

# FinancialMappers® Pro

# Masterclass

## Modelling Tools

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**Please Note:** Information in all Masterclass Documents is intended to assist the Financial Adviser and Paraplanners to get maximum benefit from Financial Mappers and its many features. This information should not be considered as giving Financial Advice or advice you should pass on to your clients.

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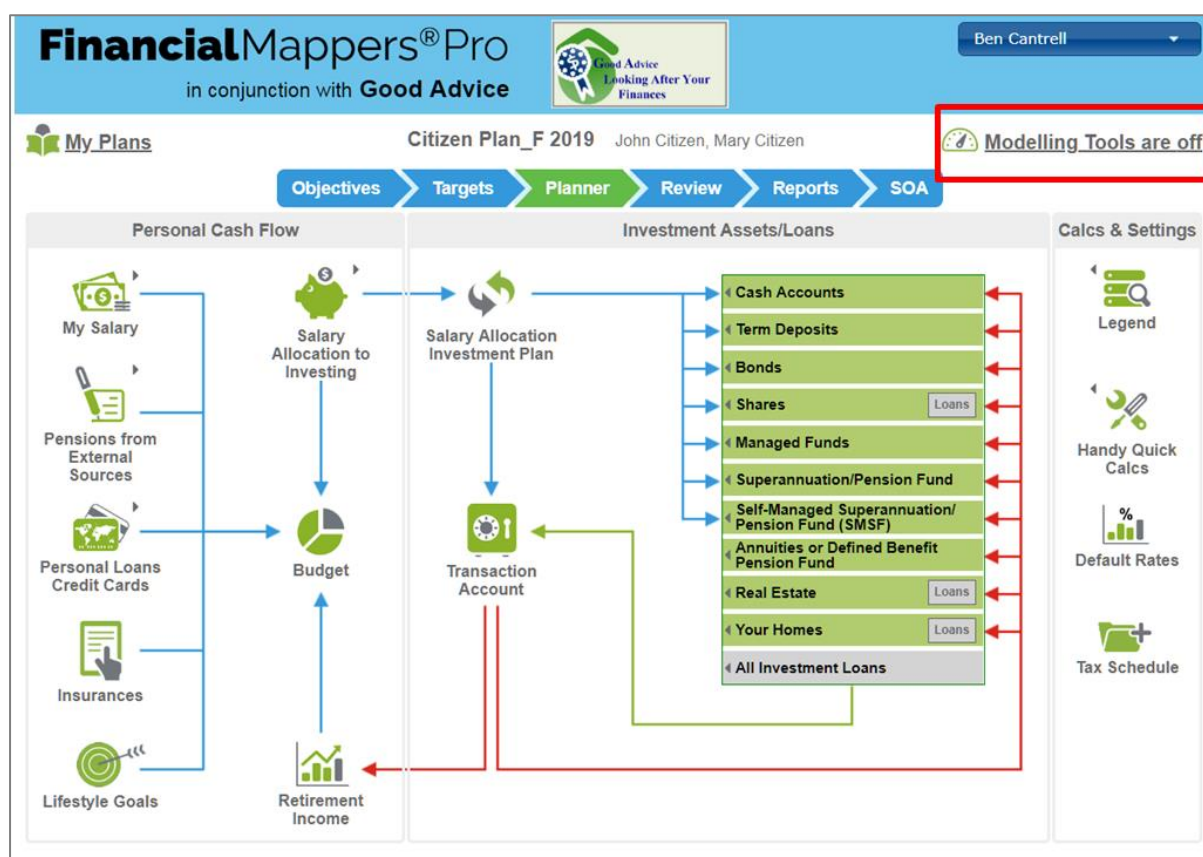
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## Introduction

*Financial Mappers Pro* has an extensive range of Modelling Tools. This document will show you how to gain maximum benefit from these tools. Note the red box. It can be very easy to forget to turn off your *Modelling Tools* after a demonstration. For this reason, the ON/OFF option is always on display.

The plan used for this document will be the **Savings Phase (15 years)** of the **Pott's Plan**.



It is recommended that when you create your own reports, each report should include the **SmartPanel** showing which Modulators are active.

### Modulators: Status

Area	Status	
Income	✗	Income Modulators are off
Capital Growth	✗	Capital Growth Modulators are off
Loans	✗	Loan Modulators are off
Historical Data	✗	Historical Data is not used

## Choosing Data

When working with your plans, you would normally use a combination of the Default and Specified Rates. Using these rates will give you projections based on the assumption that the selected rate will remain the same throughout the plan.

This has been a long-held practice when constructing any financial model. We all know that in real life, the rates will change constantly, however for long term future projections, it has been normal to use these types of projections.

In this section, you have the option of using an alternative which is based on Historical Data from the Year 2000.

**MODELLING TOOLS** ?

Choose either the current rates in your plan or rates from Historical Data for comparison.

☒ Default/Specified Rate

These are the rates selected automatically by the program or set by you.

☐ [Historical Data](#)

This option will apply the rates you have selected in Historical Data. If you want to review or change the data, click on the link.

## Modulators

There are three types of Modulators which can be used in any combination. However, it is **not recommended** that you use the Income and Capital Growth Modulator at the same time. The reason is that apart from Rental Income, **Investment Income** is calculated as a Percentage of the Asset Value. Thus you may “double-dip” by increasing the value of the asset and the percent return for income. You can use Historical Data with Modulators.

Select by clicking the ON or OFF button. Click on the link to change inputs for each Modulator.

☐ OFF [Income Modulators](#)

When turned ON, the income on your investments will be changed according to the selection you have previously made. If you want to review or change that selection, click on the link.

☐ OFF [Loan Modulators](#)

When turned ON, the interest rates on your loans will be changed according to the selection you have made. If you want to review or change that selection, click on the link.

☐ OFF [Capital Growth Modulators](#)

When turned ON, the assets will change in value according to the selection you have made. If you want to review or change that selection, click on the link.

There may be circumstances under which you choose to keep some modulators permanently on. For example, you may believe that if you are making a 50-year plan, then using the lowest cash rates and lowest interest rates on loans in many years, is not a sound practice. Therefore you could turn on the Income Modulator to raise interest rates on cash type assets and loans at some future date – say in 10-year's time.

### Special Rules

#### Negative Returns

When using these modulators, lowering the rate, may create a negative return. When this occurs, the rate is reduced to 0.001%. There is also a second rule which states that if the management fees are more than the income, the management fees are reduced to the value of the income. These rules are designed to ensure the software does not give false results when using modelling tools.

#### Bonds

In addition, neither Historical Data or the Income Modulator is applied to Bonds. Instead, the program will demonstrate the change in the value of the Bond should interest rates either rise or fall.

If you did want your Bonds to be included, then you should use the option *Term Deposits*. The Modulator selects the rate nominated for the first year of the TD and this rate remains for the length of the TD. The only other difference in the calculation is that the income on Bonds is calculated twice yearly and TD's at the end of each year.

#### Managed Funds & Superannuation

The program assumes a **Managed Fund** is composed of the following:

**20% Cash, 40% Equities and 40% Property**

The program assumes **Pension** accounts are composed of the following:

**30% Cash, 40% Equities and 30% Property**

As the **Superannuation/Pension** account (but not SMSF) has a combined Income and Capital Growth Return, that asset is included in the Capital Growth Modulator and not Income Modulator.

## Reports

On each page, there is a link back to the Modelling Tools selection page. At the bottom are radio buttons to select one of three buttons.

