SYNAPTIC MODELLER

USER GUIDE

SYNAPTIC
MODELLER

Version 1.0
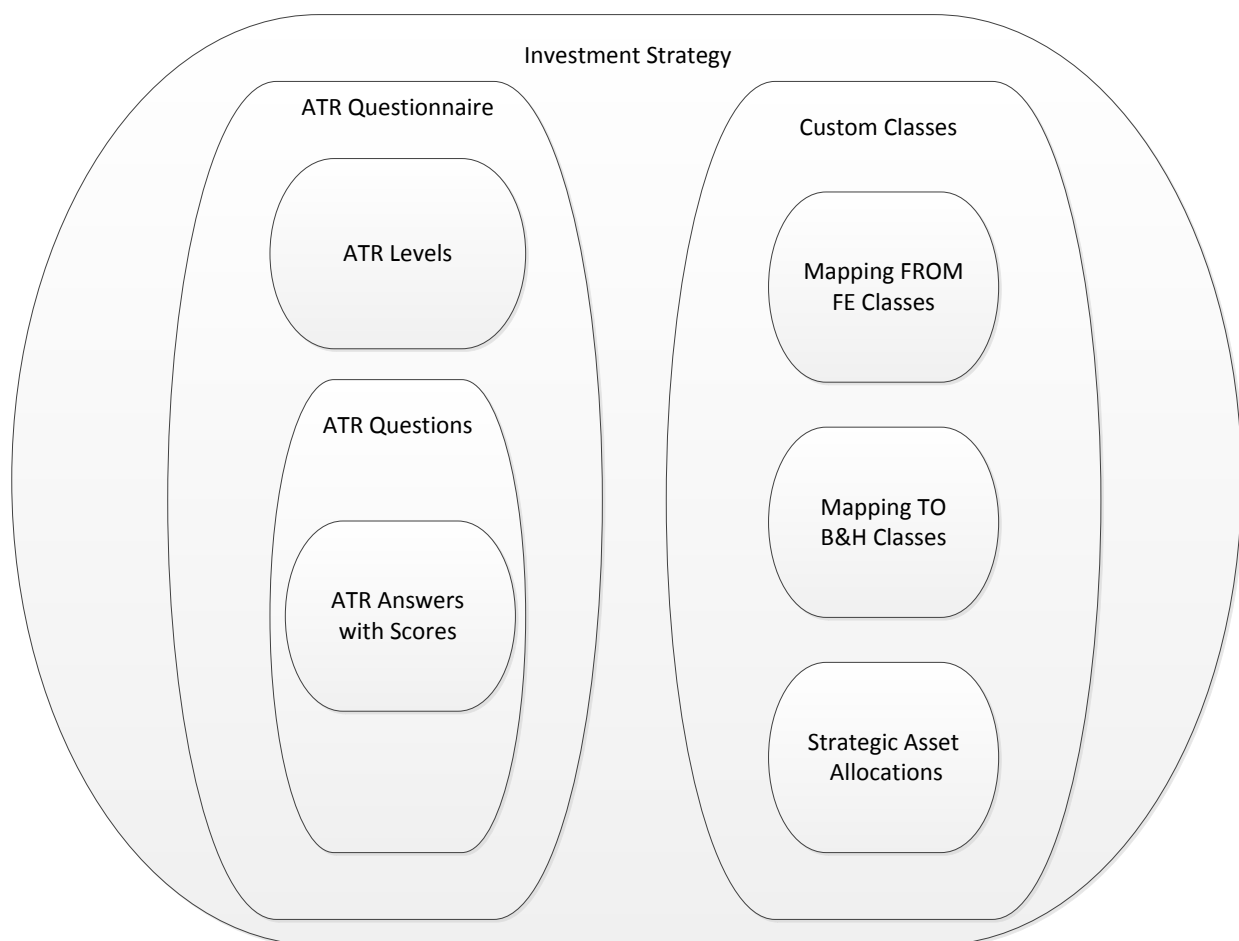
Contents

1 Introduction

This guide has been designed to help you create and deploy an investment strategy at your organisation and any child organisations should you wish to depart from the default strategy. It is assumed that you are an administrator of your organisation and have read both the "Synaptic Client User Guide" & the "Synaptic Client Administration Guide" and therefore should be familiar with the navigation of the system , what various symbols mean and what the user experience is. As it will not generally cover the logic behind various actions it is imperative that you have also read the "Modeller Technical Specification" document (or at the very least section 3.4 "The Default Investment Strategy") unless you are merely implementing a strategy that has been designed by somebody else.

2 High Level Overview

An investment strategy is made of essentially 2 parts;

1.   An Attitude to risk questionnaire (ATR)
2.   Asset Classes

Each of these breakdown into smaller aspects and can depicted by the following Venn diagram;

Investment Strategy

ATR Questionnaire

ATR Levels

ATR Questions

ATR Answers with Scores

Custom Classes

Mapping FROM FE Classes

Mapping TO B&H Classes

Strategic Asset Allocations

Each one of these parts can be thought of as a building block. In order to create an investment strategy you need to put these blocks together.

The Venn diagram above shows the relationships between these parts and you will only ever combine 2 "blocks" together to create the beginning of your investment strategy. You then repeat the process with remaining blocks until you have completed your investment strategy.

You can create multiple strategies by reusing the building blocks by putting them together in different ways.

It is advisable before you start this process in the system to have all the answers you need to hand, that would consist of;

1. ATR Questionnaire
a. All the possible answers to the questions with the scores associated to each answer
b. All the questions
c. The names and descriptions of your ATR Levels
d. The scoring algorithm that maps a set of answers to an ATR level
2. Asset Classes
a. What asset classes you are going to use
b. The mapping from FE to yours
c. The mapping from yours to B&H
d. The strategic asset allocations (SAA's) you want to use
e. Which SAA's map to which ATR levels over what time periods
It is also advisable to have all of the above in an electronic format..

2.1   Multiple Strategies

If your organisation has multiple firms in a network, it is possible to create multiple investment strategies and have different strategies deployed at different organisations (it is not possible to have 2 strategies at one organisation.

3 Permissions

In order to build an investment strategy your organisation (if you are a branch of a larger organisation) must have permission from your parent organisation to do so. Moreover you as a user must also have the correct role assigned to you which is that of "Investment Strategy Administrator". To see whether the correct permissions are in place you will need to go to your Organisation Structure in Setup in the Comparator/Illustrator interface. Find yourself in the User tab and make sure the "Investment Strategy Administrator" role is ticked.

Then look in the "Organisation Settings" and check "can override parent investment strategy" is ticked.
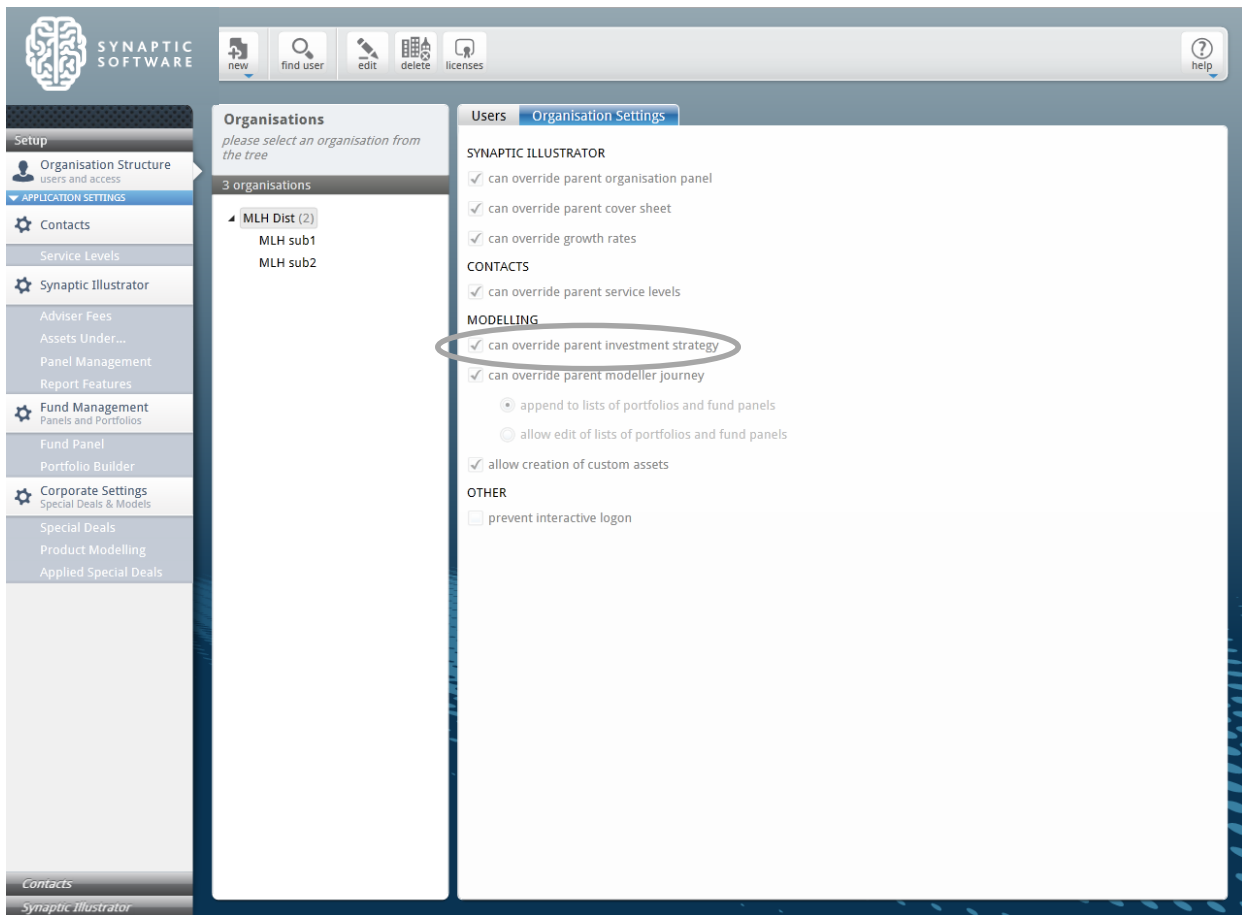
If your organisation does not have this ticked then contact your parent if you are a branch of a larger organisation, or, if you are direct to Synaptic Software Limited please call support on 0800 028 0033 Option1.

