

The Two Different Benefits of Tax-Loss Harvesting: Direct and Deferred

Lisa Goldberg, PhD
Director of Research

Aperio Group
Three Harbor Drive, Suite 315
Sausalito, CA 94965
(415) 339-4300
www.aperiogroup.com

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Value Added by Tax-Loss Harvesting

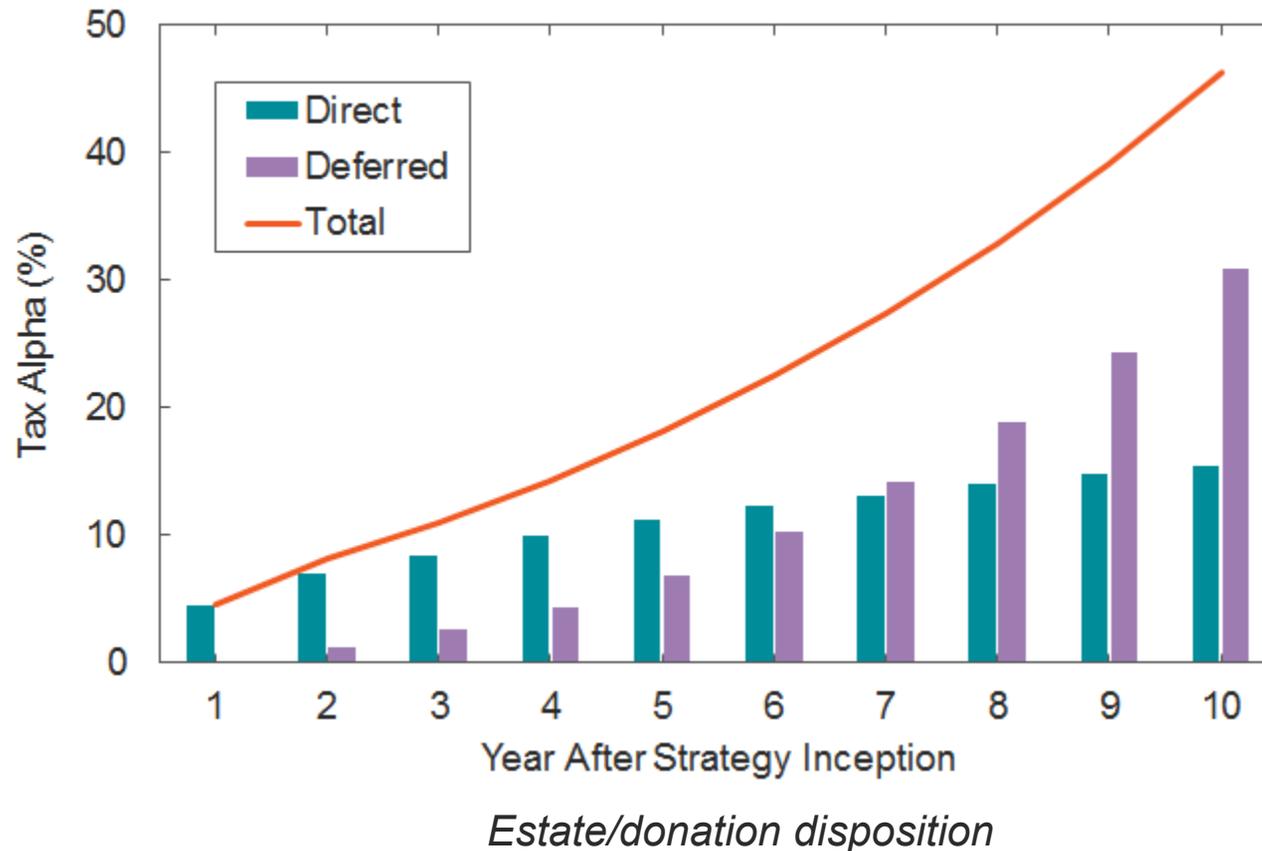
- Tax alpha: the difference between portfolio return and benchmark return after tax
- Includes:
 - Direct benefit – tax savings when capital gains are offset with harvested losses
 - Deferred benefit – reinvestment of tax savings (including the difference in return between the portfolio and its benchmark)

Describe the relative importance of the direct and deferred benefits over the life cycle of a tax-loss harvesting strategy

