Insight

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2011: A Mixed Forecast  
by Neeraj Sahai, Global Head of Securities and Fund Services, Citi  

The Resurgence of Collective Trust Funds  
by Bob Wallace, Head of Securities and Fund Services, North America, Citi  

Growth Trajectory: The Increasing Popularity of the Manager of Managers Investment Model  
by Fred Naddaff, Managing Director, Investor Services, North America, Citi  

Navigating a Changing World  
by Joseph Rezabek, Managing Director, Fund Services, North America, Citi  

The Missing Link: Operations Improvements Enhance Portfolio Performance  
by Chandresh Iyer, Head of Global Custody and Investment Services, Citi and Chito Jovellanos, President & CEO, forward look, inc.
With another year in the books, many of the major questions introduced by the financial crisis have been answered, or at least partially so. While neither the global economy nor the global financial system are thriving, financial markets are again functioning, thanks in part to efforts on the part of central banks across the globe to pump more liquidity into the system.

Successful IPOs by firms such as LPL Financial, General Motors and Petrobras, as well as the recovery of the commercial paper market, are evidence of functioning capital markets. Meanwhile, in spite of lowered return expectations, the MSCI Barra All-Country World Index has plowed ahead almost 10% YTD through the first week of December.

Yet, if the patient is out of the operating room, there are still serious risks of complications from surgery. The U.S. housing market, one of the largest villains of the global crisis, is still unstable, as sales of existing homes declined more than forecast in October, even as pending (but not yet completed) sales rose by 10%, according to the National Association of Realtors. Unemployment rose from 9.6% to 9.8% according to the Bureau of Labor Statistics, with 42% of that total being jobless for 27 weeks or more, which should continue to constrain the growth in consumption that typically accounts for two thirds of overall spending.

Pension markets are far from healthy, with tough decisions to be made across the globe. In the U.S., 48 states face funding shortfalls totaling a record $192 billion, representing 29% of total state budgets, according to research from the Center on Budget and Policy Priorities. In France, as many as 2.7 million people took to the streets to protest the potential raising of the retirement age from 60 to 62, though government officials insist that it will have to happen. Experts predict that without reforms in the not too distant future, even the
esteemed German Bund could be relegated to junk status by year 2038. In Hungary, the retirement predicament takes a different spin, as the government has moved to shore up its budget by seizing pension assets, enacting a devastating 70% penalty for investors who elect to maintain private pensions.

The predicament of pension funding, particularly in the public market, is highly interdependent with economic and fiscal policy. Ironically, pension consulting firm Mercer notes that the Federal Reserve’s second round of quantitative easing could actually inflate pension liabilities as discount rates decline.

**Strong Investment Opportunities**

If the global economy remains on the watch list, this does not necessarily translate into lack of opportunities for investment managers. Some portfolio managers have been vocal about the need for investors to separate economic and stock market performance, arguing that American corporations are very lean, making even modest improvements in top-line growth highly leverageable into bottom-line results. Data from Bloomberg reveals that for the sixth straight quarter, 70% of S&P companies have beaten their consensus earnings estimates. Similarly, Standard & Poor’s notes that S&P 500 companies hold about 10.6% of their market value in cash, increasing the potential of stock buybacks, mergers and acquisitions, or capital expenditure, all of which could foster additional economic growth.

Even if the U.S. economy should prove challenging, many believe that U.S. stocks could benefit from growth in other regions. Standard & Poor’s reported in August that of the large-cap companies in the S&P 500 that disclose the data, 47% of 2009 sales (roughly $2,000bn) came from outside the U.S. This plays well with the almost universal belief that BRIC countries will drive global GDP growth in the near, if not long-term, future.

In a recent interview with online news service Citywire, Jim O’Neil, chairman and economist at Goldman Sachs, who coined the term “BRIC,” stated his belief that these countries should no longer be thought of as “emerging” economies. The fact that many of these economies are healthy from a budgetary perspective is also encouraging, as excessive borrowing on the part of the consumer is a nonissue.

**New Distribution Opportunities, New Challenges**

The same growth in Asia and Latin America, which managers have identified for investment opportunities, offers tremendous distribution potential as well. For example, Mark Fetting, chairman and chief executive of Baltimore-based Legg Mason, told *The Wall Street Journal* in October of his firm’s goal of increasing non-U.S. client assets to 50% in the next few years from 35% today. In Asia, much of the low-hanging fruit has been picked via the UCITS framework, as the European standard has been exported to offshore centers such as Hong Kong and Singapore. In spite of the balance of transparency and functionality offered by UCITS, the next stage of distribution in Asia and Latin America is likely to rely on onshore distribution, using local structures denominated in the local currency.

For Western managers, onshoring comes with a series of challenges. Acquiring a local footprint does not come easily, whether by acquisition, joint venture or building from scratch.
But for Western managers, onshoring comes with a series of challenges. Acquiring a local footprint does not come easily, whether by acquisition, joint venture or building from scratch. In any region, acquirers should pay careful attention to valuation and potential synergies; however, in Asia, standard Western assumptions regarding savings behavior, asset persistency, consumer tastes and product preferences may not apply. Driven perhaps equally by investor tastes and heavy reliance on a commission model, investors tend to chase the “hot dot,” which works fine for the local bank, but less so for the asset manager attempting to increase distribution.

