Mario Draghi
President of the European Central Bank
Eurotower
Kaiserstrasse 29
60311 Frankfurt am Main, Germany

26 July 2014

Dear Mr Draghi

I write with regard to the concept of 'qualifying securitisations' which I believe is currently under consideration by European regulators and Central Banks.

There are many criteria and details to consider on this subject, however, the points I would like to raise pertain exclusively to requirements for securitisation issuers to provide 'cash flow models' (or indeed only the ***Liabilities Waterfall Model*** element of the cash flow models as explained below) for their transactions. I hope that I may be able to provide clarity where I perceive ambiguity has crept into terminology and suggest definitions that I hope will prove useful. I hope also to be able to provide some insight into our work in the production of ***Liabilities Waterfall Models*** and to illustrate and justify the importance of such models as a fundamental requirement within any set of securitisation or structured finance regulatory transparency standards.

**<u>Summary</u>**

- The term '***Cash Flow Model***' has become ambiguous and, in at least one important instance, appears to have caused confusion. The Market would be better served by the use of terminology such as: '***Asset Cash Flow Generator'*** to represent the subjective element, '***Liabilities Waterfall Model'*** to represent the objective element and '***Complete Cash Flow Model***' to represent both elements combined.
- Securitisation transactions are often complex. An instance of the issuer-provided ***Liabilities Waterfall Model*** should be available to all to eliminate ambiguity and facilitate clarity.
- EuroABS considers that the existence of an issuer-supplied ***Liabilities Waterfall Model*** should form part of a set of minimum standard tests for a 'simple' transaction.
- ***Complete Cash Flow Models*** from commercial providers represent a third party opinion. In the event of dispute over a transaction, an issuer-supplied ***Liabilities Waterfall Model*** would provide the all-important ultimate 'source of truth'.
- EuroABS considers that the Bank of England Sterling Monetary Framework Collateral Eligibility requirements for issuer-supplied cash flow models (or, as I have tried to define here, ***Liabilities Waterfall Models***) are sensible, well specified and demonstrably achievable and should be considered as the Gold Standard in these markets.

**Our Business – EuroABS Limited**

EuroABS Limited has provided services to the European Securitisation Markets for fifteen years[1]. Latterly, we have successfully acted for issuers on a dozen or so occasions as the supplier of services which enable Bank of England Sterling Monetary Framework Eligibility Compliance[2].

**Cash Flow Model – Definition of Terms**

It is first of all important to point out that the term 'cash flow model' used with reference to the ABS market over recent decades has not had an entirely consistent definition.

Normally, the term 'cash flow model' when referring to a third-party produced model provided on commercial terms[3], would consist of two quite distinct elements:

1. an ***Asset Cash Flow Generator*** and
2. a ***Liabilities Waterfall Model***

For clarity, I shall refer to these two elements in combination as a '***Complete Cash Flow Model***'.

The ***Asset Cash Flow Generator:*** generates future periodic principal and interest cash flows based on user assumptions. This element is ***subjective***.

The ***Liabilities Waterfall Model:*** allocates those future principal and interest cash flows to the various beneficiaries according to the terms described in the transaction documentation. This element is ***objective***.

Essentially, throughout the life of the transaction and at each future predetermined periodic interval, the asset pool underpinning the transaction will generate both an interest and a principal cash flow. These cash flows are dependent upon the future credit performance of the assets and are therefore unknown and impossible to quantify with one hundred per cent accuracy. In a ***Complete Cash Flow Model***, this process could be modelled by some form of ***Asset Cash Flow Generator*** which, typically, would accept a series of high level inputs, such as CPR (constant prepayment rate), CDR (constant default rate), etc[4]. These input opportunities are designed to give the user of the ***Complete Cash Flow Model*** a simplified interface that will accept asset-pool credit performance assumptions and output both interest and principal cash flows for each future period for onward input into the ***Liabilities Waterfall Model***.

**Bank of England and ESMA Cash Flow Model Definitions**

The Bank of England issuer-supplied cash flow model requirements are set out in Annex B of the 30 November 2010 Market Notice[5]. EuroABS has interpreted these requirements as the ***Liabilities Waterfall Model*** element.

ESMA, in Annex 9 of its 11 February 2014 Consultation Paper[6] (the originally proposed ESMA requirement), describes the then-proposed cash flow model requirement in very similar terms.

---

[1] Please see our website http://www.euroabs.com for a full description of the EuroABS business and services.
[2] Service provision includes: secure web hosting of documentation and data, liabilities waterfall cash flow modelling, loan level data and investor report preparation and checking.
[3] e.g. as provided by Bloomberg or Intex
[4] There could be many of these depending on the sophistication of the Asset Cash Flow Generator and the type or types of assets in the pool.
[5] http://bankofengland.co.uk/markets/Documents/marketnotice121002abs.pdf

An identical quotation from both documents states: ***"The model should incorporate all features of the transaction which are not open to change or interpretation".***

Further to this, the work EuroABS has undertaken over the last few years in helping securitisation issuers to achieve Bank of England compliance has always resulted in:

- The production of a ***Liabilities Waterfall Model*** element only;
- Acceptance of the ***Liabilities Waterfall Model*** element by the Bank of England and
- Ultimate acceptance of the bonds as eligible collateral.

