REAL ESTATE ISSUES®

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FEATURES

Valuation and Pricing of Government Land and Property: A Tip of a Growing Iceberg

Retail Sales Set Rent Levels

Timely Recognition of Development Profit: A Fair Value Perspective

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RESOURCE REVIEWS

Real Estate Mathematics:
Applied Analytics and Quantitative Methods for Private Real Estate Investment

Skin in the Game:
The Past, Present and Future of Real Estate Investments in America

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This article reviews international differences in accounting treatments of government assets and discusses conceptual differences between the value of property within the contexts of private ownership and government ownership. The article suggests that in the context of the continuing fiscal crisis and increasingly diversified and evolving public expectations related to government property, introduction of good policies on government property valuation becomes an urgent necessity in countries, such as the U.S. and Canada, where market-based valuation is not conducted for accounting purposes. Such policies need to require recognition of the economic value of government land and property, along with liabilities, as part of decision-making on any transaction. In the U.S., suggests the author, such policies need to be administratively binding for all government agencies and activities, including those of a business nature.

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Timely Recognition of Development Profit: A Fair Value Perspective
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In the current private and institutional real estate equity fund environment, periodic reporting of investment returns is both prudent and mandatory. This performance data is particularly important to pension and retirement plan investors in various open-end funds, say the authors. Since participants (investors) are permitted to enter or exit open-end funds on a periodic basis, the interest(s) purchased or sold must be based on appropriate asset values effective at the transaction date. To increase accuracy, the valuation approach must facilitate the timely recognition of development/entrepreneurial profit achieved on a proportionate basis as the project progresses through the construction and occupancy stabilization process. This article explores some of the technical approaches to address this issue.

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K.C. Conway, CRE, MAI

In this article, the author presents a detailed look at North American ports, the impact of the expansion of the Panama Canal locks, and the new hot topic known as Intermodalism and its future impact on ports and commercial real estate. Intermodalism "…is quite simply "a system whereby standard-sized cargo containers are moved seamlessly between different 'modes of transport.'" It has come of age, says the author, and no longer can a shipping company, manufacturer or retailer think of the ports and other modes of transportation in isolation.

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Social Media: Identifying the Business Opportunities
The Personal Experiences of a Social Media User

Robert J. Pliska, CRE, CPA

"If Google can't find you, you don't exist" goes the saying, and in this article the author, although initially hesitant, eventually couldn't agree more. Through his own experience using some of the basic social media tools—Twitter, LinkedIn, Facebook, YouTube, blogs—in his commercial real estate business, the author found that the benefits most definitely outweighed the risks when using these new tools wisely. This article discusses why one cannot ignore the growing phenomenon of social media and suggests how to use it to expand your network and generate business.

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Real Estate Mathematics: Applied Analytics and Quantitative Methods for Private Real Estate Investment

Reviewed by William P.J. McCarthy, CRE, FRICS, CPM

This book "is an excellent new addition to the already crowded collection of texts on real estate math and its applications," says reviewer **William P.J. McCarthy**, **CRE**. Noting that five of the book's 19 chapters are written by Counselors of Real Estate (CRE®), McCarthy adds that each chapter is timely, well researched, insightful and highly applicable, and their quality is the book's main strength. The chapters cover topics such as capital restructuring and its consistent reliance on debt financing; sustainable property financial analysis; key considerations in joint venture projects; and recurring cycles in the market and commercial real estate's role within those cycles. McCarthy recommends this book as one that should have a place in everyone's library.

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Skin in the Game: The Past, Present and Future of Real Estate Investments in America

Reviewed by Daniel L. Swango, Ph.D., CRE, MAI, FRICS

This book, says reviewer **Daniel L. Swango**, **CRE**, calls attention to a major problem in the economy and in the real estate segment particularly: that many of the investors, loan originators, secondary market entities, investment vehicle creators and others have little or no skin in the game, i.e., their own money and assets at significant risk. Swango "wholeheartedly" recommends this book and writes, "…a well written, well documented, interesting, clear, significant treatise about real estate in the Great Recession—its background and causes, what has happened in response to it in the public and private sectors, where we are—and where we may be going."

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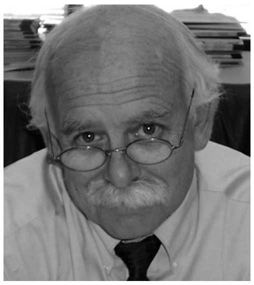
Editor's Note

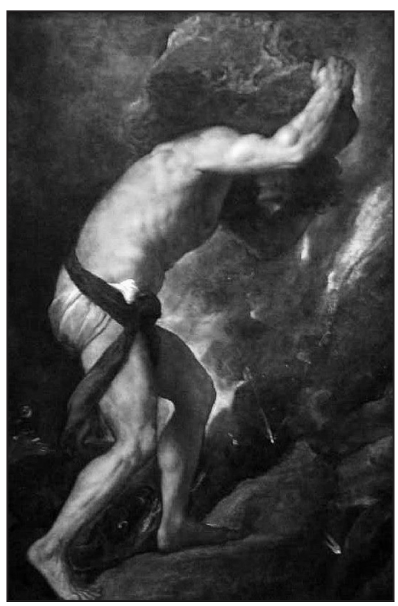
BY PETER C. BURLEY, CRE



"Ah, summer, what power you have to make us suffer and like it"

—Hal Borland

Heat takes its toll. We slow our pace, enervated and exhausted. We suffer dehydration. It's hard to sleep at night. Anxiety levels increase. People get cranky, sullen, unmotivated. I will personally admit to all of those things. This past summer was the hottest on record. In fact, new records were set almost daily. The hottest days, the longest stretches of hottest days, the hottest stretches of longest days, the driest drought. July was the hottest July on record, according to the National Weather Service. We endured a record four consecutive days over 100-degrees in July. We are on pace to set a record for the number of 90-degree days as well. In fact, an article published in *The Washington Post* on August 8 reported, "In 118 years of U.S. records, July 2012 [was] hotter than ***any month previously observed***," with an "average temperature across the continental U.S. … 3.3 degrees Fahrenheit warmer than the 20th century average and 0.2 degrees hotter than the previous record set in July 1936."[1] All of it came in the middle of my move from Washington and Colorado to Chicago, and the experience did, at times, take on a Sisyphean quality.



Sisyphus, you will recall from Greek mythology, was King of Corinth and a bit of a despot who angered Zeus with deception and greed. As punishment for his behavior, Zeus saw to it that Sisyphus was forced to roll a huge boulder up a steep hill in Hades, and before he could finally push the boulder to the top, he would lose his grip, causing the stone to roll back down, obliging him to begin the process all over again. For eternity.

Perhaps Sisyphus (along with our languid summer demeanor, our short temper and our aching joints) serves as apt metaphor for the latest reports on the U.S. economy and efforts to reinvigorate the recovery. We seem to have lost our motivation, we have turned more than a bit cranky, and every time we seem to be getting to the top of the hill, we lose our grip and things start to slide back again. An Associated Press report on August 15 says that the current economic recovery has been the weakest since World War II. We knew it was going to be a tough, long haul to climb out of the crater caused by the Great Recession; the catastrophic financial crisis and housing crash made that eminently clear. But, compared to other post-recession periods, this one has been unbearably weak and slow. Growth in GDP over the past three years has been less than half that reported in other recoveries; employment gains are stubbornly slow; unemployment—especially long-term unemployment—is stubbornly high; income gains when adjusted for inflation are nonexistent. Add still-high household debt levels and limited access to credit, and there is little wonder why consumers are hesitant. Other drivers of economic growth, namely housing and government spending, have been little help in juicing a cranky, sullen, enervated economy. Policymakers cannot seem to agree on the best way to push the economic boulder up the hill either. And, the on-again-off-again fiscal crises in Euroland have added intermittent fits of gravitational resistance to the mix. Uncertainty prevails.

Still, there has been some mildly positive news of late that speaks, to me at least, of better times. Analysts around the country are close to a consensus view that the housing market has reached a bottom and is beginning to pick up, with sales and prices both showing positive gains in recent months. Home builders are expressing more confidence. And, surging corporate profits have helped to lift stocks higher with the Dow Jones Industrial Average rising 54 percent between June 2009 and now. Both housing and stocks could portend a resurgent recovery in coming months and quarters—just don't exhale until after the elections this fall—provided there are no surprises coming out of Washington or Europe or elsewhere.

Despite the heat and the humidity, we were busy over the summer. Some of us never even really took a vacation. Counselors spread out across the country—and the globe—to learn, to practice, to research and to teach. And, many took time to write of their experiences, to inform others of newly acquired knowledge and expertise, and to advance the mission of The Counselors of Real Estate®. Among the many submissions we have received since our last issue, we have compiled a collection of articles certain to draw your attention.

Olga Kaganova, **CRE**, brings her particular expertise once again to *Real Estate Issues* with her latest article, "Valuation and Pricing of Government Land and Property: A Tip of a Growing Iceberg." "Valuation and pricing of government property," Kaganova asserts, "are among the most challenging conceptual and practical issues of contemporary asset management." As governments at all levels contend with financial management issues, and particularly in the climate of fiscal pressure, the "introduction of good policies on government property valuation becomes an urgent necessity." But, the complexities in valuing government assets are many, and with considerations of economic and social values, there is a need to develop and test practical methodologies for establishing value. Kaganova offers a brief review of the some of the approaches that have been applied and are being applied in this area.

"Retail properties have a unique relationship with the businesses they house," says **Ray Cirz**, **CRE**, in his article, "Retail Sales Set Rent Levels." Cirz reminds us that, more than other property types, the physical layout and features of a retail property, along with its location, can have a significant influence on a retail establishment's sales volume. The ability to generate sales will, in turn, influence potential rent levels in a retail property. Cirz offers an example of a regional mall located in the eastern U.S. and suggests a methodology for establishing rents, given property characteristics, and tenant and merchandise mix, in a peer group analysis. He suggests the methodology can be applied to all types of retail properties to measure the relationship between retail sales and rent levels to estimate rent potential and, ultimately, market value.

What about properties under construction? As **Brent Palmer**, **CRE**, and **Richard Wincott**, **CRE**, point out, the appraisal process for "properties undergoing development can prove difficult as many of the underpinnings of traditional valuation analysis are non-existent." With mandatory regular reporting of investment funds and the entry and exit of investment fund participants, meaningful valuations are difficult for projects that are under construction. Palmer and Wincott propose a valuation approach that can quantify the "amount and timing of development or profit recognized … during a development lifecycle." The authors identify various risk factors during the development process and offer a simulated case study as an example of the methodology.

The fiscal and economic crisis in Europe has slowed global trade, but that situation will not last forever. As trade flows continue to expand, and as intermodal transport comes of age, U.S. ports need to be prepared for the next stage in the evolution of trade. Additionally, and importantly, the expansion of the Panama Canal locks, which will accommodate enormous container vessels in 2015, will require ports on all of our coasts to adjust in dramatic ways or face obsolescence and failure. In his article, "North American Port Analysis: Beyond Post-Panamax Basics to Logistics," **K.C. Conway**, **CRE**, takes us through the Post-Panamax world and discusses the strengths and weaknesses of North America's largest ports as they prepare for the next generation of vessels and facilities.

Like many in the real estate industry, **Robert Pliska**, **CRE**, admits in his article, "Social Media: Identifying the Business Opportunities," that he was slow to adjust to new technology and the Internet. Considering the Internet's pace of evolution and use, and that he might be left out, Pliska "jumped in," creating a website, using emails to attract and transact business and learning how to use his new tools effectively. In today's ever-expanding social media environment, Pliska sees an even larger opportunity. Finding work and doing the work; identifying clients and being found by clients; establishing a social media brand and gaining recognition. Pliska discusses the reasons for using social media, covers the myths and misconceptions in the social media realm and discusses the nature and function of some of the more popular social media sites—LinkedIn, Twitter and Facebook. He offers recommendations for effective use of the media as well. A solid review with solid advice, all from the creator of The Counselors of Real Estate® LinkedIn site (of which this editor is a member).

We bring you two Resource Reviews in this issue. The first, *Real Estate Mathematics: Applied Analytics and Quantitative Methods for Private Real Estate Investment*, was reviewed by **William P.J. McCarthy**, **CRE**. This book was co-edited by **David Lynn**, **CRE**, and **Tim Wang**, **Ph.D.** Several Counselors contributed to it, including Lynn, **Hugh Kelly**, **Scott Muldavin**, **Roy Schneiderman**, and **2012 CRE Board Chair Ken Riggs**. McCarthy sums up his assessment, "Whether as a detailed introduction to the overall subject, the specific chapters, a refresher for the experienced practitioner, or as an academic text, *Real Estate Mathematics*, is both detailed enough and so very clearly written and presented as to meet all of these needs—something rare for such a comprehensive and often convoluted subject matter as real estate mathematics." I am going to suggest a copy for the research center library here on Michigan Avenue. And, gentlemen, I will be requesting autographs.

The second Resource Review, of "Skin in the Game: The Past, Present and Future of Real Estate Investments in America," by **Anwar Elgonemy**, **CRE**, is provided by **Dan Swango**, **CRE**. Swango takes us through the book, chapter by chapter, to build Elgonemy's case, beginning with the background of the U.S. economy and the real estate and capital markets and the basic tenet that "frugality is not one of our virtues." From there, he takes us through the past few decades of real estate and capital market, replete with an alphabet soup of securities, derivatives, CDOs and other inventions, and through the remainder of the book toward a conclusion that "American business and political leaders must rebuild growth and employment that's based less on excessive debt, consumption, construction, and imports…" In his review, Swango suggests that the book "invites you to read more about the drama that has been testing your knowledge, skills and thespianship." An interesting endorsement.

Our relentless heat finally gave way as July came to a close. The mood seems to have changed amid the crowded throngs strolling Michigan Avenue. And, while the tourists and consumers remain cautious, I am beginning to see people stepping out of the 'Magnificent Mile' stores with at least a few bags in hand.

Fall always comes, and we ultimately forget how damned hot it was. Soon, we might even wish for a few of the sweaty, sultry days about which we complained just weeks ago. Just this past week (I am writing this in mid-August), while I was sitting in my rain-splashed garden in Oak Park, I looked up to notice the geese have begun to fly in "V" formations and point themselves southward. As Hal Borland reminds us, "summer is a promissory note signed in June, its long days spent and gone before you know it, and due to be repaid next January." ■

ENDNOTE

1. Samenow, Jason, *The Washington Post*, Aug. 8, 2012, "U.S. has hottest month on record in July 2012, NOAA says."

The promise of spring, which is brought to fruition in summer, is snatched away by winter's cold, hard grasp (I don't know who said that – maybe it was me).

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Valuation and Pricing of Government Land and Property: A Tip of a Growing Iceberg

BY OLGA KAGANOVA, PH.D, CRE, FRICS

GLOBAL WARMING OR NOT, THERE IS A GROWING ICEBERG IN the sea called government asset management which needs and deserves the attention of real estate professionals. Valuation and pricing of government property are among the most challenging conceptual and practical issues of contemporary asset management, with fundamental changes rapidly emerging and posing additional challenges. In general, the issue is that the *value* of government land and property is understood very differently by various stakeholders, and the complexity of the subject is not declining, but notably growing.

Appropriate valuation and pricing of government land and property is needed for governments themselves, their transactional partners and lenders, and the public for at least three purposes: (1) for adequate management of government finance, which includes financial reporting; (2) for asset management decision making; and (3) for transactions with government land and property.

ASSET VALUATION AS AN ACCOUNTING ISSUE

Governments across the world are trying to improve their financial management, which includes production, use and reporting of data that should guide policymaking, and the practice of government finance. A move toward accrual accounting that, among other things, produces government balance sheets has been a substantial part of this drive. However, except for Australia, Canada, New Zealand, Sweden, the United Kingdom, the United States and a few other countries in continental Europe, not many governments have fully functional accrual accounting that includes production of balance sheets. About 50 countries across the world are at various stages of considering or introducing accrual accounting.[1] A number of countries, including China, Malaysia, the Netherlands and Pakistan, decided not to implement it in the short term.[2] In general, introduction of accrual accounting—given its high costs and benefits challenged in countries that introduced it—has been hotly debated among governments and experts over the past 15 to 20 years, with no consensus in sight.[3] Moreover, authoritative forums of government financial leaders and organizations have emphasized that sustainable fiscal management needs to step beyond the pure accrual accounting or accrual budgeting and continue to use cash-based information for broad fiscal policy decisions; for example, for

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managing long-term fiscal challenges and financial risks that are not reflected in the balance sheet and other accrual financial reporting. In line with this, at their annual meeting in 2007, finance ministers of APEC countries (21 countries of the Asia-Pacific Economic Cooperation) discussed issues of fiscal transparency and sustainability related to management of fiscal risks that are critical for financial and economic stability but usually left off the balance sheets. This includes direct and contingent liabilities such as future public pensions, social security schemes, state guarantees, state insurance schemes, guarantees agreed in public-private partnerships, financial system failure, default of non-guaranteed state-owned enterprise or subnational level of government, and disaster relief.[4] Similarly, a study conducted by the United States Government Accountability Office (U.S. GAO) in 2007 signaled that accrual budgeting would not respond to the need for managing the growing fiscal deficit that the nation faced.[5]

In the U.S., the Governmental Accounting Standards Board (GASB) introduced accrual accounting standards for local governments in 1999, and their enactment took place from 2002–2004. In Canada, accrual accounting for local governments was enacted starting in 2009. One of the key implications of accrual accounting is that governments must start to recognize and report local capital assets and liabilities.

When governments produce balance sheets, questions arise as to which capital assets should be recognized and how they are valued. This also varies and continues to be debated. For example, some countries do not include "heritage assets" (e.g., national parks, historic monuments, museums) and defense assets. In the U.S., federal agencies are required to report "stewardship land" and "heritage assets" (and conditions of the latter), but not their value. Among the 10 countries whose government accounting practices were studied by the U.S. GAO in 2007, only Australia and New Zealand capitalized all assets.

The most common approaches to valuing assets for financial accounting are historic cost and fair value.[6] Australia, the Netherlands, New Zealand and the U.K. use fair or market value. Countries as different as Canada, Denmark, Serbia, Kyrgyzstan and the U.S. use historical costs; land is valued at the original cost, without depreciation, in all countries that use this method. In the U.S., the GASB's Statement 34 allows two valuation methods. One method uses historical costs, reduced (for capital assets such as buildings, etc.) by straight-line depreciation based on assigned useful lives for different types of capital assets. The alternative method, termed the "modified reporting approach," allows local governments to assign a current value to assets, normally based on market value or replacement cost; however, use of this method requires having an advanced asset management system in place, including life-cycle costing. As a result, most municipal governments in the U.S. have opted for the historical cost minus depreciation method of valuation.[7]

The debate about pros and cons of both concepts of accounting valuation—historic cost versus market value—and their methodological implications continues. Opponents of market valuation argue that it wastes public resources to assess market value of not-marketable land and property (e.g., national parks or the White House) and that market valuations can be volatile due to market conditions and can be manipulated. Their additional argument is that the total estimated market value of government property portfolios makes little sense; because if these huge portfolios were placed on the market simultaneously, they would cause such oversupply that the estimated market values would never be reached. Opponents of the historic cost approach argue that such valuation leads to substantial undervaluation of the economic value concentrated in government land.

The implications of land accounting at historic cost in former socialist countries are enormous: the absolute majority of municipal land was obtained by local governments free of charge as part of property devolution from central governments, while central governments have not accounted for the land at any value.[8] As a result, in Kyrgyzstan for example, such freely obtained land is not recorded on the municipal balance sheet at all, despite the fact that land market value can exceed municipal budgets many times, even by partial accounting. Hungary has recognized the fundamental distortion created by assigning zero value to local government land, as a result of the transfer of public land from the central level, free of cost. In 2000 there was a compulsory revaluation of municipal land, and land originally transferred from the state and carried on the books at zero cost was assigned approximate market value, at least in municipalities that implemented this directive. The goal of revaluation was to introduce economic factors into municipal land use and development decisions.

In Canada, a mismatch between the book values of capital assets recorded as historic costs less amortization for the *financial accounting* purposes and the values needed for *management accounting* is clearly recognized and reflected in various guidance documents. But rule setters maintain the view that "*nevertheless, financial accounting standards can benefit management by instilling a discipline in terms of definition, recognition and measurement throughout the financial information systems.*"[9] Municipal asset managers in some Canadian cities try to mitigate this lack of recognition of market value of assets under their care by appraising and recording market value of any property that is disposed of, even if the property is transferred to another agency at the historic cost.

For strategic asset management, the balance sheet is a very useful instrument. However, in countries with historic-cost valuation in financial accounting, economic value of assets on the balance sheet can be undervalued. At the same time, regardless of the base used for asset valuation, government land and property are often related to liabilities of an unknown amount, which are not reflected on the balance sheets (e.g., site contamination that should be remedied before the site can be re-used or sold).

A good financial management and asset management policy would require market-based valuation of any government property as a part of decision making regarding any kind of transactions with this property, including the decision of whether or not to sell a land parcel, how to evaluate the public's contribution of land to a public-private partnership (PPP), public enterprise or transfer to another government agency, or how much land collateral should be pledged as security for an urban government's borrowing.[10] The cost of property-related liabilities (e.g., site decontamination) should be incorporated in valuation. In the U.S., such a policy needs to be introduced by all levels of government as administratively binding for all government agencies and activities, including those of a business nature. A similar valuation rule should apply to acquisition of property for government needs.

The unfolding fiscal crisis at all levels of government in many countries, including the U.S., gives another impetus for market valuation of government assets: When a particular government is in fiscal peril, it is really important to have valuations of the market value of its assets, as this can help to navigate away from the brink of bankruptcy. Market valuation also can help reduce, if not avoid, the loss of public wealth in a fire sale of assets due to government financial constraints.

Figure 1

Examples of Governmental Policies that Sacrifice Land Value

EGYPT. Until 2007, the Tourism Development Agency (TAD), implementing the state tourism development program, had been selling land along the Red Sea coastline to private investors for $1 per square meter, regardless of the potential market value of these sites. In 2007, TAD reportedly tried two auctions and was considering increasing the administrative price to $9 per square meter.

KUWAIT CITY. Since the mid-1960s, a total of 589 hectares of land in four old industrial and handcraft areas (Shuwaikh, Fahaheel, Ray and Ahmadi) were leased to Kuwaiti citizens for up to 50 years, at low fixed rates, in order to stimulate production and development. The new tenants quickly sublet (informally) to small entrepreneurs, charging them market-level rents. The formal tenants/informal landlords became a powerful lobby against governmental plans to sell this land upon lease expiration, even if discounts from the market prices were offered to holders of expiring leases. Meanwhile, revenues captured by these tenants and forgone by the government during 1976–2001 constituted, on average, about 1.52 percent of GDP annually.

