


Understanding Model Marketplaces & Managed Account Platforms

17 Questions to Ask When Considering a Platform

Barrett Ayers

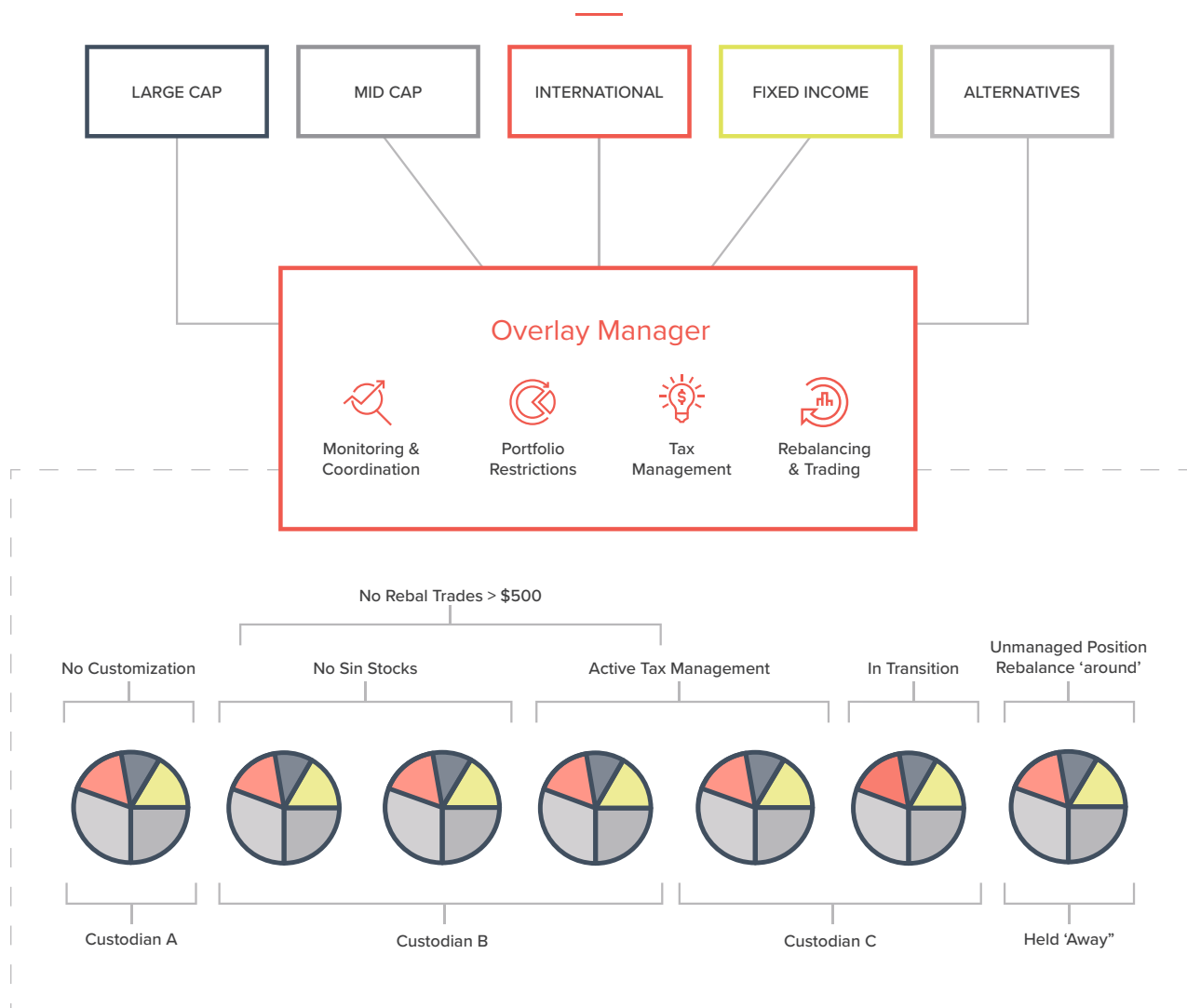
President of Adhesion Wealth



Are you a wealth management firm considering outsourcing your investment operations functions to a managed account or Unified Managed Account (UMA) platform? Are you also wondering what happens when an asset manager places their investment model onto the platform and delegates the trading and rebalancing authority to that platform? Or are you an asset manager who is considering publishing your model(s) to a Managed Account Platform or Model Marketplace - and wondering what sort of experience to expect once the ink has dried? In any case, the key considerations in this document are a must-read.

To start, let's level-set some definitions. A Unified Managed Account, or UMA, is a versatile account that can hold multiple asset managers across a variety of security types. It can allow for mass personalization without sacrificing scale, all while delivering the solution at potentially meaningful lower all-in costs than many other programs. Most exciting is that it can be seen as an advanced form of outsourcing, so the operational, management, and some administrative burden can all be wrapped into a bundled fee called an "overlay fee". The overlay fee generally includes the portfolio management, operational, administrative, and investment management functions.

My Moderate Growth Strategy



In order to make the UMA run properly, a "quarterback" – referred to as an Overlay Portfolio Manager (Overlay Manager) – generally sits atop the program to coordinate all of the underlying activity. An Overlay Manager uses sophisticated technology and a series of advanced workflows to take in model changes from the various asset managers and coordinate all of the activity ranging from asset manager trades, cross-manager rebalancing, monitoring/managing asset class drift, and more. The Overlay Manager typically has the ability to perform security swaps between managers within the portfolio to avoid excessive trading, cross-manager tax management, tax harvesting, and can also allow for security restrictions, client personalization, cash management, as well as a host of other day-to-day portfolio administrative tasks.

