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THE DISTORTION OF EXPENSE RATIOS IN AUSTRALIAN INVESTMENT FUNDS

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ABSTRACT

Expense ratios are an important impersonal data source and one of the major factors influencing the purchase decision for an investor in an investment fund. Growth in Australian sourced investment funds has now eclipsed $1 trillion, with predictions that the whole market will compound by 12 percent per annum until 2014 (Rainmaker, 2004).

In this paper we catalogue the various type of relative fee disclosure used in Australian investment funds, and highlight some deficiencies in principle methodology used for fee disclosure, the management expense ratio (MER).

Due to inconsistencies in the way the MER is calculated between investment funds, we identify a distortion in fee disclosure that is present when the fund experiences positive growth in funds under management (FUM). Depending on the method used to calculate the MER, this distortion may have the effect of understating fees, and therefore misrepresenting the cost of investing in a particular fund.

We model the impact of our findings by using our Growth Distortion Model to simulate MER fee disclosures at various rates of growth in FUM across the industry. We also suggest a new framework for relative fee disclosure, the Performance Cost Ratio and identify areas of future research in this field.

Keywords: financial disclosure, investment fund, investment performance, management expense ratio
SECTION 1. TRENDS IN AUSTRALIAN SOURCED FUM

Australian investment funds comprise a huge range of financial products, including managed investment schemes, superannuation funds and allocated pensions, retirement savings accounts (RSA), investment life insurance products and deposit products. Australia has more investment funds than listed equities, and hundreds of new investment funds are being developed every year. The Australian Financial Review database lists 2,637 Australian sourced investment funds\(^1\) that have some asset exposure to Australian equities. In contrast, there are 1,679 companies listed on the Australian Stock Exchange\(^2\) (Sykes, 2005).

In 2005, Rainmaker (2004) predicts the total value of Australian sourced investment funds will, for the first time, exceed AUD$1 trillion ($1,000,000,000,000). This phenomenal achievement has been fuelled in part by compulsory superannuation and an insatiable appetite among Australian investors for indirect equity investments (i.e. managed funds as opposed to direct share investments).

A major trend in recent years has been the growth in Australian sourced funds under management mandated to *boutique* and *specialist* investment managers, and the market share contraction of *comprehensive* investments managers. Together these three management types comprise the entire Australian investment management market.

In June 1996, comprehensive investment managers accounted for approximately 95 per cent of FUM. In June 2004, they accounted for 68 per cent of FUM and, by 2014, they are projected to account for only 47 per cent of Australian sourced FUM.

Rainmaker (2004) forecast total Australian sourced funds under management to grow over the next 10 years, from $928 billion in 2004 to just under $3 trillion by 2014.

\(^1\) This database does not include licensed investment companies (LICs), hedge funds or private equity funds.

\(^2\) After eliminating the double counting of stapled securities.
This represents a CAGR (compound annual growth rate) of 12 per cent, driven three-quarters by investment performance and one-quarter by net inflows.

Over this period, FUM mandated to comprehensive investment managers are forecast to grow by only 8 per cent CAGR, while specialist managers will grow FUM by 13 per cent CAGR, and boutique managers will grow FUM by 32 per cent CAGR (see Table 1, below).

<table>
<thead>
<tr>
<th>Manager type</th>
<th>2004 actual</th>
<th>2014 projection</th>
<th>CAGR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FUM ($ billion)</td>
<td>Market share</td>
<td>FUM ($ billion)</td>
</tr>
<tr>
<td>Comprehensive</td>
<td>629</td>
<td>68%</td>
<td>1,395</td>
</tr>
<tr>
<td>Specialist</td>
<td>250</td>
<td>27%</td>
<td>843</td>
</tr>
<tr>
<td>Boutique</td>
<td>49</td>
<td>5%</td>
<td>759</td>
</tr>
<tr>
<td>Total market</td>
<td>928</td>
<td>100%</td>
<td>2,997</td>
</tr>
</tbody>
</table>

Table 1 – Manager type FUM projections, market share and growth rates 2004 to 2014
(Source: Rainmaker Roundup, September 2004, p.5)

It is estimated that over the next 10 years, investment inflows directed to the specialist and boutique sectors will exceed 170 per cent of the dollar amounts directed to the comprehensive sector over the same period. With such a high proportion of investment inflows targeted to the smaller specialist and boutique managers, a sector of the market that is not well covered by the rating agencies, investors will be increasingly more reliant on fee disclosure by these funds to guide them in their investment decisions.

Historically, the quality of fee disclosures has been poor regarding investment funds as a result of the myriad ways fees have been calculated and reported. The metrics used over time to report fee disclosures have suffered from high novelty rates and low survivability rates (Carlin & Finch, 2005).