MACEDONIA, 2011. The Government of Macedonia, in its "Work Program of the Government of the Republic of Macedonia for the Period of 2011–2015," outlined the intention to make a countrywide injection of cheap land in housing and commercial real estate markets.

Source: Olga Kaganova

LAND MANAGEMENT: WHICH VALUE IS IT ANYWAY?

Within the realm of government asset management, land valuation and pricing face multiple challenges as well. First, a persisting issue, at the policy level, is that economic value of land is implicitly ignored when land is sold or leased to private developers or users for free or at below-market prices, for fulfilling various government strategies, policies or informal ambitions without estimating costs and benefits of such programs or projects. This translates into explicit or hidden public subsidies for such projects. As Figure 1 illustrates, this continues to be a popular approach among governments, despite the fact that multiple international experiences with low administrative land prices have shown that such a policy usually creates unintended negative implications, such as distortions of land and real estate markets and unfair competitive advantages for holders of subsidized land and real estate. In most such cases, it is difficult to identify which forces were at play to lead to such policies: good intentions about economic development coupled with lack of understanding of land economics, or a drive for land grabs by political elites, or influence of powerful private interests—or a combination of the above. Moreover, local practices of allocating public land for private uses at low administrative prices continue to prevail in many countries, even when no policy justification is provided.

The second challenge, and quite a new one, is that in some developed countries with mature democracies, the social value[11] of government property is emerging among broader societal and political values, despite the fact that it often conflicts with property's economic value—sometimes in a very dramatic way. A manifestation of this trend is local groups' increasing expectations and demands that some government properties be made available or protected for localized public interests, regardless of fiscal implications for the government and a bigger population. An example of this trend is described in Figure 2.

Canada provides less dramatic examples, but with a similar underpinning: City asset managers find themselves in a situation when the city is handed over public use buildings (e.g., a sport facility or community center) with no further useful life, but the public opposes demolition, and the buildings become a significant unfunded liability for the city government. Similar cases of local opposition to government plans for disposal of or reuse of excess federal property are reported in the U.S.[12]

In the U.K., the introduction of "social value" in procurement of public contracts (versus the previous generation of approaches based on the "value-for-money" concept) along with the concept of a "big society" can make a dramatic impact on asset management as well—if these initiatives promoted by the central government will take root in the practices of local governments. The Public Services (Social Value) Act 2010–2012 adopted in February 2012 sets a stage for a paradigm shift in how outsourcing public services and awarding public contracts is conducted. Instead of the *value-for-money* considerations which have prevailed over the past 15-plus years in awarding public contracts (i.e., generally financial considerations), the new approach calls for factoring in *social value* that the private or non-government service providers would offer. Despite big publicity for the idea and a new law, it remains unclear how social benefits can be measured, monitored and compared in a consistent way when bids are evaluated.

This "big society" concept in the U.K. practically assumes that some local services (libraries, social housing, community infrastructure, etc.) traditionally funded and provided by local governments, with

Figure 2

Controversy about Public Property, Stuttgart 21, Germany

A park and parts of a historic railway station building in Stuttgart, Germany, were slotted for demolition and redevelopment into commercial mixed-use real estate, as a way to defray some of the cost of modernizing segments of the old railway system and building a high-speed track and tunnel to be used for the high-speed Magistrale for Europe (Paris—Vienna). The project, Stuttgart 21, went through all proper public consultations in the mid-2000s and was approved, but when in 2008 the government scheduled and announced that the demolition would take place in 2010, regular protests and demonstrations started. Throughout the escalating confrontation, the Stuttgart government and the state government of Baden-Württemberg maintained the position that the law was on their side, as the project was properly discussed and approved, and the rule of law should prevail even for unpopular projects. On the eve of the demolition, about 100 people were injured by police who used water cannons, tear gas, pepper spray and batons to disperse protesters. At least partly due to this confrontation and controversy, the ruling party lost to the Green Party in the municipal elections (2009), and the state elections in 2011 resulted in a member of the Greens becoming premier of Baden-Württemberg—the first time in German history when the Greens took this post in any of the states. However, the statewide referendum held in 2011 upheld the majority support for the Stuttgart 21 project, and the demolition and construction went on.

Source: http://en.wikipedia.org/wiki/Stuttgart_21 *and Gary Hustwit, "Urbanized" 2011* http://urbanizedfilm.com/.

occasional assistance by volunteers, now would be offloaded to the non-government sector (nonprofit and charity organizations). It remains to be seen how this could work because the first practical attempts to do so ran into: (1) a legal conflict with existing laws, including European Union procurement rules; and (2) technical challenges (e.g., most services require staff technical expertise, be it a librarian or a technician operating a swimming pool).[13]

Transferring service provision from government to "social enterprises" and charity organizations would involve transferring some properties as well, such as housing, community centers, etc. It remains to be seen how multiple asset management issues will be handled during and after such transactions, such as:

- At which value will the property be transferred? This can be an especially significant question, given that the U.K. is among the few countries where government property has been normally accounted and transacted at its market value.
- On whose balance sheets will these properties sit?
- Who will pay for property operation and maintenance?
- Who will provide property operation and maintenance?

A growing recognition of the "social value" in the context of government property adds a layer of complexity to already complicated issues of valuation of government property and projects as part of a decision-making process. For example, John Hentschel and Marilee Utter illustrated a very common case when real-life property decisions in U.S. cities are driven by legitimate political considerations that nevertheless are sub-optimal from the financial viewpoint.[14] These authors also discussed how comparing *value-in-use* and *market value* of government property can help make such decisions as "hold/use" or "dispose of."

Another line of thinking develops the idea that in the government sector, property-related decisions may require not only an appraisal of a particular property, but a broader cost-benefit analysis that incorporates the social and economic effects *beyond* the property itself.[15]

Furthermore, governments sometimes deploy government-owned vacant land or property in the hope of stimulating local economic development or urban revitalization, or "targeted" policy objectives such as support to small businesses or start-ups. In such cases, effects, if they materialize, produce benefits that are broader than just revenues from a particular property. For example, the benefits can include new jobs and related tax revenues that these jobs generate, spillover effects from revitalization of blighted areas, etc. However, particular decisions on deployment of government surplus property are often politically motivated and are not based on rigorous cost-benefit analysis of feasible alternatives.

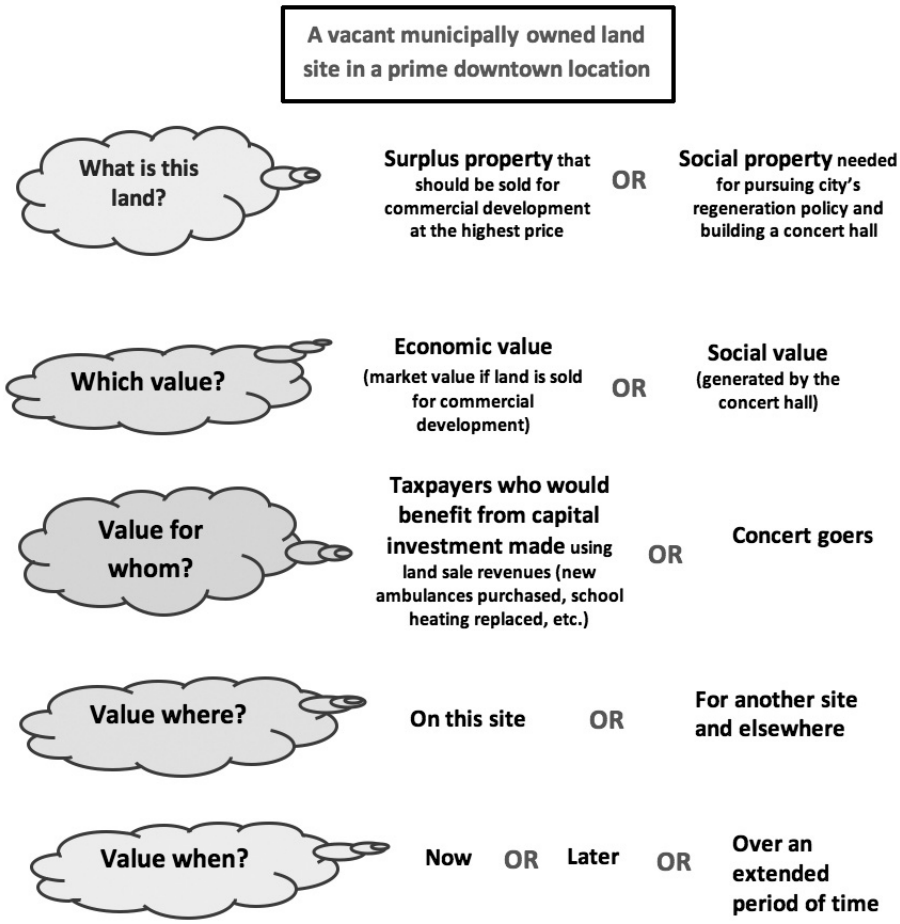
In general, deep conceptual and technical issues related to valuing government-owned property need much more professional attention than they have been receiving. Symptomatically, in 2011, the International Valuation Standards Council established a special expert group to launch an inquiry on the valuation of specialized government property.

One can predict with reasonable confidence that the *valuation of public property is a rising issue, much more complex, conceptually and technically, than the appraisal of market value within the private real estate context.* Figure 3 illustrates which questions might need to be considered within the domain of government property valuation. In particular, it appears that one of the questions posted on Figure 3, "value for whom?" captures one of the fundamental differences between private and government land. Indeed, in the case of private property, its owner is usually present in a single voice when it comes to transactions. Of course, family members or board members at a corporation can have different opinions on what to do with the family or corporate property, but when the property is going to be sold or demolished, somebody has the authority to make ultimate decisions. In the case of government property, as the story of *Stuttgart 21* illustrated, a single voice simply may not exist, and the property owner has an intrinsically "multiple personality," which includes government and various interest groups in the society.

Complexity of the subject, both conceptual and technical, suggests that real estate appraisers and public sector asset managers, along with professional organizations, need to step up for developing and testing methodologies. A challenging balancing act would be to combine conceptual validity of these approaches with reasonable simplicity, compatible with government capacity and expense constraints, This area, valuation of government property, makes a substantial addition to the challenges that the valuation profession has been already facing in the private sector of the economy,[16] but at the same time it

Figure 3

Some Conceptual Challenges of Government Property Valuation



Source: Olga Kaganova

opens a new, underexplored niche.

Finally, life-cycle costing, while well known for the past 35 years, has not yet become a common operational reality in government asset management, even in many developed countries. The life-cycle costing approach recognizes that costs related to a life span of any public building or facility include not only acquisition or construction costs, but also the operation and maintenance costs, disposal costs and recapitalization costs (i.e., funding that should be allocated and accumulated for replacing the building when it ends its useful life). All these cost components need to be planned and properly budgeted. However, as is well known, most governments (of all levels) in most countries, including such countries as Canada and the U.S., systematically underinvest in maintenance and recapitalization of their assets and have huge backlogs of deferred maintenance and recapitalization. At the same time, there are encouraging examples: in Australia, federal agencies must follow the mandatory property framework, under which the decisions to own, lease or dispose of property should be determined on a case-by-case basis and based on cost-benefit analysis, using whole-of-life costs.[17]

In the former centrally planned economies, even cities with exceptionally good financial management (measured by standard matrixes) may not yet have proper life-cycle costing. For example, the cities of Katowice and Warsaw in Poland have very advanced systems of municipal financial management and budgeting and enjoy high creditworthiness ratings—and still they do not have life-cycle costing in place. The prevailing lack of life-cycle costing by governments can be interpreted as one symptom of a broader systemic issue: mismatch between public finance systems and asset management needs.[18]

TRANSPARENCY OF GOVERNMENT ASSET MANAGEMENT—WHAT IS IT, REALLY?

Nothing is obvious here, starting with the simplest question: Which asset information should be disclosed to the public? The currently prevailing case even in advanced market economies is that governments of all levels, including subnational governments in Canada, the U.S. and the U.K., do not release data on their property holdings. There are exceptions: For example, the Canadian government has the *Directory of Federal Real Property* open to the public on the Internet. In January 2012, the U.K. government released parcel-by-parcel data about the property owned by the central government. Skeptics question whether parcel-by-parcel data release per se would help manage government property more efficiently, while obviously adding to the costs. At the same time, proponents argue that such disclosure is good for overall government transparency and also demonstrates that the government does have data on its property holdings. Indeed, when data on government property holdings is not available to the public, this can—and often does—indicate that the government itself does not have this data in any presentable form.

In countries with young democracies and weak rule-of-law, disclosure of data on government property holdings can turn into a double-edged sword. For example, in 2006 one of the cities in Kyrgyzstan inventoried municipal land and published this land data. Soon thereafter, some valuable land sites approved by the city council as a "golden reserve" for future sales—in order to use revenues to fund future infrastructure needs—were demanded for purchase by a relative of the then president of the country. The city government was not able to withstand the political pressure, and the city council was practically forced to rubber-stamp the land sale. A bitter afterward doubt was that if the city had not published the inventory, the land might have been saved from this grab.

Given how much government asset management is a work in progress, it appears that one very important and useful element of transparency, which advances asset management not only domestically but internationally as well, is publishing reports in which governments present their reviews and analyses of property holdings. Such reports reflect both the data the governments have, the use of the data, and directions of asset management activities. For example, the British *The State of the Estate* report[19] presented not only the size, distribution by department, age and location of property holdings, but also efficiency indicators, such as occupancy, space consumption per full-time employee, and operating costs per square meter. Similarly, *Australian Government Property Office Occupancy Report*[20] provides a very detailed analysis of occupancy and density at property holdings against established targets.

Transparency in asset management obviously goes beyond making publicly available the data on holdings and its analysis. The major elements include the transparency of procedures and deals.

CONCLUSIONS

Within the context of the continuing fiscal crisis and increasingly diversified and evolving public expectations related to government property, introduction of good policies on government property valuation becomes an urgent necessity in countries where market-based valuation is not conducted for accounting purposes. Among many other countries, this applies to the U.S. and Canada. Such policies need to require recognition of economic value of government land and property, along with liabilities, as a part of decision making on any transaction. The policies would have an effect only if they are administratively binding for government agencies and activities, including business types.

Conceptual and technical complexity of government property valuation calls for a broader engagement of real estate professionals and their organizations in charting methodologies that would be conceptually sound and still feasible to implement within government capacity and reasonable costs.

Finally, governments of all levels can benefit remarkably if inter-government exchanges of experiences are intensified, both domestically and across countries' borders. ■

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Retail Sales Set Rent Levels

BY RAYMOND T. CIRZ, CRE

RETAIL PROPERTIES HAVE A UNIQUE RELATIONSHIP WITH THE businesses they house. Location and physical features of the property play integral roles in the customer experience. How this will influence a retailer's sales creates a correlation between sales and rent levels. Using a large regional shopping mall as a study subject, this article presents an example of how rental rates can be determined through an analysis of retail sales and rents for comparable (peer) properties.

Rent levels for all commercial property classes are influenced by local, regional or even national supply and demand factors. There are many factors that affect a tenant's decision on where to locate, some of which include physical aspects of the improvements, location, access, visibility and rent or price levels. An additional element for retailers that is unique to this property class is a consideration of how much business can be generated at a particular site.

Compared with the needs of retail, office buildings can house employees whose business products as well as customers are located far away. The choice of office space, generally speaking, does not directly affect tenants' business generation. Another comparison can be made with warehousing. Distribution facilities are commonly selected based on location and physical aspects, without consideration to competitors' having similar facilities in the area. If it is a good location, competitors are typically nearby.

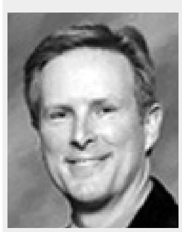
On the other hand, retailer location decisions are tied directly to the amount of business they expect to generate at any given location. They must consider their proximity to directly competing businesses, their existing locations, and rental and occupancy costs, as well as other factors. The retailer typically will enter into a lease—or for that matter, buy or build—only if the location will likely contribute to profitability.

Studying the relationship between retail sales levels and achievable rent levels can help in estimating rent potential, and hence market value, for retail properties. While the study presented in this article involves a complex regional mall, the methodology can be applied to all types of retail properties.

IDENTIFICATION OF THE SUBJECT

The subject of this analysis is a regional mall located in the Eastern region of the United States. A regional mall is defined as: "a shopping center that offers a variety of general merchandise, apparel, furniture, home furnishings, services, and recreational facilities and is built around one

About the Author



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or more full department stores. This type of shopping center is usually enclosed, with an inward orientation of the stores connected by a common walkway, and parking surrounds the outside perimeter”.[1]

Regional malls can be quite complex, offering a wide range of retailers from apparel stores, restaurants, jewelry stores and kiosks, each operating under somewhat different economic parameters. However, all have the same goal of making a profit, and real estate occupancy costs constitute one of the largest expenditures for a retailer.

The types of goods sold in a regional shopping center are classified as general merchandise, apparel, furniture, and other retail goods (GAFO). An analysis and understanding of GAFO sales potential is critical to the mall valuation process. The analysis compares key factors relating to the subject mall with those of a competitive set of similar regional malls in order to glean market parameters. These factors include recent leasing activity, achieved retail sales volumes for tenants, and the existing composition of tenancy within each mall. Figures 1 and 2 provide primary characteristics and photo representations of the subject property. In the chart, “in-line” refers to all stores other than the department store anchors.

Figure 1

Subject Property Characteristics

- **Enclosed regional mall**
- **930,000 SF gross leasable area (GLA)**
- **3 department store anchors**
- **Opened 1984**
- **Last renovated 2003**
- **Part one and two level**
- **In-line GLA: 310,000 SF**
- **In-line occupancy: 88%**
- **In-line/anchor ratio: 33%**
- **In-line retail sales: $360 per SF**

Source: Integra Retail Database

Figure 2

Photos courtesy of Raymond Cirz, CRE

PEER GROUP SELECTION CONSIDERATIONS

A database was assembled from thousands of assignments involving various retail properties located throughout the U.S. over the past decade. Based on a review of the subject mall, search criteria are entered into the database to assist in the peer group selection. Such factors as property class, overall size, market segment characteristics, in-line mall shop occupancy, and in-line mall shop retail sales levels are important factors to consider. The ratio of in-line shop space to department store space can also have an impact on mall performance. Data gleaned from similar centers permits these comparisons. Figure 3 contains the criteria for selecting a peer group.

Figure 3

Peer Group Selection Criteria

- **East region**
- **Class B**
- **Enclosed regional malls**
- **Primary market, non-dominant**
- **Total mall size: 750,000 to 1,200,000 SF**
- **In-line occupancy**
- **In-line/anchor ratio: 30% – 40%**
- **In-line retail sales: $300 – $375 per SF**

Source: Integra Retail Database

PEER GROUP ANALYSIS AND OBSERVATIONS

The database search resulted in the selection of 28 enclosed regional malls encompassing more than 11 million square feet of in-line space. Further, 553 leases have occurred in the past twelve months within the centers. These leases encompass the full spectrum of shop space typically found in regional centers. The average rent from these leases is $34.62 per square foot and the average in-line retail sales are $355 per square foot, indicating an average rent to sales ratio of 9.8 percent. This is a critical ratio needed to support the economic viability conclusions made in any market rent analysis.

Figure 4

Peer Group

- **28 regional malls**
- **11,208,311 square feet surveyed**
- **553 market leases**
- **Average rent per SF: $34.62**
- **Average retail sales per SF: $355.00**
- **Rent to retail sales ratio: 9.8%**

Source: Integra Retail Database

MERCHANDISE MIX CONSIDERATIONS

If it were only a matter of maximizing rental revenue, a mall operator would just rent all store space to fast food and jewelry tenants, as these tenants tend to pay the highest rent levels. However, such a strategy is not practical as a proper merchandise mix must be maintained. Therefore, tenants within the subject and peer group are separated by NAICS code[2] into various categories such as ladies' apparel, jewelry, restaurants and electronics, as each of these tenant types operates under different economic parameters.

Existing tenants from the subject and peer group are divided into the thirteen different categories shown in Figure 5. A comparison can then be made of the amount

Figure 5

Tenant Mix Analysis (In-Line Non-Anchor Occupied Space)

Category	Subject % of Total SF	Subject Sales PSF	Peer Group Malls % of Total SF	Peer Group Malls Sales PSF
Ladies' Apparel	18.1%	$299	16.0%	$341
All Other Apparel	30.3%	$304	24.3%	$389
Specialty Apparel/Accessories	7.4%	$430	7.7%	$470
Women's Shoes	0.5%	$407	0.9%	$338
All Other Shoes	10.0%	$240	7.0%	$270
Food Service	7.2%	$582	8.7%	$549
Jewelry	2.1%	$713	1.6%	$760
Services/Cinema/Entertainment	2.5%	$229	3.0%	$194
Electronics	2.6%	$506	5.8%	$670
Cards & Gifts	8.0%	$345	3.7%	$335
Sporting Goods	0.9%	-	2.4%	$229
Home Furnishings	2.1%	$221	7.3%	$267
Other	8.4%	$368	11.6%	$293
Totals/Average	**100.0%**	**$360**	**100.0%**	**$355**

Source: Integra Retail Database

Figure 6

Recent Leasing Activity

(*) In-line gross leasable area

Total ILGLA (*)	Subject 310,000	Peer Group Malls 11,208,311	Subject Market Rent Estimate
Zero to 1,499 SF			
Low	$70.00	$23.20	
High	$70.00	$174.99	
Wtd Average	$70.00	$56.10	$50.00
Typical Sales PSF	$432.57	$541.28	
Num of Tenants Reporting	1	123	
1,500 to 2,499 SF			
Low	$40.00	$13.03	
High	$48.00	$135.00	
Wtd Average	$43.84	$42.19	$40.00
Typical Sales PSF	$434.69	$473.15	
Num of Tenants Reporting	2	111	
2,500 to 3,999 SF			
Low	$45.38	$20.50	
High	$45.38	$85.00	
Wtd Average	$45.38	$33.17	$32.00
Typical Sales PSF	$242.93	$387.13	
Num of Tenants Reporting	1	90	
4,000 to 6,499 SF			
Low	-	$35.70	
High	-	$88.84	
Wtd Average	-	$38.19	$30.00
Typical Sales PSF	$343.86	$360.17	
Num of Tenants Reporting	0	93	
6,500 to 9,999 SF			
Low	-	$29.19	
High	-	$44.05	
Wtd Average	-	$31.50	$28.00
Typical Sales PSF	$214.12	$311.72	
Num of Tenants Reporting	0	89	
Jewelry			
Low	$74.00	$63.20	
High	$74.00	$131.89	
Wtd Average	$74.00	$71.20	$75.00
Typical Sales PSF	$712.78	$669.08	
Num of Tenants Reporting	1	22	
Food Court			
Low	$148.76	$99.99	
High	$148.76	$403.73	
Wtd Average	$148.76	$191.01	$50.00
Typical Sales PSF	$652.80	$1,060.30	
Num of Tenants Reporting	1	25	
Total: In-Line Tenants			
Total In-Life SF Included	10,235	210,990	
Wtd Avg Rent PSF	$57.56	$34.79	
Mall Shop Sales PSF	$360.00	$355.00	$30.00
Tenants Reporting	6	553	

Source: Integra Retail Database

of in-line space dedicated to each category. Deficiencies or overrepresentations can be easily identified to determine whether the existing mix is proper. A comparison of achieved retail sales volumes within each category is helpful in the analysis.

