

IBM Institute for Business Value

Toward transparency and sustainability

Building a new financial order



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IBM Global Business Services, through the IBM Institute for Business Value, develops fact-based strategic insights for senior executives around critical public and private sector issues. This executive brief is based on an in-depth study by the Institute's research team. It is part of an ongoing commitment by IBM Global Business Services to provide analysis and viewpoints that help companies realize business value. You may contact the authors or send an e-mail to iibv@us.ibm.com for more information.



Toward transparency and sustainability

Building a new financial order

By Suzanne L. Duncan, Daniel W. Latimore and Shanker Ramamurthy

How will the financial markets industry make money in the future? The current financial crisis has exposed the problems with creating and exploiting "pockets of opacity" across the system. If the industry is to deliver sustainable returns, it will have to embrace change. It will need to begin by working with regulators to build a financial system that is stable while still allowing for healthy innovation. Individual firms will also have to specialize and learn to fulfill their brand promises.

The global financial markets industry has been experiencing significant turbulence over the past 18 months, and executives in the sector are understandably nervous. The current crisis is transforming the competitive landscape, how the industry operates and the way in which its clients behave. Given these changes, many senior executives are wondering how their firms will make profits in the future. This is the question the IBM Institute for Business Value set out to answer in its latest study of the sector.

We conducted a survey of more than 2,700 financial services industry participants to determine four things: Which forces are disrupting the industry? What will clients be willing to pay for? How will the basis for

competition change? And what steps should financial services firms take to prosper over the next three years? In short, where's the money? We supplemented our findings with in-depth interviews with 185 executives and government officials, extensive secondary research and quantitative modeling (see sidebar, Study methodology).

IBM's analysis shows that, for the past 20 years, the financial markets industry has profited by capitalizing on "pockets of opacity" – i.e., creating, buying and selling complex products, often via lightly regulated entities. However, this does not produce sustainable value. Using sophisticated financial instruments and structures can indeed generate

very high returns, but it also results in more extreme risk assumption and mitigation cycles and makes the markets much more volatile. If the industry is to thrive in the future, it will have to adopt a different approach. Specifically, it will have to:

- Join forces with regulators to develop a framework that balances stability with innovation
- Deliver what it promises
- Solve its identity crisis.

Study methodology

The IBM Institute for Business Value surveyed 2,754 industry participants, including 1,076 individual investors and 1,678 executives and government officials, to determine how financial markets firms should prepare for the future. The survey, which was undertaken with support from the Chartered Financial Analyst (CFA) Institute and Economist Intelligence Unit (EIU), was conducted between September 1, 2008, and April 1, 2009. It incorporates the views of representatives from a wide range of organizations:

- Buy side (institutional and retail asset management firms, including private banking firms, defined benefit and defined contribution retirement plans, endowments and foundations, hedge funds and sovereign wealth funds)
- Sell side (investment banking and capital markets firms)
- Processors (wholesale and retail banks, custodians, exchanges, alternative trading systems and clearing firms)
- Other (governments, regulatory bodies, academic institutes, think tanks and industry associations).

Thirty-three percent of the respondents are based in the Americas; 35 percent in Europe, the Middle East and Africa; and 32 percent in Asia. Eighty-five percent of those who work for financial markets firms are board-level executives, executive vice presidents or divisional directors. The remainder includes directors, senior vice presidents or vice presidents.

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Historically, this industry has created wealth by capitalizing on complex financial instruments and funds.

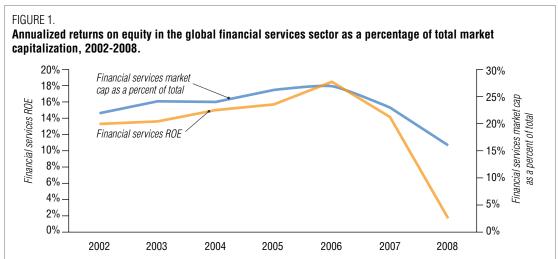
Where did the money come from?

Any attempt to understand how the financial markets industry can make money in the future has to begin with an analysis of how it has done so formerly. Where, in other words, has the money come from in previous years? In fact, much of the wealth the industry has generated during the past decade has come from creating and exploiting "pockets of opacity" and leveraging heavily to magnify the returns.

