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Introduction to Enhanced Direct Indexing

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What is Direct Indexing?

Direct Indexing Defined

Direct indexing (DI) is the construction of a custom portfolio of individual stocks that seeks to mirror the underlying exposures and components of a specified index. It effectively "unbundles" traditional index fund vehicles such as mutual funds or ETFs allowing the investor's portfolio to be customized for their specific financial situation, goals, and values.

What Differentiates Direct Indexing?

		Mutual Funds	ETFs	Direct Indexing
Tax-Efficiency	▪ Loss-harvesting ▪ Minimize capital gains	Low	Moderate	**High**
Flexibility	▪ Transition in-kind positions ▪ Withdraw/donate specific securities/lots	Low	Low	**High**
Customization	▪ Factor tilts, ESG, security/sector exclusions, etc.	Low	Low	**High**
Transparency	▪ Transparency of underlying positions	Low	Moderate	**High**
Costs	▪ Expense ratio ▪ Transaction costs	**Low**	**Low**	**Low***

Source: Parametric; Charles Schwab. Information is for general illustrative purposes only and reflect the subjective analysis and opinions of specific Corient advisors. Actual circumstances may vary and the information is subject to change. Transaction costs may vary based on custodian, manager, or security type.

Why Direct Indexing?

CORE MARKET EXPOSURE	▪ The first and foremost goal of direct indexing is to provide for **broad, diversified market exposure**. Through direct ownership of a subset of underlying benchmark securities, direct index accounts seek to closely track the exposures and performance of the index. ▪ As the separate account structure allows for significant tax management and customization, these features must be balanced with the goal of closely tracking the intended market exposure.
TAX ALPHA	▪ A **tax-loss harvesting strategy seeks to generates losses that can be used to lower a client's tax bill** (ETFs/MFs are not permitted to pass through losses). Loss harvesting is balanced against tracking error such that portfolio exposures align with client intentions. ▪ Tax alpha may be achieved through continuous tax-loss harvesting while avoiding realized gains.
IN-KIND TRANSITIONS	▪ A portfolio **can be funded with existing stocks and select ETFs with unrealized gains** which can limit the tax cost of a new portfolio relative to a full liquidation and reallocation. ▪ Diversify away from more concentrated holdings over time.
CUSTOMIZATION	▪ The SMA structure allows for **individual account customization/personalization** so that portfolios can be tailored to each client's needs and preferences. ▪ Individual customization can include (but is not limited to) blended benchmarks, values-aligned tilts/exclusions, factor tilts, sector/industry tilts, ticker exclusions.
FUTURE FLEXIBILITY	▪ **Future changes to the investment strategy can be accomplished tax efficiently** (full liquidation not required). ▪ **Withdrawals are done tax efficiently by selecting efficient tax lots.** This is particularly applicable to charitable donations where low-basis stocks can be utilized to optimize for taxes and risk.

Potential Drawbacks of Direct Indexing

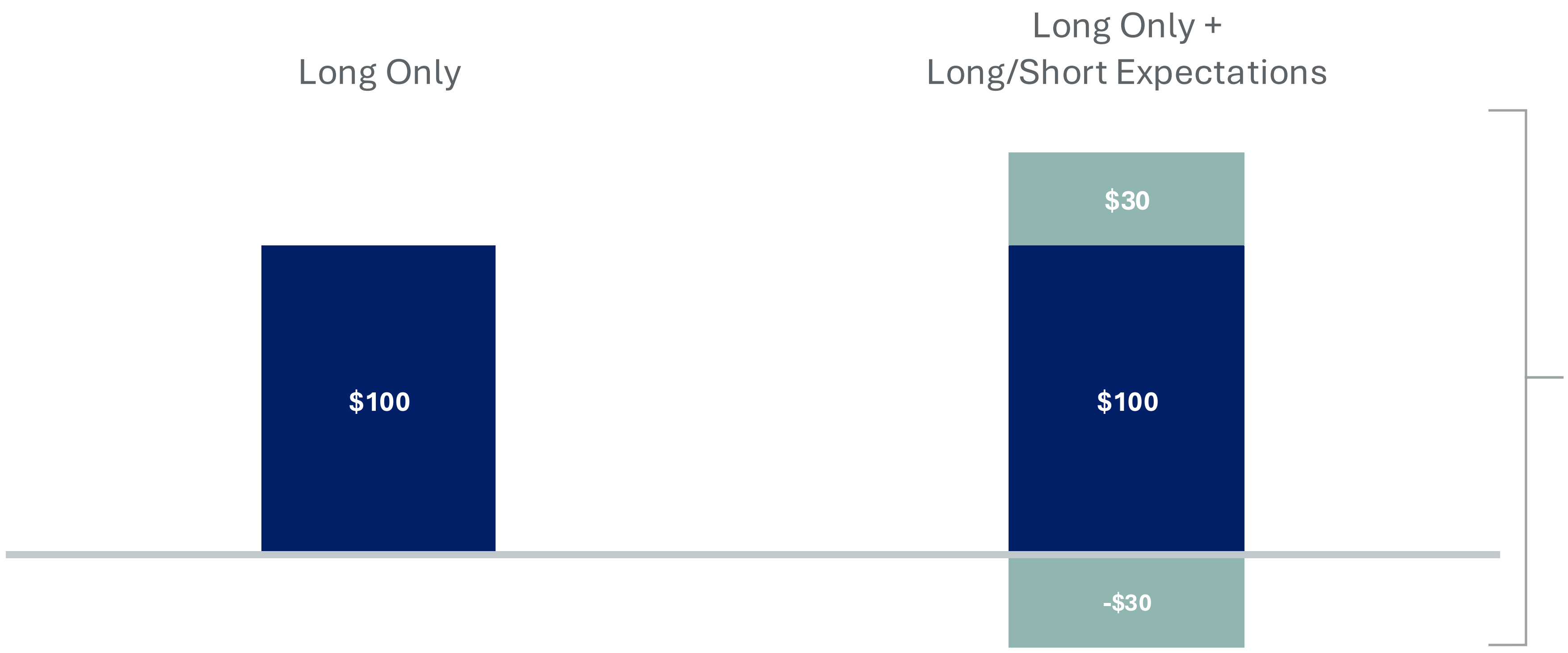
"FROZEN" PORTFOLIOS	Equity markets, on average, have tended to rise over time, which results in the DI account also rising over time. As the securities in the portfolio appreciate over their cost basis, it results in fewer opportunities to generate tax losses. Eventually, what losses that can be generated may be used to offset gains taken within the account to keep tracking error low. Significant embedded gains result in the portfolio becoming effectively "frozen."
TRACKING ERROR DRIFT	As the portfolio becomes frozen, it may be necessary to allow tracking error to drift higher to avoid realizing capital gains. As certain positions appreciate and grow larger, the tax cost to trimming them grows larger as well, which makes it more challenging to rebalance the portfolio where necessary. As a result, tracking error can grow over time.
LESS FLEXIBILITY WITH IN-KIND TRANSITIONS	Traditional Direct Indexing has limited ability to incorporate concentrated or legacy positions while maintaining low tracking error. If an investor has an outsized position in a small cap company with zero basis, only a small fraction of that may incorporated into the Direct Indexing account before tracking error becomes unwieldy.

