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The Sting in the Transition Tail

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The sophisticated world of large superannuation fund investing demonstrates an age-old aphorism: The only constant is change. Funds initiate some changes themselves to implement new ideas, address risks in the portfolio (including peer risk), insource or add transparency. Some changes are driven by shifting member preferences, such as adding yield-focused investment strategies for retired members or screening out investments not consistent with members' values. Some changes are driven by regulations, such as merging with other funds and rationalising investments, reducing fees and indirect costs or preparing to fund the per-member hardship drawdown entitlements recently enacted in response to the current pandemic crisis. As this crisis reminds us, dynamic and hostile investment markets impose their own pressures on existing investment settings. So it's business as usual (BAU) for funds to regularly tailor their investment portfolios to adjust their liquidity, asset allocation, investment strategy mix and hedging and overlay settings.

Many BAU investment changes require careful transition management from a superannuation fund's existing set of portfolio exposures to a new target set of exposures. Funds typically use specialist managers due to the risk and complexity of transition management. Yet most transition managers—and funds themselves—have a blind spot around one cost of transitions: tax. We work through a hypothetical equity transition scenario to investigate this blind spot and discover a typically ignored tax sting in our transition tail more than six times larger than the always addressed impact of transaction costs, which hardly seems logical.

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Fortunately, superannuation funds can apply these after-tax change management insights in the complex real world in which they invest through an implementation solution known as Centralised Portfolio Management (CPM). We offer a real-life case study of a recent equity transition conducted in CPM, which delivered a new portfolio to a superannuation fund with approximately one-quarter of the turnover and realised gains compared with traditional transition management. We argue that embracing implementation efficiency as a key investment principle is essential to how funds respond to the BAU reality of their change environment. Otherwise, too much of the value of their good investment ideas could be eroded by the real-world costs of implementing them, including tax. For those less familiar with transition management, we include as an appendix a handy guide to key transition management and tax terms, including terms used in this paper.¹

Addressing the tax sting in the transition tail

A typical transition manager looks to optimise between two competing portfolio objectives:

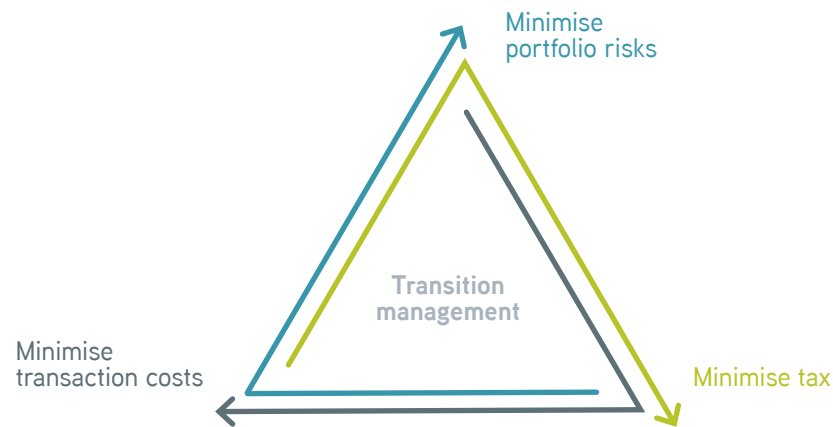
- **Minimising the time taken to move from the legacy to the target portfolio.** This can be couched in risk management (tracking error) terms: The target is the new benchmark for the portfolio, and positions in the existing legacy portfolio represent deviations from this benchmark. If the legacy portfolio has \$1.1 million in a stock and the target portfolio has \$1 million, the portfolio is now 10% overweight to target, which can create return differences over time. The transition manager looks to reduce that 10% stock-level overweight to closer to 0% to reduce the risk of tracking error.
- **Minimising both explicit and implicit transaction costs of moving from the legacy to the target portfolio.** The largest component of transaction costs in a transition, especially in an institutional-sized portfolio, is usually price-impact costs: an adverse price movement up or down as a transition manager tries to buy or sell equities. The trades signal to the market that there is a buyer or seller, and market participants adjust the prices they seek in response to this anticipated supply or demand. If the transition trades move the market, the superannuation fund pays more to buy equities or receives less from selling equities than if there were no transition.

A superannuation fund client can support transition planning by stating which of these goals is more important. A good transition manager can assist them by modelling alternative outcomes along an efficiency frontier to help the fund understand the trade-offs.