4 Creating an Investment Strategy

In order to create an investment strategy you need to select "Modeller Customisation" from the Settings dropdown menu in the main Synaptic interface.
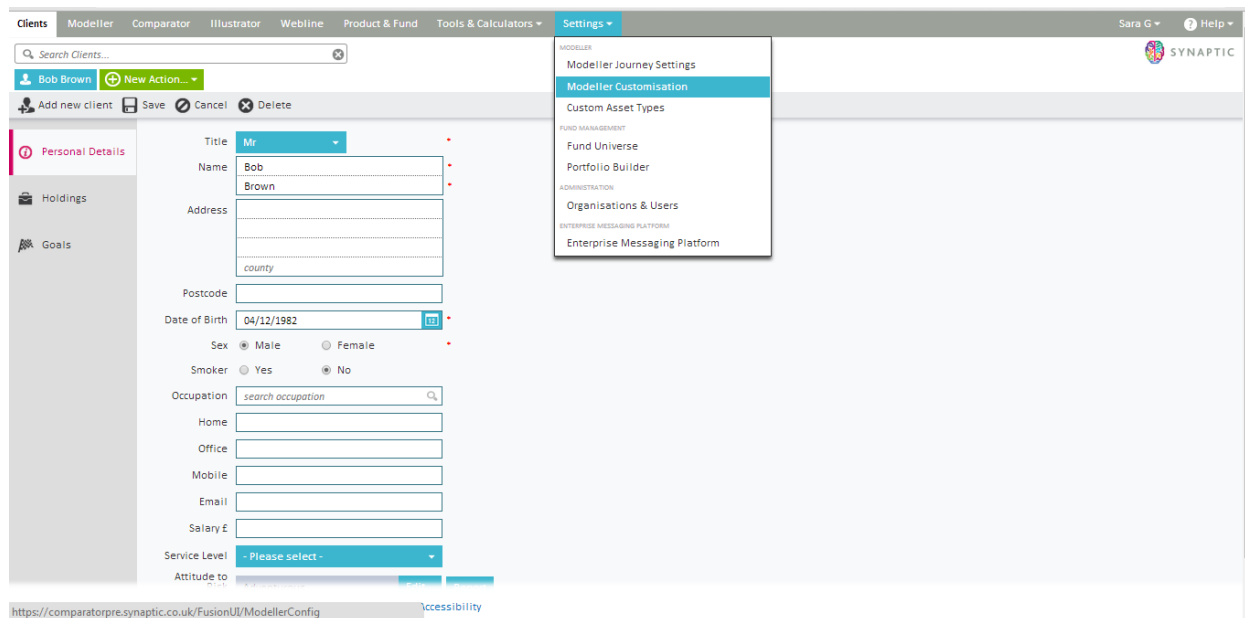
This will take you to the main customisation screen.
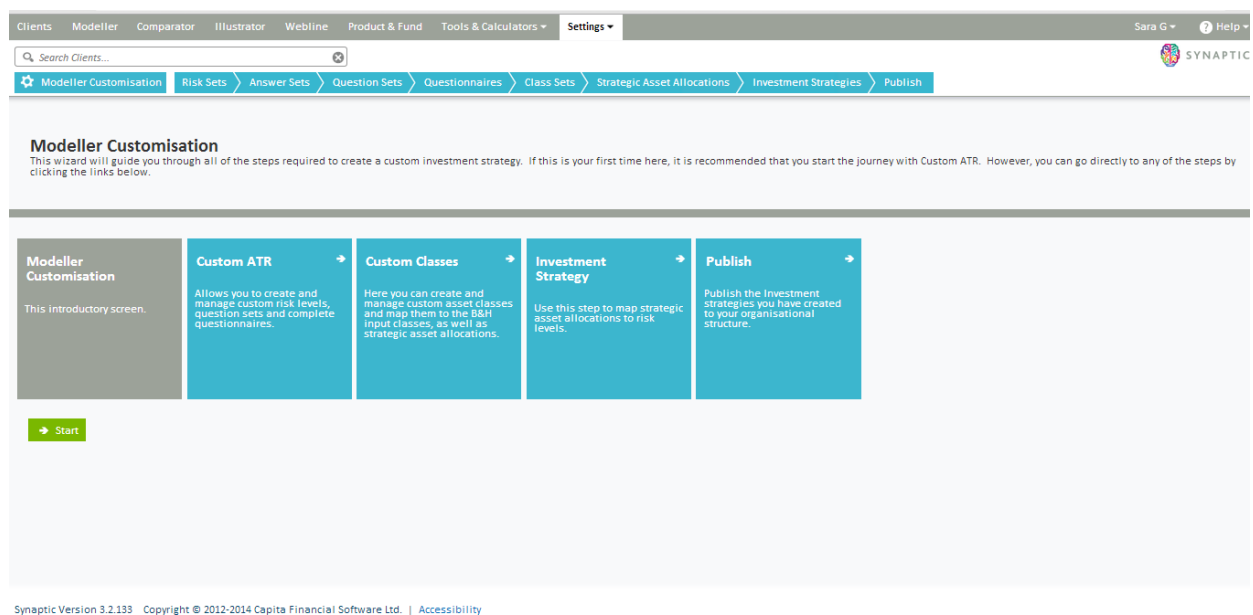
- Custom ATR is the beginning of the work to create an ATR Questionnaire
- Custom Classes is the beginning of the work to create strategic asset allocations
- Investment strategy is the mapping between the above two
- Publish is the page to publish investment strategies you have built

The whole process is set up as a wizard to take you from one end of the journey to the other and it is advisable to do this until you are familiar with the whole process.

The order in which the wizard works is as indicated below;

1. Define your ATR levels and descriptions.
2. Define the possible answer sets and scoring.
3. Define your question sets and map which answer sets belong to each question.
4. Map the above together to make a questionnaire.
5. Define your asset class set (literally names of asset classes).
6. Map the FE asset classes to yours.
7. Map your classes to the B&H classes.
8. Define the list of strategic asset allocations that use the class set above.
9. Define an investment strategy by mapping a questionnaire and a class set together.

To begin the process either click "Start" or the "Custom ATR" square.

4.1 Risk Sets

A risk set is a set of ATR levels and descriptions. To create a risk set click on add;
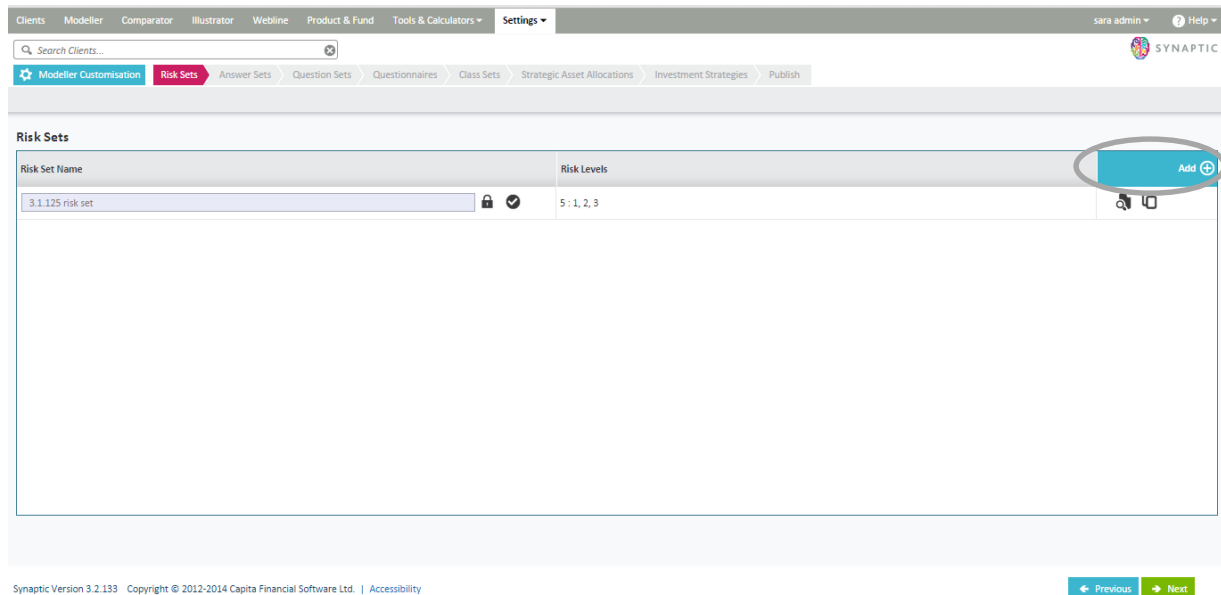
You may see 2 symbols against any risk set as indicated below:

The lock means that you do not have the right to edit or delete it (you can however copy or view it).

The tick means that this set is used in an investment strategy that is either deployed currently or has been deployed in the past. This means it cannot be changed even by the person that created it. This is for auditing purposes i.e. once a strategy has been deployed it cannot be changed by anyone. The only way to make changes is to create a new strategy (with the changes) and deploy that. I will cover this in more detail throughout this guide.

You will then be presented with a screen where you can add as many risk levels as you need for this risk set. You will also need to give the risk set a name.

You need to click on each risk level you have created in order to input a name then click in the right hand pane in order to enter a description. Repeat this process for each risk level.

Please note that the description entered will be what is displayed on the 10k illustration screen when that ATR level is used and the name you give the ATR level will also be displayed.

Once you have entered all the risk levels and descriptions click "Done" at the bottom right to return to the risk sets screen. The set you have just created will then appear for you to copy, edit or delete if you wish. You can also then add more risk sets if you need to.
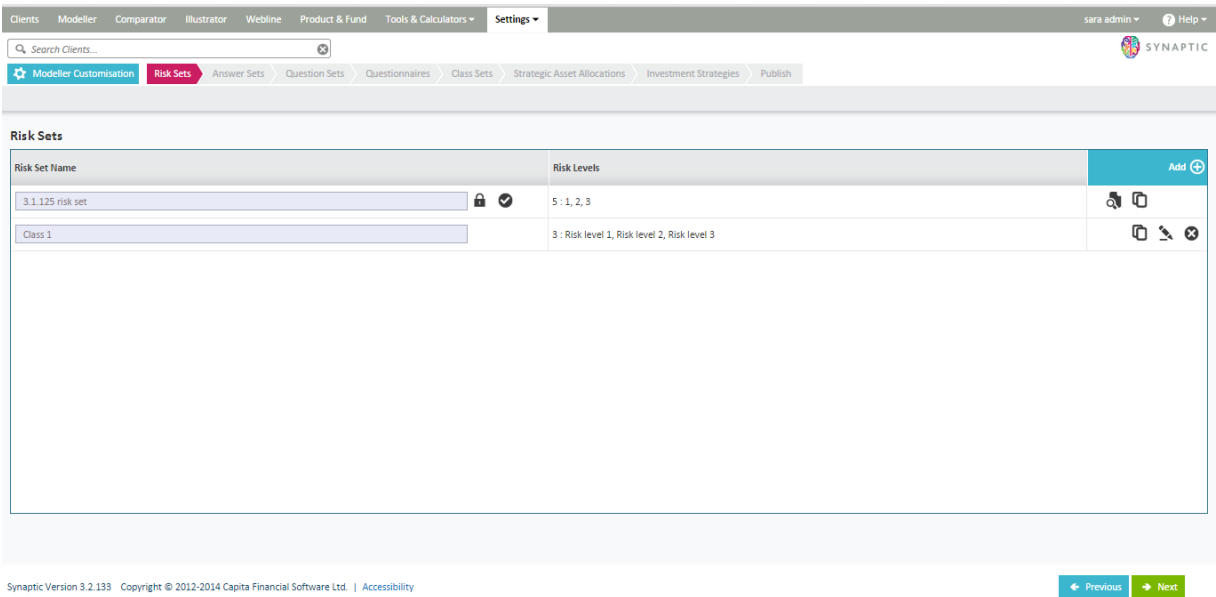
Click "Next" at the bottom right to move on to the answer sets screen.