Introduction to Enhanced Direct Indexing

What is Enhanced Direct Indexing?

Enhanced Direct Indexing

We define Enhanced Direct Indexing as incorporating leverage/margin in combination with short sales on top of a traditional (i.e., Long Only) Direct Indexing account.



Overall portfolio is still intended to have a beta of ~1.0 vs. its underlying benchmark with no net leverage – the "extension" will be approximately beta and market neutral.

How Long/Short Benefits Direct Indexing

- In the example of a 130/30 portfolio (130% long exposure offset by 30% short exposure), a $100 portfolio has $130 invested long and $30 invested short.
  - The "gross" exposure is $160, but the "net" is still $100 as the $30 of additional long exposure is offset by the $30 of addition short exposure.
- This creates a favorable situation to generate losses consistently while still maintaining 100% net long exposure.
  - In a rising market, the short exposure declines in value, which can be closed to generate realized losses.
  - In a falling market, the short exposure rises in value, offsetting declines within the $130 of long exposure where losses can be realized.
- As long-only direct indexing portfolios accrue more and more unrealized gains over time, eventually they tend to become dependent on large market declines to generate tax alpha.
- In long/short enhanced direct indexing, no matter the direction of the market, either the long or short side will likely be generating consistent tax losses.

One Important Consideration

Per Cornell's Legal Information Institute, "economic substance" is a doctrine in U.S. tax law that states that "**tax benefits . . . with respect to a transaction are not allowable if the transaction does not have economic substance** or lacks a business purpose."

We cannot simply use long and short extensions to **generate tax losses without also having an economic substance** behind the investment decisions.

As such, **we must utilize the leverage and short positions** to implement active views – as in, make informed and measured decisions to attempt to increase return, reduce risk, etc. We can **own more of the stocks with favorable characteristics** and own less of or short stocks with less favorable characteristics.

By incorporating active views, we can potentially **add value pre-tax through outperformance** (but also risk underperformance) while also **providing the economic substance for these transactions and the tax benefits** that follow.

All active views are made under the same framework as long only, where a level of tracking error is targeted and managed relative to an underlying benchmark.

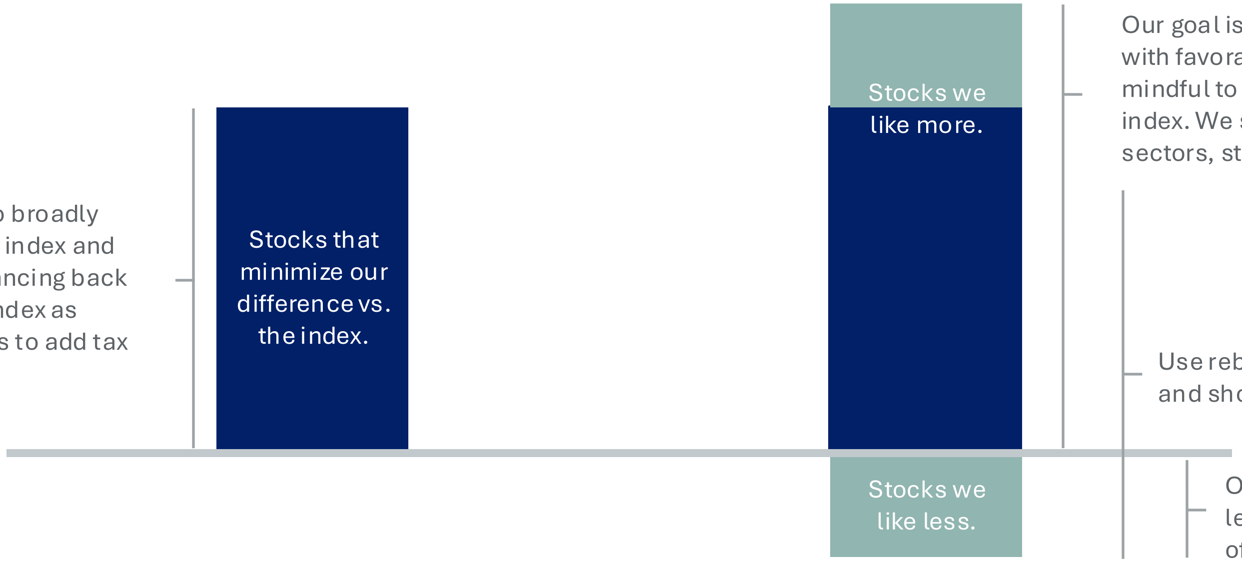
Definition: economic substance doctrine from 26 USC § 7701(o)(5)(A) | LII / Legal Information Institute (cornell.edu)

Enhanced Direct Indexing

Long Only

Long Only + Long/Short Expectations

Our goal is to broadly replicate the index and utilize rebalancing back toward the index as opportunities to add tax alpha.