When evaluating a UMA Platform, it is important to ask detailed questions about technology capabilities, process, approach, and methodology, across a range of areas, because the answers will impact your client's experience and their investment outcomes. But to understand in more detail, let's first define how multiple asset managers and products co-exist in a UMA, because that's really where an Overlay Manager earns their money. It is also what can make things really complicated and perhaps even a bit controversial. Each security model within a UMA is called a 'sleeve'. If you were to put an equity SMA and a single mutual fund together in an account, that would be two sleeves.

Or if you combined three SMAs, two ETF strategists and one mutual fund – that would be six sleeves. Where the debate begins is how to keep those sleeves segmented, or 'partitioned'. Determining the partitioning method used within the UMA platform and understanding the impact of the approach is very important, as it will affect your client's performance, taxes, fees paid, risk policy adherence, overall account dispersion, and potentially even the reputation of both your practice and the manager's firm.

Adhesion has been in the business of delivering our UMA program with Overlay Portfolio Management to advisors for 12 years. During this time we have helped thousands of advisors build and administer tens of thousands of UMA programs for their clients. Adhesion offers an open architecture program – which means that advisors and/or wealth management firms have the freedom to build their own multi-manager allocations and/or seek guidance from Adhesion's Investment Consulting team, and/or use pre-built portfolios that have been constructed by one of many third-party Outsourced CIOs (OCIO) or Investment Strategists.



Before diving in, it is important to understand some basic terms and concepts as well as the workflow for how interactions with an outsourced platform can work:

- 1 Asset Manager**

First, an asset manager delivers a model of securities (a list of securities and weights or shares) into a model portal, administered by the UMA or managed account platform provider. The model portal should allow the manager to upload or modify holdings as well as explicitly identify trades, trade-handling rules, execution requirements, market conditions, and other details needed for the recipient (the Overlay Manager in this case) to properly execute the change.
- 2 Model/Manager Portal**

The model portal should also be a place where the manager can promote their models by uploading marketing materials and research ideas, ensuring proper classification, describing the firm/model approach, as well as assisting the advisor with how best to position the portfolio when talking to clients.
- 3 Model Marketplace**

Next, an advisor can research managers and models via a Model Marketplace. A good model marketplace will allow users to search for pertinent criteria such as fees, returns, asset class, risk stats and other criteria collected from the manager. Clicking on the product in question should provide the user with marketing, research, trade notes, and other due diligence materials. The user should be able to contact the manager directly from the Model Marketplace for any further questions. Additionally, the user should be able to blend products (multiple managers, model of models, etc.) and see hypothetical analytics on the combined allocation, as well as save and place the product(s) into 'best thinking' allocation for future use.

Once the advisor has completed the research steps and chosen an allocation, that allocation can be 'promoted' to the UMA platform. From there, this allocation (or "strategy") should be available for use by both individual clients (e.g. John Smith's Moderate Growth Allocation) or a best-thinking portfolio reusable across multiple clients (e.g. My Moderate Growth Allocation).
- 4 Overlay Manager**

Finally, within the same platform and workflow, an advisor should be able to profile clients into each available strategy. Once profiled, the client and the strategy are handed over to an Overlay Portfolio Manager (OPM) who is responsible for implementing the portfolio, ongoing rebalancing and trading, trade coordination, tax management, tax transition, cross-manager rebalancing, cash management, and general portfolio administration within the UMA portfolio.

Asset managers who wish to establish a policy around new platform participation or even evaluate the efficacy of their existing programs are encouraged to closely examine the platforms to which they are entrusting the implementation and integrity of their model portfolios. Advisors using those platforms to implement solutions for their clients also need to be certain to ask platforms the difficult questions about where and how the managers they are using are being implemented. In this paper, we explore a number of areas that advisors and managers alike should consider when contemplating the use of a UMA platform or participation in a model marketplace. We provide a series of questions to be posed to a provider in each section of the paper, and also provide them in a checklist format at the end of the document.

Understanding the Topic: Sleeve Based Accounting Capabilities

Trade-Generated Sleeves. One of the more remarkable advancements in the current technological state of UMA platforms is the structural construct known as Trade Generated Sleeves. These are synthetic barriers erected around managers inside of a UMA based on the original manager trade. Their design objective is to allow manager models to operate purely and independently, just as they would if you were to hire an SMA directly. However, the improvement upon an SMA is that the client can benefit from cross-manager coordination through use of an Overlay Portfolio Manager within a single UMA account.

Trade Generated Sleeves are constructed by identifying the tax lots from the specific manager that traded a specific position within the UMA. This is called “Trade Tagging”, and the tax lot resulting from that specific trade is tracked within that manager’s “sleeve”. Each tax lot inside of an account must be explicitly tagged and associated with a manager’s model/sleeve. This means that if IBM is held by two managers, the tax lot(s) of that security assigned to each manager are based on each manager’s actual purchase of the lots, not an estimation, approximation or allocation. This allows you to explicitly compute taxes, performance, fees, and gains/losses against the manager sleeve in which it was generated. It also helps ensure that when you sell out of a specific equity or ETF tax lot for the manager, you communicate ‘versus purchase’ instructions to the custodian so that their books stay in sync with yours. It is by far the most accurate – and complicated to execute - method of overlay management.

The revolutionary impact of the trade-generated sleeve construct is worth understanding; in fact, it’s arguably the single most important consideration as managers evaluate platform participation. Any organization that places a high importance on evaluating ‘actual’ manager returns – such as wealth management firms, consultants, advisors, asset managers, and institutions - should have this high on their list of priorities as well.

Intermingled Sleeve Based. Sometimes called a poor-man’s sleeve-based system, an intermingled methodology allows a platform to form a sleeve based on today’s holdings. There is no trade tagging and thus there is no historical record of where the tax lot came from. So, in this case, what constitutes a sleeve today is different than what it looked like yesterday. As holdings are repriced, users could expect to see tax lots meander between sleeves, thereby losing all track of true manager performance.

