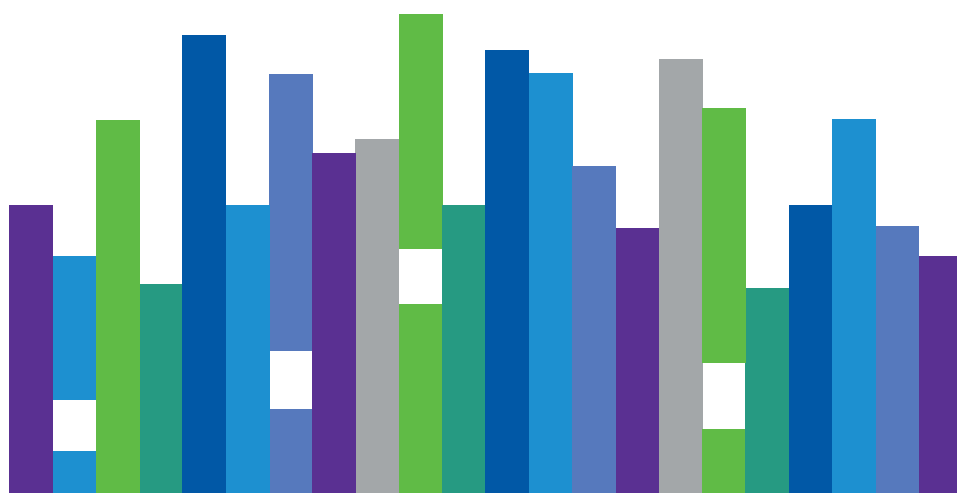


INVESTMENT RESEARCH VALUATION APPROACHES: A FRAMEWORK AND GUIDE FOR INVESTMENT MANAGERS AND ASSET OWNERS

Position paper
September 2014



INVESTMENT RESEARCH VALUATION APPROACHES

This position paper is authored by Frost Consulting. The paper is published by the CFA Society of the UK (CFA UK) and is sponsored by CFA UK and CFA Institute.

The paper proposes various approaches to research valuation. Improved research valuation practices would improve the transparency of the market for research and, where applicable, would allow investment managers to demonstrate that they are taking sufficient care to generate value for clients from expenses that might be charged to them. The paper builds on comments and recommendations made in CFA UK's earlier paper on the market for research.

The list of approaches in the paper is not exhaustive and the paper's observations and suggestions should not be construed as requirements for any member of CFA UK or CFA Institute. The paper is intended to provide a framework for investment managers (and clients) that are starting to consider this issue.

CFA UK and CFA Institute sponsor this paper in order to provide guidance to investment managers (and/or asset owners) that may be researching different ways to value research and to contribute to the debate on this issue.

September 2014

EXECUTIVE SUMMARY

In active management, research is a crucial component of the investment decision-making process.

Research has typically been purchased using commission payments charged to clients, but there has been little transparency about the value generated by the cost that clients bear.

Various approaches to research valuation are available to investment managers. Each will be more applicable to some investment approaches than others and each has its own implementation challenges. This paper describes eight different approaches to research valuation. These range from top-down approaches that take the nature of the portfolio, investment style, or benchmark used in the management of the portfolio as the starting point for allocation of research commissions, to bottom-up approaches that seek to assess the implicit.

This paper does not prescribe specific approaches, but is intended to act as a framework for investment managers (and clients) that are starting to address this issue.

INTRODUCTION

Investment management plays an important societal role in helping savers to meet their financial needs over time and, in doing so, the investment process contributes to growth through the efficient allocation of capital.

In active management (in contrast to passive management), the investment process depends on research to identify opportunities to generate appropriate risk-adjusted returns over clients' chosen time horizons.

Research used in the investment process can take many different forms and can be sourced from multiple locations. Research is not a report; it is a service that supports the investment process.

The dealing commission generated in trading (and available to spend on research) is a client asset and must be managed in clients' best interests.

The current approach – in which dealing commission can be allocated in part to pay for research – suffers from two flaws. First, there is a linear link between trading activity and the dealing commission available to spend on research. While these activities are related, there is no logic to a linear link. Secondly, payment for research through dealing commission creates the opportunity for conflicts of interest to arise and obscures consumers' ability to distinguish between managers based on their ability to generate value from research.

Market practice and regulatory changes are combining

to eliminate the linear link between trading and dealing commission. Improvements to investment managers' ability to value research and, thereby, to explain their approach to using dealing commission to pay for research would be welcome.

The high-level objectives of the paper are to:

- » **Develop recognized analytical techniques to allow investment managers to value unpriced research (just as a Commission Sharing Agreement CSA is a recognized mechanism for the separation of research and execution commissions)**
- » **Allow investment managers to increase the efficiency of client research commission spending and, in so doing, to demonstrate to clients and regulators that research spending is considered and prudent.**

The paper is not meant to be prescriptive. Its intention is to describe a framework that could serve as a starting point for investment managers' consideration.

The paper will also briefly consider what types of implementation options may be appropriate for the methodologies described.

It is inherently recognized that some or all of these approaches may not be appropriate for any given investment manager.

This framework will be of interest to all investment managers given their obligation to optimize outcomes for their clients. It may be particularly timely for investment managers in jurisdictions in which the valuation of unpriced research purchased via commission is now a regulatory requirement.

BACKDROP

Regulators globally have taken an interest in the market for research for more than a decade. The UK regulator (the Financial Conduct Authority [FCA], previously known as the Financial Services Authority [FSA]) has been seen as the 'lead regulator' on regulating the use of dealing commission to pay for research since the mid-2000s. The UK regulator has recently become more active in this area again as it felt that previous regulatory initiatives had failed to deliver good outcomes for clients. EU regulators are also now actively reviewing the use of dealing commission to pay for research.

UK regulatory change related to investment manager spending of (client) research commissions may have a widespread impact on investment manager research procurement.

This impact is expected to extend beyond the UK given the global processes of large investment managers as well as a general desire of multiple market participants and regulators to increase the transparency of the research commission system in order to achieve better outcomes for end clients (asset owners).

Both CFA UK and the IMA [the Investment Management Association – the trade body for the UK investment profession] have responded to the regulatory initiatives to suggest that investment managers should construct monetary research budgets and establish a valuation of the unpriced (primarily investment bank) research they purchase via commission. This became a formal requirement when the FCA's Final Rules PS 14/7¹ became effective on June 2, 2014. In addition, CFA UK's position paper, 'The Market for Research'², called upon investment managers to publicize their commission allocation policies and compete on the effectiveness of their commission management process – a large part of which normally relates to research.

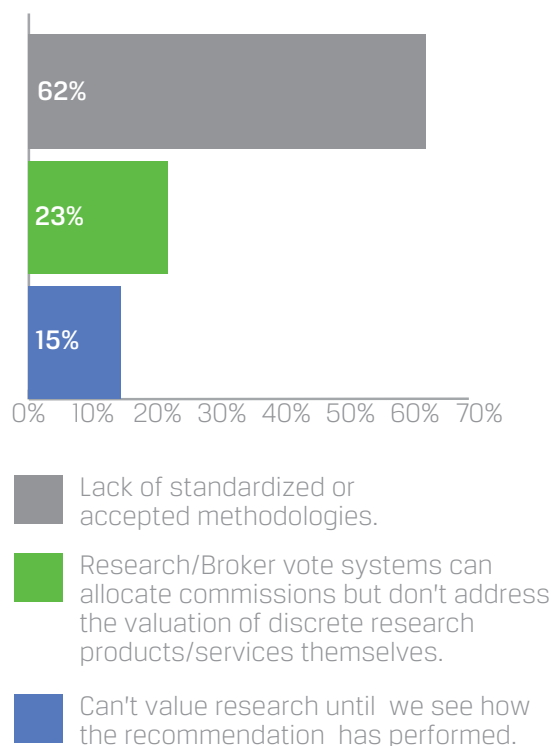
The valuation of unpriced investment banking research is not a simple calculation. It is complicated by the fact that:

- » The investment banks producing research will frequently decline to provide specific prices and are hesitant to provide particular granularity with regard to its cost of production.

- » It is widely recognized (including by the FCA) that the same piece of research or research service may have significantly different values to different investment managers at different times stemming from variables including investment style/mandate and product construction.
- » Research is often a service combined of multiple components that often have varying values to different investment managers.
- » The requirement for investment managers to value research/services they wish to purchase via commission is new. Many managers have not been valuing specific research products previously.
- » The FCA's PS 14/7 states that investment managers should not use commissions to pay for research they do not use. The unpredictable nature of financial markets makes it difficult for managers to identify precisely which research they will need in advance. Retaining optionality is an important consideration.

A poll conducted at the Institutional Investor European Chief Investment Officer (CIO) Roundtable in London in March 2014, highlighted the difficulties of valuing research from the perspective of a CIO.

THE MOST SIGNIFICANT CHALLENGE IN VALUING UNPRICED BANK/BROKERAGE RESEARCH IS:



¹<http://www.fca.org.uk/your-fca/documents/policy-statements/ps14-07>

²https://secure.cfauk.org/assets/3372/The_Market_for_Research_CFA_UK_Position_Paper.pdf

APPROACHES TO RESEARCH VALUATION

Research is an input to the investment decision-making process. It can take different forms and can be used at different points within the process. Research is difficult to define and, so, is difficult to value, but there are a variety of valuation approaches that can be used. Some might take the nature of the portfolio or the investment style used in the management of the portfolio as the starting point. Others might seek to assess the implicit price or cost of the research services provided. It is also valid to try to link research costs to any excess return generated and to value research in that way, or to ascribe value to the way in which research is provided (and the ease and effectiveness with which it can be incorporated into decision-making). In practice, most investment managers may find it most appropriate to select some form of composite approach.

Whichever approach is used, it is important that investment managers should attempt to assess the value of the research that is used. This matters either in order to reassure clients that value is generated from the research that is purchased using client commission, or because it allows investment managers to manage that cost to their firm more effectively.

Frost Consulting has developed several approaches to research valuation. These approaches are described in the following sections.

1. MARKET CAP APPROACH

This approach relates the amount of research commission available to allocate to sectors/ countries/ regions covered by the investment manager based on their market capitalizations. In other words, investment managers using this approach would spend proportionately more on research relating to sectors/ countries that had a greater weighting in their portfolio than they would on sectors/countries that had smaller weightings in their portfolio.