Our goal is to tilt our long exposure toward stocks with favorable characteristics while still being mindful to not deviate too aggressively from the index. We still want broad diversification across sectors, styles, industries, etc.

Use rebalancing to refresh our active views across long and short exposure while realizing losses to add tax alpha.

Our goal is to tilt our short exposure toward stocks with less favorable characteristics, while also being mindful of broad diversification.

Potential Use Cases for Enhanced Direct Indexing

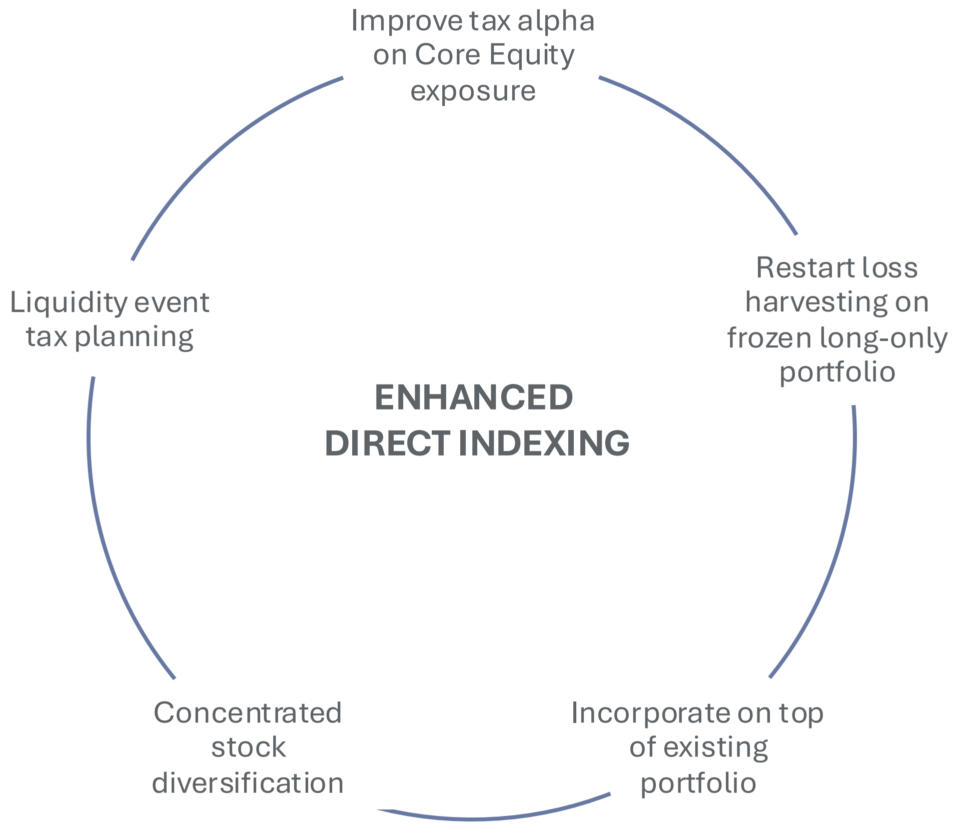
IMPROVE TAX ALPHA ON CORE EQUITY EXPOSURE
Increase the magnitude and longevity of loss harvesting for clients in high marginal tax brackets or with capital gains (especially short-term) to offset.

RESTART LOSS HARVESTING ON FROZEN LONG-ONLY DI
For clients with frozen DI portfolios who value continued losses, Enhanced DI may reinvigorate tax alpha via additional gross exposure (long + short) without additional capital added.

INCORPORATE ON TOP OF EXISTING PORTFOLIO
For clients who value the losses but may not want or need significant beta-1 market exposure, L/S extensions can be layered on top of existing holdings: mutual funds, ETFs, bond portfolios, etc.

CONCENTRATED STOCK DIVERSIFICATION
L/S extensions provide additional flexibility in managing concentrated stock risk via higher gross exposure and may result in lower portfolio volatility and tracking error despite additional exposure.

LIQUIDITY EVENT TAX PLANNING
Enhanced DI may serve as a planning tool to generate carryforward losses in advance of a transaction (if practicable) *or* to offset gains following a significant liquidity event, especially if the timing of the event is early in the calendar year.



Potential Reasons *Not* to Use Enhanced DI

ADDED EXPENSES

Enhanced DI has higher management fees than traditional, in addition to the financing costs associated with margin and shorting, plus potential market impact costs from higher turnover. If the client or prospect does not have sufficient gains to offset or is not in a high marginal tax bracket, the added expenses may not be overcome by the expected tax alpha.

ADDED COMPLEXITY AND RISKS

Margin and short-sales add complexity and risks that not all clients may be comfortable with; there are also higher account minimums depending on the strategy and leverage employed.

TAX COST TO UNWIND/ DE-LEVER QUICKLY

Realized gains and losses from short sales are always characterized as short-term, and short positions with unrealized gains (unlike long positions) cannot be donated away and do not receive a change in basis at death. As a result, there is a possibility that quickly de-levering a long/short portfolio could result in a significant tax bill and may take years to unwind tax neutrally (i.e., using realized losses to offset the gains associated with bringing leverage down).

LIMITED TO CERTAIN CUSTODIANS

Not all custodians have financing agreements in place to make long/short viable; currently Fidelity is the custodian of choice for these strategies while Schwab is not currently cost-competitive.

