EXPLAINING INVESTOR PREFERENCE FOR CASH DIVIDENDS

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❖ Objectives and motivations of the study

Why do so many individuals have a strong preference for cash dividends?

➔ It's explained by two theories, the **Theory of Self-Control** and the **Prospect Theory**

Theory of Self-Control: ability to control spending, investors may recognize they have problems with the inability to delay gratification → they limit their spending to only the interest and dividends from their investment portfolio

Prospect theory (**loss aversion**): states that people value gains and losses differently → they will base decisions on perceived gains rather than perceived losses

The key point which emerges from the two theories is as follows: the perfect substitutes feature of capital gains and dividends (in the absence of taxes and transaction costs)

Dividends and capital gains should be perfect substitutes for each other:

- ➔ A cash dividend results in a drop in the price of the firm's stock by an amount equal to the dividend.
- ➔ Thus, investors should be indifferent between a cash dividend and a "homemade" dividend created by selling the same amount of the company's stock.

Whether you take the cash dividend or sell the equivalent dollar amount of the company's stock, you will have the same amount invested in the stock. It's just that with the dividend, you own more shares, but at a lower price (by the amount of the dividend), while with the self-dividend, you own fewer shares but at a higher price (because no dividend was paid).

But it's long been known that many investors have a preference for cash dividends and from the perspective of classical financial theory, this behavior is an anomaly.

Why capital and cash dividends need not be perfect substitutes, even in the absence of taxes and transaction costs?

❖ Data used (Tab1)

Data on a large random sample of investors who had maintained an open account over the period 1964-1970 with a large national retail brokerage house. Highly representative of the shareholding public. Using cluster analysis → partition their sample into five relatively homogeneous groups:

1. young, unmarried professionals and managers;
2. highly educated young professional men;
3. older males still at work;
4. females, mostly retired;
5. retired males.

❖ Indicators, Methods, Models used

Self-Control and Dividends

The departures all involve the inability of individuals to delay gratification because of a lack of self-control.

Individual may wish to follow a rule stipulating that portfolio capital is not to be consumed, only dividends. What needs to be explained is why such a rule would be in the individual's interest since it imposes unnecessary constraints when viewed from standard financial theory.

Because of possible self-control difficulties, allowing 'oneself the discretion of selling stock for current consumption may cause the portfolio to be consumed more quickly than is consistent with one's long-term goals

Prospect Theory and Dividends

1st explanation of why investors prefer cash dividends = distinction between '**issues of form**' and '**issues of substance**'

Standard financial theory = form of cash dividend or form of stock doesn't matter because they are perfect substitutes

Illustration → Fischer Black (1976):

- 'Suppose you are offered the following choice. You may have $2 today, and a 50-50 chance of $54 or $50 tomorrow. Or you may have nothing today, and a 50-50 chance of $56 or $52 tomorrow. Would you prefer one of these gambles to the other?'
  'Probably you would not. Ignoring such factors as the cost of holding the $2 and one day's interest on $2, you would be indifferent between these two gambles.'

But the distinction in form does matter (McNeill, Pauker, Sox and Tversky (1981)):

- ➔ Physicians must choose between the two treatments
- ➔ Some physicians were presented with the data **in the form of 'survival probabilities'**
- ➔ Remainder were given the equivalent information **in the form of 'mortality probabilities'**
- ➔ 84% of the physicians chose surgery over radiation when 'survival probabilities' were presented
- ➔ Only 50% made that choice when 'mortality probabilities' were presented
- ➔ (The conversion of 'mortality probability' into 'survival probability' is easily computed by subtraction from unity)

Fig. 1:

- display risk-averse behavior over gambles which involve only gains;
- display risk-seeking behavior over gambles which involve only losses; and
- have losses loom larger than gains in those gambles which admit the possibility of either a gain or loss of equal magnitude.