This approach delivers both top-down research budget setting and acts as a sense-check. If there are substantial variances between a country or sector's weighting and the spending on that country or sector, this would be quickly apparent and would normally only be justified if there were potentially super-normal potential returns available in the country or sector – possibly due to major structural changes in an industry.

While this approach is unlikely to be applied in a strictly mathematical and inflexible manner, the larger the market cap of the country/sector, the more investable (from a market cap standpoint) companies are likely to be in the country or sector, requiring more external research. The number of research providers required per country/sector and the price paid for the research are different, but related, questions.

Inevitably, there will be exceptions.

One variant from this general principal, may be that for sm all-cap managers, the paucity of research on small-cap stocks may alter the unit costs of research.

HISTORICAL SECTOR WEIGHTINGS OF THE S&P 500: 1990 - CURRENT

Sector	1990	1993	1996	1998	1999	2000	2001	2002	2004	2006	2007	2008	3/09	2009	2010	2011	Current
Tech	6.3	5.9	12.4	17.7	29.2	21.2	17.6	14.3	16.1	15.1	16.7	15.3	17.6	19.9	18.7	19.0	19.0
Financials	7.5	11.2	15.0	15.4	13.0	17.3	17.8	20.5	20.6	22.3	17.6	13.3	8.9	14.4	16.1	13.4	14.1
Energy	13.4	10.0	9.0	6.3	5.6	6.6	6.3	6.0	7.2	9.8	12.9	13.3	14.3	11.5	12.0	12.3	12.0
H. Care	10.4	8.2	10.4	12.3	9.3	14.4	14.4	14.9	12.7	12.0	12.0	14.8	16.1	12.6	10.9	11.9	11.8
Cons Stap	14.0	12.5	12.7	11.1	7.2	8.1	8.2	9.5	10.5	9.3	10.2	12.9	13.8	11.4	10.6	11.5	11.1
Industrials	13.6	13.9	12.7	10.1	9.9	10.6	11.3	11.5	11.8	10.8	11.5	11.1	9.5	10.3	11.0	10.7	11.0
Cons Disc	12.8	16.4	11.7	12.5	12.7	10.3	13.1	13.4	11.9	10.6	8.5	8.4	8.3	9.6	10.6	10.7	10.8
Materials	7.2	7.1	5.8	3.1	3.0	2.3	2.6	2.8	3.1	3.0	3.3	2.9	3.2	3.6	3.7	3.5	3.7
Utilities	6.2	5.6	3.7	3.0	2.2	3.8	3.1	2.9	2.9	3.6	3.6	4.2	4.4	3.7	3.3	3.9	3.7
Telecom	8.7	9.1	6.5	8.4	7.9	5.5	5.5	4.2	3.3	3.5	3.6	3.8	4.0	3.2	3.1	3.2	2.8

Figure 1. Source: Bespokeinvestment.com

The World Federation of Exchanges³ estimates that 35% to 40% of all public companies have no sell-side analyst coverage. Consequently, small cap research, on a per unit of market cap basis, may be more expensive than large cap research – either because there are fewer research providers or because more internal analytical resources are required.

In general, there should be some positive correlation between the market cap of sectors/countries and the amount spent on research. There will be occasions when a specific area requires intensive work, particularly when the manager is taking a substantial non-consensus over (or under) weight position. However, the potential available alpha must also be balanced in light of liquidity/concentration risk.

This process is dynamic as market forces have an impact on relative sector weightings.

Figure 1 uses the S&P 500 Index for illustrative purposes only. It shows how sector weightings vary over time, particularly over long horizons, and thus managers should regularly assess the appropriateness of their research allocations vis-à-vis benchmark weights.

IMPLEMENTATION OPTIONS –

- » For each product/fund, an appropriate benchmark should be selected and then modified according to the constraints of the mandate.
- » There should be a sense-check between the market cap weights of the countries/sectors/regions that are investable by the product and the proportion of research commission spent or budgeted on each.

2: INVESTMENT STYLE/PROCESS ADJUSTMENTS

One of the major impacts of recent UK regulations (see Appendix 2 for more details) will be that many investment managers will give more deliberate thought to their research choices in light of finite research budgets. As well as expecting managers to be more conscious of the research products they are selecting, the FCA has also forbidden the use of commission to purchase products that are not going to be used. This requirement launches a process of

constructive reduction.

Managers with limited geographic, sectoral or market cap mandates may be able to identify broad areas of research provided by global investment banks (or other research providers) which are not relevant to their process, and therefore can avoid implicitly purchasing them, or at least more of them than they need.

In the quest to increase the return on investment on client research spending, many managers' investment styles will also be a natural framework to begin narrowing down the number and types of research products consumed. In common with the market-cap approach, this is part of the top-down exercise and will be subject to exceptions. For example, what is the value of an insightful report on Twitter – to a deep value investor? At face value, the apparent answer would be zero, as equities with high valuations would normally fall outside the deep value investor's universe. Yet, if that report contained significant insights into the future profitability of newspaper stocks that were in the deep-value investment manager's universe, the report's value could be significant.

This illustrates the broader point, that managers should be able to justify how a given research report, or more likely, a given research service, contributes to their decision making process.

Given the interdependence of economic factors and the fluidity of industrial change, even the deep value investor will require some technology research even though it is not their key investment focus. (Developments in the internet technology may have a substantial impact on the distribution patterns or relative cost structures of cement companies). Or, from time to time, technology stocks could become value investments which would require an increase in the planned technology research budget, particularly if the role of the research changed from monitoring broad industry trends, to active stock selection. There is an argument to have a higher number of research suppliers (and potentially divergent opinions) in sectors in which active stock selection is important.

Consequently, some element of 'waterfront' (broadly based, multi-sector) research coverage can be justified for most investment managers. Sectors normally

³<http://www.worldexchanges.org/insight/views/small-cap-analyst-coverage-under-radar-dilemma>

outside of the style mandate could be monitored for both impact on the manager's key sector exposures and also to determine if changes in sector valuation, growth rates or other factors warranted the inclusion of that sector in the manager's investable universe.

But, in sectors/regions clearly outside their areas of focus, or mandate, investment managers certainly do not need to buy this research from 15 different banks/ research producers to fulfil these functions. A limited number of providers should suffice.

The research curation process should (theoretically) be relatively straightforward for a Japanese equity fund or a US small-cap equities mandate. Even global, multi-asset class managers should be able to identify specific research sources that add value to their process. Managers can analyze historical portfolio return attribution in detail and should also be able to examine the relationship between those regional/sectoral returns and the expenditure on the research sources related to those regions/sectors.

Tables of sector weights of various indices are presented opposite reflecting commonly used benchmarks for certain mandates including US small cap (Russell 2000), and International ex-US, (MSCI EAFE).

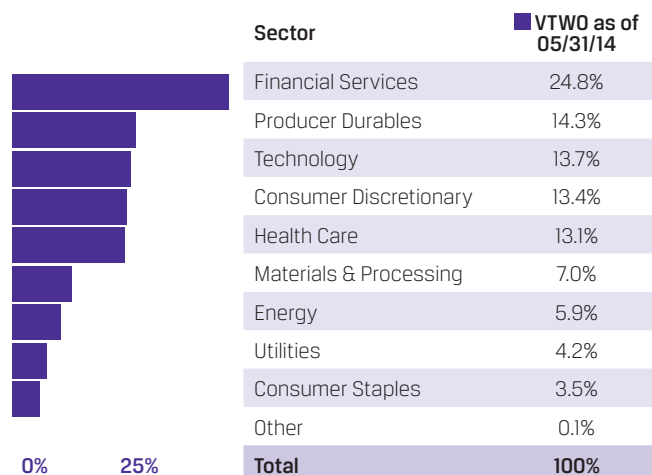
For a US small-cap growth manager, sectors of the Russell 2000 to de-emphasize from a research perspective would likely include some Financial Services, Materials and Processing and Utilities. For a deep-value investor with a Global ex-US equity mandate, EAFE sectors to be de-emphasized might include Information Technology and Healthcare.

By eliminating sectors (or regions) that are not relevant to the investment mandate, managers can calculate the average per sector research fee they are paying to their investment banks by dividing the total research payment by the number (and, if desired) weight of the remaining sectors.

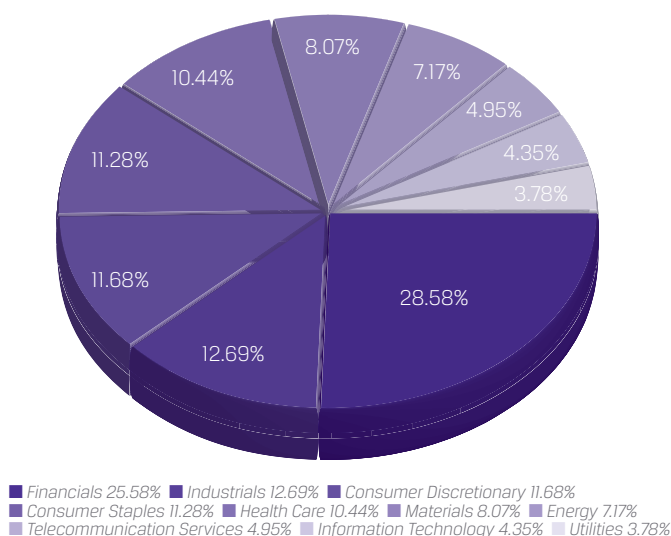
IMPLEMENTATION OPTIONS –

a. Establish which sectors/regions are critical to the strategy, consider their market-cap weights and determine whether active stock selection is warranted or required in that sector.

RUSSELL 2000 SECTOR WEIGHTS



MSCI EAFE SECTOR WEIGHTS



b. Consider the optimal number or range of research providers in the regions/sectors selected. Relate the total level of potential return (weighted for market – cap and relative attractiveness), to a corresponding portion of the top-down research budget.

c. Consider the level and depth of research coverage in sectors that are deemed non-priority and select a lower service level and price point than the priority sectors. This should be reflected in a lower allocation of the top-down research budget.

Investment managers might also want to overlay some waterfront coverage at a price point that reflected its apparent value relative to the priority and non-priority sectors.

Another factor that might influence implementation could be the division between macro/strategy and bottom-up equity research (depending upon the influence of the two on the portfolio construction and returns).