SIGNIFICANT SMA EQUITY EXPOSURE

High turnover (approximately monthly rebalancing) and many holdings at a given time means such strategies present complications for clients who may have exposure across one or more equity separate accounts or individual security ownership – wash sales, shorting against the box, etc.

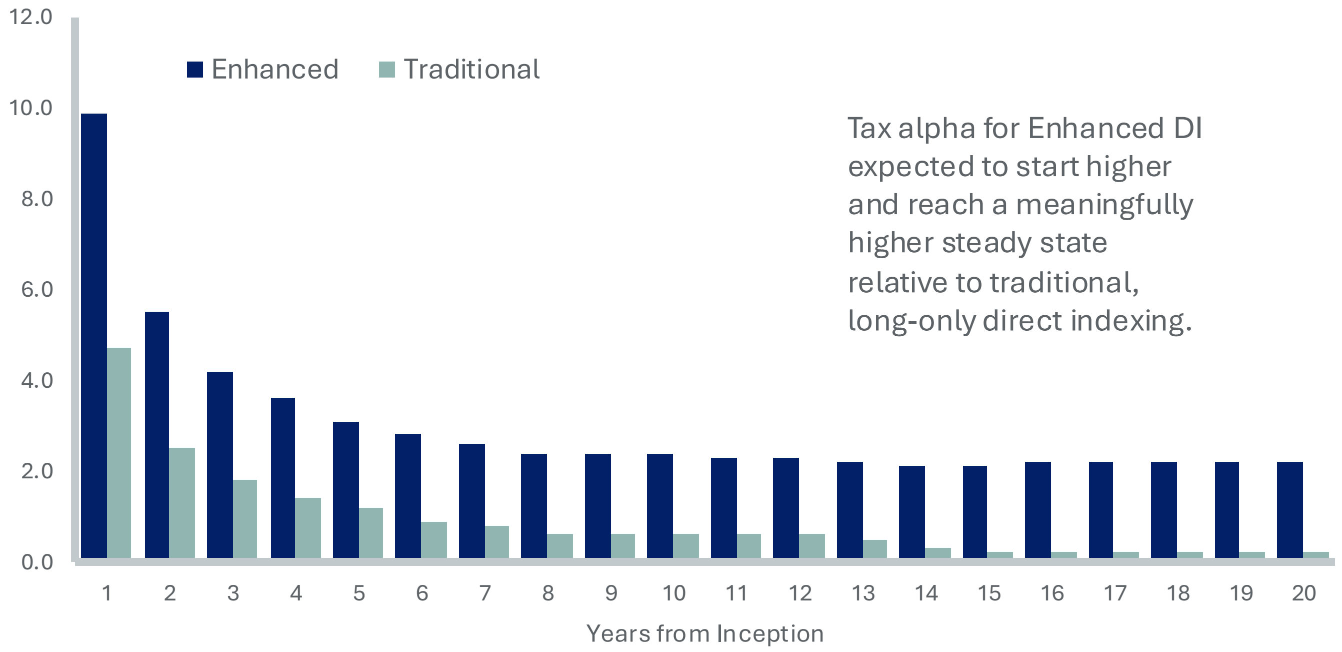
Improve Tax Alpha on Core Equity Exposure

Enhanced Direct Indexing – Potential Use Cases

- The vanilla use-case – utilizing long/short to improve the magnitude and duration of loss harvesting relative to traditional, long-only direct indexing.
- Cash-funded long-only strategies are powerful and have broad applicability, but adding long/short capabilities may amplify the benefits for clients who:
  - Are in a high marginal tax bracket.
  - Have realized capital gains to offset – especially short-term, potentially from a tax-inefficient hedge fund, etc.
  - Are comfortable with taking active risk to add value pre-tax, even before taking tax alpha into consideration.
  - Have an intermediate to long investment horizon/do not anticipate needing to unwind the strategy in the near-term

ILLUSTRATIVE TAX ALPHA

Cash Funded



Source: Aperio; shows average hypothetical tax alpha by year for a cash-funded 130/30 long/short implementation and a cash-funded long only implementation, accounting for Federal-only tax rates. The analysis assumes investors have both long-term and short-term gains to offset. The results contain back-tested/hypothetical return information and shows average results – live results may differ significantly from the simulated summary data.