Empirical Study: Rolling 10-year Strategies January 1973 – December 2015

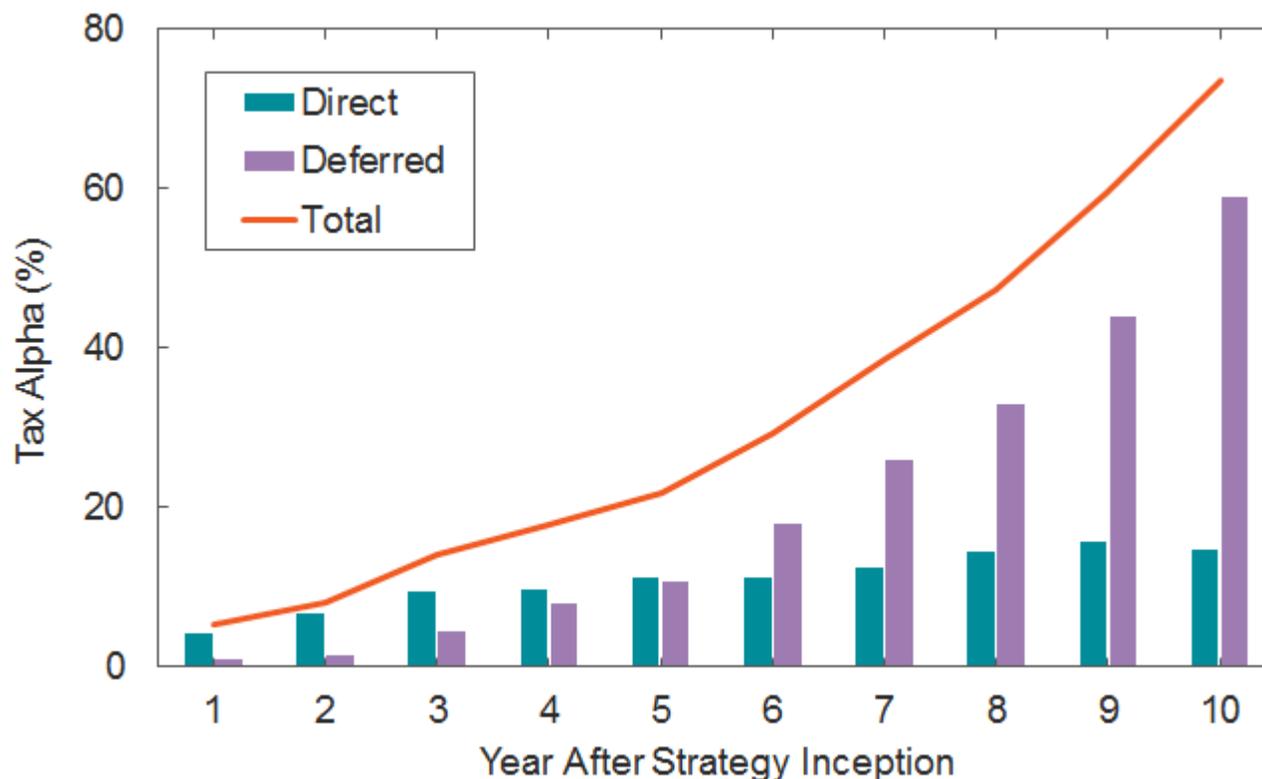
- Launch a tax-loss harvesting strategy in the S&P 500 each month
- Track direct and deferred components of tax alpha as the strategies evolve
- Aggregate results by horizon

Average Direct and Deferred Benefits: Monthly Start Dates between January 1973 and December 2005



The average path illustrated in this slide may not be representative of individual experiences.

