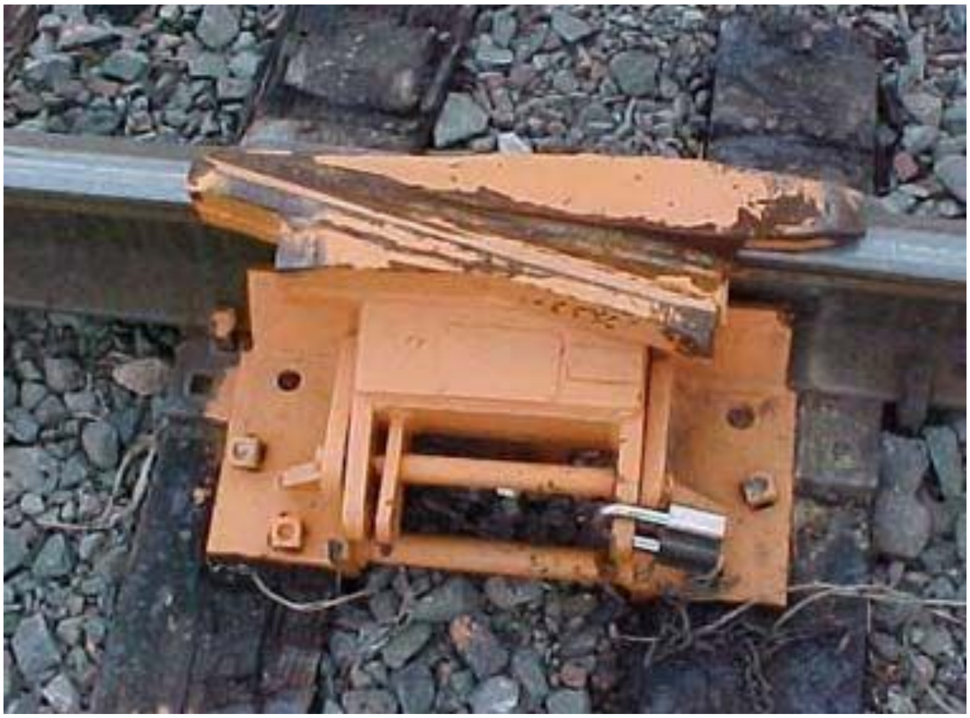
Outsourced
Research

The Case for Outsourcing Real Estate Research

Is it Time for Independent Research Audits?



Do Not Derail Real Estate Research—Improve It!

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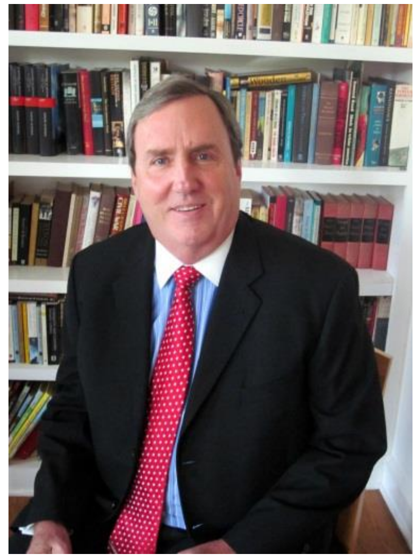
What is Outsourced Research?



I am in the truth business, so I pride myself for my bravura critiques of the received wisdom. I work in a sector that often embraces too many stories and too little science[1]. My goal: To give voice to important ideas that, if understood and properly applied, energize and fortify investors. I build models in search of inflection points that matter.

Outsourced Research is objective, thought-provoking, non-mainstream real estate research. My research focuses on critical issues facing institutional investors, their investment committees and their managers. I speak truth to capital. Managers can read what I am telling their clients. This paper discusses the case for outsourcing real estate research and includes a critique of current real estate research practices and conflicts.

I have thought about real estate research for many years. I was a professor at Princeton University where I taught economics and finance, executive director of real estate research at Goldman Sachs and partner at Pension Consulting Alliance, which advised retirement systems such as CALPERS, CALSTRS, IBM and many others.[2] These instructive positions, among others, have given me ample opportunity to observe the research function from the perspectives of the academician, as well as from the vantage points of the investors and managers. I have raised significant amounts of institutional investor capital, advised some of the world's largest retirement systems and wealthiest families, consummated IPOs, and helped launch what is now a very successful real estate money management firm. The linkage between public and private markets fascinates me; I often wonder why private real estate equity cannot perform better than REITs (after accounting for risk). My having closed $6 billion of transactions informs this perspective. I am eminently pragmatic, with one foot firmly planted in the market and the other in the public square, believing that the perfect is the enemy of the good and inquiry itself is as valuable as the answers it seeks. Great research exists—the stuff of Nobel prizes—but rarely is great research <u>real estate</u> research. I am critical but constructive, deeply analytical, forward looking but embedded in markets.

Outsourcing, large data bases, and artificial intelligence (AI)[3] will likely play critical companion roles in attaining what I call, the **Golden Age of Real Estate Research**. The need is urgent because there is a research gap—the lack of objective research—that pension funds, consultants, and managers must close.

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[1] The essence of the scientific method is commitment to uncompromising objectivity and rigorous rejection of hypothesis that do not survive statistical testing. Most real estate research professionals do not practice the scientific method; in fact, most could not describe the method if asked. The incentives to act like scientists do not exist, or else they are blunted by the firm's acquisitions and capital placement functions, whose priority is closing the deal *du jour*.

[2] I learned a great deal from my Pension Consulting Alliance partners. We all shared a special vision, to which I still subscribe, that pension consulting, done well, can make a difference.

[3] We neither believe that AI is an unalloyed good nor can we subscribe to the AI illusion, which promises almost inexorable benefits from new technology, including intelligent machines, led by talented entrepreneurs and technocratic elites. This is the 21st century version of the long-held conservative belief that market outcomes are

This paper did not spring quantum-like from a vacuum. I want to thank the Advisory Board of **Outsourced Research** for their comments; from them I always learn so much. I take full responsibility for all remaining errors and omissions.

This report constitutes strong advocacy, which seems rare in real estate investing these days. As such, it may alienate some readers. I want to provoke constructive change in the quality and use of real estate research. I like to think of my work as ***sardonic research***: Humorous but critical, urgently needed, at times counterintuitive, but always actionable. This paper is no exception.

Our services. **Outsourced Research** evaluates the research practices of investors, consultants, and managers, and we help them envision great research and adopt the very best research practices that enhance long-term performance. We also provide consulting services that include the following:

- Research audits: How to create and manage great research functions
- Simulation (back testing and forecasting) of new strategies, markets, and products
- Risk analytics and benchmarks; model portfolios; asset allocation with and without liabilities (as well as short fall constraints). Risk-based (Monte Carlo) analysis of complex multi-use, phased development projects
- Topical papers, e.g., the impact of interest rate and inflation shocks on deal performance; what determines cap rates; and underwriting tools that explicitly incorporate risk
- Optimal management performance fees: Which fee structures best promote performance?
- Workshops, tutorials, and presentations to managers and their investors
- Expert witness services

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necessarily moral and ethical, when in fact markets are neither moral nor ethical. There are no free markets; regulations are imposed *de jure* or *de facto*. Markets are big price calculators. AI, tied to social media sites, can produce pernicious results, including undermining democratic institutions and market outcomes. This concerns me very much. However, this concern does not vitiate my belief that AI and large data bases can improve real estate research and that outsourcing can accelerate the benefits. It is important to differentiate traditional statistical analysis, such as multiple regression, from AI. In the case of the former, a theoretical causal model suggests hypotheses that the analysis tests statistically using data. The theory stems from experience, prior research, and creativity. The analyst seeks to explain changes in the dependent variable by estimating coefficients in an econometric model using independent variables. These coefficients define a line (or "n-dimensional plane" for those interested econometricians). Depending on the statistical significance of the coefficient estimates, the analyst may revise the model or use a different data set. By contrast, AI does not start with a causal model. Instead, it tries to draw strong statistical fits or correlations from a large mass of data. A machine-learning algorithm starts by fitting a flexible, non-causal model to a sample data set and then makes predictions that are applied to a larger data set. AI is intertwined with the use of massive amounts of data, most AI entrepreneurs regard AI as highly scalable and transferable, and the goal is the development of completely autonomous, general intelligence, which can do everything humans can do. I wonder whether that is a worthy social goal.