In an Intermingled Sleeve Based platform, when multiple managers are combined into a single allocation, security models are blended together and reweighted into a ‘super-model’. In the “super-model”, if a manager’s allocation held IBM at 5% and that manager’s model was assigned a 10% allocation slot of the overall portfolio, IBM would be reflected at .5% in the blended super-model (assuming no other manager holds IBM). Going forward, each morning, a new day’s worth of account holdings are sent en masse into the system to be compared against the super-model to evaluate, in aggregate, what is over- or under- weighted. If a second manager initiated a position in IBM as well, then the tax lots associated with that position would be split pro-rata across managers by virtue of the target manager allocations rather than explicit trade assignment

As a way to illustrate the impact of these two approaches and the dramatic effect it can have on performance, fees and taxes, imagine one of those big popcorn canisters you get during the holidays with the three segments for different flavors. The segments are basically sleeves. You can easily see how much caramel corn is left and how much has been eaten relative to the cheese popcorn. Now take that divider out, shake the can and try to give your friend half of each flavor. That is what it is like to manage and report on a portfolio without trade-generated sleeves.

To help visualize this issue, we have provided a real-life demonstration below that illustrates the impact.

Case Study 1: Trade Generated Sleeve vs Intermingled Sleeves in Action

Consider the following scenario: Manager A and Manager B are equally weighted at 50% in a client portfolio. In the first month, Manager A initiates a new purchase of \$50,000 into ABCD. From there, ABCD proceeds to grow minimally in the second month, then significantly in the final month. Manager B, noticing the skyrocketing results of ABCD, wishes to window-dress their portfolio going into quarter end and initiates a \$40,000 position in the last month of the quarter as well.

	Target Manager Allocation	Position Value in ABCD		
		Month 1	Month 2	Month 3
Manager A	50%	+\$50,000	+\$52,000	+\$60,000
Manager B	50%	\$ _____ -	\$ _____ -	+\$40,000
Total Portfolio	100%	\$50,000	\$52,000	\$100,000

SCENARIO I - TRADE-GENERATED SLEEVE APPROACH:

Systems that are able to track securities and tax lots at the sleeve level are also able to calculate the performance of a holding specifically at the sleeve level, accurately capturing where the unrealized gain (or loss) should sit:

Manager A: Over the quarter, generated a \$10,000 gain on the initial \$50,000 investment or a 20% return (\$10,000/\$50,000).

Manager A	
Return	↑20.00%
Beginning Market Value	\$50,000
Ending Market Value	\$60,000 (Gain of \$10,000)

Manager B: Over that same period, had \$0 gains and 0% return.

Manager B	
Return	N/A
Beginning Market Value	\$40,000
Ending Market Value	\$40,000 (No Gain)

SCENARIO II - INTERMINGLED SLEEVE APPROACH:

Systems that cannot segregate securities and tax lots at the sleeve level are forced to calculate security performance at the overall account level and then apportion performance across managers based on the period-ending allocation of the holding:

Manager A: Because in the third month Manager B initiates a position in ABCD as well, only 50% of the account's total position is attributed to Manager A due to the *target manager* allocation of 50%. The holding as a whole has an unrealized gain of 11.1% (\$10,000 / \$90,000) however because Manager A only owns 50% of the position, that manager is now attributed 50% of the return, or 5.56%.

Manager A	
Return	↑5.56%
Beginning Market Value	\$50,000
Ending Market Value	\$50,000 (50% of Total Position's Ending Market Value - No Gain)

Manager B: Over that same period, Manager B was attributed a gain of \$10,000

Manager B	
Return	↑5.56%
Beginning Market Value	\$40,000
Ending Market Value	\$50,000 (50% of Total Position's Ending Market Value - \$10,000 Gain)

With Scenario II, what may be obvious to those in the asset management business is that the manager who took advantage of window-dressing ended up in a better position than the manager who took a risk. Some have asked whether this anomaly encourages managers to window-dress to split profits (and fees).

To the layperson, this seems highly confusing and counterintuitive. Manager A did a fantastic job, added value, yet in an Intermingled environment shows an unrealized gain of zero and an allocated return that is significantly less than the manager's actual performance. Similarly, Manager B just initiated a position yet immediately is credited with a \$10,000 gain and apportioned return that is not attributable to that manager's portfolio. Most investors would errantly suggest you fire Manager A and put more money with Manager B.

Why is this important? The average multi-manager equity portfolio at Adhesion Wealth has 17 positions that overlap. Portfolios that include asset classes that are overlapping in nature (All Cap, SMID, Global Equity) have a significantly higher incidence of overlap. Imagine the impact above multiplied by 17x across 500 clients. The impact to both a reputational – and perhaps more importantly, a fee perspective – can be dramatic for managers. The need to explain this to clients at this rate can be frustrating and inefficient for advisors, and the whole thing can appear extremely confusing to clients.

Asset Allocation & Drift Management

For advisors, asset allocation integrity and manager drift remediation within a UMA is a critical function to understand. In fact, how and when drift is addressed is one of the most important and complicated services a Managed Account Platform offers.

A platform should be able to display current vs target allocation at any given time and allow the advisor to define how far a manager's current allocation may drift relative to its target allocation. The distance a current portfolio may drift relative to a target allocation is referred to as a drift band and may be defined in both relative and absolute terms. Advisors may also decide that both upside and downside breaches are equally harmful and wish to minimize both conditions by establishing a symmetric band policy. Or they may wish to minimize the impact of a downside breach more than an upside breach and institute an asymmetric band policy. Or lastly, firms that wish to time market patterns and establish tight bands in mean-reverting markets and wider bands in trending markets may establish a dynamic band policy. The key here is to have the flexibility and control.