At a more basic level, obtaining the right to conduct business in local markets, such as China, can be difficult. Qualified Foreign Institutional Investor licenses are meted out quite slowly and methodically and joint ventures can be equally complicated. Moreover, some of the best potential distribution partners may have already inked exclusive deals. Experiences will vary across the continent: while one could argue that neither Europe nor Latin America is homogeneous, the differences between China and Japan, or India and Australia, are much more pronounced.

Despite these myriad factors, global distribution is not necessarily a pipe dream. Some of the early entrants from the U.S. and Europe have been disappointed with their results in Asia and Latin America. Part of the solution may lie simply in resetting expectations, and realizing that expanding into growth markets is a long-term play, requiring tremendous upfront due diligence and a long-term commitment from senior management and shareholders.

Clearly, asset managers would be wise to identify a trusted partner to assist in navigating the regulatory framework, operational complexity and investor nuances to achieve their long-term expansionary goals.
Collective trust funds (CTFs) are on a roll. Although they’ve been largely eclipsed by ’40 Act mutual funds in institutional retirement plans over the past several years, CTFs are regaining popularity among sponsors as a lower-cost, less-regulated, still-diversified component of retirement portfolios.

Collective trust funds are not a new investment structure in the U.S. market. In fact, they have been available for decades, to both defined benefit (DB) and defined contribution (DC) plans. In the past, however, CTFs had been perceived as a bank product, and mutual fund companies were, for several decades, the growth leaders in the retirement plan arena. As 401(k) plans began to grow quickly in the 1980s, they found mutual funds a convenient and easy-to-use product, further slowing the development of CTFs.

However, the CTF market has recently begun to reattract a considerable amount of attention from asset managers. Collective trust funds are gaining steam and coming to the fore of defined-contribution retirement plan investing. Some even think that they are now the biggest competitive threat to mutual funds in the DC market — even beating out exchange-traded funds, which face certain operational and record-keeping challenges that CTFs don’t.
Because of their cost advantages over ’40 Act funds (generally lower startup and operating costs), collective trust funds are especially attractive in target date portfolios, a growing category of retirement investment vehicles.

Recent regulatory scrutiny of plan fees and expenses, coupled with investors’ and plan sponsors’ greater awareness of the product, is creating an opportunity for providers of CTFs to scoop up assets. We can, therefore, anticipate continued growth of these products, particularly in the defined contribution space.

“There has definitely been an increase in client interest in collective trust funds. We expect to book more new CTF business in the next few months than in the last two years combined,” said Robert Thomann, President of Invesco National Trust Company. Invesco National Trust Company is an affiliate of asset manager Invesco Ltd. and is one of the largest providers of collective trust funds in the United States with over $40 billion of CTF assets under management.

“We view ourselves as an asset management firm offering investment solutions to clients. As a firm we are neutral on the delivery vehicle. We let the client choose the type of investment delivery vehicle such as a mutual fund, separate account or a commingled fund, whatever meets the client need,” continued Thomann.

CTFs vs. ’40 Act Funds

Although they can share marked similarities in terms of portfolio holdings and investment strategies, CTFs differ distinctly from their mutual fund cousins. First of all, unlike mutual funds, CTFs are exempt from SEC registration as an investment company under Section 3(c)(11) of the Investment Company Act of 1940. Sponsors or trustees of CTFs are banks or nondepository trust companies. In addition, CTFs are institutional-only investment vehicles aimed at the retirement plan market, including defined benefit and defined contribution plans. Examples include 401(k) plans, Taft-Hartley plans, profit sharing and cash balance plans, and governmental 457 plans.

Contributing to the popularity of CTFs have been a number of operational enhancements and increased investor-related convenience. One of the most significant improvements was the development of funds that are valued daily, so they can meet the reporting needs of 401(k) plans. Technological advances also have made portfolio information more accessible to investors, greatly boosting the ease with which plan sponsors can use CTFs.

As a result, investment managers are realizing that CTFs can provide them with access to new markets, lessen their burdens related to increasingly complex regulations and oversight requirements, give them a faster time to market and lower costs to investors.

The provider should leverage the best practices of its mutual fund servicing arm while allowing its clients to take advantage of the cost-effectiveness of CTFs.
Although a fund’s investment objective is a major factor in determining fees, CTFs can also be far less expensive for large plans, because they are free of certain compliance reporting requirements as well as marketing costs. According to industry research firm Cerulli Associates, at year-end 2008 the asset-weighted average fee for a $100 million CTF mandate was 40.8 basis points versus 50.7 basis points for an actively managed mutual fund.

Being exempt from SEC oversight, CTFs are not required to adhere to the compliance and reporting regulations of the ’40 Act. These rules stipulate, among other things, that mutual funds provide prospectuses to potential investors and provide regular written reports on the status of the fund. Because they are not sold directly to retail investors, CTFs are able to issue a much shorter and simpler disclosure statement in lieu of a prospectus. Similarly, CTFs do not need to support toll-free telephone service centers and deal with retail investor inquiries. Nor do they issue proxies, helping to further reduce their cost.

