

# FSC Standard No. 6



## Product Performance – Calculation of Returns

**June 2005**

**Main features of this Standard are:**

- **to specify the approach to calculating Product performance [for reporting fund manager composite performance, members should apply FSC Guidance Note No. 1 “Australian Investment Performance Standards” (AIPS)];**
- **to specify the principles to be adopted when calculating Total, Growth and Distribution Returns;**
- **to facilitate accurate comparisons amongst Products;**
- **to provide guidance in the interpretation and application of those principles; and**
- **to standardise the practices, procedures and terminology relating to the calculation of Total, Growth and Distribution Returns.**

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## 1 Title

1.1 This Standard may be cited as FSC Standard No. 6 “Product Performance - Calculation of Returns”.

## 2 Standards and Commentary

2.1 The Standards set out in this Standard are shown in bold print, commentary is shown in normal print immediately after a Standard, as an aid to the interpretation of the Standard.

## 3 Date of Issue

3.1 Originally issued 19 July 1999; updated 22 June 2001; updated 15 June 2005

## 4 Effective Date

4.1 This Standard should be applied in relation to the calculation of Product performance on or after 1 July 2006.

## 5 Application

5.1 This Standard should be applied by Scheme Operators (whether offered for public subscription or otherwise) when calculating and presenting returns for unlisted managed investments where Scheme Holder benefits are market linked. Note that this Standard applies to “Product”, not “fund manager”, performance.

## 6 Statement of Purpose

6.1 The purpose of this Standard is:

- to specify the approach to calculating Product performance [for reporting fund manager composite performance, members should apply FSC Guidance Note No. 1 “Australian Investment Performance Standards” (AIPS)];
- to specify the principles to be adopted when calculating Total, Growth and Distribution Returns;
- to facilitate accurate comparisons amongst Products;
- to provide guidance in the interpretation and application of those principles; and
- to standardise the practices, procedures and terminology relating to the calculation of Total, Growth and Distribution Returns.

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- 6.1.1 A Scheme Holder that wishes to compare the returns of a Product will require the Scheme Operator to produce returns that are calculated on a comparable basis to market indices. If all Scheme Operators calculate their returns on a comparable basis to market indices it will therefore also be possible to compare returns between Products (i.e. conduct peer to peer comparisons). It is noted that there are inherent differences between market indices returns and product performance returns.
- 6.1.2 Performance should be calculated at a Product level. A Product is a Scheme or a sub-set of a Scheme. For example, a class of units within a managed investment scheme, or an investment option made available by a superannuation fund, or a nil entry fee option, are all separate Products for purposes of this Standard. Return calculations should take into account any fees or costs incurred by a Scheme Holder when investing in the Scheme generally (and not just by reference to only those fees or costs incurred when investing in the Product).
- 6.1.3 The valuation of Product assets and Product pricing are key elements in the determination of Total, Growth and Distribution Return calculations. The principles and procedures to be adopted by Scheme Operators to ascertain the value of Product assets and to price those assets are described in FSC Standard No. 9 “Valuation of Scheme Assets and Liabilities” and FSC Standard No. 8 “Scheme Pricing”.
- 6.1.4 It is desirable that there should be an industry Standard for calculating Total, Growth and Distribution Returns that is, as much as practically possibly, consistent with the measurement of fund manager performance via composite pools (as per the Australian Investment Performance Standards).
- 6.1.5 Proper disclosure of the methodology used to calculate Total, Growth and Distribution Returns is appropriate to avoid inadvertently misleading Scheme Holders and other users of these returns.
- 6.1.6 This Standard may not cover every situation faced by members when calculating a Product’s Total, Growth and Distribution Returns. Where a situation is not covered, a member should have regard to the intent of this Standard as described in the Statement of Purpose.
- 6.2 The principles to be adopted in the calculation of Total, Growth and Distribution Returns in relation to a Product are:**
- **comparability;**
  - **use of standard industry terminology;**
  - **consistency;**
  - **being true-to-label; and**

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- **use of a transparent methodology.**