When it is time to rebalance one or multiple managers back to their respective target allocations, the platform should be able to carefully apply the execution of rules to help ensure impacted managers are brought back to their target but also to do so in a way that is tax, trading and directionally appropriate, as instructed by the manager for the strategy and by the advisor for the specific client.

Specifically, when a manager breaches a drift band, overweighted managers who exceed the band thresholds should be trimmed to generate cash or journal securities to underweighted out-of-band managers. When doing this, the tax rules applied to the account should be considered to optimize tax lots sold or journaled, thereby minimizing tax impacts to the client. Similarly, if a client wishes to avoid excessive commissions or de minimis share trading, the platform should be able to respect

minimum trade sizes when correcting for manager drift. Finally, when a manager drift rebalance occurs, the platform should be able to consider 'over-correcting' and trading back past the outer range of the band – also called a 'mid-band rebalance' - in order to help ensure that a slight move in the market doesn't throw the account back into a rebalance situation by barely re-breaching the same band.

However, to do this, it is vitally important that a UMA platform have the ability to track the actual asset allocation for each manager/sleeve relative to the target allocation. The only way to accurately determine the manager allocation is through Trade Generated sleeves. If using the Intermingled Sleeve approach, the allocation is effectively rebalanced every day because there is no tracking of the manager's original trades. Therefore, the only way to determine where each share goes for accounting purposes at the end of each day is by evaluating the target allocation and keeping the account exactly in line with the target every day. In essence, with an Intermingled Sleeve platform, the only number you can see is target allocation because there is no drift.

In order to understand how client accounts will be managed and traded – and understand the transaction volume, tax impact, and performance tracking – advisors must ask the platform providers key questions about how they track and account for securities by manager/sleeve and about the level of flexibility and control they have and can give to advisors to set tax, trading, rebalancing, and other parameters at the client account level.

To illustrate the distinction and impact to the client of true sleeve-level tracking vs. the Intermingled approach, consider the case study below with the same 50% allocation to both Manager A and Manager B

Case Study 2: Do You Want Your Managers Rebalanced Daily?

SCENARIO I - TRADE-GENERATED SLEEVE APPROACH:

Each day, the manager's weight is determined by adding up all the holdings that are tagged to this manager by virtue of the actual trading that occurred from the manager. When added up, this may or may not equal the target allocation of 50%, which demonstrates drift. This is particularly important when combining managers together with different, non-correlated asset classes into a single account.

		Monday			Tuesday			Wednesday		
Symbol		Shares	Closing	Value	Shares	Closing	Value	Shares	Closing	Value
Manager A	ABC	1200	52.01	\$62,412	1200	53.88	\$64,656	1200	54.75	\$65,700
	DEF	192	27.15	\$5,213	192	28.55	\$5,482	192	29.88	\$5,737
	GHI	201	84.15	\$16,914	201	85.55	\$17,196	201	86.08	\$17,302
	JKL	455	91.52	\$41,642	455	94	\$42,770	455	91.85	\$41,792
Total		\$126,181			\$130,103			\$130,531		
Manager Actual Allocation		50%			51%			52%		
Manager Drift vs. Target		0%			+1%			+2%		
Manager B	BBB	480	48.45	\$23,256	480	47.50	\$22,800	480	45.85	\$22,008
	EEE	905	78.44	\$70,988	905	76.50	\$69,233	905	74.85	\$67,739
	YYY	83	84.15	\$6,984	83	80.08	\$6,647	83	79.88	\$6,630
	JKL	272	91.52	\$24,893	272	94	\$25,568	272	94	\$25,568
Total		\$126,122			\$124,247			\$121,945		
Manager Actual Allocation		50%			49%			48%		
Manager Drift vs. Target		0%			-1%			-2%		

As you can see in a Trade Generated Sleeve approach, share integrity is preserved, making drift easily discernible. As a result, asset class or manager level drift parameters can be defined, monitored, and – when it's time – rebalanced.

SCENARIO II - INTERMINGLED SLEEVE APPROACH:

In an Intermingled Sleeve approach, the market value for each account is provided daily by the custodian. That dollar amount is then allocated to each manager's target weight. Securities and cash are then moved into each sleeve to fulfill the manager's allocation – and if the account cannot be equalized by moving around what is held, securities have to be bought and sold. Note the change in share quantities for each security on Tuesday and Wednesday in this scenario vs. the static number of shares in the prior example.

			Monday			Tuesday			Wednesday		
Symbol	PW		Shares	Closing	Value	Shares	Closing	Value	Shares	Closing	Value
Manager A	ABC	49%	1,200	52.01	\$62,412	1,167	53.88	\$62,904	1,140	54.75	\$62,440
	DEF	4%	192	27.15	\$5,213	184	28.55	\$5,254	175	29.88	\$5,215
	GHI	13%	201	84.15	\$16,914	199	85.55	\$17,047	197	86.08	\$16,922
	JKL	33%	455	91.52	\$41,642	446	94	\$41,970	454	91.85	\$41,661
Total			\$126,181			\$127,175			\$126,238		
Manager Actual Allocation			50%			50%			50%		
Manager Drift vs. Target			0%			0%			0%		
Manager B	BBB	18%	480	48.45	\$23,256	494	47.50	\$23,450	508	45.85	\$23,277
	EEE	56%	905	78.44	\$70,988	936	76.50	\$71,581	949	74.85	\$71,053
	YYY	6%	83	84.15	\$6,984	88	80.08	\$7,043	88	79.88	\$6,991
	JKL	20%	272	91.52	\$24,893	267	94	\$25,101	277	90	\$24,916
Total			\$126,122			\$127,175			\$126,238		
Manager Actual Allocation			50%			50%			50%		
Manager Drift vs. Target			0%			0%			0%		

As you can see, the effect of intermingling holdings can cause a daily rebalance to their manager's target allocation. The approach could quickly mask drift, hide winning and losing managers, and potentially generate excessive trades resulting in unnecessary commissions and taxes. Perhaps most troubling, it may cause manager fees – and consequently fees paid by the end investor – to be highly inaccurate, especially in accounts with different non-correlated managers/strategies that might have significant differences in fees.