4.2 Answer Sets

An answer set is a set of possible answers to a question and the scores that each answer has. This is likely to be the most common use of multiple sets as different questions may have different answer types i.e. one question may be a scale and another just a yes or no. The default strategy uses 2 answer sets where answers are the same but the scoring is reversed to allow both positive and negative questions.

You will start at the answer set page and from here you can add new ones as before.
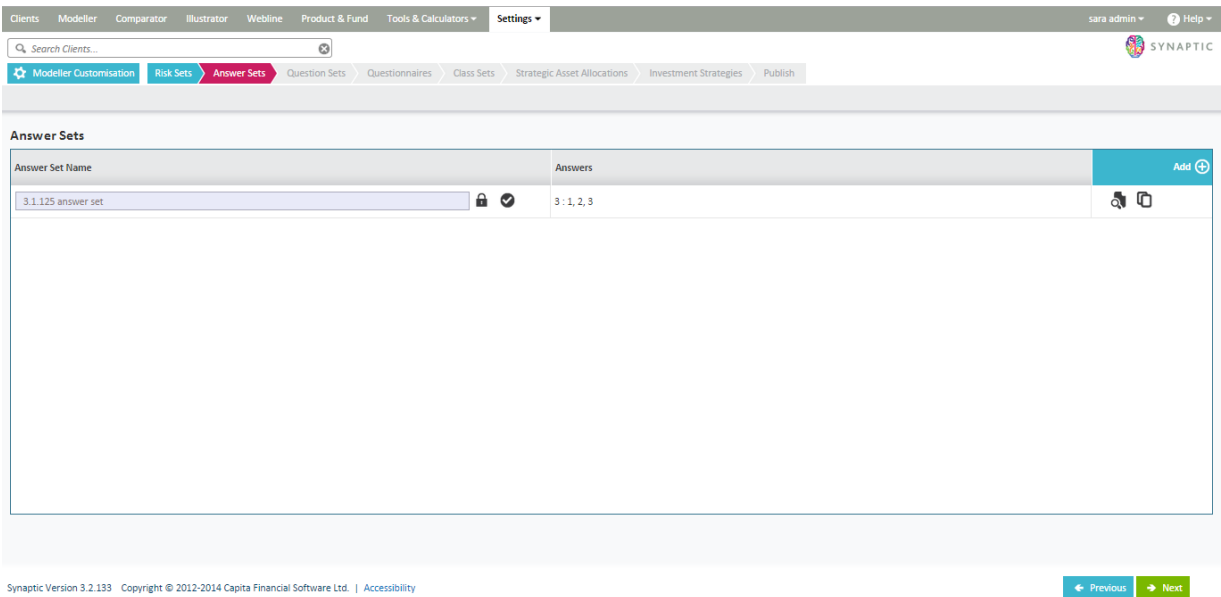
Clicking "Add" takes you to a screen where you assign a name to the set and create the answers with scoring.

Again click done when you have finished adding the possible answers. Your set will now appear in the list to be used later.
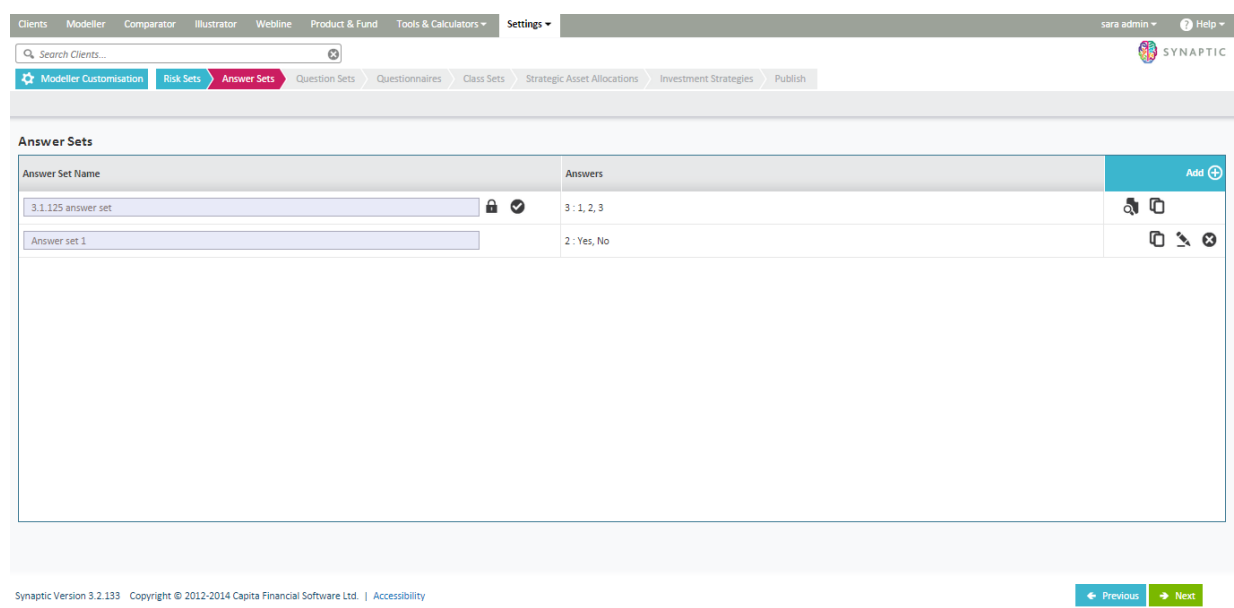
Once you have finished adding all the answer sets you require click next to move on to the question sets.

4.3 Question Sets

A question set is a series of questions that will appear in the questionnaire. This is the first time you will start to put the blocks together because you will need to state which answer set is used for each question. Click Add to apply a question set.
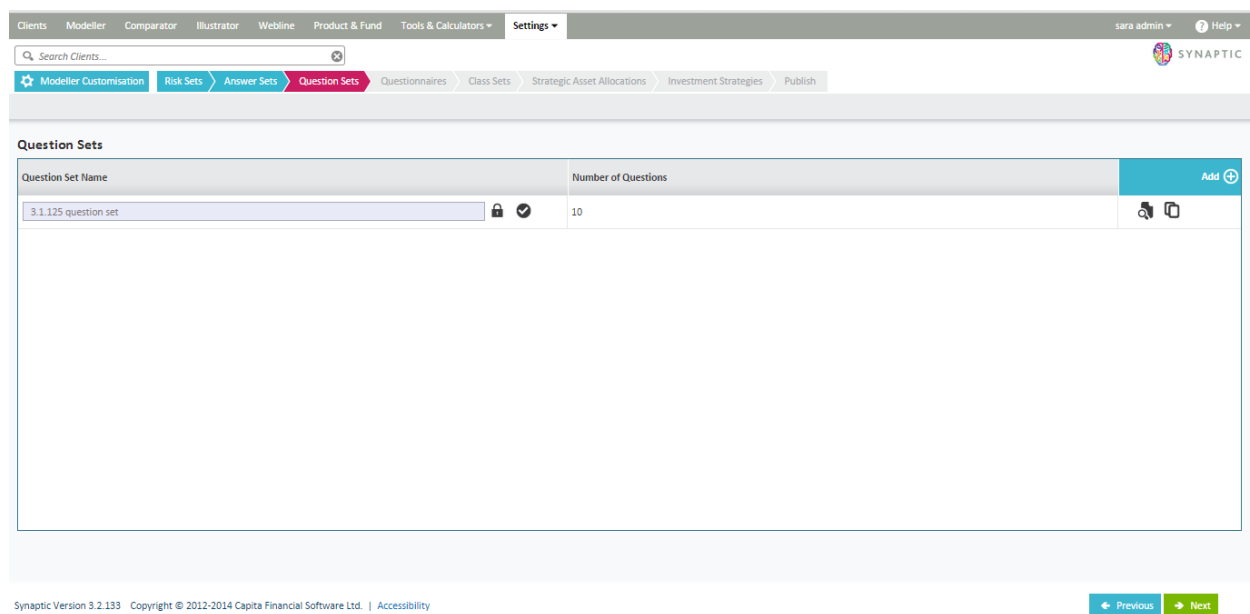
You will be taken to a screen where you can add as many questions as you like and define which answer set applies by selecting from the dropdown menu. (You also have to give the set a name).

Click done to complete the task.

You can add more or click next to move on to building the final questionnaire.

