AGENCY THEORY AND FINANCIAL PLANNING PRACTICE

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We extend an influential contribution to the literature on agency theory and then use this extension, in conjunction with other theoretical contributions, to shed light on the agency problems affecting funds management and financial planning in Australia. The case for pure fee for service in actively managed funds and plans turns out to be weak. The amount of money exposed to risk by an active manager should be less than the entire investible wealth of the client, especially in the case of investors on the cusp of retirement. Asset-based fees on actively managed funds should include a fulcrum component, contrary to current practice, which typically sees performance fees resembling call options by fund managers on the superannuation balances of the client. Commissions paid by managers to planners need to be clarified and discouraged, notwithstanding the recent watering-down of the Future of Financial Advice reforms. Investors who are not engaged with their superannuation should be steered more often towards low-cost funds, as envisaged by the MySuper proposals. The next review of financial advice should examine the question of requiring planners to disclose and respond to the fragility of financial plans for investors who are on the cusp of retirement.
I. INTRODUCTION

The incentives faced by financial planners and fund managers are a key topic in agency theory. Fund managers (aka product providers or manufacturers) and financial planners may be susceptible to the adverse-selection problem because investors typically cannot monitor their research efforts. Managers and planners may also be susceptible to moral hazard because of contracts that lack adequate incentives to induce effort. Intermediated investment management, whereby managers and planners are distinct entities, may see commissions from managers to planners that are inimical to the interests of investors. We extend an influential contribution to the literature on agency theory and then use this extension, in conjunction with other theoretical contributions, to shed light on the agency problems affecting funds management and financial planning in Australia. The case for pure fee for service in actively managed funds and plans turns out to be weak. The amount of money exposed to risk by an active manager should be less than the entire investible wealth of the client, especially in the case of investors on the cusp of retirement. Asset-based fees on actively managed funds should include a fulcrum component, contrary to current practice. Informal behavioural considerations (as distinct from agency theory) suggest that commissions paid by managers to planners need to be clarified and discouraged, notwithstanding the recent watering-down of the Future of Financial Advice reforms. Investors who are not engaged with their superannuation should be steered more often towards low-cost funds, as envisaged by the MySuper proposals.

The background to this paper is the continued growth in financial planning and funds management as baby boomers move towards retirement. At present only 13 percent of Australians are at least 65 years of age and 7 out of 10 retired households rely principally on the Age Pension. Accordingly, only 15 to 20 per cent of Australians have received financial advice from planners at some point during their lives. However, the 65-plus population is projected to hit 23 percent of the population by 2050 and self-funded retirements are becoming more widespread, so the number of Australians receiving advice from financial planners should rise. Funds under administration in Australia currently stand at $519
billion, or roughly a third of a year’s gross domestic product (Rainmaker Group 2011). There are 760 advisory groups, 8,300 financial planning practices, and 18,200 financial planners. There has been ongoing vertical integration within the industry, as small practices enter into ‘sponsorship’ relationships, primarily with the big-four banks and the major insurance companies. At least 80 percent of financial planners are sponsored. On the other hand, self-managed superannuation funds account for 31 per cent of total superannuation assets of $1.34 trillion (Australian Prudential Regulation Authority 2011). This alone suggests that the market for advice is contestable, as a consequence of a substantial competitive fringe of comparatively self-reliant investors.

The financial planning industry has come under scrutiny in the wake of the global financial crisis centred on 2008 and the collapse of Storm Financial in 2009. The 2007 budget had abolished taxes on the earnings of superannuation funds in drawdown mode and allowed higher personal contributions. As a consequence there were strong inflows into superannuation during the 2007 financial year – decisions which worked out badly for many investors in the wake of the global financial crisis. The year 2009 saw two official inquiries into industry practices. The Ripoll inquiry reported in 2009 and the Cooper inquiry reported in 2010. These served as inputs to the government’s Future of Financial Advice (FoFA) and MySuper reforms which are not finalised at the time of writing. Questions raised in the Australian debate on financial planning include these:

1. Should fee-for-service supplant asset-based fees?

2. Should commissions from product providers to planners be banned?

3. Do recommended asset allocations tend to be too risky for clients on the cusp of retirement?

4. Do financial plans tend to be ‘cookie cutter’ ones rather than customised to the particular circumstances of clients?

5. Do typical fee structures encourage ‘closet indexing’ by fund managers?
6. Is there inadequate disclosure of dollar (rather than percentage) amounts charged in fees?

We come up with an affirmative answer to all these questions except the first one.

