**Re: Consultation Paper CP87 on Macro-prudential policy for residential mortgage lending**

5th December 2014

Dear Sir/Madam,

We provided feedback to the above mentioned CP on 12th November. We wish to provide supplemental information for your consideration.

Arch Mortgage Insurance Limited appeared as a witness on November 27th before the Joint Oireachtas Committee on Finance, Public Expenditure and Reform to discuss the potential role of mortgage insurance in Ireland. Sections 1 to 3 below form the main basis of the Opening Statement which we made to the Joint Oireachtas Committee.

In Section 4, we outline Arch's ability to provide mortgage insurance capacity to the Irish mortgage market.



**Directors**: A. Asquith (British), M. Constantinides (Cypriot), G. Giovannetti (Italian), M. Grandisson (Canadian), M. Nolan, N. Papadopoulo (French), M. Rajeh (US), A. Rippert (US)
**Registered office**: 2nd Floor Block 3 The Oval, 160 Shelbourne Road, Ballsbridge, Dublin 4. Registered in Ireland No. 505420.
**Arch Mortgage Insurance Limited is regulated by the Central Bank of Ireland.**

# 1. About Arch

### *1.1. Arch Capital*

Arch Capital Group Ltd., (Arch Capital) is a Bermuda public limited liability company with approximately $6.98 billion in capital at September 30, 2014. Arch Capital is a NASDAQ listed company.

Through its operations in Bermuda, the United States, Europe and Canada, Arch Capital writes specialty lines of property and casualty insurance and reinsurance, as well as mortgage insurance and reinsurance, on a worldwide basis.

Arch Reinsurance Ltd., the main insurance risk bearing entity in Arch Capital has Financial Strength Ratings of A1 (outlook stable) from Moody's, A+ (outlook stable) from A.M. Best Company, A+ (outlook stable) from Standard and Poor's and A+ (outlook positive) from Fitch Ratings.

### *1.2. Arch and Mortgage Insurance*

In 2009, in the aftermath of the Global Financial Crisis, Arch Capital began to recruit its mortgage insurance team. The Arch mortgage insurance team has now more than 375 employees worldwide. The Arch mortgage insurance team is dedicated to providing risk management and risk financing products to lenders worldwide, through our three distinct platforms in the United States, Europe and Bermuda.

Our group of dedicated mortgage insurance and reinsurance professionals understands the unique requirements and challenges of mortgage insurance markets around the globe. Our market-specific knowledge and expertise enable our teams to provide creative and commercially viable solutions for our clients. Superior analytics and risk assessment combined with outstanding client service are at the forefront of all our activities.

In 2013, Arch Capital developed and delivered the first insurance contract on the Freddie Mac Agency Credit Insurance Structure℠. Freddie Mac is a US public government-sponsored enterprise which seeks to reduce its risk exposure by obtaining insurance protection from private insurers.

In 2014, Arch Capital completed the acquisition of CMG MI, a US mortgage insurer which is the leading provider of mortgage insurance to the US credit union sector.

### *1.3. Arch in Ireland*

Arch Capital established its presence in Ireland in 2008 and currently employs over 40 people through its subsidiary operations based at offices in Dublin and branches in Europe.

In 2011, Arch Mortgage Insurance Limited was established. Arch Mortgage Insurance Limited is a mortgage insurer regulated by the Central Bank of Ireland and authorised to write mortgage insurance (non-life insurance Class 14, Credit Insurance) in a number of EU Member States on a freedom of services basis. Arch Mortgage Insurance Limited has Financial Strength Rating of A+ (outlook stable) by Standard and Poor's.

## 2. Benefits of Mortgage Insurance

### *2.1. Additional Capital*

Mortgage insurance increases the resilience of the banking sector to property shocks by providing additional capital to absorb losses from stressed economic scenarios.
The additional capital provided by mortgage insurers in respect of insured loans increases the aggregate stock of capital available to support mortgage lending.

### *2.2. Diversified Capital*

Insurers who have a strong international presence and write multiple lines of insurance are well placed to absorb losses from mortgage exposure in one country.
The capital provided by international mortgage insurers has the benefit of being diversified from the capital base of the domestic banking sector. In addition, mortgage insurance obtained from a mono-line dedicated mortgage insurance company which is part of a diversified global mutli-line insurance and reinsurance group, provides better security and certainty of claim payments given the diversified nature of the overall earnings and capital base of the group.