### HISTORICAL DATA AND ECONOMIC CYCLES ?

Test your Plan using past Historical Data or  
Evaluate your Asset Allocation by use of Economic Cycles of Historical Data

[Go to Modelling Tools Overview](#)

The radio buttons for **Use Modulation Data** and **Use Historical Data** are only displayed when one of the options is active. The **Use Economic Cycles** is always displayed and does not require activation. The program automatically creates the report which applies four 10-year Economic Cycles to the first 10-years of the plan.

#### PLAN OUTCOMES USING MODELLING TOOLS ?

Choose either the current rates in your plan or rates from Historical Data for comparison.

☐ Default/Specified Rate These are the rates selected automatically by the program or set by you.

☒ Historical Data This option will apply the rates you have selected in Historical Data. If you want to review or change the data, click on the link.

Select by clicking the ON or OFF button. Click on the link to change inputs for each Modulator.

☐ Income Modulators When turned ON, the income on your investments will be changed according to the selection you have previously made. If you want to review or change that selection, click on the link.

☐ Loan Modulators When turned ON, the interest rates on your loans will be changed according to the selection you have made. If you want to review or change that selection, click on the link.

☐ Capital Growth Modulators When turned ON, the assets will change in value according to the selection you have made. If you want to review or change that selection, click on the link.

Report options:

☒ Use Economic Cycles Only Economic Cycles will be displayed until Modulators or Historical data have been selected.

☐ Use Modulation Data

☐ Use Historical Data

[View Report](#)

This page can also be accessed from the **Reports Chevron**.

*(If the radio buttons are not displayed go to this section to activate)*

#### Detailed Reports

[Plan Outcomes using Modelling Tools](#)

Use different **Modelling Tools** options to view the impact of different rates over the life of your plan.

# Historical Data

### Economic Cycles

The program defaults to the opening on **Economic Cycles** where you may select one of four cycles

### HISTORICAL DATA AND ECONOMIC CYCLES ?

Test your Plan using past Historical Data or  
Evaluate your Asset Allocation by use of Economic Cycles of Historical Data

[Go to Modelling Tools Overview](#)

☐ Historical Data for Back Testing ?

☒ Economic Cycles for Asset Allocation ?

Selected Economic Cycle 

Economic Cycle 1: 1986 - 1995 ?

Economic Cycle 1: 1986 - 1995

Economic Cycle 2: 1990 - 1999

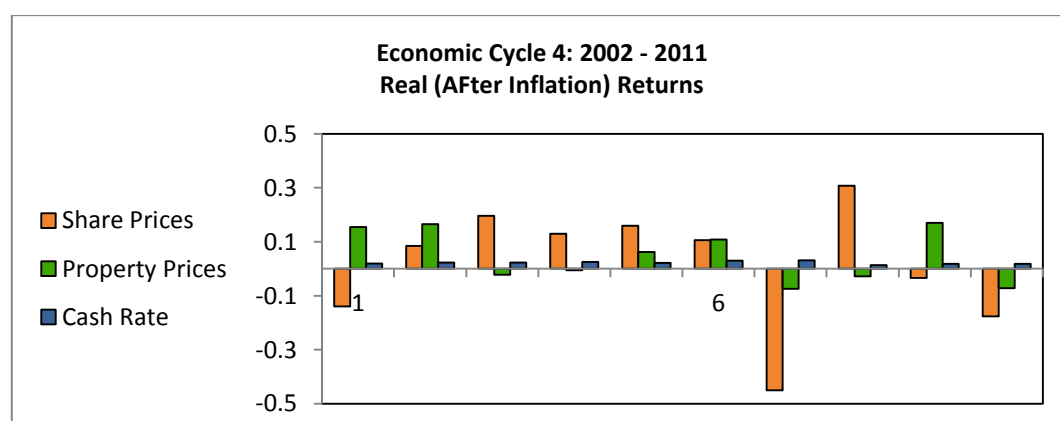
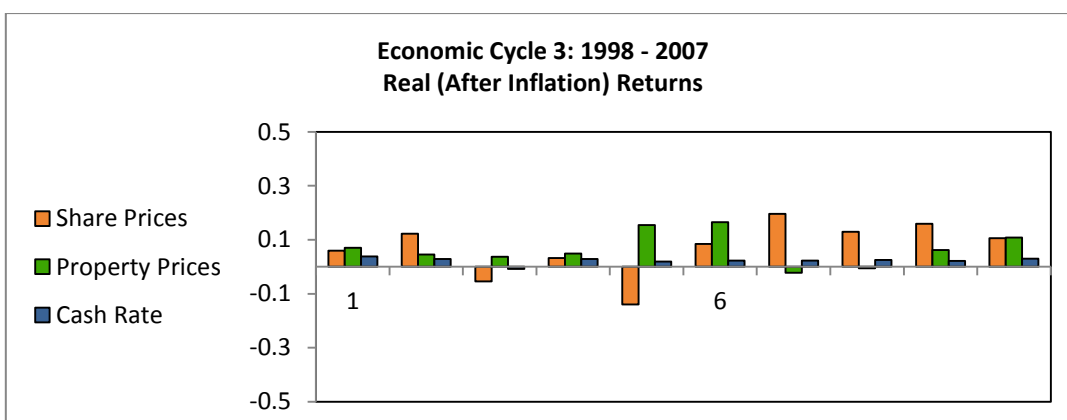
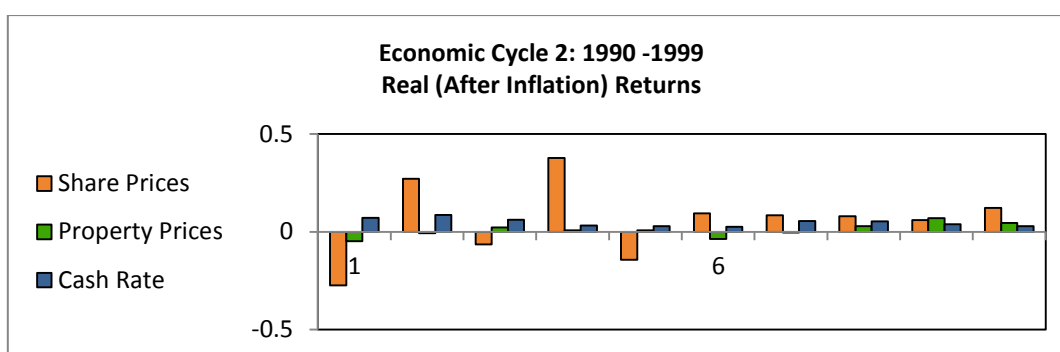
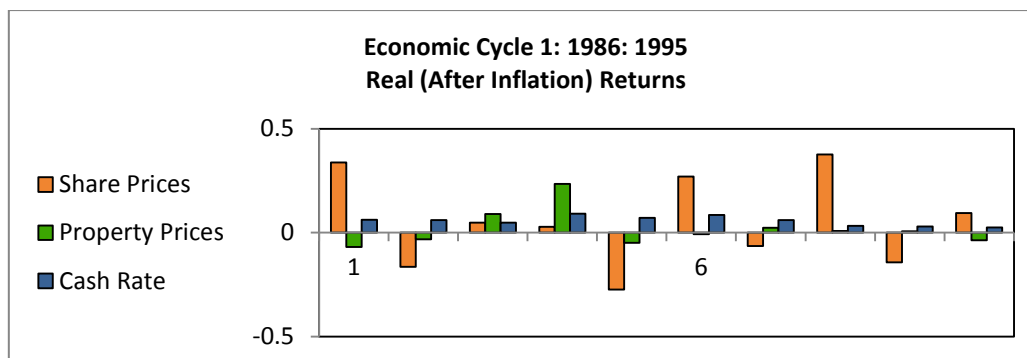
Economic Cycle 3: 1998 - 2007