Section II sheds light on the first, third, fourth and fifth questions by extending the model of Dybvig et al. (2010). Their model is of optimal contracts in financial plans when both the investor-principal and the planner-agent have log utility. It does not distinguish between planners and managers (useful to the extent that the managed funds industry shows strong vertical integration.) Efficient fee structures involve asset fees and generally tie a component of remuneration to portfolio performance relative to a suitable passive benchmark to discourage closet indexing. We introduces generalised log utility into the setup of Dybvig et al. Generalised log utility has the realistic implication that relative risk aversion is a declining function of wealth, unlike its quadratic, log, power and exponential competitors. It is the simplest way to capture habit-dependent utility whereby a retiree is concerned to prevent her living standard falling below some pre-determined level, and is also consistent with a desire to ‘keep up with the Joneses’. It can rationalise conservative asset allocations on the cusp of retirement whereas simple log utility generates aggressive allocations. Generalised log utility captures the concern of some investors with preventing shortfalls in wealth below some subjective reference level, and the present value of protected future consumption is the natural interpretation of that level. In this way it sheds light on the important question of excessively risky allocations for people on the cusp of retirement.

Section III examines Australian industry practice. Unsurprisingly, typical contracts set out in actual Statements of Advice and Product Disclosure Statements turn to be far more complicated than could ever be captured by a single theory. Accordingly, Section III draws informally on the results of Stoughton et al (2011), Bateman et al. (2007) and Grossman and Stiglitz (1976), in addition to the formal theory in Section II. These contributions shed light on the agency problems raised by intermediated investment management, multiple time periods, and general equilibrium. Put another
way, Section II does not shed light on questions two and six, and therefore needs to be beefed up by other theories, at least informally. Take our second question, on commissions. It presupposes a three-way split between investors, advisers and investment managers (notwithstanding the considerable vertical integration in Australia.) Stoughton et al. (2011) do introduce such a split (in contrast to Dybvig et al.) and it sheds light on commissions. Investors can engage an adviser, or pay a fixed cost to access actively managed funds without intermediation by advisers, analogous to Australia’s self-managed funds. Investors divide into sophisticated or unsophisticated ones, depending on whether they anticipate equilibrium outcomes in the financial planning industry and are impervious to promotional material. Commissions from managers to advisers can take the form of cash or soft-dollar compensation such as conferences in resort locations. All this helps explain Australian practice.

II. AGENCY THEORY

This section derives fee structures for actively managed funds that mitigate agency problems when both the principal and the agent have generalised-log utility functions. One new result is that efficient fees include a fixed component reflecting the agent’s protected consumption. This generates a new rationale for a flat component of fees, analogous to fee-for-service. Another new result is that from both an investor and manager standpoint the participation decision is not all-or-nothing; the amount placed with the active manager is equal to the investor’s wealth less the present value of the total protected consumption of the investor and the manager. Remaining wealth is allocated to safe assets.

These findings shed light on questions one, three and four. By the same token, our formal analytical structure will hold few surprises for readers of Dybvig et al. (2010). Thus, our efficient fee structure retains asset-based fees, including a symmetrical one for performance relative to a passive benchmark.
Dybvig et al. (2010) consider three optimization problems corresponding to increasingly severe agency problems. In the first-best case, agency problems are absent. In the second-best case the manager reveals truthfully the observed signal to the investor but has private information about her effort level. In the third-best case the adverse-selection problem and the moral-hazard problem are both present. It is the second-best case which yields the most interesting results so we disregard the third-best case and comment only briefly on the first-best case. Our main result is this:

**Proposition**

The optimal contract between an investor and an active manager whose effort level cannot be verified by the investor first carves out the total protected wealth of the investor and the agent, and then charges the remaining wealth of the investor by means of a fee structure with a flat component and an asset-based component that includes a fulcrum-style performance fee:

\[
\phi(s, \omega) = C_m + \frac{(w_0 - w)}{1 + \lambda_R} \lambda_R \left[ R^p + \frac{\lambda_c}{\epsilon \lambda_R} (R^p - R^b) \right].
\]  

(1)

On the left-hand side of equation (1), \( \phi(s, \omega) \) is the fee paid by an investor when the manager’s unobserved effort \( \epsilon \) (0 \( \leq \) \( \epsilon \) \( \leq \) 1) generates a private signal \( s \in S \) about future returns, and the state of the world is \( \omega \in \Omega \). On the right-hand side, \( C_m \) is the protected consumption of the manager, \( w_0 \) is investible wealth, \( w \) is the present value of the total protected consumption of the investor and the manager, \( \lambda_R \) is a Lagrange multiplier on the participation constraint, \( R^p \) is the return to the actively managed portfolio, \( \lambda_c \) is a Lagrange multiplier on the incentive-compatibility constraint, and \( R^b \) is the return to a passively-managed (zero-effort) benchmark portfolio.
Proof of equation (1) begins with a mixture model of the joint density of \(s\) and \(\omega\) conditional on effort \(\varepsilon\):

\[
f(s, \omega; \varepsilon) = \varepsilon f^I(s, \omega) + (1 - \varepsilon) f^U(s, \omega)
\]

where \(f^I\) is the informed (effort-conditioned) distribution of portfolio returns, and \(f^\omega\) and \(f^\varepsilon\) are the marginal distributions of the uninformed density \(f^U\) with respect to \(\omega\) and \(s\), with \(f^U(s, \omega) = f^\varepsilon(s) f^\omega(\omega)\).