3. ALPHA CAPTURE

Investment managers have a wide variety of opinions on the utility of research recommendations (buy/sell/hold etc.) It is impossible for a single stock recommendation to be universally pertinent to a constellation of investment managers with different return objectives (absolute/relative), benchmarks (national/international/multi-asset class/none) and investment durations (short-term/long term etc.) The definition of what the actual recommendations connote also differs widely between research producers.

However, in two important respects, alpha capture models can potentially play a role in the research evaluation process.

Some funds systematically measure the performance of individual analyst equity recommendations. These measures can inform their quantitative or fundamental models. These funds may compensate the research producer directly in relation to the success of those recommendations. Some funds are based entirely on this strategy.

This requires the investment manager to measure the performance of the recommendations, either internally, or via third party alpha capture services.

Fifteen per cent of the CIOs surveyed at the Institutional Investor CIO Roundtable in London in March 2014, cited alpha capture as a key variable in measuring the value of research (see page 4). By definition, this requires the manager to reward the research producers in an ex-post fashion. (The requirement for ex-post measurement is frequently advanced by managers that do not systematically measure the performance of recommendations as a defence for not doing so).

A broader form of alpha capture can also be applied to funds, teams, sectors, and regions within an investment manager – or amongst them. It is the beginning of an attempt to understand the potential relationships between research spending and equity returns.

Clearly, there are many variables that contribute to fund/team/sector performance of which research is just one. However, most non-quantitative fundamental managers do emphasize the importance of research

to their process – both internal research, and the external research that informs it. Furthermore, in a post PS 14/7 environment, investment managers are essentially attesting that the external research they buy via commission is substantive, contributes to their process, and is purchased in the interest of their end-client (whose money it is).

In the spirit of CFA UK's call for investment managers to compete on the basis of the efficiency of commission allocation, should we not begin to examine the potential relationship between equity returns and research spending – even if on a simple level?

At its most basic, the right questions to ask are:

- » **Where (sector/region/fund) were the returns generated?**
- » **How much was spent on the research that supported those investment allocation decisions?**

However, analysing the answers to those questions (and obtaining value from them) is complex. A single point in time may not be tremendously revealing, but a time-series might be. A persistent mismatch between research spending (a scarce resource) and returns might merit examination – in the same way that a significant mismatch between research spending and available return might be (i.e. heavy research spending on small countries/sectors that had little potential to influence the overall return of the fund).

Performance attribution extends beyond stock/sector/country selection. Asset allocation is also a major variable, which raises the question of the relative spending on macro/strategy research versus single stock research. Is macro spending under-represented as a percentage of the total research budget given its potential influence on returns? (which is also partially dependent upon the manager's style).

Figure 4 illustrates a hypothetical example of the comparison between regionally-based returns and research expenditure. This analysis could also be extended to consider the sources of research in the various buckets (investment bank, (IBs) independent research producers (IRPs), sustainability/responsible investment (SRI), management consultants, expert networks, industry/trade journals etc.).

This in turn might speak to both the distribution patterns of the various research types (IB research goes to all investment managers whereas non-IB research does not) and the relative prices of those research inputs. A presentation at a 2014 CFA UK event posited that asset managers need to hone new skills to optimize research procurement in a finite budget environment: essentially the quest to maximize ROI on research spending. This type of analysis might be an early (albeit limited) indicator of success in that dimension.

EFFICACY OF RESEARCH SPEND

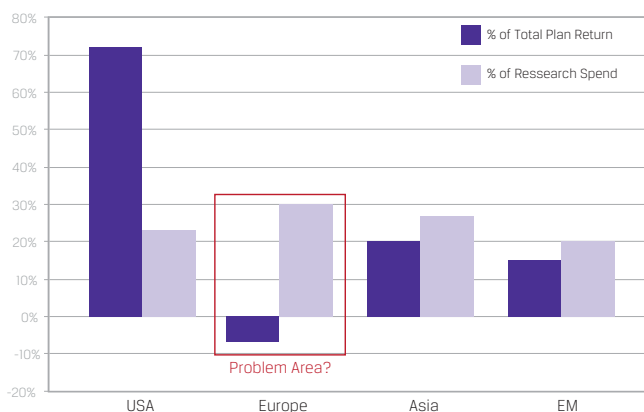


Figure 4.

Both the FCA's 'Dear CEO' letter in Conflicts and the IMA's white paper call for potential Board level participation in setting/approving research budgets. They seek to elevate the topic of client research commission spending in the executive decision-making process within investment management organizations. As in other corporate expenditure deliberations, research budget approvals should consider not just the potential for future returns – but past results as well.

IMPLEMENTATION OPTIONS –

1. ALPHA CAPTURE OF STOCK RECOMMENDATIONS

- This can either be done manually or via a (paid for) third party service.
- Establish the relevance of the recommendations. Are they to be systematically enacted (once successful research providers have been identified), or used for other informational purposes.
- Determine the set of research providers to be measured and the relevant stocks/sectors therein

- Establish relevant time-frames for measurement, presumably matching the targeted return duration of the fund/product.
- Establish what constitutes success amongst recommendation providers, how to reward them.
- Establish what portion of the total research budget should be allocated to this methodology.

2. ALPHA CAPTURE OF OVERALL RESEARCH SPENDING

- Determine sectors/regions/funds to measure.
- Further divide those into relevant sectors/regions based on the fund style strategy.
- Consider the total returns (either relative or absolute depending upon mandate) from the segments identified in b).
- Consider total research spending on segments identified in b).
- Consider the relationship between the two.

This may be broken down further in terms of:

- » individual research providers
- » type of research provider, (IBs, Bulge-Bracket/others, IRPs, Management Consultants, Expert Networks, Trade Journals, SRI etc.)
- » The prices and value created by these inputs could be compared.
- » Over time, budget allocations to these providers may reflect the total value

4. ANALYTICAL INPUT MODEL

Post PS 14/7, investment managers must value research they plan to purchase with commissions. As the banks are reluctant to price research services, investment managers must de-construct the elements of value from their research producers/products in order to assess a reasonable amount of their client's funds to spend purchasing these research services. This is a substantial challenge.

The ultimate goal is to assess how research products/services generate alpha and/or inform the process of the investment manager's specific funds/mandates.

The table below deconstructs the components of the research services and breaks them into service levels that may be appropriate for managers depending upon their mandate/exposures and investment style.

Starting at the lowest level, the products, services and responsiveness build as the service tiers are increased.

This is just step one in the process. Once the services

levels and products have been placed in the hierarchy, the following questions might further refine the process:

1. PRODUCTS/SERVICES

What percentage weight would the manager apply to the different component products and services? Some managers are voracious consumers of financial models and others are not. This will obviously vary by manager.

A) DOCUMENTS:

Relative Value: Types of documents – Macro Strategy Reports

- » Deep Dive Sector Initiation Reports/
- » Industry Strategy Reports
- » Company Initiation Notes
- » Company/Sector Update Notes
- » Company Earnings Notes
- » Morning News Summary Notes

SERVICE TIER LEVELS

Product/Service Level	Component Products/Services	Description	Asset Manager Classification	Asset Manager Actions
Premium Services	Analyst - Bespoke Work for Asset Manager Inter-active/Customized Research Products	Most Important research relationships for asset manager	Key 'bets'/exposures in manager's portfolio construction - sector/geography strategy	These exposures will determine absolute and relative alpha generation for the manager over chosen timeframe
Tier 1	Analyst Access (Responsive) - Multi-Point Analyst Access - Individual (Outgoing) - Multi-Point	Multiple Locations/Teams/Funds "Immediate Response" Priority Client	Key Sectors/Strategies Source of Managers Comparative Advantage/Investment Process	Key sectors/geographies for the asset manager
Tier 2	Analyst Access (Responsive) - Multi-Point Analyst Access - Individual (Outgoing) - Multi-Point Sales Coverage - Multi-Point	Multiple Locations/Teams/Funds Multiple Locations/Teams/Funds Multiple Locations/Teams/Funds	Manager always involved in sector/geography Active Stock Selection	Consistent Exposure
Tier 3	Analyst Access (Responsive) - Single Point Analyst Access - Individual (Outgoing) - Single Point	Analysts respond to requests One on One analyst meetings	Medium Priority Firm/Sector/Geography	Underweight Exposure
Tier 4	Analyst Access - Group (Outgoing) - Single Point Sales Coverage - Single Point	No "on demand" analyst access Few contact points w/manager	Low Priority Firm/Sector/Geography	Occasional Exposure
Base Level	Manager Given Aggregator Research Access Investment Bank Research Website Access	Access via Aggregators Password	Suitable for Product/Sector/Country "Monitoring"	Monitoring
Entry Level	Research Documents Recommendations	Documents Only Low-Touch	Suitable for Product/Sector/Country "Monitoring"	Monitoring
Variable	Analyst - Access to Financial Models	Access to Models	For Key Equity over/underweights	Can be at various levels as per manager

The fact that an investment professional has opened a document is not indicative of the value received. It depends on the type of document and what was done with it. A good measure of the value of the document is whether the investment professional actually saves it on a local hard drive for future reference. A low percentage of investment bank research documents pass this test. These are usually longer industry/sector/company initiation reports – essentially reference documents with a long shelf-life (unlike quarterly earnings report notes).

It might be helpful for investment management firms to survey their investment professionals to see what types of documents (from which producers) were stored on local drives for future reference. The results may indicate the types of document valued by those investment professionals, which may in turn influence research budgeting.

The fact that analysts and portfolio managers frequently store critical documents on local drives may indicate that an effective content management system (CMS) (email inboxes at most managers) does not exist or is not easy to use. Given that investment managers spend tens of millions of (pounds/euros/dollars) of client money on research, remarkably few of them actually save that research and make it accessible on a central drive or CMS system.

A survey of over 100 institutional investors revealed that 83% either did not save (expensively) purchased research on a central drive, or had no idea if they did.

