

Transition Trading and the T Standard

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The fifth anniversary of the T Standard has recently passed—five years that have seen the transition industry grow up and find a more secure place in the world. The T Standard has played its part in that maturing process. It has earned the trust of the plan sponsor community, and is widely used as part of the measurement process for portfolio transitions worldwide.

For a metric that is so important in the world of transition management, very little has been written about the T Standard from the perspective of the trader. The original paper that led to the T Standard was published early in 2003 not in a trading journal—the vehicle that most of the transition industry at that time would have expected—but in the *Journal of Performance Measurement*.¹ This was no accident. The T Standard set out explicitly from the beginning *not* to be a trading metric, but rather a portfolio performance metric: an application of the principles of the Dietz Method² to transition management, rather than a competitor to VWAP, OHLC, or other common trading measures.

The rationale behind this was a view that transition management, properly done, is not just a trading function but full-fledged investment management, albeit a short-term version: investment management with ADHD, perhaps, but investment management nonetheless. On the other hand, transition management clearly has a much higher level of

portfolio turnover than do other, longer-term forms of investment management (that's the whole point, after all). So the trading function is a bigger part of the picture. This short article, therefore, will partially redress the balance, and consider the trading angle of the T Standard.

Start by considering the challenge that lies at the heart of just about any form of performance appraisal: separating an overall outcome from a given individual's role in that outcome. You may play on a baseball team that loses 101 games, but if you average 0.293 and bat in 110 runs, you can still earn a move to the World Champion team and the right to be paid \$10 million a year for the next three years.³ But there aren't many areas of life where individual contributions can be isolated as easily as in baseball (and even in baseball, the stats do not tell the whole story). Trading is part of a wider investment management process, and trading metrics are designed to isolate the trader's contribution to that wider goal.

The T Standard is a measure of the outcome of the wider transition process. It does not (and never tried to) isolate the trading element. Indeed, throughout the process of creation of the T Standard and in the subsequent years, I was able to place just about every criticism of the standard into one of two piles, and the larger one was made up of examples of ways in which the T Standard could show a poor outcome even though the transition manager had done a good job.⁴

It is unquestionably true that the T Standard does not definitively tell you whether the trader did a good job—no portfolio performance measure does that. But, from the asset owner's perspective, it is much easier to assess the success of the overall event with the T Standard than without it.

How, then, can we begin to tie the trader's role to the T Standard measure? Let's look at some simple examples.

CASE 1: THE VWAP STRATEGY

Consider a simple like-for-like transition from one U.S. large-cap equity portfolio to another. Suppose the legacy portfolio is relatively heavy in some sectors (including home builders, perhaps) while the target is relatively heavy in others (such as regional banks, say). Suppose the volumes involved are such that this is regarded as most likely a two- or three-day trade, in order to avoid undue market impact. Suppose the trading strategy on day one is to trade a particular slice of the overall portfolio, trading throughout the day using a VWAP strategy in order to maximize access to available market liquidity.

The trader may be effective in executing this strategy, but what happens if the price of home builders falls (due to factors unrelated to his/her trading activity), and the price of banks rises?

The T Standard is based on implementation shortfall, so it measures the outcome against a theoretical cost-free instant transition into the target portfolio at closing prices before trading activity actually begins. However, the actual portfolio, which still holds the declining home

builder stocks, underperforms against the target, which instead holds the stronger bank stocks. So the T Standard shows a shortfall—the asset owner has suffered a loss relative to their ideal. (See exhibit.)

This is a familiar challenge for traders and portfolio managers—trading strategy is an important component of any performance outcome, but not the whole of it. The use of trading metrics (in this example, VWAP) as a management tool to assess the execution of trading strategy can remain valid, even though those metrics may never be presented to the end client.