Each retail category can be isolated for analysis. Figure 5 suggests that the subject may have too much apparel related uses as it has more space dedicated to this category than the peer group, and it experiences somewhat lower sales volumes. However, the subject is located in a taxing district that has sales tax on clothing while nearby competitors do not. Overall, retail sales for in-line mall shop space averages $360 per square foot for the subject, which compares well to sales within the peer group of $355 per square foot. It is concluded that the existing tenant mix at the subject is reasonably market oriented.

TENANT SEGMENTATION

Since store size can have an influence on achievable rent levels, the tenants within the centers are arranged by various size categories in Figure 6. Certain tenants can be isolated from this analysis such as food court, kiosk and jewelry merchants as factors unique to each can skew results. The average retail sales for the subject and the peer group are identified in Figure 6 along with the achieved rent level from recent leases within each category. Also presented is the range in rent levels per square foot within each category as well as the number of recent leases.

This comparison of leasing activity is very helpful as there may not be recent leases within the subject for a certain category, such as the 6,500 to 9,999-square-foot category, while the peer group has 89 recent leases. There are only six recent leases to include in the subject center data, but more than 500 from the peer group, which greatly enhances the analysis.

After reviewing the data, the analyst can make an estimate of market rent for the subject center. This appears in the right-hand column of Figure 6. These estimates are then aggregated into the chart in Figure 7, which provides an estimate of the gross potential market rent for the center. The analysis yields a gross potential rent of $10.7 million dollars or $34.62 per square foot of in-line space.

OTHER CONSIDERATIONS

For the purpose of this article, the analysis has been simplified to exclude factors relating to overall occupancy costs. Such factors would include tenant payments in addition to rent such as common area maintenance charges and real estate taxes, as well as other charges. Retail tenants certainly do not base their leasing decisions solely on the amount of base rent to be paid. Rather, they must consider all occupancy related charges in order to determine if the location is viable for their business purposes.

Figure 7

Weighted Average Market Rent Calculation

Type		Total Occupied SF	Market Rent	Gross Potential
Regular In-Line:	Zero to 1,499	27,890	$50.00	$1,394,500.00
	1,500 to 2,499	35,656	$40.00	$1,426,240.00
	2,500 to 3,999	38,479	$32.00	$1,231,328.00
	4,000 to 6,499	97,841	$30.00	$2,935,230.00
	6,500 to 9,999	88,909	$28.00	$2,489,452.00
	Jewelry	7,800	$75.00	$585,000.00
	Food Court	13,425	$50.00	$671,250.00
	Total:	**310,000**	**$34.62**	**$10,733,000.00**

Source: Integra Retail Database

TEST OF CREDIBLE RESULTS

The final step is to test the reasonableness of the $10.7 million rent estimate, considering that it is based on a number of estimates applied to approximately 150 tenants at the subject center—which certainly adds a degree of subjectivity and complexity. This is done by comparing the average subject market rent estimate of $34.62 per square foot with the achieved retail sales volume of $360 per square foot previously detailed, suggesting a market rent to retail sales ratio of 9.6 percent. In comparison, the peer group analysis, which was based on 28 regional malls, 11.2 million square feet of mall shop space and 553 recent leases, resulted in a ratio of 9.8 percent. Given the large sampling of lease data from the peer group, these comparable rent to retail sales ratios support the viability of the market rent estimate. Absent this peer sample of leasing activity, an estimate would rely solely on six recent leases at the subject center. The analyst can feel confident that the rent estimates for the subject mall property are reasonably market oriented. ■

Figure 8

Market Rent to Retail Sales Ratio

- **Subject market rent: $34.62 per SF**
- **Subject retail sales: $360.00 per SF**
- **Ratio: 9.6%**
- **Peer group ratio: 9.8%**

Source: Integra Retail Database

ENDNOTES

1. Appraisal Institute, *The Dictionary of Real Estate Appraisal*, 5th Ed., Chicago, 2010, p. 164.

2. Ibid., p. 136. North American Industrial Classification System (NAICS): The system of six-digit codes for classifying business activities developed jointly by Canada, Mexico and the United States; replaced the Standard Industrial Classification (SIC) system in 1999.

Timely Recognition of Development Profit: A Fair Value Perspective

BY BRENT A. PALMER, CRE, AND D. RICHARD WINCOTT, CRE

INTRODUCTION

In the current private and institutional real estate equity fund environment, periodic reporting of investment returns is both prudent and mandatory. This performance data is particularly important to pension and retirement plan investors in various open- and closed-end funds as well as single-client accounts. Also, Real Estate Information Standards (REIS) require that fund advisors report income and appreciation/depreciation return results on a quarterly basis; however, many funds now require that these returns be reported on a monthly or daily basis. Irrespective of the defined (or practiced) reporting frequency during a specified holding period for individual property investments, the measure of asset appreciation or depreciation is inextricably dependent upon the valuation or "mark-to-market" process.

For properties undergoing development, both the appraisal and reporting processes can prove difficult as many of the underpinnings of traditional valuation analysis are non-existent. Few, if any, sales of comparable projects transacted mid-construction exist from which meaningful market value indications can be derived. As a result of this lack of relevant and applicable market data, a frequently employed approach used to quantifiably measure value tended to be based on the total investment dollars expended from land acquisition through the date of valuation. At present, current valuation practices vary significantly, with some advisors valuing development assets at the cumulative cost of construction until the structure is physically complete or a predetermined occupancy level is achieved. Once a designated threshold is obtained, the property is appraised and only then will any gain or loss be recognized. As a result, simply reporting aggregated construction costs as value tends to understate actual asset value, and waiting until an appraisal is obtained following project completion and/or stabilization will not recognize the profit (or loss) achieved during development and initial leasing.

Since participants (investors) are permitted to enter or exit open-end funds on a periodic basis, the interest(s) purchased or sold must be based on appropriate asset values effective at the transaction date. To increase accuracy, another valuation approach or methodology that facilitates the timely recognition of development/entrepreneurial profit achieved on a proportionate basis—as the project progresses through the construction and occupancy stabilization process—will be proposed.

OVERVIEW

The focal purpose of this article is to: identify and discuss a number of issues or factors that frequently impact property value during development; recognize the primary risk factors affecting valuations of in-process construction; stimulate thought regarding the valuation process whereby appraisers and fund advisors are able to more appropriately and accurately reflect the periodic value of assets under development; and, supplement the position paper co-written by the same authors and adopted by the Board of Directors of the National Council of Real Estate Fiduciaries in 2005.[1]

Timely Recognition of Development Profit: A Fair Value Perspective

About the Authors

Brent A. Palmer, CRE, FRICS, *is executive vice president and chief valuation officer at NewTower Trust Company, Seattle, a member of Trust Real Estate Investment Committee, and executive director of NewTower Valuation Services LLC. Palmer has more than 25 years of experience in market research, feasibility analysis and valuation of real estate, infrastructure, stocks, securities and intellectual assets as well as leasing, portfolio risk, adaptive re-use, and investment consulting throughout the U.S. and Canada. Prior to joining NewTower, Palmer was national manager of Realty Advisory Services for GE Capital (BAF); senior vice president and manager of Valuation Technology at Bank of America; senior vice president and manager of Real Estate Advisory and Appraisal Services with Seafirst Bank; and senior vice president/managing director at Landauer Associates, Inc. He received his master's degree in business administration and bachelor of science degree from Brigham Young University. Palmer is vice chair of the Washington Real Estate Appraiser Commission and a member of the Board of Trustees for the Washington Center for Real Estate Research, CBE National Board of Advisors for Washington State University, Industry Advisory Council (The Appraisal Foundation), National Council of Real Estate Investment Fiduciaries (NCREIF) and Pension Real Estate Association (PREA).*

D. Richard Wincott, CRE, FRICS, MAI, *is a senior executive vice president in Altus Group's Research, Valuation and Advisory group, Houston. He has been actively involved in the real estate valuation and consulting profession since 1973. In recent years, principal clients include pension funds, institutional investors, REITs and Real Estate Operating Companies. Specialized areas of expertise include property valuation, transaction support, valuation advisory/management consulting, and litigation support. His current focus is on valuation consulting for Real Estate Fund Advisors, and REITs who are reporting the fair value of their assets on an annual, quarterly, monthly or daily basis. Industry involvement has included serving as chairman of the Valuation Committee, and member of the Board of Directors and Executive Committee for the National Council of Real Estate Investment Fiduciaries (NCREIF).*

Prior to holding his current position with Altus, Wincott was co-founder and president, Real Estate Analysts of Houston, national director of Valuations for Laventhol and Horwath, chief appraiser of the National Real Estate Valuation Services group at Price Waterhouse, and risk assessment partner for the Real Estate Business Advisory Services group at PricewaterhouseCoopers. He is a Fellow – Homer Hoyt Institute.

While no single analytic or metric is currently and commonly employed to address the myriad issues involved, the need for accurate valuation and reporting of realized development or entrepreneurial profit during the development process remains critically important. The following are included to explain and illustrate appropriate integration of these essential concepts in the valuation process: (1) descriptions of key development risk factors (primary risk factors) together with clarifying analytical perspectives; (2) overview of magnitude and duration of each risk factor (development risk profile and graphs); and, (3) illustrative case studies. **Please note that the case-studies presented, together with attendant analytics, are intended to demonstrate various approaches to improve valuation accuracy and should not to be construed as singularly approved or prescribed methodologies.**

PRIMARY RISK FACTORS

1. **Entitlement Risk**
   Risk of obtaining appropriate land entitlements, environmental assessments, construction permits, and possibly zoning variances. (This factor is event-driven and normally recognized as either zero or 100 percent completed.)
2. **Construction Risk**
   Materials pricing: risk that the cost of materials may change significantly from the original construction budget. (Typically, the use of guaranteed maximum price contracts is used to mitigate this risk; however, cost changes, enhancements, etc., can result in unmitigated risk needing to be addressed in the analysis.)
   - **Scheduling:** risk that planned construction completion could be prolonged due to weather delays, labor disputes, material delivery delays, etc. (Scheduled development timelines are helpful although the percentage of construction completion is frequently used as the percentage of risk mitigated as of the valuation date.)
   - **Contingency:** risk of cost overruns, change orders, unexpected delays, or other unanticipated issues arise that impact final completion cost. (As contingency cost budgets can be monitored and adjusted positively or negatively based on construction progress, risk mitigation for this item is measured similar to other construction factors; however, accuracy requires diligent monitoring.)

3. **Leasing/Sales Risk**
   - Risk that forecasted absorption (leasing or unit sales) volume will not be realized. (Use of independent appraisal preleasing assumptions as well as actual preleasing activity at the project is utilized in the determination of both total risk as well as ongoing risk mitigation in this category.)
   - Risk that early termination clauses would be invoked or that the property becomes encumbered by a long-term lease with below-market rent escalation provisions (frequency and/or amount of increase).
   - Risk of market-driven restructures of leasing or sales commission rates.
   - **Sustainability risk:** tenants and market participants may demand LEED certification status at a level greater than that attributable to the current project, thereby impacting rents, leasing velocity, tenant retention, etc. (While judgment is required for this factor, a thorough understanding of sustainability practices and resulting recognition, such as varying levels of LEED certification, is essential to ascertain the degree of risk and return associated with this characteristic.)
4. **Operating Expense Risk**
   - Risk of a significant change in one or more fixed or variable expense categories such as insurance, electricity, real estate taxes, etc. (Active monitoring of market and operating expense trends and project budgets is needed to assess risk yet to be mitigated.)
5. **Credit Risk**
   - Risk that prelease tenants and/or tenant industry segments are negatively impacted during development. (Public investment ratings and other informational metrics are available to assist with this risk factor measurement and mitigation.)
6. **Partnership Risk (if applicable)**
   - Risk that accompanies any ownership interest comprising less than 100 percent due to myriad factors regarding control, revenue distributions, etc. (A review of disposition control, buy-sell agreements, rights regarding material asset-related decisions, strength of partner financial statements, development capabilities, and experience, etc., are essential.)
7. **Capital Market Risk**
   - **Interest rates:** risk of significant change(s) in interest rates during the development period that could affect both the cost of construction and owner or purchaser ability to obtain suitable long-term financing. (Trend analysis of leverage availability and pricing; identification of alternatives for various elements of the capital stack; and, determination of accretive financing solutions is imperative. Existing financing commitments at fixed interest rates would be assessed and mitigated differently than uncovered construction or permanent financing; however, many funds are not dependent on leverage for development assets and their risk factors may be analyzed differently.)
   - **Alternative investment risk:** risk that investor allocations or rates of return for alternative investments will change, resulting in shifts in equity availability as well as capitalization and discount rates.
   - **Sustainability risk:** risk that market participants demand LEED certification levels greater than that attributable to the project under development, thereby resulting in "sustainability obsolescence" perceived by investors (and tenants).
8. **Pricing Risk**
   - **Supply risk:** risk that unanticipated competitive supply will impact the market before space absorption is achieved, resulting in short-, mid-, or long-term concessions, occupancy delays, pricing reductions, etc. (Ongoing monitoring of market supply and demand characteristics is essential and best accommodated through thorough market analysis contained in quarterly valuations.)
   - **Real estate cycle issues:** risk that rental rates may be negatively affected by changes in market supply/demand dynamics as well as economic or other financial sector issues.
9. **Event Risk**
   - Risk of a material physical, economic or other event occurring that significantly impacts asset operations and value. Weather, discovery of previously unknown environmental contamination, exodus of major employment providers, material capital market changes, and terrorism comprise a sampling of such events. (While not a frequent occurrence, this risk must be evaluated and shown as mitigated when appropriate.)
10. **Valuation Risk**
    - Risk that a lack of applicable, current market data exists to accurately value the subject property. (Although this risk is not meaningful on a typical

basis for general-purpose, institutional quality assets, dramatic market shifts resulting in a paucity of transactions may cause difficulty in the valuation process, thereby impacting accuracy and risk. For example, the recent recession resulted in a significant data shortage as well as similar asset sales price disparity that impacted valuation accuracy.)

- Risk that a lack of competency exists with the appraiser engaged to specifically address issues of property type, geography, valuation analytics, market research, etc. (This is easily mitigated through careful qualification, selection and engagement of appraisers and valuation consultants.)

As described, a number of risk factors can be fully or partially mitigated by contractual agreement (materials pricing and pre-committed construction "take-out" financing), insurance (unknown contamination covered by environmental insurance, acts of terrorism and weather), etc.; however, many risks require ongoing assessment and analysis to accurately monitor how and when mitigation will be achieved during development.

DEVELOPMENT RISK PROFILE

Primary risk factors can also be divided into subcategories that reflect various aspects of a particular development. In addition, each of the factors will vary from project to project depending on the geographic, market (supply and demand), political and physical forces involved. Therefore, the risk profile for a particular project is unique and has a critical impact on the recognition of profitability, depending on the relative "magnitude" and "duration" of each risk factor.

The "magnitude" of each risk factor is relational and can similarly change from project to project as well as market to market. For example, entitlement risk can vary significantly, as evidenced by the arduous and lengthy process of obtaining land and project entitlements in cities such as Boston or Los Angeles—as opposed to other municipalities with less stringent approval requirements. As a result, the overall development risk profile should reflect these differences with an additional increment of development profit being added to compensate for the effort required. This premise is consistent with the fact that the value differential between land with and without entitlements in Los Angeles or Boston is markedly greater than in Houston. Construction risk will also vary depending upon labor characteristics, weather, materials availability and pricing, etc. Project delivery, relative to the current real estate market cycle, can also impact the magnitude of risk factors.

"Duration" of each risk factor and its influence also impacts recognition of development profit. Certain risk factors can diminish or remain constant over the course of development. Entitlement risk, for example, ceases its impact on uncertainty once approvals are received. Other factors, such as construction risk and leasing/sales risk, diminish in duration as each task is completed.

There are also certain risk factors that appropriately fall into the Yogi Berra category of "it ain't over 'til it's over;" and, some risk factors such as partnership risk and operating expense risk may continue after the development phase is concluded. Factors such as leasing/sales risk are not completely mitigated until the lease is executed or the unit sale is closed. Even hard-money, presale contracts for condominiums can contain an element of risk until final closing. This important issue results in the following question that must be addressed: "If the property will be sold prior to completion of construction, is the remaining development profit in the project sufficient to attract potential purchasers?"

Figures 1 and 2 present pictorials of the overall risk recognition, measurement, and mitigation process. The case studies that follow further illustrate how risk factors can vary by project, real estate type, and existing as well as changing market conditions (both positive and negative).

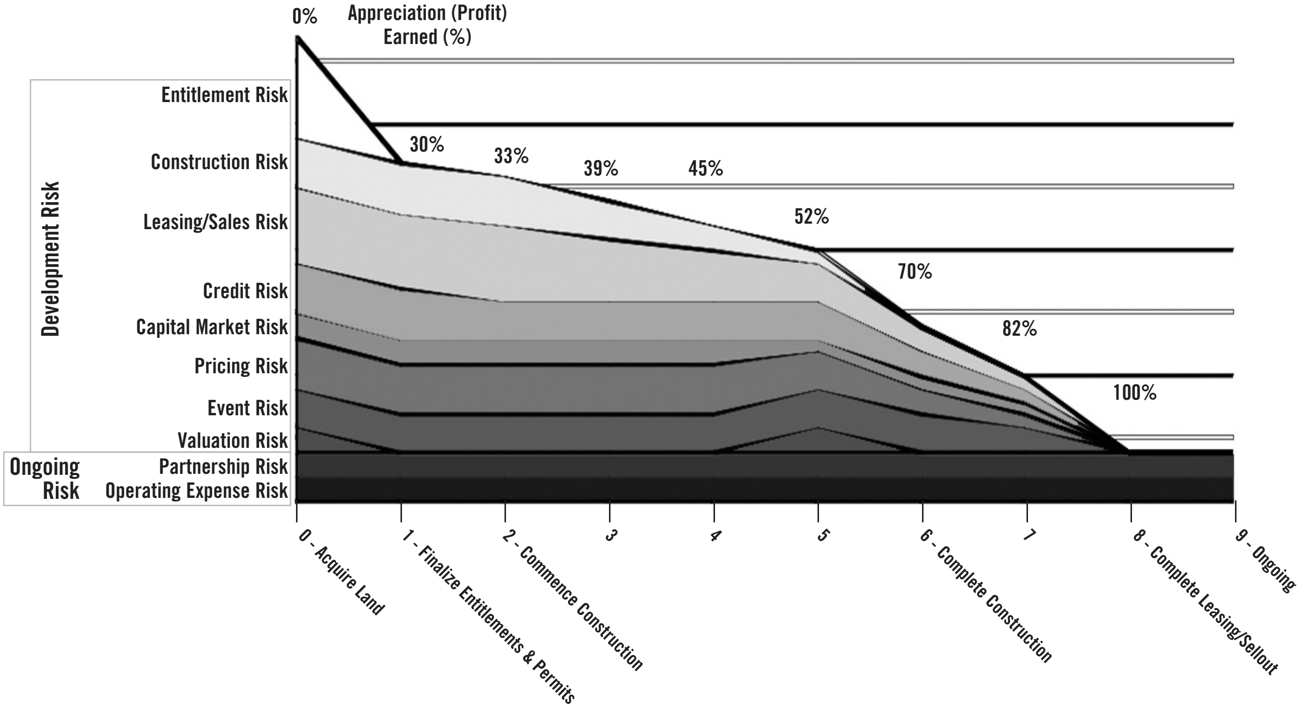
PROPERTY TYPE RISK PROFILES

Risk factors vary based not only on locational attributes, but the magnitude of increase or decrease is dependent upon property type as well. For example, construction risk is more significant for office properties than it is for industrial or multi-housing residential assets, largely due to the more complex and complicated HVAC systems, elevators, significant tenant improvement obligations, and parking facilities. As a result, the construction component is more capital intensive and requires a prolonged delivery or construction completion cycle.

In addition, leasing risk is more pronounced for office and multi-housing developments simply because of the number of individual tenants required versus larger-scale industrial distribution properties or big-box retail assets.

Figure 1

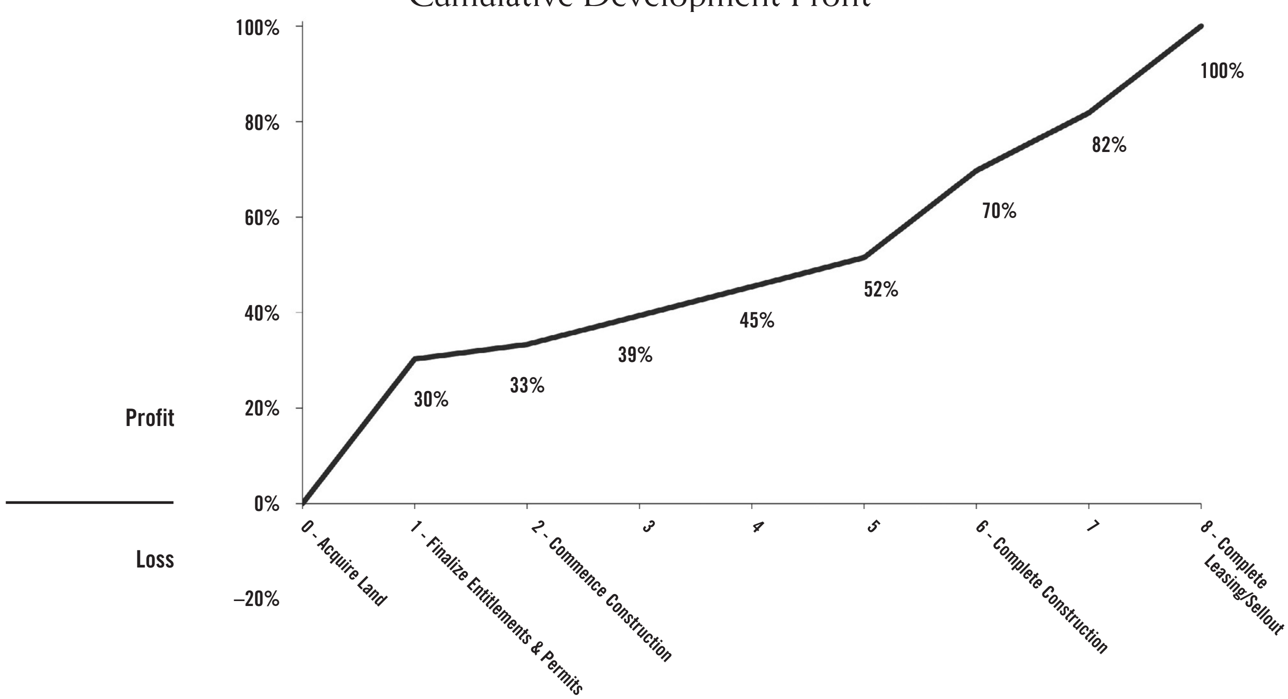
Risk Profile



Source: Palmer and Wincott

Figure 2

Cumulative Development Profit



Source: Palmer and Wincott

OFFICE BUILDING CASE STUDY

The purpose of this case study is to demonstrate the progression of value creation during the development process not only from the expenditure of capital, but also from recognition of value created from the entrepreneurial effort required during the development process. It is not meant to present a definitive methodology for completing the valuation process, but rather a sample of how to approach the issue when periodic valuations are required in an institutional investment environment for assets under construction.