Two examples illustrate this trend: the proliferation of sophisticated financial instruments such as over-the-counter (OTC) derivatives; and the rise in the value of the assets held outside the traditional banking system. Between December 1998 and December 2007, the total notional amount of outstanding contracts

in the global OTC derivatives market soared from US\$80.3 trillion to US\$595.3 trillion.¹ The shadow banking system also expanded dramatically. In early 2007, the total value of the assets held by investment banks, hedge funds, triparty agents, structured investment vehicles and other such conduits was roughly US\$10.5 trillion – some US\$500 billion more than the assets held by the entire banking system.²

This increase in opacity served the financial markets industry well for some years. In the early part of the decade, it earned annualized returns on equity of 14-18 percent. But, in 2007, its return on equity and market capitalization started falling (see Figure 1). Moreover, the bang – when it came – was much bigger than anything that has occurred since the Wall Street Crash in 1929.



Sources: IBM Institute for Business Value analysis of data from Standard & Poor's; MSCI Barra; Thompson ONE Banker; Yahoo Finance.

Note: Return on Equity (ROE) is for retail and wholesale banking, investment banking and capital markets, asset and wealth management and asset servicing.

Financial sophistication has outstripped the industry's ability to handle it. Both the number of banking crises and their magnitude have been gradually increasing. Between 1973 and 1997, there were 26 such crises, compared with just 15 in 1880-1913, 18 in 1919-1939 and 0 in 1945-1971.3 The crash that precipitated the Great Depression still remains the worst; between 1929 and 1933, the stock market fell 75 percent from its peak.4 But the current crisis has already caused more financial stress than Black Monday; the collapse of the Nikkei; the Scandinavian banking crises in the early 1990s; the breakdown in the European Exchange Rate Mechanism (ERM) in 1992-1993; and the failure of U.S. hedge fund Long Term Capital Management (LTCM) in the late 1990s (see Figure 2).5

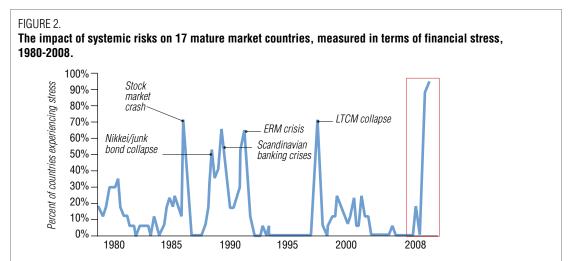
"Have we created an entire generation of disenfranchised investors? We have pronounced confidence destruction that is permanent and will prompt a movement toward physical ownership and away from intangible assets."

- CEO, Middle Eastern sovereign wealth fund

Increasing sophistication takes its toll

Why has the most recent crisis been so painful? In general, recessions associated with banking crises are twice as protracted and twice as intense as those associated with other forms of financial stress. IBM's research suggests that three specific factors have also played a major role in exacerbating the current situation: namely, the use of increasingly sophisticated financial instruments, the globalization of the financial markets industry and the excessive leverage that resulted.

Between 1996 and 2006, the value of the collateralized debt obligations, asset-backed securities and mortgage-backed securities that were issued rose more than sevenfold, from less than US\$500 billion to nearly US\$2.75 trillion, a compound annual growth rate (CAGR) of nearly 16.8 percent. The value of the cross-border mergers and acquisitions the industry completed soared from less than US\$100 billion to US\$900 billion, a CAGR of 22.1 percent, over the same period.



Source: "Financial stress and economic downturns," World Economic Outlook. International Monetary Fund. October 2008.

Note: Financial stress is measured using an IMF-created country-by-country index that includes variables such as interbank spreads and equity and bond market performance.

Rising sophistication has had several unintended consequences including increased systemic risk and more extreme cycles of risk assumption and mitigation.

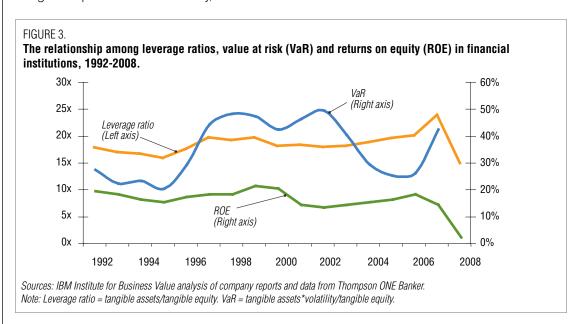
Greater use of financial instruments and globalization improved the efficiency of the banking system by facilitating the movement of capital. For example, rather than keeping all the loans they issued on their own balance sheets, the banks could securitize those loans and sell them on to other institutions, thereby liberating capital for further lending. Total cross-border equity and fixed income flows increased accordingly; over the past two decades, they have risen at a CAGR of 11.3 percent, outstripping the 9.4 percent by which equity and fixed income assets have grown.⁹