Economic Cycle 4: 2002 - 2011

[Save](#) [Cancel](#) ☐ Active

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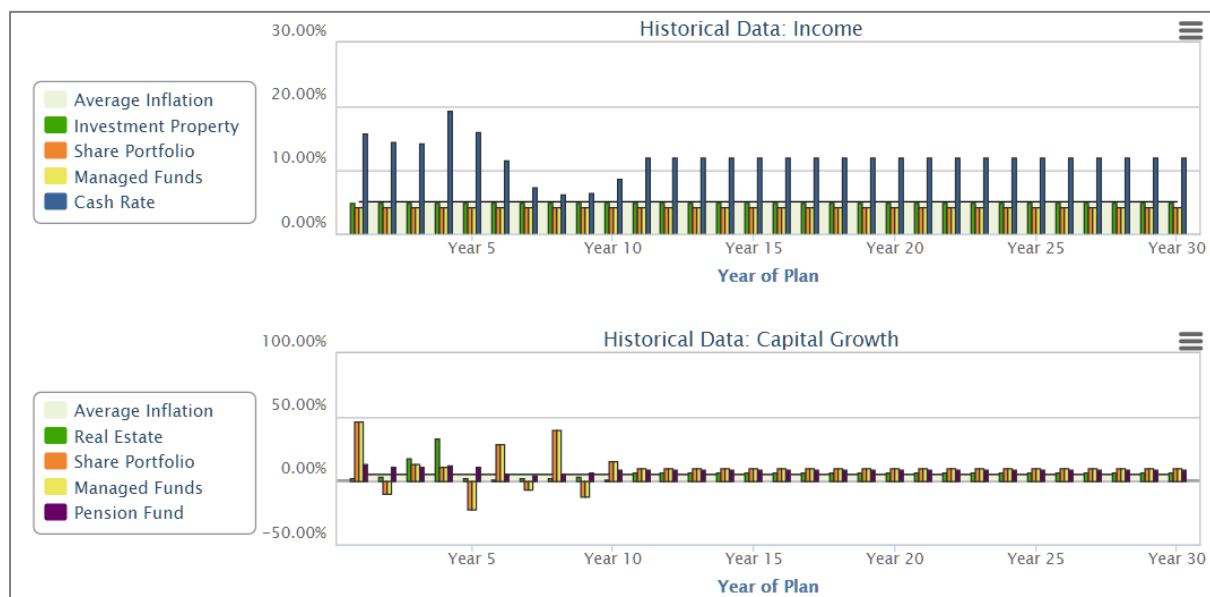
These cycles are based on four 10-year economic cycles which occurred in Australia between 1986 and 2011. Of these cycle, equities or real estate outperforms the market in one cycle each. In the other two cycles, both perform approximately the same, and in the other, the both perform poorly. This was during the GFC. These are graphs displaying the four cycles.



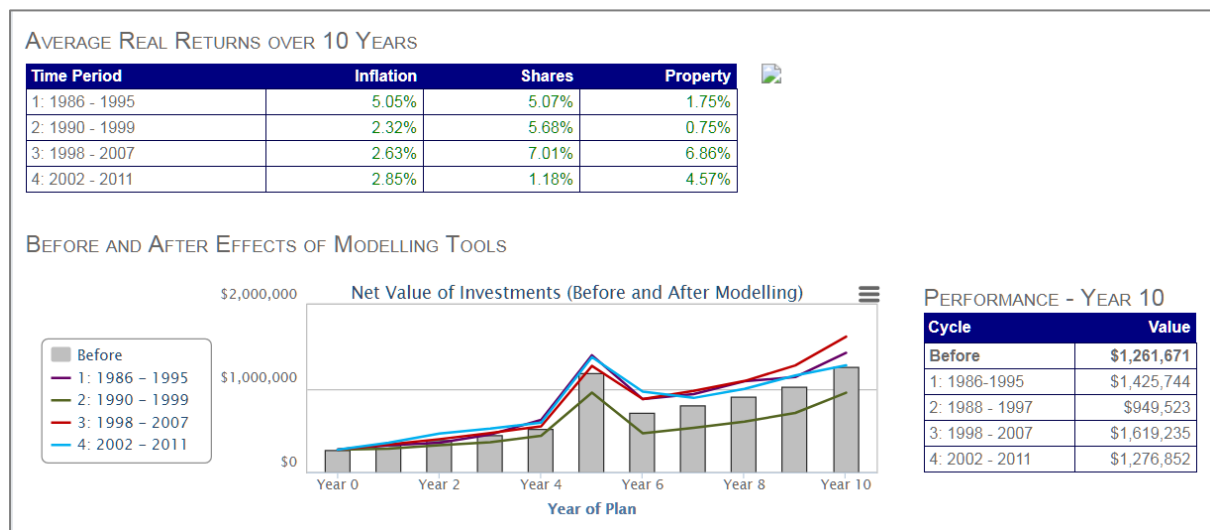


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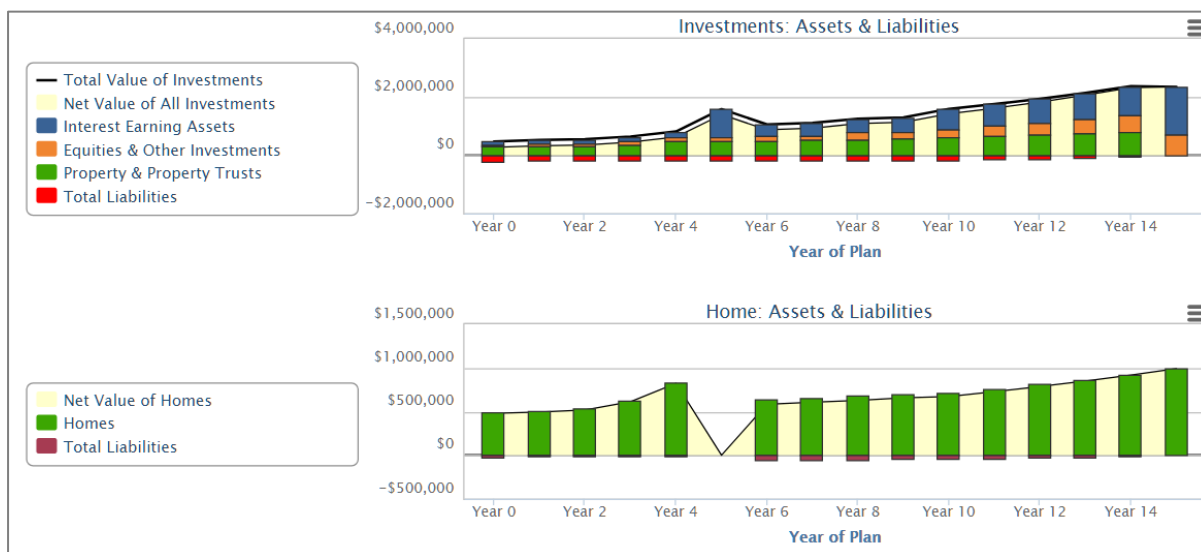
When you select one of these cycles, the first 10-years will use the actual rates for each year, and thereafter the average is used for the remainder of the plan.



This is an example of the Report **Use Economic Cycles**. The grey columns are the actual results of the plan. Note how at the end of the 10-years, the plan results are about half-way between the four cycles.



In Year 5, there appears to be an increase in the value of the investments. The reason is that the home was sold at the end of Year 5, and the funds from the sale are deposited into the **Transaction Account**. At the start of the following year, a new home was purchased with those funds. All values are calculated at the end of the year. This is a graph of the assets and home.



## Historical Data

When the option, Historical Data for Back Testing is selected, there are a number of options. Which can be selected. These are the default options.