### *2.3. Private Sector Capital*

Mortgage insurance, through increasing the resilience of the banking sector to property shocks, reduces the potential need for future taxpayer support to the banking sector.

### *2.4. Lending Standards Oversight*

Mortgage insurance may help improve loan underwriting quality as the mortgage insurer will provide feedback to the banking sector in terms of changes to underwriting standards and practices. The mortgage insurer effectively acts as a second pair of eyes.

# 3. Minimising the Cost to Consumers

### *3.1. Regulatory Capital Benefit for Lenders*

The recent UK Treasury Help-to-Buy guarantee scheme for high loan to value ('LTV') mortgages achieved good take-up by lenders due to the approval by the UK regulator of the capital benefits to lenders who participated in the scheme. Lenders who participated in the guarantee scheme can hold less capital in respect of the guaranteed loans due to the fact that additional capital is being held by the guarantee scheme in respect of the covered loans.
In Italy, the regulator gives preferential capital treatment to loans above 80% LTV where the loan is covered by mortgage insurance.
We encourage the Central Bank to provide clear guidance to lenders on the reduction in the capital they are required to hold when a loan is insured by a strongly capitalised and highly rated mortgage insurer. We note that the EU Capital Requirements Directive ('CRD') and Capital Requirements Regulations ('CRR') in respect of eligible providers of unfunded credit protection to Internal Ratings-Based ('IRB') approach lenders require an equivalent rating of A- or above (*CRR Article 202*).

### *3.2. Cost of Mortgage Insurance*

The cost of mortgage insurance is comprised of three components: (i) the expected losses, (ii) the cost of capital which the insurer holds in respect of the insured risk and (iii) the administrative costs of providing the insurance services, such as loan audits and claims handling. The larger of these components are the expected losses and the cost of capital, with the administrative costs being the smallest component.

### *3.3. Economic Cost/Benefit of Mortgage Insurance to Lender*

Where mortgage insurance is provided in a regulatory framework which allows for capital benefits to lenders, the economic benefits of reduced losses for the lender and lower cost of capital for the lender balance off against the cost of these components in the mortgage insurance premium.
The net economic cost of providing mortgage insurance is the frictional administrative cost of providing the insurance services.
However, there are also additional benefits to the lender in terms of increased resilience to withstand adverse economic scenarios and lower volatility in the lender's profitability. These benefits may enable the lender to access funding and capital from the capital markets more easily and cheaply than they would have done so in the absence of mortgage insurance.

### *3.4. Conclusion*

We believe that the cost of mortgage insurance would not be fully passed through to the consumer, but rather lenders would adjust their pricing of mortgage interest rates to allow for the economic benefits of mortgage insurance to the lender. This will likely be influenced by the position of the Central Bank in recognising the value of mortgage insurance as an adequate credit risk mitigation tool in accordance with CRD and CRR rules, both within Pillar 1 and Pillar 2(b).

## 4. Arch Capital's ability to provide Mortgage Insurance capacity in Ireland

### *4.1. Eligible Loans for Cover*

An insurer must act prudently in respect of the risks which it writes, in particular to avoid the layering of risk from a number of risk factors. We measure the credit risk associated with the risk factors on a mortgage loan by analysing how those risk factors influence the likelihood of the mortgage loan defaulting at some time during its life. For example, loans with high LTV have a higher likelihood of default than those with lower LTV. When combinations of higher risk factors are combined on a mortgage loan, which we term the layering of risk, the likelihood of default can increase exponentially. A mortgage insurer specifies the loans which it is willing to insure, which we term the Eligible Loans. We welcome a discussion with the Central Bank in respect of what the appropriate combination of risk factors are for high LTV mortgage loans to ensure the objective of increasing the resilience of the banking and household sectors to property shocks is achieved.