"Where is the value? This is what I want to know. This industry is very good at destroying value, but not very good at creating value." - Chief Administrative Officer, large U.S. bank

But these same trends also had several unintended consequences. First, more sophisticated tools for securitizing assets and transferring credit risk, together with rising asset prices and low volatility, enabled the banking sector to borrow more. In 1992, the global average leverage ratio was just under 18:1. By 2007, it had climbed to 24:1 (see Figure 3). However, many of the loans the banks issued were based on collateral values rather than the ability to repay, thereby resulting in an increase in system-wide risk. In 2005, for example, sub-prime and Alt A (lower quality) borrowers accounted for about 40 percent of the mortgages that were originated in the United States.¹⁰

Second, the banks typically retained the worst loans (because these loans were the most difficult and least profitable to sell). That, in turn, increased their exposure to tail risks. But this exposure was very difficult to measure using standard Value at Risk (VaR) models for managing risk, because most such models are based on multivariate Gaussian distribution analysis, which cannot capture the impact of systemic dependence among assets.

In short, the origination and sale of complex products on a worldwide scale generated high fees. but it also created a much more extreme



cycle of risk assumption and risk mitigation. Most financial institutions are now rapidly deleveraging in an effort to reduce their risk exposure; a record 15 percent of hedge funds, the majority of which were highly leveraged, closed last year. Nevertheless, these extreme swings are likely to continue for many years, as the financial markets become more globalized, accentuating the danger that difficulties in one market segment, region or asset class will spread to others. 12

Where will the money come from in the future?

Recent events have clearly demonstrated that the exploitation of "pockets of opacity," using high leverage ratios to enhance the effect, does not generate sustainable returns; indeed, 90 percent of the industry executives IBM interviewed believe that the returns of the past are over. So where will the money come from in the future?

One prerequisite for success is the creation of a stable financial system that allows for healthy innovation. Without such a system, investors and intermediaries will continue to shy away from the markets. But the industry must also become more efficient, learn how to manage – and profit from – risk and acquire a better understanding of what its clients really want, including how they behave and what they are prepared to pay for. Lastly, individual firms must decide where they want to play. Tomorrow's winners are likely to be those that specialize and deliver a first-rate service, rather than trying to do everything themselves.

Working together to create a new financial architecture

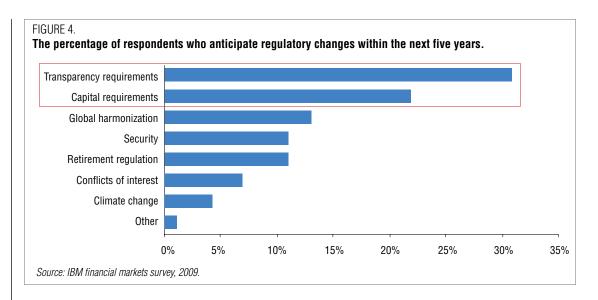
It is essential to build a financial architecture that reflects the increasingly sophisticated environment in which the financial markets industry operates, but that architecture should not be too stifling. Otherwise, the industry will stultify, reducing the returns it generates for its clients, shareholders and governments alike. The industry must therefore work with regulators to create a regime that is sound and yet vital – a regime that can simultaneously manage the tensions between intense supervision and unbridled opportunism, and between stagnation and boom-bust growth, to deliver sustainable returns.

"Today, regulatory oversight and risk management are not efficient, not rational and not consistent. We now have the opportunity to create a rational and more just regulatory environment."

- C-level executive, large clearing organization

Many respondents already recognize the need for more stringent regulation. The two main changes they anticipate are greater transparency and higher capital requirements (see Figure 4). However, one of the biggest difficulties in crafting any new regime is likely to be the conflict between politics and policy. The governments of the developed world have already spent more than US\$1 trillion trying to stabilize the global financial system, so they are in a strong position to lay down new rules. But when political considerations triumph over practical issues, the resulting legislation is often unduly rigid.