At Citi, we believe that — although CTFs are not subject to ’40 Act regulations and reporting requirements — a service provider should deliver to sponsors of these investment offerings the same disciplined support and control structure as with mutual funds, from product creation through full continual servicing of assets. The provider should be able to leverage the best practices of its mutual fund servicing arm while allowing clients to take advantage of the cost-effectiveness of CTFs. In this way, managers can take advantage of the CTF structure to enter the 401(k) market or become more competitive within that space. Given the strength and movement of the CTF trend, this represents a major business opportunity that allows asset managers to quickly and cost-effectively bring new products to U.S. markets, lower overall operating costs and even reduce the cost of managing separate accounts.

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<th><strong>Collective Trust Fund</strong></th>
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<td><strong>Target Client</strong></td>
<td>ERISA and certain governmental plans (includes 401(k) or other participant-directed plans)</td>
<td>Almost all U.S. institutional and individual investors</td>
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<td>Investment manager of registered investment company in accordance with guidelines established by fund’s prospectus</td>
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<td><strong>Regulatory Considerations</strong></td>
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<td>Subject to SEC regulations under the Investment Company Act of 1940</td>
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<td>Governed by bank regulations (e.g., Office of Comptroller of Currency)</td>
<td>Subchapter M for tax purposes</td>
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<td>Unlimited number of participants</td>
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<td><strong>Costs</strong></td>
<td>Lower overall fees because of no SEC regulatory reporting and processing requirements</td>
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GROWTH TRAJECTORY:
The Increasing Popularity of the Manager of Managers Investment Model

Fred Naddaff
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It’s an unmistakable market reality: Asset managers have recognized they can no longer be all things to all people. They have come to the realization that they cannot always develop every aspect of the ever-broadening range of increasingly complex portfolio products that their clients demand. As a result, more and more are leveraging their internal capabilities in conjunction with external niche-market expertise by implementing a manager of managers (MoM) investment model.
In brief, a manager of managers is an investment advisor who hires other professional investment managers (called sub-advisors) to oversee specific aspects of an investment portfolio. A MoM typically focuses more on the manufacturing and distribution of a product, rather than the actual management of the assets. This role is left to the sub-advisors on an outsourced basis whereby the best managers can be leveraged for their particular area of investment expertise. The MoM dynamic creates a symbiotic relationship between both investment advisor and sub-advisor where distribution and manufacturing strengths are aligned with specific investment strategy expertise.

The rationale underpinning the MoM approach is that diversification and balance among portfolios of sector-focused or complex investments can be achieved more readily and cost-effectively by having a group of specialists, instead of a single manager, executing the fund’s strategy. The MoM assembles a group of investment experts, closely monitors their performance and alters the composition of the team to adapt to market conditions, overall fund performance and the performance of the individual sub-advisors.

At Citi, we believe four factors contribute to the increased attractiveness of the MoM model:

- **The acquisition of expertise and performance** — Faced with the prospect of deciding to build, buy or rent, many asset managers have chosen the rent option, allowing them to fill both product and performance gaps in the most expedited and cost-efficient manner possible.

- **The retirement market** — Given the negative effect the last 24 months have had on the public’s retirement nest egg, people are working longer and saving more. As a result, the retirement market and its sticky assets are viewed as a huge opportunity. The associated demand for asset allocation and target date products, combined with the continued importance of open-architecture distribution, have made the sub-advised model even more attractive.

- **The convergence between traditional and alternative asset managers** — As traditional retail fund managers have opened up to nontraditional strategies, the expertise required to run these strategies is typically not available in-house. Recent examples include 130/30, absolute return and managed payout strategies, which usually require sophisticated hedging capabilities often outsourced via a sub-advised relationship.

- **An increased demand for diversification** — Tactical global asset allocation funds, with their “go anywhere” mandate, have become increasingly popular, as have fund of funds and international funds, particularly those focusing on emerging markets. The jurisdiction expertise required to effectively run these funds is another opportunity that can take advantage of a sub-advised model.

**Responding to a Dynamic Market**

The multimanager structure has become increasingly popular in the asset management marketplace, particularly over the past several years. According to Financial Research Corporation (FRC), sub-advised products comprised $731 billion in ’40 Act mutual funds in 2008 and are projected to reach $1.4 trillion by 2014 — forecasting a 12% CAGR since the market downturn of 2008.
The Role of the Third-Party Service Provider

In the MoM model, the investment advisor’s responsibilities not only include identifying, developing and maintaining distribution partners, but have been broadened in scope to include robust manager selection, asset allocation and risk management. Just as investment advisors look to sub-advisor specialists to complement their investment capabilities, so, too, should they consider a third-party provider to deliver the administration services required in this increasingly complex marketplace.

By selecting the right partner, the MoM will be able to supplement the strength of their offering by leveraging the subject matter expertise and focus that a third-party service provider can offer. A combination of thought leadership, continued technology investments and deep experience delivered by the third-party service provider enables the MoM to remain focused on developing and distributing products.

Given the additional oversight responsibilities and associated risk mitigation concerns, when reviewing a service provider’s credentials, MoMs should select a provider with robust capabilities:

- **High-touch service model** — A MoM client is not one dimensional. Both the investment advisor and the sub-advisor(s) require constant and consistent access to a service team that knows the MoM’s portfolio, how it is constructed and how the MoM and the sub-advisor(s) interact.

- **Manager on-boarding support** — A dedicated team that provides administrative setup services, systems configuration and entitlements, service integration and documentation, as well as ongoing support to optimize operations and pricing.