Direct and Deferred Benefits: Bull Market Example

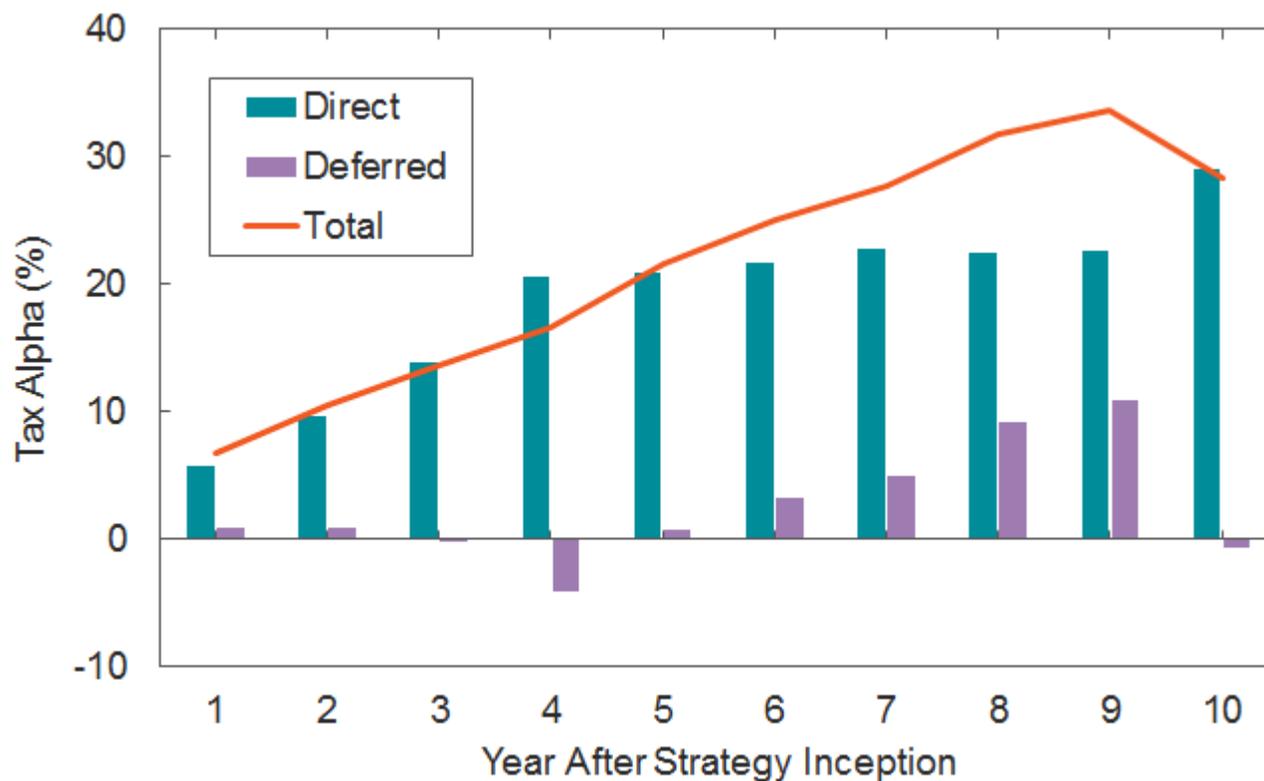


Inception: January 1980

Estate/donation disposition

The silhouette of this particular path bears strong resemblance to the average experience shown on the previous slide.

Direct and Deferred Benefits: Bear Market Example



Inception: January 1999

Estate/donation disposition

This silhouette of this particular path differs materially from the average.

Main Takeaways

- Tax-loss harvesting provides benefits through both immediate reduction in tax liability (direct) and the time value of postponing tax liability (deferred)
- Over the life cycle of loss harvesting, direct provides the most value early, while deferred typically adds its value years after inception
- The deferred benefit of postponing tax payments can end up adding a lot of value that is too often ignored
- Direct and deferred benefits provide value differently across different markets, with direct losses abundant in turbulent and declining bear markets, and the deferred benefit of reinvestment providing value in calm and upward-trending bull markets

Thank You



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For more information, refer to the research paper, *The Two Different Benefits of Tax-Loss Harvesting: Direct and Deferred*, on Aperio's website: bit.ly/2dgHR1j

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The performance reflected in the tables and charts in this report are hypothetical, shown for illustrative purposes only, and not based on actual investments. Furthermore, they do not reflect the deduction of any management fees, which would lower performance returns. The performance does include 0.06% one-way transaction costs (4bps one-way spread + 2bps in trading costs). The use of hypothetical performance has significant limitations, some of which are described below.

Back-testing involves simulation of a quantitative investment model by applying all rules, thresholds, and strategies to a hypothetical portfolio during a specific market period and measuring the changes in value of the hypothetical portfolio based on the actual market prices of portfolio securities. Investors should be aware of the following: 1) Back-tested performance does not represent actual trading in an account and should not be interpreted as such, 2) back-tested performance does not reflect the impact that material economic and market factors might have had on the manager's decision-making process if the manager were actually managing client's assets, and 3) there is no indication that the back-tested performance would have been achieved by a manager had the program been activated during the periods presented above. For back-tested performance comparisons, the benchmark returns are simulated using historical constituents' weights and total returns.

The S&P 500 Total Return Index is an unmanaged group of equities representing the large-cap sector of the US domestic market. Index returns reflect reinvestment of dividends but do not reflect fees, brokerage commissions, or other expenses of investing.

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