The case study example is a proposed office building in Smallville, U.S.A. As discussed in the body of this article, the weighting of risk factors will differ between property types and locations. Basic case study assumptions are as follows:

Timing: The example illustrates the entire development process from vacant land acquisition through sale of the finished asset upon achieving stabilized occupancy. The analysis is presented in quarterly increments similar to reporting requirements of the typical open-end, comingled real estate fund. To demonstrate the dynamics of the development process, there are three significant dates pertinent to the case study:

- Development Begin Date — *Quarter 0*
- Completion of Construction — *Quarter 5*
- Stabilized Occupancy and Asset Sale — *Quarter 7*

Figure 3

Development Risk Profile

	Quarterly Begin	Quarterly End
Milestones		
Acquire Land	0	0
Entitlement Process	0	2
Construction Period	2	5
Fixed Price Contract	yes	
Leasing	4	7

Source: Palmer and Wincott

ASSET DETAILS

Figures 4, 5 and 6 summarize the asset level detail and market assumptions utilized in the initial Case Study.

Risk Mitigation: Figure 7 presents various risk factors and the relative weight of each in this particular development scenario. It is important to note that throughout the development cycle, the current status of risk factors must be evaluated for each reporting period. Changes in the planned status of any applicable risk factor can impact the current risk profile and therefore influence the current period value estimate. The relative degree of risk for each factor is weighted on a scale from one to ten, decreasing as the impact diminishes.

As the analysis progresses through the seven-quarter development period, various risk factors are mitigated until eventually the property has reached stabilization. Figure 8 presents a pictorial demonstration of diminishing risk factors over the development cycle.

Profit Recognition: Based on development pro forma assumptions, the nominal target profit is $4,610,000 (see Figure 9).

There are various methodologies for recognizing incremental profit earned during the development cycle. Traditionally, profit was back-end loaded upon project completion or achieving specific thresholds such as consummation of construction or attaining a certain occupancy level. The methodology utilized herein relates the amount of profit earned to the corresponding amount of risk that has been mitigated during the development process. This is appropriately measured by one of two methods currently in use: (1) adjusting the periodic discount rate in the development model that is applied to the remaining cash flows until the hypothetical sale of the asset upon completion of construction; or (2) calculating the pro rata share of development profit attributable to each factor that is "earned" as the risk is mitigated through the construction cycle. The selection of an acceptable method is typically based on complexity of asset type as well as quality and quantity of data available in the marketplace.

METHOD ONE – BASE CASE

In this example, the target development internal rate of return is 20 percent. Over the development period, as various risk factors are mitigated, the inferred discount rate decreases until construction is completed. At that point the appropriate discount rate would be the market discount rate for similar improved properties. For this sample case study, we have utilized an "at completion" property discount rate of 9 percent. Figure 10 presents the periodic discount rate adjustment based on the risk mitigation profile presented earlier.

Figure 11 presents a detailed cash flow analysis of the development project and resulting periodic accumulation of development profit.

Figure 4

Property Statistics: Office Building

				% of Total
Building NRA	100,000	SF		
Land Acquisition Cost			$4,000,000.00	17.32%
Deveopment Costs				
Hard Costs	$170.00		$17,000,000	73.62%
Indirect Costs				
Permit Costs	1.00%	$170,000		
Legal Fees	2.00%	$340,000		
Leasing Commissions	6.00%	$900,000		
G&A	2.00%	$340,000		
Marketing	2.00%	$340,000		
Total Indirect Costs			$2,090,000	9.05%
Total Development Costs			$23,090,000	100.00%

Source: Palmer and Wincott

Figure 5

Market Assumptions

Market Cap Rate		7.00%	
Development IRR		20.00%	
As Completed IRR		9.00%	
Market Rent	$	30.00	per SF of NRA
Average Lease Term		5	years
Stabilized Vacancy & Credit Loss		7.00%	
Expenses	$	8.50	per SF of NRA
Expense Reimbursement		Gross	
Management Fee		4.00%	

Source: Palmer and Wincott

Figure 6

Value at Completion

Operating Statement

Potential Rental Revenue	$	3,000,000
Expense Reimbursements	$	-
Potential Gross Revenue	$	3,000,000
Vacancy & Credit Loss	$	210,000
Effective Gross Revenue	$	2,790,000
Expenses	$	850,000
NOI	$	1,940,000
R_o		7.00%
Property Value at Completion	$	27,714,286
Rounded	$	27,700,000
per SF of NRA	$	277.00

Source: Palmer and Wincott

Figure 11 further demonstrates the correlation between the amount of risk mitigated and recognition of profit. Note that in this example, construction is completed in the fifth quarter of the development cycle, but since leasing risk is not mitigated until the seventh quarter, it is inappropriate to recognize all of the profit at completion of construction. In addition, as the asset will be 60 percent pre-leased at the time of certificate of occupancy, cash flows must also take into consideration the buildup of NOI until the point of stabilization and theoretical sale of the asset.

Periodic Valuation Example: The main purpose of this article is to demonstrate how increments of profit earned during the development cycle need to be reflected in the fair value estimate for periodic reporting. To further illustrate this premise we have chosen a hypothetical date of

Figure 7

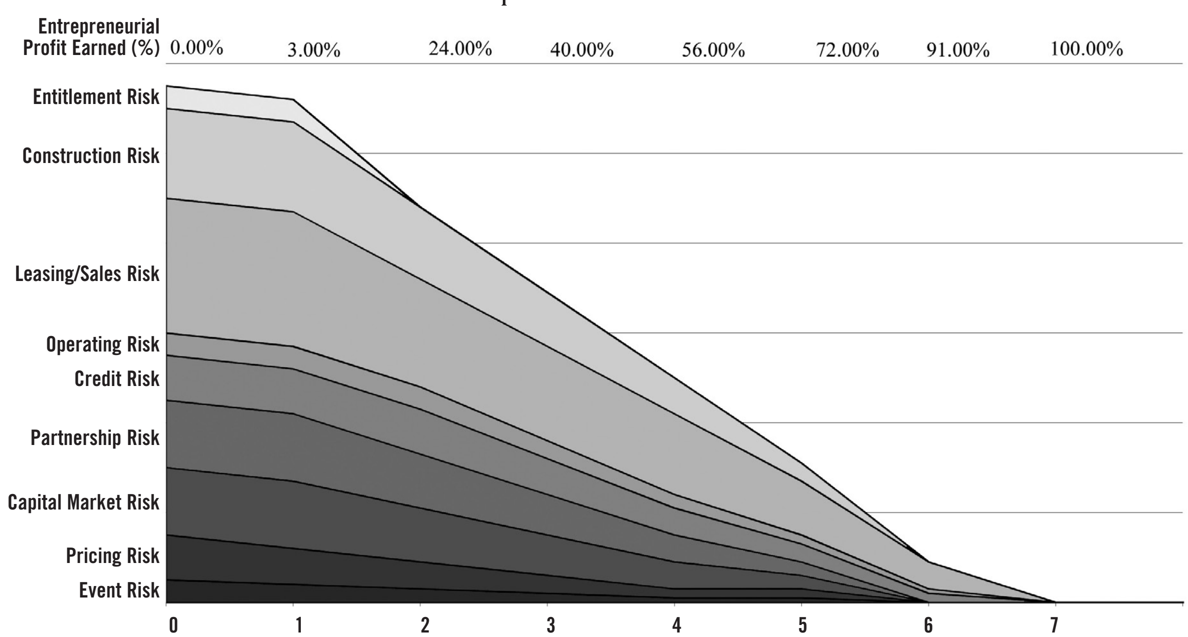
Risk Factor Weighting

	Relative Weight	Development Period (Quarterly): 0	1	2	3	4	5	6	7
Primary Risk Factors:									
Entitlement Risk	5.00%	10	10	0	0	0	0	0	0
Remediation Risk	0.00%	0	0	0	0	0	0	0	0
Construction Risk	20.00%	10	10	8	6	4	2	0	0
Leasing/Sales Risk	30.00%	10	10	8	7	6	4	2	0
Percent Preleased			0%	20%	30%	40%	60%	80%	100%
Credit Risk	10.00%	10	10	10	8	6	4	2	0
Operating Risk	5.00%	10	10	10	8	6	4	2	0
Partnership Risk	0.00%	0	0	0	0	0	0	0	0
Capital Market Risk	15.00%	10	10	8	6	4	2	0	0
Pricing Risk	10.00%	10	8	6	4	2	2	0	0
Event Risk	5.00%	10	8	6	4	2	2	0	0
Weighting	100.00%								

Source: Palmer and Wincott

Figure 8

Development Risk Profile



Source: Palmer and Wincott

value at the end of the third quarter of the development. Based on the analysis as outlined, approximately 40 percent of the developmental risk has been mitigated at that time with total cost of the project to date of $13,148,000. The appropriate risk adjusted discount rate has declined from the original 20 percent to 15.60 percent, which is applied to the remaining periods four through seven, indicating a current value of $15,232,318 ($15,200,000 rounded). Therefore the total recognized development/entrepreneurial profit as of the date of valuation is $2,084,318 (see Figure 12).

METHOD ONE - ALTERNATIVE CASE

The preceding case study illustrates a successful, feasible development where anticipated entrepreneurial profit is achieved as initially anticipated. However, negative

Figure 9

Estimated Profit

Value at Completion	$	27,700,000	
Total Development Costs	$	23,090,000	
Estimated Gross Development Profit	$	4,610,000	19.97%

Source: Palmer and Wincott

market or asset conditions introduced mid-development may cause a corresponding change in the risk profile, resulting in a potentially material reduction in available development profit on a gross or net present value basis.

If, for example, during the third quarter of development an unanticipated competing office project with superior access, design characteristics, and lead credit tenant is announced in the subject's competitive market area, the assumptions utilized in the previous example will require re-examination. Given the probable degradation of demand for the subject property, absorption as well as market leasing risk will be similarly impacted.

In addition to the announcement and pending ground-breaking of this new competing office development, also assume that market demand conditions are now forecast to deteriorate during the fourth quarter of the construction schedule, due to a just-disclosed loss of a major

Figure 10

Discount Rate Adjustment

Discount Rate Analysis:								
Percent of Risk Remaining at End of Period	100.00%	97.00%	76.00%	60.00%	44.00%	28.00%	9.00%	0.00%
Target Discount Rates	20.00%							9.00%
Risk Rated Discount Rate	**20.00%**	**19.67%**	**17.36%**	**15.60%**	**13.84%**	**12.08%**	**9.99%**	**9.00%**

Source: Palmer and Wincott

Figure 11

Property Cash Flow Analysis: Office Building

Development Milestones	Development Cost Check	0 Acquire Land 3/31/2012	1 6/30/2012	2 Construction Begins 9/30/2012	3 12/31/2012	4 3/31/2013	5 Construction Ends 6/30/2013	6 9/30/2013	7 Stabilized Leasing 12/31/2013	Asset Sale
Development Costs										
Land Acquisition	4,000,000	(4,000,000)								
Hard Costs	17,000,000			(4,250,000)	(4,250,000)	(4,250,000)	(4,250,000)			
Permit Costs	170,000		(100,000)				(70,000)			
Legal Fees	340,000		(140,000)				(120,000)	(40,000)	(40,000)	
Leasing Commissions	900,000						(540,000)	(180,000)	(180,000)	
G&A	340,000		(68,000)	(68,000)	(68,000)	(68,000)	(68,000)			
Marketing	340,000		(68,000)	(68,000)	(68,000)	(68,000)	(68,000)			
Total Development Costs	23,090,000	(4,000,000)	(376,000)	(4,386,000)	(4,386,000)	(4,386,000)	(5,116,000)	(220,000)	(220,000)	
Property Operating Cash Flow			-	-	-	-	-	391,400	535,400	
Net Cash Flows		(4,000,000)	(376,000)	(4,386,000)	(4,386,000)	(4,386,000)	(5,116,000)	171,400	315,400	27,700,000
Total Gross Cash Flow	5,536,800									
Discount Rate Analysis:										
Percent of Risk Remaining at End of Period		100.00%	97.00%	76.00%	60.00%	44.00%	28.00%	9.00%	0.00%	
Target Discount Rates	20.00%									
Risk Adjusted Discount Rate		20.00%	19.67%	17.36%	15.60%	13.84%	12.08%	9.99%	9.00%	
Project IRR	21.47%									
Present Value Analysis										
Estimated Market Value Per Period		4,295,912	4,954,320	10,062,424	15,232,318	20,512,826	26,563,325	27,332,764	27,700,000	
Cost to date		4,000,000	4,376,000	8,762,000	13,148,000	17,534,000	22,650,000	22,870,000	23,090,000	
Profit to date		295,912	578,320	1,300,424	2,084,318	2,978,826	3,913,325	4,462,764	4,610,000	
Incremental Profit Added		295,912	282,408	722,103	783,895	894,508	934,499	549,440	147,236	
Percent of Development Profit Earned		0.00%	3.00%	24.00%	40.00%	56.00%	72.00%	91.00%	100.00%	
Target Profit	$ 4,610,000									
Percent of Target Profit Earned		6.42%	12.54%	28.21%	45.21%	64.62%	84.89%	96.81%	100.00%	

Source: Palmer and Wincott

Figure 12

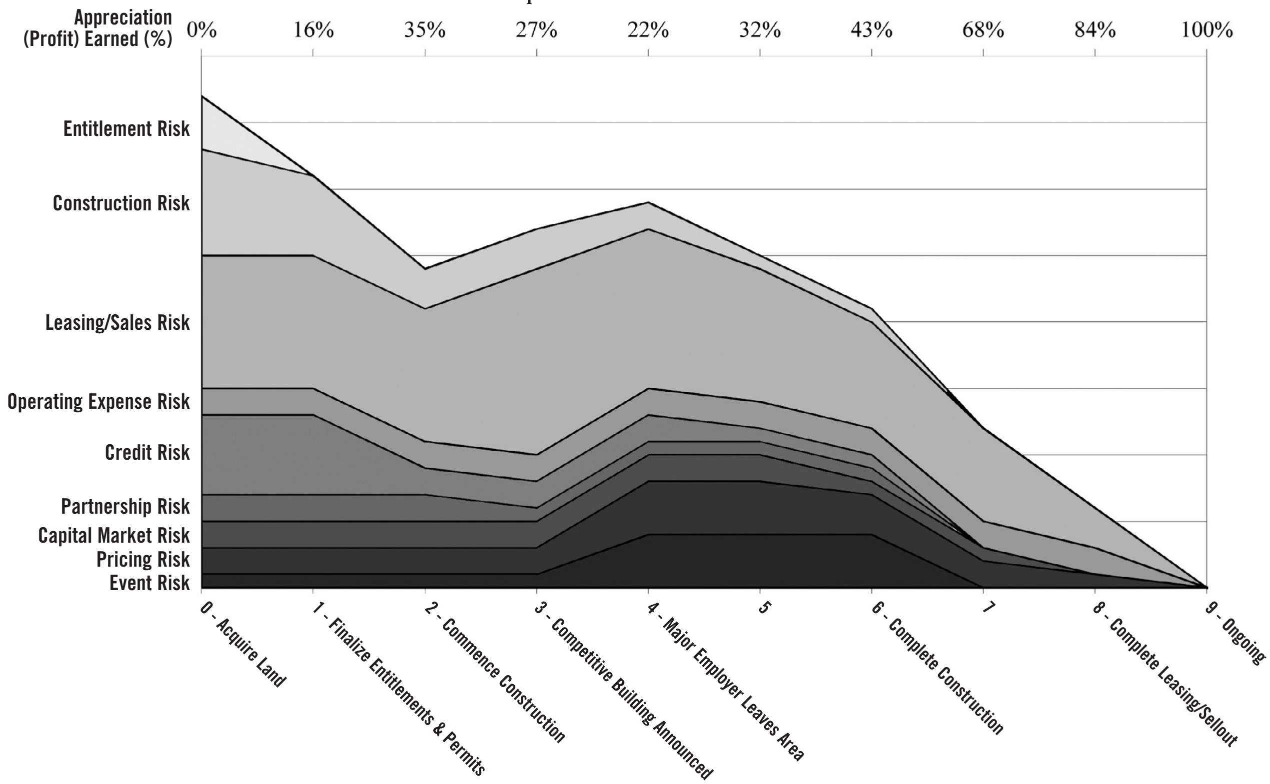
Periodic Value Example

Current period		3
Present Value Analysis		
Indicated Discount Rate		15.60%
Estimated Quarter End Market Value	$	15,232,318
Cost to Date	$	13,148,000
Realized Profit to Date	$	2,084,318
Percent of Development Profit Earned		40.00%
Percent of Target Profit Earned		45.21%

Source: Palmer and Wincott

Figure 13

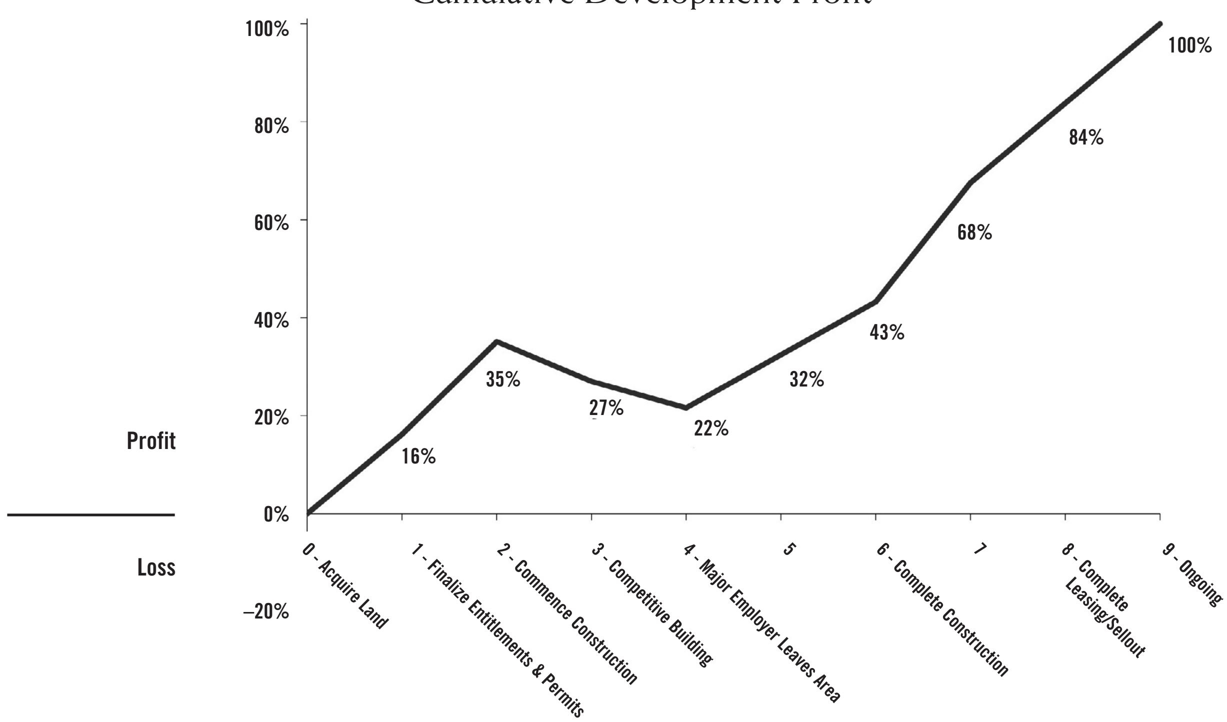
Development Risk Profile



Source: Palmer and Wincott

Figure 14

Cumulative Development Profit



Source: Palmer and Wincott

Figure 15

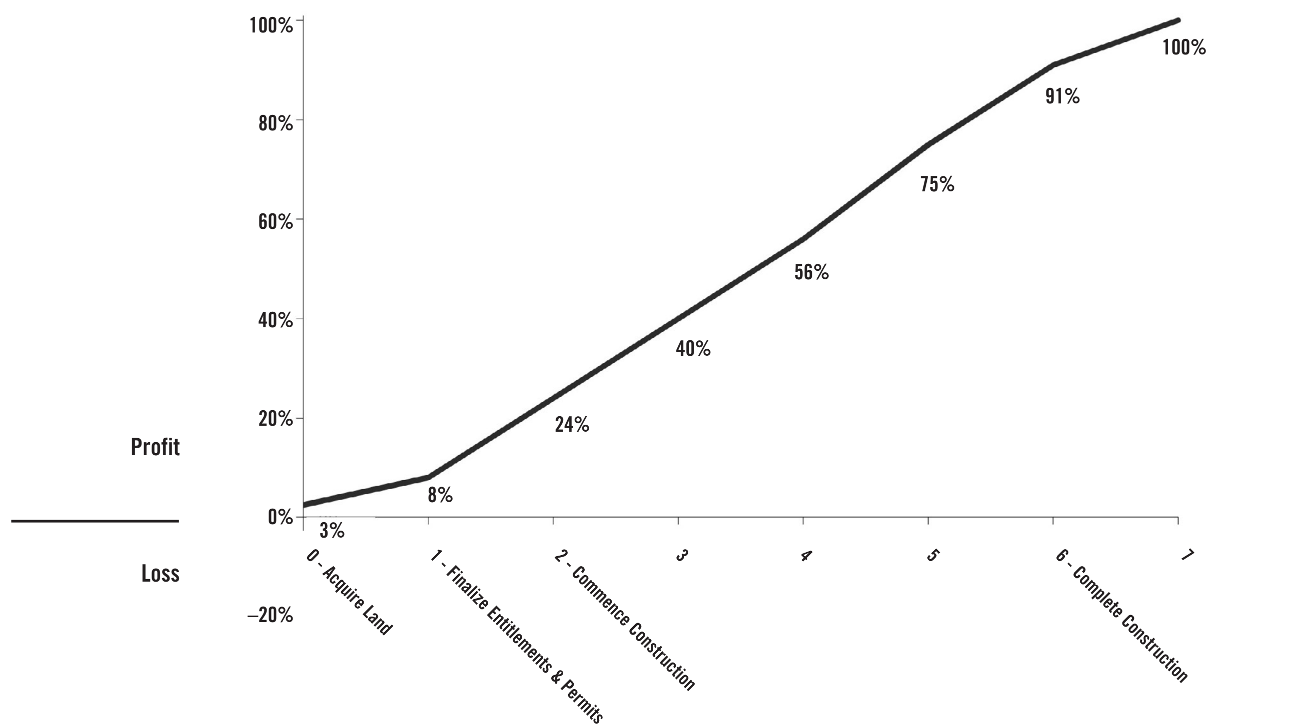
Development Profit Recognition Schedule

Risk Factor	Relative Weight	Profit Available (Allocated)	Development Period (Quarterly) 0	1	2	3	4	5	6	7
Entitlement	5.00%	$230,500	$115,250	$115,250	$0	$0	$0	$0	$0	$0
Construction	20.00%	$922,000	$0	$0	$184,400	$184,400	$184,400	$184,400	$184,400	$0
Leasing/Sales	30.00%	$1,383,000	$0	$0	$276,600	$138,300	$138,300	$276,600	$276,600	$276,600
Credit	10.00%	$461,000	$0	$0	$0	$92,200	$92,200	$92,200	$92,200	$92,200
Capital Markets	15.00%	$691,500	$0	$0	$138,300	$138,300	$138,300	$138,300	$138,300	$0
Pricing	10.00%	$461,000	$0	$92,200	$92,200	$92,200	$92,200	$92,200	$0	$0
Event	5.00%	$230,500	$0	$46,100	$46,100	$46,100	$46,100	$46,100	$0	$0
Valuation	0.00%	$0	$0	$0	$0	$0	$0	$0	$0	$0
Partnership	0.00%	$0	$0	$0	$0	$0	$0	$0	$0	$0
Operating Expense	5.00%	$230,500	$0	$0	$0	$46,100	$46,100	$46,100	$46,100	$46,100
Quarterly Profit "Earned"			$115,250	$253,550	$737,600	$737,600	$737,600	$875,900	$737,600	$414,900
Cumulative Profit "Earned"		$4,610,000	$115,250	$368,800	$1,106,400	$1,844,000	$2,581,600	$3,457,500	$4,195,100	$4,610,000

Source: Palmer and Wincott

Figure 16

Cumulative Development Profit



Source: Palmer and Wincott

employer in the area. This news is expected to reduce demand, with market rents anticipated to decline another 20 to 30 percent. As a result, the subject is adversely affected by both an extended lease-up period as well as the expectation of achieving rents significantly below initial projections and preleasing activity.