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Executive Summary

I. **Introduction**. The purpose of this paper is to assess the current state of real estate money manager research, propose some changes, and discuss the role of outsourcing in implementing those changes. Money manager research is conflicted because managers themselves are conflicted. I do not believe that real estate managers outsource enough research functions and, when they do, the vision and execution are too limited or flawed. Outsourcing has been a huge benefit for other industries; real estate should be no exception. Our primary focus is money managers, the majority of whose assets under management (AUM) consist of private property.[4]

II. **The current state of real estate research.** Much of real estate research today is distilled conventional wisdom; it is also expensive. Research done well is complicated. However, prevailing methodologies are inadequate and not up to the task; research groups often lack the opportunity and encouragement to ask the right questions and can miss out on difficult, controversial, albeit evidence-based, findings. Sometimes innovative ideas with the highest potential value challenge powerful, internal constituencies. Many firms do not value good research in principle or in practice, and the role of research director is a vestigial position. For example, few research directors serve on investment committees where they would approve or veto deals.

III. **What is outsourcing? Domestic and global perspectives.** A firm outsources when it obtains goods and services from outside the firm and when those goods and services could otherwise be provided internally. Outsourcing is not new; it has grown rapidly since at least 1989. Outsourcing of services now equals and will eclipse the global outsourcing of traded goods.

IV. **What are some examples of outsourcing by real estate firms?** Real estate is not new to outsourcing as it typically outsources components of construction, finance, legal, accounting and payroll, just to name a few functions. Software design and coding are frequently outsourced. We are now seeing more outsourcing of research functions, such as econometric forecasting. Most outsourcing is domestic, but international outsourcing will increase, thus adding a global pool of research talent, perspectives, data and new tools.

V. **What are the economics of money manager research?** Adam Smith, the author of the *Wealth of Nations*[5] in 1776, wrote that the division of labor is limited by the extent of the market. Smith believed that the main cause of prosperity was the increasing division of labor driven by comparative advantage and market growth. Real estate research today is no exception. The

[4] We define "real estate" as including public and private equity as well as public and private debt.
[5] Adam Smith. ***The Wealth of Nations***. (Create Space Independent Publishing Platform), 1776.

greater the scale, the faster is the creation of new specialty jobs. As the real estate sector grows, more opportunities for outsourced research emerge. The largest money managers have scale, but often do not effectively use outsourcing. Outsourced research can be an important supplement to existing research capabilities. The smaller, cost-conscious, emerging firms that have not achieved the same economies of scale as the larger firms need not be left behind. Outsourcing can energize these smaller firms and do so on a tighter budget.

VI. **Public pension funds and consultants: The role of research and outsourcing.** I believe that many public pension systems, small and large, desperately want independent, evidence-based research that informs current decisions and suggests new, fruitful investment strategies, but do they receive it? Do they know great research when they read it? In the absence of truly independent research, how do pension funds generally acquire research? Pension fund consultants are an important source. Why hire pension consultants?

Pension funds rely on pension consultants, and they rely even more if their investment committees are populated with politicians or political appointees. If the investment strategies are opaque—value-add and opportunistic funds—the greater are the number of consultants. The consultants provide a convenient political cover in case of under-performance. Providing independent real estate research is not the primary role of pension consultants. In fact, pension consultants often receive and depend upon research produced by the managers. The investment trinity—pension fund-consultant-manager—is like a gordian knot. It is a complex, eco-system laden with conflicts and long-term, self-sustaining relationships. Change is challenging and it is most needed when it is most inconvenient.

A related issue is performance reporting. I know of many instances in which neither of the three parties acted promptly to adjust values downward in a weak market. This was, and still is, true for unit values in funds as well as illiquid interests in private equity deals. Performance metrics are often inadequate and too easy to manipulate. Appraisal returns lag transactions-based returns during times of declining or strengthening markets. Moreover, the benchmark or hurdle is often too low and inappropriate. For example, the NCREIF unleveraged return index may be relevant as an input to a highly structured deal with promotes, leverage, fees and various nonlinearities, but, after accounting for risk and numerous interdependencies, what emerges, namely the return to the LP and GP investors, may not resemble in volatility or level the benchmark index.

Neither the manager, nor the pension consultant, nor the pension fund has the incentive to disturb this system. The result is that this system generates little of the truly independent, timely and provocative risk analytics that are needed for better appraisals or the sophisticated assessment of prospective complex alternative investments. The system is flawed. Can we improve? I believe we can, but the investors must demand change. Can we cut the Gordian Knot? I believe we can, but the impetus must come from the investors, not the managers or the pension consultants.

Outsourcing can help provide objective research if the outsourced firm is truly independent. Necessary conditions include, but are not necessarily limited to the following: No one client can dominate the roster of clients, and any indexes, appraisals, or risk analytics must conform to industry-approved and monitored standards. However, there is no industry standard for risk-analytics. There is a tradeoff: At one end of the outsourcing scale is a Tower of Babel with no universal standards and cacophony. An industry-approved set of biased standards that fall short of the ideal resides at the opposite end.

VII. **What are the benefits and disadvantages of outsourcing?** Many people believe that the chief benefit of outsourcing is cost reduction. That is not true. McKinsey reported that only 20% of traded goods outsourcing was based on cost arbitrage; services represent an even smaller share. The chief benefits of outsourcing, besides cost savings, include improved productivity, tapping a vast reservoir of global expertise, super-charging innovation, and reducing the number of positions to fill in-house. Disadvantages include outsourcing to less-qualified partners, lack of continuity in communications, quality problems, security or confidentiality concerns, and hidden fees and risks due to poor contracting.

VIII. **Why is most real estate research suboptimal?** Managers focus on building AUM, which can create conflicts within the firm; these conflicts bias research to the detriment of investors, especially when investors need guidance the most. In disrupted, volatile, or confusing markets, manager research too often produces conventional research that lags the market. We observed during 2008, the onset of the GFC, that very few money management firms issued negative reports while actively raising capital. Since real estate is not a frequently traded asset like stocks or bonds, money management firms have tended to rely more on stories and less on science. This approach remains largely unchallenged. I am not opposed to stories—we all use stories to communicate. Instead, I reject investment myths that intentionally mislead investors, leave value on the table and result in investors' bearing hidden or uncompensated risks. For example, most firms practice only deterministic--simple analysis under certainty--and not stochastic analysis—the use of random variables defined by probability distributions. The latter can generate valuable quantitative estimates of downside risk, for example. While there is a place for both methodologies, managers often fail to apply sophisticated analytics to complicated, highly structured deals and portfolios, where risk analysis is needed the most. As a result, they are not able to assess risk and value embedded options as thoroughly as today's complicated market conditions require. Essentially, managers and investor are flying blind.

Another concern is the multi-sectoral characteristics of real estate. Real estate analysis should draw upon the performance statistics and analytic tools of other asset classes and investment traditions. Most real estate research professionals lack the requisite expertise. Unfortunately, many investors do not clamor for this kind of analysis and many managers are not equipped to volunteer and provide it.

What passes for research is too often undifferentiated, commodity-like stories. If that is the best managers have to offer, maybe they should disband their research departments entirely or settle for less talented staff. (Maybe they already have.) It is my experience that most money managers only seek supportive research, which is short-sighted. Many investors sense this inherent conflict, but face their own immediate imperatives that may not include fighting for great, independent research. Investors should demand the best evidence-based, unfiltered, actionable research and hold deficient manager research accountable.