- 6.2.1 If returns are to be used to compare the investment performance of Products, then all returns must be calculated on a comparable basis.
- 6.2.2 The terminology used should be in keeping with its generally accepted use in financial markets. For example, “yield” is inappropriate terminology as it is a surrogate for price rather than a measure of return. “Distribution yield” is therefore an inappropriate term to use when communicating a Distribution Return. It is acknowledged that Scheme Operators may return some capital in the Distribution to make up for lower than expected accrued income and realised capital gains, while in other instances Scheme Operators may, intra financial year, retain some income, rather than distribute all income. As such, “Income Return” is also an inappropriate term to describe the return that may be produced by a part return of capital or alternatively where only part income was distributed. This Standard therefore requires Scheme Operators to use the term “Distribution Return” when reflecting the return derived from a Product’s cash flow (ie. Distributions).
- 6.2.3 Consistency should be sought with regard to return calculations. If the Standard is to be consistent with generally accepted practices, then returns for periods less than 1 year should not be annualised (except cash-based Products which may be annualised) . Two other points that support the non-annualisation of returns for periods less than 1 year is that to do otherwise would: 1) encourage the comparison of short term returns between low and high risk funds; and 2) as Distributions and Unit Prices vary considerably, unrealistic expectations are generated through the annualising of unusually high or low short term returns. Consistency between the retail and wholesale markets (as per the Australian Investment Performance Standards) is also desirable.
- 6.2.4 With regard to the Distribution Return calculation, a true-to-label methodology will concentrate on the Distributions without regard to their composition (ie. income, realised gains and return of capital) as this is the actual experience of Scheme Holders. For all Scheme Operators, including those that separate Scheme Holders’ income from their capital entitlements, any accrued but unpaid income should notionally be added to the Transaction Price and included in the Growth Return until the Distribution is actually paid, as this reflects the actual experience of continuing investors and enables peer to peer comparisons.
- 6.2.5 Transparency of calculation is required so that researchers, Scheme Holders and financial planners can reproduce the returns published by Scheme Operators. This makes it easier for interested parties to verify published returns and help foster a perception of integrity within the industry.
- 6.3 Where a Member is, in relation to a Scheme, able to vary the constitution of a Scheme without material additional cost to Scheme Holders or Scheme**

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**Operators, the Member should incorporate within the constitution all the changes necessary to ensure compliance with the requirements of this Standard.**

- 6.3.1 The movement within the managed investment and life insurance industry towards uniformity in the methodology used to calculate Total, Growth and Distribution Returns is accelerated where the constitution of a Scheme is brought in line with the requirements of this Standard.

### **7 Application of Materiality**

- 7.1 **This Standard should apply to the calculation of Total, Growth and Distribution Returns for a Product where such application is of material consequence. Failure by a Scheme Operator to adopt or implement a Standard is material if such failure has the potential to adversely affect the proper assessment of returns of the Product when comparing Month-End Product returns, after fees and taxes, with market indices and other investment alternatives (ie. peer group comparisons).**

- 7.1.1 When deciding whether an item is material, its nature and amount need to be evaluated together.

### **8 Definitions**

#### **8.1 In this Standard:**

- **'Cum-Distribution'** means that there is income included in the unit price.
- **'Distribution'** means the cash amount (in cents per unit) that is paid to continuing Scheme Holders after the end of a Distribution Period. *Note that this should be interpreted to include income, realised capital gain and any return of capital.*
- **'Distribution Period'** means the period within which Distributions (eg. interest payments & realised capital gains) accrue before a Distribution Payment at, or after, the end of the period. It is the Distribution paid to Scheme Holders who have been invested for the entire Distribution Period in the case of Products where income accrues from the date of investment.
- **'Distribution Return'** means the Total Return less the Growth Return. *This represents the contribution to Total Return made by the Product's Distributions, which may be of an income or capital nature.*
- **'Ex-Distribution Price'** means the last Cum-Distribution exit-price calculated at the end of a Distribution Period less the Distribution payment associated with that Distribution Period (i.e. the Ex-Price must not reflect market movements after the end of the Distribution Period).