Figure 13 illustrates the impact of these risk profile changes:

As the title of this article indicates, appropriate recognition of earned profit is critical to the periodic valuation process, but not every development results in profit. The purpose of the alternative case study is to further demonstrate market conditions can arise that necessitate increments of profit previously realized be reduced and depreciation (loss of profit taken) be recognized. This concept is captured in Figures 13 and 14, where the hypothetical events in the third and fourth quarters attributable to the alternative case demonstrate how the impact of the increased risk results in development profit declines of 13 percent of the previously recognized profit over the subsequent two quarters.

METHOD TWO – BASE CASE

This approach also focuses on the profit available during construction, as measured by the difference between development cost and value "at completion." The profit, calculated at $4,610,000 in the preceding case study, is allocated on a dollar basis between each applicable risk factor, as highlighted in Figures 15 and 16. To further clarify, as risk is mitigated for each component, the dollar amount of profit allocated is "earned" and recognized as appreciation during the applicable quarter, thereby ensuring appropriate adjustment of value during the development period preceding construction completion.

METHOD TWO – ALTERNATIVE CASE

Similar to method one, immediate recognition of the impact of deteriorating market conditions is easily accommodated by reversing profit earned, consistent with base case Figures 15 and 16.

CONCLUSIONS

As illustrated by the preceding case studies, appropriate analytics can be derived and applied to more accurately quantify both the amount and timing of development or entrepreneurial profit recognized and reported during the development life cycle. Integral to the methodology utilized, however, is the depth of understanding and market support regarding the magnitude and duration of key risk factors impacting the specific asset being reported. Of equal importance is the need for continuous monitoring of these risk factors throughout construction and preleasing to ensure material market and property changes (both positive and negative) are accurately reflected, as evidenced by the "alternative" case studies.

Regardless of the specific metrics or methodologies adopted, the conceptual framework presented in this paper is critically important to accurate and timely recognition of development or entrepreneurial profit (or loss) for assets under development. Accordingly, implementation is warranted to facilitate both integrity and timeliness of value and performance reporting, with the methodology employed properly predicated on asset complexity, data availability and sound analytics. ■

ENDNOTE

1. "Timely Recognition of Entrepreneurial Profit (or Loss) for Development Assets," position paper adopted by the Valuation Committee and Board of Directors of the National Council of Real Estate Fiduciaries, Nov. 15, 2005.

North American Port Analysis: Beyond Post-Panamax Basics to Logistics

BY K.C. CONWAY, CRE, MAI

SETTING THE STAGE

A RECENTLY PUBLISHED ANALYSIS on ports (2011) established a foundation for understanding the importance and rank ordering of the United States' primary coastal ports.[1] Thirteen ports spanning the West coast, Gulf of Mexico and East coast were analyzed. The ports of Los Angeles (LA) /Long Beach, New York/New Jersey, Savannah, Oakland and Seattle were identified as the busiest in terms of container traffic handling an aggregate of 26.75 million 20-foot equivalent units (TEUs)—or 65 percent of all U.S. container traffic. New Orleans and Houston were the only two U.S. ports to rank among the world's busiest in terms of tonnage. The ports report also queued up the two most pressing issues confronting the respective coastal port authorities at the onset of 2012:

1. Post-Panamax readiness;
2. Impact of a slowing European economy on U.S. trade and port activity.

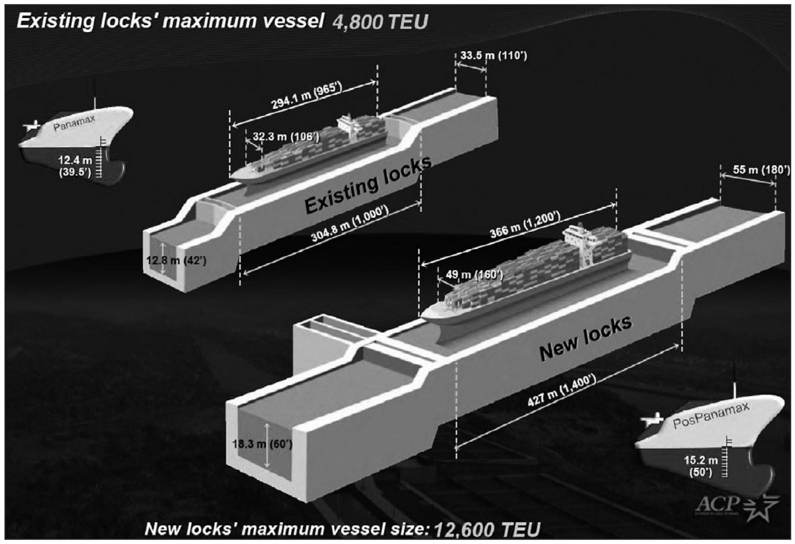
Panamax vessel passing through LA/Long Beach 1Q 2012

Subsequently, a number of U.S. ports have accelerated port dredging or crane acquisition projects to be Post-Panamax-ready (PPR) by 2015 (Baltimore, Miami and New York). The world's largest 12,500 TEU containerships also have started making calls on North American ports. Europe's debt crisis has slowed global trade as the European continent is both China's and the United States' largest trading partner. And, completion of the Panama Canal lock expansion project has been delayed to 2015.

About the Author

K.C. Conway, CRE, MAI, *is executive managing director, Market Analytics, for Colliers International Valuation and Advisory Services, Atlanta. From 2005–2010, Conway worked in the Federal Reserve System in multiple capacities ranging from the Commercial Real Estate "Subject Matter Expert" for the Atlanta District Bank to the "Commercial Real Estate Risk Specialty Officer" designee to the New York District Bank. In these roles, he briefed Chairman Bernanke, the Board of Governors, Federal Reserve District bank presidents and real estate industry groups on market conditions and burgeoning issues during the 2008–2009 financial crisis. Conway's work at the Federal Reserve was recognized with a Presidential Recognition Award by the Appraisal Institute in 2007, and "Key Player" and "Meritorious Service" awards by the Federal Reserve and the Federal Financial Institutions Examination Council in 2009 and 2010. Conway's career includes serving as an appraiser for Cushman & Wakefield and the former Equitable Real Estate, and in loan workout, portfolio management and asset advisory capacities for Deloitte & Touche, Wells Fargo and Prudential. In 1997, Conway joined SouthTrust Bank where he developed a proprietary system to risk rate and manage its real estate portfolio across 28 states. Conway became a Counselor of Real Estate (CRE®) in 2009, and earned his MAI designation in 1989. He is a graduate of Emory University's School of Business.*

Figure 1



What do these and other events mean for North American ports? This mid-2012 ports update attempts to answer the questions impacting North American ports. It also expands both geographic coverage of ports to Canada and Mexico, and the scope of content to intermodal and logistics.

EXPANSION OF THE PANAMA CANAL LOCKS

The expansion of the Panama Canal locks to accommodate container vessels capable of carrying up to 12,500 containers is altering global trade routes and advancing the science of logistics. The project's completion has been delayed 6–12 months from 2Q 2014, and is now estimated to be completed during 1Q 2015.

The Panama Canal expansion is impacting more than just shipping companies. It is impacting retailer supply-chains, automobile assembly, aircraft manufacturing, commodity trade, agricultural export, and port facilities.

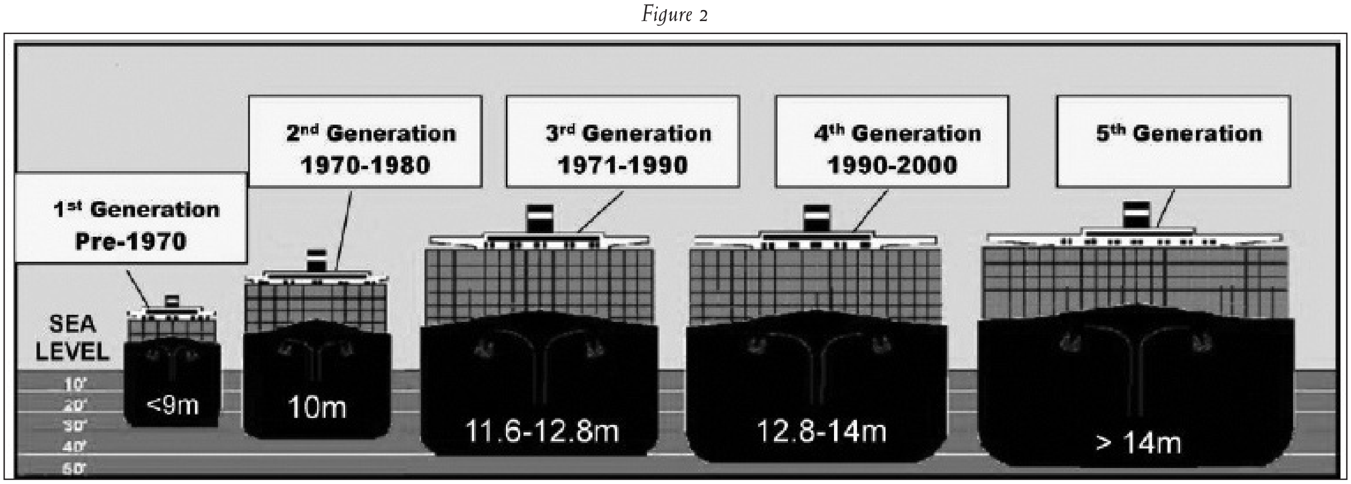
For the first time since World War II, the East coast has surpassed the West coast in container traffic growth (5.5% versus 3.0% - Source: PIERS Q1 2011 – Q1 2012). As China's economy slows and manufacturing expands in the "right-to-work" Southeast, Gulf coast and Midwest states with announcements like those made by Airbus (Mobile, Ala.); Boeing (Charleston, S.C.); Caterpillar (Athens, Ga.); and Disney ("Bring all into Florida via a Florida port"), container traffic growth at PPR East and Gulf coast ports will likely outpace container traffic at West coast ports—especially after 2015 when the Panama Canal lock expansion project is completed.

North American ports need to spend billions to become PPR by 2030 when between 60–70 percent of the world's container fleet will be Post-Panamax vessels. Today that figure stands at just 16 percent.

A report released July 2012 by the U.S. Army Corps of Engineers entitled "U.S. Port and Inland Waterways Modernization: Preparing for Post-Panamax Vessels" details the actions and expenditures required at U.S. ports and inland waterways to remain globally competitive and to expand trade for North American manufactured goods, agricultural products and commodities.

The U.S. fails its ports, though, when it comes to funding. Despite the U.S. being a maritime and trading nation that supports an estimated 13.3 million import/export jobs, of which 10 percent are tied directly to our nation's ports, the U.S. ranks 23rd globally when it comes to funding port infrastructure (Source: American Association of Port Authorities and Martin Associates).

Figure 2



Source: U.S. Army Corps of Engineers

"INTERMODALISM"

Intermodalism is the 2012 port topic discussed in multinational corporate boardrooms. What is intermodalism, and what does it have to do with the ports? Intermodalism is quite simply "*a system whereby standard-sized cargo containers are moved seamlessly between different 'modes of transport.'* " Intermodalism has advanced from the equivalent of the Stone-Age to the Space-Age in just 55 years. Commencing with the maiden voyage of the Ideal X between the Port of Newark and Houston in 1956 with 58 metal containers, through to the call of the MSC Fabiola (largest container vessel now serving U.S.-Asia trade with a capacity of 12,500 TEUs) at the Port of Long Beach this past March, intermodalism has come of age.

No longer can a shipping company, manufacturer or retailer think of the ports and other modes of transportation in isolation. The respective modes are interconnected and are an integral part of the global supply chain. Volatile energy prices, congestion at key inland intermodal points such as Chicago, and the need to fill emptied containers returning to port (a process known as "match-back") are part of intermodalism.

NORTH AMERICAN PORT READINESS AND RANKINGS

Four East coast ports will now be PPR by 2015 with at least 50-foot channel depths and "Super-Post Panamax" (SPP) cranes (cranes capable of unloading ships 22 or more containers wide) when the Panama Canal locks expansion project is completed. The four ports are an increase from just one today and will include:

- **Norfol**k: Currently PPR;
- **Baltimore:** PPR by end of year 2012;
- **Miami:** PPR by 2015–dredging approved and SPP cranes ordered;
- **New York:** PPR by end of 2015. Obtained approvals and funding to raise Bayonne Bridge in Q2 2012.

The aforementioned will join the ports of LA/Long Beach, Oakland and Seattle, which already are PPR. Therefore, eight North American ports will be PPR by 2015.

Figure 3

North American Post-Panamax Ready Ports

Port	Post-Panamax Status/Impediment	2012 TEUs (Est. 000s)	2011 TEUs	Global Rank
LA/Long Beach	Currently Ready	14,000	14,000	6th
New York/NJ	2015 - Bayonne Bridge	5,600	5,500	20th
Oakland	Currently Ready	2,400	2,350	<top 50
Seattle	Currently Ready	2,100	2,000	<top 50
Houston	2013 - Dredging	2,100	1,900	<top 50
Norfolk	Currently Ready	1,900	1,900	<top 50
Miami	2015 - Dredging/Cranes	950	900	<top 100
Baltimore	2013 - Cranes	650	630	<top 100
	Subtotal	29,700	29,180	
Percent of N.American TEU Containers		66%	65%	

Source: American Association of Port Authorities, Colliers Int'l

Port readiness, though, involves more than a 50-foot channel depth. According to the just-released U.S. Army Corps of Engineers report to Congress on port readiness, (*www.iwr.usace.army.mil/docs/portswaterways/rpt/June_20_REPORT_SUMMARY_U.S._Port_and_Inland_Waterways_Modernization.pdf*), a port is considered PPR when it has both:

- a channel depth of 50 feet with allowances for tide, as well as sufficient channel width, turning basin size; and
- dock and crane capacity.

Dock capacity is considered sufficient when the wharfing is engineered to handle PPC and SPP cranes that can unload container vessels up to 18–22 containers wide. The outreach, lift height and tonnage capacities for the typical Panamax cranes in use at most U.S. ports today versus the required PPC and SPP cranes are compared as follows:

Panamax Crane: A Panamax crane can fully load and unload containers from a container ship capable of passing through the Panama Canal today (ships 12–13 containers wide).

Figure 4

Typical Feeder - Panamax Crane *

B Outreach	30.00 - 40.00m
D Lift Height	24.00 - 30.00m
SWL Capacity	40/50T Single - 65T Twin
Hoisting Speed	50 / 125 m/min
Trolley Speed	150 - 180 m/min
Travel Speed	45 m/min
Wheel Load **	30 - 45T Per Meter

Source: LIEBHERR

Post Panamax Crane: A PPC can fully load and unload containers from a container ship too large (too wide) to pass through the Panama Canal (18 containers wide).

Figure 5

Typical Post Panamax Crane *	
B Outreach	40.00 - 46.00m
D Lift Height	30.00 - 35.00m
SWL Capacity	40/50T Single - 65T Twin
Hoisting Speed	60 / 150 m/min
Trolley Speed	180 - 210 m/min
Travel Speed	45 m/min
Wheel Load **	40 - 55T Per Meter

Source: LIEBHERR

Super-Post Panamax Crane: This crane is the largest modern container crane in use today. It can fully load or unload containers from the largest 12,500 container vessels with a width of 22 or more containers. Baltimore and Miami are adding such cranes to service.

Figure 6

Typical Super Post Panamax / Megamax	
B Outreach	46.00 - 69.00m
D Lift Height	35.00 - 49.00m
SWL Capacity	65T Twin - 80T Tandem
Hoisting Speed	70 / 175 m/min
Trolley Speed	210 - 240 m/min
Travel Speed	45 m/min
Wheel Load **	60 - 80T Per Meter

Source: LIEBHERR

China, Korea and the Netherlands surpass the U.S. in PPR and container traffic with ports handling between 11 and 29 million TEUs annually. Although the top 70 primary container ports in North America handle approximately 45 million TEU container units per year, that figure is the equivalent of just 35 percent of China's 130 million annual TEU containers.

PORT RANKINGS: GLOBALLY AND IN NORTH AMERICA

From a global perspective, the busiest container ports in the world are located in China. Among the world's 10 busiest container ports, six are located in China (led by Shanghai with 29 million TEUs); one in Singapore (28 million TEUs); one in South Korea (Port Busan with 14.2 million TEUs); one in the United Arab Emirates with 11.6 million TEUs; and one in the Netherlands (Rotterdam with 11.1 million TEUs). Only if the TEUs from the ports of Los Angeles and Long Beach were combined (14 million) would North America have a container port ranked among the top 10 in the world. Aggregating all Canadian and Mexican ports' TEU container traffic (8.7 million containers) equates to just 62 percent of the container traffic through LA/Long Beach (Source: American Association of Port Authorities).

NORTH AMERICAN PORT RANKINGS:

Delineation of container traffic in North America is dominated by the U.S., followed by Mexico and Canada:

- Canada's leading five ports handle 4.8 million TEUs;
- Mexico's top 10 ports handle 4.2 million TEUs; and
- The U.S.' top 50 ports handle 32.5 million TEUs.

Canada: Port Vancouver (BC) handles the most container traffic among Canada's five largest ports, with 2.5 million TEUs in 2011—equivalent to Oakland, Calif.

Source: Port of Vancouver

Mexico: Port Manzanillo handles the most container traffic in Mexico (1.75 million TEUs—equivalent to Tacoma, Wash., or Charleston, S.C. in the U.S.).

United States: LA/Long Beach, New York/New Jersey, Savannah, Ga., Oakland, Calif. and Seattle are the top five container ports in the U.S. with annual container TEUs of 14 million; 5.5 million; 2.9 million; 2.3 million; and 2.0 million, respectively.

Figure 7

Top-20 North American Container Ports
These 20 Ports = 94% of N.Am Container TEUs

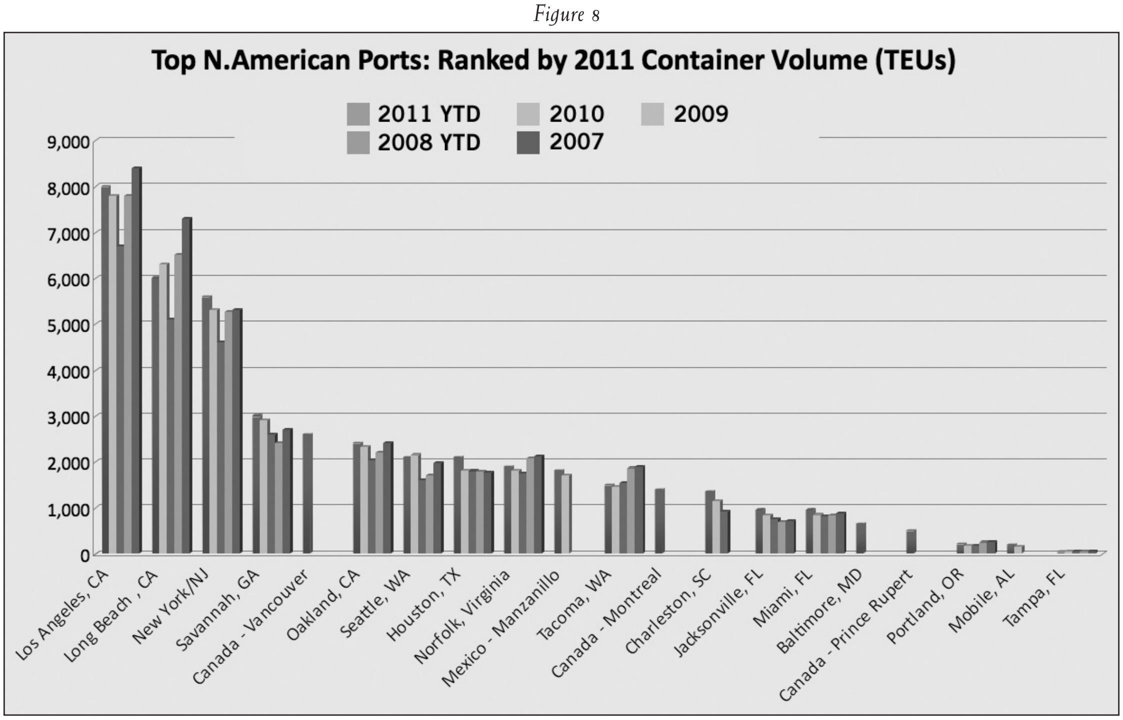
No. American Port	2012 TEUs (Est. 000s)	2011 TEUs	2010 TEUs	Rank (2011 TEUs)
Los Angeles, CA	8,000	7,900	7,800	1
Long Beach , CA	6,000	6,100	6,300	2
New York/NJ	5,600	5,500	5,300	3
Savannah, GA	3,000	2,900	2,900	4
Canada - Vancouver	2,600	2,500		5
Oakland, CA	2,400	2,350	2,330	6
Seattle, WA	2,100	2,000	2,150	7
Houston, TX	2,100	1,900	1,812	8-9
Norfolk, VA	1,950	1,900	1,895	8-9
Mexico - Manzanillo	1,800	1,750	1,700	10
Tacoma, WA	1,500	1,500	1,455	11
Canada - Montreal	1,400	1,300		12
Charleston, SC	1,350	1,300	1,147	13
Jacksonville, FL	950	900	827	14
Miami, FL	950	900	847	15
Baltimore, MD	650	632		16
Canada - Prince Rupert	500	410		17
Portland, OR	210	200	181	18
Mobile, AL	190	170	145	19
Tampa, FL (a bulk cargo port)	45	40	44	20
Subtotals	43,295	42,152	36,833	
Percent of N.Am TEUs	96%	94%		

Source: American Association of Port Authorities, Colliers Int'l

In summary, North America's top 20 ports, with respect to container traffic, are dominated by U.S. ports. All but three of the 20 busiest ports are located in the U.S.—two are located in Canada, and one is in Mexico. LA/Long Beach is the busiest North American container port, followed by New York/New Jersey, Savannah, Ga., and Canada's Vancouver. Only thirteen of the top 20 North American ports handle more than 1.0 million annual TEUs, and surprisingly, none of Florida's ports handles more than 1.0 million TEU containers annually. Why?