- **Transition management** — Replacing an investment portfolio’s securities mix with another should be a seamless and transparent process. Service provider alignment with extensive global markets expertise is critical.

- **Portfolio analytics** — The ability to analyze performance at the portfolio, sub-advisor, strategy and security levels in order to provide key measures and metrics to enable a continuous monitoring of sub-advisor benchmarking.

- **Technology as an enabler** — A robust information portal with holistic visualization capabilities should provide both the investment advisor and the sub-advisor access to all relevant information delivered in real time with multiple perspectives and formats.

- **Transparency** — A compliance-based culture is essential in providing the investment manager with additional levels of safety and soundness surrounding all trading and reporting activities. The service provider needs to understand the ever-changing regulatory landscape in order to better understand the challenges and opportunities faced by the MoM.

- **Integrated service suite** — In order to maximize the total experience, all services should be fully integrated into the core offerings of fund accounting, fund administration, transfer agency, custody, securities lending, middle office and regulatory administration.

Prospects for Continued Growth

At Citi, we are optimistic about the prospects for the future growth of the MoM investment structure. In our analysis of the marketplace, we believe the following trends support the continued popularity of a multimanager product:

- With 2010’s 12-month total returns on equity funds looking good, the lure of the equity market’s upside should have investors putting their allocations back in place. As a result, investors will start moving out of money markets and other fixed income assets. However, to avoid concentration risk, they are seeking to diversify and are looking at more complex equity products, such as those encompassing international markets, hedging strategies and more esoteric securities — investment expertise that is not readily available in most asset management shops.
• Continued growth in the retirement space in general, with greater application of asset allocation products. The retirement space is expected to grow $5 trillion by 2014 (see Cerulli Associates graph), with target date funds being the vehicle of choice, a product uniquely situated to take advantage of the MoM model.

• As more managers target DC plans and RIA assets, product-neutral, open architecture platforms offering best-in-breed products will continue to become more important. The MoM model is particularly well positioned to take advantage of this space, as the use of unaffiliated asset managers in a plug-and-play model allows for efficient adding and replacing of the required investment strategy expertise.

In summary, to succeed in these new market conditions, we believe that fund managers will continue to adopt a MoM investment model — leveraging their in-house capabilities with the external niche expertise of sub-advisors and third-party service providers — for the bottom-line benefits of their firms and their clients.
Navigating a Changing World

Joseph Rezabek
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As the investment management industry continues to struggle through the most challenging economic conditions since the Great Depression, investment managers are increasingly recognizing the advantages – financial, technological, operational – of outsourcing front-, middle- and back-office administrative responsibilities to an independent service provider.

Outsourcing operations functions addresses many concerns that, in the current difficult financial environment, have acquired extensively greater visibility and urgency. Now, more than ever, by intelligently assigning administrative services to a third party, asset managers can realize substantial benefits.

Turning Fixed Costs to Variable

Investment managers, typically paid on a percentage of AUM, are facing infrastructure and operations expenditures that represent a year-over-year expense-to-revenue ratio that is up 40% – 60+% as asset values have decreased while fixed costs associated with servicing clients (e.g., operations support; regulatory and compliance documentation; reconciliation and account servicing trade management; and settlement, technology management and infrastructure, etc.) have largely remained the same, or even increased, in turbulent times. By outsourcing administrative functions to a third-party provider, which is compensated based on volume metrics such as AUM, accounts or transactions, investment managers can turn fixed costs into variable to better match both revenue growth and decline. The operating costs metric of running a platform in-house should also consider comprehensive organization costs, including the time senior management is spending on administration/operations, the time downstream staff are spending on outmoded technology, the internal efforts devoted to dealing with software problems, the number and extent of administrative
errors to be accounted for and the actual, consequential and reputational risks associated with an operation and technology platform. When all these hard and soft costs are added up, outsourcing is not only price-competitive, but perhaps even more importantly, it enhances the control environment for an investment manager by centralizing the responsibilities with the outsourcer, formalizing all procedures and service levels and positioning management oversight with the investment manager.

Transferring Technology/Infrastructure Spend
Through outsourcing, investment managers can reduce the costs required for maintaining a technology infrastructure with assured modernization. A third-party service provider’s goal is to offer a competitive and modern platform to maximize revenue opportunities. For the investment manager not using an outsourcer, current and future capital investments are not embedded in its costs and are an additional financial burden that must compete for limited firm resources.

Traditionally, investment managers have tended to establish a minimal technology environment that is ancillary to their core competencies, whereas the primary business of a third-party provider is to service investment management firms. A service provider has the requisite state-of-the industry infrastructure (e.g., data centers, double redundant disaster-recovery capabilities, data protection facilities, etc.), all of which are regularly, frequently and fully tested and upgraded. Additionally, through an outsourcer, investment managers can benefit from platform upgrades, best-practice enhancements and custom development initiated by other clients of the outsourcer, which can reduce or eliminate costs of development.

Today and going forward, investment managers are showing little interest in spending millions of dollars and taking multiple years to implement new technologies. Outsourcing presents investment managers with an opportunity to transfer the current and future technology expenditures to a service provider that already has the capabilities in place and the future development scheduled.