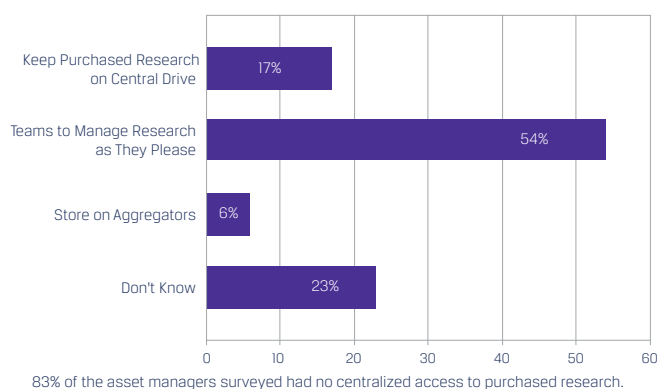


Figure 5. Purchased Research Retention - Institutional Investor European Trader Forum, Lisbon September 2013

Both internal email boxes and the existing research aggregators are sub-optimal as search appliances. This is important; if managers have purchased a corpus

of documents, via waterfront coverage or otherwise, with client commissions, it is likely in their client's best interest that relevant documents can be found when needed. This is not so much of an issue for documents that are immediately identified as relevant or helpful - but it is for documents that were either a) of no interest when they were originally received or b) were not noticed in the first place.

Investment professionals can receive dozens or hundreds of unsolicited reports via email on a daily basis. Usually, if the investment professional has no current interest in a stock mentioned in the email, it is almost immediately forgotten given (often) time-sensitive competing priorities.

Managers should give thought to how valuable research is preserved and made accessible to their investment professionals.

As part of the research valuation/budgeting exercise, it is important for managers to note the type and relative value of research reports received and consumed by their investment professionals.

For research producers it is important to accurately label the type of research document in order to assist managers in this determination.

B) FINANCIAL MODELS (FROM ANALYSTS)

The models referred to in this sub-section are typical analyst company models that usually consist of forward looking estimated financial statements. The value of these models will vary from firm to firm and between teams/funds depending upon their research approach. Firms should consider what percentage of the total value they represent and the optimal number of models to receive. Typically, investment professionals consume models from a smaller number of research producers than they do research documents or analyst access.

Among the variables on which to assess models are their predictive abilities, comprehensiveness, the degree to which they accurately capture the operating leverage of the company concerned and their ease of use.

Firms should consider an appropriate premium payment to research producers from which they purchase models.

C) DATABASES/QUANT PRODUCTS

The products referred to here are Discounted Cash Flow (DCF) or Economic Value Added (EVA) models as well as (non-company specific) aggregated quant models offered by investment banks. Unlike company models, which are primarily used by sector analysts, these models are more likely to be used firm-wide and/or by a greater number of users. It is worth noting, that under FCA rules, some manipulation of data in combination with inputs from the investment manager is required to make the product commission eligible. When these products are offered on an unpriced basis, a sensible approach is to calibrate the price level of competing priced products, together with an assessment of how important the products are in the firm's overall research/investment process.

D) ANALYST ACCESS

For clarity, analyst access means access to sector analysts employed by research producers and should not be confused with, or construed to be, corporate access – i.e. access to corporate executives.

Many managers highlight analyst access as the most important part of the research service. Firms should calculate the percentage of total research benefit received from this in their investment process. This is an area where the service level is likely important. Analyst time is finite and tends to be monitored and rationed carefully, particularly by the large investment banks. This is why increasing levels of analyst service are reflected in the Service Tier table. Optimally, managers will want rapid and direct access to senior analysts on demand, particularly in the midst of share price moving events or rapid changes in fundamental conditions.

Given the premium this service level may command, firms should think carefully about the optimal number of these services to purchase. In sectors/geographies that are less central to the manager owing to mandate or style considerations, lower levels of analyst service/ access or lower numbers thereof may be appropriate, particularly when the manager is monitoring industry trends rather than selecting stocks.

2. RESEARCH OUTPUT

Just as research products/services take many forms,

so do the outputs from them. Managers/teams/firms may consider how their investment process attributes value to:

- a. Macro/Industry Top-Down Strategy
- b. Industry Analysis
- c. Fresh (breaking) insights/trends/ideas.
- d. Written sector/stock research
- e. Best stock/industry ideas
- f. Stock Recommendations (in aggregate)
- g. Analyst Access
- h. Quant products

3. BREADTH OF COVERAGE

Does the breadth of coverage increase the value of the entire research product produced by the research manufacturer, either through ease of access or to facilitate cross-sector comparisons on an apples-to-apples basis?

4. DEPTH OF COVERAGE

Certain research producers may cover certain stocks/ sectors in greater depth than their competitors. What incremental value does this create for the manager? Those producers are likely to be more important to the investment manager if their sectoral expertise mirrors the investment priorities of the manager. These producers are more likely to be selected to provide a higher tier service level to the investment manager. However, few research producers will have the ability to deliver this additional depth across all sectors, particularly for the waterfront coverage banks.

5. NUMBER OF PROVIDERS

How many providers are needed at which service levels in which geographies/sectors? More providers are likely necessary in sectors/ geographies that are key to the manager and in which they engage in active stock selection.

6. SERVICE DELIVERY

Does the manager need the research service to be delivered to one analyst or dozens of employees globally? The amount of research distribution resource used by the manager should be reflected in the

research service valuation, given the cost of delivering it.

7. DISTRIBUTION OF VALUE AMONGST PRODUCERS

What percentage of total estimated value is generated by the top one, three, five and ten producers. Which research producers are critical to the manager and which are interchangeable?

8. CONCENTRATION

Most humans have finite bandwidth to interact with complex research products from large numbers of suppliers. Analysts are more likely to effectively interact with two or three financial models (of the same company) than ten or twelve. Similarly, the incremental utility of bespoke or interactive products likely declines rapidly. (Frost believes that in the evolving environment, most managers will have fewer but deeper Tier I research relationships with their key research providers. These are also the providers from whom they will be most likely to purchase Premium or bespoke services.)

9. PRICE

If banks moved to a priced environment and/or the manager consumes priced non-investment bank research products, how does the relative prices of the products compare given the value they generate.

IMPLEMENTATION OPTIONS –

EACH FUND OR TEAM WOULD CREATE A WEIGHTED HIERARCHY THAT CONSIDERED THE RELATIVE IMPORTANCE OF

- i. Documents as specified in 4.1.A
- ii. Type of research output as specified in 4.2
- iii. Breadth and depth of coverage provided
- iv. Optimal number of providers
- v. Service delivery
- vi. Price

By constructing such a matrix and considering the optimal number of providers, and the data provided by priced' research producers within them, managers could adapt top-down or bottom-up research budgets.

5. 360 DEGREE RESEARCH PRICE BENCHMARKING

The previous section deals with the required quantity and service levels of different research products and, while helpful, will not define absolute research pricing. A thorough examination of the relative importance/ value of the inputs is valuable. Managers can apply this framework to their historical research spending as a potential starting point for their historic implicit valuation of unpriced research products and services.

The FCA recognizes the difficulties of valuing unpriced research, chief amongst which is that the same product/service can have widely differing values to different managers. Consequently they suggested in PS 14/7 the concept of evidence-based price comparisons.

This section proposes to do just that, using a wide variety of available research price data points to allow managers to triangulate prices for unpriced research.

Figure 6 plots the price points of different types of research producers against a matrix of products/ services. With the exception of (most) investment banking research, all of these inputs have specific prices or price ranges. Although it is difficult to generalize about price points, particularly amongst the very wide range of independent research producers, it creates a framework for investment managers to compare the value different products/services deliver and compare that to the price at which they are offered. (There may soon be price index levels or ranges for different categories of independent research producers, which would be a welcome development). The chart does not include many other potential inputs including Academic Journals, SRI research, Primary Research, Channel Checkers, Forensic Accounting and Quant Research.

We will consider each of the categories below:

DOCUMENTS

NARROW FOCUS

This refers to documents related to an industry sector or sub-sector. In many sub-sectors there are various business and trade publications which may provide valuable industry and company information. These subscriptions normally range from the hundreds to low

RESEARCH PRODUCER PRICE MATRIX

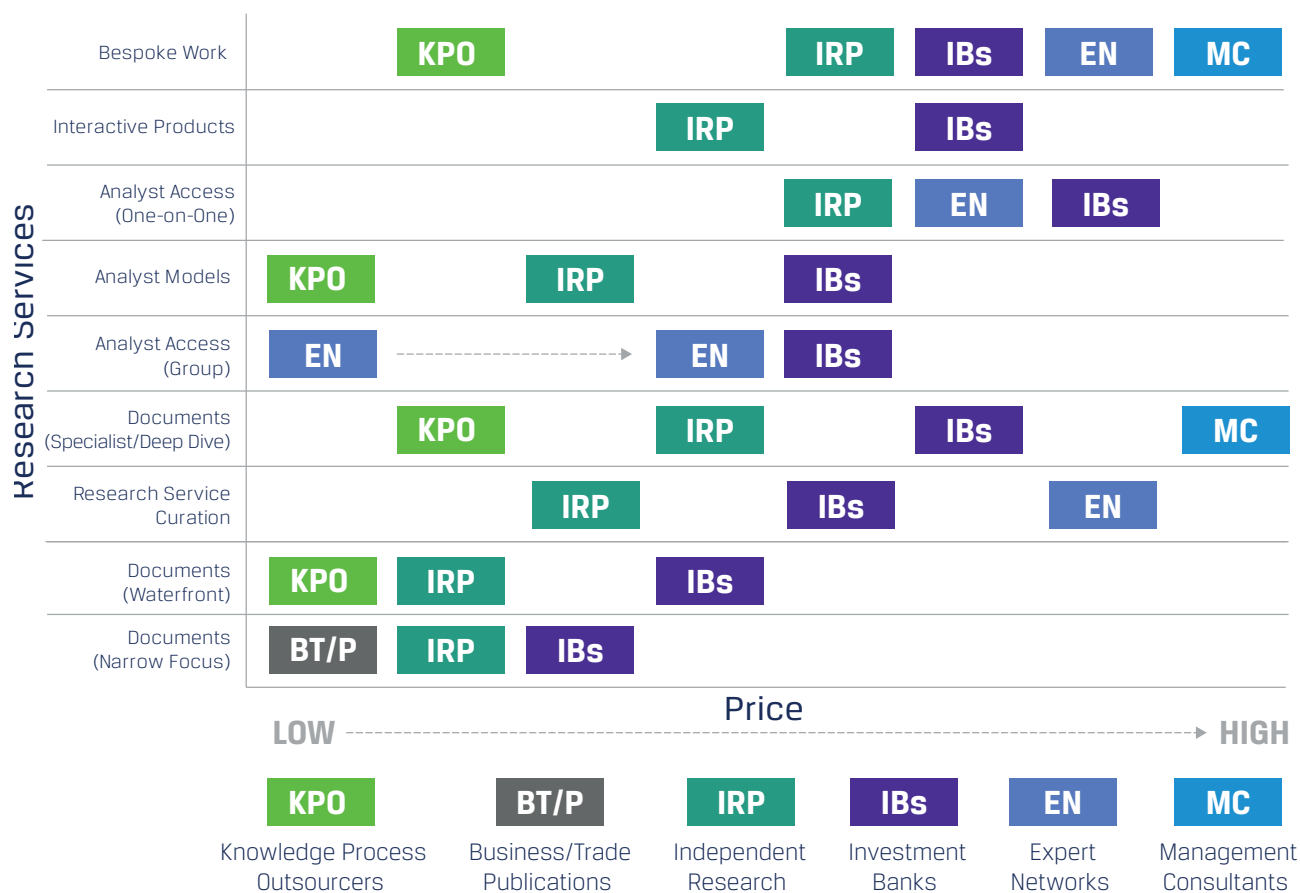


Figure 6
Source: Frost Consulting

thousands of dollars per annum – although specialized medical journals can be considerably more expensive. Unlike investment bank or (some) IRP research, they are not expressly designed to facilitate investor comparisons of companies or the valuation of their securities. Consequently, they have no (investment) opinions, recommendations or models. However, the vast majority are less expensive than IB sectoral research and they are capable of providing significant industry insights.