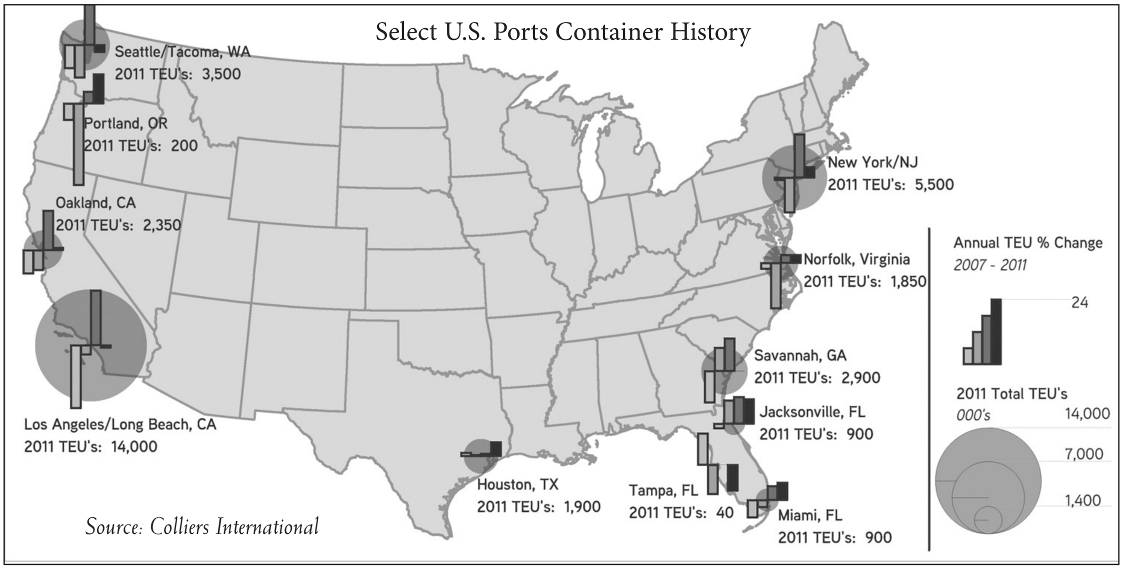
Florida's ports are oriented to more bulk cargo vessels (Tampa—largest fertilizer export port in the world) and cruise ships (Miami—largest cruise ship terminal in the world, handling 35 percent of all global cruise ship traffic). Florida also has the most ports of any U.S. coastal state that tends to keep cargo more widely dispersed. This anomaly is expected to change post 2015 as Florida completes upgrades to port facilities in Miami, Tampa and Jacksonville that will make all three ports Post-Panamax-ready and able to compete for more East and Gulf coast container traffic.

Figure 8



Source: Colliers International

Figure 9



Source: Colliers International

NEW DATA FOR SHIPPING AND LOGISTICS COMPANIES

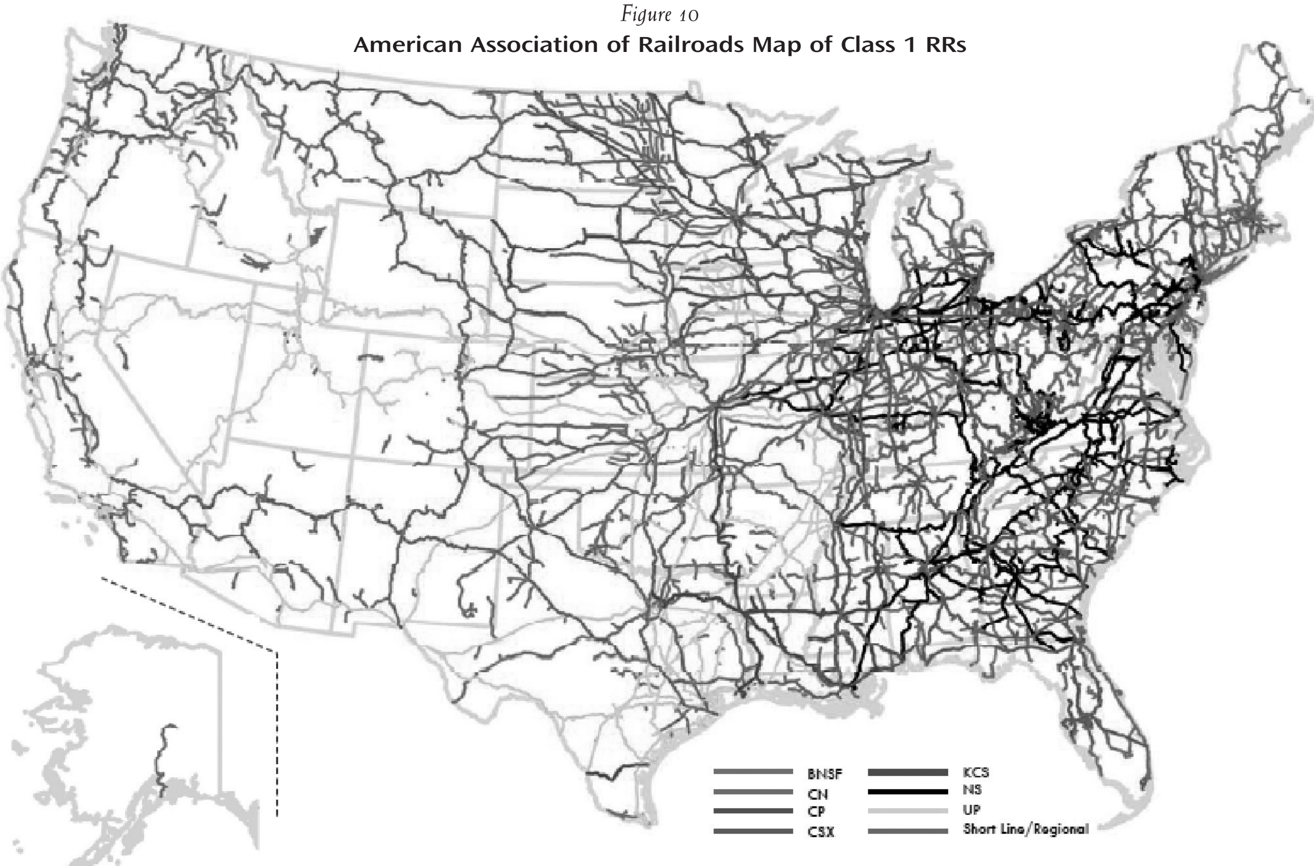
For the first time, shippers have weekly data detailing the surpluses and shortages of TEU maritime containers at 18 inland U.S. intermodal load points. In July, the U.S. Department of Agriculture introduced the Ocean Shipping Container Availability Report (OSCAR). OSCAR will enable distributors, retailers and others to better manage transportation costs and the process of "match-backs" (matching an emptied import container with goods or materials for its return trip to port) to further reduce shipping costs. OSCAR contains up to three weeks of forward perspective on the inventory of 20- and 40-foot "Dry," "High-Cube" and "Reefer" (refrigerated) containers.

THE RAIL AND INTERMODAL PIECES OF THE PORT PUZZLE

Cargo arrival to North American coastlines is just the beginning of the port story. As retailers and manufacturers are discovering, in an e-commerce driven economy, the logistics of moving cargo from port to end consumer—and then matching the emptied containers with cargo en route back to the ports—is "the rest of the story" (as the late Paul Harvey was famous for saying). Historically, trucking has been the preferred mode of transporting containerized goods inland from North American ports, and rail the means by which bulk commodities have flowed outbound. However, as diesel fuel prices remain volatile, shortages of truckers worsens and traffic congestion on highways slows the movement of goods, rail and air cargo are becoming important and more reliable components of the intermodal story in North America. Retailers and manufacturers, confronted with increasing time pressures that compress with every technological advancement, have to balance both the cost and speed by which goods and materials flow. The primary consideration is no longer solely the cost of shipping. Of equal or greater importance is the speed by which raw materials and finished goods move into the assembly process or consumers' hands. Clothiers can't put the seasons on hold while cargo remains held up at a choke point in the supply chain. If necessary, retailers incorporate air cargo into their logistics and intermodal equation (Columbus, Ohio and Memphis, Tenn.) to have inventory on hand for the change of seasons, start back to school or onset of the peak holiday shopping season. As a result, retailers and manufacturers are remaking their entire supply chains. Distribution centers are appearing in what many might perceive to be off-the-beaten-path locations. Ashley Furniture, for example, frustrated with freight train delays in Chicago and seeing the export opportunities developing along the Mid-Atlantic and Southeast coast, announced in Q1 2012 an expansion to North Carolina to meet global and intermodal logistics needs. Today, there is even the existence of a U.S Intermodal Hubs Database which identifies more than 3,000 points to designate facilities where freight shipments are handled by two or more modes of transportation. Retailers and manufacturers are studying these locations and spending almost as much Cap-Ex on new distribution centers and logistics technology as they are for new store openings. **How can one visualize and**

Figure 10

American Association of Railroads Map of Class 1 RRs



Map shows rail line ownership based on 2011 National Transportation Atlas database published by the U.S. DOT's Bureau of Transportation Statistics

quantify this trend? The answer lies in an examination of the routes for the seven Class 1 North American railroads in conjunction with the 18 designated OSCAR load points where container shortages and surpluses are being tracked for the first time starting in 2Q 2012.

These 18 OSCAR destinations are the linkage between all that has to connect in logistics:

- ports (global trade is imports/exports);
- inland population centers (the end consumers);
- container availability (where's the box to ship it?);
- labor and materials; and
- banking and financial markets (the grease that lubricates trade and global commerce).

Florida appears to be a large hole in the OSCAR coverage. Florida's elected and business leaders' 2012 adoption of a "What is consumed in Florida must enter Florida by way of a Florida port" campaign may expedite container tracking in Florida by OSCAR in 2013. In the meantime, the OSCAR for logistics goes to the 18 designated MSAs for containerization intelligence.

Figure 11

OSCAR: Ocean Shipping Container Availability Report

The OSCAR goes to 18 US Markets with the Logistics Data

Region	MSA	Region	MSA
West Coast:	Long Beach, CA	**Inland:**	Chicago, IL
	Oakland, CA		Cincinnati, OH
	Seattlw, WA		Columbus, OH
	Tacoma, WA		Dallas, TX
East Coast:	New York		Denver, CO
	Norfolk, VA		Kansas City, MO
	Charleston, SC		Memphis, TN
	Savannah, GA		Minneapolis, MN
Gulf Coast:	Houston, TX	**OSCAR**	Atlanta
	New Orleans, LA	**Omissions**	Florida/Jacksonville
			Indianapolis

Source: U.S. Dept. of Agriculture

Agree or disagree, these 18 OSCAR markets have all the pieces required to meet today's definition of intermodalism and logistics. They encompass the:

- port markets that process 75 percent of all North American TEU containers;
- primary intersecting points for all seven Class 1 railroads (Dallas, Denver, Kansas City, Chicago,

Minneapolis, Memphis, Norfolk and New York). Only Atlanta and Indianapolis are oddly omitted; and
- financially important MSAs located in all twelve of the Federal Reserve's districts, except Boston and Philadelphia.

With three exceptions (Atlanta, Indianapolis and Jacksonville) OSCAR defines the epicenters of intermodalism and logistics in North America. These 21 markets (OSCAR 18, plus Atlanta, Indianapolis and Jacksonville additions missing from OSCAR) will be the leading intermodal and logistics centers for North American retailers and manufacturers in the first Post-Panamax decade (2015–2025).

PORT AND INTERMODAL RISKS AT MID-2012

The opportunities ahead for shippers, manufacturers, retailers, and industrial real estate investors resulting from the expansion of the Panama Canal locks, technological advances in logistics, cost efficiencies in supply chain management, and the convergence of retail and industrial real estate, fueled by e-commerce, are limited only by the risks. What are these risks heading into a Post-Panamax era in 2015? The risks can be categorized into five buckets:

- **geo-political:** close to home and not oceans away;
- **environmental:** diesel emissions and dredging;
- **global economic:** slowing China GDP and EU debt;
- **labor**: International Longshoremen's Association (ILA) Fall 2012 strike threat; shortages of skilled transportation labor and dock workers;
- **CapEx**: Funding port maintenance and upgrades while state budgets are in fiscal disarray.

Macro geo-political: When Americans or U.S.-based retailers and manufacturers hear this phraseology, they immediately assume it refers to trade disputes between the U.S. and China or India. However, for this analysis, the directly impacting geo-political risks to our ports and intermodalism are closer to home. The two primary risks lie within or adjoin our U.S. borders.

The first risk emanates from a 2012 Federal Maritime Commission report critical of Canadian and Mexican port actions to encourage the diversion of U.S. bound cargo to their ports for the purpose of avoiding payment of the U.S. harbor maintenance tax on waterborne commerce entering U.S. ports. At issue is port and inland waterway funding that greatly benefits Canada and Mexico. Port competitiveness is also central to the issue. From an earlier discussion in this report, underfunding the maintenance and modernization of U.S. ports is a key takeaway. The U.S. already ranks 23rd globally in port funding, and much of that funding gets diverted by Congress for other fiscal purposes. Canada and Mexico undermine their own port readiness by undermining harbor maintenance at U.S. ports and along inland waterways that connect Canada to the Gulf of Mexico. Leadership between the respective governments is required to ensure that U.S., Canadian and Mexican ports operate on a level playing field with respect to port maintenance, funding and cargo fees. Without such leadership, the efficiencies of intermodalism and logistics begin to break down—and shipping costs reverse course from a decades-long trend of decline.

For some final perspective on this point, consider the cost of shipping goods by ocean. Fifty years ago the cost represented approximately 15 percent of the value of shipped goods. In 2012, that ratio is, on average, less than one percent. Freight rates today are less than they were even 20 years ago despite the fuel, labor, environmental compliance and terminal fee increases. Why? Global trade growth has enabled scale to work. No product offering epitomizes this observation better than agriculture.

Environmental: Dredging and diesel fuel emissions from idling ships, trucks and gantry cranes loading/unloading cargo are the leading environmental challenges at North America's container ports. The benefits of mitigating the adverse impact from both diesel emissions and dredging are understood and embraced by most port authorities. Baltimore is recognized as "The Green Port" for its limited impact on the Chesapeake Bay. LA/Long Beach and Houston are both leaders among North American port authorities for funding environmental upgrades. And, Miami is leading East and Gulf coast ports with the electrification of its cranes to eliminate one entire source of diesel emissions. So, what is the risk? The risk is that the cost/benefit analysis in an era of state and federal budget crises will not be enacted. Incentives and financing mechanisms are required for port authorities to maintain progress on environmental projects. Vital environmental initiatives at North American ports, such as the electrification of gantry cranes and automation of port facilities to reduce idling vessel and truck emissions face two primary headwinds: 1) funding; and 2) organized labor resistance.

Global Economic: China's slowing GDP and Europe's unresolved debt crisis are risks to global trade. Less global trade translates to a reduction in the collection of fees necessary to maintain and upgrade ports—such as the

U.S. Harbor Maintenance fee imposed on all U.S. waterborne commerce. Keep in mind that Europe is both the United States' and China's largest trading partner, and that China's five primary ports originate approximately 45 percent of all global container cargo. A moderate five percent reduction in global container traffic translates to the equivalent of all of the TEU cargo containers handled annually by a LA/Long Beach—or North America's busiest container port. In other words, Europe's fiscal health and China's GDP are the two canaries in the global trade coal mine. As goes the GDP in Europe and Asia, so goes the volume of global container traffic.

Labor: Strikes have recently impacted, and continue to threaten, container traffic in North America. In its latest Q2 earnings release, the Canadian Pacific Railway blamed a nine-day strike for a nearly 20 percent drop in second-quarter profit. That was minor compared to the potential impact from an ILA strike at U.S. ports this fall (October 1, following the expiration of the ILA existing labor agreement). The timing of such a strike would impact retailers just as they are transporting imported goods into ports for stocking e-commerce warehouses and stores for the holiday shopping season.

WHAT IS THE CONTROVERSY?

At the root of the ILA strike threat are two concerns:

1. port automation leading to elimination of jobs; and
2. jurisdiction of intermodal equipment.

This latter item is more complex than port automation. As port authorities and multinational shipping companies have wrestled with the need to simultaneously upgrade facilities and finance Post-Panamax port equipment, they have turned to leasing companies for solutions. The ILA is concerned that transfer of the ownership of intermodal equipment and some port facilities will lead to work being transferred to non-union labor—or other labor unions, such as electrical workers—for new electric gantry cranes. The transfer of union jobs was central to a pair of 1Q 2012 ILA showdowns at grain terminals in both Washington State and Oregon. The risk to monitor is whether the U.S. is re-entering a new phase of ILA activism and work disruption. It is enough of a concern for the National Retail Federation to weigh in on the risk. In a July 2012 open letter to ILA President Harold Daggett and James Capo, chairman and CEO of United States Maritime Alliance, NRF President Matthew Shay wrote: "Retailers are growing nervous as they approach the summer-fall peak season for holiday imports. If ILA talks don't show progress by end of July, retailers will accelerate shipments or begin to divert cargo through other modes and ports not affected by the ILA."

CapEx: It is clear that the U.S. lags the major trading countries of the world in funding its ports, with a global ranking of 23rd; however, what is not well understood is that the fiscal condition of U.S. states is also an impediment to improving funding. Among the annual Forbes ranking of state debt and fiscal conditions, half of the top 10 U.S. container ports (LA/Long Beach, Oakland, New York and New Jersey) are located within states ranking in the bottom 10 for fiscal soundness (New York, New Jersey and California). In addition, the most vital intermodal MSA in North America, Chicago, is located in the most fiscally distressed state in the U.S. The cost to cure Chicago's intermodal congestion problem (due to loading passenger traffic onto the same rail lines that move freight) is $3 billion—$3 billion from a state that is operating a $500 million annual deficit and is described by its own Treasurer as "being in a fiscal crisis worse than Greece."

Recognizing that most port authorities are creations of state legislatures and local government for the purpose of economic development, the state fiscal crisis in the U.S. is a material risk to vital U.S. ports, such as LA/Long Beach and New York, and pivotal inland intermodal centers such as Chicago. Note that only one top 20 North American port (Norfolk) is located in a state ranked fiscally sound by *Forbes* (Virginia).

Figure 12

FORBES: Annual FY Ranking of State Debt: FY 2010-2011
Top 10 Ranked States / Bottom 10 Ranked States

Rank	State	Debt Per Capita ($)	Unfunded Pensions Per Capita ($)1	Gross State Product ($Bil)
1	Utah	$447	$7,272	$86
2	New Hampshi	525	7,524	50
3	Nebraska	17	4,878	65
4	Texas	520	7,744	916
5	Virginia	782	7,556	326
6	North Dakota	356	6,080	25
7	Nevada	865	10,115	99
8	Iowa	79	8,126	109
9	Montana	391	9,923	27
10	Colorado	340	15,548	200
40	Kentucky	1,477	12,555	122
41	Wisconsin	1,429	16,418	195
42	Massachuset	4,323	9,249	306
43	Ohio	962	19,110	373
44	Mississippi	1,478	12,523	71
45	Louisiana	1,164	10,180	144
46	New Jersey	3,621	16,838	380
47	California	1,805	13,015	1,506
48	Connecticut	4,490	17,622	173
49	New York	2,921	8,620	938
50	Illinois	1,877	17,230	503

Source: Forbes

CONCLUSION:

Expansion of the Panama Canal locks to accommodate container vessels 160 percent larger than today's Panamax vessels is altering global trade routes and advancing the science of logistics. This one project has advanced intermodalism from the Stone Age to the Space Age. The cost of transporting ocean borne cargo has declined from 15 percent of the value of goods 50 years ago to less than one percent today. Agriculture has been just one key U.S. industry that has benefitted from this trend. Looking forward into 2Q 2012 and the beginning of the first Post-Panamax decade (2015–2015), the opportunities for retailers, manufacturers, shipping companies and industrial real estate investors is limited only by the risks. Those risks are less nature-made (hurricanes, global warming, disrupting shipping routes, and the supply of petroleum) and more government-made ("not in my backyard") environmentalism, fiscal deficits, geo-political disputes between countries and even U.S. states—Florida's "all consumed in Florida imported through a Florida port" campaign. The root of these government-made risks is over-competitiveness and transportation fees. Leadership among North American governments is required to mitigate the damage from risks, such as ILA strikes. The future growth of North American trade resides in collaboration and not isolation. Container traffic is global in nature. No single country or continent controls all the resources, facilities or technology. Retail and industrial real estate is converging as a result of the growth in global e-commerce and the science of logistics. In North America, the 21 markets leading in intermodalism and logistics are defined largely by the new OSCAR report—with three exceptions omitted in the initial coverage of this Ocean Shipping Container Availability report (Atlanta, Indianapolis and Jacksonville). These 21 markets likely will be where absorption and construction of modern distribution centers occur at the strongest pace in the first Post-Panamax decade (2015–2025). Assessment of the U.S. ports has moved beyond understanding the basics of what Post-Panamax means to understanding intermodalism and logistics.