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- 'Forward Price' means a Transaction Price that is applied by the Scheme Operator to transactions on a particular day, calculated using market valuations on the close of business on that day.
- 'Growth Return' means the percentage change in the Product's Performance Price adjusted for any capital re-organisation (e.g. an issue of bonus units). Note that prior to the distribution date the Performance Price may include a distribution component.
- 'Hard Valuations' means valuations that are based on actual final market prices and accounting values at a particular point in time.
- 'Hard Close Price' for a particular day means a price that was calculated based on Hard Valuations at the close of that day. *The Hard Close Price is normally struck one or more days after that day. A price for a multi-sector Product that includes estimated valuations for one of its constituent sectors (e.g. international shares) can not be said to be a true Hard Close Price.*
- 'Historic Price' means a Transaction Price that is applied by the Scheme Operator to transactions on a particular day, calculated using market valuations at the close of business of a previous day.
- 'Internal Rate of Return' means the discount rate that equates the sum of the present value of the cash flows received from an investment to the initial cost of that investment.
- 'Member' refers to a 'Full Member' as defined in FSC's Articles of Association.
- 'Month-End' means the last calendar day of the month.
- 'Net Asset Value Per Unit' as defined in FSC Guidance Note No 5 – Industry Terms and Definitions.
- 'Non-Reinvested Return' means the total return to a Scheme Holder that elected not to reinvest their Distributions back into the Product as calculated by the Internal Rate of Return.
- 'Non-Transaction Price' means a price which is not used to transaction with, for example, a hard close price which was previously used for performance reporting purposes.
- 'Performance Price' for a particular day means a Price used for calculating performance. *The Performance Price must be a Transaction Price after 1 July 2006; after 1 January 2010 it must also be a Hard Close Price.*

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- **'Product'** is a Scheme or a part of a Scheme (where different characteristics apply to distinct groups of Scheme Holders). *Each product is a unique offering comprising a pool of assets, from a number of Scheme Holders, which are invested with a common investment mandate, and share a common set of fees and conditions. Therefore each product will have its own unique performance. Nil entry and entry fees options will comprise separate Products. Individual investment options available within a Scheme will comprise separate Products and different classes within a Scheme will comprise separate Products.*
- **'Reinvested Return'** means Total Return.
- **'Reinvestment Price'** means the unit price at which Scheme Holders, that elected to automatically reinvest their Distributions, purchased additional units in the Product.
- **'Scheme'** means a superannuation entity within the meaning of the Superannuation Industry (Supervision) Act 1993, or a managed investment scheme within the meaning of the Corporations Act, or financial product (with an investment component) issued by a company regulated under the Life Insurance Act 1995.
- **'Scheme Holder'** means those persons, whether they be natural persons or not, in whose name an interest in a Scheme may be registered from time to time.
- **'Scheme Operator'** means the trustee, operator, issuer, responsible entity, trustee of a registerable superannuation entity, or life insurer (as the case may be) for the Scheme.
- **'Soft Valuations'** means valuations that are based on accurate estimates of market prices and accounting values at a particular point in time.
- **'Soft Close Price'** for a particular day means a price that was calculated based on Soft Valuations at the close of that day.
- **'Total Return'** means the percentage change in a continuing Scheme Holder's interest in a Product assuming the reinvestment of all Distributions (if applicable) back into the Product (and no other acquisition or disposal/withdrawal) and adjusting for any capital reorganisation (if applicable).
- **'Transaction Price'** for a particular day means the price at which Scheme Holders realise an entitlement in a Product, (i.e. exit price) which may include a distribution component and is used to process withdrawal transactions during the normal course of business on that day.



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**8.2 The use of industry terms should aim to conform to the definitions of terms as stated by FSC Guidance Note No. 5 “Industry Terms and Definitions”, and avoid the use of ambiguous terminology.**

### **9 Application of Return Calculations**

**9.1 The terminology used should be Total Return, Growth Return and Distribution Return for Products that distribute income.**

**9.2 Scheme Operators must use the Performance Price to calculate returns.**

**9.3 After 1 July 2006, the Performance Price must be a Transaction Price**

9.3.1 This 1 July 2006 requirement is an arbitrary date. Scheme Operators are encouraged to use a Transaction Price as their Performance Price before this date. However, prior to 1 July 2006 a price that has not been used to process transactions may be used.