### *4.2. Possible Mortgage Insurance Cover Options*

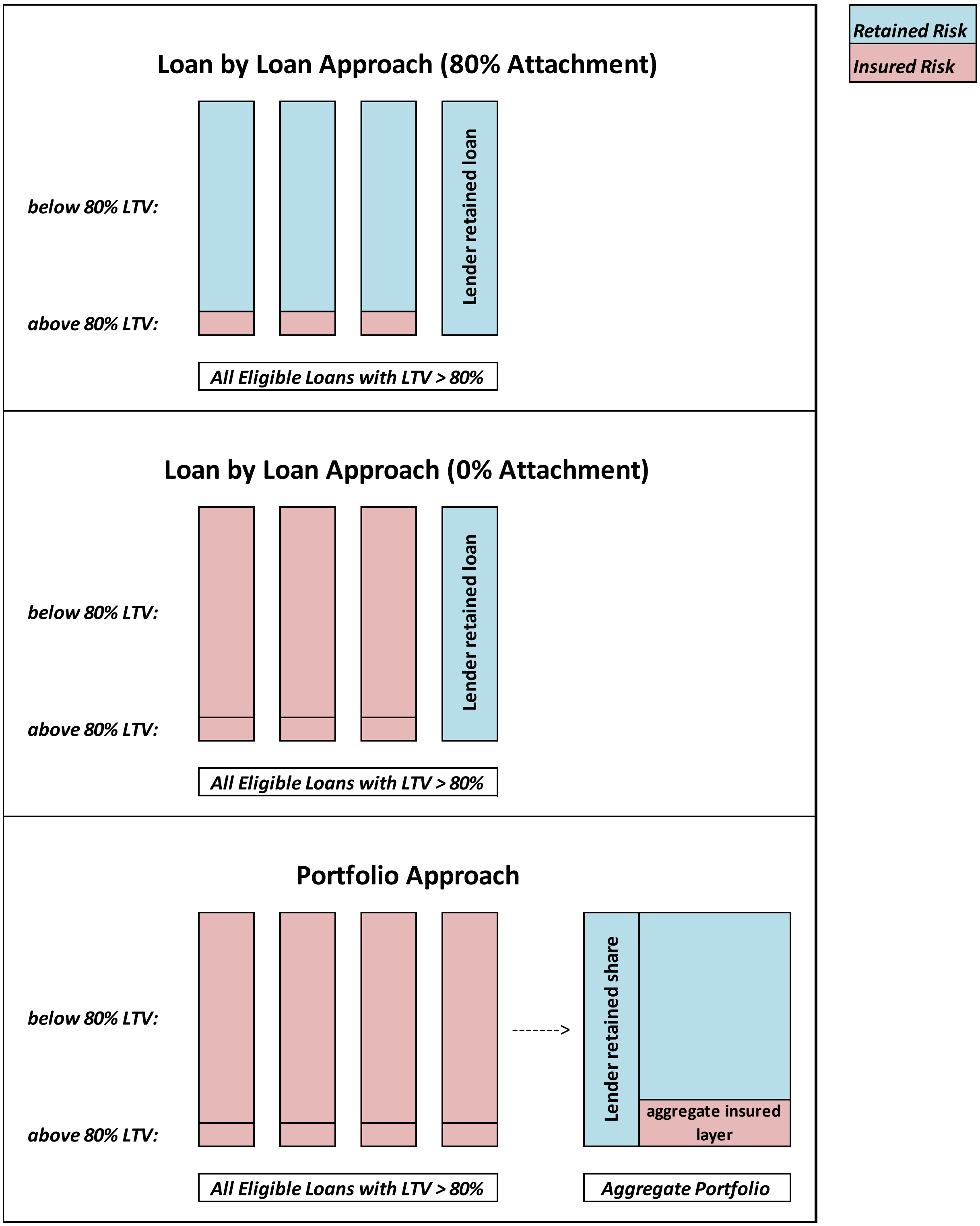
We describe two possible approaches to mortgage insurance cover:

- Loan by Loan Approach; the insurer covers the portion of the risk above a specified attachment LTV in respect of an insured Eligible Loans.
- Portfolio Approach; the insurer covers the full loan amount on all insured Eligible Loans. Losses are aggregated at a portfolio level based on all Eligible Loans advanced over a specified time period. The insurer provides protection for a specified percentage of losses on a portfolio basis, the aggregate insured layer. Any losses in excess of the aggregate insured layer are retained by the lender. In addition, the lender retains a proportionate share of the risk.

There are many variations of cover which can be provided. For example, under the Loan by Loan Approach the attachment LTV can be chosen to reflect the protection requirements, e.g., attachment LTV of 80%, 60% or 0% are possible. Under the Loan by Loan Approach, the lender could retain a proportionate share of the risk layer on each insured Eligible Loan. We welcome a discussion with the Central Bank in respect of possible cover options.

