Solvency UK

Increasing investment flexibility

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Executive summary

The Government is keen to unlock the insurance industry's investment power, and for this to be used to fuel the UK economy. In particular, the ambition is to increase the ability for insurers to support long-term productive investments such as clean energy, transport, digital, and the transition to net zero.

In order to achieve this ambition, in its 'Review of Solvency II: Consultation – Response' published in November 2022, HMT confirmed that it will make changes to the matching adjustment eligibility criteria.

More recently, the UK Government has published drafts of the regulations that will be put in place under the powers in the Financial Services and Markets Bill (introduced to Parliament on 20 July 2022) to effect these changes to the matching adjustment (as well as wider changes to the current Solvency II framework) for UK insurers. These documents cover proposed changes to: the risk margin, investment flexibility allowed within the matching adjustment, and liabilities in scope of the matching adjustment.

Within this paper we consider the potential implications for insurance companies of changes to the level of investment flexibility allowed within the matching adjustment.

Changes in eligible assets

In broadening the matching adjustment (MA) asset eligibility criteria, the following asset features may need to be reconsidered within the MA:

- uncertainty about the timing and amount of the asset cash flows;
- sub-investment grade ratings; and
- make whole clauses that do not provide sufficient compensation.

Allowing assets with these features to be included within the MA will increase the risks to which insurance companies, and ultimately policyholders, are exposed to. These risks therefore need to be managed by both the PRA and insurance companies.

Changes in risk profile

The introduction of more variable cash flow assets increases liquidity, capital, model and management risk.

We consider the main source of additional risk to be prepayment and therefore not being able to achieve the returns allowed for in the MA within the liability discount rate.

How might the regulatory changes be implemented in practice?

There would seem to be four broad ways in which the Government and the PRA could implement relaxation of the MA rules to include assets with highly predictable rather than fixed cash flows and still manage the associated increase in risk:

- Apply a portfolio level cap to the exposure to assets with highly predictable rather than fixed cash flows;
- Allow only specific assets and asset features to be included;
- Introduce a scenario-based quantitative approach, to demonstrate that an asset has highly predictable but not fixed cash flows; and
- Some combination of the above.

Other implications for insurers

For companies that are considering broadening their asset investment strategy, the impact on the following areas will also need to be assessed:

- Capital models;
- Liquidity management; and
- Asset governance frameworks.

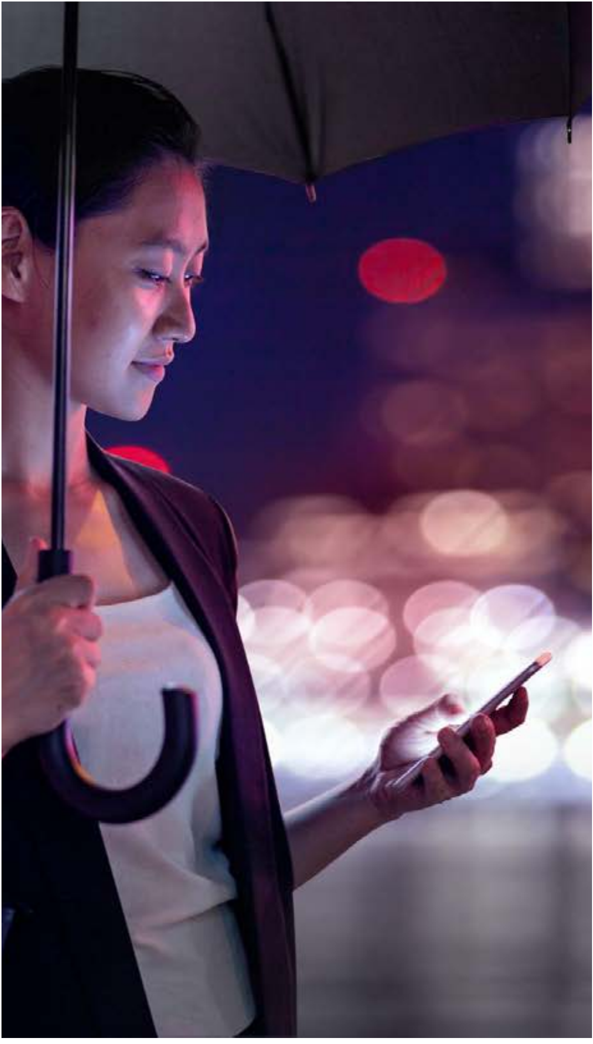
What should insurers be doing now?