IX. Can outsourcing help fix real estate research? Yes, it can, if it is independent and, even better, if it is commissioned by the investors. Senior management often regards real estate research as a cost center; hence, outsourcing as a cost reduction tool may be attractive, but this is short-sighted. While outsourcing can reduce costs, that is not its chief benefit. Outsourcing can be an independent source of innovation, flexibility, resiliency and specialty skills that are often too expensive to launch in-house. It can also be an effective tool in helping research challenge the received wisdom. Real estate alternatives are exploding in number and complexity. Outsourcing can help research span more investment alternatives at greater technical depth in less time; it can be an innovation machine that drives overall firm value. Outsourced research is more likely objective research.

X. Real estate research: Outsourcing components of thought leadership and innovation. The world cries out for compelling ideas and outsourcing can help firms generate those ideas. Outsourcing can be an independent source of intermediate products, such as MSA performance forecasts or market risk metrics; it can be an important way to augment the power and diversity of thought leadership through networking without divulging trade secrets. An important application is risk analytics and risk management, two highly technical areas that are too often neglected. Outsourcing can help design, launch and even manage risk-related tools. These capabilities help firms compete more effectively, provide intellectual leadership, educate investors, and perform better. Furthermore, these tools should suffuse all functions of the management firm.

XI. Is there a golden age of research, or has it passed us by? Yes, there is a Golden Age of real estate research and it is fast approaching; it has not passed, but we must seize the opportunity. We define the Golden Age as one in which conflicts are better managed; research is more evidence-based and scientific in its methodologies, always truthful, prompt, and fiercely responsive to investor needs. This is not an idyllic fantasy; some progressive firms are already believers.

The real estate director should be the impresario of internal and external research and coordinator of outsourcing. Real estate research should be the innovation factory and drive firm value; it should devise and back test new strategies and financial instruments, create branded analytics, and design model portfolios that investors find compelling. It should be investors' primary educational resource. With the coming of the Golden Age, firms can afford to recruit the best and the brightest research talent which heretofore might have found other asset classes as vocational homes.

All of the firm's transactional functions will ascribe greater value to research. The research core, or centralized research hub, will orchestrate in-house and outsourced research and will manage innovation hubs positioned throughout the firm in close proximity to the transactions team.

Outsourcing and (AI) will both play powerful, coordinated roles. AI will transform real estate research. It can significantly change how the firm prices assets, conducts due diligence, educates investors, mitigates risks, creates new tools for transactions teams and manages research. AI will help research synthesize and curate the growing torrent of information. The influence of AI will likely be centrifugal, distributing powerful research tools and information to the periphery of firms where acquisitions and capital placement occur. It will decentralize research in a cost-effective, performance enhancing way. AI may be initially labor saving, but ultimately it will be labor augmenting as it enhances productivity and frees labor to address projects and capabilities of higher value.

Balancing decentralized and centralized research within the firm empowers transactional groups and enhances the role of research. New, yet to be conceived, research roles will emerge. Not all real estate research groups will adapt well, but some will thrive, assume critical roles that transcend story-telling, augment performance, manage risk better, enhance firm value, and achieve greater industry dominance.

XII. **Research audits.** Pension funds as well as firms, large and small, can benefit from an independent research audit that evaluates all facets of the research function, current and prospective. Why do an audit? Shouldn't a firm's research needs be obvious to the CEO? No, not necessarily! I have worked with many sophisticated firms. CEOs and CIOs, understandably, may lack a substantive understanding of formal research methods, products, approaches and possibilities. Yet they should want to increase the value-add of the research function and realize its potential to enhance profits and relationships. They just do not know how to do it. A thorough research audit can educate and benefit the entire organization.

Who should initiate the audit? Investors should not seek barking cats. In other words, the CEO of the money manager may not be an enthusiastic consumer of independent research audits. However, the pension fund, which writes the big checks, could very well be that research consumer who demands more and insists on a standardized research protocol across its stable of real estate managers.

XIII. **Conclusion.** The real estate research director's responsibilities should focus more on the management of outsourced research services that include novel data bases, econometrics, financial engineering, and new technologies, to name just a few. Outsourcing can help internal research build firm value, manage risks, preserve flexibility, innovate, challenge some of the received wisdom and thereby better educate the investors. The investors should not only demand better research; they should insist on independent, unfiltered research, intended for the investment committee.

The Case for Outsourcing Real Estate Research

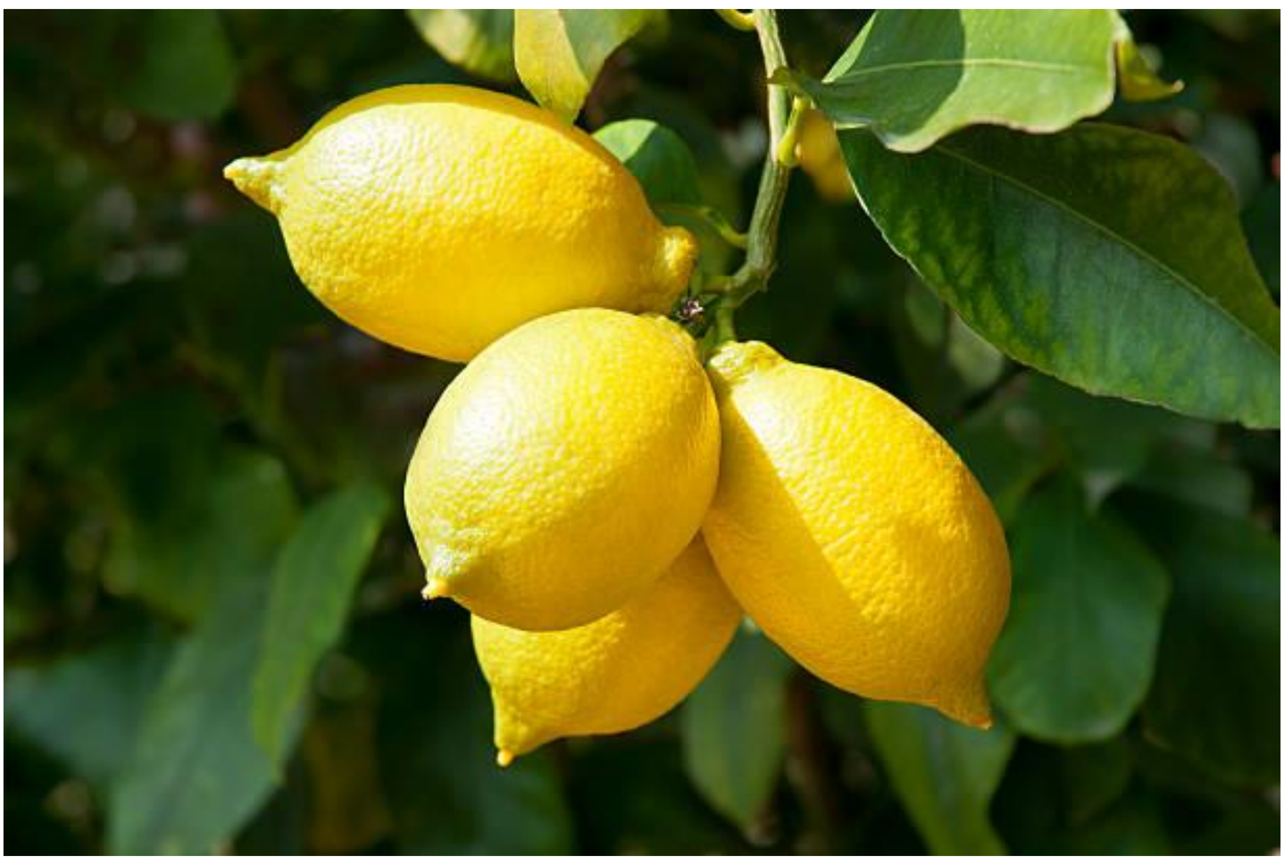
Is it Time for Research Audits?