In the future, value creation must center on sustainable returns based on a financial system that is both stable and suited for innovation.



"Our biggest concern is that the governments will overshoot as they did with the poisonous regulation of Sarbanes Oxley."

- Global Head of Derivatives, large U.S. bank

IBM's analysis suggests that seven elements will be necessary to create a robust financial architecture that fosters healthy innovation:

- A shared frame of reference among the market participants to build a common understanding of what is important
- Recognition that global collaboration is essential for the "whole" to become stronger
- A rational regulatory regime that balances the principles of the "efficient market hypothesis" with those of the "financial instability hypothesis" 14
- Incentives that balance "returns to society" with "returns to shareholders"

- 5. Leaders who have the will the commitment to the interests of their clients and fellow citizens, and a sense of shared stewardship to move beyond today's "herd mentality" and chart a different course
- Transparency, systemic intelligence and proactive management at every level to improve risk management, decision making and the ability to respond in an agile fashion
- Flexible mechanisms that facilitate innovation, as well as the orderly and transparent processing of distressed assets, the unwinding of government ownership, crisis resolution, consumer protection and insurance.

It is much too early to predict exactly what this financial architecture will look like.

Nevertheless, it is possible to speculate about at least three features. The shadow banking system is likely to become much smaller, so that it will not jeopardize the entire system. Some of the largest institutions may be required to downsize or dispose of business lines, so that they are "systemically expendable." And new risk management models will prevail.

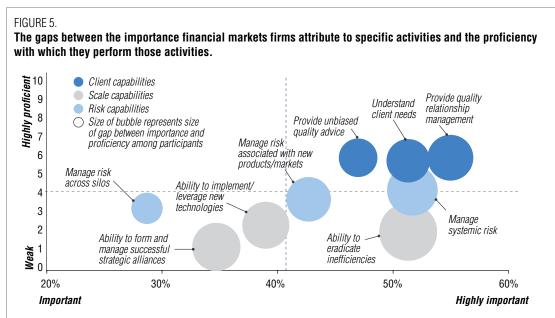
Delivering on brand promises

If the financial markets industry is to prosper again, it must also fulfill the promises it makes. Most financial markets firms have brands that implicitly promise to provide agility and stability, and to focus on the interests of their clients. In practice, however, the opposite is often true.

Many of the industry executives IBM surveyed place great weight on various activities that underlie their ability to honor such promises. Yet very few believe that their firms are proficient at performing these activities (see Figure 5). Only 12 percent think that their firms are effective at capitalizing on new technologies, for example, even though 39 percent believe that this is a key attribute. There is an even bigger gap (29 percent) between those who think their firms are effective at

forming successful strategic alliances and those who think that the ability to do so is important. Similarly, only 21 percent of respondents believe that their firms are proficient at managing systemic risk, and only 18 percent that their firms are proficient at managing the risks associated with new products or markets, even though 52 percent and 43 percent, respectively, place a high premium on such skills.

The gulf is equally marked when it comes to understanding the needs of clients (23 percent), providing unbiased, high-quality advice (18 percent) and managing client relationships effectively (26 percent). Indeed, a full 80 percent of respondents report that their firms are either weak or only moderately proficient at performing every one of the activities covered in Figure 5.



Sources: IBM financial markets survey, 2009; and IBM Institute for Business Value analysis.

Note: Industry executives were asked to rate the importance of specific activities, and the level of proficiency their firms displayed in performing those activities, on a scale of 1 (weak) to 10 (best-in-class).

Financial markets firms must develop a much more accurate understanding of the needs of their clients in order to fulfill their brand promises. A significant percentage of financial markets firms are thus neither particularly agile nor particularly good at managing risk, both features that are a prerequisite for providing stable returns. Nor do they really understand what their clients value. In order to redress these deficiencies and deliver what they have promised, such firms will need to become more cost-effective, manage risk more competently and move closer to their clients. Although financial services firms have historically focused on product forms of innovation, firms now have the opportunity to focus innovation efforts on these "basic" operating capabilities. Firms that successfully broaden their innovation focus will be well positioned to maximize returns in the new environment.