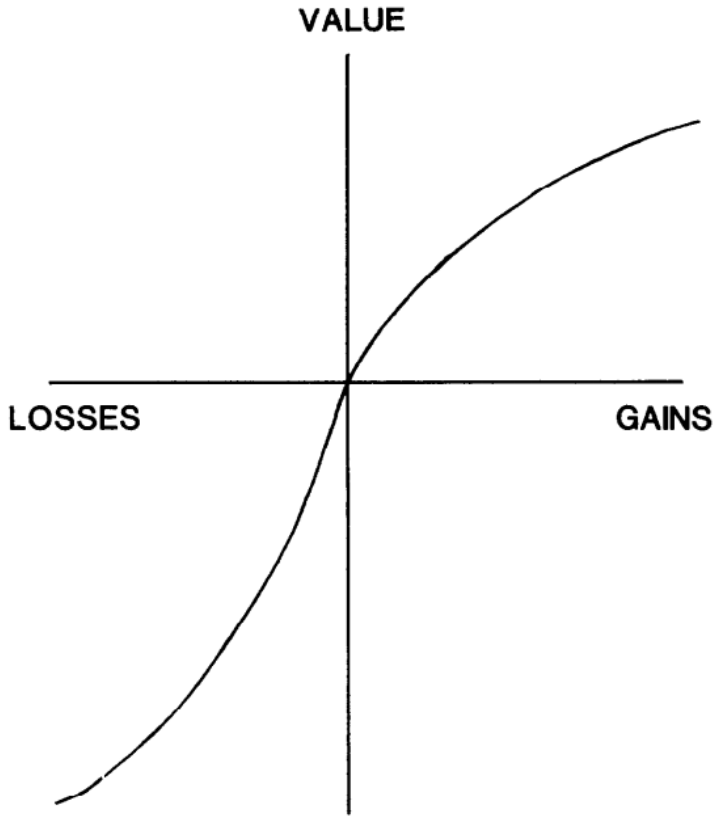


Fig. 1. The Kahneman–Tversky value function representing an individual's preferences over gains and losses measured relative to some reference point in a gamble. The figure shows that the individual is risk-averse in gains, risk-seeking in losses, with losses looming larger than gains.

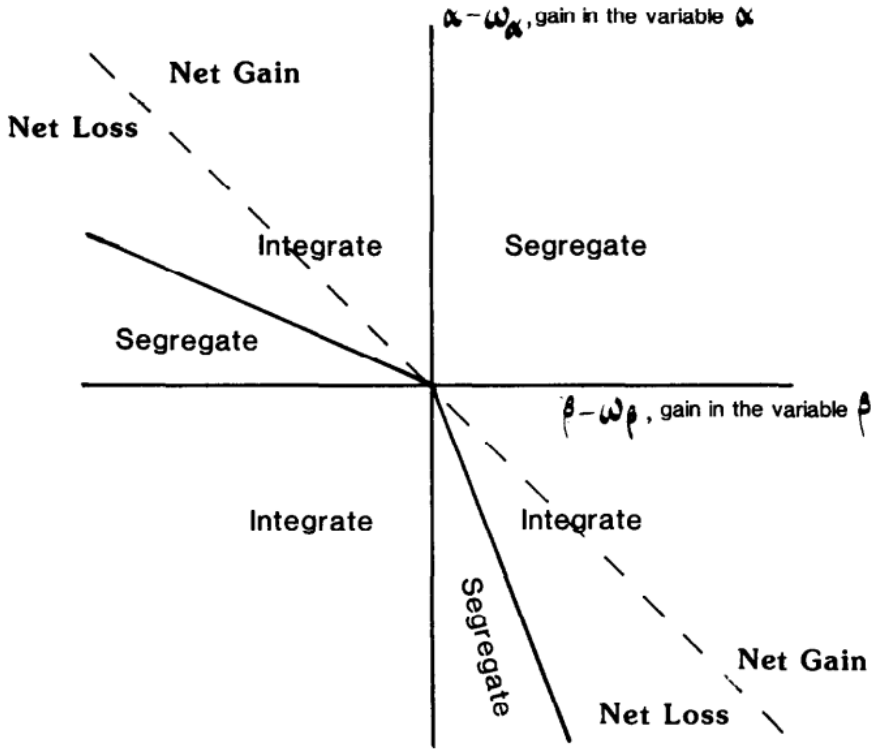


Fig. 2. This figure portrays the integration and segregation regions for an individual who simultaneously incurs gains and/or losses in two distinct variables, α and β (measured relative to reference points ω_α and ω_β, respectively). The figure indicates whether a given combination $((\alpha - \omega_\alpha).(\beta - \omega_\beta))$ leads the individual to segregate or to integrate. The net gain (or loss) associated with the final position is computed by adding $(\alpha - \omega_\alpha)$ to $(\beta - \omega_\beta)$.