"Worldly wisdom teaches that it is better for reputation to fail conventionally than to succeed unconventionally"

— John Maynard Keynes, *The General Theory of Employment, Interest, and Money*

I. Preface: Is research a lemon in the used car lot?

Investors and their real estate money do not differentiate real estate research quality very well. The best research can get lost or ignored. Many readers are not sufficiently well informed or technically trained in matters such as economics, finance, or statistics to assess research quality properly. Hence, real estate research suffers from the lemons problem[6].



[6] George A. Akerlof. "The Market for 'Lemons': Quality Uncertainty and the Market Mechanism". **The Quarterly Journal of Economics**. Vol. 84, No. 3 (August 1970), pages 488-500

The lemons problem entails asymmetric information between readers and researchers. A "lemon" is a common term for a car with defects, most of which are hidden from the view of less discerning buyers who would prefer to buy good cars in the used car market. In this market, the seller possesses more information regarding the value of the vehicle than the buyer. Buyers may not be aware of this information imbalance and they may have a hard time assessing the merits and pricing of a given used car. Used car companies mitigate the lemons problem by bundling warranties with used cars, which is a form of signaling.

The existence of asymmetrical information is not only prevalent in the used car market, but in many other markets, such as investment research. Do research consumers differentiate poor research from great research? Often, they do not because they cannot. They may attribute quality based on the perceived reputation or AUM of the author's employer. Like the thickness of an attorney's carpet, investors rely on those signals in clear view, but maybe those signals are wrong. What determines the reputation of good, useful research? AUM? Growth? Performance? How do researchers signal quality? How do we infer quality by firm affiliation? Do larger firms produce better research? How would we know? Larger firms are often successful at raising vast amounts of capital, but does capital placement effectiveness necessarily reflect superior investment performance or produce great research. Does research account for exceptional performance? I have my doubts, but it should!

Before we measure research quality, we should ask, what is the purpose of real estate research? If performance enhancement is the primary goal, then how does research affect investment performance? Is there a tight connection between performance and research quality? What metrics should we use. The research community and the investors have yet to reach a consensus.

II. Introduction

The purpose of this paper is to assess the current state of real estate money manager research, propose some changes, and discuss the role of outsourcing in implementing those changes. I do not believe that firms outsource enough research functions. For many other industries, outsourcing has been a huge benefit; real estate should be no exception.

We define "real estate" to include public and private equity as well as public and private debt, i.e., the so-called quadrants[7]. Our primary focus is the private equity real estate money manager, the majority of whose AUM consists of private, not securitized, property. However, our comments could apply with equal force to the other three quadrants as well. When we use the term, "real estate", we generally have in mind "property" unless we specify otherwise.

We recognize that the managers differ in many ways beyond their property specialization, size, culture, leadership, and performance. The degree to which they understand and embrace real estate research (or not) varies significantly. Therefore, not all comments, especially my criticisms, need apply to all firms, just most firms. With regard to relevance, they and their investors must be the final judges.

[7] An unfortunate industry term of art, an exercise in redundancy, is "the four quadrants", as if there were more than four.

We conclude with a recommendation. Firms should conduct an independent outsourced research audit that evaluates all facets of the research function, current and prospective.

III. The current state of real estate research

Much of real estate research[8] today is distilled conventional wisdom. It is also expensive. Research well done is complicated and nuanced. However, prevailing methodologies are inadequate and not up to the task; research groups often lack the incentives to ask the right questions. Instead, they too often avoid difficult, controversial, evidence-based, findings. Sometimes innovative ideas with the highest long term potential value challenge powerful, internal constituencies. Research directors often lack the power or the inclination to push back. For example, they do not always serve on investment committees where they can approve or veto deals.

Still, real estate research has evolved. Large data bases, the commercialization of econometric and other statistical methods, lease-by-lease analysis, portfolio construction and management tools, and new approaches to risk[9] analysis, to name just a few, have transformed real estate. Regulatory changes, especially ERISA (1974), established new investment standards, such as the importance of diversification.[10]

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[8] The nature of real estate research partially reflects some of the attributes of real estate, which pose special topical challenges to real estate research. For example, property is durable and for most practical purposes fixed in space. As a result, property markets adjust to shocks in the short term through the vacancy rate, prices, and rental rates. In the long term, the inventory itself adjusts to equate the demand for space with the supply, but it does so at a glacial pace and usually upward-only. The spatial fixity of buildings affects their pricing. A city block can mean the world of difference with regard to rents and prices. (Moving an ocean liner, another durable asset, 300 miles off shore does not affect its value.) Unlike assets, such as stocks, that trade in continuous auction markets, property is illiquid; information is asymmetrically held by investors and their money managers. Investors hold properties longer than they do stocks, even when they invest in value add and opportunistic deals. Public markets price risk differently. The attributes of property do not trade separately within a market; an attribute's value must be inferred econometrically. Many of the appropriate procedures are not part of the day-to-day toolbox of most real estate research groups. Proper estimation of the price of various risk factors, such as illiquidity, for example, is essential but often technically challenging for many traditional research groups. Outsourcing this and other more technical functions to specialists is usually cost effective, especially if the outsourcing relationship is well considered and managed well.

[9] Real estate research does not treat risk analytics properly, much less consistently, across markets, deals, and all functions of the firm: The MSA, the lease, the transaction and the portfolio. What is the price of risk? What is relative value? So far, most real estate research groups have side-stepped these issues. My experience indicates that there are no constituencies clamoring for enhanced risk metrics; capital placement teams are less focused on risk and more so on total return. Outsourced research can help with risk analytics and management, which investors value.

[10] Diversification is not free; too much diversification is a concern, especially given transactions costs. (See Randall Zisler, "**The Fleeting Benefits of Geographic Diversification: Does Diversification Work When We Need it the Most?**", April 28, 2023.) What is the optimal amount of diversification and are the benefits available when they are needed the most? An optimally diversified portfolio of property, which may constitute less than ten percent of a pension fund's entire portfolio, may not be optimal in the context of the entire portfolio, especially when we overlay the pension fund's liability structure. Diversification must be more than "not putting your eggs in just one basket." What if the baskets themselves are correlated? As long as the manager's mandate comprises a small part of the pension fund's entire program, maybe managers should focus instead on markets they know best, not worry about diversification, and let the pension fund adjust for any diversification requirements. A good argument for the

Institutional investors allocated capital to real estate, primarily property. Real estate private debt and eventually publicly traded real estate securities followed. An important side issue is whether the regulators, and their regulations, have remained current with an expanding scope of real estate investments and practices.

Institutional real estate research has long been a parallel, emergent capital placement companion. In its infancy, during the early 1980s, real estate research was an advocate, not a disinterested party, in persuading pension funds to invest in property. Few papers presented a balanced point of view. Some emerging managers at the time used research to gain the imprimatur of the few pension consulting firms, who acted as gatekeepers.

The proliferation of ways to invest in real estate has increased the demand for research, whether it be centralized or distributed throughout the firm. Outsourcing must recognize the complexity that differentiates various real estate interests and the analytic traditions with which they are associated. For example, private equity and mortgage debt transact within traditional real estate markets: Private real estate research reflects this tradition; it has been slow to adapt to capital markets in terms of expertise, practices or hiring.

Public debt and equity draw on other analytic traditions.[11] The securitization of commercial mortgages, beginning in the 1990s, introduced fixed income concepts that included the use of derivatives.