Bottom Line

The result of the Sleeve Based Accounting approach for platforms can have a meaningful impact on other critical downstream functions, including performance, best execution, compliance, tax management, fees, and manager gain/loss.

As it relates to accurate time weighted performance – whether on a sleeve, class, account, or household basis – all methodologies, at their core, rely on accurate transactions to correctly determine the market value. In Trade-Generated sleeves, market value is determined by the explicit transaction that occurred within the sleeve. In an Intermingled approach, there are no transactions occurring to adjust the market value; instead it is through daily reallocation of holdings that the sleeve value is derived, making it a highly imprecise ‘estimate’ of value, flows, and performance at the sleeve/manager level.

Similarly, transactions such as dividends, income, and corporate actions are affected at the custodial level but need to be broken down and applied to the sleeve level. Importantly, in Trade-Generated Sleeves, when the same security is held across multiple sleeves, the dividend is accounted for and applied to the manager at which it was earned – based on the effective date of the dividend and the number of shares in the sleeve at that time.

For models on an Intermingled platform, on the other hand, the dividends cannot be applied correctly as there is no historical record of the holdings by manager. If IBM had been held for years in Model A, then Model B purchases it the day before a dividend pays, that payment is split pro-rata across both managers, even though Model B is not entitled to that dividend for purposes of calculating the manager’s performance in that sleeve.

In our view, an ideal platform partner – from both an advisor and asset manager perspective – should take measures to ensure that dispersion does not occur and that if there are ‘dispersion events’, they are identified and remediated immediately. That ideal platform partner should also routinely conduct performance audits. Client sleeve-level performance returns should be rolled up into a composite and compared to the manager’s stated returns on a quarterly, gross-of-fees basis. Manager returns should be compared over time to ensure there are no recurring pattern-based anomalies causing historical return degradation or dispersion. This should be done not only at the manager level, but also at the asset class level, to spot internal dispersion over a 5-year and 10-year rolling basis.

These issues can cause meaningful levels of dispersion when compared against the manager’s stated returns, as well as false comparisons manager to manager. These dispersion events are embarrassing to both manager and advisor, and irritating to the client as they are very difficult to explain.

Sleeve Based Accounting Questions:

Which method of model delivery does your platform support?

- Trade Generated Sleeves (Manager Trade/Tax Lot Tagging)
- Intermingled Sleeves (no Trade/Tax Lot Tagging)
- No Slewing at all
- Other. Please Define _____

Can your platform generate time-weighted sleeve level returns?

- No
- Yes, based on tax-lot tagging
- Yes, based on some other form of model attribution
- Other. Please Define _____

If your platform supports partitioning, what method of identification do you use for segmenting out manager holdings and performance?

- Tax lot tagging at the point of model change/trading
- Start of day holding estimates
- Other. Please Define _____

How are dividends and income actions posted to sleeves?

- Dividends are synthetically broken apart and explicitly placed into sleeve based on the manager that earned that dividend.
- They are blended and pro-rata assigned to all managers
- Other. Please Define _____

Does your platform conduct periodic audits to ensure the performance results of the models are in-line with our stated returns? If so, what are they?

- No Audits
- Yes, results are reviewed and compared, but no action is taken
- Yes, results are reviewed and compared. Scorecards are produced to compare manager model composite within platform to manager’s stated return. Scorecard shows rolling dispersion and asset class pattern issues. Remediation is undertaken on a quarterly or rolling basis.
- Other. Please Define _____

Understanding the Topic: Model Entry & Rotation

We believe platforms that offer model-based UMAs should provide managers with a model entry portal as well as a model liaison desk responsible for acknowledging model delivery. In this function, the platform's model liaison desk ensures the model is immediately reconciled against the previous version to help ensure that updates are accurate, the instructions are unambiguous, and the model contents are in good order. The ideal platform partner should support both static and dynamic model entry as well as a host of rebalance command types such as resets, full rebalance, and direct trading. Platforms should be able to accept manager-specific model settings and trade guidance along with Do Not Buy or Do Not Sell rules to help ensure they operate in a fashion as close to the manager's own direct managed-account business. Why is this important to advisors? Because the more precision with which a platform is able to implement a manager's model and trading intent, the more closely the platform should be able to track the manager's stated or advertised returns.

Most money managers operate under model delivery time commitments called Trade Rotations, where they have contractual obligations to furnish trade instructions to each participating platform within a designated timeframe. These Trade Rotation commitments are designed to give each platform a fair and equitable opportunity to execute trades without always being last in line. The manager should be able to log in to a model

delivery portal, enter the model changes, and audit when the model was delivered, acknowledged, and executed by the Overlay Management team. A visual 'shot clock' should be provided so the manager knows when it is time to move on to the next platform. Advisors using a UMA platform should be sure to ask about trading and rotation participation to ensure manager-like trade handling.

As the proliferation of model marketplaces continues, managers find themselves participating on an increasing number of platforms. With that participation comes risk - on occasion, managers may forget to enter trades on all platforms in which they participate. The model marketplace should have technology to help ensure that models are not forgotten and do not go stale, and that model changes are executed in a timely manner, including automated reminders, 'heartbeat sensors', affirmation requirements, and policies around fee credits against model entry errors. Why is this important to Advisors? Because platform controls and processes that help ensure they are staying in sync with a manager's model changes offer what we consider to be one of the best paths to tracking a manager's advertised returns

Model Entry & Rotation Questions:

What trade execution windows are provided by your platform? How quickly after a model is received (during NYSE operating hours) are trades executed?