**9.4 From 1 January 2010, the Performance Price must be a Hard Close Price.**

9.4.1 This 1 January 2010 requirement is an arbitrary date. Scheme Operators are encouraged to use a Hard Close Price as their Performance Price before this date. However, prior to 1 January 2010 a Soft Close Price may be used. Use of a Hard Close Price will be most difficult to achieve for Products that invest in particular markets (e.g. international equities) or in other Products (e.g. unit trusts) where there are delays in obtaining market valuations, and where currently estimated valuations are used.

9.4.2 Soft Valuations are not the same as “out-of-date” or “last available” valuations. Soft Valuations at a particular point of time must be based on reasonable estimates of market prices and accounting values as at that time. Adjusting “out-of-date” or “last available” valuations via an index so as to represent a reasonable estimate of market prices and accounting values at a particular point of time is permissible to achieve Soft Valuations. Soft Close Prices must allow for movements in security prices and markets since the time to which the “out-of-date” or “last available” valuations relates.

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9.4.3 The following table summarises the permissible composition of the Performance Price over time:

Performance Price Permissible Composition:

	Prior to 1 July 06	Between 1 July 06 and 1 January 2010	After 1 January 2010
Transaction Price	Yes (desirable)	Yes	Yes (assuming this is a hard Close Price)
Non-Transaction Price	Yes	No	No
Hard Close Price	Yes (desirable)	Yes (desirable)	Yes
Soft Close Price	Yes	Yes	No

Transaction prices between 1 July 2006 to 1 January 2010 can be either a hard or a soft close price.

9.4.4 Scheme Operators are not required to retrospectively reconstruct their returns so as to comply with this Standard. However, Scheme Operators are strongly encouraged to do so, preferably with a 5-year performance record (or a record for the period since fund inception if inception is less than 5 years).

**9.5 When using a Transaction Price as the Performance Price, the requirement is to use the Transaction Price that reflects the relevant close of market to which performance pertains; this will enable better comparison against market index movements and peer group returns.**

9.5.1 If the Transaction Price is a Forward Price, then the last day of the month Transaction Price would be used for calculating monthly performance; if the Transaction Price is an Historic Price, then the first or second day of the following month Transaction Price could be used for calculating monthly performance.

**9.6 Total Returns should be calculated assuming the reinvestment of all Distributions.**

**9.7 Distributions should be assumed to be reinvested back into the Product at the actual Reinvestment Price paid by Scheme Operators that elected to automatically reinvest their Distributions, with effect on the last day of the distribution period.**

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- 9.7.1 Whilst Scheme Operators are not required to use the Net Asset Value Per Unit effective on the last day of the distribution period as the Reinvestment Price, Scheme Holders are strongly encouraged to do so.
- 9.7.2 If Scheme Holders' capital and income entitlements are separated, the intra-distribution period income entitlement should be added to the Transaction Price when calculating Total Return.
- 9.7.3 Where an Ex-Price and/or Reinvestment Price are not yet available, Scheme Operators may use estimates to calculate returns. Whenever estimates are used, this fact must be clearly disclosed and under no circumstances should estimated returns be used in promotional material.
- 9.7.4 Where a Distribution is not yet available Scheme Operators should use the difference between the Cum-Distribution Transaction Price and Ex-Distribution Price as an estimate of the distribution to calculate returns.
- 9.7.5 Scheme Operators are encouraged to have Distributions, Ex-Prices and Reinvestment Prices finalised within eight business days so as to enable the communication of performance in a timely manner.
- 9.8 The Total Return should be calculated by constructing a Total Value Index series or equivalent data. The Index reflects the percentage change in the value of continuing Scheme Holders' investments assuming the reinvestment of all Distributions (also allowing for any capital reorganisation). For example, the annualised Total Return for “#” years is as follows:**

$$Total\_Return_{@EndOfPeriod} = \left[ \left( \frac{Total\_Value\_Series_{@EndOfPeriod}}{Total\_Value\_Series_{@StartOfPeriod}} \right)^{(1/\#yrs)} - 1 \right] * 100$$

- 9.9 Total Returns should reflect the maximum ongoing fees on a \$10,000 investment into a retail fund, or the minimum application amount if higher, and a \$100,000 investment into wholesale. This is regardless of whether this occurs at the Product or Scheme Holder level. This applies retrospectively.**
- 9.9.1 A driver of this Section is the desire to head towards a level playing field by ensuring that all investment reporting is calculated on a comparable basis. The NET (after all fees) returns to Scheme Holders is what this Standard wishes to highlight so that Scheme Holders are better able to compare managed investment alternatives.