Why the slow adoption of new ideas? Reasons include real estate illiquidity, infrequent trading, and an investment tradition that differs in important ways from that of assets that trade at higher frequencies in continuous auction markets. Modern Portfolio Theory (MPT) revolutionized the management of fixed income and equity portfolios and produced powerful insights pertaining to risk and return, and especially portfolio diversification.[12] Its application to property, and later to public real estate equity, has been haltingly slow. The lack of multi-decade real estate indexes and the inherent complexity of property partially dictated this pace.[13]

Real estate research was initially, and still is, very descriptive, not predictive. It expanded as institutional investors' interest in real estate grew. This growth, however, was much slower than the evolution of fixed income and derivatives research, which, by comparison, was more mathematical and sophisticated, thanks in part to more data, especially higher frequency data.

Some research professionals, including myself, were early advocates of the application of financial theory, risk analytics, and mathematical models culled from the rapidly growing corpus of fixed income, equities,

manager's pursuit of diversification is to stabilize the manager's own firm; insufficient diversification exposed the firm to unwonted volatility and staff turnover.

[11] CMBS includes multiple tranches to which different priorities are assigned for repayment and loss. REIT equity returns, while leading indicators of property returns, have very different return distributions. REIT and small cap stock returns, which have similar return characteristics, exhibit little serial correlation, or illiquidity; these returns are unlike property returns, which are serially correlated: In other words, yesterday's property returns are a good predictor or today's returns.

[12] See Randall Zisler, "**Should Korean Institutions Invest in U.S. Senior Mortgage Debt**?", July 31, 2021,

[13] See Randall Zisler, "**Tower of Babel and Cap Rate Solutions**", February 3, 2023, which addresses the seeming conflicts between frequently used real estate performance indexes.

and derivatives research, but real estate investors and money managers responded with hesitation. The sluggish response reflected the brokerage focus of many managers: Acquisitions, which lacked a portfolio perspective, were just so many unrelated deals along the path of growing AUM. How did investors permit managers to act like brokers instead of true advisors? Property was never a trading asset; holding periods were long and the focus was acquisitions and capital placement. Stories mattered more than science. Besides, if there were performance troubles, they would arise after years passed, during which other plausible reasons for sub-par performance might emerge.

In general, the most talented people who left academia for Wall Street did not choose real estate as their nesting place of preference. Instead, many of these professionals brought advanced mathematics and physics to the design of new fixed income instruments.[14] They built the foundations for modern risk management, the fruits of which have largely bypassed property until very recently.

With the growth of the overall real estate market, we expect a continuing proliferation of private and public real estate investment alternatives, some very specialized and many highly technical. Analytics from the world of bonds, derivatives, and tradeable equities will transform real estate analytics in a profound way and at an accelerating pace. Some money management firms have merged with bond and equities managers seeking inroads to real estate. These mergers bring with them a merger of ideas and even research. These corporate combinations will increase the need for more data and specialty skills that may be too expensive to staff completely within the firm. Many firms will conclude that outsourcing portions of the real estate research process is the only cost-effective way to satisfy investors, innovate, and navigate with flexibility an increasingly complex investment landscape.

IV. What is outsourcing? Domestic and global perspectives.[15]

A firm outsources when it obtains goods and services from outside the firm and when those goods and services could otherwise be provided internally. Outsourcing is not new; it has grown rapidly since at least 1989. Outsourcing of services, not just real estate research, now equals and will eclipse the global outsourcing of traded goods.

Outsourcing has been controversial for some years, especially with regard to loss of jobs to international competition, but firms have outsourced the production of intermediate inputs to domestic firms since the advent of capitalism and even back to antiquity. Outsourcing in concept is nothing new. Sometimes outsourcing is labor inducing; other times it is labor saving. We believe that it will augment the quality and productivity of real estate research professionals.

General outsourcing may be a template for real estate research outsourcing. Outsourcing has exploded past the externalization of routine tasks to processes closer to the firm's core, such as the management of customer service and information. Overall, businesses spent over $700 billion on outsourcing in 2022. Breaking this down by segment, IT outsourcing spending is projected to reach $519 billion in 2023 — a 22%

[14] Examples would include Fisher Black, the co-inventory or the Black Scholes option pricing formula and Goldman Sachs Partner, and Professor Stephen A. Ross, who was a consultant to Goldman's real estate research group, which I led as executive director.
[15] See McKinsey & Company. **"Globalization in Transition: The Future of Trade and Value Chains,"** January 2019.

increase over 2019's numbers. Business process outsourcing spending is forecast at $212 billion in 2023 — a 19% increase over 2019. Almost 54% of all companies use third-party support teams to connect with customers. Globally, businesses spent $75.2 billion on outsourcing security last year. There are 59 million freelance workers in the US. 78% of businesses all over the world feel positive about their outsourcing partners. About 300,000 jobs are outsourced outside of the US each year. 71% of financial service executives outsource or offshore some of their services.

More than 93% of organizations are considering or have already adopted cloud services to improve outsourcing. The move toward cloud technology will help companies of all kinds become more capable and responsive while allowing them to rapidly expand their offerings in existing and new markets. A third of all organizations are willing to accept an increase in operating costs if they get access to the cloud in return. This means that for a large number of businesses, the main motivation for this move is not to lower costs by cutting jobs, but to be more competitive and increase innovation.

Data security is a top concern for 68% of outsourcing companies that are considering moving to cloud technology. More than 44% of chief intelligence officers say they are now more likely to use outsourcing suppliers than they were just five years ago. 64% of outsourced offshore technology functions have to do with software application development.

Worldwide, the financial services outsourcing market is worth over $130 billion. U.S. outsourcing statistics suggest that outsourcing in the financial services market will continue to rise by almost 7.5% annually. Big banks and other financial institutions will become increasingly reliant on external service providers, which presents many benefits but also poses new risks to the industry. We expect real estate research to be no exception.

About 24% of small businesses outsource to improve efficiency. Small business owners care about efficiency above all. Compared to larger companies, these businesses usually cannot afford or simply do not have access to the necessary resources to build a real estate research team from scratch.[16]

V. What are some examples of outsourcing by real estate firms?

Real estate is not new to outsourcing as it typically outsources components of construction, finance, legal, accounting and payroll, just to name a few functions. Firms outsource certain human resources functions. Software design and coding are frequently outsourced. We are now seeing more outsourcing of research functions, such as econometric forecasting and data bases.

Most outsourcing is domestic, but international outsourcing will increase, thus opening a global pool of research talent, data and tools.

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[16] See Bolumole, Yemisi A., et. al. "Developing a Theoretic Framework for Logistics Outsourcing", **Transportation Journal.** Spring 2007, Volume 46, No. 2: 35-54; Barthelemy, Jerome and Dennis Adsit. "The Seven Deadly Sins of Outsourcing". **The Academy of Management Executive (1993-2005)**. May 2003, Volume 17, No. 2: 87-100; King, Stephen. "The Future of Outsourcing—And How to Outsource the Right Way". www.forbes.com/sites/forbesbusinesscouncil/2022/10/21 ;

VI. What are the economics of money manager research?

Adam Smith, who wrote the *Wealth of Nations* in 1776, said that the division of labor is limited by the extent of the market. Smith believed that the main cause of prosperity was the increasing division of labor driven by comparative advantage and market growth. Real estate research is no exception. The greater the scale, the faster is the creation of new specialty jobs. As the real estate sector grows, more opportunities for outsourced research will emerge. The largest money managers have scale, but often do not effectively use outsourcing. Outsourced research can be an important supplement to their existing research capability. The smaller, cost-conscious, emerging firms that have not achieved the same economies of scale as the larger firms need not be left behind in the dust. Outsourcing can energize these firms as well and do so on a tighter budget.

VII. Public pension funds and consultants: The role of research and outsourcing

Many public pension systems, small and large, desperately want independent, evidence-based research that informs current decisions and suggests new, fruitful investment strategies. Public pension funds have the ability to write big checks and field a best-in-class research capability that outsources and reports to the Investment Committee. They seldom do, however. There are few examples of pension outsourcing, ADIA, being just one. However, there are many that do not do this, focusing instead on expense reduction or well-worn sources of conventional wisdom. This is penny-wise and performance foolish.