The agency problem here is simultaneously to choose (i) the utility of the investor,

\[
u_i(s, \omega) = \ell n(C_i(s, \omega) - C_i^p),
\]

where \(C_i(s, \omega)\) is the consumption of the investor and \(C_i^p\) is the protected consumption of the investor, (ii) the utility of the manager \(u_m(s, \omega) = \ell n(C_m(s, \omega) - C_m^p)\), where \(C_m(s, \omega)\) is the consumption of the manager, and (iii) the manager’s effort level \(\varepsilon\), to maximise the investor’s expected utility,

\[
\max_{u_i(s, \omega), u_m(s, \omega), \varepsilon} \iint u_i(s, \omega)(\varepsilon f^I(\omega) s) + (1 - \varepsilon) f^\omega(\omega)) f^\varepsilon(s) d\omega ds,
\]

subject to a budget constraint (for mathematical convenience we use the Dybvig et al. transformation of consumption levels into exponential functions of utility levels),

\[
(\forall s \in S) \int (\exp(u_i(s, \omega)) + \exp(u_m(s, \omega))) p(\omega)d\omega = w_0 - w,
\]

a constraint ensuring participation by the manager,

\[
\iint u_m(s, \omega)(f^I(\omega) s - f^\omega(\omega)) f^\varepsilon(s) d\omega ds - c(\varepsilon) = 0,
\]

and a constraint ensuring the incentive-compatibility of effort,
\begin{equation}
\varepsilon = \arg \max_{\varepsilon} \int u_m(s, \omega)(\varepsilon f^I(\omega)s) + (1 - \varepsilon) f^\omega(\omega))f^s(s)d\omega ds - c(\varepsilon),
\end{equation}

where the new notation is \( p(\omega) \) pricing density for a claim that pays a dollar in state \( \omega \), \( w = \int (C_r + C_m) p(\omega) d\omega \) present value of total protected consumption, and \( c(\varepsilon) \) cost of manager effort.\(^7\)

Dybvig \textit{et al.} come up with a lemma that enables replacement of \( u_i(s, \omega) \) in the above problem by the investor’s indirect utility. We need a slight extension of it to the case of protected consumptions: the expected utility conditional on \( s \) for the investor will be shown to equal

\begin{equation}
\log \left( B_i(s) \frac{f^m(\omega) + \varepsilon(f^I(\omega)s - f^\omega(\omega))}{p(\omega)} \right),
\end{equation}

where

\begin{equation}
B_i(s) \equiv w_0 - w - \int \exp(u_m(s, \omega)p(\omega)d\omega
\end{equation}

is the investor’s share of the budget net of the present value of total protected consumption.

Proof of equation (7) follows Dybvig \textit{et al.} The optimal solution must satisfy the sub-problem of maximizing (3) subject to (4). Differentiating the Lagrangean for this problem with respect to \( u_i(s, \omega) \) gives

\begin{equation}
[\varepsilon f^I(s, \omega) + (1 - \varepsilon) f^\omega(\omega)]f^s(s) = \lambda_{\omega}(s) p(\omega) \exp(u_i(s, \omega))
\end{equation}

where \( \lambda_{\omega}(s) \) is the multiplier to the budget constraint. Integrate equation (9) with respect to \( \omega \) and rearrange to get
\[ \lambda_s(s) = \frac{f^I(s)}{B_s(s)}. \]

Substitute this into equation (9) to get equation (7).

Following Dybvig et al. we set out three definitions of equilibrium returns. The gross portfolio return conditional on observing \( s \) is

\[ R^o = \frac{\varepsilon f^I(\omega | s) + (1 - \varepsilon) f^{\omega}(\omega)}{p(\omega)}. \] (10)

The gross portfolio return without observing \( s \) is termed the benchmark return and is given by

\[ R^B = \frac{f^{\omega}(\omega)}{p(\omega)}. \] (11)

Finally, the return under maximum effort (\( \varepsilon = 1 \)) is

\[ R^I = \frac{f^I(\omega | s)}{p(\omega)}. \] (12)

These definitions give the intuitive decomposition \( R^o = \varepsilon R^I + (1 - \varepsilon) R^B \).

Equation (7) enables computation of the investor’s expected utility, namely

\[ \int \log \left( w_0 - C - \int \exp(u_m(s, \omega)p(\omega)d\omega) f^I(s) ds \right) ds \]

\[ + \int \int \log \left( \frac{\varepsilon f^I(\omega | s) + (1 - \varepsilon) f^{\omega}(\omega)}{p(\omega)} \right) \left( \varepsilon f^I(s, \omega) + (1 - \varepsilon) f^{\omega}(\omega) f^*(s) \right) dsd\omega. \] (13)
Differentiate the Langrangean associated with the problem of maximising equation (13) with respect to $u_m(s, \omega)$ and subject to equations (5) and (6). This gives the first-order condition

$$\frac{\exp(u_m(s, \omega)) p(\omega)}{B_i(s)} = \lambda_R (f^a(\omega) + \epsilon(f'(\omega)s) - f^a(\omega))$$

$$+ \lambda_\epsilon (f'(\omega)s - f^a(\omega))$$

(14)

where $\lambda_R$ and $\lambda_\epsilon$ are the Lagrange multipliers to (5) and (6). Multiply both sides by $B_i(s)$ and integrate both sides with respect to $\omega$ to get an expression for the manager’s share of the budget net of the present value of total protected consumption, namely, $B_m(s) \equiv w_o - w - B_i(s)$:

$$B_m(s) = \lambda_R B_i(s).$$

(15)