In Figure 1 below, we set out some possible mortgage insurance cover options, but we emphasise that many variations on these cover options are possible.

**Figure 1: Possible Mortgage Insurance Cover Options**



We make the following comments in respect of the coverage options:

- Lender retention of a proportionate share of the risk layer ensures an alignment of interests between the lender and the insurer in prudently managing risk.
- Under the Loan Level Approach, when the attachment LTV is lower, greater protection is provided against adverse Loss Given Default ('LGD') outcomes.
- Under the Portfolio Approach, the economic risk from credit losses (except for the lender's retained proportionate share of the risk layer) can be largely transferred to the insurer by selecting an appropriate aggregate insured layer. For example an aggregate insured layer of 20% would provide cover for a loss scenario of weighted average Probability of Default ('PD') of 30% and weighted average LGD of 65% from a portfolio of insured Eligible Loans.

### *4.3. Arch Capital's ability to satisfy Mortgage Insurance Demand in Ireland*

Arch Capital provides mortgage credit risk protection to both private lenders and public sector enterprises. In particular, Arch Capital is currently in discussions with several government-owned and government-sponsored agencies operating in the field of mortgage credit protection, many of which are located in Europe, that are looking for a private sector partner to optimise their credit risk and capital exposure. With its strong rating and international platform and experience, Arch Capital is well placed to provide this protection.

While growing in importance, mortgage insurance is one of the several insurance lines covered by Arch Capital, contributing to and benefiting from appropriate risk diversification. The mortgage segment is part of a larger insurance and reinsurance business and Arch Capital has sufficient capital to support the expansion of the mortgage segment. As at September 30, 2014, on a trailing twelve months basis, the mortgage segment represents 5% of the total net premiums written of approximately $3.6 billion by Arch Capital. Arch Capital expects the share of net premium written from the mortgage segment to become a larger share of the overall business as it grows its mortgage segment globally, while still maintaining a diversified portfolio of insurance risk in terms of country of exposure and by line of business.

Arch Capital has the international experience and the capital resources to support the possible needs for mortgage insurance of the aggregate Irish banking system for many years ahead. In Table 1 below, based on our analysis, we indicate that the exposure to Irish mortgage loans would represent 5.5% of Arch Capital's Insured Loan Balances. Please refer to Appendix 1, for supporting calculations.

**Table 1: Comparison of Arch Capital's Mortgage Exposure to Estimate of Mortgage Insurance Demand in Ireland in € million**

| | | Estimated Overall Irish Market Demand | | |
|---|---|---|---|---|
| | **Arch Capital Worldwide** | **Loan by Loan Approach 80% LTV Attachment** | **Loan by Loan Approach 0% LTV Attachment** | **Portfolio Approach 20% aggregate insured layer** |
| *Metric Type* | *In-Force* | *Annual Production Estimate* | | |
| Insured Loan Balances<br>(%) of Arch Capital | 38,093<br>(100%) | 2,100<br>(5.5%) | 2,100<br>(5.5%) | 2,100<br>(5.5%) |
| Risk Cover<br>(%) of Arch Capital | 8,100<br>(100%) | 210<br>(2.6%) | 2,100<br>(25.9%) | 420<br>(5.2%) |

***Notes***

1. In-Force metrics are point in time metrics representing the in-force business from all prior production periods. Annual Production Estimate relates to production from a single year. Nevertheless, comparing the metrics can provide a good analysis.
2. Please note that Arch Capital wrote its first mortgage insurance exposure in 2011 and has been building up its In-Force exposure over the past three years. The In-Force exposure will continue to increase due to Arch Capital's planned growth of its mortgage segment.
3. Risk Cover when measured in monetary terms is not always comparable between two insured loans. For example the portion of risk between 80% LTV and 90% LTV is higher than the portion of risk between 70% LTV and 80% LTV. Comparison of the monetary amount of risk between two insured portfolios does not always indicate the relative riskiness of the insured portfolios.