- Trades are done next-business-day in batch
- Trades are done same day in waves
- Trades are done in real time based on service levels to managers
- Other. Please Define _____

What is the method of Model Delivery?

- Model Entry Portal
- Spreadsheet / Email
- Phone
- Other. Please Define _____

Describe your capabilities to ensure model changes are not forgotten.

- Heartbeat Sensor
- Affirmation Sign-off
- Automated Reminders
- Model Change Policy
- None of the above. Please Explain _____
- Other. Please Define _____

Can your platform perform the following actions on just a single manager's sleeve?

- Rebalance just our model holdings to target
- Eliminate and/or reduce just our holdings/tax lots
- Invest or generate cash only on our holdings
- Apply pre-trade compliance restrictions on our sleeve
- Allow for tax harvesting only on our sleeve
- Designate a temporary tax harvest 'proxy' security based on our sleeve
- Respect our specific handling rules for our model/sleeves without impacting other managers that may be in an account with their own unique handling rules
- Other. Please Define _____

Please identify all model entry types you currently support.

- Dynamic, Share-Based Models
- Static, Weight-Based Models
- Dynamic, Weight-Based Models
- Hybrid Fixed Income Sleeves (Fixed Income model is traded by manager, rest by overlay manager. All within a single account)
- Other. Please Define _____

Understanding the Topic: Model Trading & Execution

Once the model has been delivered to the platform, the platform's Model Trading Desk should generate a trial hypothetical trade across all accounts to determine the aggregate block size. The Model Trading Desk, given the size of the trial block, should then devise a trading strategy consistent with the market conditions at the time, incorporating any color around execution method and venue that has been provided by the manager's own trading team. Trading options should generally include use of basic limit orders, specialized agency and principal trading desks, or any of a variety of other appropriate options for that particular security, security type, market cap, and sector. For large ETF blocks with limited underlying liquidity, the platform's trading should be able to consider the potential cost/benefit of using an Authorized Participant (AP) creation/redemption process to avoid excessive market disruption.

Concurrently, the platform's Overlay Management team should also be fine-tuning the results of the model changes with more surgical precision – including incorporating pre-trade compliance restrictions, and client account-specific criteria such as tax sensitivity considerations, trade preferences, and other variables – to help ensure that the portfolios remain closely aligned with the manager's model, while also adhering to the various client mandates. Once the trades have been worked up, the multiple trade blocks are forwarded to the Model Desk trader specializing in the specific security or asset class. The desk should then aggregate orders into a 'super block' and begin to execute according to the trade strategy previously devised. This should all happen within a 15-20-minute trade rotation window to ensure minimization of execution dispersion from the manager's trades and adherence to the manager's own trade rotation across platforms.

Model Trading & Execution Questions:

Please identify all rebalance command types that your platform supports.

- Explicit Security Trading Commands Only
- Model Weight Adjustments (Do Not Trade Commands)
- Explicit Security Trading Commands with Model Reset
- Full Model Holding Rebalance
- Other. Please Define _____

Please select the following that describe your platform's model trading process

- We support 'super block' across multiple custodians with the same execution price
- We incorporate manager trade guidance when given a block trade
- We step out trades (without soft dollars) to specialist market makers as needed
- We can offer AP Share Creation/Redemption to the manager when large ETF blocks appear that can cause ETF pricing dislocation vs the basket
- We do pre-trade strategy with the model provider and market makers
- We conduct a thorough post-trade execution evaluation and grade each broker we use
- We have a best execution committee that reviews execution quality
- We do a quarterly review of actual review vs stated return with managers if returns or executions do not match the manager returns
- If we are trading an ADR or non-US based ETF, we can manually kick-out orders when the local market is closed
- We participate in the manager's trade rotation on a side-by-side basis and carefully handle blocks so as not to disrupt the next platform in the rotation
- We have a service level to the manager (shot clock) to complete the block in an attempt to participate in trade rotation
- We can report out our shot clock and countdown timer to the manager to see when the block is complete
- Orders designated by manager as high touch are kicked-out for special handling by the platform's traders

Understanding the Topic: Fee Collection Methodology

Money Managers should be able to enter their own fees and be afforded flexibility when it comes to setting fees for individual advisory firms. Fees should be broken down using a traditional average daily balance formula and quarterly remittance should be provided to both the manager and the advisory firm with transparency on assets and flows by model and usage. Advisors should be certain to ask the platform about their policy on fee collection and marking up models. Advisors and their clients should know what they are paying for and how they are being billed.

Fees should be based on actual trades placed by the manager and segregated by trade-tagged sleeves to ensure that pro-rata allocation of holdings are avoided to prevent penalizing manager market values and subsequent fees collected. Why should advisors care? The accurate payment of manager fees should lead to more stable and continued relationships with managers on the platform as well as help to ensure all parties remain in compliance.

The platform should handle all client, advisor, and manager fee collection and, in a timely fashion, transmit payment directly to the respective parties along with remittance advance.

Also, advisors should get a full accounting of the services being provided through both the Asset Manager fee and the Overlay Manager fee. Keep in mind that any incidental benefit the advisor receives from services that do not directly benefit their client – such as recruiting, practice management, and marketing services – could be a red flag from a compliance perspective. Any fee charged to the client by a third party should be explicitly associated with the operational fulfillment of the services and directly attributable to servicing that particular client.

Fee Collection Questions:

When does the value of the model start to accrue fees to us as money manager?

- Immediately upon initial funding
- When the model is fully funded
- When the model is funded, less any advisor-discretionary decisions
- Other. Please Define _____

With what method are Money Manager fees computed?

- Sleeve/Model level (highly precise via Trade Tagging) _____
- Sleeve/Model level Holding (estimations via blended allocation) _____
- Other. Please Define _____

Which of the following is true about Model Fees, Revenue Sharing, Soft Dollar and Fee Collection method?