Apply equations (4) and (15) to get

$$B_i(s) = \frac{w_o - w}{1 + \lambda_R}.$$  

(16)

Equations (14) and (16) together imply

$$u_m(s, \omega) = \log \left( \frac{(w_o - w) \lambda_R f^a(\omega) + \left( \frac{\lambda_\epsilon}{\lambda_R} \right) f'(\omega)s - f^a(\omega))}{p(\omega)} \right).$$

(17)

Taking exponentials of both sides gives equation (1), as required.

Moving from simple to generalised log utility changes the optimal contract in two ways. First, the efficient fee structure incorporates a flat component $C_w$. Second, the proportional component $\lambda_R/(1 + \lambda_R) R_p$ is not based on the investor’s entire wealth $w_o$ but on an amount net of the present value of total protected consumption $w$. 
The first-best case arises as we let $\lambda_c$ tend towards zero in Equation (1). Because effort can be observed in this case, there is a zero shadow price of tightening the incentive-compatibility constraint.

The concept of protected manager consumption $C_m$ is vague, and this lack of specificity is a source of strength as well as weakness. Notably, it facilitates alternative interpretations. For example, $C_m$ might take the indirect form of a minimum investible amount stipulated by the manager, in conjunction with a proportional asset fee. We typically see such minima in the prospectuses of actively managed funds. In this way, the flat component could be interpreted as the fixed cost of operating an account. Alternatively, $C_m$ could represent the wage costs of providing ancillary services such as tax minimisation, which could be more ‘commoditised’ than skilful active management.

The benchmark portfolio return $R^B$ is also usefully flexible. It can be interpreted as the return to an index portfolio of equities, or as the return to an equities-plus-cash portfolio that has had no value added via efforts to time the market. In the same way, the risks entailed by active management can originate solely from investment risk, or also from operational and other non-investment risks specific to active management. We can interpret the uninformed distribution $f^U(s, \omega)$ as including such risks and the effort level $\varepsilon$ as including efforts to reduce them.

III. FINANCIAL PLANNING PRACTICE

Financial planning in Australia has a dominant industry association: the Financial Planning Association. Roughly two thirds of licensed planners belong to it. The FPA has posted on the internet an “Example” Statement of Advice on behalf of a hypothetical couple aged 57 and with a dependent
teenage daughter (FPA 2008). The couple’s accumulated superannuation is $550,000. The document discussed here is dated 24 June and is a revision of one published on the internet in 2007. The associated model plan places the breadwinner into salary sacrifice and a transition to retirement pension, thereby reducing the couple’s short-term annual tax bill from $38,975 to $22,941. It makes persuasive recommendations for retaining life insurance associated with the client’s pre-existing superannuation fund at work. It says: “The FPA liaised with the Australian Securities and Investment Commission regularly during the development process to arrive at this final version” (FPA 2008, p2).

(a) Fee structure

“Initial” advice is charged out at $8,277, after tax and on a fee-for-service basis. This initial fee appears to be primarily in exchange for receiving the tax benefits of salary sacrifice and a TTR pension. There may be scope to unbundle the initial fee from ongoing fees (in exchange for asset-management services) in the event the couple decides to stick with their pre-existing superannuation fund while adopting the planner’s recommendations concerning salary sacrifice and a TTR pension structure. This fee is paid in the first instance to the licensee, who retains 2 per cent of it. If the couple does switch its superannuation balances into the fund recommended by the model plan, several “ongoing” or asset-based annual fees become payable. The investor pays 1.89 per cent pa of assets under management to the product provider. The provider pays 0.6 per cent pa of assets under management to the licensee, “from their management fees,” and “to pay the cost of ongoing advice.” The licensee passes on .98 x 0.6 per cent of this fee to the planner. The provider “may” also pay an additional 0.2 per cent to the licensee, “for recommending their products”, along with soft-dollar benefits, “typically between $10,000 and $20,000” pa. Figure 1 summarises these payments.

[Figure 1 here]

Judging by the FPA’s model plan, fee-for-service in practice appears to be confined to initial tax advice and does not extend to portfolio formation, apart from possible requirements of minimum
investible amounts. Agency theory – our Section II model included – typically does not prescribe pure fee-for-service for an actively-managed portfolio and this accords with industry practice.