4.4 Questionnaires

A questionnaire is where you tie together a question set and a risk set. In the background once you have built a question set the system will calculate the lowest and highest possible score the question set can have and in order to build a questionnaire you will need to define what score ranges equate to which risk levels. Click add to apply a questionnaire.
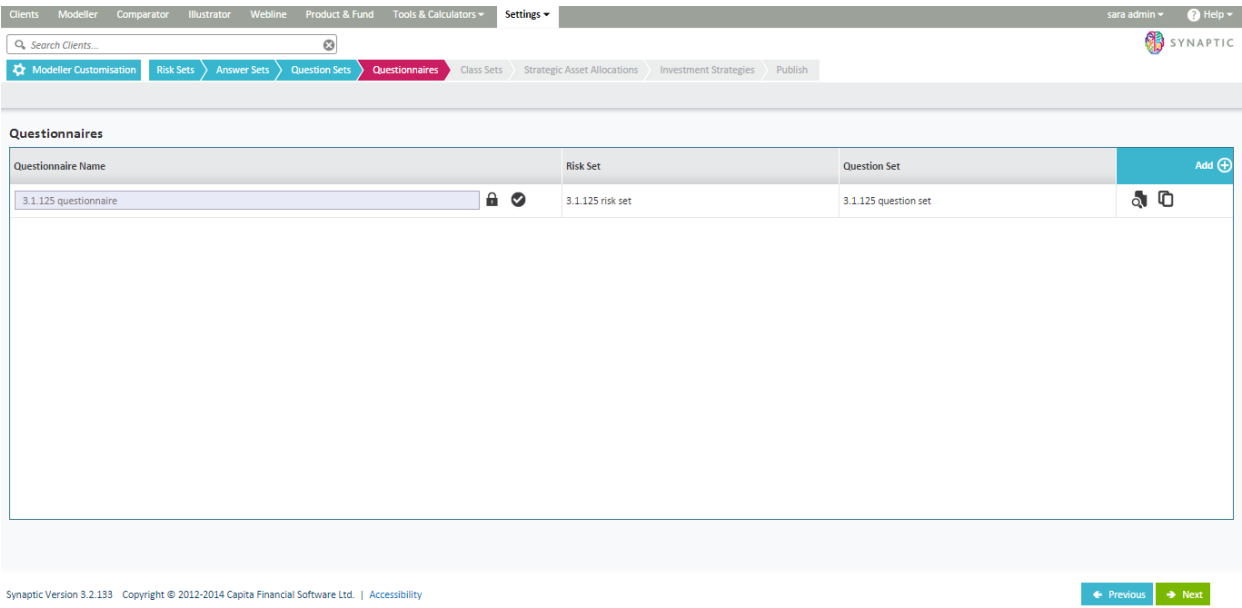
On this screen you will need to supply a name for the questionnaire and which sets of questions and risk levels you wish to combine by choosing them from the drop down menus.
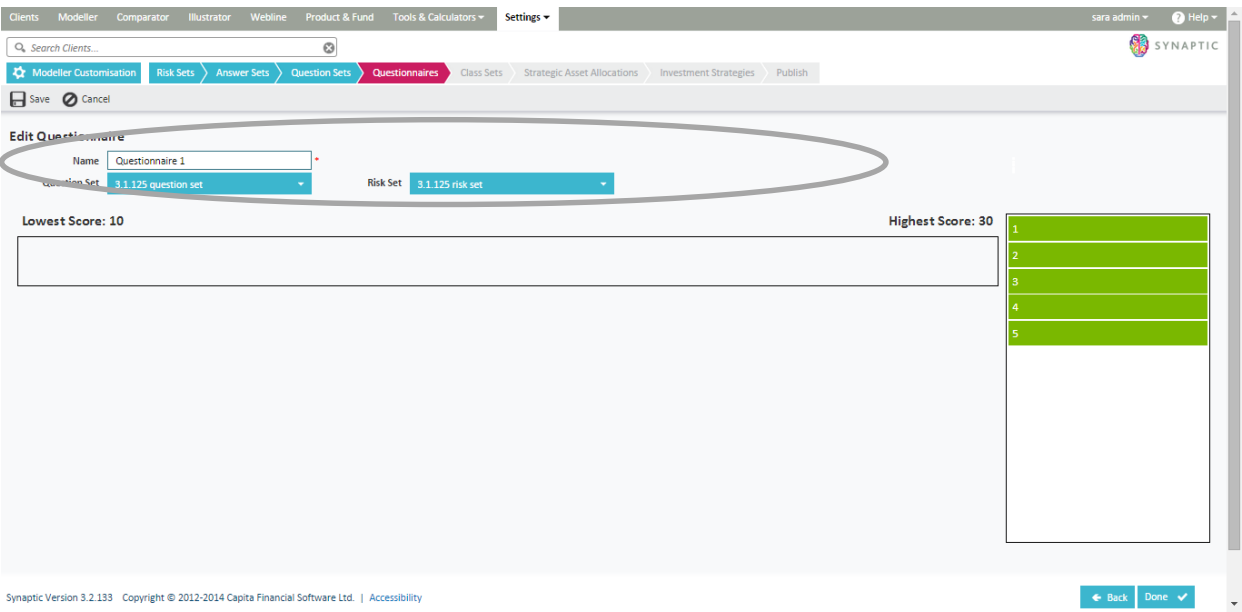
Once you have selected the question set and risk set the screen will load the relevant information. On the right will be the risk levels you defined in that set. In the middle of the screen is the mapping bar.

This mapping bar function works by dragging risk levels from the right hand column on to the mapping bar. What will then happen is the risk levels you drag over will fill the mapping bar with the relevant scores applied.

On top of the bar will be a value at either end. In this case it is the highest and lowest score possible from the question set. Earlier we gave answers a score then mapped them to questions to produce a question set. The highest and lowest values can then be calculated.

Once you have added all the risk levels from the right that you want you can then click into the risk levels and change the scores to the required level.

You can use the arrows to increase or decrease the values or just directly type into the edit form box. If you click on the first risk level in the bar then you can only change the upper score as its lowest is the lowest possible, likewise the last risk level can only have its lower changed as its upper is fixed to the highest score. As each end is fixed the bar is dynamic and when you change the range of a risk level the bar will resize other risk levels.
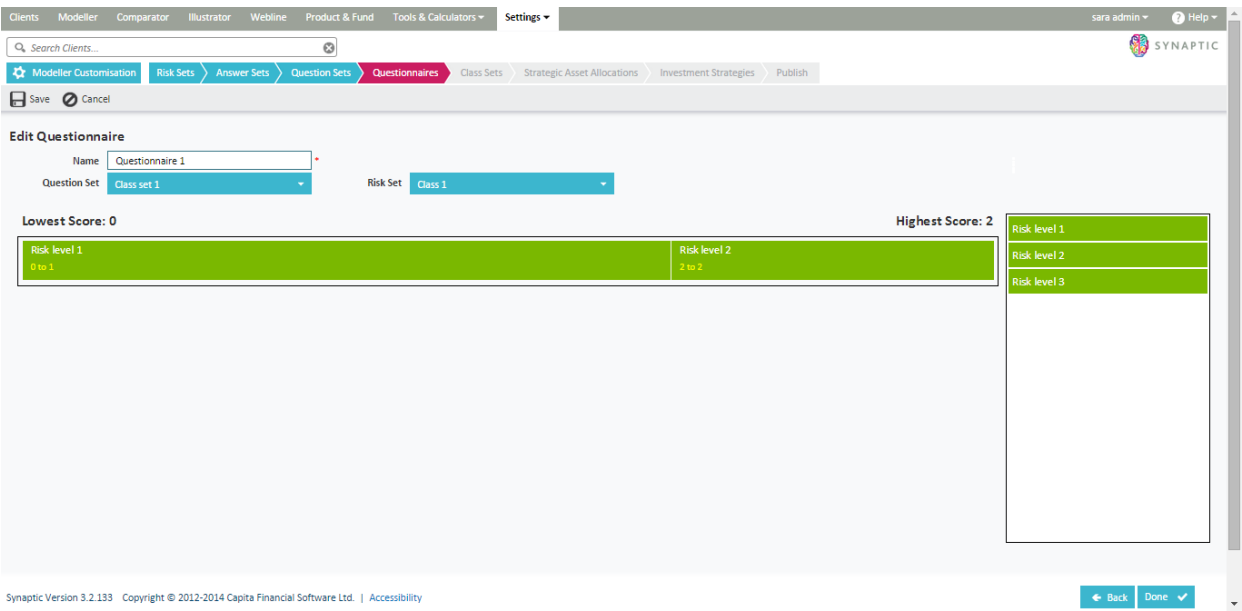
Once you are finished click done and it will take you back to the questionnaire screen.
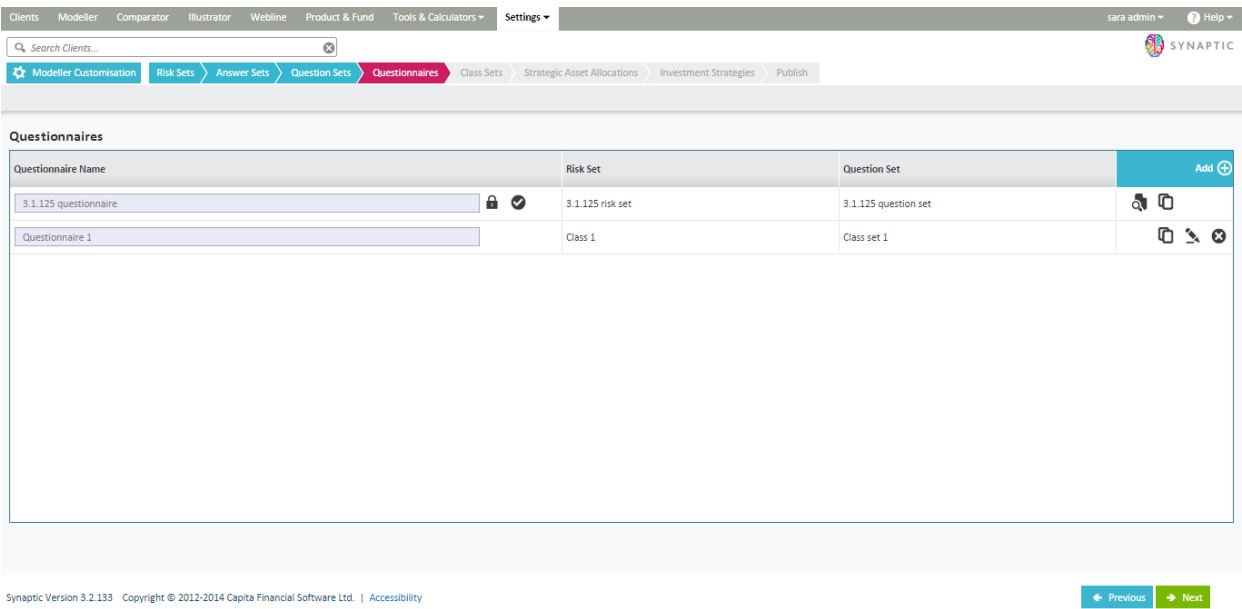
From here you can click next to finish the first half of the process and move onto Asset Classes.
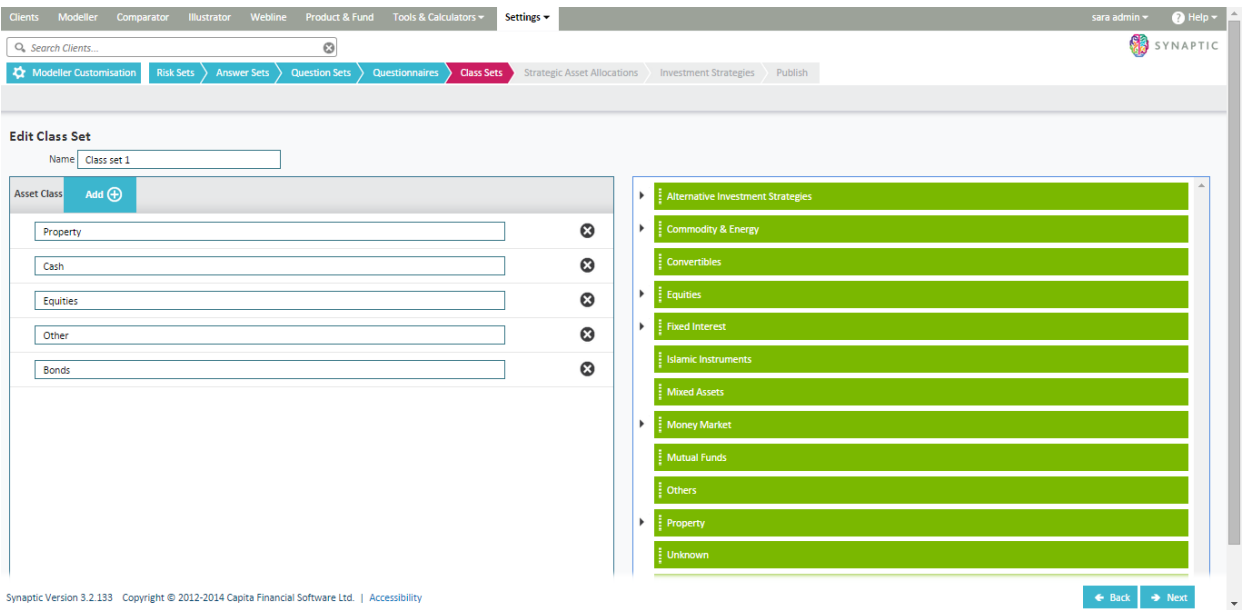
4.5 Class Sets

Class sets contain all of the mapping information that takes data about a fund in the format of the FE classes to data that can be used in Modeller i.e. the B&H classes. In the middle of this mapping is the set of classes that will be displayed in the system to the users. These classes are displayed in all factsheets about funds, in holdings as plans defined by funds or asset classes, as asset types in holdings, in Portfolio Builder and throughout the Modeller journey.