- Model Fees are not marked up in any way
- We do NOT collect Soft Dollars
- We do NOT receive any sort of hidden or undisclosed Revenue Share
- Platform Computes fees using ADB formula
- Platform collects model fees and remits to manager firm
- Other. Please Define _____

Understanding the Topic: Sales Tracking

In terms of sales reporting, asset managers should be permitted real-time access to AUM figures that are based on actual trade-tracking rather than less accurate estimation methods of allocating assets. As previously discussed, the latter methodology frequently causes distorted allocations and flows to a manager's model and consequently can impact that firm's overall fees earned, wholesaler compensation, and flow tracking.

Platforms should also provide visibility into usage patterns, including inflow/outflows, market values, and flows by model, by advisor, and by advisory firm. Asset managers should be able to tag accounts to one of the manager's own wholesalers to track sales compensation by salesperson.

Platforms should provide optics into marketing efficacy through various channels, including monitoring product research, product usage, product proposal, and external shopping sites. Why should advisors care? Again, this goes to the efficacy and long-term viability of the platform's relationship with key in-demand managers. Also, providing the right optics to an asset manager can encourage that manager to provide feedback and insights without feeling disintermediated from the relationship. Certainly, platforms should give the advisor controls on how much visibility and to whom the optics are granted.

Sales Tracking Questions:

Do you have a sales tracking portal for the manager to review business trends within the Platform?

If so, please describe the functionality

- | | |
|---|---|
| <input type="checkbox"/> Flow Tracking | <input type="checkbox"/> Day by Day market value |
| <input type="checkbox"/> Firm-level data granularity | <input type="checkbox"/> Sales management and distribution capabilities |
| <input type="checkbox"/> Advisor-level data granularity | <input type="checkbox"/> Is there advisor level visibility and/or a shopping site |
| <input type="checkbox"/> Market value by sleeve | <input type="checkbox"/> Is there a cost to access portal? If so, how much/year \$_____ |

Understanding the Topic: Advisor Access & Communication

Both advisors and managers should demand a level of interactivity that has not been available in prior generations of the UMA. Managers should have real time access to upload marketing materials, videos, fact sheets, collateral, white papers, and other news items. Advisors should be able to decide which type of content they wish to receive.

In addition, a veiled layer of communication should be available between advisors and managers, where questions may be asked by the advisors anonymously, all while remaining compliant with firm policies. Advisors

should be able to run what-if hypothetical comparisons, tax transition evaluations, fee analyses, and other stress tests to show the impact of possible allocation and transition scenarios.

Advisors should be able to research managers, find alternatives, and converse with them in a single thread using blind communication and RFQ/RFI tools

Advisor Access & Communication Questions:

What tools do advisors and managers have to communicate with one another?

- Blind Request for Quote tools between managers and advisory firms
- Blind messaging tools between managers and advisors
- Ability for Manager to publish content to advisor homepage dashboard
- Ability for advisor to provide varying levels of sales/usage visibility to manager
- Access to manager research
- Access to advanced 3rd party manager-level analytics (e.g. Morningstar data)
- Dedicated manager microsite

In Conclusion

Working with an outsourced managed account or UMA platform can add significant efficiencies to an advisor's business. But the range of advisor and client experiences is wide – and execution risk varies – depending on the capabilities, policies, and processes of the chosen platform. These same factors have the potential to have a meaningful impact on an asset manager's reputation as well. The best way to ensure you choose the right partner and optimize your ability to deliver better investment outcomes for clients is to ask the right questions and challenge the answers to be sure you fully understand the solutions your new partner will be able to help you deliver. Attached is a checklist to use for this due diligence process. Adhesion has completed this checklist with pre-filled answers for our platform. Please contact us at solutions@adhesionwealth.com if you would like to obtain a copy or to get more information about our platform.

About Adhesion Wealth:

Adhesion Wealth® enables advisors to easily provide separately managed account (SMA) and unified managed account (UMA) portfolios to our clients' retail investors. The Adhesion Platform empowers advisors to bring highly-scalable, flexible, and customized wealth management solutions designed to enable them to deliver better investor outcomes.

Adhesion Wealth® is a wholly-owned subsidiary of Vestmark, Inc. Vestmark enables financial institutions and advisors to efficiently manage and trade their clients' portfolios through an innovative software as a service (SaaS) platform, VestmarkONE®. For more information, call (888) 295-8351 or visit www.adhesionwealth.com.

About Vestmark:

Vestmark enables financial institutions and advisors to efficiently manage and trade their clients' portfolios through its innovative software as a service (SaaS) platform, VestmarkONE®. Registered investment advisors (RIAs) and financial institutions can pick and choose from Vestmark's dynamic suite of portfolio and practice management tools and services to build customized solutions for meeting their business needs and improving investment outcomes for clients.

Founded in 2001 and headquartered outside of Boston, Vestmark is a trusted partner to some of the largest and most respected players across the wealth management industry with more than \$1.4 trillion in assets and 4 million accounts on its platform. For more information about Vestmark's solutions, call (781) 224-3640, email inquiry@vestmark.com, or visit www.vestmark.com.

Managed Account Due Diligence Questionnaire

17 Questions to Ask when Considering a Platform

For managers who wish to establish a policy around new platform participation or even evaluate the efficacy of their existing programs, it is important to closely examine to whom they are entrusting the implementation and integrity of their model portfolios. For advisors, it is vital to understand how your client accounts are being managed and the degree of precision you can expect in that management. Below, we provide a list of questions that managers may wish to ask of model-based UMA platforms before agreeing to deliver their model.