In the absence of truly independent research, how do pension funds generally acquire research? Pension fund consultants are an important source.

Why hire pension consultants? They play important roles, but they are not neutral players. Their work includes helping pension funds manage the investment process. Pension funds rely on pension consultants for asset allocation analysis, manager selection, the design of compensation schemes, and performance benchmarking, to name just some of the many functions. However, providing independent real estate research is not the primary role of pension consultants; they possess neither the mandate nor the technical expertise to provide world-class research. And, they are not paid enough to take risks. To the extent that they provide research, the research is often a close reflection, or pass-through, of research provided by the pension fund's managers.

As you would expect, the manager often talks its own book and it wants supportive, not balanced, probing research. Hence, much research is not independent.

Another critical job of the pension consultant is independently and objectively assessing manager performance. Is manager performance a function of the consultant's past recommendations to the pension fund's investment committee? If these recommendations are determinative, then whose performance are we measuring? That of the manager, the consultant, or the Investment Committee? Somewhere in this convoluted process is something called research, but it can hardly be called independent.

The trinity of pension fund-consultant-manager is like a Gordian Knot. It is a complex eco-system laden with conflicts and long-term relationships. Neither the manager, nor the pension consultant, nor the pension fund itself has the incentive to disturb this system. The result is that this system generates little of the truly independent, timely and provocative risk analytics that are needed for the sophisticated assessment of alternative investments. It could be argued that pension funds with meaningful allocations to opaque investment alternatives, such as value add and opportunistic strategies, are most in need of independent research, but do they perceive that need? Academic research has also shown that pension fund consultants are often used to shift responsibility and protect political interests, goals which can be at odds with improving performance.[1]

What is the downside of ignoring independent research? Public pension funds operate in a political environment. Their true stake holders are neither the fund, the manager, nor the consultant, but the tax payers who must backstop the obligations of the pension fund. Public pension funds are significantly underfunded; their liabilities greatly exceed the value of their assets. Cutting retirement benefits or raising taxes is not politically palatable, so what do these retirement systems do? They take the pension fund to the casino and take greater, hidden risks by investing in complex, opaque investments.[17]

A related issue is performance reporting. I know of many instances in which neither of the three parties acted promptly to adjust values downward in a weak market. This was, and still is, true for unit value in funds as well as illiquid interests in private equity deals. Appraisal returns lag transactions-based returns during times of declining or strengthening markets.[18]

Neither the manager, nor the pension consultant, nor the pension fund has the incentive to disturb this system. The result is that this system generates little of the truly independent, timely and provocative risk analytics that are needed for better appraisals or the sophisticated assessment of prospective alternative investments. The system is flawed. Can we improve? I believe we can.

The outsourcing firm can help provide objective research if the outsourced firm is truly independent and if the relationship is well managed. Necessary conditions include the following: No one client can dominate the firm's roster of clients and any indexes, appraisals, or risk analytics must conform to industry-approved and monitored standards. However, there is no industry standard for risk-analytics. There is a tradeoff: At one end of the outsourcing scale is a Tower of Babel with no universal standards and cacophony. An industry-approved set of biased standards that fall short of the ideal resides at the opposite end.

The system is flawed. Can we improve? Pension plans struggle to attract and retain the most talented research staff but they grapple with pressures to cut overhead costs. Retention can be a challenge.

Pension funds should establish a well-compensated head of research and a small core staff with excellent technical skills; the head of research would outsource the rest of the research function. The pension fund's head of research should carefully examine and score the quality of its manager's research.

[1] Aleksandar Andonov, Matteo Bonetti and Irina Stefanescu. "Choosing Pension Fund Investment Consultants". Federal Reserve Board. December 2022.

[17] See Randall Zisler. "**Taking the Pension Plan to the Casino**", March 22, 2022.

[18] Appraisal-based estimates of returns exhibit significant serial correlation or smoothing due to a number of factors including the backward-looking appraisal process. By contrast, assets, such as stocks, trade in continuous auction markets and show little if any smoothing. With regard to stocks, past stock prices are not a good predictor of today's stock price; such is not the case for property. Smoothing biases volatility measures downward and on the face make real estate appear far less risky than it actually is. Asset allocation studies are themselves biased if the smoothing is not statistically removed. Zisler and Ross and others have published academic studies that discuss smoothing and ways to eliminate this bias. Once corrected, then analysts can make valid comparisons with other capital market performance indexes.

The proliferation of new investment strategies and the need to invest globally is a compelling reason to outsource. Outsourcing can help control the internal head count. Additionally, research, outsourced and well-managed, can keep the parties honest and counter-balance manager advocacy (and pension consulting firm conformity) masquerading as independent, evidence-based research. Most importantly, outsourcing research provides important flexibility to rigorously consider new priorities, challenges, and opportunities.

VIII. What are the benefits and disadvantages of outsourcing?

Many people believe that the chief benefit of outsourcing is cost reduction. That is not true.

McKinsey reported that only 20% of traded goods outsourcing was based on cost arbitrage; services represent an even smaller share. The chief benefits of outsourcing, besides cost savings, include improved productivity, tapping a vast reservoir of global expertise, super-charging innovation, and reducing the number of positions to fill in-house.

An important additional consideration is the obsolescence of human capital and technological innovation. Corporations often lease rather than purchase equipment if they do not want to assume the risk of obsolescence, especially in an industry that is rapidly evolving. Outsourcing research is a bit like leasing: The firm sheds some of the risk of intellectual obsolescence. Managers' needs are constantly changing and the gradient of change is increasing. Locking in full-time employees increases fixed costs and hardens the internal received wisdom or house view. Large bureaucracies are self-protective. Outsourcing can and should challenge the house view.

Managers need flexibility, which is essentially a call option. The value of this option, as with all options, increases with market volatility. Hence, the value of outsourcing rises with market volatility. We envision an increasingly challenging global investment landscape with substantial volatility. Outsourcing can help navigate rough waters.

Disadvantages include inadvertent outsourcing to less-qualified partners, lack of continuity in communications, quality problems, security or confidentiality concerns, and hidden fees and risks due to poor contracting.

Firms sometimes do not know how to implement outsourcing; managing outsourcing is a skill in itself and requires a dedicated, experienced team. Outsourcing the outsourcing process often makes good sense. Losing control over the process is always a risk, so initial planning is critical for success.

Some activities should not be outsourced. Imitating competitors without thinking carefully about the firm's competitive advantage is a recipe for disappointment. Resources and capabilities that are very valuable, rare, difficult to replicate (core activities) should not be outsourced lest the firm lose its competitive advantage. By contract, non-core activities are candidates for outsourcing because outsourcing helps the firm focus on critical activities that it does best and it reduces costs and increases performance.

Another concern is selecting the wrong outsourced vendor. The lowest cost bidder may not be the best choice. We have stressed that firms do not outsource primarily to reduce costs. Criteria for vendor selection should include the following: Qualifications should be tangible and easy to confirm. Soft qualifications include considerations such as culture, commitment to innovate, flexibility, and commitment to a long-term relationship.

An important problem is poor contracting. Good contracts establish a balance of power and help define responsibilities and contingencies. Contracts should be precise, complete, incentive-focused, and flexible.

Employees often see outsourcing as a threat. Hence, personnel issues are important, especially if the firm wants to avoid an uncontrolled exodus of employees. Open communication is better than secrecy, which often fails and establishes new, often more intractable, problems in its wake. The firm must retain and properly compensate key employees, preserve institutional memory for services heretofore provided by the firm, and address job security. If the firm transfers some employees to the outsource vendor, doing so introduces new considerations. Retention of knowledge and skills is critical.

