Alternative Investment Performance Fee
Arrangements and Implications for
SEC Regulatory Policy:
A Comment

by

William Margrabe**

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Not for Quotation

Abstract

Working from the assumptions that Modigliani and Pogue made in their recent article, I (1) explain why there is no incentive for a portfolio manager to prefer their Plan 1 fee over their Plan 2 fee, (2) explain why the portfolio manager and investment company are superfluous, and (3) rebut the authors' unduly pessimistic conclusions about portfolio manager behavior in an unregulated capital market.

In their recent article in this journal Franco Modigliani and Gerald Pogue (M and P) analyze the incentive effects of two types of investment performance fees.[1] They assume that the Sharpe-Lintner model of asset pricing is valid. They conclude that portfolio managers will prefer a performance fee with the target portfolio not adjusted for the managed portfolio's risk, and that this creates a serious agency problem requiring regulation. In this comment, I want to show that these conclusions are inconsistent with Sharpe-Lintner equilibrium.

Both performance fees analyzed by M and P equal some constant δ times the difference between the rate of return on the managed portfolio p and that of the target portfolio s:[2]

$$\tilde{Fee} = \delta(\tilde{R}_p - \tilde{R}_s) \ .$$

Such a fee is equivalent to the return one would get if he sold short δ dollars of portfolio s, investing the proceeds in portfolio p. The market portfolio M is the target of the Plan 1 fee. The Plan 2 fee target is a combination of the riskless asset and the market portfolio, the combination having the same systematic risk as the managed portfolio.

There is no reason for a portfolio manager to prefer a Plan 1 fee over a Plan 2 fee. The equilibrium market value of either fee must be nil. Otherwise, arbitrageurs could grow wealthy without limit by taking appropriate long and short positions in the target and managed portfolios, without investing their own money. Thus, a manager cannot increase his wealth by means of such a fee. (The appendix contains an algebraic proof that the value of the fee is nil in Sharpe-Lintner equilibrium. That proof does not rely on any short sale.) Nor does the performance fee create any desirable investment opportunity that is otherwise not available. In the Sharpe-Lintner world, each investor holds a portfolio combining the riskless asset with the market

portfolio of risky assets. He can form this portfolio at no cost without becoming a portfolio manager and without use of an investment company. Hence, the investment company and portfolio manager are superfluous.

The performance fee is also harmless, even under Plan 1, where the target portfolio is not adjusted for systematic risk. M and P are unduly pessimistic in seven of their conclusions ([2] , pp. 155-156).

> (1) [Managers of above average risk funds] will tend to earn above average advisory compensation independently of superior investment performance.

This is literally true for portfolio risk; but managers of riskier funds have larger expected fees to compensate them for assuming more risk, just as owners of riskier assets tend to receive larger returns per dollar invested.

> (2) If advisors are free to choose between a compensation scheme with no incentive fee, and a scheme of the type of Plan 1, the managers of low risk portfolios would choose no incentive while the managers of risky portfolios (and only those) would choose the incentive.

Any manager would be indifferent, since a fee would neither increase his wealth nor enlarge his investment opportunity set.

> (3) [A Plan 1 type incentive fee] provides inequitable compensation for the advisors of above average risk funds.

It provides _equitable_ compensation for systematic risk.

> (4) It leads to a potential conflict of interest between stockholders and managers.

In fact, it promotes a coincidence of interest. If stockholders require that δ is positive, but less than their entire investment in the fund, both they and management will have a long interest in the managed portfolio. When management makes a wise or lucky portfolio decision, it receives a fraction of the benefit. If management makes an unwise decision, it bears the same fraction of the cost. The fortune of management is directly tied to that of the stockholders.

(5) It provides a distorting influence in the capital markets.

Only if selling some securities short and purchasing others with the proceeds distorts the market.

> (6) The only way to eliminate these difficulties is either (1) ban all incentive fee plans or, preferably, (2) leave fund advisors the option to use an incentive fee, but require that the fee be based on a risk adjusted standard along the lines of our Plan 2.

It is not clear that such difficulties can exist in a Sharpe-Lintner world. Even if they did exist, individuals could withdraw their funds and sue management if they felt it was cheating them. Better yet, they could refuse to enter into contracts with undesirable incentive effects.

> (7) The incentive compensation under the risk adjusted Plan 2 was less volatile than under Plan 1.

The market automatically compensates management for any systematic risk associated with the fee, and the owner(s) of the management firm will diversify away any nonsystematic risk.

> Although Modigliani and Pogue say that

> Less regulation is obviously preferable to more -- the advisors have more freedom and the task of the regulators (and investors) is simplified (p. 156),

they propose more regulation. While someone might make a case for regulation of performance fees, given some set of assumptions, such regulation is useless in the Sharpe-Lintner world.

By now the reader may wonder under what conditions (a) the performance fee is valuable, (b) the fee provides an improper incentive for a manager, or (c) regulation is needed. Clearly, one must relax the Sharpe-Lintner assumptions (taking care not to assume away capital market equilibrium) or change the nature of the fee. Unfortunately, the task of isolating those conditions which will imply propositions (a), (b), and (c) is beyond the scope of this comment.

Appendix

The value of the fee is nil, regardless of the managed portfolio, or
of the target portfolio, given the assumptions of the Sharpe-Lintner asset
pricing model.

The present value of an asset A is

$$P_A = (1 + R_F)^{-1} \left\{ E(\tilde{V}_A) - \frac{\left[E(\tilde{R}_m) - R_F \right]}{\sigma(\tilde{R}_m)} \frac{cov(\tilde{V}_A, \tilde{V}_M)}{\sigma(\tilde{V}_M)} \right\},$$

where V_A is the value of asset A and V_M is the value of the market portfolio,
both values measured at the end of one period.[3]

The expected value of the fee at the end of the period is

$$E(\tilde{Fee}) = \kappa \left[E(\tilde{R}_p) - E(\tilde{R}_s) \right] = \kappa(a_o - a_s) \left[E(\tilde{R}_M) - R_F \right]$$

Its covariance with V_M is

$$cov(\tilde{Fee}, \tilde{V}_M) = \kappa P_m \left[cov(\tilde{R}_p, \tilde{R}_m) - cov(\tilde{R}_s, \tilde{R}_m) \right],$$

where P_M is the present value of the market portfolio.

So its present value is:

$$P_{Fee} = (1 + R_F)^{-1} \left\{ \kappa(a_p - a_s) \left[E(\tilde{R}_M) - R_F \right] \right.$$

$$\left. - \frac{E(\tilde{R}_m) - R_F}{\sigma(\tilde{R}_m)} \cdot \frac{\kappa P_m \left[cov(\tilde{R}_p, \tilde{R}_m) - cov(\tilde{R}_s, \tilde{R}_m) \right]}{\sigma(\tilde{V}_m)} \right\} = 0.$$

[1]Modigliani and Pogue [2] .

[2]Ibid, p. 130.

[3]See Fama and Miller [1] , p. 296.

REFERENCES

1. Fama, Eugene F., and Miller, Merton H. The Theory of Finance.
    New York: Holt, Rinehart and Winston, 1972.

2. Modigliani, Franco, and Pogue, Gerald A. "Alternative Investment
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FOOTNOTES

* Forthcoming in The Bell Journal of Economics, 7 (2) (Autumn 1976).

** University of Pennsylvania. The author thanks Fischer Black for especially helpful comments.

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REFERENCES

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