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- 9.9.2 The performance history for the Product must be reconstructed so as to comply with this section if the previous methodology does not reflect the intent of this section of the Standard.
- 9.9.3 This should not be interpreted to include nominal charges provided the exclusion of those charges does not lead to a material difference in the calculation of Product returns. Where nominal charges have been excluded, details of this exclusion should be disclosed.
- 9.9.4 If all fees are reflected in the unit price no adjustments to returns based on Performance Prices is required.
- 9.9.5 If however there are ongoing fees that occur at the Scheme Holder level (ie. not reflected in the Performance Price) then returns based on Performance Prices need to be adjusted to reflect the maximum ongoing fees applied to Scheme Holders' accounts. The adjustment should reflect the timing of the fees and whether or not fees are charged on investment earnings during the period. For example, if the one month Total Return based solely on the change in the Performance Price was 1%, and there was an ongoing fee of 1.2% p.a. (eg. 0.1% applied monthly), the 1% Total Return should be reduced by 0.1% to 0.9%.
- 9.9.6 Fees for insured benefits, etc may be excluded.
- 9.9.7 Some Products have higher ongoing fees for a finite period (eg. 1% p.a. for the first three years only) "as an alternative to the payment of an upfront entry fee (eg. 3%) ". This type of deferred loading may be excluded from the performance calculations.
- 9.10 Growth Return equals the percentage change in the Product's Performance Price, adjusted for any capital re-organisation (eg. bonus/rights units).**

- 9.10.1 If there was no capital re-organisation then the Growth Return is the Performance Price at the end of the period divided by the Performance Price at the start of the period, minus 1, multiplied by 100. For example the annualised Growth Return of "#" years is as follows:

$$Growth\_Return_{@EndOfPeriod} = \left[ \left( \frac{Price_{@EndOfPeriod}}{Price_{@StartOfPeriod}} \right)^{(1/\#yrs)} - 1 \right] * 100$$

- 9.10.2 If the start/end date that the Performance Price is struck coincides with the last day of a Distribution Period and the Performance Price is Cum-Distribution then the Ex-Price (ie. not Cum-Distribution Performance Price) must be used to ensure

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comparability with market indices and peers. This also improves comparability with regard to the Distribution Return and Scheme Holder's income tax returns.

### **9.11 Growth Returns should reflect the maximum ongoing fees (as outlined in Section 9.9). This applies retrospectively.**

9.11.1 See Sections 9.9.1 through to Section 9.9.4 inclusive.

9.11.2 If however there are ongoing fees that occur at the Scheme Holder level (ie. not reflected in the Performance Price) then returns based on Performance Prices need to be adjusted to reflect the maximum ongoing fees applied to Scheme Holders' accounts. For example, if the one month Growth Return based solely on the change in the Performance Price was 0.5%, and there was ongoing fees of 1.2% p.a. (applied monthly), the 0.5% Growth Return should be reduced by 0.1% to 0.4%.

9.11.3 If there was no Distribution paid during the period then the Growth Return will be the same as the Total Return. Those Products that separate Scheme Holders' income from their capital entitlements must add the income that is accrued outside the unit price to the Performance Price so that their Growth Return is calculated on a comparable basis to those Products that do not separate Scheme Holders' income from their capital entitlements.

9.11.4 If a Distribution was paid during the period then the Growth Return will equal the change in the Performance Price. Those Products that separate Scheme Holders' income from their capital entitlements must add the income that is accrued outside the unit price to the Performance Price so that their Growth Return is calculated on a comparable basis to those Products that do not separate Scheme Holders' income from their capital entitlements.

