Optimising Research ROI in an Environment of Structural Change

This White Paper, sponsored by Quark, examines economic and regulatory change in the institutional equity market. It considers possible outcomes from the interplay of these forces and analyses the potential research ROI impact of digital publishing solutions.

Since the onset of the global financial crisis in late 2007, the equity businesses of investment banks have been under economic pressure. Investment bank ROEs, which frequently exceeded 25% through 2007, have retreated to low single digits — positive for some and negative for others.

Meanwhile, the investment banks' weighted average cost of capital which hovered at mid-single digits for most of the 2001-2007, has doubled in many cases. This undesirable reversal in spreads has caused even the most historically profitable banks to re-assess their business models.

Some of this is cyclical: cash equities, M&A and IPOs have been in a bear market as the successive sub-prime debt and sovereign wealth crises have elevated macro risk and reduced investor and corporate confidence.

However, some of this is likely structural and permanent. The rise of equity derivatives, private equity and ETFs has provided substantial competition to traditional actively managed cash equities.

Regulatory change has also played a major role. On the cost side, higher regulatory capital requirements are reducing profitability. On the revenue side, the rapid growth of commission unbundling has ended the oligopoly of the investment banks over ~$20 billion per annum in asset manager non-execution commission spending (primarily research).

While the economic model of research provision between investment banks and asset managers must adapt to radically changed circumstances, it is still of vital importance to both constituencies and will not disappear any time soon. All market participants are trying to find a mutually beneficial and durable economic model evolving from the pre-crisis status quo.

Perhaps the single most important issue for the equity businesses of the investment banks, is how to optimise returns on their still substantial research expenditures. For most, the research product remains a key competitive weapon that defines their intellectual approach, market positioning and the tenor of their client relationships.

This paper will examine the changes in the competitive and regulatory landscape that has led to this industry inflection point, and how new approaches to digital publishing can serve the twin goals or reaching clients on a personalised basis and improving return on investment for research products.

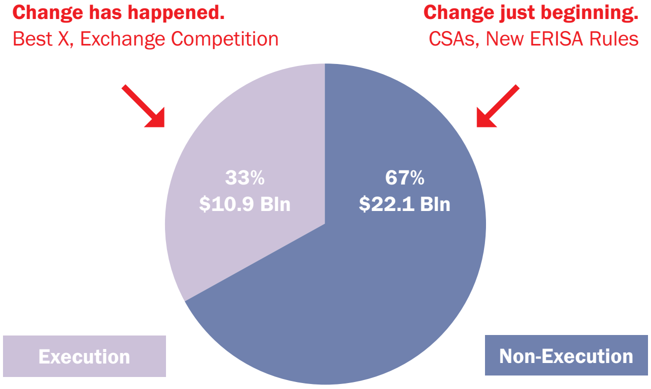
Background — The Global Equity Commission Market: A Unique Business Model

Equity commissions, the small percentage charge added to each equity trade to pay for execution and other services, are the economic currency of the global institutional equity market. Although the commission percentage is very small, the aggregate global commission number is very large.

Most commissions have two parts: the execution charge, to pay for the trading, clearing and settlement of the equity transaction and a non-execution component to pay for other services (primarily research). Combined these totaled an estimated $33 billion in 2011.

Institutional Secondary Equity Commissions

Global Total 2011e — US$33 Billion



Regulatory Regimes:
"Best Execution"
Reg. NMS

Plan Sponsor Scrutiny:

Level:	High
Means:	TCA
Penetration	~85%
Plan Performance Risk:	**Moderate**
0-200 Bps per annum	

Regulatory Regimes:

Historic:	None
Recent:	ERISA/UK FSA

Plan Sponsor Scrutiny:

Level:	Low
Means:	None
Penetration	~0%
Plan Performance Risk:	**High**
000s Bps over time	