Mitigating Risk
When operations are conducted in-house, investment managers are liable for errors. With an outsourcer, liability/financial responsibility is significantly mitigated through mechanisms including defined error policies and service-level agreements. However, it is important to note that although some of the daily operational risks get transferred to the service provider, the success of outsourcing any function is dependent on the proper level of oversight. Investment managers must realize that different outsourcers have different levels of industry knowledge necessary to support the vagaries and tendencies of their specific business. When evaluating an outsourcer, technology and process infrastructure play a supporting role to the staff of subject-matter experts who become an extension of the investment manager’s employees. Some outsourcers use staff from an internal business and extend that to outside clients, while others hire from the industry they service to support a best-practices model.

The investment managers who realize the greatest benefits from outsourcing understand the delicate balance between oversight and overkill. They equally understand that “outsourcing” does not mean “out of mind.” They still need a strong oversight and governance model in which rigorous controls and an effective reporting structure are in place to manage the vendor. At the same time, they realize that outsourcing is not a panacea for either perfection or total customization. In the best implementations of outsourcing, the client realizes that this event is an opportunity to rebuild their processes and deploy the best practices to maximize efficiency and reduce cost. Outsourcing can also mean replatforming technology. Successful outsourcing embraces the new functionality rather than requiring the new platform to meet existing processes and reporting.

Providing Marketplace Intelligence
Outsourcing offers another key advantage to investment managers. As technology, investment products and service-provider administration capabilities have evolved, investment managers are seeing the benefits of a service provider’s best-practice business model; they’re getting to perceive what works in what situations and what doesn’t. As long
as the communication and operations systems are strong within their organizations, the service providers can leverage these lessons learned across multiple investment managers to improve their service and operating models. Investment managers, compelled by the current economic pressures, are starting to appreciate that experience.

**Focusing on Core Competencies**

When senior managers of investment firms are forced to focus on operational issues, they are diverted from concentrating on their core competencies. Outsourcing enables them to allocate their professional, financial and operations resources to concentrate on what they do best: manage portfolios, develop business and deliver superior client service. Now, more than ever, a proper outsourcing relationship can address not only the needs of the investment manager to manage costs and infrastructure while reducing risk, but successfully help meet the demands of an increasingly competitive marketplace.

**A Practical Example – Financial Reporting: Better Products Delivered Sooner**

With mutual fund portfolios now consisting of such multifaceted securities as derivatives, OTCs, alpha funds and structured investments, these popular asset pools have evolved into more complex and challenging products from a valuation perspective. At the same time, fund boards and audit committees – because of their increased oversight responsibility – are seeking greater levels of transparency as they become more actively involved in the financial reporting process. As a result, financial reports need to be completed faster, more efficiently and with higher levels of quality control than ever before.

The administrative function of compiling a fund’s financial reports, therefore, has also increased in complexity. More sophisticated resources are necessary to accomplish the feat within the 60-day window, as mandated by the SEC in 2002. Today, expectations are rising, products are evolving, transparency is in strong demand and the only constant is the 60-day reporting requirement.

“‘Follow-the-sun’ processing of financial reporting dramatically streamlines operations while reducing production risks and costs. This nonstop, around-the-clock and across-the-globe model saves time, permits the introduction of enhanced quality controls and, for the benefit of asset managers, produces better products delivered sooner.”
Following the Sun

“Follow-the-sun” processing of financial reporting dramatically streamlines operations while reducing production risks and costs. This nonstop, around-the-clock and across-the-globe model saves time, permits the introduction of enhanced quality controls and, for the benefit of asset managers, produces better products delivered sooner. In brief, this innovative process allows an extra layer of control. With audits and compliance rules becoming more stringent, this additional level of oversight is essential.

The “follow-the-sun” operating model is also what we call the “six-eye” principle because it brings an additional set of eyes to the traditional four-eyed process. Typically, in financial reporting, the functional areas of data preparation and review are performed in a single operating environment. Here, the two functional sets of eyes include preparation by a financial analyst followed by a level of managerial review. Thus, we have one group with two sets of eyes that account for the traditional four-eyed process.

At Citi, we’ve created a centralized operation in the U.S. with an independent management infrastructure, controls and with multilevels of oversight. We’ve then replicated this operating structure in our regional facility in Asia, which has its own independent and distinct managerial controls and oversight. These two groups work in tandem, following the sun, to take advantage of the time arbitrage to manufacture the financials. Through this iterative process, the reports evolve to a high level of completion prior to moving upstream to yet a third independent financial infrastructure – bringing the total to “six eyes.” This third and final review is performed by seasoned fund administrators who ultimately provide a “treasurer level” of review.

The “six-eye” principle represents a review not by three people, but rather by three separate and distinct operating units – each with independent infrastructures to compile, process and control financial data. As a result, asset managers are benefiting from a measurably higher standard of care in terms of oversight, transparency and review.

The Reign of Transparency

A better-product-delivered-sooner mandate is becoming increasingly more important because of the marketplace-wide expectation for heightened transparency. Here, the “follow-the-sun” operating model is essential not only because of the added control and oversight of the “six-eye” principle but also because of the time savings it offers in a regulated environment within a predefined reporting window.