### HISTORICAL DATA AND ECONOMIC CYCLES ?

Test your Plan using past Historical Data or  
Evaluate your Asset Allocation by use of Economic Cycles of Historical Data

[Go to Modelling Tools Overview](#)

☒ Historical Data for Back Testing ?  
☐ Economic Cycles for Asset Allocation ?

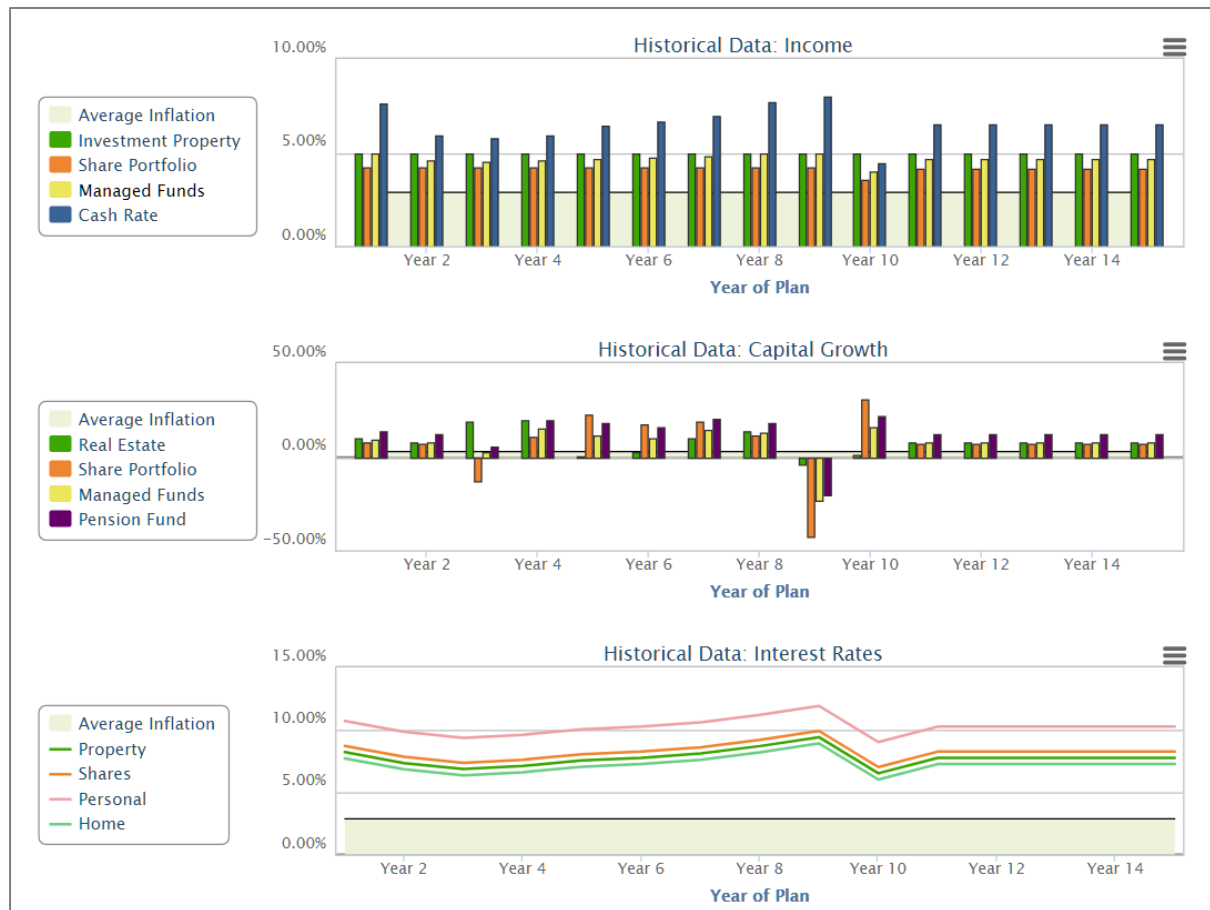
Selected Historical Data: Australian Historical Data ▾ [\[Edit\]](#) ?

Apply Historical Data From Year: 2000 ?

Apply Historical Data for: 10 Years ?

☐ Override Inflation Rate ? 2.50%

☐ Apply Historical Data as Average Values ?

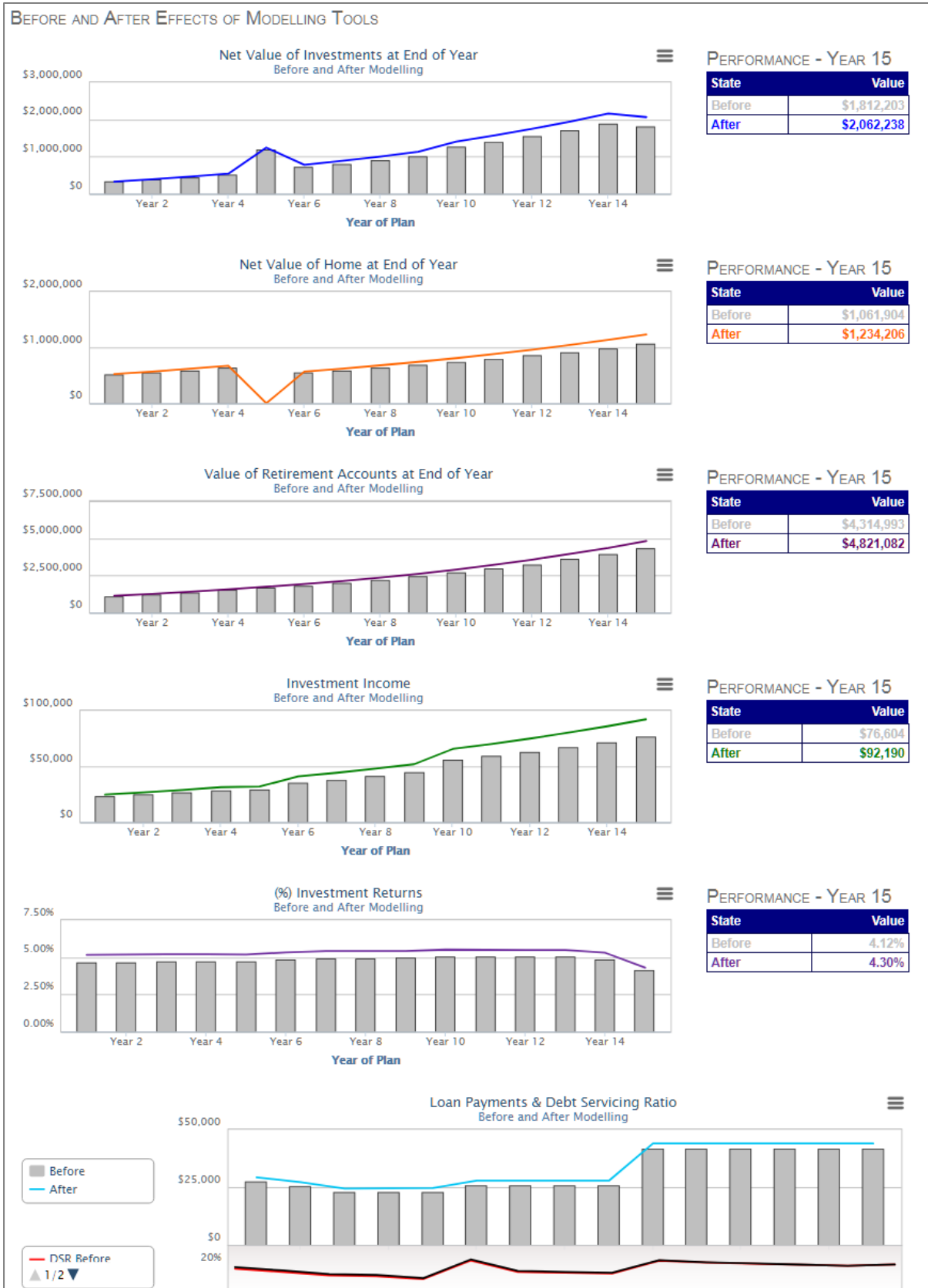


If the option to use Apply Historical Data as Average Values, the graphs would change to the following.