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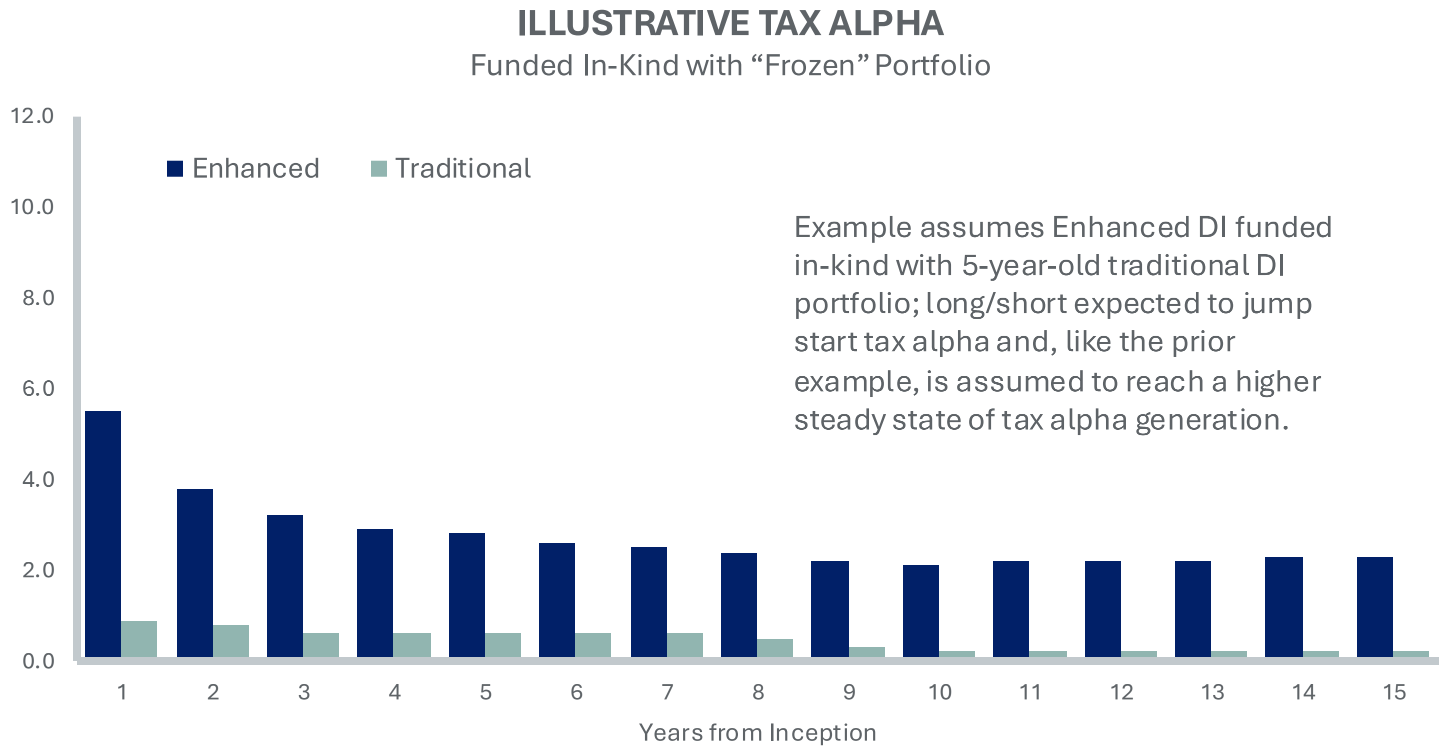
Restart Loss Harvesting on Frozen Long-Only Portfolio

Enhanced Direct Indexing – Potential Use Cases

- Perhaps the most common anticipated use-case – funding the Enhanced DI account with an existing long-only version – may be appropriate for the same type of clients who would consider a cash-funded account.
- By layering a 30% long leg and a 30% short leg on top of existing securities, on day-1 we have 60% additional exposure with reset basis with which to optimize the portfolio and reduce any drift that's occurred from a sector, industry, and style perspective.
- The 60% of incremental exposure requires no additional cash contribution and immediately increases the tax alpha-generating potential of the portfolio due to the reset basis on the long and short extensions.



Source: Aperio; shows average hypothetical tax alpha by year for a 130/30 long/short implementation and a long only implementation, each funded with a long only portfolio five years after being cash funded. The analysis only accounts for Federal tax rates and assumes investors have both long-term and short-term gains to offset. The results contain back-tested/hypothetical return information and shows average results – live results may differ significantly from the simulated summary data.

Incorporate L/S Extension on Top of Existing Portfolio

Enhanced Direct Indexing – Potential Use Cases

- For clients without significant equity exposure or with equity exposure in highly appreciated mutual funds or ETFs, the extensions can be applied independent of the "core" long exposure.
- The long and short extensions are run market and beta neutral, so they can be added to a portfolio of, for example, 100% stocks or 100% bonds to generate tax alpha without increasing net equity exposure.
- In an "Integrated" approach, the legacy holdings are overseen by the manager and sold down as losses are generated.
- In the "Overlay" approach, the long/short portfolio is managed independently of the legacy assets, which Corient would manage down as losses are generated.

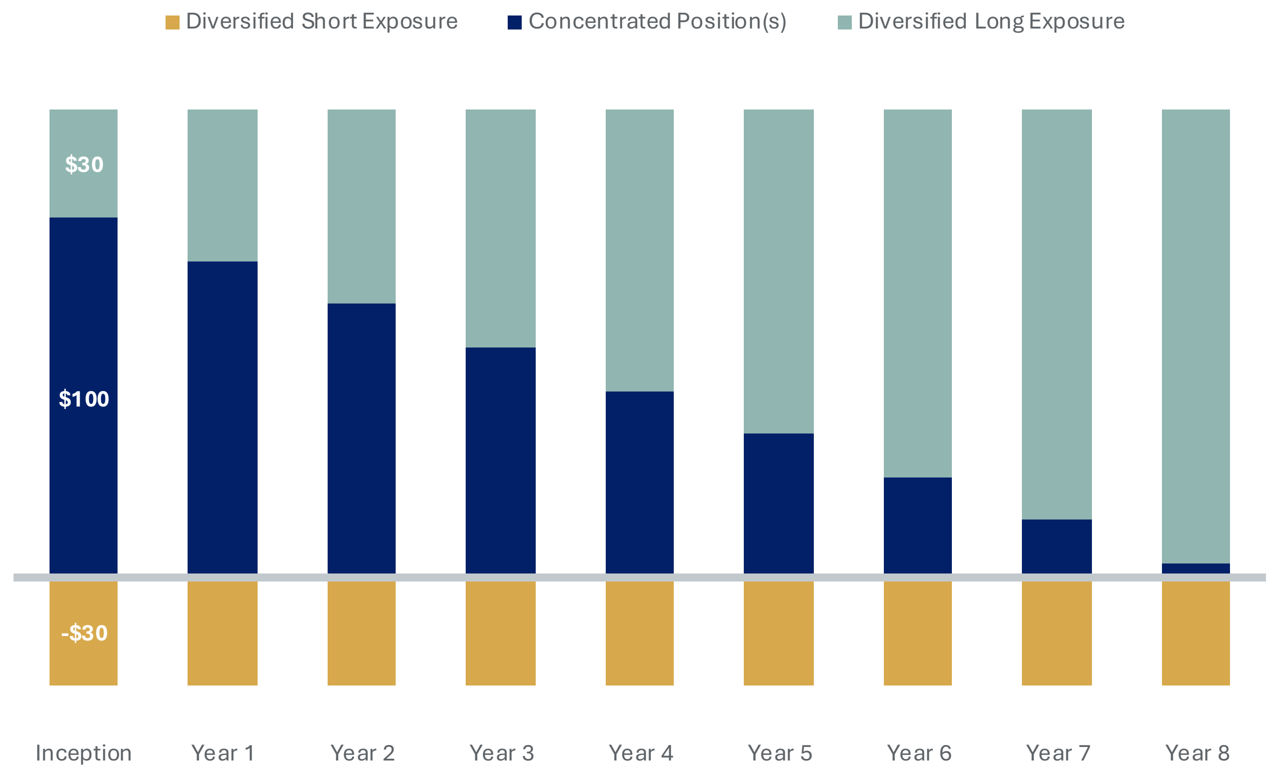
Integrated Approach
Enhanced DI manager transitions legacy holdings tax efficiently