$w(\bullet)$ = function of one variable, shape in Fig. 1
$v(\bullet)$ = utility indicator, function of two variables → to determine whether to segregate or integrate
ω = a reference point in the decomposed form $(\omega_\alpha, \omega_\beta)$
α = the dividend per share
β = the current stock price
ω_α = the dividend reference point
ω_β = the original purchase price of the stock
$x = (\alpha - \omega_\alpha, \beta - \omega_\beta)$

$$v(x) = \max\{w((\alpha - \omega_\alpha) + (\beta - \omega_\beta)), w(\alpha - \omega_\alpha) + w(\beta - \omega_\beta)\}$$

(3) = Integration: the two gains $(\alpha - \omega_\alpha)$ and $(\beta - \omega_\beta)$ are netted together as $(\alpha - \omega_\alpha) + (\beta - \omega_\beta)$

$$v(x) = w((\alpha - \omega_\alpha) + (\beta - \omega_\beta)). \quad (3)$$

(4) = Segregation: the two gains $(\alpha - \omega_\alpha)$ and $(\beta - \omega_\beta)$ are savored separately

$$v(x) = w(\alpha - \omega_\alpha) + w(\beta - \omega_\beta) \quad (4)$$

➔ In these cases (α, β): $\alpha > \omega_\alpha$ and $\beta > \omega_\beta$ = gains

If $\alpha < \omega_\alpha$ and $\beta < \omega_\beta$ → α loss and β capital-loss

➔ The integrated form (3) would be chosen over the segregated form (4)
➔ Here, the value of (3) will be higher than that of (4), (3) > (4)

In the mixed case: α is a gain and β a capital-loss or gain

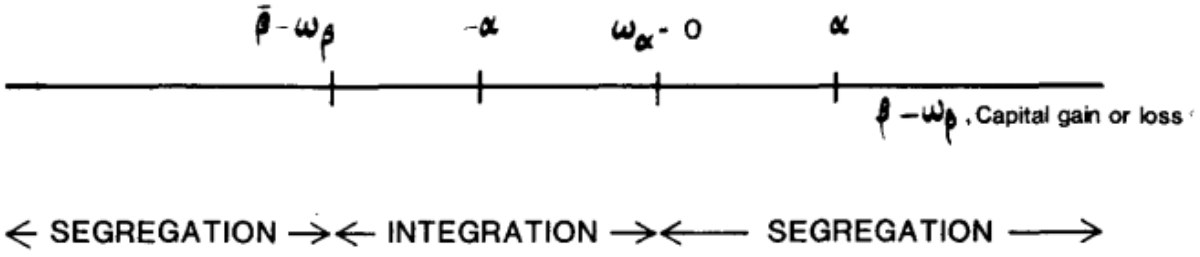


Fig. 3 indicates the regions in which segregation or integration is preferred given a constant dividend α and varying capital gain $\beta - \omega_\beta$. There are two distinct segregation regions which are relevant to dividends.

$$v(x) = w(\alpha) + w(\beta - \omega_\beta) = w(\alpha) + w(-\alpha) < 0.$$

This last inequality follows from (4) and fig. 1 (since losses loom larger than gains). Consequently, **integration is preferred** when $\beta - \omega_\beta = -\alpha$ or for all β satisfying $-\alpha \leq \beta - \omega_\beta < 0$

- The **right-most segregation region** is associated with a positive capital gain = the investor' segregates in order to obtain 'super added benefit' from this gain
- The **left-most segregation region**, where a sizeable capital loss is incurred, he segregates in order to treat the dividend as a silver lining with which he can 'console himself'