CASE 2: THE CROSS

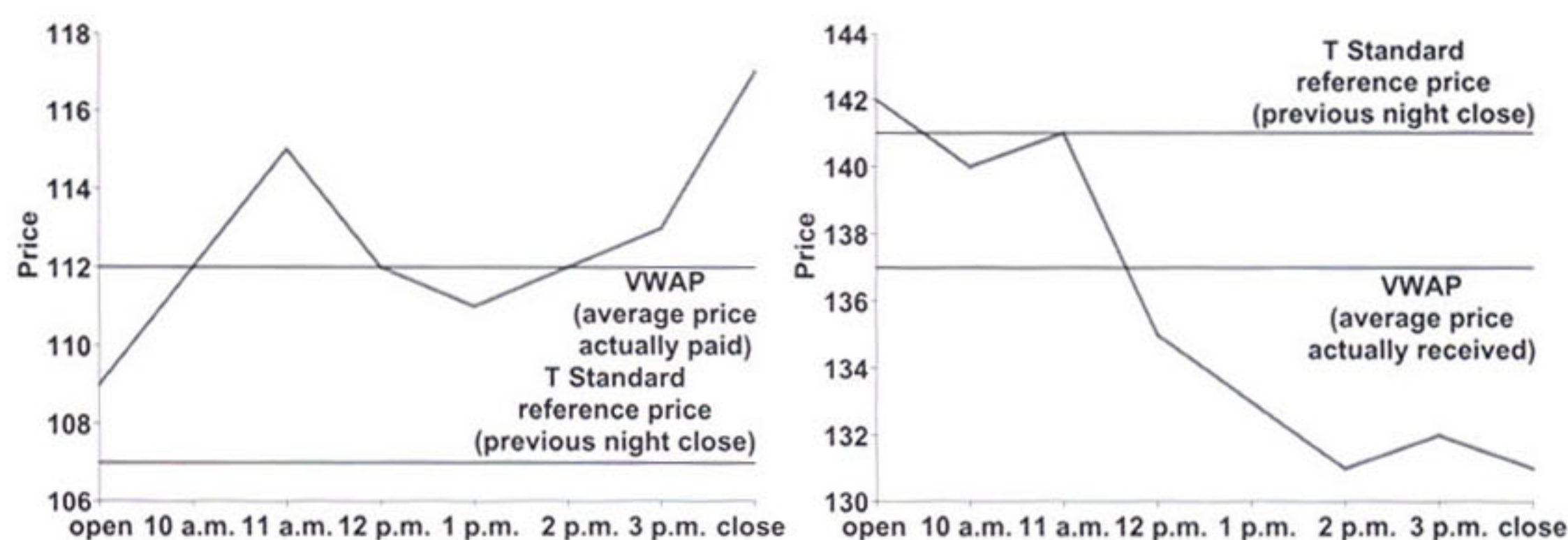
Now consider another trading approach: the use of a crossing network. Suppose the same portfolios above are not traded directly in the open market, but first are entered into a crossing network in the hope of finding matches for as much of the portfolio as possible, hence saving on spread and commission costs.

Trading metrics are sometimes not applied to crossed trades at all. After all, they are carried out at externally referenced market prices that are not directly affected by the cross-trade.

The T Standard is adamant that measurement is based on closing prices prior to (not coincident with) the start of actual trading; the possibility of using the price actually obtained as its own benchmark is excluded. Because in our example the target portfolio outperforms the legacy portfolio prior to the cross-trade occurring, we once again see the same dynamic that can lead to a

EXHIBIT

Rising Target Stock Price Creates Implementation Shortfall; Falling Legacy Stock Price Creates Implementation Shortfall



Note: Notional data for illustrative purposes only.

T Standard shortfall even though the trading strategy is successfully implemented.

Another possibility in the case of the cross-trade is that the attempted cross is unsuccessful. In the example we have chosen, the pattern of prices indicates that market demand exceeds supply for regional banks on the day in question, and supply exceeds demand for home builders. If that pattern of supply and demand is also present throughout the day in the crossing network, then the attempted cross may be only partially filled, or not filled at all. In this case, the portfolio manager and trader must try again the next day to make the trade. Because the T Standard does not reset, the implementation shortfall from the first day carries over to the second.⁵

IMPLEMENTATION SHORTFALL AS A TRADING METRIC

Obviously, in the example above, events could turn out favorably for the transition manager, as well as unfavorably. We chose an unfavorable example simply because those are the cases that generate the most concern.

So there is a risk that arises from divergence between the portfolio performance measure used by the client and the trading metric used by the trading desk of the transition manager. One way a transition manager may respond to this risk is to change the trading metric to more closely align with the portfolio performance measure. For example, the use of implementation shortfall or (closely related) the previous night's close as the trading metric reduces the likelihood and the size of the performance gaps shown above. Indeed, the use of these particular trading metrics within transition portfolios has increased in the years since the introduction of the T Standard.