Frost Consulting estimates

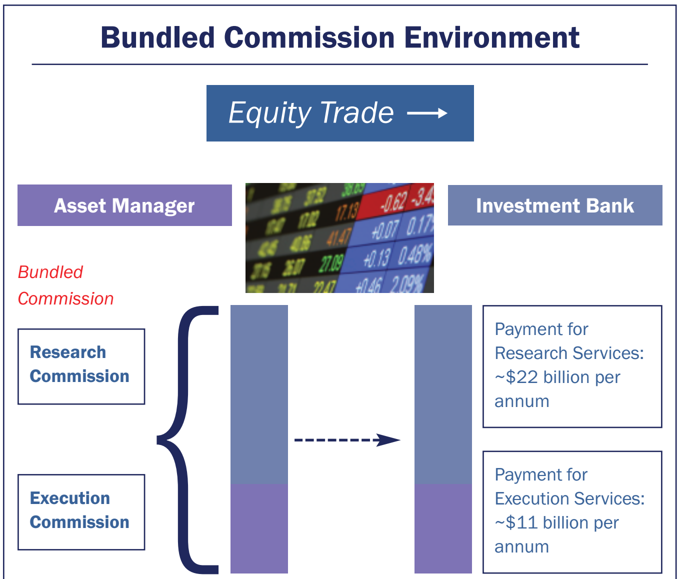
Beyond its size, there are some very unique things about the global commission market. Commissions actually belong to the asset owner (pension fund/mutual fund) rather than the asset manager. Commissions are deducted from the investor's total return and are therefore charged back to the asset owner, even though the asset manager decides how and when and where to spend them.

Historically, asset managers have been in the fortunate position of using these 3rd party funds to pay for products including both execution, and, critically, research. This explains why asset managers have historically purchased the vast majority of their research using equity commissions. In the traditional "bundled commission environment" that dominated the landscape in most markets until the middle of the 2000s, the two commission components (execution and non-execution) were inseparable and were entirely captured by the investment bank that performed the equity trade.

In the "bundled" environment, the only way asset managers used 3rd party commissions to buy research was to buy it from companies with an equity execution capacity (investment banks) because it was the act of equity execution that generated the commissions to pay for the research. In order to generate the commissions, the asset manager had to have a separate equity execution relationship with each research producer. Every trading relationship entailed varying degrees of counter-party risk.

The practical result was that investment banks enjoyed the vast majority of the circa ~$20 billion per annum of asset manager non-execution spending.

Another unusual feature of this market is that almost all investment bank research has no specific price, and its delivery and consumption is not bound by any contract. Historically investment banks have distributed vast quantities of research to asset managers for no charge, in the hope of receiving an unspecified level of commission in return. With commissions at high levels, this arrangement was profitable for the investment banks and profitable for the asset managers (as it wasn't their money).

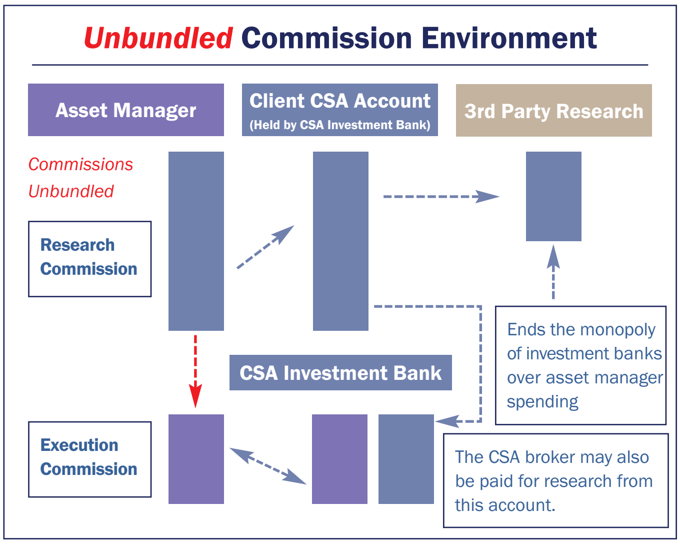


Investment bank monopoly over asset manager equity research spending.

Regulatory Change — Commission Unbundling

Beginning in the early 2000s various UK politicians and regulators re-examined the unusual nature of the institutional equity commission market. After discussions with the investment management industry, the regulators decided to maintain the system which allowed client commissions to be used to purchase research for asset managers. However, they did require that the purchase of execution services and non-execution services be separated or "unbundled". This would theoretically allow the asset manager to choose the best provider of each service. Some valuable research providers were sub-optimal in terms of equity execution while other banks excelled at execution but produced less compelling research. Soon afterwards, legislation in various geographies (Reg. NMS in the US and MiFID in the EU) also required asset managers to achieve "Best Execution" — placing further pressure to separate the execution and research purchase decisions.

The European unbundling mechanism was the Commission Sharing Arrangement (CSA) or Client Commission Arrangement (CCA) as it is known in the US. In the CSA transaction the execution commission would be retained by the investment bank handling the trade, while the (larger) non-execution component would be kept in an account at the bank on the asset manager's behalf. As CSA trades accumulated the balance in the account would rise. Periodically the asset manager would instruct the bank to pay research producers directly from the accumulated funds in the CSA account.