Overlooking the hidden costs of outsourcing is a concern. Search and contracting costs are incurred before outsourced operations commence. Other costs include monitoring the agreement, bargaining with vendors, and sanctioning them when unforeseen circumstances or sub-performance occur.

Not all relationships work. Outsourcing is no exception. Therefore, firms should plan an exit strategy no matter how exciting the honeymoon.

IX. Why is most real estate research suboptimal?

Real estate investment managers are rewarded for building AUM. Internal conflicts between research and investment teams can result when the pressure to grow assets is at odds with independent research. This short-term view can hurt investors.

In disrupted, volatile, or confusing markets, manager research often hides behind the conventional wisdom or lags the market. We observed during 2008, the onset of the GFC, that very few money management firms issued negative reports while simultaneously raising capital.

Also, since real estate is not a frequently traded asset like stocks or bonds, money management firms have tended to rely more on stories and less on science[19]. The embracing of stories and myths is an approach

[19] We all to varying degrees practice the scientific method, if only informally. Practicing it well can make the difference between life and death, especially when we cross a busy highway at night during a storm. Most real estate researchers do not rigorously practice the scientific method; in fact, most could not describe the method. Instead, they fabricate stories that support preconceived notions of reality, usually the so-called house view that conveniently and uncritically supports the latest capital placement initiative. In economics and finance, we generally do not run controlled laboratory experiments. Instead, we rely on econometric models wherein we can statistically test (or reject) hypotheses. An economic model is a simplified description of reality, not a replication of reality. The art of model building eliminates extraneous detail and focuses on critical variables and their interdependencies.

There are two broad classes of economic models—theoretical and empirical. Theoretical models seek to derive verifiable (or falsifiable) implications about economic behavior under the assumption that agents maximize specific objectives subject to constraints that are well defined in the model. They provide qualitative insights pertaining to specific topics, such as optimal fee structures and MSA risk. Empirical models aim to verify the qualitative predictions of theoretical models and convert these predictions into precise, numerical outcomes.

that remains largely unchallenged. I am not opposed to stories—we all use stories to communicate. Instead, I am opposed to investment myths that leave value on the table and result in investors' bearing hidden or uncompensated risks.

Property, as we discussed earlier, is unlike most other asset classes. For example, most firms practice only deterministic--simple analysis under certainty--and not stochastic analysis—the use of random variables defined by probability distributions. The latter can generate valuable estimates of downside risk, for example. While there is a place for both methodologies, managers often neglect the systematic application of risk analytics to complicated, highly structured deals and portfolios, where risk analysis is needed the most. As a result, they are not able to assess risk and value embedded options as thoroughly as today's complicated market conditions require. This can lead to managers' and investors' flying blind.

X. Can outsourcing help fix real estate research?

Yes, it can. Outsourcing is a source of innovation, flexibility, resiliency and specialty skills that are often too expensive to launch in-house. Large internal organizations, research being no exception, can become inflexible and ossified. Outsourcing not only introduces more flexibility but it provides a competitive challenge to internal teams.

Whether or not the firm outsources some of its research, real estate research must demonstrate that it can add value. Senior management too often regards real estate research as a cost center; hence, outsourcing as a cost reduction tool may be attractive, but this is short-sighted. While outsourcing can reduce costs, that is not its chief benefit, as studies in different service industries have shown. Outsourcing can be an effective tool in helping researchers challenge the received wisdom while building value.

However, outsourcing is much more; it can introduce new capabilities and ideas. Real estate investment alternatives are exploding in number and complexity. Property classes that were once out of bounds, e.g.,

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For example, a theoretical model of MSA office vacancy rates might address the transactional demand for vacancy rates: More volatile, higher growth, MSAs with significant construction and leasing activity should exhibit a higher natural vacancy rate. (The natural vacancy rate is the rate at which market rental rates are neither rising nor falling.)

Here is another example: Real estate is not a good inflation hedge in the short- to intermediate-term. This finding, which has survived many tests by academicians and others, including myself, has important practical implications for asset allocation: It contradicts the views of some capital placement professionals who believe that, without inflation's so-called hedging power, real estate is no longer an attractive investment alternative. Nothing could be further from the truth. If the placement agent's claim were true, why would anyone invest in stocks and bonds, which are not inflation hedges?

The scientific method is a thought process that pervades all of science, including economics and finance. Real estate has been slow to adapt. What passes for economic analysis in the media and in most real estate research is simply story telling. It is not science. I believe that science will eventually dominate story telling as the scale of the market increases along with the proliferation of more complex strategies, data bases, new financial instruments and higher frequency trading of interests in real estate evolve. This trend will significantly increase the demand for research and outsourcing; the two are actually complements. Few firms can meet this challenge merely with internal resources.

“non-institutional” classes, such as cold storage, are now gaining institutional acceptance, particularly in light of the flagging performance of some of the traditional real estate asset classes. Outsourcing can help research span more investment alternatives at greater technical depth in less time and can act as an innovation machine that drives overall firm value.

The research director must be able to manage outsourcing, drive incremental firm value and sell research. Research does not sell itself, internally or externally; it must be sold and the real estate research director should have strong sales capabilities, especially when dealing with demanding internal constituencies.

XI. Real estate research: Outsourcing thought leadership and innovation.

I do not believe that firms outsource enough research functions, thought leadership being one example. Partnering with outside experts can deepen the firm’s thought leadership and make it unique. Firms’ hesitation is understandable if their concern is the control of proprietary information. Even in the case of proprietary products, outsourcing can reduce costs and provide intermediate products, such as MSA performance forecasts and risk analytics, which are used as part of a larger project, and do so with few security concerns.

Outsourcing can also act as the idea factory behind the scenes. Independent firms may be better equipped to explore new ideas and produce beta versions of new products and ideas for external market testing.

An important application is risk analytics and risk management, two highly technical areas that are too often neglected. Risk analytics are commonplace in the world of bonds and stocks but it is new to real estate. The introduction of risk analytics and risk management into real estate will require some customization that recognizes the special attributes of real estate. Outsourcing can help design, launch and even help manage risk-management tools.

The target of research need not, and should not, be just external—promoting the firm and educating investors, existing and prospective. Innovation and thought leadership can be fruitfully directed to internal, often more demanding constituencies. Outsourcing may be an economical way to create and test new tools (e.g., dashboards and algorithms) and support the capital placement and transactions teams. Outsourcing is also a way to respond to unreasonable or ill-informed internal criticisms and demands. Firms outside the company often have an industry perspective that the company lacks or refuses to recognize. Managing the outsourcing of these tools and coordinating their development with the internal data engineers, capital teams, and transactions groups can be challenging but the task is critical.

XII. Is there a golden age of research, or has it passed?

Yes, there is a Golden Age of real estate research and it is fast approaching; it has not passed. We define the Golden Age as one in which conflicts are better managed; research is more evidence-based and scientific in its methodologies, always truthful, prompt, and fiercely responsive to investor needs. This is not an idyllic fantasy; some progressive firms are already believers and successful practitioners.

The real estate director could be the impresario of internal and external research and coordinator of outsourcing. Real estate research should be the innovation (or idea) factory and drive firm value; it should devise and back test new strategies and financial instruments, create branded analytics, educate and train the transactions teams, and design model portfolios that investors find compelling. It must be investors' primary educational resource.

With the coming of the Golden Age, more firms can afford to recruit the best and the brightest research talent which, heretofore, might have found other asset classes as vocational homes. Through the upgrading of research teams, the firm's transactional functions will ascribe greater value to research.

The value of research should be quantifiable, so firms need a suite of research performance metrics that measure the incremental value of research? If the research director needs more resources, then the metrics should support that need. If research is more closely tied to revenue production, then justifying more resources will be easier. However, the metrics must be valid in order to avoid the misallocation of resources. In other words, it is time we manage research like a business.