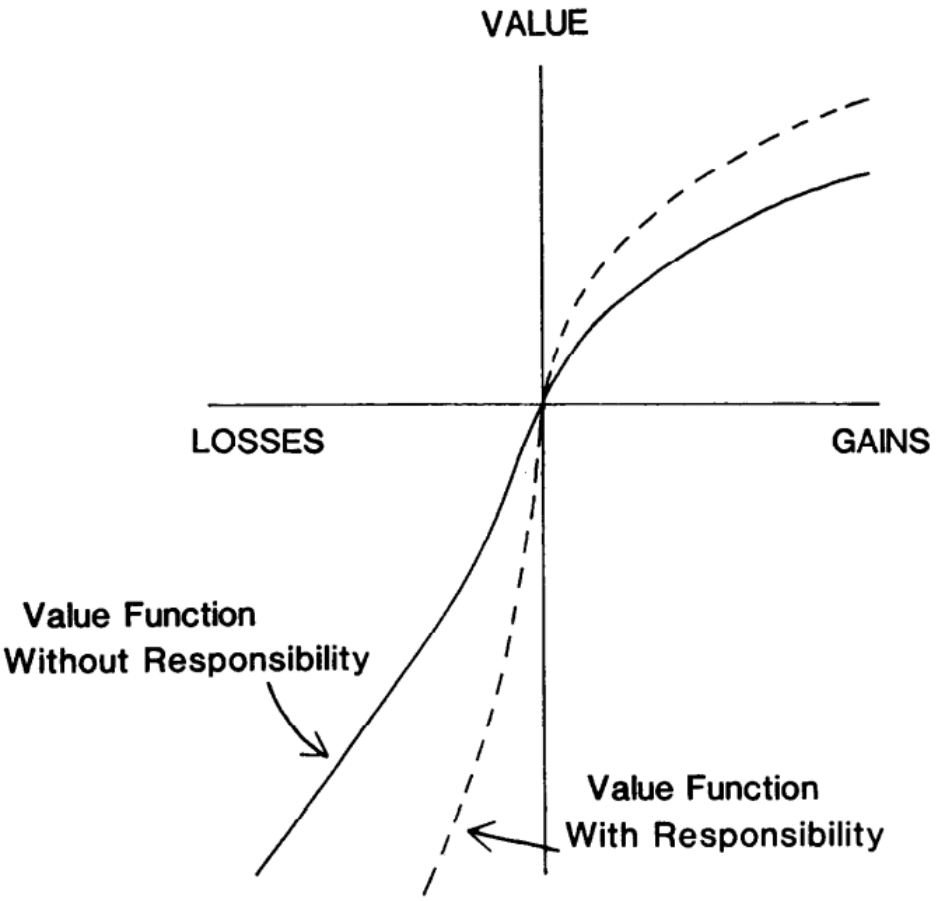
- The **intermediate region** of 'small' capital losses, he integrates in order to offset part or all of the capital loss by the dividend.

Regret Aversion and Dividend Preference

Shefrin and Statman offer yet a third explanation: **regret avoidance**. Consider two cases:

1. You take $600 received as dividends and use it to buy a television set.
2. You sell $600 worth of stock and use it to buy a television set.

After the purchase, the price of the stock increases significantly. Would you feel more regret in case 1 or in case 2? Since cash dividends and self-dividends are substitutes for each other, you should feel no more regret in case 2 than in case 1. However, evidence from studies on behavior demonstrates that for many people, **the sale of stock causes more regret**. Thus, **investors who exhibit aversion to regret have a preference for cash dividends**. (Regret aversion can induce a preference for dividends through the use of a rule like 'finance consumption out of dividends, not capital')



The clientele effect: Some empirical implications

The authors also explain **how a preference for dividends might change during the investor's life cycle**. As mentioned earlier, the theory of self-control is used to justify the idea of spending only from the cash flow of a portfolio, never touching the principal.

In their questionnaire Lease, Lewellen and Schlarbaum asked each respondent to rate, on a scale of one to four (where four denoted a 'very important' goal), short-term capital gains, long-term capital appreciation, and dividend income as portfolio objectives. It also asked investors to estimate the (perceived) proportionate representation in their portfolio of securities chosen primarily for their ability to generate dividend-income. Also, as a crude measure of diversification, the number of different companies' securities held was solicited.

Table 1

Importance of alternative investment goals to various demographic groups as measured by average rating (4 = very important goal, 1 = low priority goal) and percent of portfolio in income securities.[a]

	(1) Young unmarried professionals & managers	(2) Highly educated young professional men	(3) Older males still at work	(4) Females, mostly retired	(5) Retired males
Investment goal rating:					
Short-term capital gains	2.19	2.00	1.86	1.50	1.53
Long-term capital gains	3.61	3.54	3.63	3.46	3.45
Dividend income	2.04	2.30	2.46	3.36	3.39
Percent of portfolio in income securities	27%	34%	39%	57%	56%
Average number of securities in portfolio	9.4	10.4	11.6	12.1	12.1

[a] *Source*: Lease, Lewellen and Schlarbaum (1976, table 3).