EuroABS therefore considers that it is justified in feeling comfortable about its interpretation of the requirements as a ***Liabilities Waterfall Model*** element only.

**Liabilities Waterfall Model only or Complete Cash Flow Model**

Our initial interpretation of the originally proposed ESMA requirement was the same as that of the Bank of England's in requiring the ***Liabilities Waterfall Model*** only. However, ESMA, in its Final Report on the Draft RTS under CRA3[7], removes the requirement for an issuer supplied cash flow model citing "***potential conflicts of interest inherent in the disclosure of cash flow models provided by the issuer***".

In order for any conflict of interest to exist in the requirement, there must be a subjective element in the specification. EuroABS therefore assumes that the originally proposed ESMA requirement must include the ***Asset Cash Flow Generator*** or indeed the ***Complete Cash Flow Model,*** although we have been unable to find reference to this in the documentation provided.

For the avoidance of doubt, EuroABS considers:

- the requirement for securitisation issuers to provide a ***Liabilities Waterfall Model*** only is sensible
- the requirement as defined by the Bank of England and ESMA is adequate, but could perhaps benefit from additional clarity on definition of terms and whether or not the ***Asset Cash Flow Generator*** element is required or not. EuroABS considers that, to avoid issuer conflict of interest and subjectivity in the issuer-produced model, the ***Asset Cash Flow Generator element*** should not be required.

**Minimum Test for a 'Simple' Transaction**

As to whether or not a transaction is 'simple' or not, we submit that an initial minimum standard test for transaction simplicity should be, at the very least, that the issuer is able to:

- model the ***Liabilities Waterfall Model***;
- provide a mathematical and/or computer code implementation of same and
- stand behind it

**EuroABS Liabilities Waterfall Model Modelling Experience**

Dr Stephen Walker, EuroABS Head of Technology comments as follows:-

---

[6] http://www.esma.europa.eu/system/files/2014-150_consultation_paper_on_cra3_implementation_0.pdf
[7] http://www.esma.europa.eu/system/files/2014-685_draft_rts_under_cra3_regulation.pdf

“Although the basic principle of a pass-through cash flow model is very simple – money passes into the model and is sequentially prioritised between a set of demands until there is none left – the actual implementation in modern ABS transactions can result in complex and subtle behaviour. This derives principally from measures intended to provide liquidity support or credit enhancement. Typically, a transaction will contain one or more funds intended to achieve these objectives. These may be pre-funded to some extent by the issuer, and are topped up when possible from the cash flow. The rules determining how and when and to what extent they are used and replenished vary in nature and complexity depending on the intentions of the issuer. Frequently their effect is to strengthen the subordination of the notes by allowing the senior notes to borrow cash from subsequent periods which is then re-credited ahead of the junior notes.  A similar effect is exhibited by the common mechanism of providing liquidity support using a “principal to pay interest” feature. This typically relies upon a set of principal deficiency ledgers which records the use of the feature. Typically there is a ledger for each class of notes, with debits recorded from the bottom (least senior) up and credits from the top down. Again, there is an element of strengthened subordination in addition to the priority of payments, and again the rules for the use of principal to pay interest vary in their complexity.

One effect of these measures is that it is difficult to assess the cash flow in any particular scenario merely by inspecting the waterfall documentation – there is too much complexity, and too much dependence on the state of previous periods. A quantitative analysis is necessary. It is also the case that an issuer approved liabilities waterfall model necessarily removes any ambiguity in the interpretation of the documentation. In this sense, a properly explicit model which makes every working part of the liabilities waterfall open to inspection provides a definitive mathematical interpretation of every feature of the transaction.”

**<u>EuroABS Discussions with Investors</u>**

EuroABS interacts with investors in European ABS markets on a daily basis. We have frequently engaged investors in discussions related directly and indirectly to the subject matter above. One theme of the feedback we receive again and again could be summarised by the following:

> Whilst third party-provided commercial complete cash flow modelling services are regularly employed by the industry, they represent an opinion and may not be consistent across different providers. As stated by one experienced investment professional in a recent central bank discussion paper response: “we believe that issuer [Liabilities Waterfall] Models will be extremely important should deals come under any stress or in the event of a dispute, as they will represent the ultimate “source of truth”.

Further communication on the above matters or any related would be most welcome. Please let me know if you would like to meet or discuss over the telephone.
Yours sincerely

Ben Bates
CEO EuroABS Limited