The acknowledged commissions of 0.6 and 0.2 per cent pa, along with the soft-dollar benefits, accord with the theory of Stoughton et al. (2011). Commissions have been contentious on the argument that an agent should not try to serve two principals simultaneously – they create the possibility of a conflict of interest between adviser and client. Moreover, the model plan does not mention any requirement that investors periodically “opt in,” leaving it open to the criticism of inertia selling. Elderly couples could be particularly susceptible. The FoFA reforms initially proposed requiring clients to “opt in” every two years. In March 2012, however, this was watered down: membership of an industry association with an ASIC-approved code of ethics now exempts a planner from opt-in.

(b) Asset allocation and asset fees

Table 1 summarises the plan’s proposed asset allocation and part of its proposed fee structure. It itemises and breaks down the figure of 1.89 per cent shown in Figure 1.

[Table 1 here]

Table 1 shows the model plan recommends a fund-of-funds portfolio in which each individual fund carries an asset-based fee. The riskier funds on the menu generally carry higher fees. This is on the face of it an incentive to recommend risky products. The generally sizeable fees suggest that most sub-funds envisage adding value via active management. The FPA’s model recommends that the exposure of the elderly couple’s superannuation to ‘growth’ assets (shares plus commercial property) be lifted to at least 70 per cent of the portfolio, and possibly as much as 95 per cent. The reason given is to “take advantage of market opportunities and your investment time horizon” (p4). By contrast the average Self-Managed Superannuation Fund currently allocates 30 per cent to safe interest-bearing assets, typically term deposits.
The long investment horizon faced by the elderly couple is actually a reason for caution and the FPA’s advice is at odds with indications that financial plans are fragile around the point of retirement. Bengen (2001) appears to have initiated this line of research, basing his fragility finding on historical simulations with actual returns data for the United States. He noticed that, once you are retired, the sequence of investment returns becomes critical: a market down followed by a market up tends to do more damage than it would have done during working life. The reason is that if you suffer a big hit early on, you still need to draw down your account balance for living expenses, further depleting it. So even if markets do eventually bounce back you cannot expect to recoup your losses.

Subsequent findings, based (like Section II) on the notion of a protected consumption level, give theoretical support to this fragility argument: if your annual expenditure over an expected lifetime cannot fall below some minimum standard, then your asset allocation initially needs to be conservative, reflecting a high present value of protected lifetime expenditure. The longer your expected time in retirement, the more conservative your initial allocation needs to be. The present value of your protected consumption falls as your remaining years run out, but only to the extent that portfolio returns have met or exceeded expectations in the early part of retirement should your proportionate allocation to risky investments be lifted. In this way, proportionate allocations to growth assets should be conditioned on both age and portfolio performance rather than held constant through time.\textsuperscript{xii}

A further reason for caution in the case of the FPA’s hypothetical couple is that the FPA’s model plan does not address the couple’s apparent lack of retirement flexibility. The plan assumes that the couple’s sole breadwinner will continue to work until age 65, or for 3 or 4 years past the recent average retirement age for males. As a consequence, the hypothetical household cannot count on
being able to work for longer if investment markets fall before the planned retirement date. Moreover, a setback in health or employment could see the breadwinner forced into retirement before age 65.

Section II emphasised a ‘shortfall’ notion of risk whereby potential investor losses are capped by placing some wealth in passively-managed safe assets.\textsuperscript{xiii} The FPA’s plan appears to recommend that only 5 per cent of the investor’s superannuation be unambiguously invested in this way.

The FoFA proposals go some way towards capping investor losses. They ban asset-based fees on the borrowed component of sums invested by geared investors, which would help avoid a repetition of the Storm Financial affair. They also seek to reduce operational and counterparty risks in the managed funds industry, by setting up compensation schemes for investors.

(c) Performance fees

Theory and practice diverge on the question of performance fees. Equation (1) of our Section II theory endorsed a key claim of Dybvig \textit{et al.} (2010), namely, the performance component of an asset-based fee should be symmetrical in the outperformance of the actively managed portfolio over the zero-effort benchmark portfolio. This symmetry is the defining feature of so-called fulcrum fees. Figure 2 portrays a fulcrum fee.\textsuperscript{xiv} Current regulatory practice in the United States towards managed funds is that fulcrum fees have become the only legal performance fees outside hedge funds. However, the associated regulatory change saw a big switch by fund managers, away from conventional structures for managed funds and towards hedge-fund structures in that country.