CATEGORY: Sleeve Based Accounting

1. Which method of model delivery does your platform support?

- Trade Generated Sleeves (Manager Trade/Tax Lot Tagging)
- Intermingled Sleeves (no Trade/Tax Lot Tagging)
- No Sleeving at all
- Other. Please Define _____

2. Can your platform generate time-weighted sleeve level returns?

- No
- Yes, based on tax-lot tagging
- Yes, based on some other form of model attribution
- Other. Please Define _____

3. Does your platform conduct periodic audits to ensure the performance results of the models are in-line with our stated returns? If so, what are they?

- No audits
- Yes, results are reviewed and compared, but no action is taken
- Yes, results are reviewed and compared. Scorecards are produced to compare manager model composite within platform to manager's stated return. Scorecard shows rolling dispersion and asset class pattern issues. Remediation is undertaken on a quarterly or rolling basis.
- Other. Please Define _____

4. If your platform supports partitioning, what method of identification do you use for segmenting out manager holdings and performance?

- Tax lot tagging at the point of model change/trading
- Start of day holding estimates
- Other. Please Define _____

5. How are dividends and income actions posted to sleeves?

- Dividends are synthetically broken apart and explicitly placed into sleeve based on the manager that earned that dividend.
- They are blended and pro-rata assigned to all managers
- Other. Please Define _____

CATEGORY: Model Entry & Rotation

6. What trade execution windows are provided by your platform? How quickly after a model is received (during NYSE operating hours) are trades executed?

- Trades are done next-business-day in batch
- Trades are done same day in waves
- Trades are done in real time based on service levels to managers
- Other. Please Define _____

7. What is the method of Model Delivery?

- Model Entry Portal
- Spreadsheet / Email
- Phone
- Other. Please Define _____

8. Please identify all model entry types you currently support

- Dynamic, Share-Based Models
- Static, Weight-Based Models
- Dynamic, Weight-Based Models
- Hybrid Fixed Income Sleeves (Fixed Income model is traded by manager, rest by overlay manager. All within a single account)
- Other. Please Define _____

9. Can your platform perform the following actions on just a single managers sleeve?

- Rebalance just our model holdings to target
- Eliminate and/or reduce just our holdings/tax lots
- Invest or generate cash only on our holdings
- Apply pre-trade compliance restrictions on our sleeve
- Allow for tax harvesting only on our sleeve
- Designate a temporary tax harvest 'proxy' security based on our sleeve
- Respect our specific handling rules for our model/sleeves without impacting other managers that may be in an account with their own unique handling rules
- Other. Please Define _____

10. Describe your capabilities to ensure model changes are not forgotten

- Heartbeat Sensor
- Affirmation Sign-off
- Automated Reminders
- Model Change Policy
- None of the above. Please Explain _____
- Other. Please Define _____

CATEGORY: Model Trading & Execution

11. Please identify all rebalance command types your platform supports

- Explicit Security Trading Commands Only
- Model Weight Adjustments (Do Not Trade Commands)
- Explicit Security Trading Commands with Model Reset
- Full Model Holding Rebalance
- Other. Please Define _____

12. Please select the following that describe your platform's model trading process

- We support 'super block' across multiple custodians with the same execution price
- We incorporate manager trade guidance when given a block trade
- We step out trades (without soft dollars) to specialist market makers as needed
- We can offer AP Share Creation/Redemption to the manager when large ETF blocks appear that can cause ETF pricing dislocation vs the basket
- We do pre-trade strategy with the model provider and market makers
- We conduct a thorough post-trade execution evaluation and grade each broker we use
- We have a best execution committee that reviews execution quality
- We do a quarterly review of actual review vs stated return with managers if returns or executions do not match the manager returns
- If we are trading an ADR or non-US based ETF, we can manually kick-out orders when the local market is closed
- We participate in the manager's trade rotation on a side-by-side basis and carefully handle blocks so as not to disrupt the next platform in the rotation.
- We have a service level to the manager (shot clock) to complete the block in an attempt to participate in trade rotation
- We can report out our shot clock and countdown timer to the manager to see when the block is complete
- Orders designated by manager as high touch are kicked-out for special handling by the platform's traders

CATEGORY: Advisor Access & Communication

13. What tools do advisors and managers have to communicate with one another?

- Blind Request for Quote tools between managers and advisory firms
- Blind messaging tools between managers and advisors
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- Ability for advisor to provide varying levels of sales/usage visibility to manager
- Access to manager research
- Access to advanced 3rd party manager-level analytics (e.g. Morningstar data)
- Dedicated manager microsite

CATEGORY: Sales Tracking

14. Do you have a sales tracking portal for the manager to review business trends within the Platform?
If so, please describe the functionality

- Flow Tracking
- Firm-level data granularity
- Advisor-level data granularity
- Market value by sleeve
- Day by Day market value
- Sales management and distribution capabilities
- Is there advisor level visibility and/or a shopping site
- Is there a cost to access portal? If so, how much/year \$_____

CATEGORY: Fee Collection

15. When does the value of the model start to accrue fees to us as money manager?

- Immediately upon initial funding
- When the model is fully funded
- When the model is funded, less any advisor-discretionary decisions
- Other. Please Define _____

16. With what method are Money Manager fees computed?

- Sleeve/Model level (highly precise via Trade Tagging)
- Sleeve/Model level Holding (estimations via blended allocation)
- Other. Please Define _____

17. Which of the following is true about Model Fees, Revenue Sharing, Soft Dollar and Fee Collection method?

- Model Fees are not marked up in any way
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- Platform Computes fees using ADB formula
- Platform collects model fees and remits to manager firm
- Other. Please Define _____



To discuss the Adhesion Wealth platform and how we can help you build a customized, overlay-driven managed account program, please call us at 1.888.295.8351 or email us at solutions@adhesionwealth.com

Adhesion Wealth Advisor Solutions

Corporate Headquarters | 5925 Carnegie Blvd, Suite 500 | Charlotte, NC 28209

1.888.295.8351

www.adhesionwealth.com

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