Some IRPs are equity sector specialists. Their prices range widely but, at the low end, are likely lower than the implicit cost of IB sector research. Their value also has to be considered against the IB research. Depending upon the provider they may or may not offer models, comprehensive global coverage and other attributes of the IB products. Nonetheless, the price point is instructive and helps managers to focus on the relative importance of particular products offered by the range of producers.

Knowledge Process Outsourcers (KPOs) are firms that provide analyst offshoring services – usually junior to mid-level analysts that support (primarily) IB research departments based in lower-cost countries or regions.

Although the IBs have historically been their largest clients, the KPOs also offer outsourced analytic support to investment managers. They can, upon request, offer sectoral coverage. Their base per annum analyst costs are likely ~20 - 30% of (mid-range) investment banking analysts based in London or New York. By definition, these analysts will not be household names, may have limited corporate management access, do not interact with a wide range of investors and are unlikely to have immediate impact on share prices. The degree to which investment managers choose to outsource stock selection is another question, but certainly the KPOs can provide many inputs to the investment process. The valuation of the basic services they provide might be compared to elements of an IB research service as investment managers de-construct the elements of the

service that are most important to them.

IB sectoral research (if it is sold by sector) provides a more complete view of the investment considerations than the Business/Trade Publishers or the KPOs. It is also, in most cases, more expensive. A crude measure of IB sector pricing can stem from the investment manager's own payment history. Assuming the manager is receiving waterfront coverage from an investment bank (say, nine equity sectors plus macro strategy), dividing the research payment to the bank by 10 will provide an average of the price per sector.

Most managers will not consider that each of the 10 sectoral products from the bank are of equivalent quality or value in the case of style or geographically constrained mandates. By starting with the average price paid for sector, managers will be able to make adjustments that reflect their view of the relative value of the sectoral products produced by the bank in question.

For investment bank research paid for via CSA, the manager is already placing an explicit price on those research services used. Broker vote results will likely yield information about which sectors are being used, thus informing the calculation.

WATERFRONT

Waterfront coverage refers to the attempt by many banks to cover as wide a range of sectors, stocks and geographies as possible in an attempt to maximize their utility to investment managers. For research producers, regardless of the breadth of their coverage, the concept means that, normally, all research will be made available to investment managers with which the bank would like to do equity business.

Historically, investment managers have not been particularly selective about which of the products they received from the bank. Portfolio managers have always wanted to see everything on the basis that an important piece of information might come from an unlikely source. Moreover, this approach saved the manager the effort of actually selecting what they thought was valuable.

Consequently, the price of waterfront research from a bank is the lowest price paid before the bank

withdraws the service. Depending upon the bank and the investment manager in question, this can vary widely. Large, complex global managers with hundreds of investment professionals consuming a bank's research products (being delivered globally), will be expected to pay more than a small, simple fund. There is some logic to this, particularly as sensitivity around fund cross-subsidization grows. (Think of the research service as a license sold to each fund within the investment manager).

The question is, what would be the lowest amount a global manager could pay a global bank for all of its research – documents only with no analyst access or other services? Large banks would normally expect a payment of (low) hundreds of thousands of dollars for this.

Few KPOs have likely been asked to provide this service. Although their per analyst cost is lower, few would enjoy the economies of scale of a global bank to spread the research cost amongst so many clients.

A small number of IRPs have the scope and analyst numbers to offer comprehensive waterfront document coverage. Their price point (at the low end) is almost certainly lower than the implicit price of the IB equivalent. The parallels in analyst numbers and research coverage structure between the largest IRPs and the IBs make the IRP price point particularly informative.

RESEARCH SERVICE CURATION

That research curation is potentially eligible under FCA rules stems from a judgement on two FCA statements:

- 1. That research is a service and is comprised of more than just documents.**
- 2. That substantive conclusions can be delivered in phone calls as well as documents.**

On a practical level, if a research service is judged to be substantive by the investment manager and the manager decides to purchase it, this may release the manager from demonstrating that every single component of the service is substantive.

It is also impossible for an analyst with a significant change of opinion to personally contact hundreds

of investors around the world at the same time. The research curation function facilitates this substantive communication and serves the additional valuable function of curating a frequently large and complex research product and tailoring it for particular investment managers.

A sub-set of the IRPs with either broad enough product offerings, or deep engagement with their investment manager clients, may offer this service. It will tend to come at a lower price than the implicit cost of similar services from the investment banks.

Depending upon how it is viewed, the expert networks also perform this function by finding appropriate experts in their network to meet specific investment manager enquiries. The relative price is difficult to establish. In some cases on a pay per use model, the curation cost is small. In other cases, where investment managers have paid large subscription fees to guarantee a certain level of access, the cost might exceed that of an investment bank (although the output will likely be more tailored and bespoke to the investment manager).

SPECIALIST/DEEP DIVE

Documents of this type also have a wide potential price range. KPOs and IRPs will likely range from the mid to lower end of the spectrum – although this will also be a function of how bespoke and exclusive the output is. Typically, the investment banks will charge high prices for bespoke analyst work as this significantly deviates (and potentially disrupts) their finely-tuned model to distribute non-bespoke products to via complex distribution networks to their investment manager clients that frequently require this service in many different locations.

The most expensive option is likely the Management Consultants depending upon the firm chosen and the scope of the assignment. Specialist industry consultants can produce documents that may go into far greater detail on a particular subject than an investment bank could ever do on an economic basis. A specialist energy consultant might do detailed work on a particular oil well or seismic structure that would be of interest to its corporate (energy company) clients. For an investment manager with a small cap oil holding with substantial exposure to that structure, such

research can be helpful in terms of building investment conviction.

Reports of this nature are frequently expensive. An investment bank would be unlikely to do such detailed work, because the available commission from a small cap equity would likely render the process unprofitable.

Bespoke work from the large global management consultants may be even more expensive depending upon the topic.

ANALYST ACCESS

GROUP

This refers to investment management staff being invited to group meetings at which an analyst will present their views. For the IBs, typically a higher level of payment than documents only would be required as the IBs ration access to finite analyst capacity carefully.

This service level would not include direct one-to-one exposure to the analyst, or the analyst responding to specific questions.

The Expert Networks also offer such group meetings at varying price points. Some may actually be free as a teaser to attract new subscription clients.

ANALYST MODELS

The lower end of the price range for models would be dominated by the KPOs. Model building is a core competency for the KPOs. The advantage from KPOs' lower analyst salary cost is augmented by the economies of scale of producing models for many clients on an industrial scale.

IRPs that produce company-specific research may also offer models. Some of the macro research IRPs offer macro/quant models as well. These are often (but not always) included in IRP subscription prices.

IB models represent the high end of the range as most managers will have to meet minimum payment thresholds (or potential) to access analyst models. These models are the most likely to have benefited from input from the company under coverage.

A related question is how many company models are optimal for a buy-side analyst to interact with in a detailed fashion? In many cases, the incremental utility of further models declines rapidly beyond about

the third model. Consequently, managers should think about how many models are truly needed and consider what premium to pay for them.

ONE-TO-ONE ACCESS

This service is regularly described as one of the most highly valued by investment managers. This allows investment managers to have bespoke conversations and get responses to specific questions that the investment manager might not want to ask in a group environment. A related service pertains to the analyst's accessibility on short notice to address a manager's urgent questions and concerns. As the analyst's time is finite, this is a carefully managed resource with emphasis placed on those managers that pay the most.

IBs, some IRPs and Expert Networks offer the service. IRPs are likely the least expensive as some analyst access may be offered with IRP subscription prices (although this can vary). On a pay-as-you-go basis, the Expert Networks may be slightly less expensive than the IB services. This of course depends upon the nature of the expert (the price of a hydraulic engineer is likely to be less than an ex-Secretary of State). In the former case, the charge might be around \$1,000 per hour, while the latter would be considerably more expensive.

In the case of the IBs, computing an hourly charge is complex. Variables include the compensation of the senior analyst, the cost of his/her supporting analyst team, the rating of the analyst and the size and interest level attached to the sector of coverage. The IB's costs are unlikely to be transparent to the investment manager, although some banks will ascribe values to services for annual review purposes.

One approach that investment management firms can take is to consider the importance of the sector to the manager and to determine what portion of the total value of the research service is represented by analyst access and which service tier level the manager has purchased from the bank. The result could determine the percentage of the budgeted amount for that research service.

Related considerations include: how many of these analyst access services are required in each sector/geography; and whether the payment levels at similar

service levels should be equalized amongst the banks from which equivalent services are purchased. Budgets can also be informed based on the percentage of total value that is derived from the top three, five or 10 providers. In many cases, the majority of the analytical value is likely to stem from the leading providers, potentially allowing managers to select lower services levels from less highly used or regarded providers.