This change had enormous implications for both the economics and operation of the institutional equity market.

Operation	Economics
Ends the dominance of investment banks over asset manager research spending.	*Investment banks lose market share in asset manager research spending.*
Ends one-to-one relationship between purchase of research and equity trading relationship with the research producer.	*Asset managers reduce the number of equity execution counter-parties and start paying some banks for their research via CSA cheques from other banks — almost always at lower levels than via the previous execution relationship.*
Most asset managers buy research from >100 banks. They can now use commission to buy research from thousands of producers.	*Makes ~$20 billion p.a. available to alternative research producers, business/academic publishers, consultants, quants, databases, etc.*

Global Adoption of Commission Unbundling

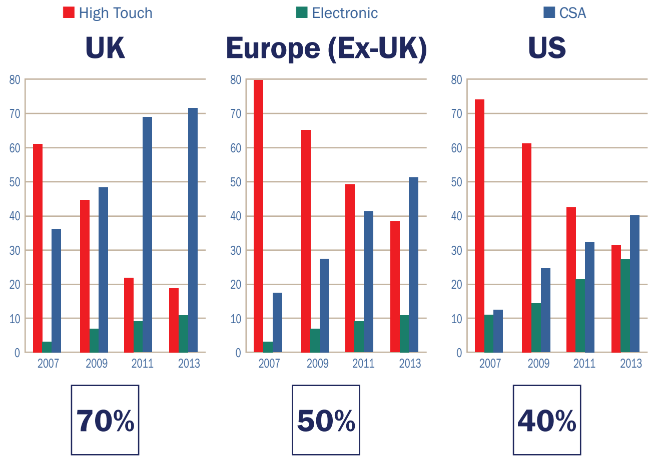
Although commission unbundling was originally a UK regulatory initiative, its spread has been accelerating both in terms of its market share in the total commission market and geographically for three key reasons:

1. It is indirectly supported by "Best Execution" regulations.
2. Once asset managers become accustomed to CSAs they appreciate the flexibility in commission allocation that these structures deliver. As the UK subsidiaries of global asset managers used the structure, CSAs were frequently rolled out globally because most asset managers prefer not to run multiple operational systems in different regions.
3. Asset managers in geographies in which unbundling is difficult, (usually because of unintended tax considerations); find themselves at a competitive disadvantage in an increasingly global asset management market. These managers frequently lobby the local regulator to allow CSAs to enhance their competitiveness. The most recent example was the approval of CSAs by the Swedish FSA in October 2012.

Consequently, CSAs are rapidly becoming the dominant commission category globally.