Historically, initial drafts produced earlier in the process were often of less value and, in fact, a source of frustration for board members and audit committees seeking to glean information during this stage. Because these drafts would often undergo an additional series of edits, the preview exercise proved to be unproductive. The board and audit committees would, therefore, be forced to wait until reports were closer to completion – often up against, or in retrospect of, the close of the 60-day window – to perform their independent assessment.

Today, asset managers, fund boards and audit committees must be more actively involved in the review of financials much earlier in the reporting process in order to become more comfortable and knowledgeable in their oversight and decision-making roles. With Citi’s “follow-the-sun” financial reporting model, a clean (and near-complete) set of reports can be available midway through the process.
The board and audit committee can review a more accurate financial document upon which to base informed decisions. In this way, final reports (including audit sign-off) are typically completed by day 45.

**Going Forward**

Across the mutual fund industry, a major topic of discussion is the establishment and codification of a global set of protocols to standardize the financial reporting process. Right now, reporting standards for financials in different countries – for the same fund – are broadly different.

In response, over 100 countries have implemented the International Financial Reporting Standards (IFRS) to bring harmonization to accounting and reporting practices around the globe. In North America, IFRS has yet to be adopted; however, the convergence is imminent. For the asset management marketplace, the standardization of reporting rules means a markedly improved level of efficiency, especially for multinational players and those with cross-border aspirations. In this unified environment, in which standards conform, the “follow-the-sun” concept for financial reporting will prove to be an even more advantageous operating model for the benefit of asset managers around the world.

“Boards and audit committees – because of their increased oversight responsibility – are seeking greater levels of transparency as they become more actively involved in the financial reporting process.”
The Missing Link: Operations Improvements Enhance Portfolio Performance

Chandresh Iyer  
Head of Global Custody and Investment Services, Citi

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President & CEO, forward look, inc.

The coming decade will be a difficult one for institutional asset management. A vastly more crowded market for investment and trading ideas, more constraints on leverage, demands for greater transparency, changing compliance rules and more risk-averse investors will ensure that the heady days of relatively easy alpha and benchmark-beating strategies will be much harder to sustain.

Will this be the “new normal”? The emerging consensus is best expressed by Blackstone Group cofounder Pete Peterson (in a December 2009 McKinsey interview), who sees “the center of gravity of the business shifting from financial engineering to operational improvements.”

Citi Investor Services has been at the nexus of investment operations for several decades. In our ongoing dialogues with investment managers, firms have consistently expressed the need to better understand how operational efficiency contributes directly to portfolio performance. Although they have seen how outsourcing has reduced costs and engendered workflow effectiveness at their firms, the direct link between operations quality and portfolio performance has so far been elusive.

This definitive analysis demonstrates how improved investment operations contribute anywhere from 50 to 250 basis points (bps) in realized portfolio performance. Moreover, we show the relative contributions of each of a number of components of investment operations to overall performance alpha, and discuss how investment managers can best improve their operational capabilities in support of alpha enhancement, regardless of the company’s operating model – be they traditional ‘40 Act complexes, retail SMA managers, institutional managers or alternative investment firms. We conclude with insights drawn from Citi’s deep experience in the delivery of Business Processing Outsourcing (BPO) services to investment managers.
A 360° View of Operational Quality


Investment operations, is however, a vastly broader arena. “Operations” spans the gamut from order management, settlement, reconciliation, accounts servicing, securities lending and compliance to trade execution, custodian and prime broker communications and fund accounting. These different yet complementary elements make up the complex web that defines the totality of an investment operation. Intuitively, the quality of all these facets of an operation at an investment manager’s firm must support and enable the desired outcome — namely portfolio outperformance of its benchmark.

Rigorous Research – Real-World Results

Alpha stems from a manager’s skill, which is expressed through a target portfolio representing their view of assets that will outperform a benchmark. This ideal portfolio, however, needs to be translated into reality, and reality is fraught with implementation issues, such as:

• Incorrect identifier for a security (e.g., an OSI Option symbol)
• Movement of execution price away from the model’s parameters
• Exiting from a position in time
• Failure of the Fund Accountant to provide timely instructions to custodians to move investment proceeds into a margin account to enable today’s short sales
• Step-out settlement fail causing a position break preventing trading at a critical market opportunity
• Incorrect Corporate Action captured resulting in a large trade error

In seeking to answer the question of how much operational efficiency can contribute to realized investment performance, forward look, inc. revisited data from its client engagements spanning Q4 1999 to Q2 2006. As with most client projects, the mandates were expressed in tactical terms (e.g., “we want to streamline our emerging markets operation”), but surprisingly yielded strategic benefit in terms of improvement to the underlying portfolio’s performance.

Projects were selected in which only one very specific process was modified (e.g., voluntary corporate actions management) or only one highly focused technology was implemented or retooled (e.g., a reconciliation system). Just as important, all other elements surrounding these investment manager operations had to have remained constant. This approach provided a form of a posteriori control where only the effects from one imputed variable were examined. The data screen resulted in 52 samples (from a population of 138 investment portfolios across 19 asset managers) where all known factors (e.g., style, exposure, concentration, manager(s)) were constant throughout the observation period, except the one operational change that was introduced by the project. Performance attribution data was provided by the investment manager clients (consisting of both holdings- and transactions-based techniques reported at weekly or monthly intervals).