We are expecting a further consultation from the PRA in September 2023, but in the meantime the draft regulations provide an indication of the direction of travel and firms should be ensuring that they have suitable resources in place to give this consultation focus when it is released.

Before the consultation is issued, firms may wish to consider what appetite they have for investing in a wider range of assets; and the potential implications of the greater investment freedoms on risk management, processes and governance frameworks. The companies that will be best placed to respond to the consultation will be those that have spent time initially considering the potential impacts that the proposed changes could have on their businesses.

1. Background

The Government is keen to unlock the investment power at the insurance industry's disposal and for this to be used to fuel the UK economy, by supporting long-term productive investments such as clean energy, transport, digital, water and waste and the transition to net zero.



In order to achieve this ambition, in its 'Review of Solvency II: Consultation – Response' published in November 2022, HMT confirmed that it will

- broaden the matching adjustment (MA) eligibility criteria to allow assets with prepayment risk or construction phases;
- replace the requirement that all eligible assets have fixed cash flows with a more flexible requirement that they have highly predictable cash flows to remove or reduce the cost of asset restructuring;
- extend the range of liabilities eligible for the MA to include products that insure against morbidity risk, such as income protection products;
- remove the severe treatment of assets in MA portfolios with ratings below BBB; and
- introduce greater flexibility in the treatment of MA applications and breaches.

In return for the removal of the fixed cash flow requirements, HMT stated that:

- the PRA will require firms to have adequate risk management for these assets including close cash flow matching and concentration limits;
- it would still expect the vast majority of assets in MA portfolios to have fixed cash flows; and
- the PRA will have the powers necessary to adapt the MA regime to reflect these issues, including through a higher fundamental spread (FS) allowance for assets without fixed cash flows and that there will be a close connection to the FS attestation process.

Whilst the proposed changes are expected to be positive for the insurance industry and to result in greater investment freedom, the current format of the proposal has raised a number of questions, such as:

- What level of prepayment risk and what length of construction phase is acceptable?
- How should the term ‘highly predictable’ be defined?
- What level of mismatch is acceptable, and is this measured in a best estimate or a stressed scenario?
- What level of fixed cash flows is sufficient to meet the definition of ‘the vast majority’?
- How will the additional FS required for assets with highly predictable cash flows be set and agreed?
- Is additional capital an adequate safeguard for a lack of liquidity?
- Should these questions be considered at an individual asset or portfolio level?

The PRA and ABI have been running a number of Subject Expert Groups (SEGs) over February and March 2023, with the aim of gathering a broad range of information on and options for the development of the reform measures announced by HMT in November 2022. One of these SEGs was to look at investment flexibility, and in particular to develop options on how to effectively and safely deliver on the intention to broaden asset eligibility for the MA.

More recently, on 22 June 2023,the UK Government published drafts of the regulations that will be put in place under the powers in the Financial Services and Markets Bill (introduced to Parliament on 20 July 2022) to effect the changes to the MA (as well as wider changes to the current Solvency II framework) for UK insurers.

The changes from the current Solvency II legislation (additions/deletions highlighted in bold below) include:

- The cash flows of the assigned portfolio of assets must be fixed and not capable of being changed by the issuers of the assets or any third parties, **except (a) where the risks to the quality of matching are not material, and (b) where only such limited proportion of the portfolio as the PRA may determine is affected**.
- The power of the PRA to make general rules under section 137G of FSMA 2000 (the PRA’s general rules) includes power to make rules setting out … **(b) conditions, in addition to those set out in regulation 5, under which an undertaking is eligible to apply a matching adjustment.**

We are expecting a consultation from the PRA in September 2023 on how the details of the new regime will operate. However, in anticipation of this further guidance, it is still useful to consider the goals and potential implications of the regime change. Within this paper, we have therefore focussed on:

- The changes in eligible assets and the additional asset features that could become permissible for inclusion within the MA portfolio;
- The change in risk profile of insurance companies following investment in new, or variations of existing, asset classes;
- The potential ways in which the PRA may implement and monitor new, or variations of existing, asset classes; and
- Other areas of an insurer’s business which may be impacted by changes in investment strategy.

2. Changes in eligible assets

HMT's proposals are expected to result in changes to the existing asset features which are permissible for inclusion within the matching adjustment (MA) portfolio.

Under the current Solvency II framework, the fixity of an asset's cash flows is one of the key requirements for an asset to be eligible for an MA portfolio. This means the cash flow pattern of a typical asset within an MA portfolio resembles the pattern of a fixed rate bond over its lifetime.