Ten of North America's top 70 ports are recognized for distinguishing features and/or achievements vital to intermodalism and logistics. The 10 ports are featured as follows:

Best About North American Ports

"MOST IRREPLACEABLE" PORT
Port of Houston

Houston's port authority can make the argument for being the "port of firsts." Dating back to the early 1900s, the Houston Port Authority has been a leader in cargo movement (first to introduce double-staking rail cargo), creation of foreign trade zones and ISO certifications for both environmental management and security. In 2011, the Houston Port Authority was named "Port Authority of the Year" among all global ports by "Containerisation International." What the Port of Los Angeles is to trade with Asia—and the Port of Louisiana is to trade along 1,400 miles of Mississippi waterways—Houston is to trade in the Gulf of Mexico and the nation's petrochemical needs. Unlike the nation's key East and West coast ports (New York, Savannah and LA/Long Beach), there is not any redundancy for the Port of Houston. New Orleans and Tampa could possibly handle Houston's vessel traffic, but they lack the other vital energy, security and inland infrastructure (pipelines, refineries, intermodal assets, etc.) to back up the Port of Houston should it ever go off-line. The Port of Houston also handles 70 percent of all the containerized cargo in the U.S. Gulf of Mexico.

"MY SHIP IS BIGGER THAN YOURS"
Ports of LA/Long Beach

The ports of LA and Long Beach are the "Big" in all that is containerization in North America. Since 2000, the ports of LA/Long Beach have ranked number one in volume as the busiest container ports in North America. In 2006, the port authority surpassed 8.5 million TEUs for the first time for any North American port—and it has never looked back. In March 2012, the largest container vessel in operation today—the MSC Fabiola—made call on the port of LA/Long Beach loaded with 12,000 TEU containers. The MSC Fabiola is the largest container vessel now serving the U.S.-Asia trading routes. As the port's director said last March: "Few ports can handle these giant ships, but LA/LB is Big-Ship ready."

"CAN-DO SPIRIT AND GET IT DONE WITH LESS" PORT:
Port of Savannah

The Port of Savannah has become the third busiest container port in North America, while having the shallowest channel depth of any of North America's top-15 ports (42 feet). The Georgia Port Authority has been ahead of East coast port authorities in Post-Panamax planning with less federal and state funding than other ports along the East coast. It has not let a lack of resources be an excuse to be just Panamax. This past spring, the Port of Savannah received U.S. Army Corps of Engineers approval to dredge to 47 feet while other ports along the East coast were still struggling to complete their dredging impact studies. For an "up and coming" port like the Port of Mobile, there is no better model for "success with less" than the Port of Savannah. The port's Center for Innovation and Logistics is also unmatched along the East coast. If you are a shipping company, retailer or agricultural products exporter along the East coast, Georgia Port Authority is on your mind.

"GET 'ER DONE" PORT
Port of Charleston

The port of Charleston started late in obtaining dredging approvals to increase its channel depth to 50 feet and getting its state legislature to appropriate the funds to become a Post-Panamax-ready port. However, it got the job done in 2012 like no other port has accomplished in the past decade. The port and U.S. Army Corps of Engineers recently announced that four years have been shaved off the anticipated dredging approval process, and the South Carolina legislature appropriated a record $180 million for the port upgrades and dredging necessary to be Post-Panamax-ready between 2015 and 2017. At a time of maximum bureaucracy in Washington and deficits in state budgets, these accomplishments stand out for **"Get 'er done"** recognition.

"DEEP BEFORE IT WAS COOL TO BE 50 FEET DEEP"
Port of Virginia

Currently, there is just one East coast port with a 50-foot channel depth that is Post-Panamax-ready—and that is the Port of Virginia. The port has become a leading ocean container terminal complex on the U.S. East Coast because of its military roots. Although its annual TEU figures (approximately 2 million) rank it only fifth among U.S. ports, behind Oakland, Calif., it ranks first for competitiveness by *Site Selection* magazine for 2011. The Port of Virginia is an "East coast sleeper" that will likely become a first port-of-call for Post-Panamax container vessels post 2015. Companies such as Ace Hardware, which selected the Hampton Roads area for its U.S. imports distribution center, are already recognizing the Port of Virginia's competitiveness.

"THE DELICATE TOUCH" PORT
Port of Baltimore

Aside from becoming one of America's Top 15 container ports while maintaining the ecological balance with one of the most delicate wetlands along the East coast (the Chesapeake Bay), the Port of Baltimore demonstrated it also has a delicate engineering touch when it maneuvered four new "Super-Post Panamax" cranes under the Chesapeake Bay Bridge on June 20. The new cranes, along with the deepening and reconstruction of the Seabirth Marine Terminal, gives Baltimore the distinction of being one of only two Post-Panamax-ready ports along the East Coast in 2012. The port has a 50-foot deep channel and now seven "Super-Post Panamax cranes.

"CRUISING TO LATIN AMERICAN SUCCESS"
Port of Miami
The Port of Miami has long been regarded as America's "cruise port." Whether it is Carnival, Disney, Norwegian, Royal Caribbean, or one of eight other existing and newly expanding cruise lines, there is hardly an internationally-flagged cruise line that does not make Miami a primary port of call. The statistics speak volumes. The Port of Miami reports in excess of 4.5 million annual cruise passengers flow through its terminals—and that figure is up one-third over the past decade, despite the 2008–2009 recession. Miami is using its cruise ship success to be so much more than a cruise ship port. The necessary dredging and Super-Post Panamax crane upgrade projects are underway, and these Post-Panamax readiness projects resulted in the ports of Miami and Panama entering into an agreement this past year to promote more trade between their two ports. Miami (and Port Everglades, located north of Miami and south of Palm Beach) are advancing their capabilities to capitalize on the boom in container and cargo traffic flowing through the expanded Panama Canal locks in 2015. The Port of Miami is no longer just your grandparents' port of call after retirement. It is cruising to one of the Americas' primary container trading ports.

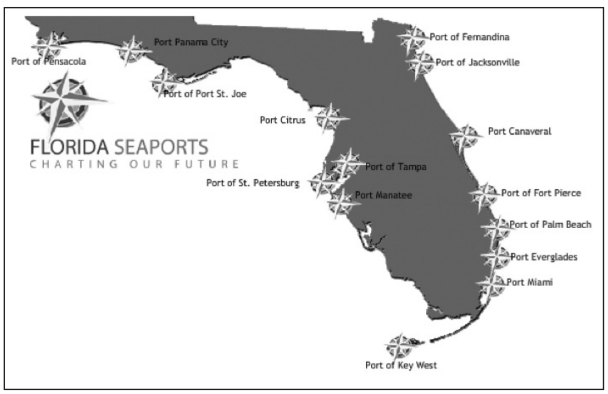
"ENGINEERING FEAT OF 2012"
Port Authority of New York & New Jersey
At year-end 2012, it appeared that New York would not become Post-Panamax-ready by 2015 because of the cost and engineering hurdles presented in raising the Bayonne Bridge, a critical passage for container and cargo traffic linking the Hudson River and New York Bay to Newark Bay.

The bridge's current 151-foot air draft prohibits some post-Panamax ships from passing underneath on their way to four of the port's biggest container terminals on the west side of the harbor. The port authority plans to raise the air draft 61 feet by lifting the four-lane highway across the bridge (an incredibly complicated engineering undertaking), but first, the U.S. Coast Guard and other agencies must complete a study of the project's impact on the environment and on the bridge's historic structure. However, in true Empire State fashion, both an approval and engineering feat have been hurdled. On July 18, the N.Y. Port Authority announced that the $1 billion project has been moved up six months, and the project has been placed on President Obama's list of projects for expedited review. It now appears certain the Bayonne Bridge will have enough clearance by Fall 2015 to handle larger Post-Panamax ships.

"THE UNDERDOG MAKING A COMEBACK"
Jacksonville
Florida has more port facilities and miles of waterways than any other U.S. coastal state. As a result, capital resources for dredging, cranes and wharfing or berthing upgrade projects have tended to be rationed under the state's current fiscal situation emanating from the post-2007 housing crisis. Since the onset of the U.S. housing and banking-led recession, Florida has tended to allocate a disproportionate share of state funding to the ports of Miami and Tampa for Post-Panamax readiness at the expense of the state's other 15 ports, such as Jacksonville. The port of Jacksonville has been the overlooked "step-port" in the funding process. That is changing, and north Florida's only deep-water port is making a comeback.

In July, Disney Resorts announced it would be transporting all resort-bound imports for its Central Florida properties through the port of Jacksonville. Disney explained that it made the decision based upon: 1) the quality of Jacksonville's port facilities, as well as proximity to Disney's Central Florida resorts; and 2) adoption of a statewide movement led by the governor to encourage businesses to bring into Florida the goods, materials and products that it consumes or sells through a Florida port. This campaign, known as "Bring Florida-bound cargo in through a Florida port," is worth monitoring to assess the impact it has on neighboring East and Gulf coast ports outside Florida. Alabama, Louisiana, South Carolina, Georgia and Virginia port authorities may see a material impact on container traffic and respond with their own campaigns, tax incentives, etc.

Figure 13



What seems like a strategic idea to boost Florida port traffic may place manufacturers, retailers and shippers in the midst of a port economic development war.

"THE NEW UP-AND-COMER"
Port of Mobile

On July 2, Airbus announced it would construct a $600 million aircraft assembly plant in Mobile, Ala. The facility will build Airbus' industry-leading family of A319, A320 and A321 aircraft. The company said construction of the assembly line will begin in summer 2013. Aircraft assembly is planned to begin in 2015, with first deliveries from the Mobile facility beginning in 2016. Airbus anticipates the facility will produce between 40 and 50 aircraft per year by 2018. Like Boeing's decision to construct its newest aircraft assembly plant in Charleston, S.C. in 2010, a material part of the decision was the port. This announcement is a game changer for the Port of Mobile.

Many port authorities along the Gulf and southern portions of the East coast are surprised to learn that Post-Panamax vessels have started to call on the Port of Mobile. As a case in point, the MSC Laura docked in Mobile in June and was the first Post-Panamax vessel in the Mediterranean Shipping Company's fleet that will provide new weekly direct service from the North European ports of Antwerp, Felixstowe, Bremerhaven and Le Havre. Between the Airbus announcement and near-30 percent growth in container traffic already occurring at the port of Mobile, it is the "Up-and-Comer" port in the U.S. to monitor. ■

ENDNOTE

1. Conway, K.C., Colliers International, 2011.

Social Media: Identifying the Business Opportunities

The Personal Experiences of a Social Media User

BY ROBERT J. PLISKA, CRE, CPA

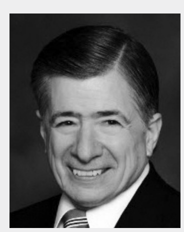
"If Google can't find you, you don't exist" was stated by one very active participant on the Internet. This originally sounded very far-fetched to me. After all, I have been in the commercial real estate business more than 35 years. Someone can surely find me if they need to. I have been in many places and involved with many commercial real estate transactions. Then, I thought, think again. The Internet really has taken over business in the past decade. Most business and non-business people have a computer. They are continually being hit by emails and other forms of electronic communications, not only on the computer but through other means like smartphones, iPads and other sources. People are using these electronic devices for doing searches, due diligence, finding people, reviewing companies, reviewing employees and many other things. The world has changed. Have I adapted? Am I prepared?

WHY SOCIAL MEDIA?

As the Internet evolved and people started using email and websites, I was slow to adjust. This appeared to me to be a passing fad. However, it turned out that I would be left out if I did not get in the game. I remember a quote by Jim Rohn, "If you keep doing what you are doing, you will keep getting what you are getting." Reluctantly, I jumped in. I created a website for our company. I then used emails productively to gain and transact business. I learned how to use them effectively to get results. I actually joined an organization at the time called the Real Estate Cyberspace Society to find better ways to use the Internet and emails for real estate. The results were amazing since many of my competitors were unaware of the many "tricks of the trade" that were being accomplished on the Internet as it related to real estate.

Now comes social media. A fad or not? Statistics now are showing that 83 percent of all due diligence and decision making is starting with a Google search. There will be two billion computers online per another study by Forrester Research. In 2011, there were 14 billion non-computer devices such as smartphones, iPads and other similar devices. People are finding people on the Internet. People are using the Internet for research on companies. People are finding jobs on the Internet. People are making substantial sales on the Internet. Will I be left out of this extended use of the Internet—social media? How can I take advantage of this phenomenon? What are the benefits? How will this help my real estate business? As Wayne Gretzky said "A good player plays where the puck is. A great player plays where the puck is going to be." I definitely would like to be where the puck is going to be.

About the Author



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WHY AN EXPERIENCED PROFESSIONAL SHOULD USE SOCIAL MEDIA

In 2008, real estate and the economy took a substantial downturn. I was doing commercial real estate in Detroit. We were hit extremely hard by the auto industry where two of the big three auto companies filed for bankruptcy. This caused a precipitous downward economic impact on the local economy. It did not look good. What to do? It was innovate or evaporate! I then remembered the definition of insanity—doing the same thing over and over again and expecting different results. The decision was to change. I would do anything I could do to stay alive and keep the business going. One decision was to use social media as one technique. Other local competitors were not really using it. This would be one big advantage I would have over them if it worked. In 2009, I started using four main areas of social media—LinkedIn, Twitter, Facebook and YouTube. To this day, I have never regretted it.

My immediate results were good. I was being found on the Internet by many. New clients were found for future work. I was able to expand my horizons in not only identifying future work but completing that work with the help of social media. One example of this was that a client asked me to sell his company, not just his commercial real estate. With the help of LinkedIn, I was able to find more than 400 potential buyers of that company by working with the M & A LinkedIn group sites and other social media. We narrowed the buyers down to several and were able to pick one that was the most logical situation between buyer and seller.

I found other benefits. It helped in branding where it assisted our company to become one of the top 10 most recognized brands in commercial real estate, according to the Lipsey Survey. Our firm is the only national commercial real estate firm mandating 100 percent use of social media by its advisors. It helped me personally in networking with many existing and new clients by keeping me "top of mind" and in front of them on a daily basis. It helped me "listen" for new business opportunities in a market that was completely shattered because of the auto industry. And, this was for an advisor who already had been involved in the commercial real estate industry for more than 35 years.

One of the key benefits to social medial was in the usage of LinkedIn. I was able to create a profile which showed my 35 years of experience in the commercial and investment real estate business. This was like adding another website, which showed my many accomplishments, my several college degrees, my awards, my successes, my executive positions, my heavy involvement in charitable organizations and the many things I have accomplished over the last 35–40 years that could help any existing or future clients. I was able to create a LinkedIn group for The Counselors of Real Estate®, which showed The Counselors' logo on my profile. This not only helped me show my membership in such a great and prestigious organization, but helped create visibility for the organization itself. If you are a Counselor of Real Estate or a professional with substantial experience, you have a great advantage over others in the real estate industry since you have a tremendous amount of background, skills and experience that you can display on your profile. A person searching for you will see your competence, integrity, community, trust and selflessness online. You will be seen in a much better light than others who are not Counselors of Real Estate or professionals with many years of experience.

Many C-level executives now are discovering the benefits of using the Internet. One example is that they conduct searches—whether on customers, clients, competitors and/or employees. One study showed that 79 percent of C-level executives conduct three Internet searches per day. With this use, it is a great advantage to have your name pop up as one of the top results of a search. Search engines give priority to those who are on LinkedIn, Twitter, Facebook and YouTube. Typically you will end up on page one of a search, and in some cases, number one on page one!

SOCIAL MEDIA'S MYTHS AND MISCONCEPTIONS

So these are some of the advantages of using social media—even for the most experienced professional. But, you say, you still heard many negatives? One misconception heard is—it's only for young people. On the other hand, many "older" and experienced people now are using it. One study showed that 75 percent of LinkedIn users are older than age 25 and have average household incomes exceeding $109,000. So you can see, both young and old are embracing this technology. Another negative of LinkIn some users complain about is that it is not a substitute for face-to-face interaction. This is true. However, it surely can help you gain an opportunity to interact or gain a meeting in the first place.

Other objections heard include that it takes too much time, it's too risky, no meaningful relationships are obtained from it, and there are too many platforms with which to get involved. These objections can be addressed. Social media can be managed and controlled. You have the opportunity to spend as much or as little time as you want to devote to this activity. The risks are similar to any email risk—the social media organizations themselves address the issues as they become aware of any problems. You just need to be astute and use common sense—just as with email.

Relationships can be created by using social media as a jump-start. I, personally, have made strong relationships with many people since I am now aware of who they are, how they think and what interests them. It's amazing how many people get to know you personally and how easy it becomes to work with them. We will discuss managing our time and most effectively using social media for our own personal benefit a little later. But first, let's spend a few moments going over some of the most popular forms of social media—LinkedIn, Twitter and Facebook.

LINKEDIN

LinkedIn is considered the most widely used social media for business purposes. It has, at the time of this writing, more than 190 million users. One of the key benefits of LinkedIn is its display of your background and credentials, with the opportunity to have various other professionals recommend you for the work that you have done, and note the quality of person that you are. LinkedIn creates search engine optimization for you, which means that if someone is searching for you on the Internet, he/she can typically find you because you are listed higher in a search. Another benefit of LinkedIn is the relationships and bonding it creates by enabling you to become a member of a group that interests you, obtaining information and connecting you with those who can be helpful in your business, sharing information that is a hot topic of the day, recommending others who can assist you, and creating a top of mind, trust and credibility—all helpful for your business. You can easily "connect" with those you are "connected" with on LinkedIn. People typically do business if they know you, like you and trust you. LinkedIn does just that. There are many other uses for LinkedIn. I suggest you get started by setting up an account and proceeding forward if you haven't already done so. You can "Google" to find short instructional videos that can turn you into you an "expert" in very little time.

For me, LinkedIn is great. It keeps me up to date. It keeps me top of mind with many of my connections. It enables me to let others know of my expertise in a very short time because of my profile. It makes for easier bonding and much closer relationships. For Counselors of Real Estate members and seasoned professionals, it is an opportunity to create stronger bonding with their many quality members and connections via industry updates, review of profiles, and a simple way to connect during times when they are not attending national or local meetings.

TWITTER

Twitter is used regularly for business also. It is slightly more informal than LinkedIn. Messages are restricted to 140 characters on a "tweet." I compare it to a stock ticker tape. Instead of seeing updated stock prices, tweets are short messages that update you on the latest news. This can be very beneficial to you since you typically may be the first to know any breaking news. Some additional benefits are that you can impress your clients as being knowledgeable on any subject since you are "following" persons and/or entities who send you bite-sized informational headlines of interest to you and your clients. You typically are the first to know, if you are following the right people in your industry or interest. I almost always am the first to know about those things happening in my area of expertise, within a day or so. There are also Twitter magazines that you can subscribe to that accumulate the latest tweets. These magazines can be sent directly to your email daily, giving you the latest tweets on a certain subject such as commercial real estate. The magazines can be accessed via *www.paperli.com*.

Twitter has many uses. The news media uses it since it is their job to be the first to know. As a result, I typically will follow both the reporters in my local area and nationally since they will have the latest news. I remember when I was first using Twitter and a reporter first tweeted about Tiger Woods running his car into a tree near his home late at night. It was interesting to watch the news media jump on this story. As one reporter indicated, "there is more to this story than appears on the surface." As we all discovered, this was an understatement, as the news evolved.

Twitter can be used more for real estate matters. I am typically the first to know about breaking news in the industry. As an example, I wrote an article on breaking news with Twitter tweets in 2009/2010 for The Counselors of Real Estate's journal, *Real Estate Issues*—

"Going From Mark-to-Market to Mark-to-Make-Believe." It related to the decision of the Feds to allow banks not to write down values of properties in certain circumstances where the values were impaired (i.e. to "delay and pray" or "extend and pretend," as it was called). There was much opposition to this decision since from 1990 to 1994 the Resolution Trust Corporation and Feds decided to write down properties immediately. This approach of writing down immediately, according to many, caused many banks to fail. As it turned out, "delay and pray" may have been the better approach, while at the time I wrote the article, it did not look to many experts as though the Feds took the right path. Twitter was able to capture it on a "real-time" basis. This is significantly better than waiting for all the real estate journals to report it in print, which sometimes can take up to three months or longer.

I personally have received business from Twitter just because of its many benefits—being on top of the news that relates to you (for me it is commercial and investment real estate), being top of mind to all your followers (some have brought me business and some have referred me to others that have brought me business), connecting with those that can use your quotes for public relations purposes, such as the news media, listening for opportunities for you and your clients by following the latest information, and many other opportunities. As they say, information is power—especially when it is timely.

FACEBOOK

The third social media venue that I consider useful is Facebook. It is the "gorilla" of the social media venues, with more than one billion users at this writing. It is popular for its large database and for its branding and advertising opportunities. It is less formal, but is still embraced by business. Its biggest positive for the business user is that there is high engagement (i.e. you can respond, comment or "like" fairly easily to all the various posts by friends). This more easily creates a bonding (or not a bonding if you are opposed to the thoughts of the post). You understand your client or "friend" more as to how he or she thinks, what they like to do, where they go on vacation, etc. As one sales book discusses, you should know your client inside and out. Facebook tends to accomplish this objective. I have actually received substantial business on Facebook since "friends" know me well. They see my children, family, who I am, how I think alike (or not alike), what I like to do (music, golf, tennis, vacation, family, charities, etc.), and I am top of mind with them. It is easy to discuss future business because we know each other. People, again, tend do business with people they know, like and trust.

On Facebook, I typically try to stay away from controversial subjects like politics and religion. Many of your friends, though, will not. You will have great insight about them since you understand where they are coming from and what they believe and feel. It helps in dealing with them and maintaining good relationships. While using Facebook, I keep in mind the motto of the late football coach Bear Bryant: "Show class, have pride and display character. If you do, winning takes care of itself."

OTHER SOCIAL MEDIA

Other social media include venues like YouTube and blogs. These can be very helpful to you also. If, for example, you create a YouTube video of yourself and/or your business, the search engines tend to pick this up and rate you higher on a Google search. I have done several videos and they have placed me in a higher status on a search. Blogs can do the same thing. They get you and your name out there. People tend to find you, and usually, you end up with higher credibility and visibility.

ACHIEVING EFFECTIVE RESULTS

So, it seems as though social media can be helpful. How should I use it to my best advantage? First, you should set a clear set of goals and objectives. What are you trying to get out of social media? New business? New job? Public relations? Branding? Marketing? Networking? Search engine optimization? Relationships? Bonding? Information? Credibility? Finding hidden opportunities? You might rank these goals and objectives. Weigh your options against your resources. Should you do it yourself? Should you hire someone? What are the costs? What are the benefits? What returns do you expect and want? Remember, you can outsource this activity and save time. However, you know your business the best, authenticity is better and you will miss out on industry and business expertise if it is delegated. You, however, should do only what you can do effectively. And remember, there are third-party tools that are available to assist, such as in Twitter where you can schedule tweets to go automatically at different times of day. Just "Google" to find these tools.