There's no tax awareness in this common framing of the transition task. Yet Australian superannuation funds pay a headline 15% tax rate on investment income and realised gains—with certain discounts and credits possible—so transitions can easily trigger tax. As a general rule, the larger the changes, the larger the possible tax bill. Capital gains tax (CGT) can be payable by superannuation funds whenever they sell Australian, developed-market or emerging-market equities and REIT interests. Franking credits on Australian equities, which offer valuable tax offsets and even tax refunds to superannuation funds, are only available when certain conditions are met. Accordingly, we redefine the transition management task as one that seeks to optimise between three, not two, portfolio objectives for a superannuation fund.

¹ We reproduce some of these definitions from the Trustee Toolkit on Investment Language, which we designed in collaboration with the Australian Institute of Superannuation Trustees (AIST), released August 2018. See <https://www.aist.asn.au/Advocacy/Policy-advocacy/Best-practice-governance>

Figure 1: Transition management objectives for a superannuation fund



Source: Parametric, 31 March 2020

Addressing the tax sting in the transition tail requires transition managers to be aware of investment tax risks inherent in equity transitions, including the following:

- Selling out of *cum*-dividend legacy positions without considering the value of accrued franking credits not priced into equities
- Selling out of *ex*-dividend legacy positions in a way that causes loss of franking credits received
- Selling out of legacy positions before the trade qualifies for tax concessional treatment of capital gains
- Allocating tax lots to the legacy trades, which trigger higher capital gains or lower capital losses than other tax lots would have triggered

Of course, tax considerations should be balanced against other portfolio considerations, so sometimes these adverse tax outcomes will be part of the best overall outcome. But this should be an intentional outcome, carefully weighed against other considerations, instead of the typical approach of simply ignoring the tax implications of the transition and hoping for the best.

As we have discussed in previous research, superannuation funds should also appreciate the tax efficiency of investing through a separate account (discrete mandate) structure instead of a pooled fund (unit trust) in a change environment.² For transition management, separate accounts allow for in specie transfers between a legacy and target portfolio. These are inherently efficient in a transition because there are no transaction cost or CGT impacts when what sits in a legacy portfolio already fits the target portfolio. The absence of a physical sale also protects franking credits by eliminating the risk of violating the 45-day holding tax rule. The aim of a good transition should be to preserve as much of the portfolio's pretransition value as possible. Since superannuation funds operate in a taxable environment, and members' retirement wealth is built on after-tax returns, this means after-tax portfolio value.

² Raewyn Williams (2015), 'Bigger on the Inside: Why Funds Don't Need to Scale to Create Their Ideal Equity Investment Structure', Parametric, 1 July (available on request).

An example of tax-aware transition management

How much should superannuation funds really care about taxes paid on investment transitions? Here is a hypothetical illustration of what could be at stake.

Consider a superannuation fund holding an actively managed portfolio of Australian equities concentrated in the financial sector and benchmarked to the S&P/ASX 100 (XTO). The financial stock parcels are held at equal weight, which means that, in practice, the stocks with the highest benchmark weight contribute the most tracking error and lower benchmark-weight stocks the least. In November 2019, the fund decides to withdraw around \$2 million from the portfolio in a way that moves the exposures to their benchmark weights, perhaps into a lower-fee passive core or to another benchmark-relative active style with no particular view on financials. In our example transition, the total value of the 17 financial stock parcels in the legacy portfolio is \$102 million. Timing and risk aren't the fund's top priorities, so the fund is comfortable for a less urgent trading style to be adopted to manage transaction costs. The stock parcels to be transitioned are a mix of 50% short-term and 50% long-term holdings that have doubled in value since their acquisition. Figure 2 shows the required trades to move the portfolio from legacy to target to raise the required funds and address the risk of underperforming the benchmark.