Overlay Approach
Enhanced DI manager runs the long/short extensions market and beta-neutral *independently* of the rest of the portfolio that collateralizes the extensions – provides flexibility for how to utilize the realized losses generated by the extensions.

Concentrated Stock Diversification

Enhanced Direct Indexing – Potential Use Cases

- In instances of low-basis, concentrated positions, Enhanced Direct Indexing can be used to manage those positions down tax-neutrally over time.
- The long and short extensions can serve to increase diversification and reduce tracking error, while also generating the realized losses necessary to transition out of the concentrated position(s) tax efficiently.
- As losses are realized, the concentrated position is sold down with proceeds being invested into a diversified long portfolio.
- As always, the strategy does not require additional capital, so the existing positions serve to collateralize the extensions.
    - Depending on the degree of concentration and the liquidity of the concentrated position(s), there may be limitations to how much margin a single position could support.



Source: Quantinno

Liquidity Event Tax Planning

Enhanced Direct Indexing – Potential Use Cases

- In this example, a client or prospect may be able to utilize Enhance Direct Indexing to tax-plan for a liquidity event or manage the tax bill after the fact.
- In prior use cases we have assumed modest leverage of 30%, but in some instances, higher leverage may be appropriate – as high as extensions of 125%, resulting in a 225% long and 125% short portfolio.
- In the example of a significant liquidity event resulting in a significant tax bill, it may be desirable to increase leverage (and tracking error) to maximize the amount of gain that can be offset.
  - For example, a transaction closing on Jan 1 allows a full year of loss harvesting at 350% gross exposure (225/125), but still a beta of 1.0 to the market.
  - Proceeds of $10 million could support $22.5 million of long exposure and $12.5 million of short exposure to generate losses to offset the tax bill from the sale.
- Should there be sufficient assets and time prior to an expected liquidity event, the strategy could be utilized to generate significant carryforwards that could be used to offset gains when the liquidity event occurs.

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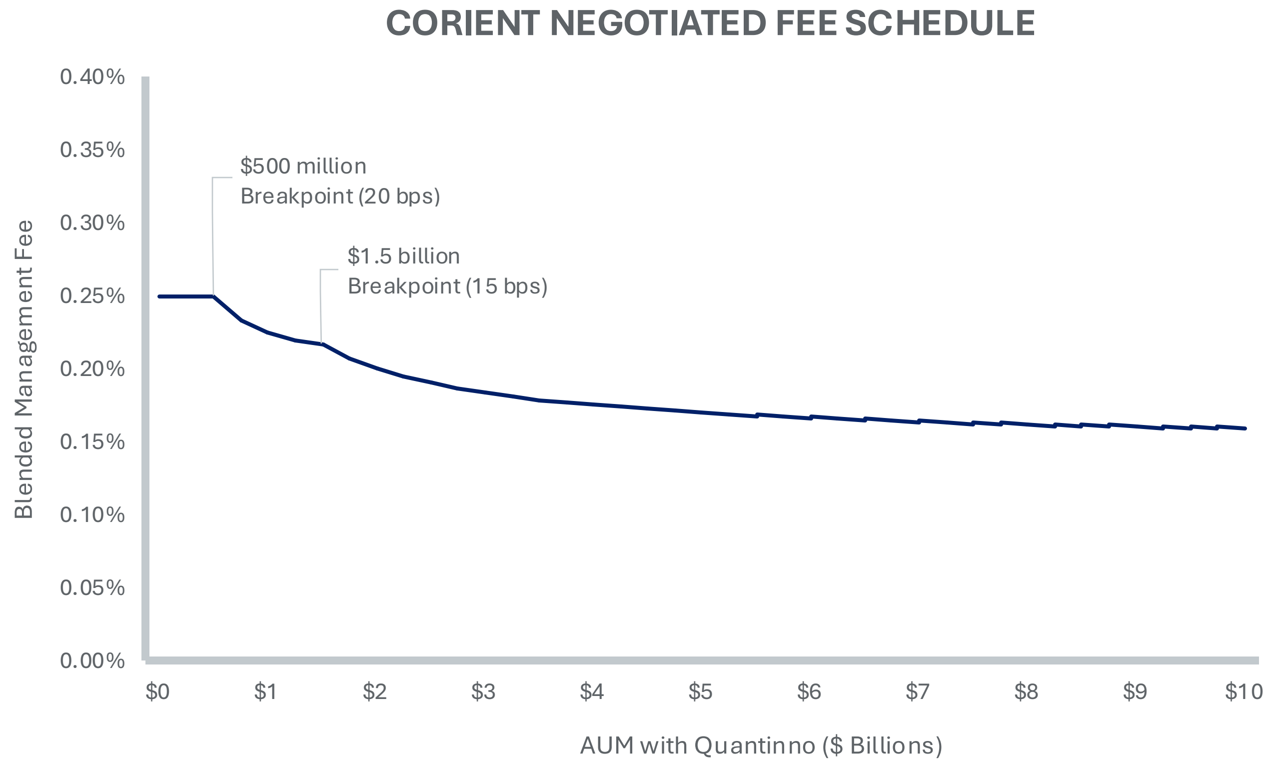
Introduction to Enhanced Direct Indexing