They will, for example, have to reduce their unit costs, because the amount of risk they can underwrite relative to the capital they employ will be much lower, thus reducing their returns. Slashing headcount and closing business lines – the levers traditionally employed when the industry wants to save money - will not be enough. IBM's analysis suggests that most firms will have to cut their costs by another 20 percent, over and above the economies they realize from redundancies and divestitures. Moreover, many of the financial institutions that went through the recession at the start of the decade have already implemented the most obvious cost-cutting measures. So they will have to focus on realizing economies of scale, integrating their IT more closely with their business strategies and shedding a higher proportion of their non-core activities.

Many respondents have already recognized that such changes will be necessary. More than one-third of those who were surveyed think that their firms will need to adopt a

more flexible architecture, optimize their resources and encourage greater sharing of knowledge, for example. Similarly, 60 percent of the industry executives whom IBM interviewed favor outsourcing non-core activities, compared with just 30 percent of those interviewed in previous years. ¹⁶

"With firms investing in and using a diverse range of assets from across the world, the right infrastructure will be critical to serve our increasingly global set of clients and to make a profit."

- CEO, large Asian bank

Most firms will also have to rebalance their portfolios to accommodate the increasingly sophisticated environment in which they are operating. In other words, they will have to continuously assess their risks and returns across each line of business and adjust their business mix accordingly. Moreover, they will have to place as much emphasis on balancing the risks as they do on balancing the returns, rather than concentrating primarily on returns, as the industry has historically done.

In addition to managing risk more effectively, they will have to become much better at pricing risk. It is possible to profit from risk when that risk is properly measured, priced and managed. But, at present, most firms take a simplistic "coarse grain" approach to pricing; they use product-based pricing models and collateral valuations to set their charges. In the future, they will have to develop much more complex pricing models with many more data points and use micro-segmentation to set "fine"

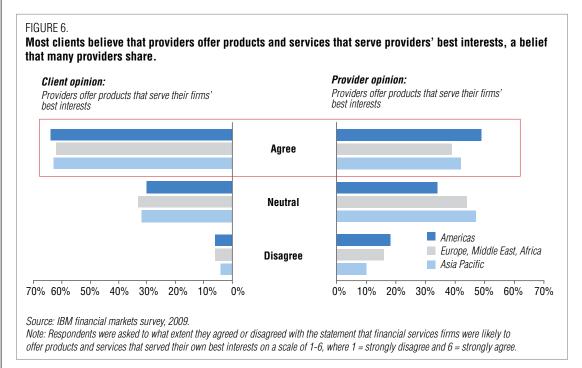
grain" prices that take account of different interest rates, fee structures, client segment risks and abilities to pay.

Above all, the financial markets industry will have to become much better at understanding and addressing the needs of its clients. More than 60 percent of the institutional and retail investors and intermediaries IBM surveyed believe that providers offer products that serve their own best interests, rather than those of their clients. What is even more disturbing is that many industry executives agree with them! Some 40 percent of respondents based in Europe, the Middle East, Africa and Asia Pacific think that providers put their own interests first, and the figure rises to 49 percent among executives based in the Americas (see Figure 6). So it is hardly surprising that many investors and intermediaries no longer trust the industry.

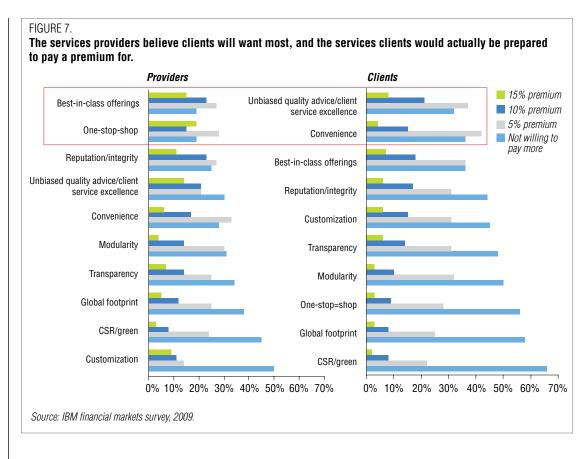
Self-interest is not the only obstacle. Most providers do not even realize what their clients actually want. Asked which financial services they thought would become more important over the next five years, industry executives put best-in-class offerings and one-stop shops at the top of the list. But when investors were asked which services they would be willing to pay a premium for, they ranked unbiased, high-quality advice and excellent service first (see Figure 7). In fact, 79 percent of executives proved completely disconnected from their clients.

"We have lost sight of the client in our own striving for outsized returns. We must get back to basics and focus to a far greater extent on our clients."