Figure 2: Hypothetical trades required to transition portfolio from legacy to target

Stocks	Total value	Sells % / \$	Maximum CGT \$	
Commonwealth Bank of Australia (CBA)	\$6,000,000	-8.66	\$519,600	\$ (32,475)
Westpac Banking Corp (WBC)	\$6,000,000	-5.11	\$306,600	\$ (19,163)
National Australia Bank Ltd (NAB)	\$6,000,000	-4.42	\$265,200	\$ (16,575)
Australia and New Zealand Banking Group (ANZ)	\$6,000,000	-4.21	\$252,600	\$ (15,788)
Macquarie Group Ltd (MQG)	\$6,000,000	-2.86	\$171,600	\$ (10,725)
QBE Insurance Group (QBE)	\$6,000,000	-1.06	\$63,600	\$ (3,975)
Insurance Australia Group Ltd (IAG)	\$6,000,000	-0.88	\$52,800	\$ (3,300)
ASX Ltd (ASX)	\$6,000,000	-0.86	\$51,600	\$ (3,225)
Suncorp Group Ltd (SUN)	\$6,000,000	-0.86	\$51,600	\$ (3,225)
Magellan Financial Group (MFG)	\$6,000,000	-0.61	\$36,600	\$ (2,288)
Medibank Private Ltd (MPL)	\$6,000,000	-0.47	\$28,200	\$ (1,763)
AMP Ltd (AMP)	\$6,000,000	-0.34	\$20,400	\$ (1,275)
Challenger Ltd (CGF)	\$6,000,000	-0.33	\$19,800	\$ (1,238)
Bendigo and Adelaide Bank Ltd (BEN)	\$6,000,000	-0.27	\$16,200	\$ (1,013)
Bank of Queensland Ltd (BOQ)	\$6,000,000	-0.20	\$12,000	\$ (750)
Virgin Money UK plc (VUK)	\$6,000,000	-0.16	\$9,600	\$ (600)
NIB Holdings Limited (NHF)	\$6,000,000	-0.13	\$7,800	\$ (488)
Total	\$102,000,000		\$1,885,800	\$ (117,863)

Sources: S&P, Parametric, 31 March 2020. Hypothetical transactions are provided for illustrative purposes only. They do not reflect the experience of any client and are not intended to reflect any strategy offered by Parametric. References to individual stock should not be considered a recommendation to buy or sell any security. Securities listed are based on index (XTO) constituent weighting as at 1 March 2020. CGT calculations apply 15% tax to short-term gains and 10% to long-term gains, as applicable to Australian superannuation funds, and assume no realised capital losses are available to offset these gains. CGT is stated as negative to indicate a tax liability and potential cash outflow from the portfolio.

Figure 2 suggests trading 1.85% or \$1,885,800 of the portfolio's starting value to raise the required funds, reduce tracking error and move the stocks to target benchmark weights. Our previous research conservatively suggests all-in transaction costs of these trades will be between 37 and 66 basis points (bps) per dollar traded.³ Taking the midpoint of 51.5 bps, we expect the transition to incur \$19,424 in round-trip transaction costs or two bps of pretransition portfolio value, which is a good result.

This ends the analysis in a pretax-focused transition approach. But adding tax thinking to the transition planning and execution reveals that the transition trades would crystallise a CGT liability of \$117,863. Note also the November timing in this example: Two of the transition stocks are known for paying off-cycle dividends in May and November—WBC (8.47% annual dividend yield) and NAB (7.87% annual dividend yield).⁴ We identify an additional \$10,037 in franking credits which may be worth protecting throughout the transition. Our after-tax focus has identified opportunities to avoid a further 13 bps being wiped off the value of the pretransition portfolio. It seems strange that a traditional approach to this transition would seek to manage the relatively small transaction cost impact but ignore the tax impact more than six times larger.

Techniques an after-tax transition plan could consider to address the tax risks in this transition scenario include:

- **Protecting franking credits by delaying a transition of certain ex-dividend stocks.** In the Australian equity market, a high volume of dividends is paid out in February, May, August and November. A large percentage of these are franked. Ill-timed Australian equity transitions risk breaching the 45-day holding tax rule, which generally requires shareholders to hold stocks at risk for 45 days after dividend-paying stocks go *ex-dividend* to claim franking credits attached to the dividends. As a reminder of the value of franking credits to superannuation fund members, every \$1 of a fully franked cash dividend is worth \$1.21 to accumulation members and \$1.43 to pension members.⁵
- **Qualifying for franked dividend distributions by delaying a transition of certain *cum*-dividend stocks.** A raft of dividend drop-off studies show that franking credits aren't fully priced into equity prices.⁶ To receive full value, a transition manager may consider delaying the trading of *cum*-dividend stocks until the portfolio becomes entitled to receive the dividends and associated franking credits. Of course, this opportunity can work in reverse: If the transition is into Australian equities from another asset class, a fund could benefit from bringing forward the purchase of *cum*-dividend target stocks to effectively pay a discounted price for accrued franking credits.
- **Targeting the CGT discount by delaying a transition of certain short-term holdings.** This strategy involves weighing the pro of delaying some trading to qualify for a CGT discount against the con of tracking-error risk. For example, it may be optimal to delay the liquidation of a stock held for 11 months until the 12-month CGT discount applies. Funds with asset-rebalancing overlays could also factor this opportunity into their choice of physicals or derivatives to effect a rebalance. As a reminder of the value of the CGT discount to superannuation fund accumulation members, one-third of qualifying discount gains become tax-free, effectively reducing the tax on the total gain from 15% to 10%.