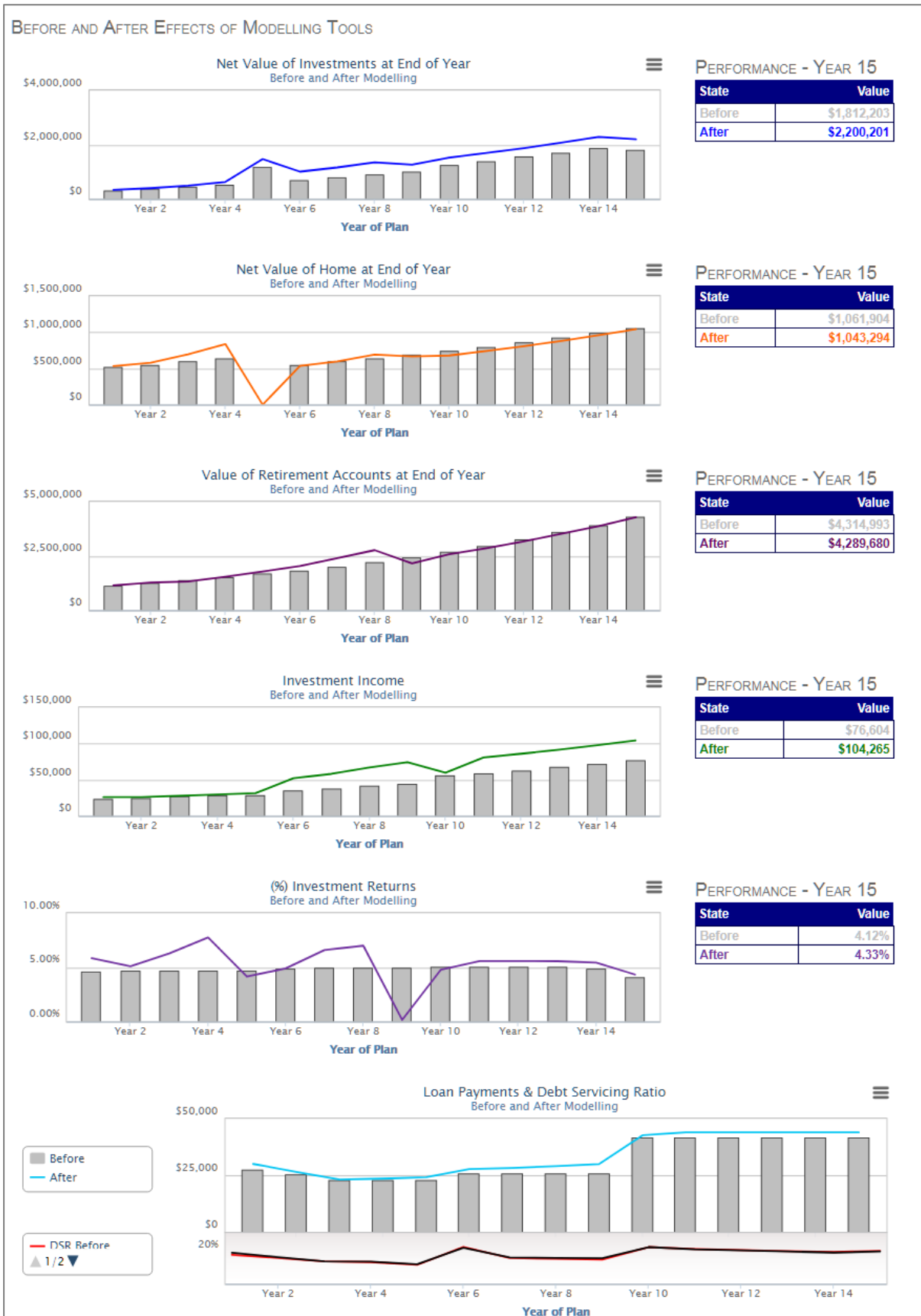
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The report generated has a set of eight graphs showing the before and after using average returns.



# Financial Mappers Pro Masterclass

The report generated has a set of eight graphs showing the before and after using actual returns for the first 10-years.



## Indicative Effects of Selected Historical Data

At the end of the page, three graphs display the indicative effects on the change in asset value, interest earned on interest-earning accounts and the monthly payments of a 20-year home loan. This is a good place to quickly demonstrate the effect of changing economic circumstances.



## Modulators

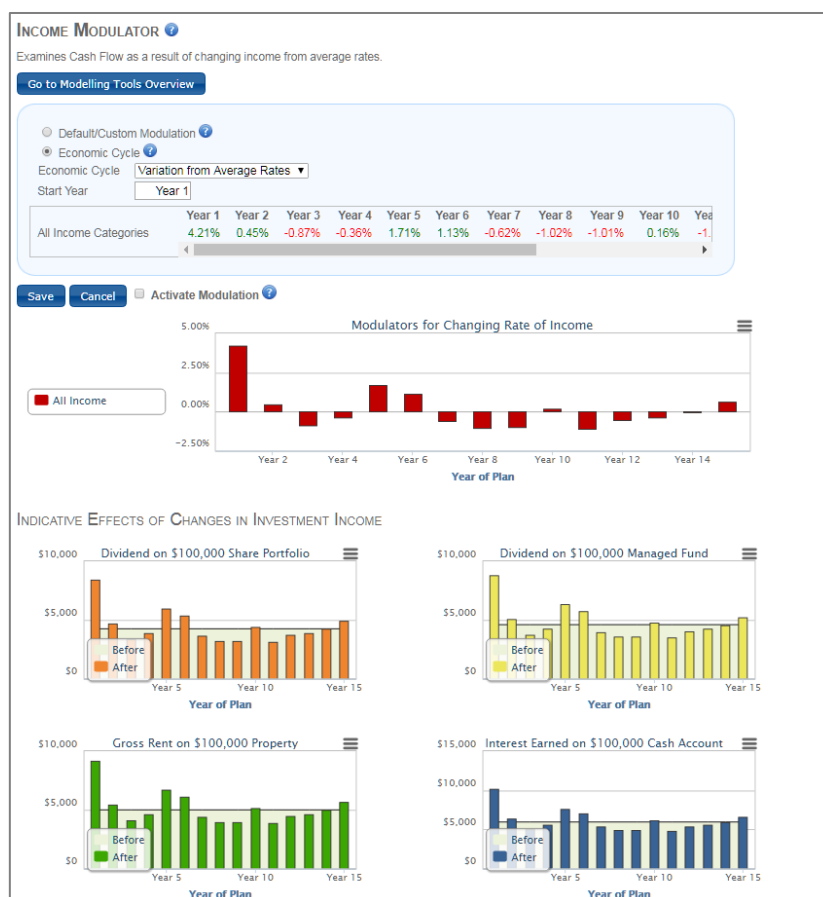
### Income Modulator

#### Economic Cycles

The program defaults to using **Economic Cycle**. The cycles are based on a change in the 90-Day Bank Bill Rate. Economic Cycles can be commenced in any nominated year. These are two cycles to choose from:

- **Variation from Average Rates:** Shows the yearly changes of returns from the average return of the same period.
- **Extreme reduction in Income:** Shows the variation of returns from the average of the previous time period. Given the current extremely low-interest rates, this cycle is probably not relevant at the current time.