- Global Head of Prime Brokerage, large U.S. bank



The ability to segment and uniquely serve specific clusters of clients opens literally a wealth of opportunities for financial markets firms.



The most successful firms of the future will not just be those that focus on providing a first-rate service, as distinct from selling the best products. They will be those that also concentrate on understanding how their clients behave, segmenting them and tailoring the services they offer accordingly. IBM's research shows, for example, that investors who rely heavily on their providers and outsource as much as possible value customization and convenience in particular – and they are prepared to pay a substantial premium for such features. By contrast, investors who want

a provider with minimal conflicts of interest place much greater emphasis on best-in-class offerings and excellent service. But although they are prepared to pay more for these features, they are less willing to do so than other client segments.

The ability to serve specific client clusters represents a major – and largely ignored – opportunity for the industry to make money. It has long excelled at creating innovative products. Imagine what it could achieve, if it used the same sort of discipline to understand its clients and fulfill their needs.

Emerging from the current economic crisis in a stronger position will likely require a business model shift for most firms – and despite the prevailing opinion among providers, the universal banking model may not be the best option.

Creating a new identity

Finding out what their clients really want and delivering what they promise is critical, but many financial markets firms will need to go considerably further. Asked what worried them most, 80 percent of the executives IBM interviewed expressed uncertainty about their business models. This identity crisis has been triggered by the plunge in the industry's market capitalization, which fell by 48 percent between April 2008 and January 2009. However, it has also served as a forcible reminder of two other changes that many executives have resisted acknowledging: the trend toward greater specialization; and the shift in the industry's revenue pools.

"Today, global order has disappeared. Tomorrow, we must understand that we have entered a new era – an era of disruption."

- Global Head of Investment Banking and Capital Markets, large Asian bank

Analysis of the performance of specialist firms and universal banks (i.e., organizations that combine retail, wholesale, asset management and investment banking) shows that the former are faring much better than the latter. On average, the specialists have seen their revenues grow by 30 percent more than the universal banks and enjoy operating margins of 25 percent, compared with the 16 percent universal banks command. ¹⁸

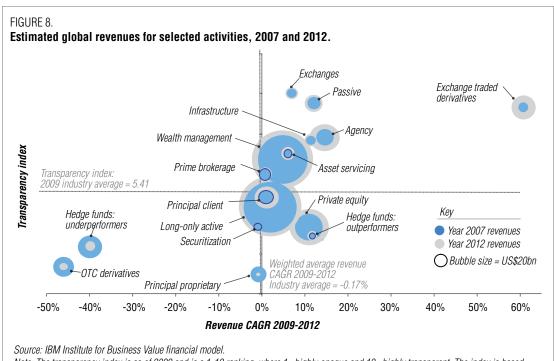
IBM's research also suggests that, in aggregate, the industry's revenues will be largely flat over the next four years, and that most of these revenues will come from providing products or services that help to create

more transparency (see Figure 8). Global revenues from traditional "pockets of opacity," such as hedge funds and OTC derivatives, will fall dramatically, while global revenues from dealing in exchange traded derivatives and cash equities, agency trading, passive asset management and the like will rise. In other words, the emphasis will shift from risk assumption to risk mitigation.

If they are to thrive in this new environment, most firms will have to change their business models. The key question, however, is what sort of models they will require – and, here, the evidence shows that many executives favor a model that is unlikely to help them serve their clients more effectively. Universal banking was the most frequently selected winning business model out of ten business model types. Yet IBM's research shows that independent financial advisers, asset managers and boutique investment banks typically have a better sense of what their clients want and are better able to deliver it. ¹⁹

Moreover, even though a substantial percentage of industry executives favor the universal banking model, the vast majority (89 percent) anticipate that overcapacity will ultimately result in some sort of unbundling. Between 39 percent and 45 percent of respondents (depending on the region in which they are based) think that wealth management and investment banking will be decoupled within the next ten years, for example. Similarly, at least 24 percent think that money management and the provision of advice will be separated, while at least 20 percent expect to see insurance firms and asset managers, and alpha and beta providers, unbundled.

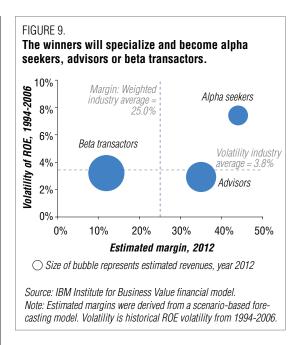
Revenue pools will shift from opacity to transparency and from risk assumption to risk mitigation.