³ Raewyn Williams and Mahesh Pritamani (2017), 'Under the Spotlight: How Much Does It Cost to Trade Equities?', Parametric, 1 February (available on request). The transaction cost assumptions we draw from this research are somewhat conservative in assuming very low explicit trading costs based on a conflict-free agency execution trading arrangement, which is not the market norm in Australia, and a very patient trading style.

⁴ Dividend yields are calculated as at 11 March 2020. In our example, we halve the annual dividend yield of these stocks.

⁵ Raewyn Williams, Martha Strebinger, Vassilii Nemtchinov, and Travis Bohon (2017), 'A Fresh Look at Franking', Parametric, 1 January (available on request).

⁶ Damien Cannavan and Stephen Gray (2017), 'Dividend Drop-Off Estimates of the Value of Dividend Imputation Tax Credits', *Pacific-Basin Finance Journal* 46, p. B (December): 213–226. This research suggests that as little as 35% of the face value of franking credits is captured in equity prices. This reaffirms the undervaluation of franking credits in equity prices using the dividend drop-off methodology. See also: Neville Hathaway and Robert R. Officer (2004), 'The Value of Imputation Tax Credits', Capital Research; Bellamy and Gray (2006) and Minney (2010).

- **Intelligent tax lot selection.** When a transition does not involve 100% of a stock parcel (tax lot) in a legacy portfolio, funds are legally permitted to select those tax lots with more favourable tax characteristics, such as less embedded capital gains. There are two aspects of this opportunity for a good transition manager to exploit:
 - › Selecting favourable tax lots, which requires the manager to have access to tax lot information and the custodian to accommodate the specific allocations of tax lots to the transition
 - › Widening the universe of available stocks (tax lots) to choose from
- **Applying sector and factor risk optimisation techniques.** Traditional transition management involves defining the legacy and target portfolios based on stock holdings and weights. A rethink could use quantitative techniques and a risk model to define legacy-target portfolio differences based on systematic sector and factor risk exposures. A transition manager could identify opportunities to reduce trading costs, as well as concurrent tax and transaction costs, with little impact on the overall risk profile of the portfolio. In the cash raising and transition of financial stocks to benchmark weights in our example above, to reduce trading of NAB and WBC stocks at the wrong time, a transition manager might allow the target portfolio to retain some of these overweights and balance these with more sales of the other big bank stocks, CBA and ANZ, to deliver a similar set of target portfolio risk exposures.

Superannuation funds may endorse the principle of tax awareness in their BAU change environment, but tax-aware transition practice requires the right structure, operational processes, tax lot information and, of course, skills to balance tax thinking with the other important dimensions of transition management depicted in figure 1. We turn now to describe a holistic solution that superannuation funds could adopt to seamlessly integrate tax-aware transition management into the fund's multimanager equity portfolio.

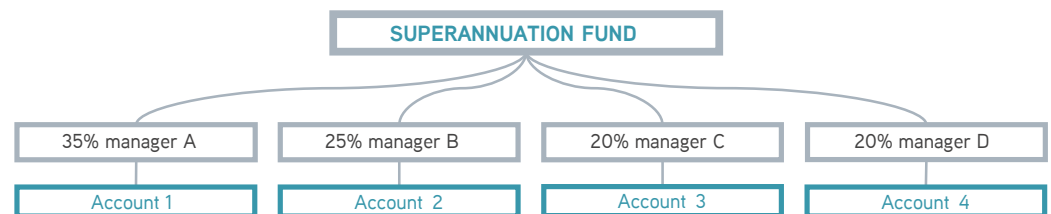
Centralised Portfolio Management

CPM is an after-tax-focused whole-of-portfolio equity implementation solution offered by Parametric that currently manages around \$8 billion of assets for Australian superannuation funds with large multi-manager Australian and global equity portfolios.⁷ It preserves the artisan role of equity managers by asking them to capture their best ideas in model (or paper) portfolios managed from each manager's perspective like a normal cash-backed portfolio. CPM aggregates, optimises and implements this collection of best ideas in a single, centrally coordinated, after-tax-focused live portfolio. Figure 3 shows the structure of CPM compared with how superannuation funds have historically set up their multimanager equity portfolios.