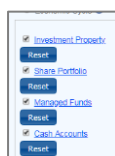
This is an example of the first option, together with the graphs for Indicative Effects of Changes in Investment Income.





## Default/Custom Modulation

The program defaults to a falling interest rate from Year 2 to Year 7, then rising back to the 0% change. These rates are applied to all investment types. Any of these may be deselected.



The user can customize the percentage change for any of the four asset types. The defaults can be **Reset**.

**Note on Rental Income:** The Gross Income is established in the first year of property ownership and thereafter increased at the rate of Inflation. Where the Income Modulator is activated, the Gross Rent for each year is changed by the nominated rise or fall in income.

## Loan Modulator

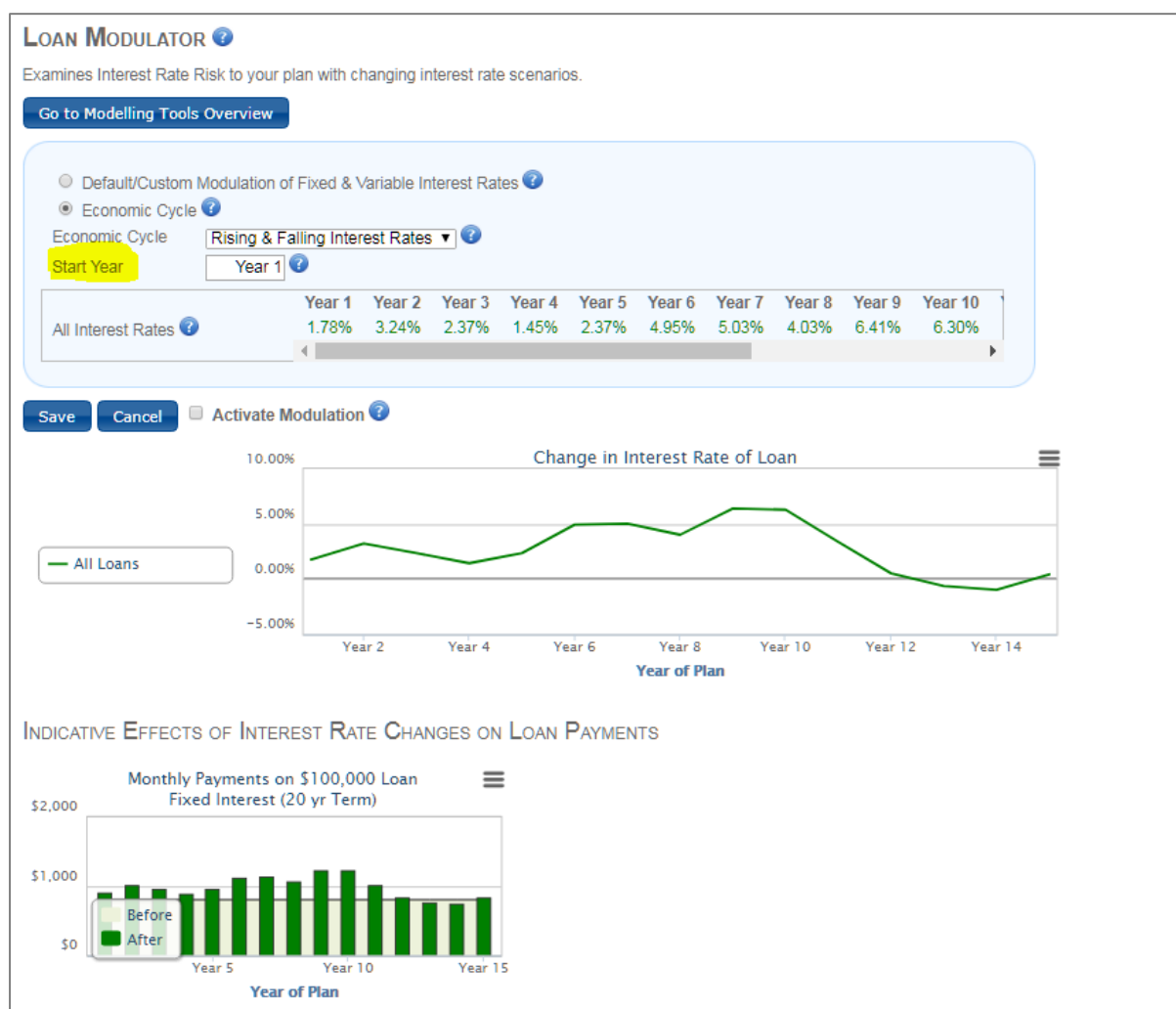
### Economic Cycle

The program has a selection of economic cycles.

- Rising and Falling Interest Rates (default)
- High Interest Rates
- Low Interest Rates

The interest rates are applied to all loans. That is loans with either variable or fixed interest in the nominated year.

Each cycle can commence in any year.

