes backed by equity release mortgages. These typically have a high matching adjustment, are complex and relatively large in value. They are subject to credit default and downgrade risks, like any other matching adjustment assets. But the drivers of default and downgrade risks are the risks on the underlying mortgages, such as prepayment, longevity or the exposure to long-term house prices arising from the

[9] Article77c 1 (b), Directive 2009/138/EC
[10] *Solvency II: Matching Adjustment, unrated, illiquid assets and equity release mortgages*. Prudential Regulation Authority SS 3/17.

no-negative-equity guarantee. The essential point of SS 3/17 is that compensation for the risks taken by the insurer, particularly providing a no-negative equity guarantee, should not translate into a matching adjustment benefit on the restructured notes. Moreover, the compensation for risks retained by a firm as a result of the no negative equity guarantee must comprise more than the best estimate cost of the no negative equity guarantee. A best estimate cost of the no negative equity guarantee might be based on assumptions about likely long-term house price growth in excess of risk-free rates, extrapolating for example from historical experience. But long-term house price growth is a risk to which insurers are exposed.

To conclude, the bulk purchase annuity market has become more competitive. Participating insurers need to understand fully the risks they are taking and price accordingly. The shift into illiquid assets, including equity release mortgage lending, may be a good thing. It is certainly understandable given the higher spreads and matching adjustment currently available. But greater competition might erode both over time. Our priorities are that:

- Insurers capture the compensation for the risks to which they are exposed in the Fundamental Spread (and the internal ratings on which it is based) so that the Matching Adjustment is not overstated; and
- Insurers hold appropriate capital against these risks.

Both are key to ensuring that life insurers remain safe, sound and able to meet the promises they are making to holders of annuities over the coming decades.