The firms in the study ranged from $5 billion – $100+ billion in AUM, with individual portfolios typically running between $250 million to $1.1 billion of managed money. Asset classes included equities (~65%), fixed income (~15%) and listed derivatives. Geographies covered were global (developed (~80%), emerging), and all sectors were represented, including alternatives. Strategies spanned long-only, long/short and equitization. The minimum sampling period was three contiguous calendar months, with the bulk of the data collection spanning a six- to nine-month window.
Empirical Evidence: 50- to 250-BP Improvement

The investment managers experienced a 50- to 250-basis-point improvement in risk-adjusted performance (annualized, gross of fees) for the underlying portfolios that were affected by the investment manager’s operations initiatives. Effects were visible generally within six to nine months of project initiation.

What was the cause of these observed improvements in performance? forward look’s hypothesis was that weak information flows (within a firm and with its counterparties) arise from a firm’s operational inefficiencies, and are the precursors to a broad class of implementation shortfalls. Subsequent factor analysis indicated that these shortfalls in the portfolio implementation framework stem from “Information Latency,” i.e., the inability of people and systems to deliver and act on data in a timely manner.

When portfolio managers review their investment operations, they routinely discover inefficiencies that create operational friction, which in turn reduces portfolio returns. Size per se is not necessarily the primary drag on performance. Other contributors include inefficient or ill-defined processes, disparities in data and generally poor data quality, mispricing, latency, reconciliation lags, the wide diversity of asset classes managed, disconnected geographies — in a word: complexity.

“Book-of-Record” Framework

Working with the leading asset managers globally, Citi Investor Services has developed a proprietary method that delivers investment operations performance improvements to buy-side firms. This method is based on precise information delivery to the right book of record and the respective interconnected activities throughout the entire trade life cycle.

Citi’s ongoing success is built on being a leading service provider with best-in-class platforms and “best practices.” Blending our experience with forward look’s research highlights a number of operational areas that could readily deliver increased performance opportunities:

Figure 1 provides an overview of the 52 sample portfolios and the measurable improvements in performance after the implementation of a given operational initiative. The cluster center indicates an “average” 119-basis-point improvement within seven months of a project’s initiation. Note that these returns were tracked across extremes of market cycles — both bear (2000 - 2002) and bull (1999 - 2000; 2003 - 2006), and performance improvements were measured relative to the portfolio’s benchmark (not absolute return).
Reconciliation and Portfolio Accounting

Portfolio managers who don’t keep their own portfolio accounting records (or shadow record keeping) are missing opportunities to reduce operational friction. Using custodial, plan sponsor or fund accounting data is often highly labor intensive and fraught with opportunities for error. Without their own record keeping, managers lose visibility into the daily activity of their investor clients. Portfolio accounting enables managers to anticipate their clients’ and custodians’ actions, thereby taking alpha-enhancing opportunities as they arise.

At Citi, our view is that the tightly integrated trade capture, portfolio accounting and reconciliation processes support performance by ensuring all cash flows, trades and corporate actions are properly reported and investable cash balances are available to the investment management process. Portfolio accounting enables managers to track their own activities in real time and manage their intraday investment activities based on accurate data, which reflects all the current trading activities, deposits and withdrawals. The shadow accounting is key to operationally derived returns because managers then get their own view of cash, and positions are not beholden to the limited capabilities of sponsors regarding corporate actions, for instance.

Restriction Management and Portfolio Compliance

Effective restriction management requires the automated application of complex rules from multiple sources, among them investors, custodians, brokers and managers. In addition, restrictions management requires the consolidation of disparate supporting data and industry conventions relating to assets, counterparties, industries and geographies. Overlaying investment manager concerns are compliance provisos around risk budgets and regulatory requirements.

Currently, most managers have a hodge-podge of manual oversight coupled with some unintegrated pretrade and some post-trade engines.

At Citi, effective compliance monitoring and restrictions management centers on total automated best-in-class, pre- and post-trade restriction applications integrated into accurate books and records controlled by the manager. This is coupled with integrated, leading market data sources for securities classification. This automated capability helps portfolio managers avoid inappropriate trades for an account which then need to be unwound. Our capabilities help avoid the costs of having held the wrong position or, perhaps worse, not being in the right position to optimize exposure to favorable market factors.

Collateral Management

Collateral management has become an indispensable part of the financial world’s answer to the practical mitigation of credit risk. It has increasingly replaced the monolithic default risk of the counterparty with the more complex, yet more diversified and more readily managed combination...
of counterparty default risk, collateral issuer default risk and legal and operational risks. At the same time, collateral management programs are increasingly affecting more trading products (e.g., OTC derivatives) and workflows (e.g., securities lending).

Collateralization creates its own set of legal, market and operational risks that must be managed in order for it to successfully mitigate counterparty credit risk. These include the structure of collateral agreements made between counterparties, exposure monitoring control, the changing market value of collateral, the settlement of collateral transactions, and concentration and correlation risks within a collateral portfolio.

Although trading strategies have become more sophisticated, the infrastructure to manage operational risk in the back office has not kept pace. Many of the operations linked to collateral management are still conducted on a manual basis and, therefore, result in increased risks.

At Citi, we have developed Open CollateralSM, a value-added service that delivers both operational solutions to help mitigate risk and improve return on assets.