To add a new class set click add.
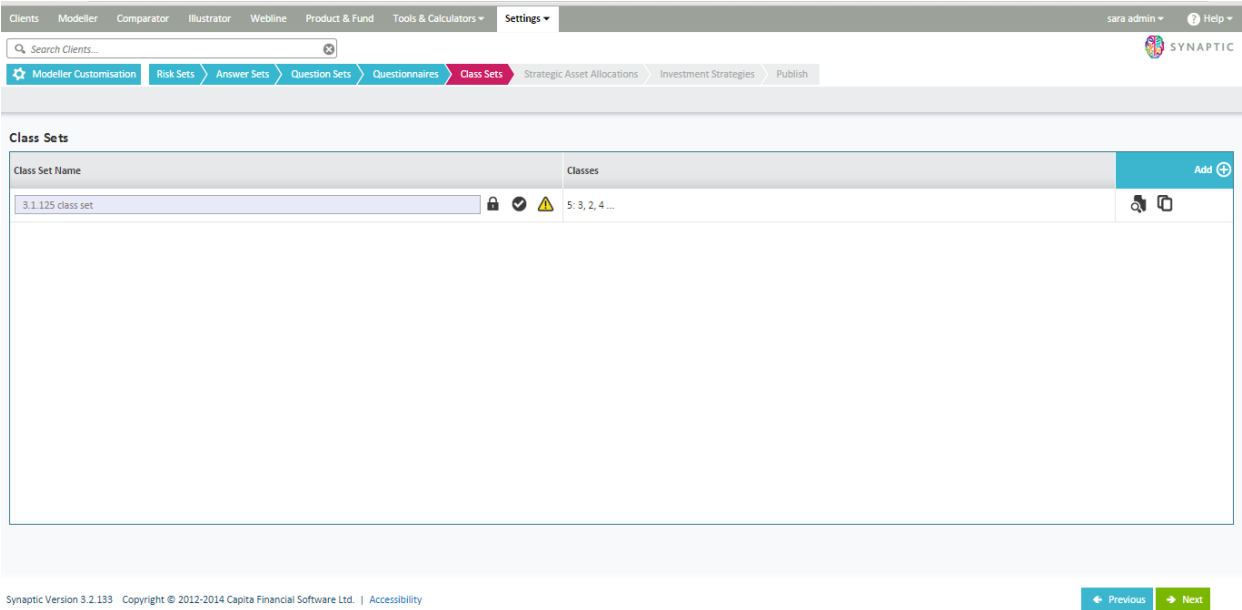
This will take you to the screen where you can define your asset class names and map the FE asset classes to them. Fill in a name for the class set and then add your own asset classes by clicking add in the left hand pane. You can then name each class.

On the right hand side is the FE list of classes.

In order to understand the technical aspects of the class set mapping please ensure that you have read section 2.3 of the Modeller Technical Specification Guide, which is contained within appendix 1 of this guide.

What you must now do is drag all of the classes from the right and drop them in the appropriate asset class on the left.

You must continue until there is nothing left in the FE tree i.e. you have moved all the classes from the right to the left. As you fill your classes with FE classes they will get a triangle which indicates they have something in them, if you click on them it will expand and show you what you have mapped to it. It is possible to then pick them up again and move to a different class if you have made a mistake. Alternatively you can press delete (on the FE class not your class) and they will move back over to the right.
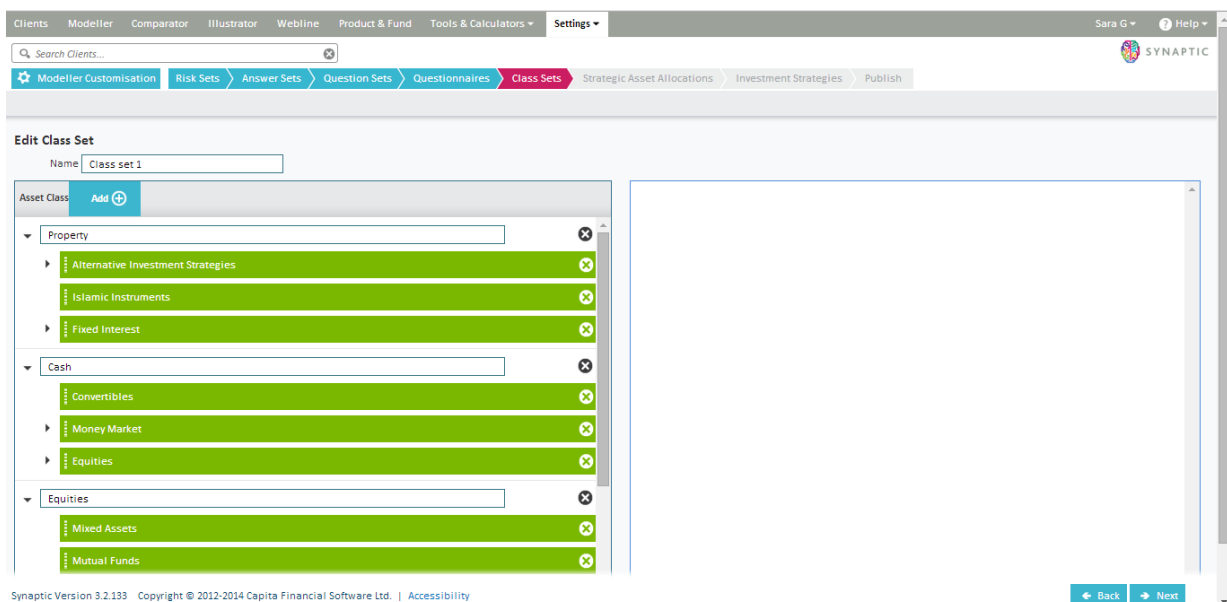

Once you start to map the classes across you must complete this task in order to move on through the rest of the journey.

Once you have completed the task, click next to move to mapping your classes to the B&H classes.
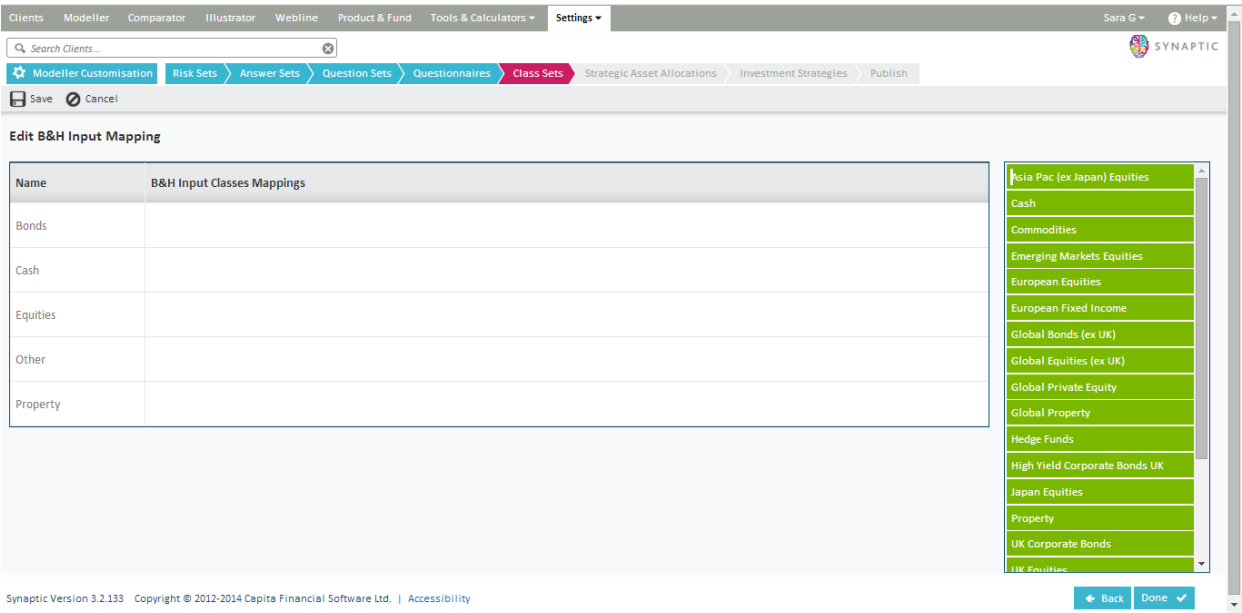
The names this time are the asset classes you created on the previous screen. The right hand column contains all the B&H classes that are available in the engine. You must decide how you want your asset classes determined by the engine.