INTERACTIVE PRODUCTS

This is a relatively new area as there has been little technological advance in research distribution or (physical) products since the emergence of the internet. This stands in stark contrast to the arms-race of capital expenditure in the equity execution market. But, as in the execution market, it is likely that regulatory change will spur technological development in the research market.

Relatively inexpensive technologies now enable research producers to create interactive and personalized research products. They are few in number at present and are offered primarily by the investment banks and occasionally by large IRPs.

Once again, managers should consider the optimal number and incremental utility of these products and an appropriate premium to pay. In this regard, they may use the prices of similar technology products as a potential proxy.

BESPOKE WORK

By definition, this is difficult to characterize. However, the progression of price points is fairly clear. KPOs would be the least expensive option, with IRPs and IBs toward the upper end of the range. For both the IBs and IRPs, this is not a natural part of most of their business models. A further cost variable will relate to the degree to which the bespoke work is proprietary, or may, under certain circumstances be re-distributed by the IRP or IB producer. The Expert Networks and large, blue chip Management Consultants are the most expensive and theoretically open-ended in terms of cost. As this type of work is a standard component of their business models, their pricing frameworks may provide perspective on how to potentially compensate IRPs and IBs for similar work.

6. INVESTMENT BANK COST-BASE MODEL

As previously noted, the apparent reluctance of most investment bank to price research products does not absolve investment managers from the responsibility of valuing unpriced research they wish to purchase with client commissions. The cost base of the IB's research products is also not visible to investment managers.

This section will consider an amalgam of average investment bank research related costs. Its objective is to allow investment managers to determine an appropriate margin to add to an assumed IB research cost base as part of the pricing calculation. By definition, this assumes that the manager values the research service and wants it to be sufficiently profitable that it continues to be produced by the research manufacturer.

Some observers may question the utility of this model in the absence of accurate cost data provided by the banks. However, the approach is considered valuable based on: examples provided by other asset classes; the fact that modelling is a core skill of investment managers; and the fact that investment manager estimates in themselves may be a catalyst for a more transparent discussion between investment managers and banks on this topic.

In starting to consider this approach, it is helpful to look at the fixed income market, which in many respects is even less transparent than the equity market.

How do investment managers consider the amount of commission (or spread) - which is the end-client's money - that has been paid to fixed income dealers? The spread is not disclosed and the information is, therefore, imperfect. The answer is important because it is client money and the revenue to the bank from the investment manager's fixed income business forms an important component of the global economic relationship between the investment manager and the investment bank.

In many cases the fixed income manager at the investment firm assumes a spread based on the liquidity and historic spreads of various fixed income products. The investment professional can then calculate the revenue to the bank based on their

records of which trades went to which banks. (A similar process occurs in equities when investment managers impute new Issue and IPO commissions which are not universally disclosed).

Transparency is created during discussions between the two sides. If the bank feels that the investment manager's spread assumptions are incorrect, and the bank is receiving less revenue than it feels it should, it is incentivized to provide the correct information to the manager.

Similarly, if a manager's assumptions about a specific research producer's cost-base are inaccurate and detrimental to the bank, more accurate information should be forthcoming. As the investment manager has conversations with multiple research producers, a more accurate picture of the cost of research production emerges.

CHARACTERISTICS OF INVESTMENT BANK RESEARCH

Investment Bank research products are different than the rest of the research products that we have considered in this paper:

1. It remains the most important source of external research for most investment managers (See Appendix).
2. The products are not priced.
3. IB research products (along with many IRPs) are specifically designed for the investment management market. Product design is meant to facilitate investment decision making.
4. IBs also produce a number of related investment products aimed at the investment management market, including execution, prime brokerage and equity origination.
5. Large IBs have global research delivery mechanisms that have the ability to provide a research service to complex, global investment managers with potentially thousands of investment professionals in dozens of offices.
6. The historic bundling of these products in the integrated investment banking model, has increased the complexity of defining the cost base for any one product.

The first challenge in assessing the cost of IB equity research is to determine which costs to consider. The cost-income ratios of the large public investment banks are a poor proxy for research costs as the global IBs are complex financial conglomerates with multiple business lines. Few provide sufficient segmental granularity to make accurate calculations. Even the equity business line is likely to include business such as derivatives and prime services.

Consequently, the cost model must be constructed from the bottom up. Obviously, there are the direct costs of the analysts and their department, but they do not exist in isolation and have to be considered in the context of the complex research delivery system. Further, there are premises/facilities, IT and management and other central costs that would factor into an investment bank's determination of the allocated research cost base.

There are also costs that should be excluded. The determination of regulators to separate the research and execution purchase decisions of investment

managers suggests that any execution-related costs should be excluded. The research price should not be influenced by the method of payment. Costs for derivatives, prime services and origination etc. should be excluded.

A starting point could be the assumed compensation level of the senior sector analyst.

BOTTOM UP SECTORAL RESEARCH COST BASE ESTIMATE

IB research products are designed to be distributed to multiple investment managers. How then can the investment manager calculate a reasonable proportional share of the total research production price including the margin?

As the research pricing environment evolves in light of new regulation, it is possible that IBs may provide some of the information in the following table to assist investment managers in making these determinations – a process that would lead to greater transparency.

Cost Item	Notes	Multiplier	Cumulative Cost
Senior Analyst Comp.			100
Analyst Team Comp.	Senior Analyst cost ½ of team cost	1.0	200
Distribution Network	50% of the cost of the Analyst Team	0.5	300
IT/Central costs	50% of the cost of the Analyst Team	0.5	400
Assumed Margin	At a level above IB Cost of Capital @ ~12%	0.15%	460

Item	Notes	#Clients	Cost Per Unit	
Total Number of Clients		200	2.3	
<i>Of which:</i>				(460/200)
Tier One	60% of Analyst Team Resource	30	9.2	(460 X 0.6)/30
Tier Two	30% of Analyst Team Resource	50	2.8	(460 X 0.3)/50
Tier Three	10% of Analyst Team Resource	120	0.4	(460 X 0.1)/120

SECTORAL RESEARCH COST DISTRIBUTION ANALYSIS

Based on the analysis shown, if the senior analyst had total compensation of \$1 million, the tier one clients would pay \$92k for the annual service, with tiers two and three at \$28K and \$4K, respectively.

However, this may only capture research in one region. If global sector coverage were desired and the bank had senior analysts and sector research teams in each of Europe, North America, Asia and Emerging Markets, these totals could quadruple.

Another obvious data point in this analysis would be the cost of IRP research in similar sectors, adjusted for the related services and distribution that it included. A further option would be to consider the cost of IRP coverage of the sector, if it were made proprietary to the investment manager. This would increase the cost as the IRP would not have the ability to re-sell the product.

A possible outcome of this analysis is that investment managers will develop internally consistent research price models. If a manager decides to buy five tier one global healthcare research services from banks or other providers, the framework could suggest the price the manager would be willing to pay for each (all things being equal).

As understanding of the implicit cost of investment banking research products/services grows, particularly relative to other priced research products, managers will be able to mix research inputs to hopefully maximize the return on client research commission spending – echoing CFA UK's call for investment managers to compete on the basis of the efficiency of their commission allocation.

IMPLEMENTATION OPTIONS –

- a. Each fund or team would consider the sectors/ regions for which they required research, the desired providers and the appropriate service level.
- b. By estimating the cost of the senior analyst, the analysis described above could be conducted.
- c. Any information provided by the research producer would be helpful. While they are unlikely to furnish

compensation data on particular individuals, they may be willing to generalize about what they view as appropriate revenue levels for their services given i) their cost structure and ii) the number and distribution of investment manager clients at the various service levels.

- d. Taking this to its logical extreme, there are research producers that will link the price of a research service to its exclusivity. The less widely distributed, the fewer the number of clients over which the producer can amortize the cost. This is why truly bespoke work on behalf of an investment manager may command a particular premium.

7. VALUING NEW TECHNOLOGIES

There has been little change in the technology of research products since the introduction of the ubiquitous PDF file. Research producers, notably IBs, have been quite careful in allocating finite resources, particularly analyst time. But most producers have made very little distinction in the actual physical research products they provide. The same flat PDF research file is frequently sent to both the largest and smallest clients of the research producer.

New formats may change this equation, particularly if we enter a quasi-priced research market. The software industry may provide a useful comparison. If we equate tier one global healthcare research coverage to a license (which includes both documents, analyst access and other services), then surely the purchaser of the license would expect a higher level of products and services than those who have not purchased the license. Yet, the research producer will continue to want to advertise its services to investment managers who have not purchased the license. This is reminiscent of the premium/'freemium' model.

Premium clients could receive personalized and/or interactive products, while the 'freemium' PDF-delivered service could continue to be distributed to those investment managers that have not purchased a license.

The point is not the technologies themselves, but what they do to improve investment manager productivity and to assist and inform the manager's investment process.

Dynamic XML publishing allows research producers to create personalized content based on the investment manager's stated needs, seamlessly delivered digitally via multiple channels, including mobile. This act of curation can improve the productivity of the research product for the specific manager.

Interactive products can also add value. HTML5 dashboards can replace unwieldy excel files for analyst models. The dashboards can allow the manager to easily input their proprietary assumptions into a research producer's model. This keeps the investment manager's assumptions private, yet allows the manager to exploit the value in the analyst's model.

This approach is ideal for scenario testing.

These products have the potential to become part of the analyst's or investment manager's investment process. Consequently, the research producer's revenues from the product may be more recurrent and, therefore, higher quality, similar to the software model.

Once again, managers would have to consider the incremental utility of any dynamic, digital products they wished to consume.

Premium pricing is likely warranted if the products produce a productivity uplift for the investment manager that other research products do not. Well-known existing products may provide a proxy for pricing. Products/services such as FactSet and Holt are interactive and can become part of the manager's process. Typically, these are priced on a per user basis.

IMPLEMENTATION OPTIONS –

- a. Each fund or team would consider the number of providers from which they would purchase these premium products by region/sector.
- b. The key question would be to determine the amount of incremental utility a product provided. For products that are personalized or optimized for the investment manager, the incremental utility could be significant. Interactive products that allowed managers to test assumptions and scenarios could also provide substantial value, particularly if they became a part of the investment manager's internal investment process.
- c. Value considerations could include the impact of not having the product, and/or the cost of replicating it internally (if that were possible). It is likely that most investment professionals will consume fewer customized or interactive research products than they do generic ones. It is also likely that these products will be sourced from research providers that are already research suppliers to the investor. Managers are likely to have fewer, but deeper research relationships with their key suppliers and products of this nature would be a natural evolution of those relationships. By definition, it would be in the interest of the investment manager for the products to continue to be supplied and, as a result,

it is in the manager's interest to ensure that they are sufficiently profitable for the manufacturer that they continue to be produced. This may offer the opportunity for a more transparent discussion of the producer's costs and may ultimately move in the direction of a recurring software license model.