Unbundled Commissions: Regional Penetration

Percent of Total Volume Traded

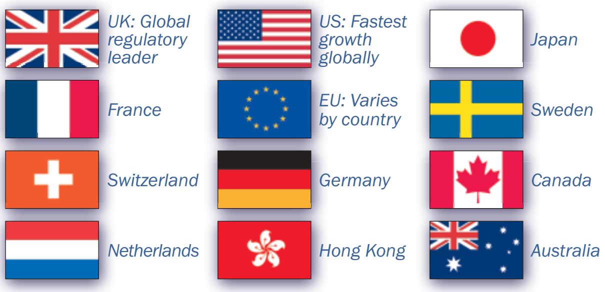


Large asset managers using CSAs:
UK 90%, Europe (ex-UK) 60%, US 80%

Frost Consulting estimates

Global Perspective

>50%	20-50%	<20%
Game Over for Bundled Model	*Growing Rapidly*	*Emerging*



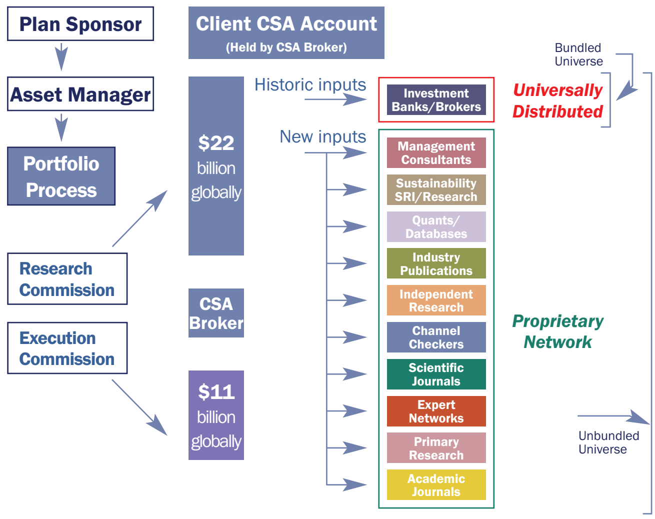
Frost Consulting estimates

Explosion of Research Content Universe for Asset Managers

Because of the historic dominance of investment banks over asset manager spending, most managers buy research from fewer than 100 banks. The explosion of potential data sources is both a challenge and an opportunity. Many managers will have to overhaul their content procurement methodologies, but the reward is that they may generate "differentiated alpha" from a virtually limitless research content universe — in which investment banks are just one category of research producer.

Unbundled Environment

Exploding the Asset Manager Content Universe



In the figure above, the "bundled universe" is represented by the ~600 investment banks globally that distribute unpriced research in exchange for execution commissions. Research from these banks is considered "universally distributed" because regulations in many geographies dictate that banks must send research to all of their clients simultaneously to avoid "selective disclosure". From an asset manager's competitive standpoint, this means that the moment they receive a piece of research from a bank, they can be certain that all of their competitors have immediate access to it as well.

In the "unbundled universe" asset managers can use commissions to buy specifically priced products and services from a myriad of non-bank producers. In this environment there is no requirement that the products or services are distributed to competitors as they have been purchased for an invoiced price. Asset managers can use CSA commissions to fund proprietary studies from industry consultants — the results of which they will own exclusively. These unique inputs are allowing some asset managers to generate superior returns — which is the central and overriding objective of all institutional investors.

This is a challenging environment for investment bank research. It must simultaneously differentiate itself from its competitors and still add alpha to a wide variety of users who receive it at the same time — and do so at the lowest possible cost. Keys to success will likely include personalisation through effective distribution on multiple devices, "findability" in the context of new search technologies, and a flexible research production system which offers rapid multi-channel dissemination at low cost.

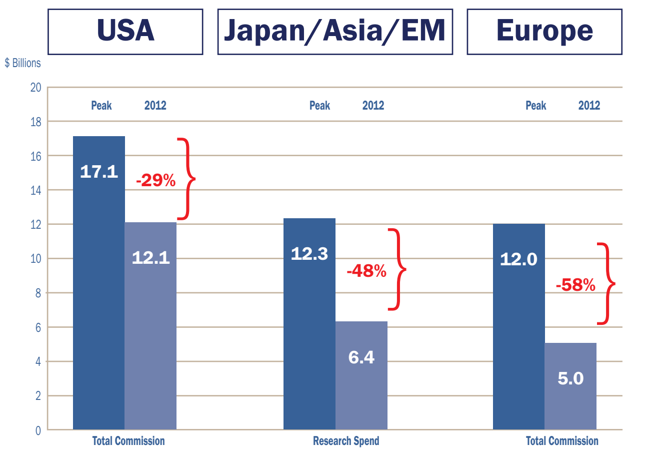
Investment banking research is going to have to work harder to stand out against an unaccustomedly large and crowded competitive backdrop.

The Perfect Storm

If far-reaching regulatory change were not enough, this has come at a time (and partially as a result of) a muted recovery following the worst bear market for equities since the 1930s. This has meant a significant decline in available commissions for all of the factors mentioned. The effect is particularly severe outside the US where commissions are calculated as a percentage of the value of the share price. Consequently the combination of lower share prices and lower exchange volume increase the volatility of commissions.

Secondary Equity Commissions

Global Institutional



Global Peak to 2012 decline: ~43%

Frost Consulting estimates

This combination of circumstances has taken a significant toll on investment banking cash equity capacity. The UK's Financial Times newspaper suggests that close to 150,000 of out of the total 500,000 positions at large investment banks have been eliminated - ~30% of the aggregate work force.* Several banks have simply abandoned the cash equity markets altogether.