Firms can, if their MA approval allows, include some types of asset which have variability in timing and / or amount, but must typically do this on a 'worst case' basis. Examples would be cash flows during the construction phase of an infrastructure project and cash flows on callable bonds. This treatment reduces the MA benefit on the asset, making it less attractive to invest in.

Typical features which currently cause challenges for MA eligibility include:

- Uncertainty about the timing and amount of the cash flows, including variable timing of asset cash flows (e.g. variable start / end dates) and variable drawdown amounts;
- Sub-investment grade ratings; and
- Absence of a MA compliant make-whole clause.

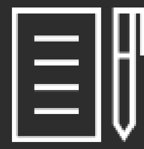
These features give flexibility to the borrower and, in some situations, may be considered standard and economically reasonable within the wider investment sphere but, where present, can make assets ineligible for inclusion in MA funds.

This currently poses a problem for MA funds wishing to invest in construction and infrastructure assets, where these features are typically seen.

These features are often present as the risk profile of funding an infrastructure project is significantly different depending on whether the asset is in a construction or operational phase. Therefore, a borrower often has more of an incentive to refinance the project after the riskier stages of the projects have been completed.

Below we consider some of the features listed above, that could become permissible for inclusion within the

MA portfolio under the HMT's proposals:

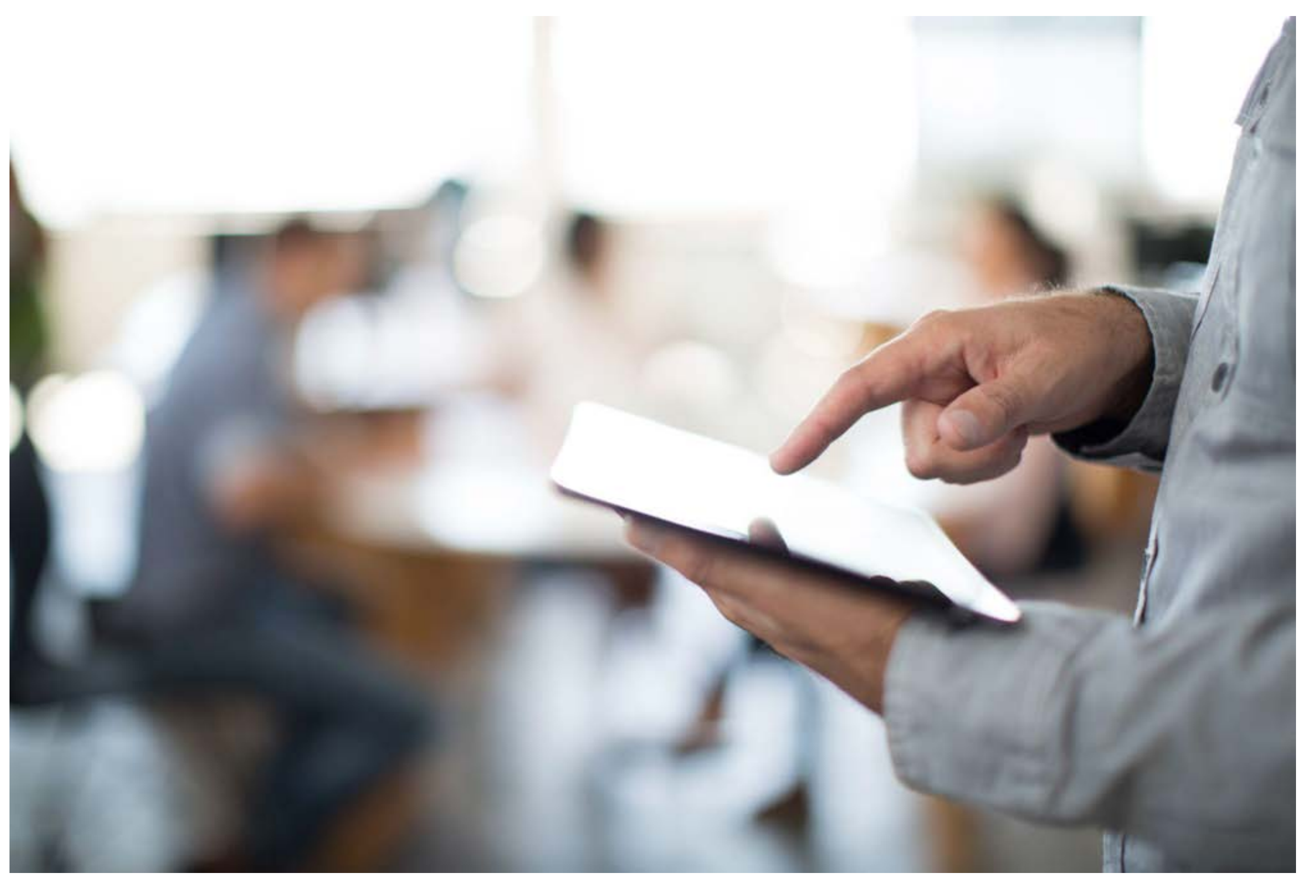
Uncertainty about the timing and amount of the cash flows:	This feature is not typically seen as an MA friendly asset characteristic because it may hinder the ability of insurance firms to plan and measure their degree of cash flow matching at different points in time over the lifetime of the asset. While the expectation is that the vast majority of assets within MA portfolios will still deliver fixed cash flows under HMT's proposals, the MA eligibility rules may be relaxed for some strategic asset classes (e.g. infrastructure of strategic Government interest, such as those for the production of clean energy). As discussed in a paper by the Institute and Faculty of