You have the opportunity here to spread your asset classes across the B&H classes which will mean your asset class will be treated as containing different geographical sectors.
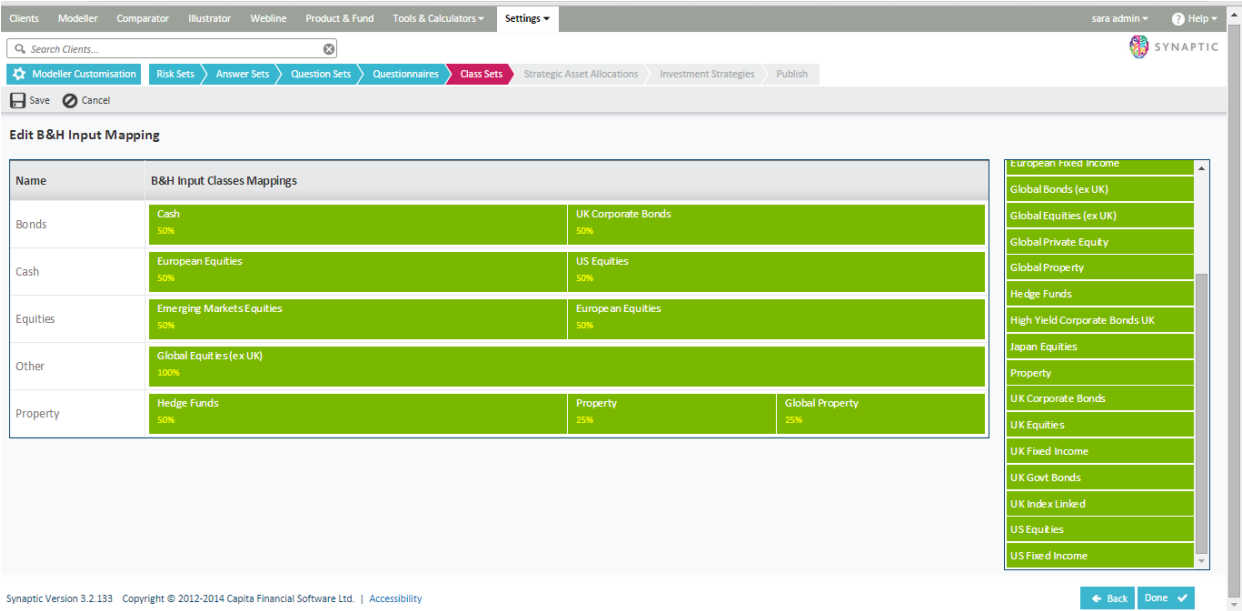

This screen works in the same way as the questionnaire screen so fill all your categories first and then click to edit the percentage weightings. When you have completed this click done.
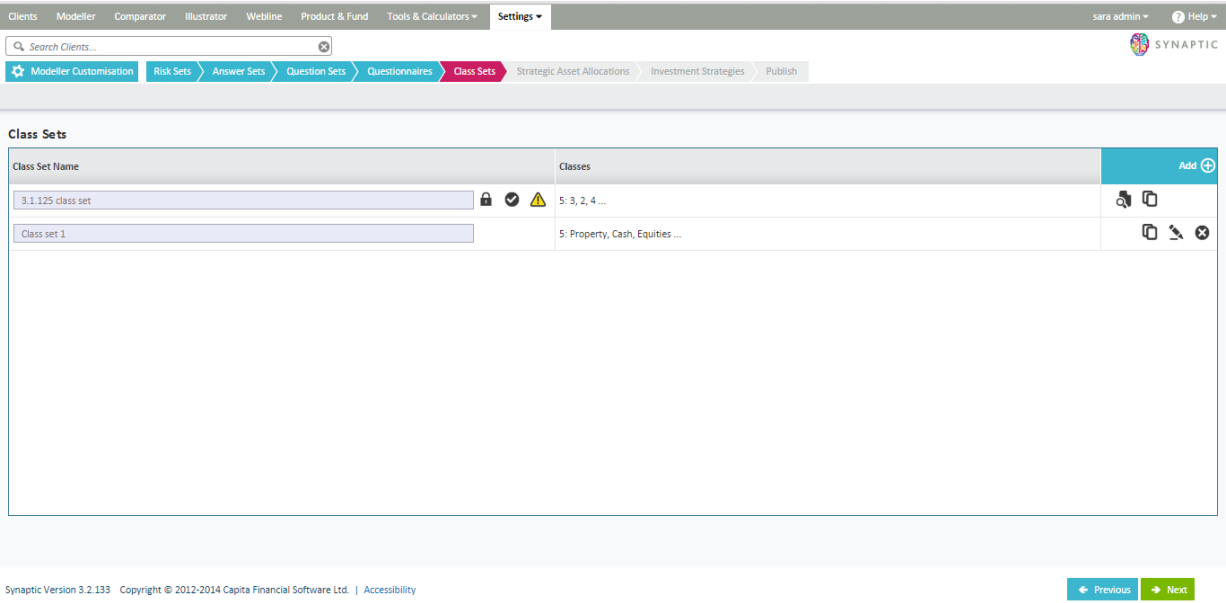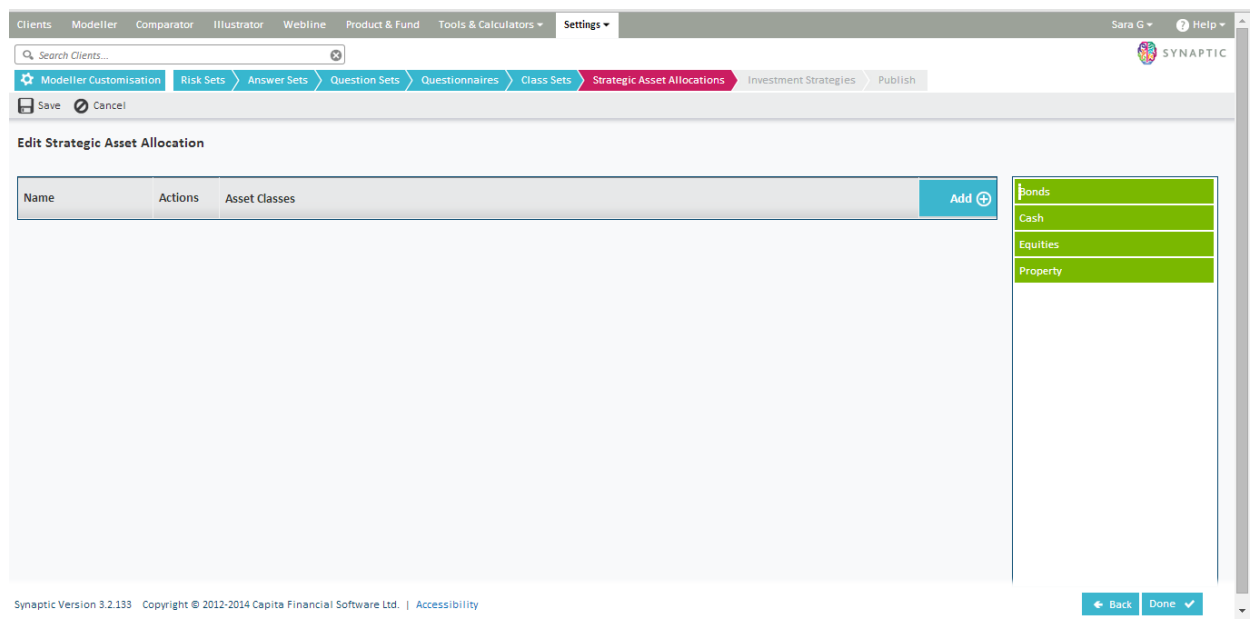
Click next to proceed to strategic asset allocations.

## 4.6 Strategic Asset Allocations (SAA)

Select the class set you just created on the previous screen. SAA's are the mixes of asset classes you are planning to recommend for different risk levels. You can create as many as you like inside one risk set.
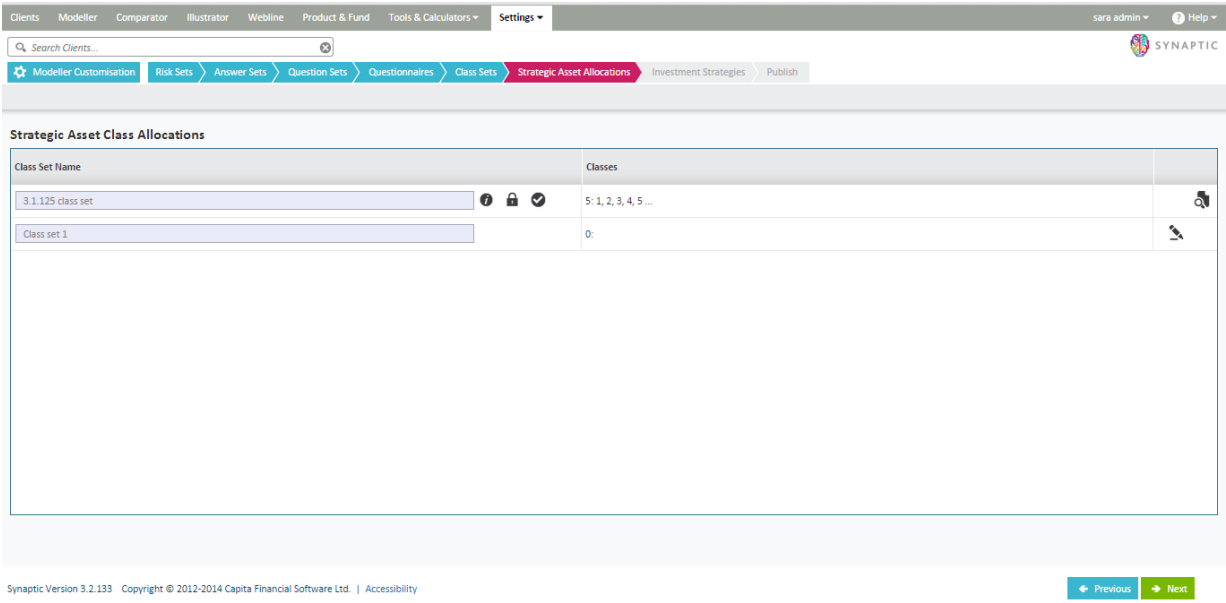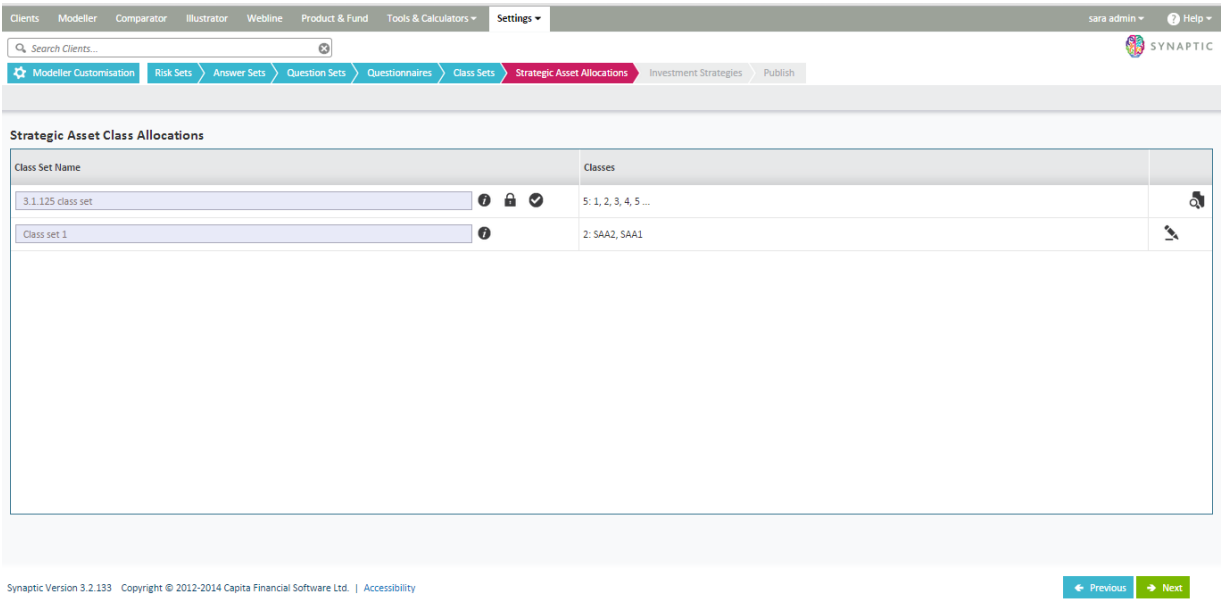

Click on the pen to edit and then Add to create your SAA's.