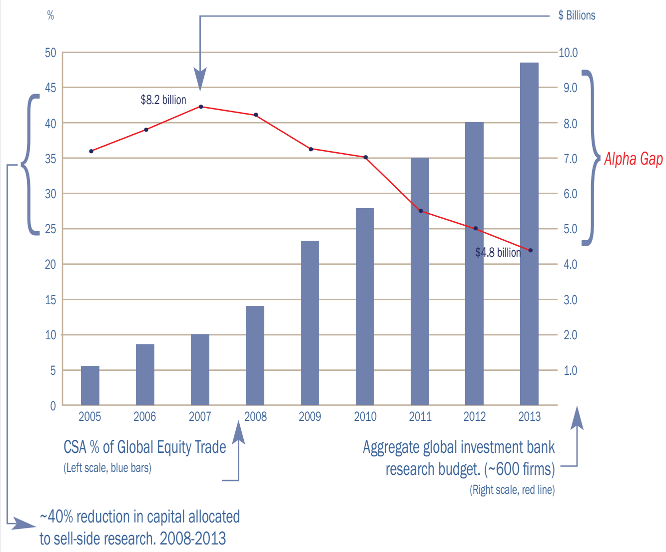
The contraction has also been keenly felt in equity research in part as a result of its own unique opaque pricing structure. Because investment bank research is not specifically priced, it is very difficult to tell which research products asset managers are actually paying for via commissions. Consequently it is difficult to derive revenue and profitability metrics.

Unsurprisingly, this has forced a substantial decline in investment banking research budgets.

The figure below shows the growth in CSA commissions as a percentage of total global commissions (blue bars, left scale). The red line (right scale) represents the total estimated global research budgets of all investment banks producing research. This suggests a 40% decline from 2008 to 2013 — broadly commensurate with the estimated peak to 2012 decline in total global commissions (43%). The decline in research budgets creates further impetus for asset managers to use unbundled commissions — if they fail to do so, they are locked in to buying research from a research universe (investment banks) steeped in a major decline.

Research Procurement: Asset Managers

Traversing the "Alpha Gap"



Asset managers who do not unbundle are at a competitive disadvantage.

Frost Consulting estimates

The Good News:

Investment Bank Research: Reports of Its Imminent Demise Likely Overstated

Crisis is the most reliable agent of change. Out of these difficult industrial transitions, opportunity is created for those participants that are still engaged and have the ability to adjust their business models. The decline in investment banking research budgets finally reduces capacity in a market that has been over-saturated, probably for decades. This increases the ability of the remaining players to differentiate themselves and seize market share.

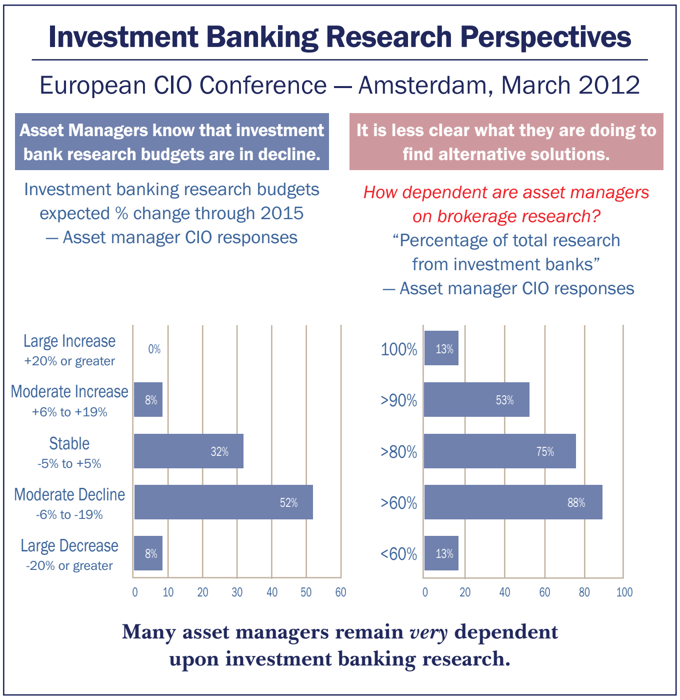
Asset Managers and Investment Bank Research: A Symbiotic Relationship

We surveyed 50 European Chief Investment Officers of European asset managers in the spring of 2012. We had two simple questions:

4. What was their medium term outlook for investment banking research budgets?

5. What percentage of their research did they receive from investment banks?

One answer was predictable but the other less so, as the beginning point for most investment bank/asset manager negotiations about the value of the bank's research starts from the asset manager's premise that they don't really value it.



Sixty per cent of the respondents felt that investment banking budgets were likely to decline. Yet, even in the face of this expectation, and the flexibility accorded by commission unbundling, the majority of the asset managers surveyed were still very dependent upon investment banking research.