One key recommendation in using social media is not to continue to use direct advertising. Most people do not like ads. They like "freebies." It is more about creating relationships. It is more of a soft sell than a hard sell. Let people know your personality and interests. Share company and personal successes. Teach what you know. Followers will appreciate tips specific to your business. Include links to longer articles. Post links of news stories related to your industry. And keep in mind that LinkedIn and Twitter are typically more business-oriented. Facebook is more about being social.

As a start, for achieving certain results, you personally might want to spend 15 minutes a day to accomplish certain social media objectives. You may increase or decrease this timing depending on the results you are getting after several months. Watch others' posts and tweets to achieve a comfort level of what to post and tweet and what provides the best results. And remember, social media can be free as it relates to cash outlays but can be expensive if the time you spend gets out of hand. Time is money.

CONCLUSION

Wishing you all the best in your social media endeavors. It has been beneficial to me because of the new business it has generated in very difficult times. This is in addition to the public relations it provides, the branding it brings, the networking and relationships it provides and strengthens, the timely information it produces, and the many business opportunities that it brings. Social media doesn't look like it is going away any time soon. Social media appears that it is here to stay. So why not learn it and reap the many benefits it provides? As basketball star Michael Jordan once said: "Some people want it to happen, some wish it would happen, others make it happen." Why not make it happen and reap its many rewards? ■

RECOMMENDED READING

Real Estate Mathematics: Applied Analytics and Quantitative Methods for Private Real Estate Investment

by David J. Lynn, Ph.D., CRE, with Tim Wang, Ph.D. (©2011, PEI, 250 pages)

REVIEWED BY WILLIAM P.J. McCARTHY, CRE, FRICS, CPM

THERE IS AN EXCELLENT NEW ADDITION to the already crowded collection of texts on real estate math and its applications entitled *Real Estate Mathematics: Applied Analytics and Quantitative Methods for Private Real Estate Investment.* The Counselors of Real Estate® can take pride in the fact that five Counselors contributed excellent chapters to it, and one, David J. Lynn, also served as co-editor.

Real Estate Mathematics, published last year by the Private Equity Institute (PEI) presents in nineteen detailed, yet succinct chapters what its subtitle states: an applied analytical and quantitative method for private real estate investment. The publication of this book is timely, as is its structure and format. For real estate markets to improve and to avoid the nonsense and corruption that led to the global meltdown in markets will require a return to solid real estate analysis and the application of tested real estate mathematics, calculations and measurements. These standards, used by skilled and ethical practitioners, are the best safeguard against bad practices, behavior and results.

More than 25 leading real estate experts contributed to this publication. These include our five fellow CREs whose chapter contributions give a flavour to both the quality of the writers and the text as a whole.

David J. Lynn, **CRE**, managing director, senior strategist and generalist portfolio manager, Clarion Partners, New York City, co-edited the book and wrote the chapter on "Distressed Debt Investing" (co-authored with fellow editor Tim Wang). This chapter is an excellent primer to the characteristics of distressed debt, especially in light of recent developments and practices. The authors provide practical investment strategies that capitalize on the increasing amounts of distressed debt on banks' balance sheets. The chapter illustrates how either loan-to-own or hold-to-maturity purchasing approaches for distressed debt investments can be utilized in today's markets.

Hugh F. Kelly, **CRE**, 2012 CRE vice chair and clinical professor of real estate, New York University Schack Institute of Real Estate, Brooklyn, N.Y., contributed the chapter entitled "Real Estate Investment, Capital Structure." Kelly's chapter focuses on the concept of capital structuring and its consistent reliance on debt financing which, so long as the debt is prudently structured and adequately hedged, can serve as a means of maximizing real estate values for a variety of investor

About the Reviewer

William P.J. McCarthy, **CRE**, **FRICS**, **CPM**, *is a property developer and owner, and a real estate agent and consultant based in Burnaby, British Columbia. McCarthy is a past president of the Real Estate Institute of Canada, and has served as a director and officer of several other professional and community organizations. A Counselor of Real Estate since 1995, he has participated in three major assignments for the CRE Consulting Corps. McCarthy currently chairs the CRE Ethics Committee.*

types. Using detailed mathematics and capital structuring, Kelly shows how various strategies, including hybrid capital structuring can prudently utilize both debt and equity financings.

Scott R. Muldavin, **CRE**, president, The Muldavin Company, Inc., San Rafael, Calif., wrote the chapter "Special Considerations in Sustainable Property Financial Analysis." This chapter is both analytical and topical, as sustainable property investment is increasingly in vogue and will likely remain so going forward. The chapter focuses on the author's six steps towards analyzing and refining the qualitative nature of their research, and which will produce viable results considering the effects of sustainability.

Roy J. Schneiderman, **CRE**, principal, Bard Consulting LLC, San Francisco, co-authored with Dean Altshuler, the chapter entitled "Key Considerations in Joint-Venture Projects." The approach of this chapter focuses on cash flow issues, and their critical importance on various types of joint venture projects including single and multi-asset projects and programmatic joint ventures. With various joint ventures increasingly being utilized, the reader will find their examination of incentive fee structures and how to apply these to basic and complex joint venture configurations very informative.

Kenneth P. Riggs, **Jr.**, **CRE**, the current Counselors of Real Estate Board Chair, who is also chairman and president, Real Estate Research Corp., Chicago, wrote the final chapter entitled "Portfolio Returns and Volatilities Through the Cycles." The article discusses recurring cycles in the market as a whole, and commercial real estate's role within these cycles. This chapter provides an analytical overview as well as strategies to apply when matching the most advantageous real estate portfolio strategy to the current and trending business cycle.

All of these chapters are as to be expected—well researched, written and because of the real world credentials of the authors, insightful and highly applicable. The other chapters also meet this standard. The quality of the research, writing and the reputation of this text's authors is the main strength of this book. The other key is that individual chapters and the articles as a whole are extremely relevant and topical in today's market environment and with regard to future challenges that real estate will continue to face.

You will notice both a scholarly and practical theme in these chapters, and this is consistent throughout the book. The entire text can serve a multitude of purposes, and does so very well. Whether as a detailed introduction to the overall subject, the specific chapters, a refresher for the experienced practitioner, or as an academic text, *Real Estate Mathematics*, is both detailed enough and so very clearly written and presented as to meet all of these needs—something rare for such a comprehensive and often convoluted subject matter as real estate mathematics.

Again, the key to this is that the authors, individually and collectively present their findings from a practical and hands-on perspective. Therefore the "applied" analytics and quantitative methods presented are just that, theory into practice.

Real Estate Mathematics is an attractive book, well designed and printed. The nineteen chapters flow well together, and the use of 119 well crafted and placed figures and tables add clarity to the subject matter. This enables the text to also serve as an ongoing reference guide, and to no doubt be quoted in future publications.

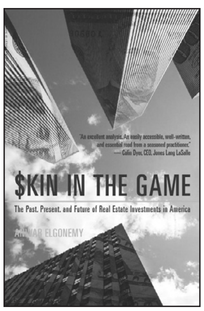
In summary, *Real Estate Mathematics* is a significant addition to this field. Its publication is timely based upon recent events and its quality enhances real estate writing and scholarship. The Counselors can be justifiably proud that our fellow members are part of this effort. This book has earned a spot with my desk library, and I would recommend it for yours as well. ■

RECOMMENDED READING

Skin in the Game: The Past, Present and Future of Real Estate Investments in America

by Anwar Elgonemy, CRE (©2012, CreateSpace, 495 pages)

REVIEWED BY DANIEL L. SWANGO, PH.D., CRE, MAI, FRICS



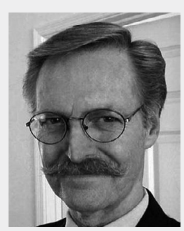
THE TITLE of the book *Skin in the Game: The Past, Present and Future of Real Estate Investments in America* calls attention to a major problem in the economy and in the real estate segment particularly—that many of the investors, loan originators, secondary market entities, investment vehicle creators and others have little or no skin in the game, i.e., their own money and assets at significant risk. This volume is a look at the Great Recession, indirect and direct causes, what has been done and is being done about it, and the outlook for the economy, particularly the real estate sector. There are many lessons for us to learn! But, collectively and individually, will we?

Chapter 1 presents Elgonemy's perceptions of some of the characteristics of the American economy, particularly the real estate component in asset and capital/financial markets. He shares his thoughts about direct and indirect causes of the 2000–2005 "reality of the realty bubble" and ensuing Great Recession. Frugality is not one of our virtues; in this chapter he warns against greed and debt, individually and as a people/country/culture.

In the second chapter he dives into some of the "mumbo-jumbo" that has come about in the last few decades in the real estate capital and financial markets; a host of acronyms and terms including: ABSs, REMICs, pass-through securities, derivatives, multi-layered derivatives, mortgage bonds, CMO classes, tranches, tranche structuring, CDOs and other imaginative and complex inventions. You may think you have an understanding of most of these, perhaps, but here they are clearly and concisely explained—some with visual aids.

It's intriguing how a basic concept, i.e., loaning money with real estate as the security—the basic mortgage—became so incredibly complex in response to the desire for liquidity, risk sharing, and satisfying insatiable simple greed. From the mortgage to secondary markets to securitization to a tangled morass of new investment inventions, mechanisms and instruments, the developments and progressions are explained. And all this was happening at a time of residential real estate price increases exceeding inflation far beyond the historic

About the Reviewer



Daniel L. Swango, Ph.D., CRE, MAI, FRICS, *is a real estate consultant, valuer, researcher, and educator. He has been through several real estate cycles since entering private practice in the early 60s. In addition to the U.S.A., Swango has taught or served real estate clients in Japan, China, Taiwan, Malaysia, Macedonia, Korea, Germany (European Business School), Puerto Rico, Kazakhstan (International Business School), Australia (Curtin University), Mexico and Canada, and has taught students from more than 50 countries in Central and South America, Africa, Europe, and Asia. Based in Tucson, Arizona, he is a hearing officer for the State Board of Equalization and a state Appraisal Board contract private investigator.*

typical one percent or so, and consumerism driving up all types of consumer and corporate debt to Himalayan levels. Enter some black swans, and you have the perfect storm—what has come to be known as the Great Recession.

In the third chapter the reader sees "it wasn't just a bubble; it was a froth of countless tiny bubbles," as Alan Greenspan put it in *The Age of Turbulence*.

Elgonemy reveals the faulty assumptions and how the market drank "the Purple Kool-Aid." It appears that none of the sophisticates understood the new derivatives—sliced and diced investment instruments—and/or didn't want to admit what they didn't know, or find out. Why endanger the golden goose?

> *The American consumer's desire to spend and live well beyond his or her means circuitously contributed to the crisis.* But … *the 'spend-it-before-we-earn-it' consumerism habits were in place long before the housing boom.*
>
> And in real estate: *Tempting, low-rate loans, often with artificial payments, were pushed by greedy, unscrupulous loan officers. They found easy marks in gullible buyers. … It can be assumed that these families seldom had access to an honest real estate agent, loan officer or attorney to guide them through the stressful home buying process—they were often dealing with the low-end of the real estate profession…*

The author correctly points out: "When investment markets digest expectations only, it is a bubble in the making. Investors and bankers can easily get caught up in a feedback loop that reinforces a sense of tunnel vision or expectations group-think." It became standard, normal and accepted. So with all on the same Kool-Aid, the mistakes repeat again and again; the outcome is inevitable.

In the fourth chapter we read how the machine was greased, how loans were pushed, and lower and lower credit acceptable, thanks to greed and incentives to those with little or no skin in the game. The well lubricated machine involved predatory loans with relatively high interest and fees, abusive terms and conditions trapping borrowers, dismissing borrowers' ability to pay, and such.

All this took place in a stew of fraud and law-skirting in property sales, marketing of investment paper, and the loans themselves. This includes aggressive solicitations, kickbacks to mortgage brokers (yield-spread premiums), multi-level sales schemes, purposely making unaffordable loans, falsifying loan applications (particularly concerning income), and even forging signatures and making loans of more than 100 percent loan-to-value. Frauds also included high points and/or padded closing costs and fees, unexpected balloon payments, inflated appraisal costs, bogus broker fees, duplicate services, daily interest for late payments, and forced services and insurance. Discussions about rampant white collar crime and fraud are included in this chapter.

The "Wicked Incentives" are highlighted in the fifth chapter—incentives that encouraged bad lending, then created and pushed bad investments. There was not only large scale *fraud* in the real estate markets and real estate financing and investing instruments, but correspondingly, money *incentives* for individuals and companies to push on and on, exacerbating the problems. In the mix also: very poor risk management and rating, including deliberately hidden data and performance metrics, along with a short-term focus by managers and stockholders.

Then there is, and was, Wall Street's style of evaluation of investments and companies—all based on short-term performance and perceptions of "the come." Maximizing compensation and pumping stock value at all costs—a runaway problem examined and hashed out by the author. Unsustainable prices and stratospheric price-earnings ratios were reached; pricing was more and more "based on the come"—not good. Alan Greenspan's comment about *irrational exuberance* is quite descriptive.

Chapter 6 is appropriately titled "Cheese, Sleaze, and Filling in the Boxes." Real estate had and has a mystique, magnitude and risk arising from lengthy and involved transactions, many different players involved in the industry, and sizeable individual transaction amounts; so the real estate industry was and is bound to attract some shady, greedy, unscrupulous players.

Real estate is risky for several additional reasons, among them the lack of transparency, proprietary secrecy, and lenders lending money they don't own or control over the life of the loan. *They don't live with their loans.* The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 is also discussed; it remains far-reaching, with some of its controversial provisions questioned. With the "I-want-it-now" consumer, the ill-informed "get-me-all-I-can-get" borrower, the incentivized marketing and lending brokers and agents on commissions, the appraisers seeking happy clients for future assignments, the predatory loans, the minimal qualification loan requirements, and the lack of responsible work by the credit rating agencies and regulators, there came a tremendous real estate and financial meltdown. We saw " … the biggest missed assessment of real estate debt risk in our lifetime."

Most of this chapter gets it, spot-on. But there will likely be disagreement with some of the statements about Dodd-Frank.

Then Chapter 7, "Mixed Signals," addresses *commercial* real estate, with its own set of problems and challenges, and its guilt by association with the residential sector. There has been an "overload of contradictory economic data" and resulting decision-making difficulty in the commercial scene; this is still unfolding, with a huge amount of CRE debt maturities coming due in 2012 through 2015. (Stay tuned; the fat lady hasn't sung yet.)

Vacancy rates have improved, but lending requirements have significantly tightened, with " … average LTV on senior debt close to 65 percent … with more in the way of recourse." Commercial properties have suffered also because of the general economic downturn resulting in sagging vacancy, rental rates, net incomes, cash flows, and "erratic property values." The author describes a CRE market in flux and turmoil and uncertainty, with mixed signals about the future.

Restructuring of finance packages has been more prevalent in commercial real estate than in residential real estate, with less impact from foreclosures; some refer to "extend and pretend." Delinquency rates are still high in a struggling recovery, massive commercial real estate debt is coming due by 2015, refinancing options are still quite limited, and new banking regulations make for continued difficulties in the commercial real estate world. The author discusses the glass half empty versus the glass half full views. As you soak up this chapter, look at the glass and the water; the status is up to you and your evaluation of the scene(s).

In Chapter 8, "Violating the Law of the Lever," debt and leverage provide the grist for the mill. In this chapter the author " … emphasizes the dangers of debt, the cocaine of real estate investors." And, "When applied to real estate, the principle of leverage enables investors to purchase properties they would not otherwise be capable of acquiring with all-cash equity."

Elgonemy addresses borrowing, leverage and the advantages and disadvantages of their use in Chapter 8, complete with examples showing both the potential and the destructive power of leverage. He goes on to address "*over-leverage*, the imprudent borrowing of too much money" to minimize equity contribution to maximize ROE. He concludes that, in spite of the Great Recession, we are still in "The Land of the Rising Debt," and calls attention to "The Calamitous Missed Assessment of Real Estate Debt Risk" with "excessive debt growth" in commercial real estate.

What to do? "Fiddling with the System" is the subject matter of Chapter 9. Elgonemy opines that the United States real estate sector has a lack of confidence resulting from confusion arising from the new regulatory expectations, and the questionable ability and effectiveness of the federal government in dealing with the economy. The federal government, he notes, has had a mixed record in these areas, with recurring financial crises anyway. A good graph in this chapter shows the national levels of new home sales from 1963–2010 with notes of major federal government actions, with a suggested cause and effect relationship on new home sales. The author reviews some of what he calls "good fiddling" and "not-so-good-fiddling" by the federal government. There is also some discussion of government distortion, data and risk evaluation problems, and government policies that promote home ownership even for some not in a good position to take on home ownership or debt.

The reader may judge whether he or she agrees with the government's solutions discussed, such as Dodd-Frank, quantitative easing and other measures. Elgonemy notes that " … government intervention isn't a bad thing, but it should not be excessive." "Excessive" is not defined; and he opines boldly:

> *All financial crises are caused by too much leverage.*

Further:

> *…if we look closely at the cunning financial products that were created by some very smart people—CDOs, CDSs, and so on—a defining feature was that they were intended to exploit loopholes in the U.S. legal system. Innovation was therefore about dancing on the edge of laws, regulations, and ratings.*

Risk is the next topic, in Chapter 10, along with the need in the system for participants to have "skin in the game," holding that lending quality is better when lenders "… have a loss risk on the loan products they sell to investors." Likewise for borrowers—there *must* be significant equity capital involved. Mortgage-backed securities loan originators weren't taking any particular risk, but must.

A good discussion of human nature and the nature of business makes up most of the chapter including good information about leveraged buyouts, no-risk securitizations, and challenges in the worlds of FHA, Fannie Mae and Freddie Mac. (Remember the "liar loans" and the no-doc loans?)

The eleventh chapter, "Facing the Music," examines "additional unresolved problems in post-crisis America." Elgonemy says debts in the U.S. are "particularly worrying because they threaten to destroy the financial future of generations of Americans." Consequences of such incredible, inconceivable, astonishing levels of debt as we have and likely will have for some time include:

- more savings going to buying government debt rather than investments in productive factories and capital goods;
- higher tax rates to pay interest on the debt with less left for buying of products and services creating jobs, expansion, growth and innovation;
- reductions in needed government services because of proportion of budget to go to interest; and
- more risk in cases of future financial crises.

He also reviews the impact of debt on growth, individual/household earnings, inflation and society. Relative to these "debt points and concerns," he chews over five key problems:

> *"1. Misconceptions about housing; 2. Negative home equity; 3. Delinquencies, defaults, and foreclosures; 4. Commercial debt maturities; and 5. Private-level mortgage-backed securities."*

Housing, he says in Chapter 11, is not always a good long-term investment because:

- it is an indivisible asset;
- it is not diversified (inflexible);
- buy/sell transaction costs are high;
- it is easy to get money out when prices are rising but not when falling;
- it is highly correlated to the employment market;
- it is not necessarily prudent to buy a house a with low down payment;
- owning a home is not always cheaper than renting; and
- homes don't automatically increase in value.

To the above he adds the problem of negative equity, noting about 23 percent of homes in 2011 had negative leverage, or were underwater, with many more borderline. "The urge to own a home is part of the problem with the U.S. economy today. It's what helped get many Americans into excessive debt."

Beyond houses, he addresses the coming problem of a huge amount of 2012–2015 commercial debt maturities. Making matters even more ominous, according to the MIT Center for Real Estate, commercial real estate values dropped about 44 percent from the peak in 2007–2009 largely because of downward pressure on rent, increasing vacancy and increasing capitalization rates. With lower values and more stringent loan underwriting came the obvious painful problems in commercial real estate. Elgonemy notes: "Research by Moody's and Real Capital Analytics indicates that about half of the commercial real estate acquired or refinanced in the last five years are now upside down on their loans, with asset prices falling below the mortgage amount. … Deutsche Bank and CoreLogic also estimate that 65 percent or more of CMBS loans could fail to qualify for refinancing."

The twelfth chapter presents a discussion of unresolved problems and some outlook. There are many lessons to be learned from the Great Recession, but memories of U.S. real estate cycles tend to be short "and some of the lessons are never taken onboard at all."

Elgonemy has a number of wide-ranging suggestions; for lenders particularly:

- do a better job of understanding risk;
- make loans with realistic probability of repayment;
- demand equity;
- stick to your core competencies;
- don't over-rely on financial models;
- watch incentives; and
- don't get caught up in hysteria.

He seriously questions the home ownership iconic goal/dream in America and the mortgage interest deduction, citing pros and cons of each. He says, "Although it's not 'morning in America' yet, there are hints in 2012 of dawn on the horizon [with the] country in the 'hope' stage." But he continues, "The story so far is that after a desultory three years from the official ending of the Great Recession, the United States might be drifting along in a Japanese-style funk." Further, "American business and political leaders must rebuild growth and employment that's based less on excessive debt, consumption, construction, and imports, and more on manufacturing and export."

In the Epilogue, Elgonemy opines:

> *Therefore, it is hoped that the Great Recession has enabled U.S. real estate investors and consumers to discover four needed changes in their behavior:*
>
> - *Avoiding Complacency* [He mentions 'black swan fatigue,' i.e., tiring of the idea that a low-probability event could happen and cause havoc.];
> - *Caution;*
> - *Doing More with Less;*
> - *Obsessing Less about Money.*

Appendix A provides a simply great 20-page overview of "The Evolution of U.S. Mortgage Finance, Securitization, and Real Estate Derivatives." (It starts in the early 1900s.)

Appendix B is a seven-page "Summary of US Government Intervention During and After the Financial Crisis." An Index (20 pages) makes it easy to reference items of interest—useful because this book is one you will want not only to read, but to have for future reference.

I would have liked to have read more about commercial real estate in addition to the residential real estate matters, more on the credit rating fiasco and inherent problems, and more on the Great Recession's non-real estate changes in consumer spending and retail, employment levels, consumer confidence levels sales (impacting rents, vacancies, industrial, commercial real estate in general), and foreign influences on the Great Recession, especially that of Europe (particularly Greece, Spain, Portugal and the EU problems) and Asia (specifically China).

But then again, even a 490-plus page paperback has room for only so much. Maybe in the sequel. (It will be a long movie, with need for an intermission.)

In spite of these druthers, I wholeheartedly recommend this book. It's a well written, well documented, interesting, clear, significant treatise about real estate in the Great Recession—its background and causes, what has happened in response to it in the public and private sectors, where we are—and where we may be going.

In one role or another, you've been a participant in the Great Recession—so it's enjoyable and enlightening to see and grab that elephant from different angles. This book invites you to read more about the drama that has been testing your knowledge, skills and thespianship.

Why read this book? Why care? Well,

- because *you need to know* as much about your profession as you hope your surgeon knows about his/hers;
- because *you want to learn from experience*;
- because *you care about your career, your profession* and want to improve its *contribution to your descendants, America and society*; and certainly
- because *CREs aspire to be part of the solution, not part of a future problem*. ■

REAL ESTATE ISSUES®

CONTRIBUTOR INFORMATION

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