However, the quality of fee disclosures is gradually being improved, with a number of attempts by investment industry groups and regulators to standardise the ways in
which fees are calculated and reported. In particular, the Investment & Financial Services Association (IFSA) has released guidelines for its members regarding the disclosure of ongoing fees (IFSA, 2004). While this initiative should be applauded, IFSA comprises only 82 investment managers among its members, and these are predominantly the larger of the comprehensive investment managers. This means that the fastest growing sector, the specialist and boutique managers, have yet to standardise their fee disclosures and methods for management expense ratio (MER) calculation.

During 2005, the Australian Securities and Investments Commission (ASIC) introduced several reforms that will affect the investment fund industry. These reforms are aimed at standardising fee classifications by using common definitions. This may improve disclosure on the types of fees levied by all investment funds, but it is unlikely to improve any inconsistencies in the methods underpinning MER calculation used by each investment fund, especially the specialist and boutique funds. The inconsistencies between investment funds in fee disclosure and issues affecting the reliability of MER calculations will be the focus this paper.

Australia has long suffered from complexities in fee disclosure (Sinclair, 1999, p.11), as a result of variations in fee structures, inconsistencies in fee nomenclature and variations in methods of fee calculation. This has resulted in convoluted disclosure practices across investment funds and jeopardises the value that fee disclosure offers investors in making informed decisions about fund selection. As a result, the major implication of Australian regulators and industry bodies concerns the disclosure of fees and charges by providers of financial services (Sinclair, 1999, p. 17)

In Section 2, we will introduce the common expense ratios and identify issues in the calculation of expense ratios that make them an unreliable tool for investment decision-making.
SECTION 2. ISSUES IN THE CALCULATION OF EXPENSE RATIOS

An expense ratio is a disclosure of a fund’s operating expenses, expressed as a percentage of its assets. From the perspective of an investor, it is desirable to invest in funds with lower expense ratios, as these funds will be able to distribute a higher proportion of earnings back to the investors when compared with a similar performing fund that has a higher expense ratio. In line with the market efficiency notion, evidence suggests an inverse relationship exists between fees and investment returns (Jensen, 1968; Elton et al, 1993; Malkiel, 1995; Carhart, 1997; Drew, et al, 2002). Simply, investment returns decline with higher expenses, so investors are mindful not to select investments with overly high ongoing fees.

Up-front fees (also called front-end load fees, establishment fees and contribution fees) are fees that may be payable upon initial investment in an investment fund. These fees are not considered part of the ongoing fee structure of the investment fund, and tend to be excluded in the calculation of many expense ratios. Empirical studies show a significant negative relation between fund flows and fees, providing evidence that investors are sensitive to fees (in particular, up-front fees) and investors base their investment decisions largely on the amount of fees payable (Barber et al. 2003; Sirri & Tufano, 1998).

With investors sensitive to the level of fees they pay to a manager for managing their investments, disclosure on the MER (and any other fees payable, such as up-front fees) helps to inform investors of the cost of the investment given the range of investment options. The MER lies at the heart of fund manager evaluation and is the central criterion for investors when making fund selections (Drew, 2003, p.35).

Expense ratios are widely used by investors and their advisers, and are a key criterion in the selection of investment funds (Finch, 2005). There are three common types of expense ratios: the management expense ratio; the ongoing management charge; and the total expense ratio.
In this section, we will explore the three common types of expense ratios and identify issues that affect the reliability and utility of expense ratios as a means of comparing expenses across different investment funds.

**Management Expense Ratio (MER)**

The *management expense ratio* (MER) is intended to provide a measure of ongoing costs and expenses. It is an attempt to measure the *additional* ongoing costs arising from investing in an investment fund. Consequently, the MER excludes a number of significant fees, in particular: entry and exit fees (as these are not ongoing costs); government taxes and charges, unless a direct investor would not have paid these; transaction costs, such as brokerage and stamp duty, as these would be incurred by a direct investor; and operating costs and expenses that would be incurred by a direct investor in the case of property investments, repair, maintenance and refurbishment costs (Ramsay, 2002, p. 202).

Many funds, especially the specialist and boutique managers, may also exclude performance fees from the calculation of MER as these fees are contingent upon exceeding a performance benchmark, and are not deemed an ordinary operating expense.

As the MER is selective in its classification of management expenses, only a fraction of all the expenses will be included in the calculation (Finch, 2005). This means that the MER will always understate the actual fees payable by the consumer. For multi-optioned retail products, where a wide range of fees is payable depending on the investment option, the MER will reflect only investment management costs, which might be only one-quarter of the total costs paid by a consumer (PJCCFS, 2002, p. 52).