Multiple decades of dominance in a market has its benefits. Above all else, the vast majority of asset manager commission allocation systems are designed almost exclusively to procure and consume investment banking research products. In short:

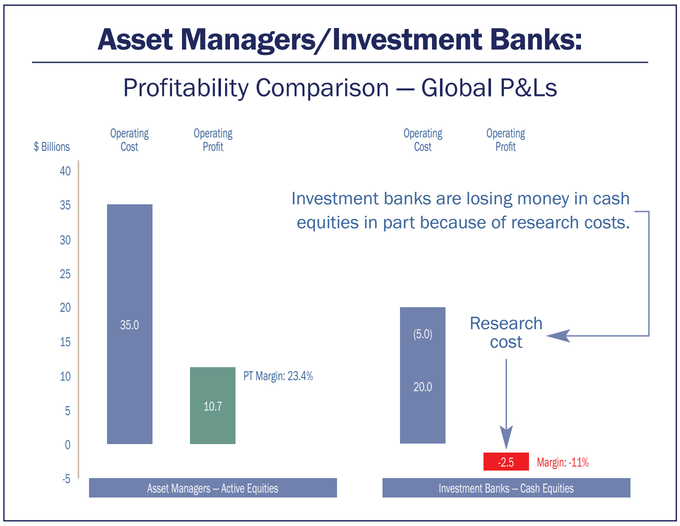
- Asset managers know how to find investment banking research, how to use it and how to pay for it.
- CSAs notwithstanding, it is still easier for asset managers to use and purchase than non-brokerage research.
- It is frequently more customisable than non-brokerage research.
- It is frequently accompanied by a series of historical personal and institutional relationships between the asset manager and the investment bank.

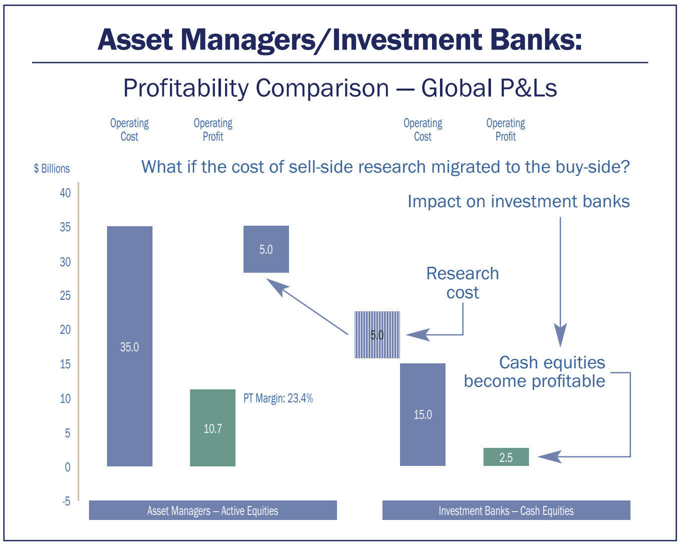
The Ultimate Bottom Line (Asset Manager Perspective)

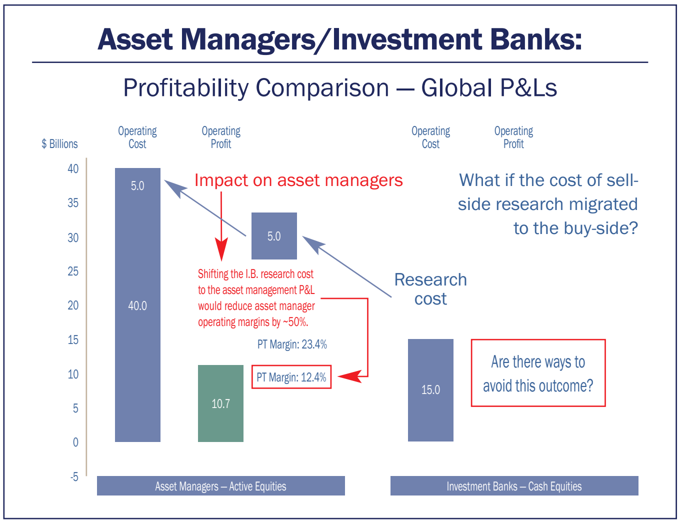
Asset managers' reliance on outside research is growing. As an increasing percentage of the world's economies are adopting equity market structures, the complexity of running global and emerging market equity funds that must select investments from tens of thousands of companies in over one hundred countries, is a daunting task. Even the largest asset managers would struggle to find an operating model that would allow them to closely monitor all of these equities continually, on an economic basis. This suggests that almost all asset managers will continue to use outside research sources, most notably from investment banks.