8. COMPOSITE MODELS

As noted in the introduction, the research valuation process will ultimately be a reflection of a host of factors at each investment manager. There is no 'one size fits all' - which is part of the reason that IB research producers may prefer that managers determine research pricing.

Consequently, the application and suitability of the research valuation approaches described here-in, will vary substantially between managers.

To the degree that any portion of these are used, likely in combination with methodologies already being employed by managers, this could comprise part of the budget building approach. For complex managers, this could easily extend down to the fund/team level, particularly in light of different investment mandates.

IMPLEMENTATION OPTIONS –

- a. The first step for the manager/team/fund is to determine which of the valuation approaches is appropriate.
- b. An assessment of the relative weights between the approaches could then be determined.
- c. As a sense-check, managers could use both top-down and bottom-up (using data from priced producers) exercises to move towards an internally generated pricing structure that is an appropriate reflection of their investment styles and research preferences.

CONCLUSION

There are myriad difficulties in valuing research.

It is difficult for firms to know exactly how much research they are using and where it is being used. Research distribution (mostly through emailed PDFs) remains relatively inefficient and systems for tracking research use are not yet widespread.

It is difficult to assess the value that has been generated by the research – both because of problems in tracking its use, but also in estimating its impact to decision-making and, then, in attributing value to that decision. This difficulty is then heightened because investment managers ought to consider the value derived from different research providers over time (as a series) rather than at a single point in time.

If an investment manager is choosing instead to value research based not on its impact, but on its cost or price, then it remains difficult to do so because of the lack of transparency around the cost of external production and the price of external research.

Nevertheless, most investment professionals can identify the external research product/services that they find valuable fairly quickly and easily. Going forward and in parallel, investment professionals should not only consider whether the research is useful, but how important it is relative to the rest of the research being purchased and how the relative cost compares to the relative value delivered. Setting up and operating such a mechanism is time-consuming, but if this becomes a required part of the firm's research procurement policy the task will be shared by the entire investment team.

Many managers are already doing this, if only informally. Whenever a manager compensates a research producer for an unpriced research service via a CSA payment the process is already at work. The manager has already a) identified which products/services are of value and b) what specific monetary amount to pay for them.

Consequently, a systematic examination of a firm's historical CSA payments may provide helpful context in valuing the unpriced research products purchased outside of CSA arrangements.

Firms are likely to employ both bottom-up and top-down approaches to research valuation and budgeting. Individuals and teams may be responsible for determining which research is important, while senior management may play a role in the top-down budget setting. The goal is to deliver a consistent research valuation structure that can accommodate a wide variety of priced and unpriced research products. Use of such a structure is a clear signal to both clients and regulators that the manager is discharging its duties to clients, in allocating client research commissions diligently.

Once a structure is established, changes at most firms are likely to be incremental rather than wholesale. The ongoing time requirement will diminish but, as the execution market has already experienced, the research procurement process will have to change and adapt to an environment of greater scrutiny.

AUTHORS/SPONSORS

ABOUT FROST CONSULTING –

Frost Consulting is a London-based firm specializing in all aspects of the equity research procurement value chain including developing strategies to leverage regulatory change. Frost develops ontology-based search architectures for research management and assists plan sponsors and investment managers in research benchmarking and valuation methodologies.

ABOUT CFA UK –

CFA UK serves society's best interests through the provision of education and training, the promotion of high professional and ethical standards and by informing policy-makers and the public about the investment profession.

Founded in 1955, CFA UK represents the interests of approximately 11,000 investment professionals. CFA UK is part of the worldwide network of member societies of CFA Institute and is the largest society outside North America.

Members of CFA UK abide by the CFA Institute Code of Ethics and Standards of Professional Conduct. Since their creation in the 1960s, the Code and Standards have served as a model for measuring the ethics of investment professionals globally, regardless of job function, cultural differences, or local laws and regulations. The Code and Standards are fundamental to the values of CFA Institute and its societies.

ABOUT CFA INSTITUTE –

CFA Institute is the global association of investment professionals that sets the standards for professional excellence. The organization is a champion for ethical behaviour in investment markets and a respected source of knowledge in the global financial community.

The CFA Institute mission is to lead the investment profession globally by promoting the highest standards of ethics, education, and professional excellence for the ultimate benefit of society.

CFA Institute has provided financial support for this report as part of its advocacy and policy research programme. This programme is designed to promote thought-leadership through the exploration of current issues and debates concerning the financial services industry.

APPENDICES

1. Implications for asset owners
2. Recent regulatory review/industry reactions
3. Related CFA Institute materials

1: IMPLICATIONS FOR ASSET OWNERS

Asset owners should be interested in the strategies of their underlying managers for optimizing research spending in this evolving regulatory environment, not least because of the major changes that may be seen in the (equity) research supply chain.

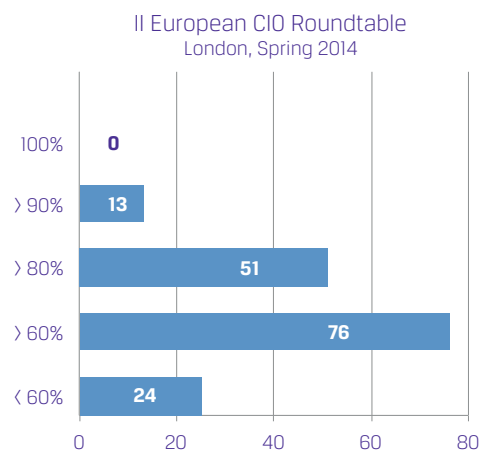
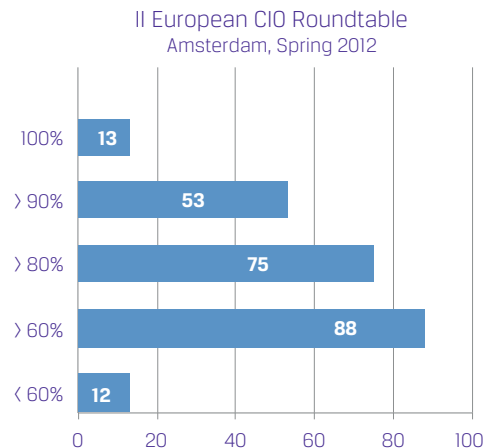
Surveys have revealed investment banks are the predominant supplier of external research to most investment managers. The chart on the next page illustrates the degree of reliance of a sample of investment managers on research products/services produced by investment banks. This is an important issue as:

- a. Investment banks have long been the primary source of external research for investment managers (owing to the historic regulatory context of the industry).
- b. There are multiple indications that aggregate investment bank research budgets are falling which is a potential issue for both asset owners and investment managers given point a).
- c. Commission unbundling has vastly expanded the content universe available to investment managers through the CSA mechanism's ability to pay a wide variety of research producers with commissions (not just banks/brokers). It is interesting to see to what degree investment managers have exercised this freedom (with commissions).

The vertical axis measures the percentage of investment manager external research spending that goes to investment bank research products. The horizontal axis (blue bars), illustrate what percentage of the investment managers surveyed fell into which buckets.

The chart clearly indicates that bank research products/services are still an important input for most investment managers, although declining in importance between 2012 and 2014. The apparent decline in the

PERCENTAGE OF TOTAL EXTERNAL RESEARCH BUDGET SPEND IN RESEARCH PRODUCTS/SERVICES FROM INVESTMENT BANKS

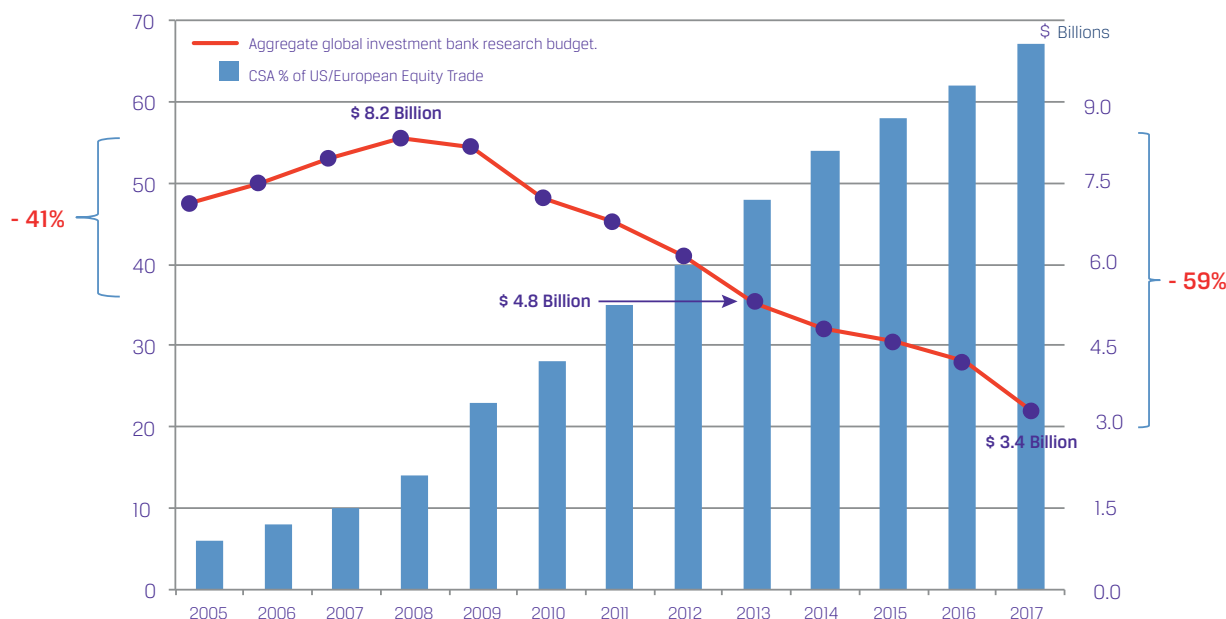


aggregate bank research market share may be a function of managers making greater use of some of the alternatives mentioned earlier in the paper.