Fee schedules for hedge funds offered in the US are often of the so-called ‘2-20’ variety whereby managers do not pay clients if they underperform the agreed benchmark, always receive a fixed asset-based fee of 2 percent and, in addition, receive an additional fee of 20 percent whenever the portfolio
outperforms the benchmark (Cochrane 2011). Cochrane observes that the corresponding payoff profile resembles the payoff profile for a long position in a call option. The value of a call is an increasing function of the value of the underlying asset, so that an option-style payoff motivates managers to exert more effort. But the value of an option is generally an increasing function of the volatility of the underlying asset, so that an option-style payoff introduces an agency problem whereby the manager is tempted to form an excessively risky portfolio, unless sufficiently deterred by a concern for reputation.xv

Eighteen performance fees used in Australian managed funds are analysed by Whitelaw et al. (2011a).xvi Seventeen of the funds define the benchmark return as returns to the Standard and Poors/Australian Stock Exchange’s accumulation indices for its largest 200 or 300 stocks, plus a hurdle rate ranging from zero to five percentage points. No fund offers a fulcrum–style performance fee. On the other hand, all but two offer some variant or other of a ‘high watermark’ feature. This means performance fees cannot be collected until some or all of any underperformance relative to the benchmark has been recovered. Partially offsetting high watermarks are resets whereby about half the funds in the sample allow their pre-existing high watermarks to be cancelled periodically, putting the manager back in a position to receive fees for outperformance relative to an agreed benchmark without having to make good previous losses.

The heavy solid line in Figure 2 is a stylised portrayal of the performance fee structure of fund number 9 in the sample of Whitelaw et al. The figure is stylized because it does not portray the short-run dynamics of high-watermark and reset features. Fund number 9 can be viewed as a typical one in the sample. Its fee for outperforming the benchmark is 20 per cent, its benchmark is one plus annualised growth in the S&P/ASX 200, and its base fee is 0.75 per cent, calculated before extracting the performance fee. The heavy solid line shows fund number 9’s performance fee before allowing for high watermarks and resets. The heavy dashed line is a stylised portrayal of the average performance fee after allowing for high watermarks and resets. The combined effect of these two features is to
push the manager’s embedded call option in the direction of being out-of-the-money. This will tend to weaken incentives both for exerting effort and recommending a risky portfolio.

[Figure 2 here]

The sample of Whitelaw et al. (2011a) suggests that the agency problems affecting performance fee schedules in US hedge funds are also present in performance fee schedules for Australian actively-managed funds. Active managers in both countries apparently prefer to rule out downside rather than submit to fulcrum contracts, notwithstanding the relevant prediction (or prescription) of agency theory. In fairness to product providers, one reason for the absence of fulcrum contracts could be investor resistance to the higher fees that might be required. An institution offering fulcrum contracts would need to hold capital against the contingency of compensating investors for underperformance.

FoFA sidesteps the question of performance fees, including fulcrum ones. Worth considering are compromise solutions whereby investors would be reimbursed for underperformance up to a cap.

(d) Active versus passive management

Theory and practice diverge on the question of the relative merits of active and passive management (paralleling the question of performance fee design.) Grossman and Stiglitz (1976) model an economy in which the expected returns to active and passive management are equalised. In common with Dybvig et al. (2010) and its extension in our Section II, Grossman and Stiglitz assume that information acquisition is costly and research investments are rewarded. Active investors drive asset prices towards fair value, and just cover costs in doing so. Yet the international evidence is that active managers perform about 100 basis points pa less well on average than this parity condition suggests.

The FPA’s model quotes a management expense ratio of 1.89 per cent pa of funds under advice-cum-management (Table 1). Internationally, Vanguard is the best-known provider of index funds. Its
Australian Growth Index Fund quotes a management expense ratio of 0.36 per cent. The FPA’s recommended fund-of-funds therefore suggests a considerable degree of active management. This inference is consistent with this finding of Whitelaw et al. (2011b), based on their study of 75 large-cap Australian share strategies: “There is a discernible relationship between active share score and fees” (p2). By the same token, “a number of vehicles” have “relatively high fees and low active share scores” (p2). Moreover, the problem of closet indexing appears to be particularly acute in the case of large-cap Australian share funds, which are “are among the least active globally” (p2).

Whitelaw et al. point out that the ASX/S&P Accumulation index is “tightly constrained and top-heavy” (p4). Notably, the top 10 holdings in the Australian index accounting for 52 percent of index capitalisation. This creates an unfortunate interaction with the strong home bias of the FPA’s model plan, which allocates only 10 percent to international shares (Table 1). If you want both an active management style and strong diversification then you would probably be better off with a more internationally diversified portfolio than that proposed by the FPA’s model plan.

Australia’s problem of active managers who are actually among the least active internationally may well derive from our unusual approach of compulsory pre-funded superannuation. MySuper should mitigate the problem. It seeks to ensure that low-cost and diversified funds are available to people who are not actively engaged with their superannuation. It also proposes designing workplace forms and procedures that nudge inactive investors into ticking a box that steers them into low-cost and diversified funds.

(e) Disclosure

The FPA’s “Example SOA” discloses dollar amounts payable during the first year of the contract. Not disclosed, however, are dollar amounts projected after the first year. For example, the projected total dollar amount payable in the first year of the breadwinner’s projected retirement at age 65 can be
estimated at $36,181. That amounts to more than half of the couple’s “target” retirement income of $70,000 per year (Kingston 2009). The tail fees include annual asset-based commissions from the product provider. Thus, the projected $36,181 fee payable in the client’s retirement year includes a commission of $2,906 from the fund-of-funds to the financial planner (and the licensee.)