Chart 1

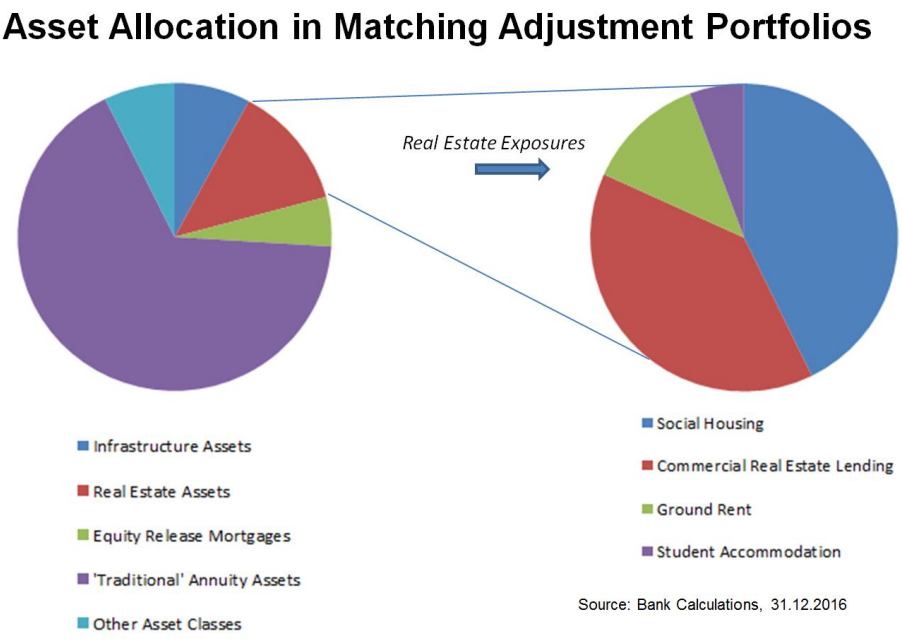

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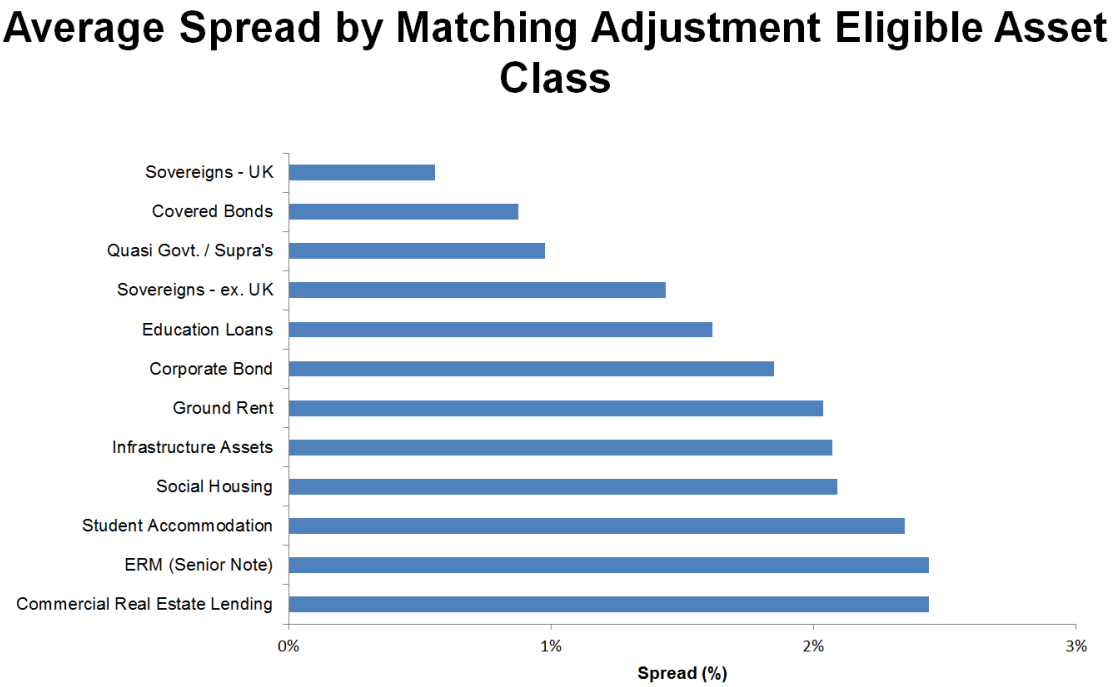
Chart 2



Source: Bank Calculations, 31.12.2016. Market Value and Duration Weighted results