This subjectivity regarding fee identification and inclusion creates significant integrity issues for the MER, in that the definition of what is deemed a relevant fee is at the discretion of each investment fund and, as such, there is significant variation in what the ratio represents and how it is calculated (Ramsay, 2002, p. 5).
However, this substantial deficiency regarding fee disclosure has not stopped the popularity of this ratio. The MER has been in use in Australia for more than 15 years, and similar operating expense ratios are used in other countries such as Canada, New Zealand and the United States. Despite its persistence and popularity as a key ratio for investment funds, there continues to be a great deal of variety in the way in which fees are selected for inclusion in the ratio, and how the MER is calculated.

The MER can be calculated using a formula similar to Equation 1, below:

\[
\text{MER} = \frac{\text{ME}}{\text{FUM}}
\]  

(1)

and is expressed as a percentage, where:

“FUM” is the net value of the funds under management

“ME” is the amount of relevant management expenses charged for the year

There are many alternatives that are used to calculate MER, all of which will result in a different value. Apart from the plethora of alternatives for calculating ME (management expense) there are also alternative measures of FUM (funds under management). These alternatives include:

**Method A – Average net asset value:** the fund’s average value during the year, determined by mean average of net asset valuations made during the year

**Method B – Net asset value:** the fund’s net asset value at the end of the period

There is also the opportunity for a geared fund to use the *gross* asset values to calculate its MER. For example, if investors have contributed $10 million to a fund
that maintains a gearing ratio of 50 per cent, then the gross assets of the fund would be $20 million. Electing to use the gross asset value as the denominator in the MER equation would have a substantial and diminutive effect on the disclosed MER.

In 1999, the Investment and Financial Services Association (IFSA), introduced the first version of its IFSA Standard No. 4.00, which specifies the principles to be adopted by its members when calculating the ongoing fee measure (OGFM), a variation of the MER. The OGFM technique for calculating the expense ratio relies on the average net asset value of the fund as described in Method A, above.

The IFSA Standard uses the following two-step calculation to determine the total ongoing fees as a percentage of assets:

**Step 1**

\[ E(\%) = \text{investment management fee (\%)} + \text{administration fee (\%)} + \text{performance fee (\%)} \]

*Where:*

\[ E(\%) = \text{the Expense Fee (\%)} \]

**Step 2**

\[ \text{Fee (\%)} = E(\%) + \left( \frac{\text{OE} + \text{RE} - \text{ITC}}{\text{AV}} \right) \times 100 \]

*Where:*

\[ \text{AV} = \text{Average Scheme Size} \]
\[ E(\%) = \text{the Expense Fee (\%)} \]
\[ \text{Fee(\%)} = \text{Total fees as percentage of assets} \]
\[ \text{ITC} = \text{Input Tax Credits} \]
\[ \text{OE} = \text{Other Expenses} \]
\[ \text{RE} = \text{Recovered Expenses} \]

Step 1 of the model (Equation 2) includes the *direct* costs as a percentage fee. Step 2 (Equation 3) of the model converts the *indirect* dollar costs to a percentage by
dividing by the average FUM – this second calculation is commonly referred to as the *indirect cost ratio*.

In calculating the average scheme size (AV), above, IFSA uses an *average asset value* approach and, where the fund is geared, the fund can elect to calculate the MER on either a gross or net value. However, increasing the denominator by using the gross value of assets will have the effect of reducing the indirect cost ratio and understating the OGFM expense ratio.

**Ongoing Management Charge (OMC)**

The ongoing management charge (OMC) is the only expense ratio that is defined in Australian law and used in superannuation fund disclosures. Other investment funds (such as managed investments and deposit accounts) do not use this method.

*Schedule 10 of the Corporation Regulations* (2001) provides a definition OMC and sets out in detail how the OMC is to be calculated and disclosed in the PDS of a superannuation fund. The OMC is calculated in Equation 4, below:

\[
OMC = \frac{MC}{AV} 
\]  

(4)

and is expressed as a percentage, where:

“AV” is the average value of the net assets of the fund or product during the year of income, worked out in the following way:
(a) Add each of the net asset valuations made during the year of income
(b) Divide the result by the number of valuations added in (a) above

“MC” is the amount of ongoing management charges charged for the year of income.
Here, the dominator is clearly defined in the regulation and it is calculated using the average net asset value as described in Method A, above.