There is one other important point: while asset managers can use commissions to purchase external research, in most countries they are strictly barred from using them to subsidise their ongoing business operating expenses. This means they can't hire internal investment staff with commissions, although obviously they can be used to purchase external research.

Consequently, asset managers have a significant interest in making sure that the investment banking research they use and value remains profitable enough that it continues to be produced. Frost Consulting estimates that if the ~$5 billion spent on investment bank research migrated to the P&Ls of global asset managers, their operating margins could fall by 50%.







Asset managers are aware of the difficult financial conditions afflicting investment banks. They too are looking for a sustainable economic model going forward. Given the mutual importance of this relationship, investment banks with the ability to innovate in terms of both product and distribution are well positioned to gain market share.

There remains ample incentive for both asset managers and investment banks to work towards a mutually beneficial updated research economic model. Improving investment banking research ROI is central to the equation.

Quark as Part of The Research ROI Solution

The Quark Publishing Platform offers a dynamic publishing workflow that offers the following key benefits:

- Supports manual or automated output for print, Web pages, tablet and smartphone apps, with rich, engaging, format-specific design and interactivity.
- Based on a familiar Microsoft Word interface.
- XML authoring tools to increase flexibility and findability
- Utilises a reuse-by-reference capability, maintaining a single source of truth that can be protected, updated, and automatically delivered.
- Integrates with existing IT infrastructures and data sources
- Increases productivity of analysts, reviewers and research management.

ROI Model

The ROI model below is a systematic yet organisation-specific methodology to establish the potential ROI of the Quark Publishing platform. The following illustration is for a very small research producer illustrating that Quark can generate positive ROIs even on conservative assumptions regarding percentage of content re-use and analyst time spent on authoring.

(Hypothetical figures have been added as an illustration. Quark models can adjust variables for the specifics of any given research producer).

Cost of Content Creation		
Content Creation		(%)
Portion of content that can be re-used		10
Portion of analysts time spent authoring, reviewing and correcting content		15
Number of FTE Authors (analysts)		25
Average compensation of above	($)	350,000
Cost of Authoring Content	**($)**	**2,187,500**
Content Review		
Number of reviewers		1.5
Average compensation of above	($)	150,000
Cost of Reviewing Content		**225,000**
Content Development and Other Overhead/IT/Management Costs*		4,450,001
Total Research Department Cost**		**13,425,001**

*Non-analyst overheads estimated at ~1/3 of total departmental costs for a research department of this size.
**Including full analyst compensation

Potential Savings — Print Content		
	(%)	($)
Increased Authoring Productivity	20	437,500
Increased Content Review Capacity	10	22,500
Increased Management Capacity	5	55,625
Total Potential Annual Savings		**515,625**

*Management cost estimated at 25% if "other" costs.

Cost Analysis		
Quark Costs		
One-off set-up costs		($)
Training		
# of personnel trained	5	3,000
Configuration / integration	(60% annual cost)	124,500
Lost productivity	(1.0 IT FTEs)	100,000
Authoring licence		17,500
Publishing software		190,000
Total		**435,000**
Annual Costs	Seats	($)
Annual Maintenance		45,650
Total Annual Cost		45,650
Total Cost Year One		480,650

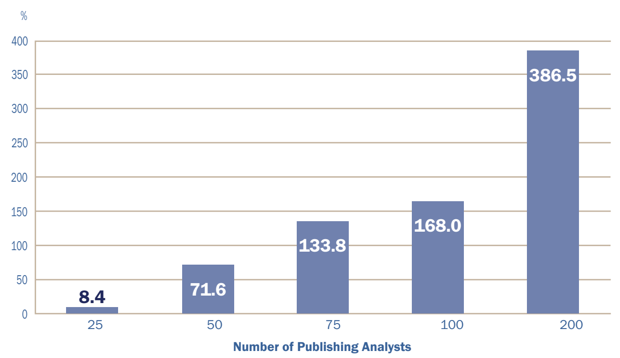
ROI Analysis		
ROI Calculations		
	($)	(%)
Costs Year One	480,650	
% of Total Research Cost		3.47
Savings Year One	521,188	
ROI Year One		**8.4**
Costs Year Two	45,650	
% of Total Research Cost		0.33
Savings Year Two	521,188	
ROI Year Two		1041.7
Cost Years 1-3	571,950	
Savings Years 1-3	1,563,563	
ROI Years 1-3		173.4
Annualised	57.8	

Dynamic ROI Calculations

In the charts below we model ROIs on Year One and Years 1 – 3 at different sizes of research producers. ROI improves with scale of the research producer.