The research core, or centralized research hub, will orchestrate in-house and outsourced research and will manage innovation hubs positioned throughout the firm in close proximity to the transactions team. Research must be the laboratory for transactions.

Outsourcing, large data bases, and artificial intelligence (AI) will play powerful, coordinated roles. AI will transform real estate research. It will radically change how the firm prices assets, write software, prepares reports, conducts due diligence, educates investors, mitigates risks, creates new tools for transactions teams and manages research. Balancing decentralized and centralized research functions within the firm empowers transactional groups and enhances the role of research. AI will help research synthesize and curate the growing torrent of information. The influence of AI will likely be centrifugal, distributing powerful research tools and information to the periphery of firms where acquisitions and capital placement occur. It will decentralize research in a cost-effective, performance enhancing way. AI may be initially labor saving, but ultimately it will be labor augmenting as it enhances productivity and frees labor to address projects and capabilities of higher value. New, yet-to-be-conceived research roles will emerge. Not all real estate research groups will adapt well, but some will thrive, assume critical roles that transcend story-telling, augment performance, manage risk better, enhance firm value, and achieve greater industry dominance.

What is great research? Real estate research should be actionable, evidence based, cutting edge, strongly entrepreneurial and transactions focused, internally and externally. Real estate should integrate real estate with other capital market sectors and apply with modification capital market tools to real estate. Research professionals should always remain embedded in the markets and the extent of those market extends well beyond real estate.

Even if firms have a "full research department"[20], they should rethink the purpose, management and value of real estate research. The research challenges will become increasingly technical and broad-based. No

[20] Last month I asked the CEO of a large, well respected money management firm if they needed outsourced research assistance. His reply was that the company had a "full research department"—no room in the budget. (In truth, the research department was underwhelming at best. I was polite not to suggest that he reduce head count.) I suggested that there might be an alternative way of thinking about the value of research; instead of conceiving research as a cost

one research department can straddle a large and proliferating list of strategies and opportunities and at the same time offer deep technical sophistication across the board. These larger firms require large data bases, the services of data engineers, advanced econometrics, and even artificial intelligence. These are ideal outsourcing candidates.

Outsourcing is a substitute and an enhancement to traditional centralized, large research departments; it is also a flexible way to tap innovative ideas and keep the research fresh and relevant. Relying only on the existing staff for innovation or transition to higher quality research may not work as well. Outsourcing can clearly these larger firms adapt.

Small emerging managers have unique needs. These firms typically face very different economics (and risks) compared with large, well-established firms that can afford a larger real estate research capability. Small firms are often capital constrained and lack economies of scale and scope; they may not understand their research needs and if they do, they may not know how to best address those needs. What priorities should they set? What data do they need? How should they staff and how can they leverage with outsourced research? They lack the scale to justify large centralized internal research departments and task specialization. They too should outsource most of their research function, but they need guidance. Outsourcing for the small firm is not a substitute but rather a complement to the firm's other functions.

XIII. Research audits

The first place to start outsourcing is the research audit itself.

Why do an audit? Shouldn't a firm's research needs be obvious to the CEO? No, not necessarily! I have worked with many sophisticated firms. I often observe CEOs or CIOs lack a detailed understanding of formal research methods, products, approaches and possibilities. Their vision, understandably, is often more focused on the end research product, not the process of creating it. A thorough research audit can expand that vision.

Who can benefit from the audit? Investors are not the only beneficiaries of audits. Firms, large and small, can benefit from an independent research audit that evaluates all facets of the research function. Think of the research audit as akin to compensation studies commissioned by the board of directors of a public company.

The CEO or CIO should seek to find ways to enhance the value-add from research, but maybe they should not manage the audit. The research agenda, the management of research, research tools, communications, publications, etc. should all be evaluated with fresh eyes. Many senior executives are not formally trained in research methods any more than they are in certain technologies. They are not often imbued with a "research tradition" and may be unfamiliar with research procedures, and tools. The

center, which was how he regarded research, why not restructure research as a revenue center and develop a set of performance metrics and incentives that reflect its incremental value to the firm. Were he in agreement, he would not have said that the research function was "full" any more than he would have said that we need no more capital placement assistance because we need no more capital (or AUM). The "full research" perspective is *prima facia* evidence that the leadership does not understand the potential of real estate and how to manage this potential. Leaders are not alike: Some think like accountants and others are visionaries.

leadership may also be unaware of research practices and innovative applications at competing firms within real estate or in fixed income, derivatives, equities and other capital markets sectors. Who are the innovators? What are the best practices? Not only is the transactional world changing, but so is research. How should firms respond? The audit, which can educate the entire leadership and not just the research director, is a process that a qualified outsider can best manage.

At its highest level, the audit should be designed to challenge the received wisdom where appropriate and foster spirited internal debate and corporate introspection. A thorough and systematic process, the audit should begin with a clear understanding of objectives and protocols. It should include initial meetings with the firm's stakeholders to set the agenda as well as group meetings within the research team and corporate hierarchy. An audit should study how the firm's research capacity is organized. What are the reporting lines for research? What are the current research tasks and who are the constituencies? What are the most pressing priorities that research currently addresses? And are there other potential priorities or objectives to consider?

Deliverables should include interim reports, tailored to the specific scope of the assignment, and a final report. These reports should incorporate metrics that describe the firm's competitive position, opportunities and threats. The final report should include recommendations regarding any changes in reporting structure, staffing, use of outsourcing, new technology, and compensation. In addition, the audit should include a cost-benefit analyses of current and potential research offerings, estimating the contribution of these offerings to corporate performance.

The CEO should not exclude or limit the participation of the research director, who should be a lively, integral participant in the audit. Research directors often embrace an audit of this kind as they know it can be a creative and an energizing process as well as a supportive tool. Without an audit, the research director may face an uphill battle within the firm regarding budgets and priorities. If the audit is successful, the entire organization benefits.

Who is the most qualified to initiate a research audit? Investors should not seek barking cats. Hence, we suspect that some managers may not enthusiastically embrace a research audit. Some managers may actively block an audit (to their detriment). However, pension funds, which write the big checks, can compel their managers to cooperate.

Pension consortium. A consortium of pension funds, especially those with overlapping managers, can jointly retain a qualified research audit firm and share costs. A collateral benefit of an audit consortium includes the establishment of standards of research conduct.

XIV. Conclusion: Outsourcing will Improve Research Quality

There was a time in the 1980s and early 1990s when the received wisdom said, do not invest in apartments. Pension funds avoided apartments because they feared rent control and, hence, did not regard apartments as institutional investment grade. (We deal here with a tautology: What institutions do is institutional; that which they do not do is non-institutional.) At the time, I was at Goldman Sachs and I had completed an econometric analysis of the likelihood of New Jersey counties' adopting rent control. The study showed that there were very specific conditions that increased the likelihood of the passing of new rent control legislation, but most counties lacked these factors. Unfortunately, the received wisdom won, at least for a while. My Goldman colleagues were some of the brightest and financially most successful people I have ever met. Still, apartments, no matter the strength of the analysis, were not on the investment menu, at least then. By the late 1990s, apartments were considered within Goldman and elsewhere to be a legitimate asset class worthy of serious institutional investors.

Sometimes great research is ahead of its time; sometimes it wins even when the so-called serious (most obdurate) investors drag their feet. An important characteristic of the most able research directors is their persistence in the face of strong internal resistance. Great research does not sell itself; it must be sold and the research director must be a very good salesperson, not just a nimble financial engineer.

The real estate research director's responsibilities could include the management of outsourced research services that include novel data bases, extraordinary (and even obstreperous) talent, advanced econometrics, and financial engineering, for example. Outsourced research can help internal research build firm value, manage risks, challenge some of the received wisdom, introduce flexibility and innovation, and better educate the players.

Outsourcing independent research

Let's put real estate research on the fast track to success.