Actuaries (IFoA) on the fixity of cash flows, there are a number of hurdles which make it challenging for infrastructure assets within their construction phases to be fully taken into account for MA purposes. This is due to the inherent uncertainty in the cash flows generated during the construction phase in terms of both magnitude and timing (e.g. delays in completion date could cause delays in the production of operating revenue and thus cash flows from the assets). These hurdles will need to be considered and addressed by the PRA during the consultation phase before a final proposal is prepared.
Sub-investment grade ratings:	The most innovative "greenfield" infrastructure projects usually bear high technological/development risks and, as a result, the project developer (i.e. the counterparty borrowing money from an insurer to develop the infrastructure) may have a limited track record in delivering such innovative projects. While credit risk associated with the developer of the projects is more likely to be picked up in the rating of the asset (e.g. some External Credit Assessment Institutions (ECAIs) publish a set of criteria to assess the completion risk in infrastructure projects), the removal of the so called 'BBB cliff' may widen the universe of projects that insurers are able to consider for their MA portfolios. Beyond infrastructure, the removal of the BBB cliff may lead to greater appetite by some firms to hold sub-investment grade (and indeed BBB- rated) assets within their MA portfolios, especially where the risk-adjusted return is deemed to be attractive.
Make whole clauses: 	When a standard call option is exercised, the insurer would typically only receive the principal of the loan and would forgo the remaining coupon payments. With a make whole clause the insurer receives the present value of the principal and outstanding coupon payments. Under the current rules, an asset with a make-whole clause is only MA eligible if the insurer can evidence that in the event of early repayment, the proceeds are sufficient to allow it to reinvest in an asset of the same or higher quality and replace the lost cash flows. This requirement offers insurers significant protection, however potential changes to make-whole clause requirements could increase the investable universe available to insurance companies.