On the right are the asset classes you defined you can now create mixes of them by the method described for questionnaires.
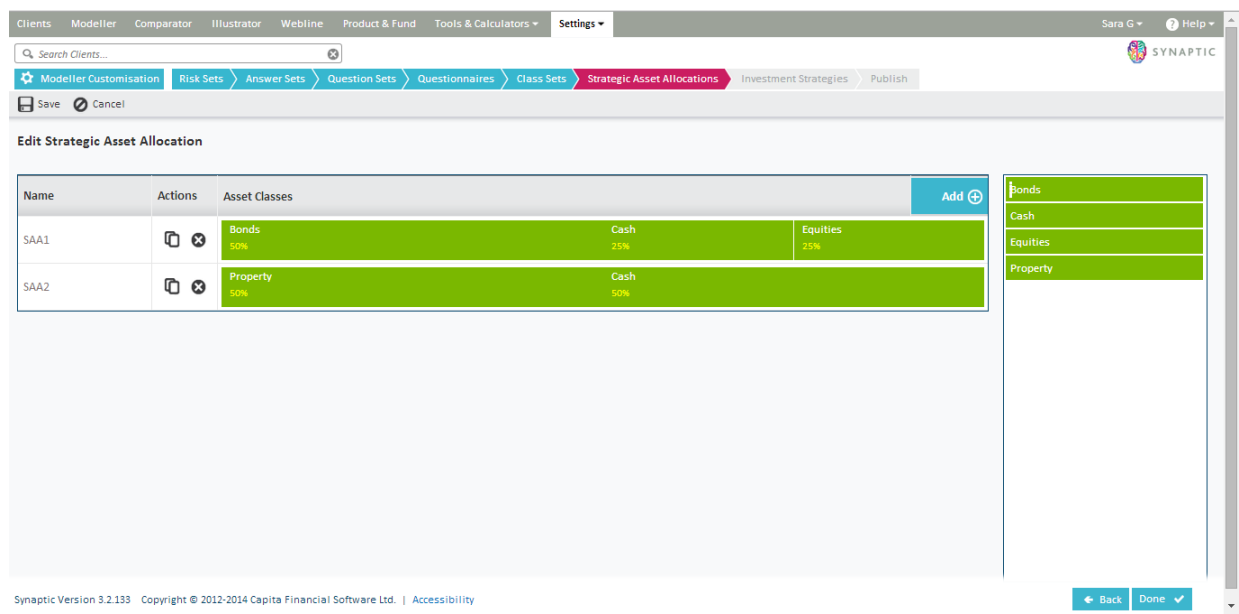
Once you are sure you have created all the mixes you want click done to take you back to the SAA screen.

On this screen you will see an "*i*" next to the class set name. If you click on this it will run the minimum, maximum and mean figures for each SAA. This is the data that will be displayed to the user on the 10k screen and therefore is a very useful check to see how your asset mixes will perform before you deploy them. If you are not happy then edit them again.
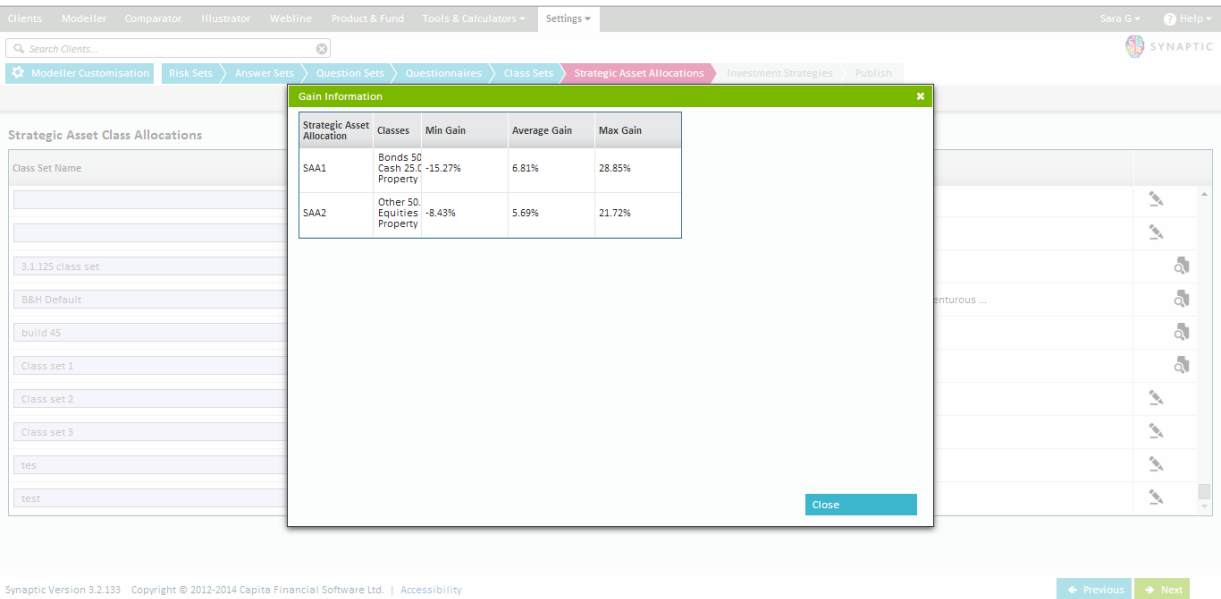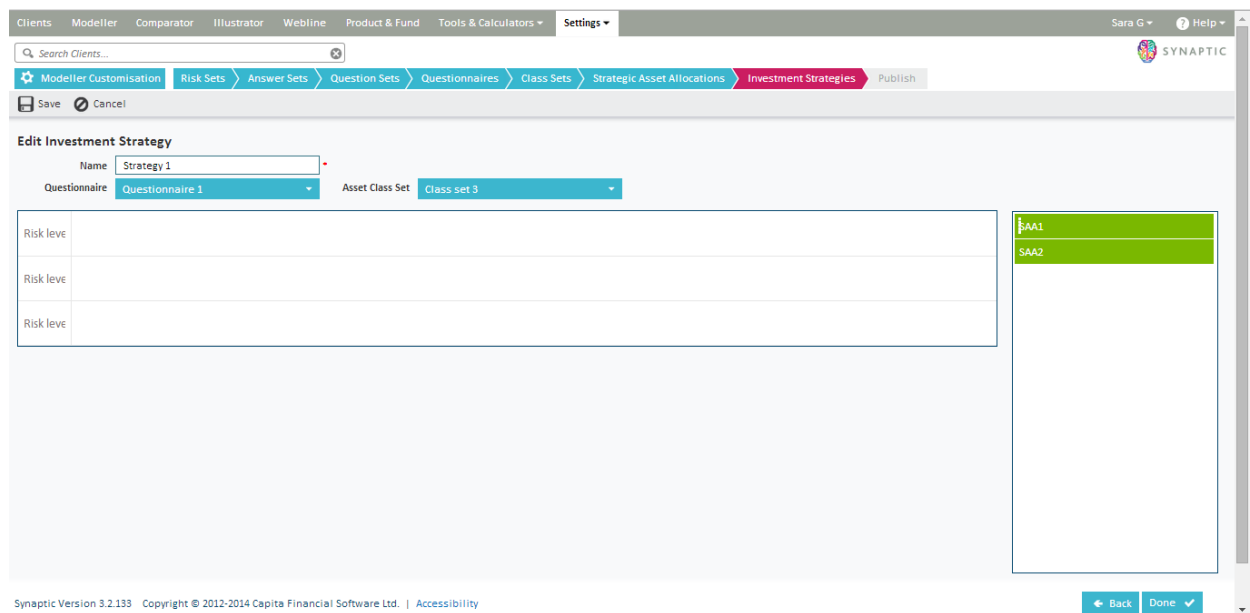

Close that pop up box and click next to continue to the last stage of building a strategy.

4.7 Investment Strategies

We have now constructed all of the building blocks we need in order to create an investment strategy. All we do now is sew the questionnaire and the asset classes together by defining which SAA's map to which risk levels over what timeframe.
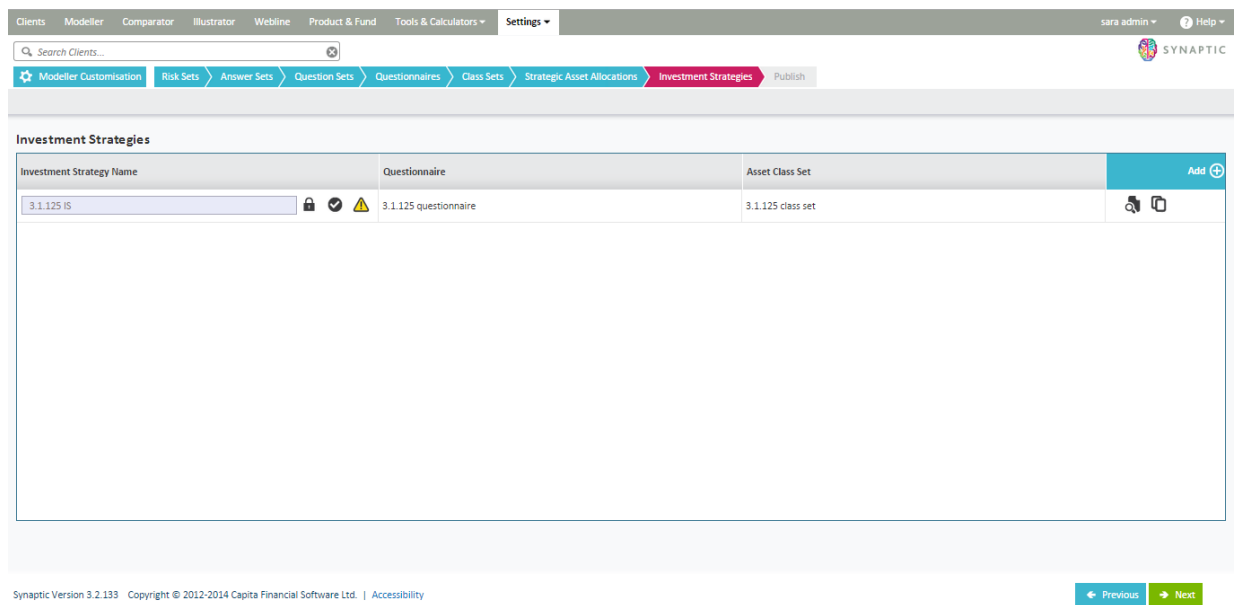
Click add.