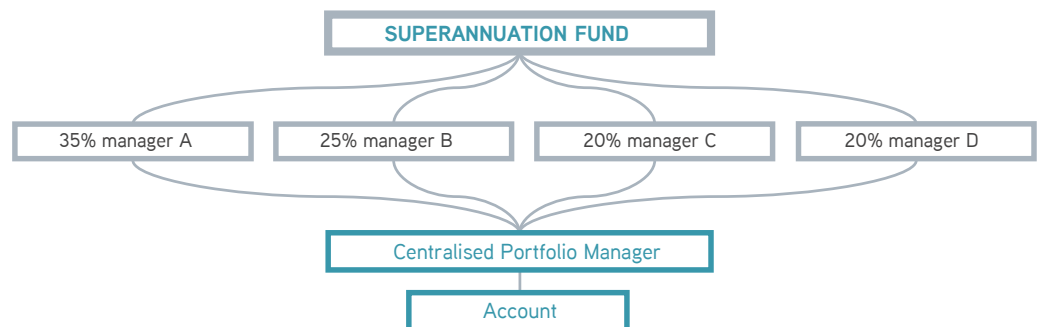
⁷ Figure is as at 29 February 2020.

Figure 3: Structure of Parametric Centralised Portfolio Management

Traditional fund structure:



Fund structure with CPM:



Source: Parametric, 31 March 2020

As figure 3 shows, CPM creates a whole-of-portfolio perspective before any live trading occurs. The specialist implementation manager can deliver a range of benefits to a superannuation fund, including the following:

- After-tax investment management, performance reporting and benchmarking⁸
- Internal crossing (offsetting redundant trades)—becoming more useful as funds increase in scale and complexity
- In-built passive, factor and transition management
- Simple one-party implementation of whole-of-portfolio screens and tilts, such as ESG restrictions or factor tilts
- Standardised whole-of-portfolio analytics, such as risk and RG97 reporting
- One-time foreign account and withholding paperwork
- Centralised proxy voting
- Single custody accounts
- Simple, separate custom portfolio creation based on the same set of the manager’s best ideas, such as a segregated pension portfolio or DB portfolio

⁸ For a recently published example of after-tax performance reporting and benchmarking for superannuation funds, see Raewyn Williams (2019), ‘Drip, Drip: The Case for Controlling What You Can Control’, Parametric, 1 November.

It's easy to see how this implementation structure allows equity transitions to be managed with an innate focus on all transition costs, including tax. The structure is purpose-built to manage *ex ante* implementation frictions associated with portfolio changes. The after-tax focus of the CPM manager means transition planning is based on the manager's own real-time, whole-of-portfolio tax information. Among other features, this is the widest possible universe of tax lots to make the most of internal crossing, tax lot selection and CGT optimisation opportunities like those listed earlier. The quantitative techniques employed day to day within CPM are well suited to honouring a superannuation fund's specific transition objectives and sensitivities and getting the three-way trade-off between risks, transaction costs and taxes depicted in figure 1 right.

As a proof point for this proposition, figure 4 below summarises the outcome of a March 2020 global equity transition of around \$500 million conducted within CPM, which delivered the target portfolio to the superannuation fund client with about one-quarter of the turnover and realised gains compared with what a traditional pretax transition approach would have produced.

Figure 4: Example of target portfolio transition with CPM

	Transition structure and approach		
	CPM	Traditional	Improvement
Initial tracking error (legacy portfolio)	60 bps		
Sell turnover	6%	20%	14%
Net realised capital gains	\$25 million	\$110 million	\$85 million
Final tracking error (target portfolio)	30 bps		

Source: Parametric, 31 March 2020. For illustrative purposes. Results are presented for a single client CPM transition which occurred on 5 March 2020. Client results may vary. Results presented for the Traditional transition, as detailed earlier in Figure 2, are hypothetical and do not reflect the experience of any investor. Hypothetical results are prepared with the benefit of hindsight and should not be relied upon to make investment decisions. All investments are subject to the risk of loss and there is no assurance that investment objectives will be achieved. Additional information about these results are available upon request. See Disclosures for additional information.