Costs

Management Fee

- Corient negotiated heavily discounted pricing with our provider of choice, Quantinno Capital Management.
- Corient assets are aggregated and pricing begins at 25 bps with breakpoints at $500 million (20 bps) and $1.5 billion (15 bps). The schedule is blended, so our effective rate declines with each new dollar.
- Management fees are charged on net assets, not gross.
- At higher leverage (greater than 150/50), the management fee scales linearly: at 25 bps of base pricing, a 175/75 portfolio would be priced at 37.5 bps.
  - 75% extension / 50% limit = 1.5x multiplier
  - 25 bps multiplied by 1.5 = 37.5 bps
- Management fees and financing costs combine to form the explicit cost of the strategy.



Financing Costs

- There are added expenses to the extensions due to margin costs and the short rebate rate.
- To add leverage on the long side, we must borrow to do so – Fidelity charges Fed Funds + 50 bps.
- The cost associated with shorting comes in the form of the short spread – when we borrow shares to sell them short, we receive proceeds which earn interest. Fidelity reduces that interest (Fed Funds) by 50 bps.
- The Fed Funds offsets on either side, leaving the 50-bps spreads that combine to total 100 bps of financing costs per every 100% extension – at 30% it's 30 bps.
- Financing expenses offset interest income – if able to be offset, at the highest marginal rate, the after-tax financing cost for 30% extensions is 18 bps.

Quantinno Negotiated Financing Rates at Fidelity

	Long Side Pay	Short Side Receive	Net
Fed Funds Rate	5.50%	5.50%	
Spread	0.50%	-0.50%	
Total Rate (Paid)/Recieved	**-6.00%**	**5.00%**	
Size of Extensions	30%	30%	
(Expense)/Income	-1.80%	1.50%	**-0.30%**
After-Tax Cost (40.8% Rate)			**-0.18%**

*We believe there is room for these financing costs to decrease as our relationship (and Quantinno's) with Fidelity grows over time, but the magnitude and timing are uncertain.

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Introduction to Enhanced Direct Indexing

Risks

Risks

LEVERAGE AND SHORTING

Leverage and shorting introduce unique risks compared to long-only.

- We believe they can be managed by:
  - Having a robust and systematic process for implementing and monitoring portfolios.
  - Limiting the size of short positions and closing them when they move against us (as you would, to book the loss).
  - Avoiding hard-to-borrow shorts.
  - Broadly diversifying both the long and short portfolio across industries, factors, etc.

ACTIVE RISK

- Introducing active risk into the portfolio creates the potential for pre-tax outperformance but also for pre-tax underperformance.
- We believe Quantinno uses a thoughtful approach based on academic and real-world research.
- We believe they approach alpha from an after-tax perspective, rather than taking an overly aggressive approach to driving pre-tax excess returns.

TAX COST TO DE-LEVER

- Unwinding (de-levering) these strategies may incur tax costs or take years to do so tax efficiently.
- They are long-term strategies and the potential near-term tax benefits need to be weighed against potential long-term tax costs if there is an expectation an enhanced direct indexing account will need to be closed or the leveraged meaningfully reduced.

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Introduction to Enhanced Direct Indexing

Provider of Choice – Quantinno

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Quantinno Capital Management

Quantitative Innovation

- Quantinno was founded in 2018 to meet the needs of taxable investors.
- Based in New York City, they manage over $4.9 billion across over 900 client accounts as of June 2024.
- Quantinno's SMA platform was launched in March of 2021, giving them over three years of live trading in long/short separate accounts.
- Based on our research in the enhanced direct indexing space, in our view, Quantinno has:
  - A uniquely single-minded focus on tax-efficient investing – this is all they do.
  - The longest track record of long/short SMAs.
  - The most current AUM.
  - The largest number of client accounts.
  - The most scalable platform, enabling efficient future growth.
  - The most efficient trading process.
  - Broad flexibility to customize and solve complex client issues.
  - The most competitive pricing, almost at long-only direct index-type fees at the highest breakpoint.

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Quantinno Customization

BENCHMARK	GROSS EXPOSURE	STOCK SELECTION METHODOLOGY
Domestic	**Default**	**Full Alpha**
US 500 US 1000 (including Value and Growth) US 3000	130/30	Utilizes multi-factor stock selection methodology to seek alpha over the benchmark, while maintaining low tracking error.
International	**Other**	**Direct Momentum**
Global Developed/ Emerging Global Developed/ Emerging ex-US	115/45 (0.7 beta) 150/50 175/75 150/100 225/125	Utilizes price momentum factor to seek alpha over the benchmark, while maintaining low tracking error.
Custom		
70% US / 30% International Custom Model Delivery		