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Chart 3

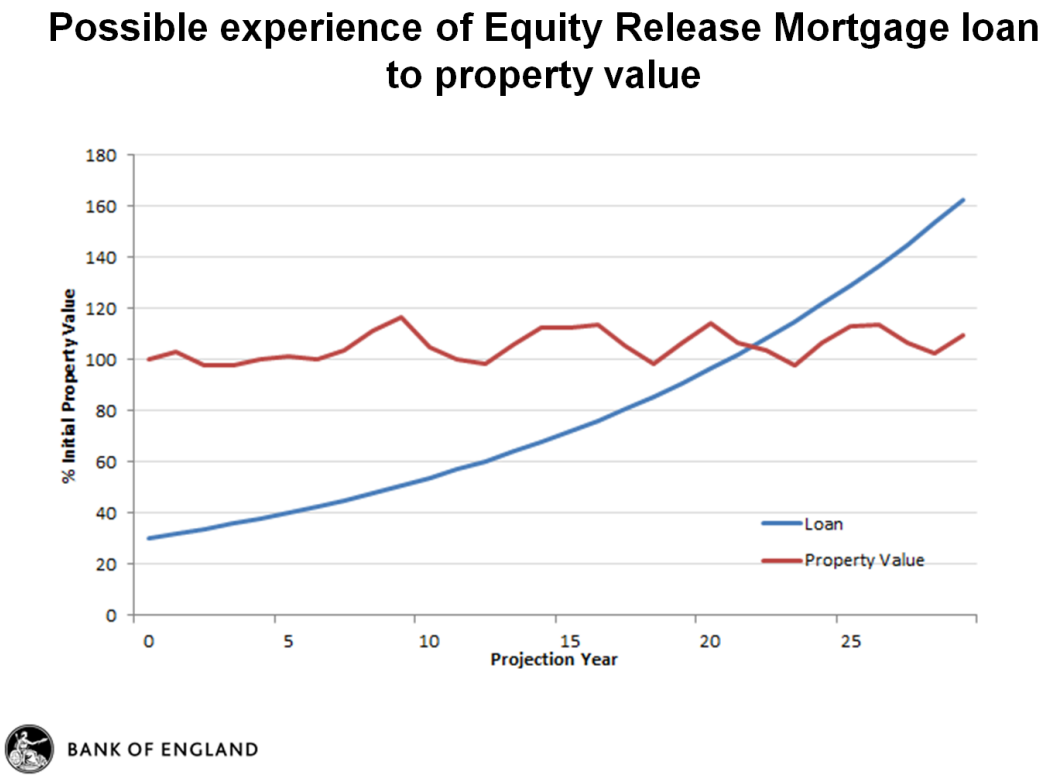

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Chart 4

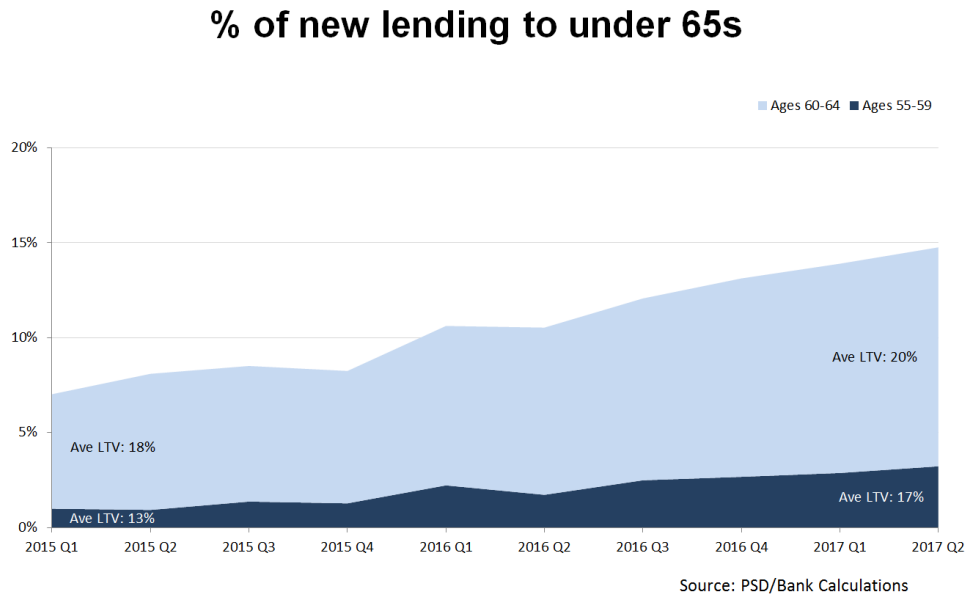

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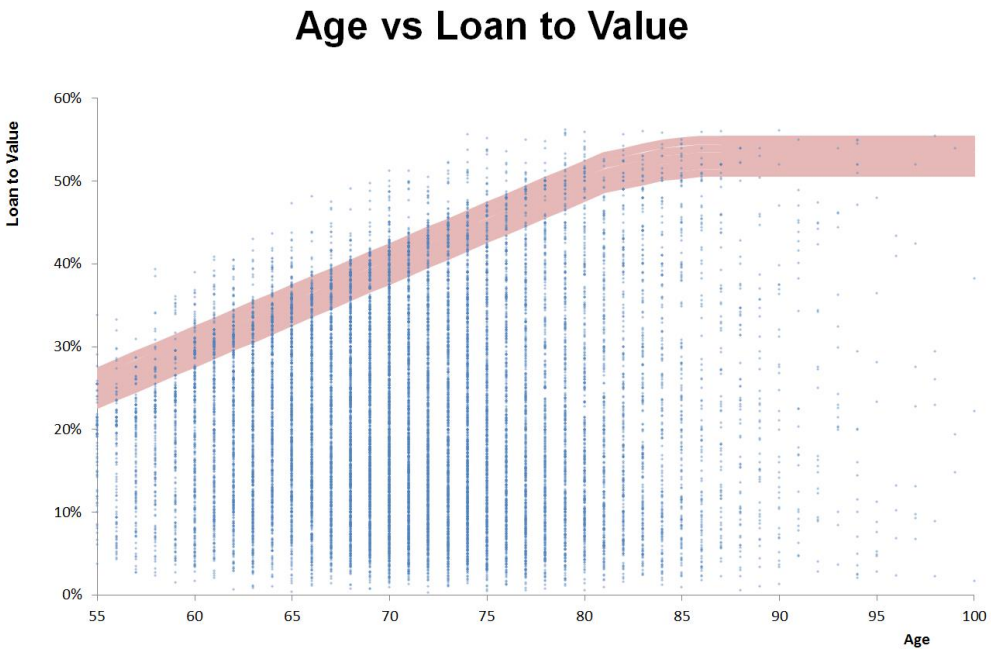
Chart 5