On this screen you must select (from the dropdown menu) which questionnaire to use along with which asset class set. Once selected the screen will refresh and display the risk levels as bars and the SAA's in the right pane ready to be dragged over. The default strategy has a one to one mapping but it is possible to use time horizoning as shown below if you believe the longer you have to invest the more risk you should take. The maximum term for the engine is 70 years so the lower and upper boundaries are 1 to 70.
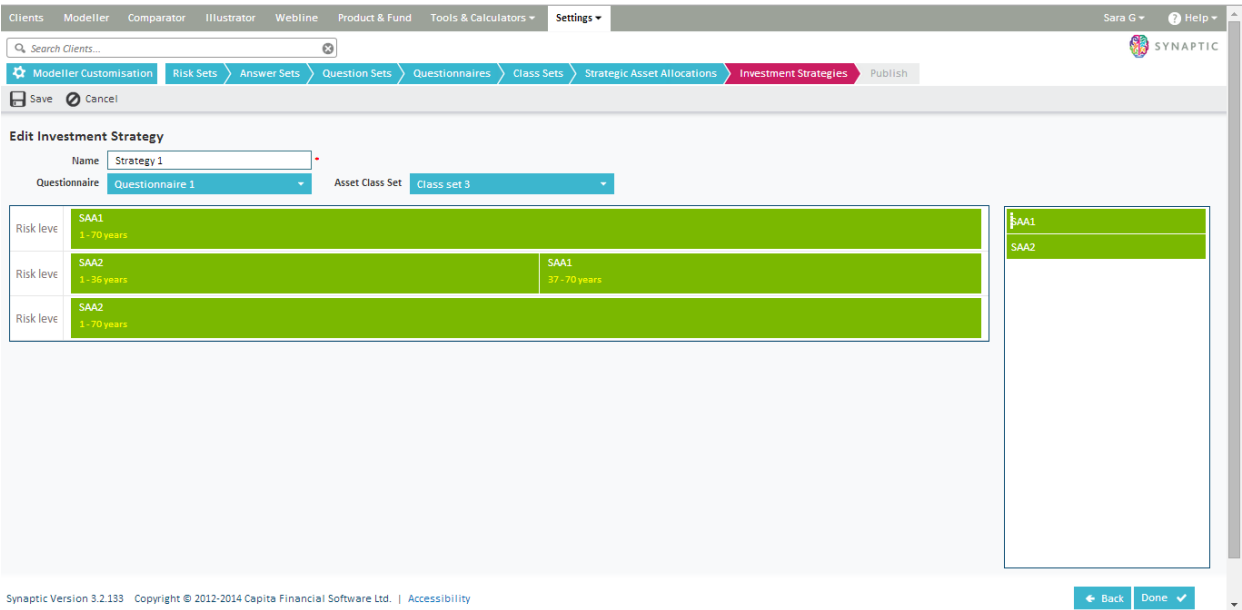
In the above example I have chosen a term of ten years to be the tipping point from less to more equity meaning that a client of risk level 1 would be recommended SAA1 for a term of ten years or less and SAA 2 for a term of more than ten years.

Once you have completed this press done and then next to move on to publishing.

4.8 Publish

This is the screen that allows you to control which investment strategies are deployed at various branches in the organisation tree.

You can select a strategy from the dropdown menu for your organisation, you then have the option to select the same strategy for any branches. Alternatively, you may decide to opt for a different strategy for different branches. The right hand column displays which strategy is deployed at your organisation and any associated branches.

In order to change the strategy at any one of your branches you must have the 'can override' box ticked in setup. If you do not wish any other users within the branch to have this permission you must then remove the tick from the 'can override' box within set up.
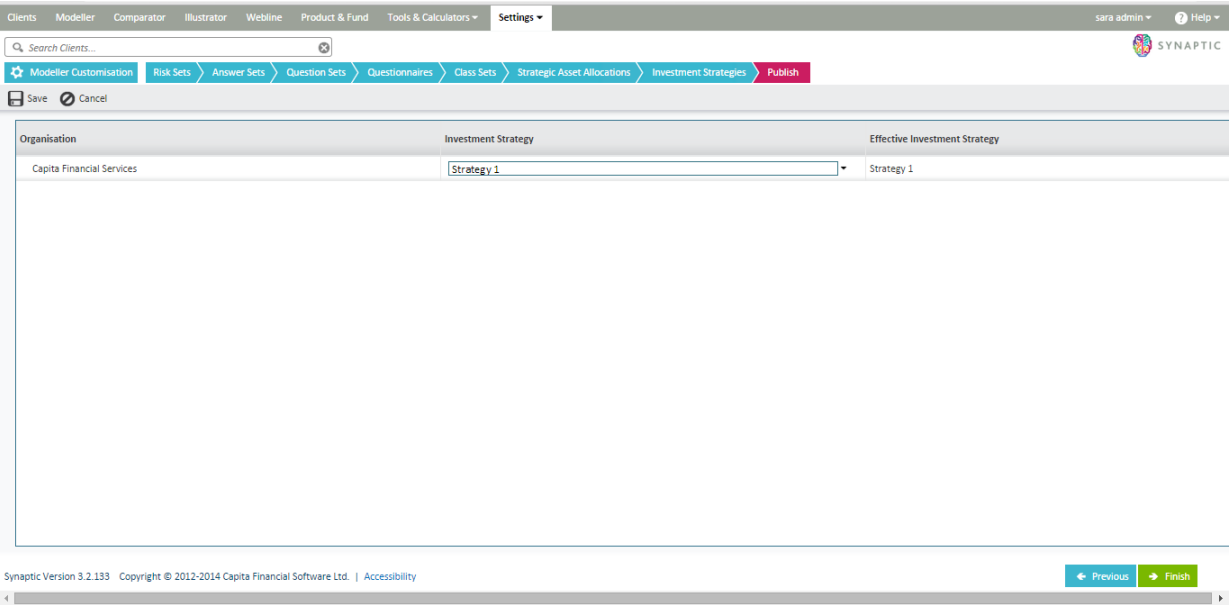
Once you are happy you have selected the correct strategies at the correct organisations click on finish. This will give you a warning that you are about to change investment strategies which will have a big impact on the system and any users currently using the old strategy.
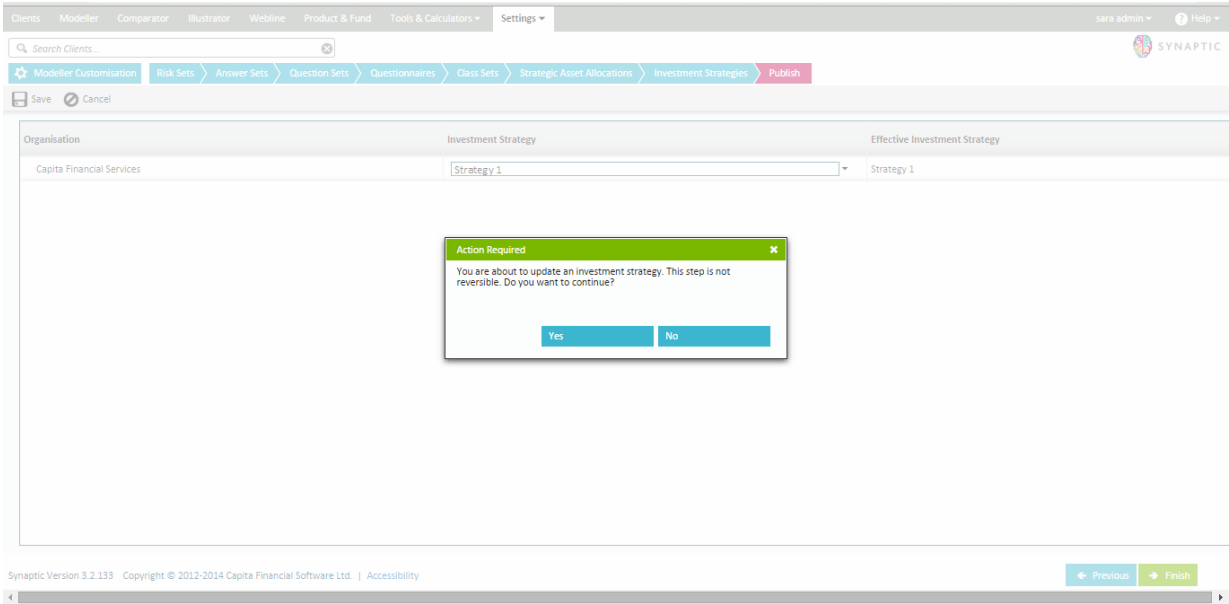
5 Things to Note

Changing the existing investment strategy will roll back all modeller sessions in progress to the first page of the goal i.e. brand new goals will go back to the start, review goals to the start of that review. The reason for this is to keep integrity in the system, you could have changed any aspect of the data given to the user during the Modeller process i.e. the scoring on the ATR which might move a client from one risk level to another or the asset class mapping themselves which would change all the numbers. It is therefore much safer to make all users begin the process from the start so that there is no confusion.

Other effects on the system are with plans that are defined using asset classes, these are most likely to need redefining in terms of the new asset class set.

It is also very sensible to deploy a new strategy to a test organisation before to real users so that you can test it first.

Appendix 1 - **Investment Strategy**

An investment strategy is the combination of an ATR questionnaire with a set of asset allocations (known as Strategic Asset Allocations (SAAs)) which are mapped to the aforementioned ATR levels. Another factor included in creating an investment strategy is the period of time over which the investment is to be made (investment term).

Each ATR level can have multiple SAA's with each SAA having an investment period (e.g. 0 to 5 years) and this concept of changing a SAA due to the investment period is often referred to as the 'time horizon'. Synaptic Modeller has been designed with a default investment strategy, created for Synaptic Software Limited by B&H and this is detailed later in this document.

Additionally, Synaptic Modeller allows users to create their own investment strategies which can be cascaded across their business or network. This capability is detailed in the "Synaptic Investment Strategy Customisation Guide".

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SYNAPTIC **MODELLER**

SYNAPTIC **PRODUCT & FUND**

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