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WHEN SHOULD YOU REALIZE GAINS?

Last time, we found that when trading costs are zero and when you have no special information about stocks, it pays to realize losses whenever they occur. It pays to realize losses this year rather than next year, and short term rather than long term; and it pays to realize a loss early in any tax year rather than waiting till the end.

Let me emphasize the assumptions needed for these results: no trading costs and no ability to pick stocks that will do better than other stocks or worse than other stocks. If we relax these assumptions, it may sometimes pay to wait till later to realize losses.

For now though, we will continue to make the same assumptions. If the portfolio is large enough, realized losses that can't be used to offset this year's ordinary income will soon be generated. We'll have a backlog of realized losses; enough to use the maximum loss deduction for one year, or several years, or many years in the future.

The stocks that remain in the portfolio will all show unrealized gains. Some will be large, and some will be small. Some will be short term, and some will be long term. But all the stocks we hold will show gains.

Does it ever pay to realize a gain? Does it pay to realize a gain as soon as it becomes a long term gain? Or does it always pay to wait for death to wipe out all unrealized capital gains?

A Backlog of Realized Losses

Let us assume that there is a backlog of realized short term losses big enough to carry into at least the next tax year. Realized losses will normally be short term if we follow the policy of realizing them as soon as they become losses.

This means that long term gains will look just like short term gains. There won't be any difference. Any realized gain will cut the size of the backlog of losses dollar for dollar.

<u>Initial Backlog</u>	<u>Realized Gain</u>	<u>Final Backlog</u>
	(all dollar amounts in \$ thousands)	
50	0	50
50	1 (short term)	49
50	1 (long term)	49

Thus the decision to realize or not to realize a gain will not depend on whether the gain is short term or long term. Will it depend on the size of the backlog?

When the backlog is large, the losses cancelled out when a gain is taken probably won't be used until years in the future. The present value of a given tax saving is lower, the farther the tax saving is pushed into the future. Thus the larger the backlog, the lower the cost of a given realized gain.

At the same time, a large backlog means lower benefits from realizing a gain. The potential benefits come from replacing the existing stock with a new stock that is more likely to give an added short term loss. But the larger the backlog, the less an added loss will be worth.

In fact, a large backlog reduces the tax cost of realizing a gain and the tax benefits of replacing the old stock with a new one in exactly the same proportion. So long as we continue to assume zero trading costs, the size of the backlog won't affect the decision to realize a gain.

<u>Stock</u>	<u>Initial Backlog</u> (years)	<u>Cost of Realizing Gain</u> (\$ thousands)	<u>Benefit of Starting Over</u> (\$ thousands)	<u>Decision</u>
A	7	2	4	sell
A	14	1	2	sell
B	7	6	4	hold
B	14	3	2	hold

Similarly, neither the investor's tax bracket nor prospective changes in tax rates will affect the decision. A high tax rate means a high cost for realizing a gain, but also a high benefit from buying a stock that may give an added short term loss.

In fact, when trading costs are zero the only things I can think of (other than the amount of the potential realized gain) that will affect the decision are the level of interest rates and the volatility of stocks generally. Higher interest rates means higher dollar expected returns on stocks, and thus a smaller chance of realizing a short term loss on the replacement stock. Higher volatility on the replacement stock means a larger chance of realizing a short term loss.

This also means that in choosing a replacement stock, other things being equal, it's better to choose a high volatility stock than a low volatility

stock. The other things that must be kept equal, though, include the diversification of the portfolio and the overall volatility of the whole portfolio.

### The Trigger Price

When there's a backlog of realized short term losses, the cost of realizing a gain is independent of whether it's a long term gain or a short term gain. The cost is independent of the length of time the stock has been held.

The benefit of selling the stock and replacing it with a new stock is not independent of its holding period, though. The longer the stock has been held, the less likely it is, compared to the replacement stock, to give rise to a short term loss. If the stock has been held more than a year, it will never give rise to a short term loss.