Source: PSD/Bank Calculations

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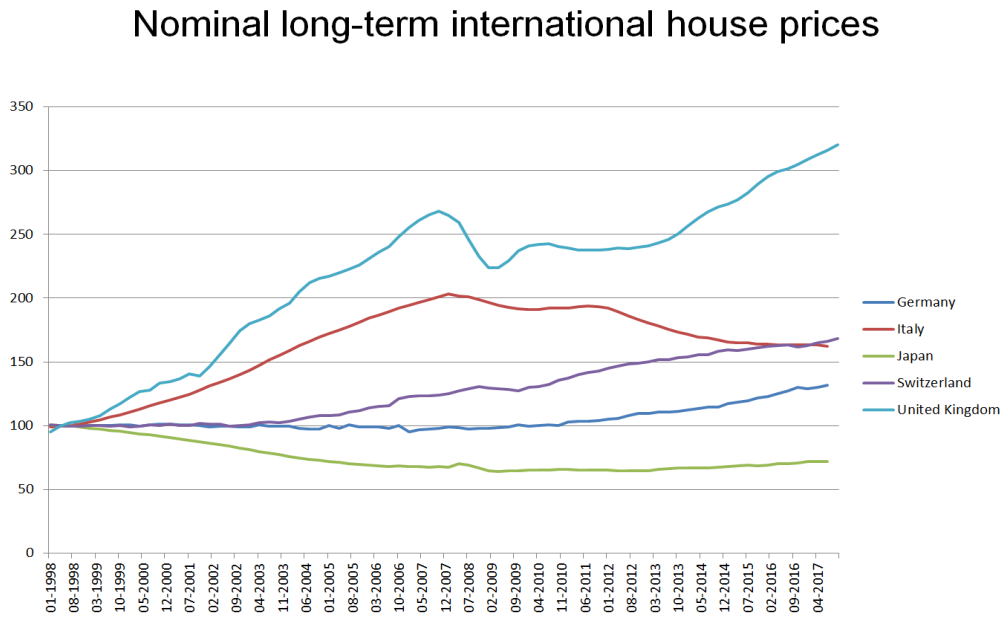
Chart 6



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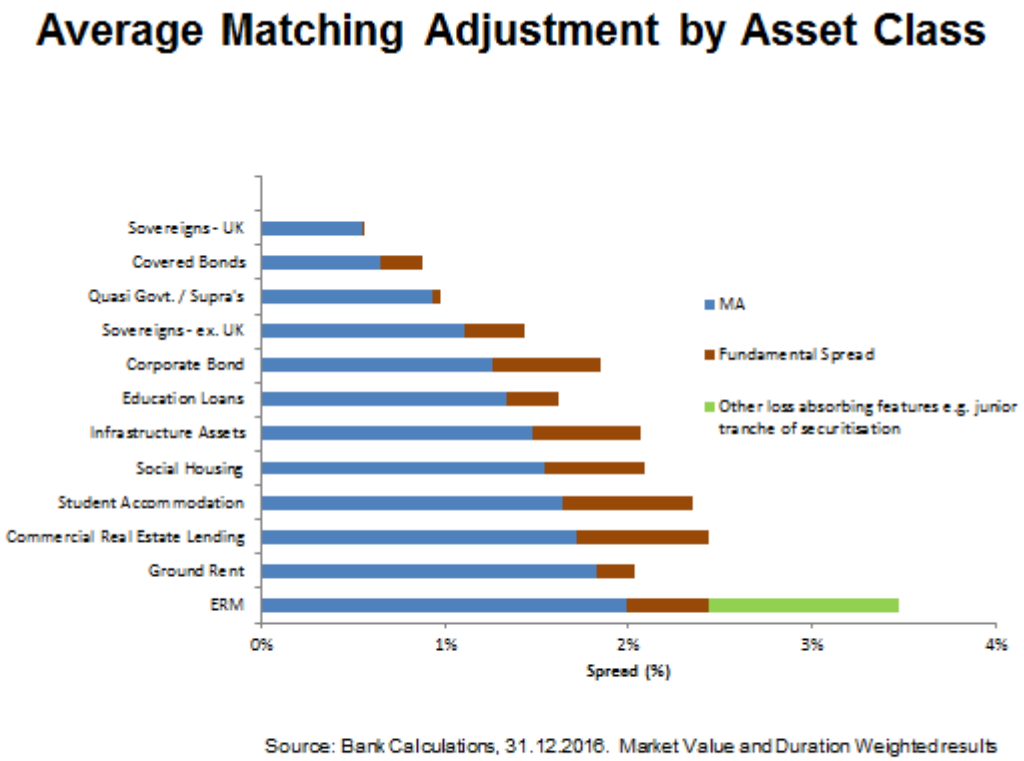
Source Bank Calculations

Chart 7



Source: Bank Calculations, 31.12.2016. Market Value and Duration Weighted results

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