This creates its own challenges. In particular, the use of implementation shortfall as a trading metric can make it harder to isolate the trader's contribution to the end result: a price may have moved away from the reference price before there was any possibility of executing a trade. It creates a greater sense of urgency to execute the trade, because of the risk of the price moving away from the benchmark. That, in turn, can lead to higher costs of trading due to market impact and the cost of taking—as opposed to providing—liquidity in the market. In practice, this might lead to traders being measured not against the raw implementation shortfall number but rather against some composite metric that also incorporates these other factors.

Importantly, transition managers are free to react to circumstances and adjust their trading strategy as they see fit. Indeed, doing so is an important part of the transition manager's job. How much can be traded on any given day will depend on activity in the market on that particular day. Taking advantage of available liquidity, while maintaining portfolio structure and managing sector and factor risks, is all part of the skill that good portfolio managers and traders, working as a team, bring to this specialist area of investment management.

That this is ultimately a question of skill, not of a mechanical measure (the T standard or anything else), is illustrated by the perennial attribution question of market impact and opportunity cost. If the majority of your implementation shortfall is due to market impact, then the obvious reaction is to trade more slowly, thus reducing impact. On the other hand, if the majority of your shortfall arises from opportunity cost, then you would probably reach the opposite conclusion: trade more quickly. But, while the market's ability to attribute trading costs is always advancing, this attribution ultimately depends on being able to answer the question: what would the price of the stock have been if I had not traded? Since that is a question that can never be answered with certainty, attribution will always be to some extent a matter of judgment.

UPDATING THE T STANDARD

After five years of use, the T Standard was recently reviewed and updated, following broad-based industry consultation and in recognition of the significant developments in markets and in client expectations over this period. There were no fundamental changes to the standard, but there were selective changes in order to clarify some points and to increase transparency. In particular, the revision provides:

- More clarifying examples throughout the text.
- Timing of different components of the performance period(s) is described in more detail.
- Changes to the target portfolio during the implementation period are measured using the prior night's closing prices ($T - 1$) prior to practical implementation of the target adjustment.
- Increased transparency is provided through disclosure around the timing of the receipt of portfolio information and/or target portfolio changes.

- Clarity is offered on the prices allowable for return calculation. Generally speaking, sources will be independent and disclosed, with the calculation methodologies given in footnotes.

The updated version was released in December, 2008.

CONCLUSION

The T Standard is not a trading metric. But, like other portfolio performance measures, it shows an overall outcome of which the trading activity was a critical component. Its presence serves as a useful reminder for portfolio manager and trader alike that the ultimate objective of a transition is to preserve the wealth of the asset owner while re-building the portfolio into the target holdings.

The focus on the client's outcome that has resulted from the prevalence of the T Standard as a performance measure has led to some changes in how transition portfolios are actually managed. The trading metrics that are used and the trading decisions that are made continue to reflect a number of trade-offs: a trade-off between immediacy and cost, a trade-off between risk and return, and a trade-off between trading opportunity and portfolio structure, for example. But, thanks to the T Standard, these trade-offs now reflect the client's interest more accurately, and the incentives of the trader and client are more closely aligned.

ENDNOTES

¹Collie, R. "The T Standard: A Standardized Method for the Calculation of Portfolio Performance During a Transition." Russell Investments, 2003.

²First introduced in the 1960s by Peter Dietz, the Dietz Method played an important role in establishing as best practice the systematic measurement of portfolio performance and in the use of time-weighted returns. It is today the basis for almost all portfolio performance measurement calculations.

³Which is exactly what happened to Raul Ibañez, the Seattle Mariners left fielder who moved as a free agent to the Philadelphia Phillies in December, 2008.

⁴The other pile consisted of variants of the comment "The T Standard does not go far enough." Personally, I was never sure how to deal with those comments because they did little more than say that the standard did not do things that it never set out to do. So it does not define best practices for the industry? Since it would have taken years to get any sort of consensus at all on what those practices should be, it made a lot more sense to capture the one part of the practices that it was relatively easy to agree on: what the client's outcome was. The existence of a performance standard was a helpful start in that direction, to be welcomed by those who truly wanted to see best practices adopted across the industry. It does not provide attribution of the performance outcome into the sources of that outcome? Again, that would have been a much more challenging undertaking—and the T Standard was a step in the right direction to that end.

⁵This description is, of necessity, a simplification of how cross-trading might be used in a transition. In practice, one way in which traders manage the issues mentioned here is to spread their order across several pools of liquidity, including a crossing network.

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