The definition of management charges (MC) for the purpose of OMC is selective and specifically excludes the following charges: contribution charges; death and disability insurance charges; exit charges; switching charges; any charges paid or payable by an employer-sponsor of the fund; or any charge that is made for a service requested by the investor. However, unlike the MER, the OMC does include brokerage in the calculation of total management charges.

A Parliamentary Joint Committee issued a report (Parliamentary Joint Committee, 2004, p. 39) that included substantial criticism from consumer and industry groups regarding the calculation of the OMC. Some of the major issues raised before the committee related to the selective approach used to determine which fees are included in the calculation. Concerns were also raised about the usefulness of the OMC where it does not capture entry and exit charges. These charges are often significant and they can have a severe impact on potential returns to the investor, and their exclusion may therefore underestimate the costs of the superannuation product (Parliamentary Joint Committee, 2004, item 6.7).

Another concern related to differing terminology used by superannuation funds to describe their fees and the distinction made between fees charged to members and fund costs. While the regulations refer to fees, they do not refer explicitly to fund costs. This subtle distinction between these notions can lead to ambiguities because a superannuation fund can claim lower fees because more of its costs are paid by the overall fund. From the investors’ perspective, there is no material difference between fees and costs because they all affect members’ returns. This issue can cause difficulty in assessing the true cost of investing in a superannuation fund (Parliamentary Joint Committee, 2004, item 6.12).
The total expense ratio (TER) is the model proposed by the International Organisation of Securities Commissions (IOSCO) to disclose costs in investment funds. The TER is calculated in much the same way as the MER and the OMC in that it represents the total amount of selected expenses and expresses them as a percentage of fund assets. However, the TER has a much broader definition of expenses than the MER and the OMC in that it includes entry fees, performance fees and exit fees in its calculation. Still, the TER does not include transaction costs, brokerage costs and buy-sell spreads in its calculation.

Equation 5 shows the IOSCO (2004, p.19) calculation of TER:

\[
    \text{TER} = \frac{\text{TE}}{\text{AV}} \tag{5}
\]

and is expressed as a percentage, where:

- “AV” is the average value of the net assets of the fund or product during the year of income, worked out in the following way:
  - Add each of the net asset valuations made during the year of income
  - Divide the result by the number of valuations added in (a) above

- “TE” is the total relevant expenses charged for the year of income

The TER technique for calculating the expense ratio relies on the average net asset value of the fund as described in Method A, above.

While the TER assumes a much broader definition of expenses in its calculation, it should be noted that the actual fees paid by an investor are likely to differ from the published MER, OMC or TER. Therefore, all of these ratios can be misleading and they need to be used cautiously (IAA, 2001, p.11) because they report the estimated expense of an average investor, rather than the actual expenses borne by an investor.
Another definitional issue regarding fees that is common across all the expense ratios is the treatment of taxation expense.

**Impact of Taxation of Fee Disclosure**

Currently, there is no consistency in the disclosure of the taxation impact on fees. As a result, some investment funds quote the gross fees and others quote fees net of tax. For example, in a superannuation fund where the disclosure of fees is made on a net-of-tax basis, a 1.0 per cent p.a. gross management fee could be expressed as 0.85 per cent p.a. net-of-tax fee (assuming 15 per cent tax rate on a superannuation fund). The issue for the investor is those funds that disclose their fees on a net-of-tax basis will appear to be cheaper than those that disclose the gross fees.

For those funds disclosing their fees net-of-tax, the calculations are usually made by assuming the maximum rate of tax, even though the actual tax rate can be different due to accounting adjustments (IAA, 2001, p. 12). Therefore, the net-of-tax disclosure may be inappropriate given the actual taxation liability of the fund, and the unique circumstances of the individual. Also, the net-of-tax disclosure does not reflect the actual amount charged by the investment fund.

Ensuring that only gross fees are used in disclosure would improve the comparability of fees disclosure between investment funds as all funds would report on a consistent basis without the impact of tax. It would also ensure that the disclosure reflected the amount the investment fund was actually paid.
Summary of expense ratios

The MER, OMC and TER are fundamentally calculated the same way – relevant expenses divided by fund assets. The difference between each of these ratios lies in the determination of relevant expenses, and these differences can be summarised in Table 2, below:

<table>
<thead>
<tr>
<th>Fee types</th>
<th>MER</th>
<th>OMC</th>
<th>TER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entry fees</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Exit fees</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Brokerage and transaction costs</td>
<td>NO</td>
<td>YES</td>
<td>NO</td>
</tr>
</tbody>
</table>

Table 2 – Inclusion of common expenses types in the calculation of expense ratios