Allowing assets with these features to be included within the MA portfolio will increase the risks to which insurance companies, and ultimately policyholders, are exposed. In the following sections we consider these increased risks and the tools at the industry's disposal to help manage and mitigate them.

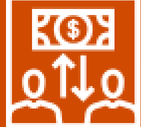
3. Changes in risk profile

The main risks associated with the adoption of a highly predictable cash flows regime, and in particular investing in assets with variable cash flows, are:

- **Liquidity risk:** Not receiving cash flows from the assets in the time frames expected, and not having sufficient assets to pay claims and other obligations as they fall due.
- **Capital risk:** Not receiving or having significant variability in the value of cash flows expected on a best estimate basis over the lifetime of the asset.
- **Model and management risk:** Errors due to more complex asset and cash flow structures, and profiles which are more complex to accurately analyse and model.



Below, we have outlined some specific risks which insurers will need to consider, along with examples of how these risks may emerge:

Early repayment: 	Many of the assets in the fixed income universe are subject, to some extent, to prepayment risk. When prepayment occurs, this alters the cash profile of the asset and therefore changes the degree of cash flow matching against a liability profile. However, prepayment may happen for different reasons, and not all of them are at the discretion of the borrower. In fact, some prepayment events can be seen as protecting the lender (and thus the policyholder) from the potential consequences of a deteriorating economic environment. As an example, in the terms and conditions of some assets, there are covenants with key asset metrics (e.g. Loan-to-Value, Debt Service Coverage Ratio) under which an early repayment is triggered. Prepayment events which act as risk-mitigants for the lender could be considered to be MA eligible under a more flexible MA eligibility regime. Prepayment is likely to have a positive impact on liquidity, in that insurers will have liquid assets at their disposal earlier than expected. However, there is a lack of certainty over the return that these assets can earn once reinvested, which may result in capital erosion over time. The inclusion of a wider range of prepayment events within the MA will require the development of appropriate methodologies and assumptions, and for existing models to be updated. The additional judgements required will also need to be appropriately governed.
Other sources of non-fixed cash flows:	At the moment, some asset classes may require a costly restructure to achieve MA eligibility because the fixity of the cash flow pattern is not maintained in full throughout the lifetime of the asset. An example of this is sale & lease back assets. These assets have a large residual (non-fixed and uncertain) payment stemming from the proceeds of selling a real estate asset. For these types of assets, HMT's proposals may allow them to be admitted into the MA portfolio without the need for structuring. In this case, insurers would save on restructuring costs, but would be more exposed to the risk of asset and liability mismatches. As noted earlier, the expectation is that the vast majority of assets within MA portfolios will still deliver fixed cash flows under HMT's proposals. Therefore firms will need to decide whether they want to use the additional flexibility under the new regime to avoid restructuring, or whether they want to use it to explore new and different asset classes.
Make whole clauses:	Make whole clauses offer insurers significant protection as they immunise insurers against early repayment and mean that the proceeds can be reinvested to replace the lost cash flows. With the relaxing of fixity requirements, we may find that less stringent make whole clauses are required (at least to some extent). However, this would add increased risk as there would be greater uncertainty over the future cash flows from the assets in the portfolio, as well as the return that could be achieved on reinvestment.

4. How might the regulatory changes be implemented in practice?

The insurance industry is already highly regulated, and the PRA and insurers have many tools in place to support them in the management of investment risk(s).

Examples of the current measures in place to manage investment risk include:

- The MA application: Within the MA application, companies need to outline their investable universe and provide cash flow and liquidity management plans for regulatory approval.
- The MA matching tests: The PRA has defined three tests for firms to ensure that cash flow matching is of sufficient quality to ensure that liability payments can be made as they fall due without being a forced seller of assets.
- Prudent Person Principle (PPP): Current practice is that annuity cash flows are predominantly bond-like in nature and it is unlikely that assets with fully variable cash flows, such as equities, could be argued to meet the PPP requirements.
- Asset management and limit frameworks: Firms currently have in place asset and counterparty frameworks along with more aggregate capital and liquidity management frameworks.

In addition to the areas above, the toolkit is expected to be expanded with:

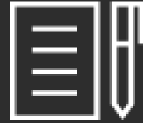
- A fundamental spread (FS) attestation process, which will allow the FS of specific assets to be adjusted, and require senior management to attest that the FS is sufficient for the assets held.
- Further stress and scenario testing, which will be stipulated by the PRA and will be published.

The question is therefore whether the current toolkit is sufficient and, if not, how should it be updated to allow for highly predictable cash flows and the increased liquidity and capital risks associated with this relaxation of the current rules.

The current tools in place would not seem in isolation to explicitly allow for the management of assets with highly predictable cash flows within MA portfolios. However, it is likely that a combination of the above, with appropriate adjustment, could be used to support the management of the increased risks associated with allowing assets with variable but highly predictable cash flows within the MA.

Pragmatically, there would seem to be four broad ways in which the Government and the PRA could allow relaxation of the MA rules to include assets with highly predictable cash flows:

1. A portfolio level cap for exposure to assets with highly predictable cash flows



The Government has said that it still expects cash flows to be predominantly fixed in nature at the portfolio level. This is supported by the draft legislation published in June 2023 which states:

> *The cash flows of the assigned portfolio of assets must be fixed and not capable of being changed by the issuers of the assets or any third parties, except (a) where the risks to the quality of matching are not material, and* ***(b) where only such limited proportion of the portfolio as the PRA may determine is affected****.*

New rules could be developed to allow a range of new and variable asset classes to be included as long as the cash flows of the portfolio as a whole remain demonstrably fixed. This could be enacted through, for example:

a. A simple market value (MV) ratio test (i.e. less than x% of assets can have variable cash flows); or

b. It could be assessed through a cash flow matching test at the aggregate level, allowing stressed cash flows at a 1-in-x level along with rehypothecation for matching purposes.

A cap on the exposure to assets with highly predictable cash flows may be an option to let insurance firms invest in assets without fixed cash flows and, together with suitable matching tests, limit the occurrence of asset/liability cash flow mismatches, and so ensure that policyholder benefits continue to be met.