The model plan does disclose a “target” retirement income, namely $70,000 pa. But it gives no numeric indication of the possible dispersion of actual incomes around this target. An advantage of plans based on the notion of ‘protected’ consumption is that they do address the question of ‘lifestyle’ risk. Thus, Kingston (2009) examines strategies for putting a floor of $50,000 pa in real terms under the couple’s spending in retirement, based on the couple’s average life expectancy.

Noted earlier was the terse and (in our view) flawed justification for reweighting the portfolio to a comparatively aggressive one with at least 70 per cent in growth assets. The possible incentive effects of asymmetric performance fees are not mentioned at all. The FPA’s “Example SOA” instead refers to a Product Disclosure Statement (access restricted) for details of performance fees.

FoFA does not address questions of disclosure of risks and does not seek to restrict portfolio allocations. On the other hand, it does propose annual disclosure of dollar amounts payable in fees.

In its submission to the Cooper review, the FPA argued against portfolio restrictions, particularly in the case of investors on the cusp of retirement: “Lifestyle options per se are not necessarily an appropriate strategy for super fund members to adopt. For example, the 10/30/60 rule indicates that the majority of the growth of an investment portfolio occurs during the retirement stage” (FPA 2009, p12). According to this rule, 10 per cent of your nominal investment earnings in retirement come from contributions, 30 per cent comes from investment earnings before retirement, and 60 per cent comes
from investment earnings after retirement. The FPA evidently interprets this rule as showing that you need a comparatively aggressive allocation on the cusp of retirement.

There are problems with the 10/30/60 rule and the FPA’s application of it. First, it appears to be based on comparisons of nominal (rather than real) contributions and investment earnings at widely different times, whereas neither nominal contributions nor nominal investment earnings are commensurate across different dates. Second, an allocation’s potential for generating high expected nominal earnings at retirement is far from being a sufficient statistic for evaluating it: an adjustment for inflation is needed, and the risk aversion of a retiree along with the price of risk are essential inputs to asset allocation. Third, if in fact the 10/30/60 rule is compelling, why is it omitted from the FPA’s 2008 document? Finally, considering that the two documents (2008 and 2009) total 51 pages, why are there only two or three sentences between them on the fragility or otherwise of financial plans on the cusp of retirement? This brevity smacks of a ‘small target’ strategy on the part of the FPA.

IV. CONCLUDING COMMENTS

Our extension of the model of Dybvig et al. (2010) shed light on the tension between agency theory and financial-planning practice. To the extent that investors on the cusp of retirement have concerns about their wealth falling short of some predetermined value, they should simply allocate their wealth partly to safe interest-bearing assets before contracting with the active manager/financial planner. In practice, however, this appears not to be the norm. Rather, planners are entrusted with the bulk of the superannuation balances of their clients and derive most of their income from asset-based fees. As a consequence, fee income from a given client hits a maximum at the outset of the client’s retirement. This tempts planners to overweight high-fee growth assets at that particular point of the client’s life cycle. By contrast, theory suggests that the case for a high weight on growth assets applies at ages
well before retirement and, possibly, late in retirement as well, depending on how the client’s investments have performed.

Likewise, theory suggests that fulcrum contracts are the best type of performance fee. In practice, however, we typically see option-type payoff profiles, which again promote excessive exposure to growth assets at the outset of a client’s retirement.

There is a public interest in financial plans with less aggressive asset allocations for elderly clients, in particular, the taxpayer interest. The Age Pension is indexed to the maximum of wage and price inflation, and is payable for the remaining life of the pensioner, subject to means tests. It can be viewed as public retirement income insurance. It tempts advisers to recommend aggressive asset allocations, since the taxpayer becomes in effect a part guarantor of the client’s core retirement income stream. In this way, the Age Pension fall-back promotes moral hazard in advice on asset allocations, with taxpayers picking part of the tab for unsound or unlucky advice. Thus, Harmer (2009, p15) noted that “Age Pension applications in December 2008 were around 50 per cent higher than the number recorded in October of the same year.” The next review of financial advice should examine ways of requiring financial advisers to disclose and respond to the fragility of financial plans for investors on the cusp of retirement. A good start would be this: require Statements of Advice for clients aged over 55 to disclose the percentage allocation to Australian-dollar-denominated interest-bearing securities rated at least ‘high quality’ by one of the major credit rating agencies.
REFERENCES


Cochrane, J. 2011, ‘Hedge Funds’ (slides), Booth School of Business, University of Chicago, downloaded December 11.