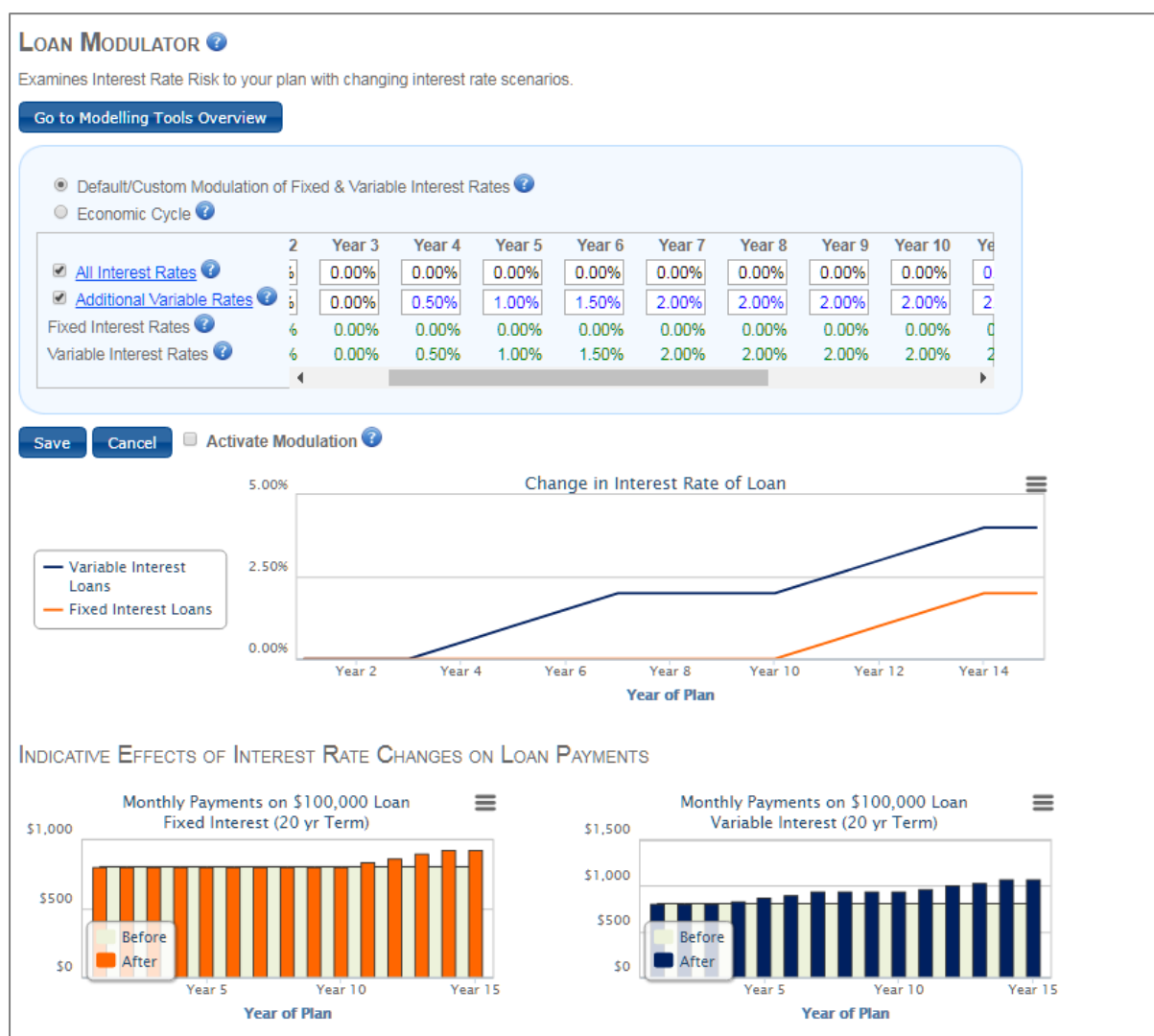


## Default/Custom Modulation of Fixed and Variable Interest Rates

There may be times when you want to demonstrate that in the future interest rates may be higher for all loans. When this option is selected, loans listed as Fixed Rate in that year will also rise.

In addition, loans with Variable Rates may have an additional change in rates. So the fixed rate is applied first and then any value for Variable Rates is added, but only applied to Variable Rates.

The program defaults to Variable Rates starting to rise in Year 4, and Fixed Rates in Year 11. The user may customize these changes.



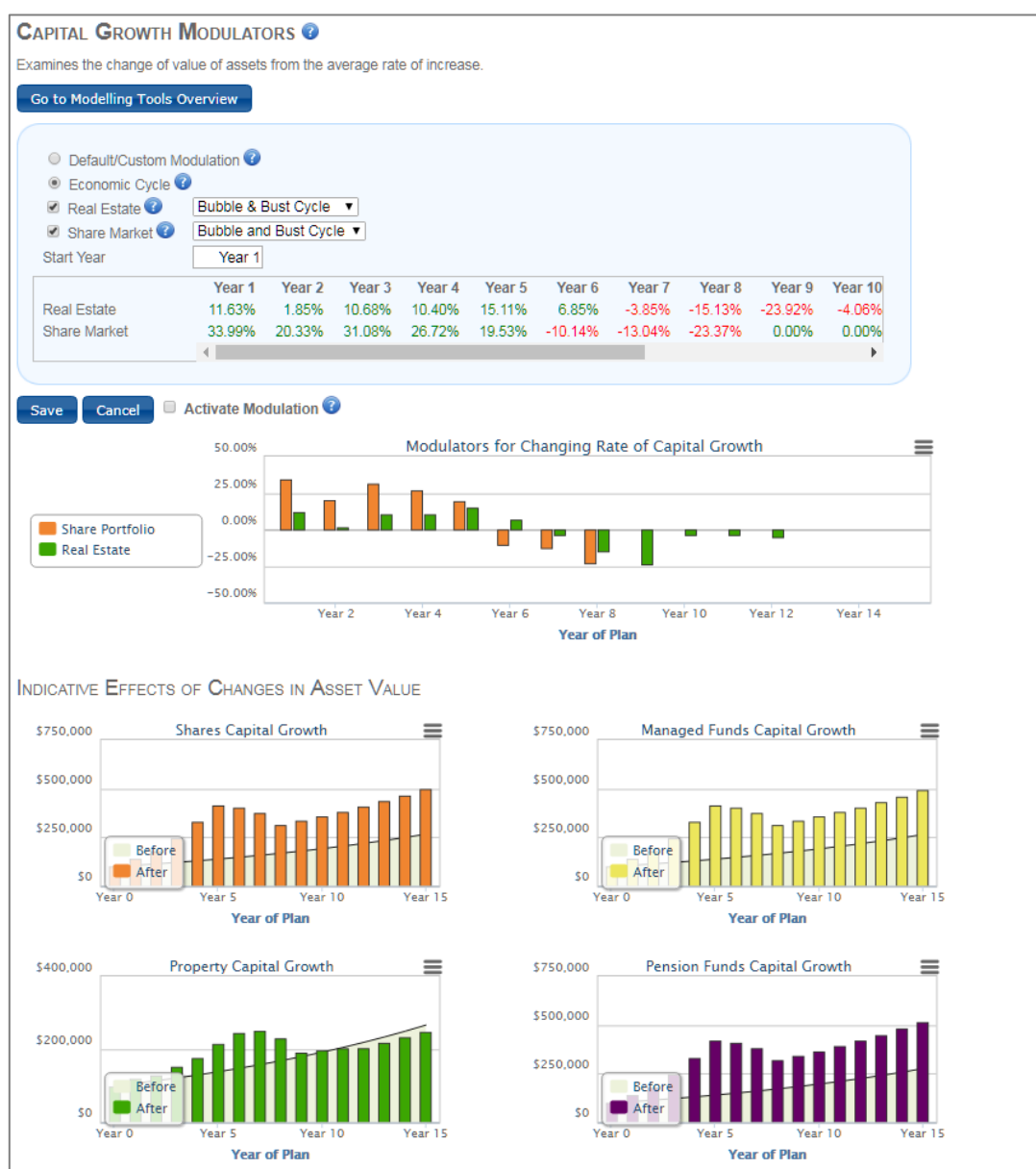
## Capital Growth Modulator

### Economic Cycles

There are separate economic cycles for *Real Estate* and the *Share Market*. Where Managed Funds are part of the investments, the cycle for the Share Market is used. The cycles for each asset class are:

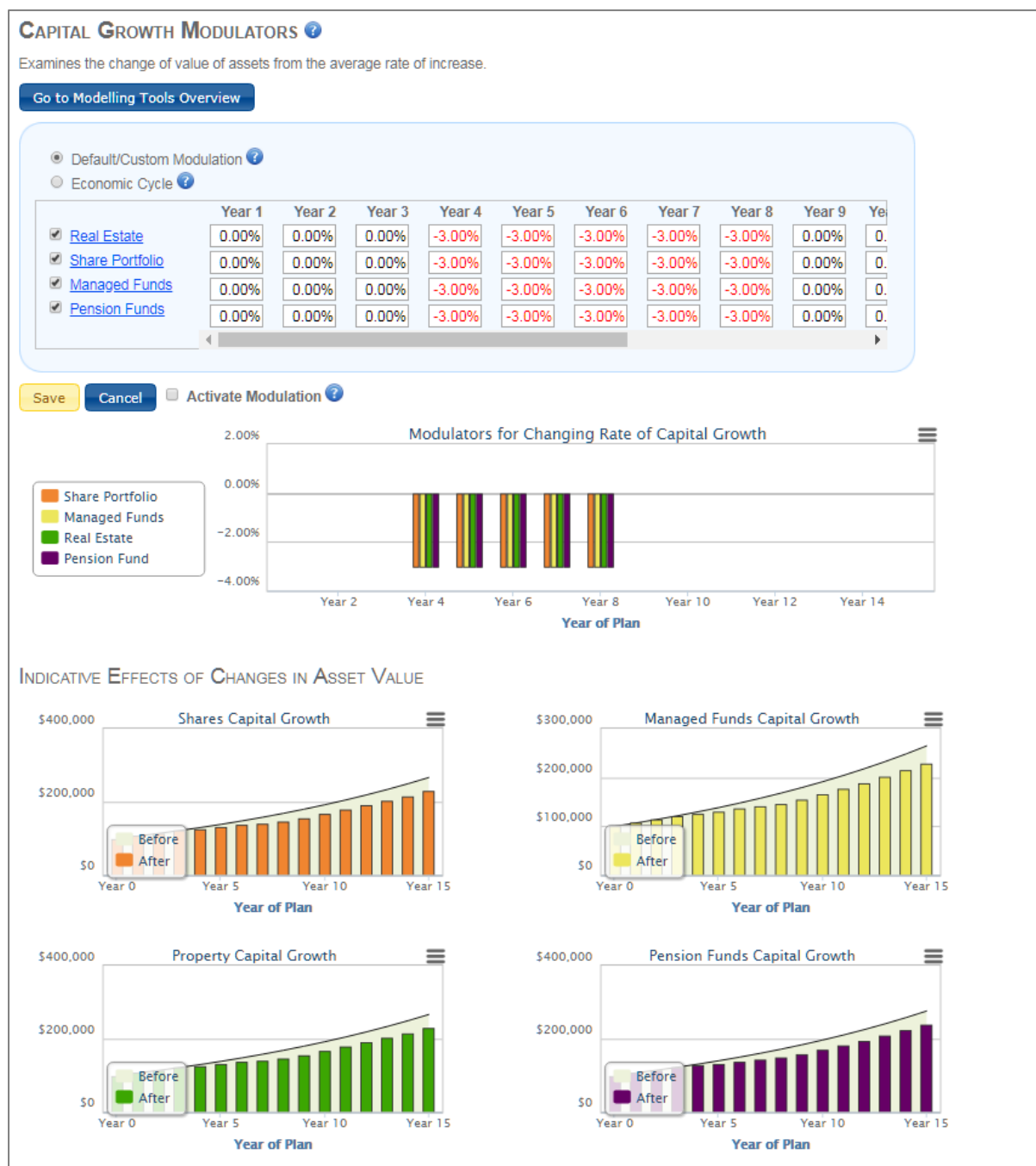
- Bubble and Bust (default)
- Rapidly Rising Prices
- Rapidly Falling Prices

The cycle can commence in any year.



## Default/Custom Modulation

The program defaults to a 15% fall in asset prices over a 5-year period, between Year 4 and Year 8. The changes can be customized and then reset to the default values. Any of the four asset categories, may be deactivated.



### Bonds

Interest Rates on Bonds are not changed when the Income Modulator is activated. However, it does allow the demonstration of a change in price value of a bond should bond rates change.

The program does not allow the **Early Redemption** of either **Term Deposits** or **Bonds**.

However, it is important that you can explain and demonstrate the change in **Bond Value** if the bonds are redeemed early.

- If interest rates RISE, the value of the Bond will FALL
- If interest rates FALL, the value of the bond will RISE

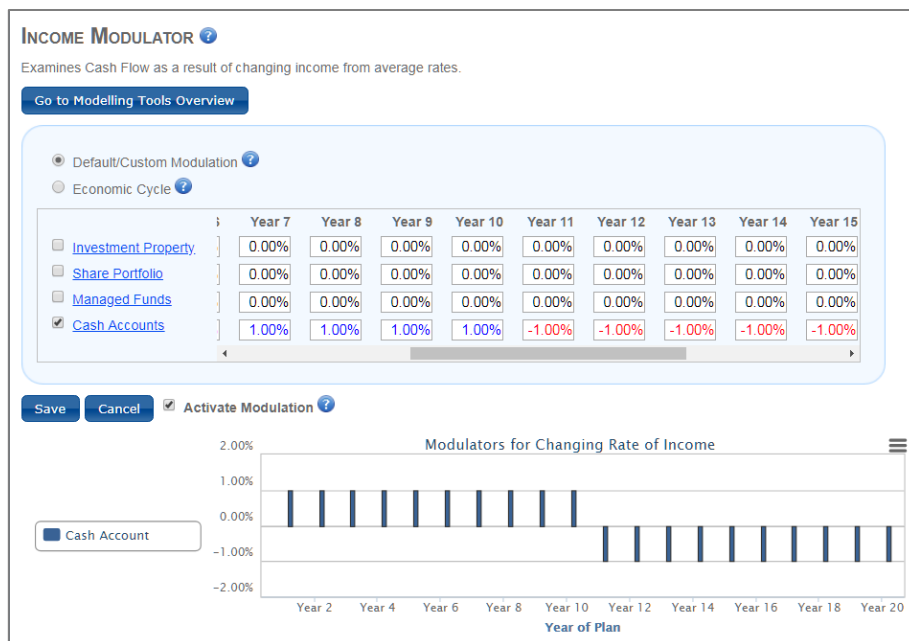
To accommodate this demonstration, the **Income Modulator** is activated, using both a higher and lower Interest Rates.

Unlike the **Term Deposit** account, **Interest Rates on Bonds** do not change when the Income Modulator is activated.

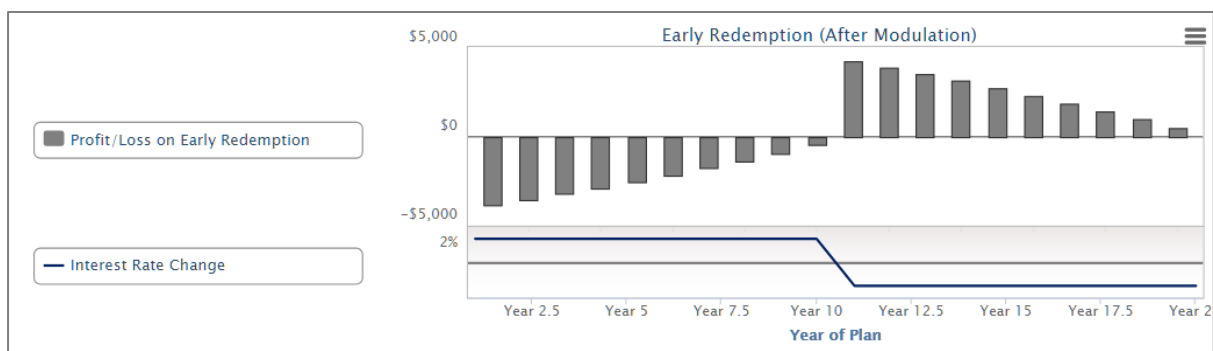
However, at the bottom of the Data View, **the Value of the Bond if it is Liquidated**. Is displayed, together with either the profit or loss.

On the **Income Modulator**, the Change in Interest Rate has been a **Rise of 1%** of for the first 10-years and a **Fall of 1%** for the last 10-years. A new bond is purchased in Year 1 and Year 11.

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The **Graph View** demonstrates the **Profit** (above the Y-axis) and the **Loss** (below the Y-axis) for each year the bond is held.



## Early Redemption Years 1 - 5 Savings Phase

Early Redemption ⓘ					
Value of Bonds if Liquidated	\$46,150	\$46,452	\$46,769	\$47,103	\$47,456
(+) Profit (-) Loss if Liquidated	-\$3,850	-\$3,548	-\$3,231	-\$2,897	-\$2,544
Interest Rate Change	1.00%	1.00%	1.00%	1.00%	1.00%

## Early Redemption Years 6 - 10 Savings Phase

Early Redemption ⓘ					
Value of Bonds if Liquidated	\$47,827	\$48,217	\$48,629	\$49,062	\$49,519
(+) Profit (-) Loss if Liquidated	-\$2,173	-\$1,783	-\$1,371	-\$938	-\$481
Interest Rate Change	1.00%	1.00%	1.00%	1.00%	1.00%

## Contact

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As the designer of Financial Mappers, Glenis is the most suitable person to answer all your questions about Financial Mappers.

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