Reference Data Management

The optimum reference data management system aggregates, reconciles and monitors the agreed aspects of a portfolio manager’s reference data at an individual data field level. The overriding objective is to ensure that the systems are producing the right data so that the manager is working with good information when making investment decisions. At the same time, a complementary goal is to make certain that, further downstream, trading and settlement counterparties have the proper details to effect timely clearance and settlement.

Unfortunately, most reference data systems are incomplete and rely on a single source of data from one vendor or one custodian. Incomplete data often results in numerous problems such as:

- processing holds for missing or stale pricing files
- unresolved reconciliation breaks from conflicting prices or security identifiers
- trading errors from incorrect or delayed application of corporate actions

At Citi, the Global Securities Master scrubs and ranks multiple sources of security issuer and industry data to create complete information prioritized for a manager’s needs. This virtually eliminates delays and errors in procuring accurate security pricing and identification information. This, coupled with Citi’s golden source of Corporate Action information and automated processes around the maintenance of this capability, helps portfolio managers minimize reference data-driven errors and delays to timely trading of portfolios.

A more detailed breakout of the observed performance upside within the categories in Figure 2 follows:

<table>
<thead>
<tr>
<th>FACTOR CATEGORIES</th>
<th>OUTCOMES</th>
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</thead>
<tbody>
<tr>
<td>Analytics</td>
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<tr>
<td>market data quality</td>
<td>51 - 242</td>
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<tr>
<td>economic</td>
<td>macro data quality</td>
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<tr>
<td>reference data quality: securities</td>
<td>counterparties</td>
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<tr>
<td>risk modeling framework</td>
<td>55 - 94</td>
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<tr>
<td>portfolio</td>
<td>trade list optimization</td>
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<tr>
<td>Compliance</td>
<td></td>
</tr>
<tr>
<td>client guideline quality</td>
<td>92 - 119</td>
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<tr>
<td>pretrade restriction checks</td>
<td>83 - 211</td>
</tr>
<tr>
<td>post-trade restriction checks</td>
<td>100 - 202</td>
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</table>

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<thead>
<tr>
<th>FACTOR CATEGORIES</th>
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</tr>
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<tbody>
<tr>
<td>Trading</td>
<td></td>
</tr>
<tr>
<td>securities located; for shorting</td>
<td>76 - 189</td>
</tr>
<tr>
<td>trade execution</td>
<td>85 - 173</td>
</tr>
<tr>
<td>Settlement</td>
<td></td>
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<tr>
<td>automated reconciliation</td>
<td>52 - 106</td>
</tr>
<tr>
<td>automated FX</td>
<td>50 - 58</td>
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</tbody>
</table>
Trade Order Management, Execution and Settlement

There is general agreement that electronic trading improves execution timeliness and provides data to support Best Execution analysis. What is less well understood are the processes deployed across a manager’s entire book of business to deliver fully electronic execution and the utilization of execution tools such as algorithmic strategies, automated market making, direct market access engines, dark pools, etc. Operational inefficiencies exist in coordinating and optimizing block trades across retail, institutional, fund and alternatives products that may be trading the same securities on behalf of different investors through different venues.

At Citi, the CitiConnect® trade hub offers a unified trade routing tool with robust rule sets, which allows a manager the flexibility to define Best Execution. CitiConnect allows a manager to combine and deliver trades electronically to any destination in any manner necessary to tap the above-mentioned execution tools and capture the results for Best Execution measurement and other compliance needs. The system automates settlement processing required with step-outs and trade-aways, assuring minimal trade breaks and limiting the negative impact of opportunities costs and market slippage on portfolio performance.

What’s Next: Asset Managers and the “New Normal”

What are new things asset managers have to think about in terms of investment operations: better risk management, greater transparency from regulatory or client perspectives, cost of servicing? What does new mean normal in terms of investment operations: more flexibility, automation, risk management, transparency?

Positive Prospects: Top- and Bottom-Line Benefits

The insights correlating improved operations quality with improved portfolio performance clearly resonate with a number of constituencies. For investment managers, they naturally see it as a prescriptive tool to:

• improve strategy and product performance; and
• better capture and retain clients.

More interestingly, institutional investors also envision these techniques as a predictive tool to:

• improve fiduciary oversight (by benchmarking the quality of the manager’s operations);
• identify, engage and retain the better managers (based on both skill plus operational competency); and
• maintain ongoing due diligence (utilizing an unbiased and repeatable technique for evaluating their manager’s operational soundness).

So what options does a manager have to beat their benchmarks? Perhaps looking inward at the quality of their investment operations is a long-overdue alternative. It can potentially yield anywhere from 50 – 250 basis points in risk-adjusted performance. Moreover, looking deeper into operational quality at a firm can help clarify the ROI for remediation choices, and point to the optimal initiatives that will address the broader spectrum of implementation shortfalls.

Through its Securities and Fund Services business, Citi’s industry-focused experts provide investors worldwide with tailored solutions delivered through proven global platforms that feature modular, open architecture. With over $12 trillion of assets under custody and the industry’s largest proprietary network, clients can leverage Citi’s local market expertise and global reach to extract value across the entire investment value chain. forward look, inc. enables investment managers to grow their revenue streams by improving portfolio performance and minimizing implementation shortfalls associated with complex product initiatives. For more information, visit our websites at www.forwardlook.com and www.riskforecast.com.