The potential tax bill on a transition like this could be as much as 3% of the transition portfolio's value (15% times \$110 million divided by \$500 million). The actual tax cost in this case was much lower. A major contributor was the lower-turnover and innately tax-efficient CPM structure, which explicitly looks to optimise the three-way risk/transaction costs/tax transition experience set out in figure 1. This practical case study builds further on our strong argument for superannuation funds to beware of the tax sting in the way their investment transitions and ongoing change programmes are managed. A specialist implementation platform like CPM is a way to preserve the value of a fund's good investment ideas and not have the value eroded by the real-world costs of implementation, including tax.

Conclusion

A myriad of internal and external drivers make portfolio changes part of the BAU environment of large superannuation fund investing. However, the current approach to transitioning from one set of portfolio ideas to another is pretax; it does not recognise that superannuation fund members care about the after-tax value of the portfolios that underpin their retirement savings. We show how to integrate tax awareness into a broader three-way optimisation of the fund investor's risk, transaction costs and tax concerns and detail specific strategies to reduce the amount of pretransition portfolio value lost through tax—one of a number of implementation frictions that are a cost of real-world investing. We demonstrate the tax sting in the transition tail with a very modest hypothetical example of a small cash raising and transition of S&P/ASX 100 financial stocks that potentially costs the portfolio 13 bps in tax—a leakage over six times larger than the transaction costs, which are managed as standard. Quite illogically, a traditional transition manager and underlying superannuation fund client could report that transaction costs have been contained well but remain blithely unaware of this much larger tax sting. As superannuation funds are asked to constantly adjust and readjust their investment settings, the hidden cost of these tax-naïve transitions will add up and be felt in members' pockets.

The more a superannuation fund contemplates portfolio changes, the more it should be motivated to find a specialist platform like CPM to implement these changes to ensure that all the costs of their change programme are managed well, including tax. A fund's goal should be this: to extract as much value as possible from every new or necessary investment idea in its new target or destination portfolio, instead of seeing this value paid away to third-party brokers, traders, managers, funds and the taxman as the expensive price of getting there.

Appendix: Transition management terminology

Transition manager	The entity responsible for minimising the explicit and implicit costs of a transition.
Legacy portfolio	The portfolio of the outgoing manager. If the manager is not being terminated, then the legacy portfolio will refer to a segment of the manager's portfolio.
Target portfolio or destination portfolio	The portfolio of the new manager.
Rebalancing	Buying or selling assets in a portfolio to correct market move (drift) and maintain a superannuation fund's desired asset allocation.
Tracking error	A common measure of risk that captures the extent to which the portfolio's assets as a group have returns that are different from (rather than tracking) the portfolio's benchmark.
Round-trip transaction costs	Costs of executing both the initial trade and the subsequent trade required to redeploy the money. For example, for every sell-trade to harvest the performance gain, there is a subsequent buy to invest in the next stock idea.
<i>Ex</i> -dividend	A stock that trades without the accrued value of (entitlement to) the next dividend payment.
<i>Cum</i> -dividend	A stock that trades with the accrued value of (entitlement to) a future dividend that a company has declared but not yet paid. A stock will trade <i>cum</i> -dividend until the <i>ex</i> -dividend date.
In specie transfer or in-kind transfer	The process of transferring assets without selling the underlying investment.
Explicit costs	Costs of trading that are directly charged, including brokerage commissions, fees and taxes. Commission rates are typically negotiated between managers and brokers.
Implicit costs	Costs of trading that are not directly charged and are more difficult to quantify, such as price-impact (market move) costs and bid-ask spreads.
45-day rule	The requirement in Australian tax law to hold shares at risk for at least 45 days after an <i>ex</i> -dividend date to be eligible to claim franking credits.
Centralised Portfolio Management (CPM)	The centralised implementation of multiple equity manager portfolios to provide whole-of-portfolio transparency and reduce implementation costs like tax, brokerage and foreign exchange commissions.

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