While ambiguity in the definition of expenses undermines the reliability of expense ratios as a useful disclosure of fees (Finch 2005), a much more alarming deficiency in expense ratios is the distortion created by the growth in FUM over time, particularly where the fund calculates the MER based on actual assets rather than average assets. This will be the topic of Section 3 of this paper.
SECTION 3. DISTORTIONS IN THE CALCULATION OF MER

There has been much attention placed on the disclosure of fees in Australian investment funds over the past few years (Ramsay, 2002; PJCCFS, 2002; PJC, 2004; IAA, 2001; IFSA, 2004; ASIC, 2003; ASIC 2005) and staggered amendments to the Corporations Regulations will come into effect during 2005 and 2006. These are intended to improve the disclosure of fees in PDSs and periodic statements. However, investors continue to rely upon fee disclosure, in particular the MER, as a key criterion for investment decision making.

One of the issues affecting the reliability of MER to compare one fund with another is the lack of a consistent treatment for management expenses: gross or net of tax; inclusive or exclusive of performance fees (Finch, 2005). Another issue is the inconsistency in the way that the fund assets are measured: gross assets or net assets; average assets or actual assets. Yet there is another factor at play that undermines the reliability of MER, and that is the hidden impact of growth in FUM over time where the MER is calculated using actual assets as the measure of fund assets.

An investment fund will grow its assets (FUM) from two principle sources: net inflows and investment performance. Net inflows is the dollar amount of surplus new investment into a fund after deducting any withdrawals and redemptions. Factors that contribute to a growth in net inflows include, among other things, a strong economy, high levels of employment and compulsory superannuation. Investment performance will also grow the FUM through a surplus of income over expenses, plus a surplus of realised and unrealised capital gains in the fund. Investment performance is contingent upon timing and an array of market factors, but over the past 15 years, the Australian sourced investment fund market has averaged about 9.3 per cent per annum (Rainmaker, 2004).

It is predicated that over the next 10 years, this market will grow on average by 12 per cent per annum, driven one-quarter by net inflows and three-quarters by investment performance (Rainmaker, 2004). However, as we identified in Table 1, while the entire market is predicted to grow at this average rate, various segments should experience different growth rates: comprehensive investment managers are forecast to
grow FUM by 8 per cent; specialist managers are forecast to grow FUM by 13 per cent; and boutique managers are forecast to grow FUM by 32 per cent CAGR over the next 10 years.

The growth in FUM over time creates a distortion in the MER calculation and where the growth is positive (as is the case in our predictions), the reported MER will decrease. We will illustrate this hypothesis by comparing two popular MER calculation techniques and modelling the various predicted growth rates for the Australian investment sector.

Firstly, two methodologies that are widely used for calculating MER are: (A) the accrued management expense divided by the average net asset value; and (B) the accrued management expenses divided by the net asset value. We will refer to these as Method A and Method B respectively.

**Method A – average net asset value**

The Method A calculation of the expense ratio divides the relevant expenses by the average net asset value determined by the sum of each net asset valuation and dividing the result by the number of valuations made during the period. This methodology for valuing the FUM is the same method that is prescribed by the OMC (Equation 4) and the TER (Equation 5). In addition, this method is also used in the OFGM (Equations 2 and 3), the method described in IFSA Standard No. 4.00. The Investment & Financial Services Association Limited (IFSA) represents the funds management and life insurance industry with 82 full members (June 2005) who are responsible for investing $790 billion on behalf of more than nine million Australians. IFSA will direct its members to use this method when calculating the expense ratio.

**Method B – net asset value**

The Method B calculation of the expense ratio divides the relevant expenses by the net asset at the end of the period. This method is widely adopted by funds who are not members of IFSA and is the method described by The
Association of Superannuation Funds of Australia (ASFA) in its Dictionary of Superannuation. AFSA is the peak body representing Australian superannuation funds and trustees. Method B is also commonly used by the smaller specialist and boutique managers, as well as newly established investment funds that do not have actual historical performance and will estimate a MER in their PDS.

Using Method A and Method B we will illustrate the impact of growth on MER calculations on a monthly and a daily basis using the following assumptions:

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Assumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth in FUM</td>
<td>FUM will grow at a constant rate of 10 per cent per annum over the period.</td>
</tr>
<tr>
<td>Fund Fees</td>
<td>Total fees are accrued at the rate of 2 per cent per annum of FUM calculated at the end of each period.</td>
</tr>
<tr>
<td>Opening FUM</td>
<td>The balance of FUM at the start of the period will be $1 million.</td>
</tr>
<tr>
<td>Monthly Periodicity</td>
<td>Fees will be accrued at the end of each month. The annual growth rate of FUM and the annual fee rate will be divided by 12 and these amounts will be the monthly equivalent.</td>
</tr>
<tr>
<td>Daily Periodicity</td>
<td>Fees will be accrued at the end of each day. The annual growth rate of FUM and the annual fee rate will be divided by 365 and these amounts will be the daily equivalent.</td>
</tr>
</tbody>
</table>