Figure 1

Fee structure in the FPA’s “Example SOA”

Table 1

Asset allocation and product fees

<table>
<thead>
<tr>
<th>Portfolio share (per cent)</th>
<th>Investment sector</th>
<th>Investment options</th>
<th>Management fee (per cent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Cash</td>
<td>Cash</td>
<td>1.13</td>
</tr>
<tr>
<td>5</td>
<td>Income</td>
<td>Income extra</td>
<td>1.77</td>
</tr>
<tr>
<td>20</td>
<td>Income</td>
<td>Income fund</td>
<td>1.92</td>
</tr>
<tr>
<td>5</td>
<td>Listed property securities</td>
<td>Property securities fund</td>
<td>1.66</td>
</tr>
<tr>
<td>10</td>
<td>Australian shares</td>
<td>Australian active equity</td>
<td>1.86</td>
</tr>
<tr>
<td>17</td>
<td>Australian shares</td>
<td>Boutique Australian shares</td>
<td>1.96</td>
</tr>
<tr>
<td>8</td>
<td>Australian shares</td>
<td>Australian equity long/short</td>
<td>2.24</td>
</tr>
<tr>
<td>20</td>
<td>Australian shares</td>
<td>Australian small companies</td>
<td>1.91</td>
</tr>
<tr>
<td>10</td>
<td>International shares</td>
<td>Global value equity</td>
<td>2.01</td>
</tr>
<tr>
<td>100 per cent</td>
<td></td>
<td></td>
<td>1.89 per cent</td>
</tr>
</tbody>
</table>

Source: adapted from FPA (2008, p9)
Figure 2

Alternative performance fee structures

Performance fee percent per dollar managed

Fulcrum fee

Typical fee in practice, without high watermark

Typical fee in practice, with high watermark

Outperformance percentage points

0 1 2

20
Endnotes

i Aka the Stone-Geary utility function.

ii See e.g. Wachter and Yogo (2010) for a review of the evidence on relative risk aversion falling with wealth (which they rationalise by a distinction between necessities and luxuries rather than ‘protected’ consumption – a device which can be interpreted as playing the role of necessities without the complication of a relative price between necessities and luxuries.)

iii Australian variants on commissions include ‘subsidy rebates’ paid by clients to advisers via product providers, and ‘volume rebates’ paid by platforms to dealer groups. Other results from Stoughton et al. that have a realistic flavour are as follows: commissions are a form of price discrimination that serves to extract additional economic surplus, especially from wealthy investors; when investors are unsophisticated, commissions take the form of free promotional material on behalf of advisers; commissions always lower investor welfare but not necessarily the welfare of the economy as a whole; competition among active managers discourages commissions; better disclosure of commissions benefits investors; absent commissions, advisers can potentially do a good job of performing the social function of facilitating access by small investors to actively managed portfolios.

iv That case does not yield straightforward results even with simple log utility.

v The existence of solutions to our modified problem presupposes suitable upper bounds on protected consumptions, including $w < w_0$.

vi See Section III.

vii Dybvig et al. emphasise this alternative interpretation of $R^B$.

viii It is now unavailable. Kingston (2009) discusses this precursor document.

ix There is now a cap of $25,000 p.a. on concessional contributions by people with over $500,000 in super, so tax benefits on this scale are no longer available.

x Routing payments via the licensee in this way presumably mitigates operational risks.

xi “It’s my understanding you are willing to implement a less conservative strategy to meet your objectives. I have allocated approximately 30% to cash and income funds to cover pension payments”– FPA (2009, p4).

xii See Bateman et al. (2007) and Kingston (2009). Constant-mix allocations, through time and across the major asset classes, are associated with constant relative risk aversion (aka ‘power’ utility) which, as Section I noted, is at odds with evidence that actual proportionate allocations to risky assets tend to rise with investor wealth.
More precisely, funds placed under active management were given by the investor’s initial ‘cushion’, namely \( W_0 - w \).

In terms of our Section II theory, the slope of the ray in the figure is given by \( \frac{\lambda_x}{\varepsilon \lambda_R} \) and outperformance is given by \( R^p - R^b \).

In terms of options analysis, if a call has a knockout feature and the value of the underlying asset is sufficiently close to the knockout price, then increases in volatility will reduce the value of a call. The real-options analogue here is that an investor might switch to a different fund if the value of the original fund has fallen sufficiently. There is a substantial literature on these considerations, which we ignore, to save space.

Whitelaw et al. are concerned with the comparative expense of performance fee structures rather than the implications for incentives which are the concern here.

Financial planning practices have typically sold on multiples of three or four times annual revenues. By contrast, accounting practices have typically sold on multiples of two.

Kingston builds on estimates given in Bateman et al. (2007). In the terminology of dynamic asset allocation the overall approach is one of constant-proportion portfolio insurance with a finite horizon. He emphasises the case of generalised log utility, corresponding to a multiple of about one. That is conservative compared to typical infinite-horizon CPPI strategies, which typically have multiples in the range of 3 to 5.

For an exposition, see e.g. Russell (2008). Ironically, this particular exposition also endorses a ‘glide path’ approach whereby your asset allocation is conservative by the time you are on the cusp of retirement – yet the FPA treats the 10/30/60 rule as an argument against the glide path.