### *4.4. Arch Capital's commitment and capital available to support Mortgage Insurance*

Arch Mortgage Insurance Limited, which received its authorization from the Central Bank in 2011, received an initial capital contribution from the Arch Capital to support its business plan. In addition, Arch Mortgage Insurance Limited benefits from an intra-group quota share reinsurance agreement from Arch Reinsurance Ltd., the main insurance risk bearing entity in Arch Capital.

Arch Capital, by virtue of its disciplined underwriting and selection of risk, has achieved one of the highest returns in the insurance industry over the past decade. Due to its track record of prudential stewardship of shareholder's funds, Arch Capital has been able to successfully raise additional capital to support its business development.

As an example, provided below is an extract from a press release made by Arch Capital on April 1, 2014

*‘Arch Capital Group Ltd. [Nasdaq:ACGL] announced today that Watford Re Ltd., a newly-formed multi-line Bermuda reinsurance company, launched operations with $1.133 billion of capital. Arch Underwriters Ltd., a subsidiary of ACGL, will act as Watford’s reinsurance manager, and Highbridge Principal Strategies, a subsidiary of JPMorgan Chase & Co., will manage Watford’s investment assets, each under a long term services agreement. Watford Re is a licensed Class 4 insurer by the Bermuda Monetary Authority and has received an “A-” (Excellent) financial strength rating from A.M. Best.*

*……………*

*The initial capitalization of Watford Re’s parent, Watford Holdings Ltd., consists of $907 million in common equity and $226 million in preferred equity. ACGL, through a subsidiary, invested $100 million and acquired approximately 11% of Watford Holdings’ common equity and a warrant to purchase additional common equity.’*

This illustrates Arch Capital’s ability to raise capital when needed and on terms which are efficient and supportive of market accepted premium rates.

### *4.5. Conclusion*

We believe Arch Capital has the necessary experience, infrastructure and capital base to fully support the demand for mortgage insurance in Ireland. We welcome a discussion with the Central Bank in respect of how the product design of mortgage insurance in terms of the cover provided and the risk characteristics of the insured loans can meet the objective of increasing the resilience of the banking and household sectors to property shocks.

We are happy to meet with you to answer any questions you may have in respect of our response.

Yours faithfully
Giuliano Giovannetti
CEO and President

## Appendix 1

In Table A below, we attempt to estimate the demand for mortgage insurance from the Irish banking sector in the near term as the Irish economy improves and mortgage lending volumes return to sustainable levels.

**Table A: Estimate of mortgage insurance key metrics in € million**

| Cover Type: | Loan by Loan Approach 80% LTV Attachment | Loan by Loan Approach 0% LTV Attachment | Portfolio Approach 20% aggregate insured layer |
|---|---|---|---|
| Lending Volume above 80% LTV | 2,800 | 2,800 | 2,800 |
| % of which not insured | 25% | 25% | 25% |
| | | | |
| Insurance Written | 2,100 | 2,100 | 2,100 |
| Coverage Percentage | 10% | 100% | 20% |
| Risk Written | 210 | 2,100 | 420 |

***Assumptions for Table A:***

- The estimate of lending volumes in respect of primary dwelling purchase loans is based on a review of ***Figure 7*** in the ***CP*** and is broadly reflective of the forecast made in ***Figure 7*** for 2016.
- The Central Bank allows loans above 80% LTV which are insured by a highly credit-worthy mortgage insurer to be exempt from the LTV cap.
- The Irish banking sector seeks mortgage insurance to protect the share of its loans above the cap on 80% LTV loans in order to meet the requirements of the LTV cap. For simplicity of calculations, we assume that the Irish banking sector seeks insurance for 75% of the loans above 80% LTV and retains uninsured 25% of the loans above 80% LTV.
- For loans which are above 80% LTV, the average amount of the insured loans above 80% LTV is 10% of the total loan amount.

In Table B, we show Arch Capital's mortgage (re)insurance exposure as at September 30, 2014.

**Table B: Arch Capital's Mortgage Exposure as at September 30, 2014**

| Arch Capital's Mortgage Segment as at September 30, 2014 | US$ million | € million |
|---|---|---|
| Insurance in Force | 47,616 | 38,093 |
| Risk in Force | 10,125 | 8,100 |

***Notes for Table B:***

1. US$ converted to Euro at exchange rate of US$1.25 equals €1.00
2. In many mortgage (re)insurance markets, the risk cover as percentage of the loan amount is greater than the portion of the loan above 80% LTV.