Table 3 – Key assumptions used in comparative model

Based on the assumptions in Table 3, above, we would derive the following results at the end of one year:
### Table 4 – Results from assumption at the end of one year

<table>
<thead>
<tr>
<th>Periodicity</th>
<th>FUM at end of period</th>
<th>Average FUM</th>
<th>Total fees accrued</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly</td>
<td>$1,104,713</td>
<td>$1,055,857</td>
<td>$21,117</td>
</tr>
<tr>
<td>Daily</td>
<td>$1,105,156</td>
<td>$1,051,846</td>
<td>$21,037</td>
</tr>
<tr>
<td>Difference</td>
<td>$443</td>
<td>$4,011</td>
<td>$80</td>
</tr>
</tbody>
</table>

An inspection of the results in Table 4, above, identifies that different periodicities in fee calculation will result in different asset values and differences in accrued fees. In the example above, calculating the annual growth with the largest number of compounding events over time (in our case, daily compounding) will result in a larger FUM at the end of the period. In our example, we see an increase of $443. We also find that calculating the average FUM with fewer numbers of asset valuations (in our case, 12 monthly valuations) will result in a higher average FUM. In our example, we see an increase of $4,011. Finally, we find that accruing fees by using the least numbers of compounding period (in our case, monthly compounding) will result in an increased amount of fee. In our example, we see an increase of $80 in fees between the two methods.

Given the figures above, we will next compare the MER disclosures for monthly and daily compounding under our two asset valuation methods, Methods A and B:

### Table 5 – MER calculations based on data in Table 6, above

<table>
<thead>
<tr>
<th>MER calculation</th>
<th>Method A (average net asset)</th>
<th>Method B (actual net asset)</th>
<th>Absolute Difference (A – B)</th>
<th>Relative Difference $1 – (B /A) x 100 $</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly</td>
<td>2.000%</td>
<td>1.912%</td>
<td>0.088%</td>
<td>4.400%</td>
</tr>
<tr>
<td>Daily</td>
<td>2.000%</td>
<td>1.904%</td>
<td>0.096%</td>
<td>4.800%</td>
</tr>
</tbody>
</table>
In Table 5, above, we can observe that the disclosed MER in Method A (average net assets) returns an accurate result of 2 per cent, but Method B (actual net assets) understates the fund expenses by disclosing a MER of 1.912 per cent for monthly compounding and 1.904 per cent for daily compounding.

It would appear that Method A is a reliable method of calculation in that the MER that is disclosed (2.0 per cent) mirrors the actual accrued fees (2.0 per cent of FUM). However, Method B is an unreliable method in that it significantly understates the MER (by a factor of 4.8 per cent in the case of daily calculation). As the annual rate of growth in FUM increases, the MER will fall under Method B. We will demonstrate this below by modelling Method B only using the same assumptions above, with the exception of the growth in FUM. Here, we will use the predicted FUM growth rates across the investment fund sector in Table 1 as the rate of growth.

<table>
<thead>
<tr>
<th>Manager type</th>
<th>Predicated FUM growth</th>
<th>Method B MER (Monthly)</th>
<th>Method B MER (Daily)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comprehensive</td>
<td>8%</td>
<td>1.929%</td>
<td>1.922%</td>
</tr>
<tr>
<td>Specialist</td>
<td>13%</td>
<td>1.886%</td>
<td>1.876%</td>
</tr>
<tr>
<td>Boutique</td>
<td>32%</td>
<td>1.738%</td>
<td>1.712%</td>
</tr>
</tbody>
</table>

Table 6 – Method B MER calculations using predicated FUM growth rates

In Table 6, above, the fund fee was 2 per cent per annum. However, using Method B, we can see that as the growth in FUM increases, the disclosed MER decreases. This means funds that calculate MER using Method B will continually disclose a lower MER than a Method A fund, where the growth in FUM over the period is positive. Also, a Method B fund that accrues fees on a daily basis will be rewarded by disclosing an even lower MER.
Chart 1 above shows the extent to which a 2 per cent MER under Method B would be understated by using the predicted growth from the different industry sectors. This distortion in the MER due to positive growth would allow a fund who chooses to disclose under Method B to either (a) increase the dollar amount of fees charged to the fund during the year and increase its profitability, or (b) continue to disclose a lower MER and gain a competitive advantage over comparable funds who have experienced lower growth or who are Method A disclosers. We have found that the majority of the comprehensive funds are Method A disclosers, and the majority of fast-growing specialist and boutique funds use the inaccurate Method B model to calculate their MER.