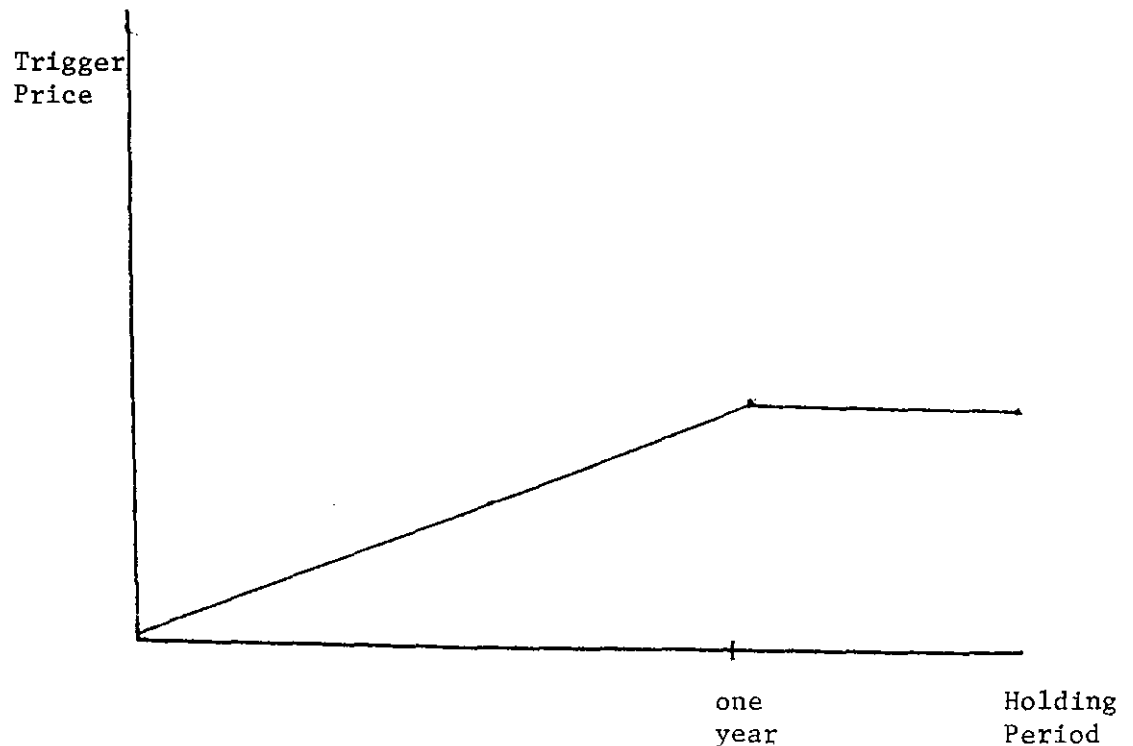
The original stock and the replacement stock will both cancel short term losses if gains are realized, but the replacement stock is more likely to give realized short term losses. When the cost of switching is zero, the replacement stock will be better (assuming it is at least as volatile as the original stock).

When the price of the original stock equals its cost, there is no tax burden from selling it. If trading costs are zero, it must pay to switch to the replacement stock. Switching has no disadvantages.

Since it clearly pays to switch when price equals cost, there must be prices above cost where it will pay to switch also. The longer the original stock has been held, the larger the gain from switching if price equals cost, and thus the higher the price at which it will still pay to switch.

No matter how long a stock has been held, there is always a trigger price below which it should be sold. At first, the trigger price is equal to

cost: it should be sold if that will generate a short term loss. The trigger price gradually rises until the stock has been held a year, and then tends to stay at the same level except for shifts due to interest rate and volatility changes.



Every stock in the portfolio has a trigger price when trading costs are zero. If the stock falls below that price, it should be sold. The trigger price is always equal to or higher than the original cost of the stock, so the short term losses are generated by stocks that fall below cost before they can be sold. Any stock in the portfolio selling below cost should be sold.

When we put in positive trading costs, we will lower the trigger price. In fact, as we will see, with high enough trading costs a stock may not have any trigger price.

One final point. When there is a backlog of realized losses, the end of the tax year has no special significance. A stock should be sold when it falls below its trigger price whenever that happens. Only when there is no backlog might the end of the tax year make a difference. If we expect to realize short term losses next year, it may pay to realize long term gains this year, even though that means paying extra taxes this year. If we wait, the long term gains may be wasted as offsets to short term losses next year or in later years.

If you have any questions or comments, please call me at 617-253-6691, or write me at 50 Memorial Drive, Cambridge, MA 02139.