❖ Results

Self-Control and Dividends

The distinction between dividends and capital does matter in self-control theory—they limit their spending to only the interest and dividends from their investment portfolio. While the preference for dividends might not be optimal (for tax reasons), by addressing the behavioral issue, it could be said to be rational. In other words, the investor has a desire to defer spending, but knows he doesn't have the will, so he creates a situation that limits his opportunities, and, thus reduces the temptations.

Prospect Theory and Dividends

> *Case 1.* The investor purchased the stock for \$40. Then the outcome of Black's first gamble consists of a \$2 dividend together with a capital gain of either \$10 or \$14. In terms of fig. 3 we have $\omega_\beta = 40$, with $\beta - \omega_\beta$ equal to either 10 or 14. Notice that this places the individual in the right-most segregation region in fig. 3. Intuitively, the investor segregates the dividend from the capital gain in order to 'savor' the two separately, just as individually wrapped Christmas gifts are savored separately. Notice that the first gamble provides the investor with the flexibility to segregate or integrate as he wishes. That is, the investor can always perform the computation which transforms the first gamble into the second. However, he will not be able to transform the second (integrated) gamble into the first (segregated) gamble. Since the investor definitely prefers to segregate in this case, he will strictly prefer the first gamble to the second.[7]

Case 2. Suppose the investor purchased the stock for \$70. Therefore, a capital loss of either \$16 or \$20 will be incurred, although a \$2 dividend will also be earned. Then $\omega_\beta = 70$, and $\beta - \omega_\beta$ is equal to either -16 or -20. For the purpose of this discussion, assume that the value of $\bar{\beta} - \omega_\beta$ in fig. 3 is -5. Then the investor will find himself in the left-most segregation region of fig. 3. Intuitively, the investor prefers to segregate because the dividend can be regarded as a 'silver lining'. That is, segregation enables the investor to stress the positive aspects of his (net) loss as much as possible.[8] Consequently, the first gamble will be preferred to the second just as in Case 1.

Case 3. Suppose the initial purchase price was \$51. This case illustrates a situation where integration emerges. Observe that with a \$2 dividend, there will be either a capital gain of \$3 or a capital loss of \$1. Then $\omega_\beta = 51$, and $\beta - \omega_\beta$ is either 3 or -1. Notice from fig. 3 that this places the investor in the integration region. Intuitively, integration is preferred to segregation here because it eliminates any consideration of a loss. Therefore, the investor who faces gamble 1 would himself integrate, thereby transforming gamble 1 into gamble 2. Because the investor has this option available, the indifference suggested by Black will actually be achieved in this case.[9]

The authors point out that if the sale involves a gain, the investor frames it as super added benefit. However, if a loss is incurred, he frames it as "a silver lining with which he can console himself." Because losses loom much larger in investors' minds and they wish to avoid them, they prefer to take the cash dividend, avoiding the realization of a loss.

As such, people will base decisions on perceived gains rather than perceived losses. Thus, if a person were given two equal choices, one expressed in terms of possible gains and the other in possible losses, people would choose the former.

Since taking dividends doesn't involve the sale of stock, it's preferred to a total return approach, which may require self-created dividends through sales. The reason is that sales might involve the realization of losses, which are too painful for people to accept, which they betray by exhibiting loss aversion.

Of course, what they fail to realize is that a cash dividend is the perfect substitute for the sale of an equal amount of stock whether the market is up or down, or whether the stock is sold at a gain or a loss. It makes absolutely no difference. It's just a matter of how the problem is framed. It's form over substance.

Regret Aversion and Dividend Preference

Shefrin and Statman go on to explain that people suffer **more regret when behaviors are taken than when behaviors are avoided**. In the case of selling stock to create the homemade dividend, a decision must be made to raise the cash. When spending comes from the dividend, no action is taken, thus less regret is felt. Again, **this helps explain the preference for cash dividends**.

The clientele effect: Some empirical implications (Life circle)

- Younger investors, generating income from their labor capital, might prefer a portfolio with low dividends, as a high-dividend strategy might encourage "dis-savings."
- On the other hand, retired investors, with no labor income, would prefer a high-dividend strategy for the same reasons, to discourage dis-savings (spending from capital). A study of

brokerage accounts found there was in fact a strong and positive relationship between age and the preference for dividends.

The bottom line is that the preference for cash dividends is an anomaly that cannot be explained by classical economic theory, which is based on investors making "rational" decisions. But investors who face issues of self-control—such as being subject to impulse buying—may find that while there are some costs involved, the benefits provided by avoiding the behavioral problems may make a cash dividend strategy a rational one.