The impact of the positive FUM growth on distorting the MER can be modelled using our Growth Distortion Model in Equation 6 below.

$$
\text{MER} = \frac{F}{g} \times \left[ 1 + \frac{g}{n} \right] \times \left[ 1 - \left( 1 + \frac{g}{n} \right)^{-n} \right]
$$

and is expressed as a percentage, where:
“F” is the annualised accrued fund fee expressed as a percentage

“g” is the annualised growth in FUM over the period expressed as a percentage

“n” is the periodicity of fee calculations expressed as number of days

Using the Growth Distortion Model in Equation 6 we can calculate an increased fee rate (F) that could be charged to the fund which, after allowing for the distortion of the growth rate (g) and periodicity (n), would produce a target MER. For example, assuming the fund has a 2 per cent annual fund fee rate, it would be possible to accrue an amount larger than 2 per cent, yet still show a target MER of 2 per cent. Given the MER calculations in Table, 6 above, we can inflate the actual fee rate to increase the MER to achieve a target rate of two percent.

<table>
<thead>
<tr>
<th>Manager type</th>
<th>Predicated FUM growth</th>
<th>Actual fee rate (Monthly)</th>
<th>Actual fee rate (Daily)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comprehensive</td>
<td>8%</td>
<td>2.074%</td>
<td>2.081%</td>
</tr>
<tr>
<td>Specialist</td>
<td>13%</td>
<td>2.121%</td>
<td>2.132%</td>
</tr>
<tr>
<td>Boutique</td>
<td>32%</td>
<td>2.302%</td>
<td>2.336%</td>
</tr>
</tbody>
</table>

Table 7 – Actual fee rates to achieve a 2 per cent target MER under Method B

Interpreting the results in Table 7, above, we can conclude that a fund with a positive growth in FUM can charge an actual fee rate significantly greater than its disclosed MER. Based on our assumptions of accrued fees and growth rates, a comprehensive fund could charge 4.05 per cent more in fees, a specialist fund could charge 6.60 per cent more in fees and a boutique fund could charge 16.80 per cent more in fees, while still reporting a MER of 2 per cent under Method B.

To allow a meaningful comparison of the MER between investment funds, an investor would be required to identify whether the MER is calculated using average net assets
(Method A) or actual net assets (Method B). Where Method B is used, to accurately compare the MER disclosures between funds, an investor would require two additional disclosures, being: (1) the periodicity of fee calculation in days, and (2) the growth in FUM over the period. Without these additional disclosures, the comparison of the MER between investment funds using Method B is not possible because of the factors that have been identified in our Growth Distortion Model (Equation 6).

A New Framework for Fee Disclosure

Expense ratios are widely used by investors, and are seen as a convenient way of comparing costs of different investment funds. Expense ratios, such as the MER, are also seen as a valuable impersonal data source for investment decision-making (Capon, Fitzsimons & Price, 1995). However, as we have identified throughout this paper, there are five significant problems that undermine the reliability of expense ratios and hence limit their usefulness for investment decision-making. These five problems are:

1. Ambiguity in the way in which fees are classified (see Finch, 2005) leads to inconsistencies between investment fund disclosures (e.g. fees versus costs, capitalisation of trading costs versus expensing trading costs).

2. Different ratios are used for different fund types (e.g. MER or TER for managed investment funds, and OMC for superannuation funds) and these ratios are inconsistent in the way they treat common expense types (e.g. entry fees, exit fees, brokerage and transaction costs).

3. Inconsistencies between investment funds in their disclosure of taxation expense (e.g. disclosures made on a before-tax basis versus disclosures made on an after-tax basis).

4. Inconsistencies in the way assets are valued when calculating the expense ratio (e.g. gross assets versus net assets, average assets versus actual assets).
(5) Distortions in the MER disclosure where actual assets are used because of differences in the periodicity of fee calculation and growth in FUM over the period, as identified in the Growth Distortion Model.

Fundamentally, investors will invest in a fund to (hopefully) generate a return. Irrespective of the inconsistencies in the disclosure of fees by the investment fund, all fees (and costs) will ultimately manifest themselves as a lower rate of return in the investment.

Financial economists will interpret an expense ratio (such as MER) as a signal of quality, specifically, the quality of asset selection decisions made by an investment fund in the creation of alpha. Highly skilled managers with asset selection skills will charge higher MERs as compensation for their ability to generate economic rents, in this case, to consistently generate positive alpha (Drew, 2003, p. 31).

