The disposition to sell winners too early and ride losers too long: Theory and Evidence

One of the most significant and unique features in Kahneman and Tversky's approach to choose under uncertainty is aversion to loss realization. This paper is concerned with two aspects of this feature. First, we place this behaviour pattern into a wider theoretical framework concerning a general disposition to sell winners too early and hold losers too long. This framework includes other elements, namely mental accounting, regret aversion, self-control, and tax considerations

Theory

A. Prospect Theory (Kahneman and Tversky)
Prospect theory as a descriptive theory of choice under uncertainty.
Olympic medal winners, bronze winners are happier than silver medal winners, considering their referral point. Silver medalist are not as happy.
Their value gain and losses differently. In financial term the amount of joy in receiving 50$ Should be equal to a situation in which you gain 100$ then lose 50$.
Most people view the gain scenario more favorable than the gain and loss scenario because the feeling of pain due to a loss is 2 to 3 times greater than the joy felt from an equivalent gain.

B) Mental accounting
We use different account in our head, we treat money differently depending on where it comes from or what is use for.
If someone has two different portfolios: one for gambling and one safe. He will have the same results if he puts it in the same big portfolio.

Investor act to avoid regret instead of to maximize wealth.
Ex: Suppose you own northwest Airlines stock, which has experienced a price decline along with the entire airline industry. You could sell the Northwest stock and purchase United Airline stock. This tax swap allows you capture the capital loss of Northwest stock to reduce your taxed while staying invested and waiting for the airline industry to rebound.
Investor tend to consider the selling of the loser as a closing of that mental account and the buying of the similar stock as the opening of a new mental account. This causes two outcomes that affect investors. First the interaction between these two accounts increases the investors wealth. Second the closing of the loser account causes regret.

C**)Seeking Pride and Avoiding Regret**
Simple example:
Consider an investor who sells a particular stock says: GM, at a gain, but continues to monitor its progress. Should the price of GM continue to rise, then the initial feeling of pride will be tempered by the regret at having sold to quickly

D)Self-controlled
Self-control bias which is a human behavioral tendency that causes people to fail to act in pursuit of their long-term, overarching goals because of a lack of self-discipline. Many people are notorious for displaying a lack of self-control when it comes to money. Self-control bias can cause investors to spend more today at the expense of saving for tomorrow. It may cause investors to fail to plan for retirement. Self-control bias can cause asset-allocation imbalance problem and can also cause investors to lose sight of basic financial principles, such as compounding of interest, dollar cost averaging, and similar discipline behaviors that, if adhered to, can help create significant long-term wealth. The benefits of self-discipline in investing are difficult to obtain. The results, however, are well worth it.

Evidence:

Problem: *Whether investors time the realization of their losses differently from their realization of gains and if so what the nature of the difference is.*

-**Tax considerations,** losses should be realized while they are short term, while gains should be realized only when they are long term.
-**Disposition effect:** to sell winners too early and ride losers too long

Both operates in the opposite direction. We want to evaluate the strength of two effects taken both separately and together.

The first source is a study dealing with the stock trading history of individual investors where transactions cost exists
The second source is aggregate data on mutual funds traders where transactions cost is negligible.

Table 1: Expected Capital Gain and loss Realizations under the assumptions that traders are Primarily Motivated by the tax option

Duration in month	No. Transactions where a gain is realized	No. Transactions where a loss is realized	Ratio of the No.Of transactions where a gain is realized to all realizations	Ratio of the No. Of transactions where a gain is Realized to all Realizations
0-1	Very Low	Average	Low	0.58
2-6	Very Low	High	Very Low	0.57
7-12	High	Low	High	0.59

Observations and analysis

-40% of all realizations correspond to losses

First, we suppose that investors trade primarily to take advantage of the tax option and are not subject to the disposition effect.
-Logically: **Few gains** are realized when they are **short term**. Why?
a) Tax rate on such gains is high
b) Transaction cost serve to discourage realization.
-Very Low (Columns 2, L. 2)
Second, gain on high and medium variance stock should be realized as soon as they become **long term**.
-The number of realizations of gains during the 7 to 12-month duration should be high (Columns 2, L. 4)

Losses are realized lest they become long term. So, the number of realizations for the two to six months should be high (Columns 3, L. 3)

Conclusion :

The significant contribution of investors who engage in tax motivated trades is offset by those who topify the disposition effect.

Tax include trades from a minor portion of all trades

In particular, we find that tax considerations alone cannot explain the observed patterns of loss and gain realization, and that the patterns are consistent with a combined effect of tax considerations and a disposition to sell winners and ride losers.