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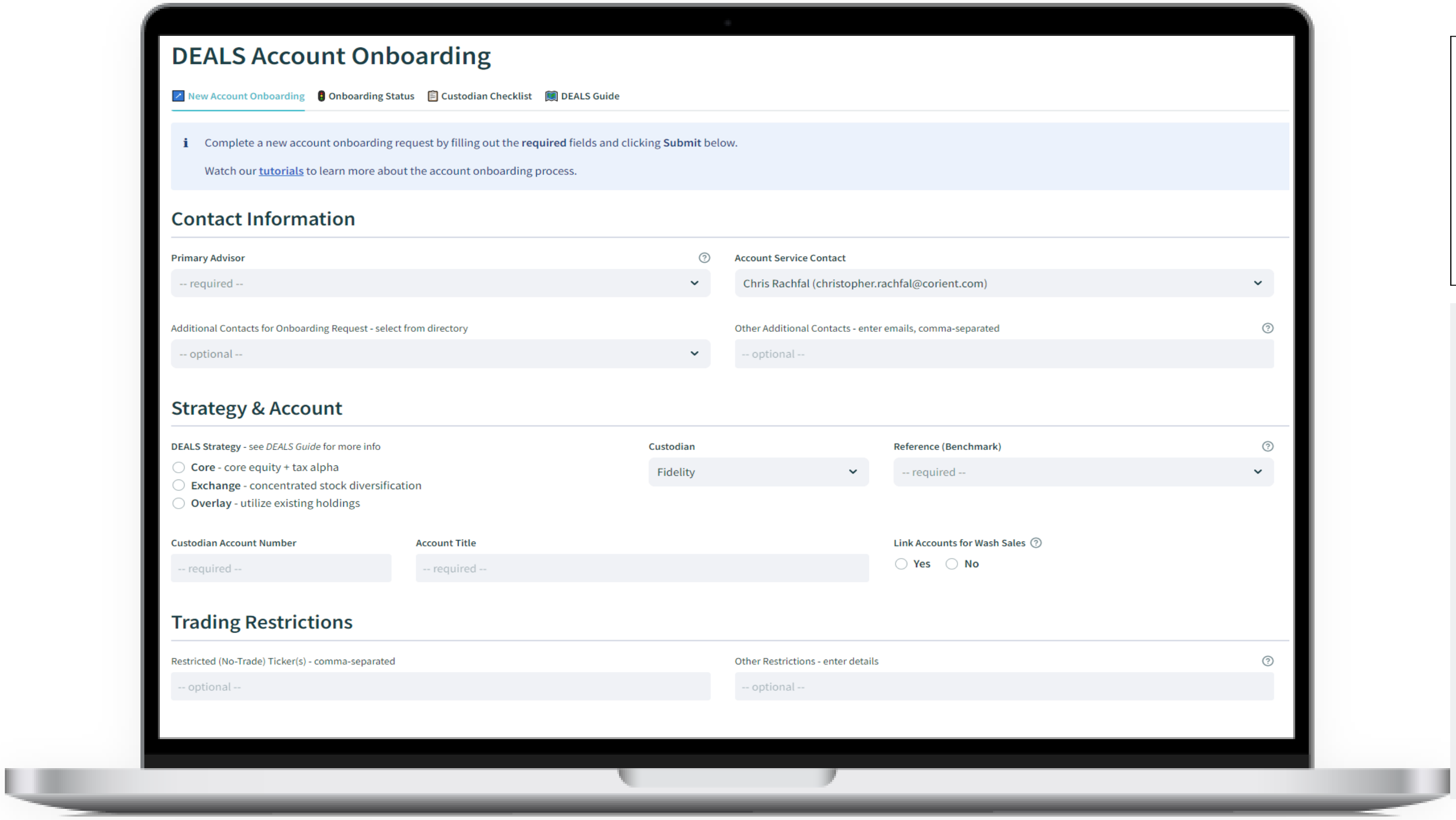
Quantinno Onboarding Checklist



QUANTINNO

Total Portfolio Value
$650,000

DEALS Portfolio Holdings Template

Ticker	Quantity	Total Market Value	Total Cost Basis
<CASH.USD>	---	$50,000.00	---
AAPL	3,000	$600,000.00	$75,000.00

- Existing holdings/tax lots – shares and basis
- Strategy/Use-Case and description of objectives
- Benchmark
- Full Alpha or Direct Momentum
- Leverage level
  - Dependent on AUM – higher leverage requires portfolio margin and $3 million minimum
- Any security restrictions
- Any custom considerations

Source: Screenshots from Quantinno's Client Portal

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Why Enhanced Direct Indexing?

1

Amplifies the magnitude and duration of tax-loss harvesting relative to long-only direct indexing.

2

Provides even more flexibility than long-only in creating client solutions – frozen DI portfolios, concentrated stock, legacy portfolio transitions, etc.

3

Corient clients can access, in our view, the best-in-class provider at management fees that rival long-only direct indexing.

CONTENT DISCLOSURE

This information is for educational purposes and is not intended to provide, and should not be relied upon for, accounting, legal, tax, insurance, or investment advice. This does not constitute an offer to provide any services, nor a solicitation to purchase securities. The contents are not intended to be advice tailored to any particular person or situation. We believe the information provided is accurate and reliable, but do not warrant it as to completeness or accuracy. This information may include opinions or forecasts, including investment strategies and economic and market conditions; however, there is no guarantee that such opinions or forecasts will prove to be correct, and they also may change without notice. We encourage you to speak with a qualified professional regarding your scenario and the then-current applicable laws and rules.

Different types of investments involve degrees of risk. The future performance of any investment or wealth management strategy, including those recommended by us, may not be profitable or suitable or prove successful. Past performance is not indicative of future results. One cannot invest directly in an index or benchmark, and those do not reflect the deduction of various fees that would diminish results. Any index or benchmark performance figures are for comparison purposes only, and client account holdings will not directly correspond to any such data.

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Our clients must, in writing, advise us of personal, financial, or investment objective changes and any restrictions desired on our services so that we may re-evaluate any previous recommendations and adjust our advisory services as needed. For current clients, please advise us immediately if you are not receiving monthly account statements from your custodian. We encourage you to compare your custodial statements to any information we provide to you.