So, investors are interested in the amount of fees charged in proportion to the investment performance. Expenses ratios, such as the MER, attempt to describe the amount of fees charged in proportion to the level of assets. A change in an asset value (FUM) does not indicate investment performance, as FUM is affected by both net inflows and investment performance.

Based on the FUM growth projections in Table 1, the rate of growth in net inflows will outpace investment performance for specialist and boutique investment funds over the next 10 years, as these sectors rapidly gain market share. These high levels of growth will have an exaggerated effect on distorting the MER.

An alternative fee disclosure model that we propose is the Performance Cost Ratio. Rather than taking an asset based approach to fee disclosure, we propose a model based on absolute investment performance.

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3 Alpha can be used to directly measure the value added or subtracted by a fund’s manager.
The Performance Cost Ratio (PCR) is shown in Equation 7, below:

\[
\text{PCR} = \frac{\text{TE}}{\text{IP}}
\]  

(7)

and is expressed as a percentage, where:

“\text{TE}” is the total after-tax dollar amount of all expenses, fees, costs, disbursements, entry fees, exit fees, commissions, trading costs, brokerage, transaction costs and other outgoings, paid or payable for the period

“\text{IP}” is the total after-tax dollar amount of investment performance earned by the investment fund during the period, including all income, dividends, interest, and all realised and unrealised capital gains and losses, and adjusting for net inflows and total after-tax expenses (TE).

The calculation of IP is shown in Equation 8, below:

\[
\text{IP} = \text{FUM}_t - \text{FUM}_{t-1} - \text{NI} - \text{TE}
\]

(8)

“\text{FUM}_t” is net asset value of the fund at the end of period “\text{t}”

“\text{FUM}_{t-1}” is net asset value of the fund at the start of period “\text{t}”

“\text{NI}” is dollar amount of net inflows during period “\text{t}” calculated as inflows of capital from investors (deposits and distribution reinvestments) minus outflows of capital from investors (redemptions and withdrawals)
“TE” is the total after-tax dollar amount of all expenses, fees, costs, disbursements, entry fees, exit fees, commissions, trading costs, brokerage, transaction costs and other outgoings, paid or payable for the period

The PCR attempts to remove any ambiguity in the way fees are classified by including all expenses, such as trading costs, and entry and exit fees. The PCR recognises both total expenses and investment performance on an after-tax basis, which allows for uniform comparison between investment funds. The PCR avoids any of the inconsistencies in measuring asset values by removing this measure, and by ignoring the periodicity of fee calculations, the PCR is not affected by the distortions that we have identified in the Growth Distortion Model.
CONCLUSION

The key purpose of disclosure in the area of fees and charges is to ensure that fees are transparent and readily understood by the average investor, and investors can compare the cost of making an investment against alternative products in the marketplace (Phillips Fox, 2000). However, deficiencies in fee disclosure coupled with a distortion in the MER, which we identify in the Growth Distortion Model (Equation 6), ensures that the MER is an unreliable measure that does not allow uniform comparison between funds.

Due to this distortion, we hypothesise that investment funds many gain advantage by increasing the dollar amount of fees charged to the fund without increasing their expense ratio, thereby improving their profitability, or disclosing an artificially lower MER and gaining price advantage over comparable funds.

This is an alarming situation that has not been adequately addressed by the industry or its regulator. Recent efforts at reform have focused on standardising the disclosure of the absolute dollar amount of fees in a PDS. But it is the relative measures of fees, such as the MER, that is important because investors rely upon this for their decision-making.

The broad objective of relative fee disclosures, such as expense ratios, is to provide consumers with sufficient information to make informed decisions in relation to the cost of acquisition and retention of investment funds, including the ability to compare a range of products. Without standardisation, the method by which expense ratios are calculated, this objective will never be met in the Australian market. To this end, we propose the Performance Cost Ratio (Equation 7) as an improved framework for fee disclosure.
**Areas of Future Research**

There are many factors that undermine the reliability of fee disclosure in investment funds, yet there is very little research on this topic in an Australian context. Some areas of future research include:

1. The impact of trading costs on the performance of Australian investment funds and their impact on expense ratios.

2. Quantitative analysis on the reporting frameworks utilised by Australian investment funds, including identifying the number of funds that calculate MER under Method A versus Method B.

3. Quantitative analysis comparing the total cost of fund expenses using the TER versus the management expense disclosed in the MER. This would identify the quantum of expenses not currently captured under the MER disclosure.

4. Applying the PCR method of fund disclosure on Australian investment funds to measure the total cost of investment performance.
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