### **9.12 Distribution Return = Total Return - Growth Return.**

9.12.1 For example a Total Return of 12% and a Growth Return of 8% results in a Distribution Return of 4%.

### **9.13 Scheme Operators should only quote or allow to be quoted Month-End Returns in prospectuses, brochures, advertisements and any other form of promotional material or locations where performance is displayed.**

9.13.1 While this Standard applies to Month-End performance only, a return calculated from inception may commence on a date other than month-end. Scheme Operators are strongly encouraged to apply this Standard to all performance calculations.

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**9.14 Returns for periods less than 1 year must not be annualised (except for Products with investments that are restricted to cash and/or mortgages, which may be annualised).**

9.14.1 Recall the algorithms used to calculate annualised and non-annualised returns are as follows:

$$\text{Annualised\_Return}_{@EndOfPeriod} = \left[ \left( \text{Index}_{@EndOfPeriod} / \text{Index}_{@StartOfPeriod} \right)^{(1/\#yrs)} - 1 \right] * 100$$

$$\text{Non\_Annualised\_Return}_{@EndOfPeriod} = \left[ \left( \text{Index}_{@EndOfPeriod} / \text{Index}_{@StartOfPeriod} \right) - 1 \right] * 100$$

**9.15 This Standard does not require Scheme Operators to calculate separate returns for non-reinvesting Scheme Holders. If a Scheme Operator wishes to calculate the total return for non-reinvesting Scheme Holders they should use an Internal Rate of Return based on Performance Prices.**

9.15.1 For holding periods of 12 months or more, the Internal Rate of Return (IRR) algorithm is as follows:

$$0 = \sum_{i=1}^N \frac{P_i}{(1+r)^{\frac{d_i - d_1}{365 \text{ days}}}}$$

Where,

N = number of payments

P<sub>i</sub> = the i<sup>th</sup> cash flow

r = Internal Rate of Return (ie. the Non-Reinvested Return)

d<sub>i</sub> = the date of the i<sup>th</sup> cash flow (eg. Distributions &/or Sale of Investment)

d<sub>1</sub> = the date of the initial investment

For example, assume a Scheme Holder has \$1,000 invested on 31 Dec '94 and received four quarterly Distribution Payments of \$10; one each on the 31 Mar, 30 Jun, 30 Sep and 31 Dec; the investment was worth \$1,050 on 31 Dec '95. The IRR is:

$$0 = -\$1000 + \frac{\$10}{(1+r)^{\frac{90 \text{ days}}{365 \text{ days}}}} + \frac{\$10}{(1+r)^{\frac{181 \text{ days}}{365 \text{ days}}}} + \frac{\$10}{(1+r)^{\frac{273 \text{ days}}{365 \text{ days}}}} + \frac{\$10}{(1+r)^{\frac{365 \text{ days}}{365 \text{ days}}}} + \frac{\$1050}{(1+r)^{\frac{365 \text{ days}}{365 \text{ days}}}}$$

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$$r = 0.091354 \quad \text{say } 9.1\% \text{ p.a.}$$

9.15.2 For periods less than 12months, the IRR algorithm below produces a non-annualised return:

$$0 = \left( 1 + \sum_{i=1}^N \frac{P_i}{(1+r)^{\frac{d_i-d_1}{365 \text{ days}}}} \right)^{\frac{d_j-d_1}{365 \text{ days}}} - 1$$

For example, assume a Scheme Holder invested \$1,000 on 31 Dec '94 and received two quarterly Distribution Payments of \$10; one each on the 31 March '95 and 30 June '95; and was able to realise the investment for \$1,050 on 30 June '95. The IRR is:

$$0 = \left( 1 + \left( -\$1000 + \left( \frac{\$10}{(1+r)^{\frac{90 \text{ days}}{365 \text{ days}}}} \right) + \left( \frac{\$10}{(1+r)^{\frac{181 \text{ days}}{365 \text{ days}}}} \right) + \left( \frac{\$1050}{(1+r)^{\frac{181 \text{ days}}{365 \text{ days}}}} \right) \right) \right)^{\frac{181 \text{ days}}{365 \text{ days}}} - 1$$

$$r = 0.070348 \quad \text{say } 7.0\%$$

9.15.3 The algorithms used to calculate Growth and Distribution Returns for non-reinvesting Scheme Holders are the same as those defined earlier for reinvesting Scheme Holders.