A combination of economic and regulatory factors has caused the supply of investment banking research to contract – reflecting the reduced profitability of the investment bank's cash equity businesses. Recent UK regulatory change may result in a further reduction of investment bank research spending as investment managers' monetary research budgeting focuses (and lowers) their research spending.

A possible outgrowth of the UK research commission regulatory initiatives will be the development of the research equivalent of trade cost analysis (TCA). (See chart on next page). While asset owners should always be interested in the research procurement methodologies of their managers, the magnitude of both recent regulatory change and the disruption

CSA USAGE/INVESTMENT BANK RESEARCH BUDGETS



of the economics of research at the integrated investment banks, means they should be paying particular attention at this juncture. Asset owners should be keenly interested in the strategies used by their underlying investment managers to maximize alpha-generation and minimize risk during this transition and may develop specific lines of inquiry as part of their manager selection/review process.

Because asset owners have selected their managers based on their investment processes and because those managers play an expected role in a wider portfolio or risk budget, asset owners have always been sensitive to investment manager style drift. It seems logical therefore, that the manager should spend the bulk of the asset owner's research commissions on research products directly related to the specific investment mandate – which also should reduce cross-subsidization concerns. The bulk of an investment manager's research commission spending should be concentrated in areas where the returns are expected to be generated.

2: RECENT REGULATORY REVIEW

Conflicts of Interest between investment managers and their customers (2012 – UK FSA)⁴

An FSA survey of 15 UK investment management firms in 2012 revealed that 13 of the 15 were less rigorous in their control and allocation of client commissions

than they were with their own corporate funds. Some of the managers had not established robust internal processes to avoid conflicts of interest and were not strictly following the FSA guidance that commissions be used for research and execution only. The paper on conflicts was the FSA's policy response.

The three aspects of the paper that received the most attention were:

1. That use of commission for corporate access was prohibited. This was controversial in that some managers reportedly allocated as much of 30% of total commission based on this service, and it generated debate about the access to corporate management for smaller investment managers.
2. That the CEOs of 195 UK investment managers would have to sign personal affidavits that their firms were compliant with the rules by Feb. 28th 2013.
3. Separately (outside of the document), the FSA warned the industry that failing to comply could result in substantial fines.

A provision that received less attention may have the most lasting influence. The report noted that best practice amongst managers was to set a maximum spend (in currency terms) for a research broker, and once that commission threshold had been met, to switch to execution only rates on further trades with that bank. This represents a meaningful alteration of

⁴<http://www.fsa.gov.uk/static/pubs/other/conflicts-of-interest.pdf>

the historic status quo with significant implications for all market participants.

Following the publication of its paper on conflicts, the FCA announced three further measures at its investment management conference in October 2013. These were a new consultation paper on commission (CP13/17 – released November 2013), new commission rules (final), released May 2014, and a thematic review of competition in the research market, to be released later this year.

2: INDUSTRY REACTIONS

The FCA set a deadline of February 25th, 2014 for responses to its interim document CP 13/17. Of the more than 60 formal responses, two from major industry groups (the Investment Management Association [IMA] and CFA UK) were noteworthy as they both suggested higher levels of engagement of senior management at investment managers in the research commission allocation process.

The key recommendations in the IMA's February 2014 paper on the use of dealing commissions for the purchase of investment research were as follows:

- » Investment managers should construct monetary research budgets and place a valuation on the unpriced research they purchase with client commissions.
- » Research producers should price research.
- » Investment manager research budgets should get Board approval if they are of such a size that they would have required Board approval if they were a corporate capital expenditure item.

The key recommendations in CFA UK's paper on the market for research (also published in March 2014) were that:

- » Investment managers should construct monetary research budgets and place a valuation on the unpriced research they purchase with client commissions.
- » Investment managers should make public their research commission allocation policies/methodologies and compete on the effectiveness of their commission allocation.

Following the close of the consultation period for CP13/7, the FCA released its policy statement 14/7 (PS 14/7) detailing the final changes that would be made to the FCA rulebook.

While broadly in line with previous documents such as CP13/17, 14/7 also charted new territory in that it created a definite requirement for investment managers to value (unpriced) research if they wanted to purchase those research services via commission. It also forbade managers from using commission to pay for research it did not use. While that sounds obvious, the reality is that many managers receive large quantities of unrequested research documents from banks as part of a universal service which they implicitly pay for – if the investment manager has not been specific about what they are paying for.

In 14/7, the FCA only allows commission payment for substantive research or services and creates a requirement for investment managers to disclose their research valuation payment policies and processes to clients.

The net result is that investment managers will be more deliberate in the research products/services they select. Further, in order to use dealing commission to purchase research products, the manager must establish a valuation framework to inform the payment made and demonstrate (if challenged), that they have attempted to negotiate price on behalf of their clients.

The next step in the regulatory developments was the FCA's release of a discussion paper (DP 14/3) on the use of dealing commission⁷. The paper provided feedback on the FCA's thematic supervisory review and contributed to the policy debate on the market for research

At the July 10th 2014 meeting that introduced this discussion paper, the FCA made it clear that it was unhappy with the level of investment manager compliance since the publication of its paper on Conflicts of Interest in 2012. The DP stressed that there was still too close a relationship between execution volumes and commission payments at some investment management firms. It emphasized that more work had to be done on research valuation and research budgeting, and, that the use of broker-vote

⁵<http://www.fca.org.uk/news/cp13-17-use-of-dealing-commission>

⁶<http://www.investmentfunds.org.uk/assets/files/consultations/2014/20140225-fcacpondealingcommissionrules.pdf>

⁷<http://www.fca.org.uk/static/documents/discussion-papers/dp14-03.pdf>

commission allocation in isolation was not sufficient as a means to justify the use of commission to purchase research.

Policy Statement 14/7 will substantially raise the level of transparency and reporting relating to investment manager client commission spending. In particular, it will require asset managers to set monetary research budgets in which a more detailed breakdown of research products and services will be required of managers – if they want to use client commissions to pay for these products. There is also a requirement for investment managers to provide prior notification to clients (and potential clients) of the manager's research valuation and payment policy.

While this is a UK regulatory initiative, there is an international dimension. The FCA's initial recent document (the paper on conflicts of interest from November 2012) required the CEOs of roughly 200 of the largest investment managers in the UK to attest, personally, that their firms would adopt these new rules. Because many of the top 200 UK investment managers are the local subsidiaries of US and European-based investment managers, the UK requirement creates challenges for these firms on a global basis – given the general requirement to treat clients equally. Consequently, several have decided to operate this system on a global basis, reflecting a recent trend of operating to the standard of the most conservative jurisdiction in which a firm does business.

In addition, several sovereign wealth funds and other asset owners that are not directly subject to UK regulation have also expressed an interest in the approach. If large sovereign and other institutional clients demand it (based on experience in the UK), it is likely that monetary research budgeting may become best practice globally.

3: RELATED CFA INSTITUTE MATERIALS

CFA Institute's response to the UK regulator's 2005 paper on the use of dealing commission to pay for the research said 'We believe that investors are best served by making available a wide variety of money management and research services in a fair and efficient market place. While we recognise the inherent conflicts in soft and bundled arrangements, we also

believe that investors may not want their options for obtaining investment or research services limited... On the other hand competitive supply should be encouraged and the market should not be skewed by subsidy in favour of one group of research suppliers. This requires transparency about the true costs of research supplied, regardless of source, particularly to the client. Soft and bundled arrangements may benefit some investors and the market by encouraging research, but clearly are also subject to abuse. The commissions used by managers to pay for soft or bundled research are the property of their clients. To meet their fiduciary responsibilities to their clients, managers must use the soft commission credits generated by trading only for research services that benefit their clients'.

The response continued: 'In order to achieve the potentially conflicting objectives of providing a wide variety of research services from different sources while maintaining a competitive, fair and liquid research market, potential abuses of soft or bundled arrangements should be effectively addressed not by eliminating such arrangements and thereby possibly threatening the amount of information, analysis, and research available to investors, but by 1) increased disclosure regarding soft and bundled practices to investors, and 2) strictly limiting the services available through soft and bundled arrangements to 'research services' that primarily benefit investors.'

All CFA Institute and CFA UK members commit annually to adhere to and abide by CFA Institute's Code of Ethics and Standards of Professional Conduct⁸.

The standards fall into seven sections: professionalism; the integrity of the capital markets; duties to clients; duties to employers; investment analysis, recommendations and actions; conflicts of interest and responsibilities as a CFA Institute member or candidate.

Among other items, the standards require members and candidates to:

- » **Act with reasonable care and exercise prudent judgment for clients**
- » **Act for the benefit of their clients and place their clients' interests before their own or their employer's**

⁸<http://www.cfainstitute.org/ethics/codes/ethics/pages/index.aspx>

- » Avoid or disclose any conflicts of interest that might impair their independence or interfere with their duties to clients
- » Deal fairly with all clients

The code and standards are used to provide guidance on ethical and professional issues. However, the complexity of the issues relating to the use of client brokerage led to the development of specific soft dollar standards in 1998. The standards put the focus on the client and provide investment professionals with guidance on how to use client brokerage ethically, based on the following principles:

- » Dealing commission belongs to the client
- » Investment managers may only purchase research with dealing commission if the primary use is in the investment decision making process, not the management of the investment firm; and
- » Investment managers must disclose all relevant benefits they receive through dealing commission.

CFA Institute's Soft Dollar Standards⁹ are ethical principles intended to ensure:

- » Full and fair disclosure of an investment manager's use of a client's dealing commission
- » Consistent presentation of information so that the client, broker, and other applicable parties can clearly understand an investment manager's commission use practices
- » Uniform disclosure and record keeping to enable an investment manager's client to have a clear understanding of how the investment manager is using the client's commission; and
- » High standards of ethical practices within the investment profession

The standards recognise the possible conflict of interest between the investment manager and their clients that arises from the opportunity for an investment manager to offset some of the firm's fixed costs through the use of services paid for via client commission. The standards seek to require members to manage that conflict appropriately through their own actions and by providing clients with the information that they might need to monitor their managers' behaviour.

⁹<http://cfainstitute.org/ethics/codes/softdollar/Pages/index.aspx>



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