Pros: A flat percentage by MV would be simple to calculate and manage. A cash flow matching requirement could build on existing modelling and management tools.

Cons: A flat MV approach would not assess the fixity of the cash flows of the underlying assets and both approaches may permit a wide variety of asset classes to be held in the non-fixed ‘sleeve’ of the MA portfolio.

2. Features-based assessment

The draft legislative changes published by the UK Government in June 2023 might be interpreted by some as meaning that the approach to highly predictable cash flows will be considered at a portfolio level (rather than a lower level). However, we await further details for how the regime will operate in practice, with a PRA consultation expected in September 2023.

The PRA may choose only to allow specific assets and asset features to be included within the MA portfolio. For example:

a. Prepayment events which act as risk-mitigants for the lender; or

b. Specific infrastructure, or green energy asset classes to be included in the MA despite having non-fixed cashflows.

Pros: This would increase the investable universe in specific and targeted areas, but is unlikely to meet insurers' expanding appetite for diversified real assets.

Cons: It would also lead to issues over whether specific assets meet the classification criteria or not. It is also unclear how this would allow highly predictable cash flow management at a portfolio level.

3. Scenario-based quantitative approach 	One of the components underpinning the definition of highly predictable cash flows is the ability to project asset cash flows under a set of different scenarios. In order to align to the risk identification exercise preceding the investment into an asset class and informing the internal credit rating methodology, a firm could be required to demonstrate that an asset has highly predictable (but not fixed) cash flows over a wide range of scenarios. Two possible approaches for implementing such an approach could include: a. **A fixity hurdle rate for each individual asset:** The cash flows of an asset are stressed over a range of scenarios, and the cash flows common across all the scenarios are then compared against the best estimate cash flows. If the ratio of the common cash flows to the best estimate cash flows exceeds a given hurdle rate, then the asset is allowed to be included within the MA portfolio. **Pros:** This is relatively simple, aligns to PPP, and would ensure there is not a significant amount of variation in individual assets which could lead to concentration risk. **Cons:** It creates a narrow investable universe in a similar way to the current rules. The approach may still need to be coupled with an aggregate level matching assessment to ensure that cash flows remain well matched over a range of scenarios at an aggregate level. b. **An adjustment to the FS to allow for the fixity of the cash flows:** Similar to the previous method, but this time only the common stressed cash flows can be captured within the MA calculations. The difference between the best estimate cash flows and the common stressed cash flows effectively represents an addition to the FS . **Pros:** The approach would allow for a wide range of assets, and it may align with the new FS attestation regime. **Cons:** The approach would likely need to be coupled with some minimum floor to meet PPP and ensure that cash flows still remain bond-like in nature.
4. Some combination of the above 	Reflecting on the above approaches, each option has pros and cons, and it is possible that a combination of the above is needed to appropriately manage the liquidity and capital risk implications of including assets with variable cash flows within the MA portfolio.

5. Other implications for insurers

In addition to the areas outlined above, insurers will need to consider the wider impacts of investing in a broader range of assets. Areas that may be affected include:

Capital models:	A key risk arising from allowing assets with highly predictable cash flows to be included within the MA portfolio would seem to be one of reinvestment risk. Within this paper we have discussed some of the options available to manage and mitigate this risk within the main balance sheet. Similar consideration would need to be given as to how best to allow for this risk within the firm's Internal Model, and how to align the capital approach with that taken in the base balance sheet. Consideration would need to be given to relevant regulatory requirements such as SS8/18 (Solvency II: Internal models - modelling of the matching adjustment) and SS1/20 (Solvency II: Prudent Person Principle).
Liquidity frameworks:	Under the current MA framework, firms have to model asset cash flows on a worst case basis. A good example of this is the treatment of callable bonds - where firms typically assume the principal is repaid at the final maturity date, and that no cash flows are received between the first call date and final maturity date. However, if (some) of the firm's assets were to be modelled on more of a best estimate basis under the new regime, firms may find that there are scenarios where liquidity (at certain time periods) is tighter than it would be under the current framework. Consequently, it is likely that there will be a need for more detailed liquidity modelling and management to support the allowance for more flexibility in cash flow profiles of assets.
Governance:	Firms will need to decide on the appropriate changes to governance and control processes in order to incorporate the assessment and monitoring of highly predictable cash flows. This is likely to include review and possible changes to: • Strategic asset allocations and limit frameworks; • Liquidity management frameworks; and • FS attestation frameworks, when introduced.

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