Year One Quark ROI*

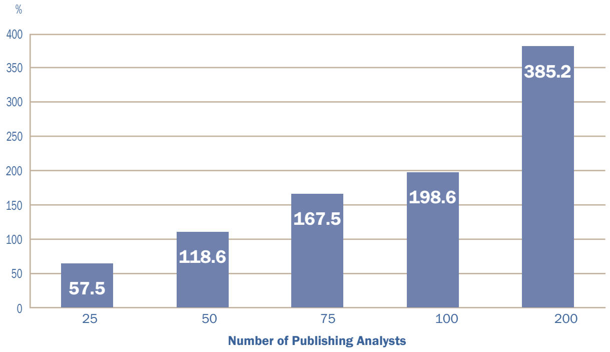
(Including One-time Installation Costs)



See Appendix for Assumptions

Quark ROI* Years 1-3 (Annualised)

(Including One-time Installation Costs)



*See Appendix for Assumptions

The vast majority of the Quark cash costs are recorded in year one which is the basis of the previous calculations. Firms often amortise this amount over several years given the lifespan of the product. Even when the cash costs are recorded, the cost of Quark represents a small percentage of total research department costs in year one, and a negligible portion of total costs in the following years as the table below illustrates.

Number of Analysts	25	50	75	100	200
Year 1 Costs as % of Total Research Budget	3.48	2.13	1.58	1.44	0.82
Ongoing Costs as % of Total Research Budget (Year 2 onward)	0.33	0.19	0.13	0.11	0.07

Digital Multi-Device Publishing

Precisely modeling the cost savings Quark enables by simultaneously publishing to mobile platforms is difficult to quantify with precision. Firms that attempt multiple "copy & paste" solutions from PDF documents consume FTE time. The results are frequently sub-optimal and do not take advantage of the potential interactivity offered by the digital platforms. In the table below we have made modes assumptions about those costs savings and the even more difficult to model factors of "Time to Market" and "Increased Content Volume". We have not included these figures in any of the ROI calculations — they are meant to be illustrative only. Each firm may have a different view of these variables. The table below based on a firm with 25 analysts.

Potential Savings — Multimedia/Other		
		($)
Automated Publishing — Multi-device (HTML/PDF/iPad/HTML5 automatically	(2 FTEs)	200,000
Time to Market	(2% authoring cost)	43,750
Increased Content Volume	(5% authoring cost)	109,375
Total Potential Annual Savings		**353,125**

It is important to note that content is increasingly being distributed electronically — including to content aggregators. At the same time the consumers of this content are maturing in their expectations for how, where and when they would like to receive investment research. These trends are only going to accelerate and make the process of dissemination of investment research more complex to more channels requiring rich interactivity and engagement to differentiate investment research offerings. XML will play an even more important role and multi-channel investment research production systems — like Quark Publishing Platform — are going to be critical for investment research providers to make the move to a mobile world. This is a subject we will explore further in future white papers.

Conclusion

The analysis illustrates that the Quark publishing solution can improve research ROI for firms of widely variable size. The cost of the solution, both in terms of initial set-up (Year One costs) and subsequent year costs represent small percentages of total research department budgets.

Given the decline in sell-side research budgets, Quark gives research producers a significant opportunity to create stand-out products against a backdrop in which innovation and differentiation will be key competitive weapons. New technologies allow the creation of interactive products that will engage research consumers. Quark also allows research producers to create a level of personalisation that will make the client relationship "sticky". Part of this personalisation is the ability to deliver content across multiple devices. Changing technologies and asset manager workflows are dramatically multiplying the ways in which research is consumed both in terms of devices and delivery personalisation.

Quark offers research producers a high ROI mechanism to flexibly deliver their research products into an increasingly complex consumption environment and a solution that can take providers confidently into a mobile world.

This paper was jointly produced by Quark Software Inc. and Frost Consulting, a London-based consultancy specialising in research procurement and unbundled commission optimisation strategies. For further information, please email Richard Brandt (rbrandt@quark.com / www.quark.com) or Neil Scarth (neil.scarth@frostconsulting.co.uk / www.frostconsulting.co.uk).

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