Note: The transparency index is as of 2009 and is a 1-10 ranking, where 1= highly opaque and 10= highly transparent. The index is based on quantitative and qualitative factors for each activity, categorized by extent of 1) complexity of product offered, 2) shareholder and investor communications and 3) operational transparency. Wealth management revenues duplicate underlying asset classes of long-only active asset management, passive asset management, hedge funds and private equity. Infrastructure is sell-side processing and clearing.

In short, tomorrow's winners are most likely to be those firms that specialize, not those that try to do everything, and three specific areas of specialization are likely to emerge (see Figure 9). The majority of financial markets firms will concentrate on becoming "beta transactors" – i.e., utilities that provide the infrastructure required to facilitate capital allocation in the same way that water companies provide the reservoirs, purification processes and

pipes required to deliver clean water. A smaller number of firms will concentrate on providing advice – e.g., wealth management or mergers and acquisitions advice. And a handful of "alpha seekers" – typically private equity firms, hedge funds and boutique investment houses – will focus on generating high returns from high-risk investments.



Conclusion

The days when the financial markets industry could make large sums of money by capitalizing on pockets of opacity and high leverage are over. The lax regulatory regime and monetary policy that encouraged such practices will certainly change, as governments everywhere start tightening the reins. Moreover, greater

transparency will result in the commoditization of much of the market, dictating the need to keep "costs per trade" and "costs per asset managed" as low as possible. Most institutions will thus need to adopt a very different business model from the one they currently use.

The firms that compete most successfully in this new environment will be those that specialize and form partnerships with other organizations to supplement their own areas of expertise. They will be those that listen to their clients and provide offerings that are tailored to the needs of different client segments. To put it another way, the outperformers will be the firms that embrace transparency and follow the sensible money, rather than seeking inflated returns through unsustainable practices.

For more information about this study, visit **ibm.com**/gbs/newfinancialorder or e-mail the IBM Institute for Business Value at *iibv@us.ibm.com*. To view other research reports created by the Institute, please visit our Web site:

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- ¹⁴ The efficient market hypothesis was developed by U.S. economist Eugene Fama in 1965. It asserts that in an "efficient" market - i.e., a market that includes many wellinformed and intelligent investors, and in which critical information is freely available to all the participants – the prices of traded assets will always reflect all the information that is known about those assets. The implications of this argument are profound. In essence, it means that investing in securities in an attempt to outperform the market is a game of chance rather than skill. For further information on the efficient market hypothesis, see Eugene F. Fama. "Random Walks in Stock Market Prices." Financial Analysts Journal. September/October 1965.

The financial instability hypothesis was first formulated by another U.S. economist, Hyman Minsky, in 1974. Minsky argued that financial systems naturally evolve from a state of stability to one of instability over time, as the participants become increasingly optimistic about the future and complacent about risk. These swings between robustness and fragility, and the booms and busts that can accompany them, are inevitable in a free market economy, unless governments control them through regulation, central bank intervention and other such means. For further information on the financial instability hypothesis, see Hyman P. Minsky. Stabilizing an Unstable Economy. New Haven: Yale University Press, 1986.

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- This data is based on interviews conducted by the IBM Institute for Business Value for annual financial markets surveys completed in 2004, 2005 and 2006.
- We have calculated the change in the industry's market capitalization based on the average change in the capitalization of the top 160 financial services firms in 41 mature and emerging countries between April 2008 and February 2009. This information was compiled from a wide range of sources, including company reports, Reuters and *The Economist*.
- Dence (now Duncan), Suzanne L., Wendy Feller and Daniel W. Latimore. "Get global. Get specialized. Or get out: Unexpected lessons in global financial markets." IBM Institute for Business Value. July 2007.
- ¹⁹ We asked investors and intermediaries what features will become more important to them over the next five years; what qualities they would be most willing to pay a premium for; which changes would enable them to become more active and informed in their dealings with providers; and how they think the industry will evolve to help them become more active and informed. We also asked providers the same questions. We combined the responses to create a composite index based on the extent to which different kinds of providers recognized the behavioral patterns and needs of investors and intermediaries and succeeded in generating profits by meeting those needs.



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