

Get Ready For Transformative Change!

In This Issue

- ◆ *Transformative Events Impacting The Real Estate Industry*
 - *Abundance Of Capital*
 - *Accelerating Technological Advancements*
 - *Uncertain Economic Growth*
 - *Changing Global Economy Combined With A Borderless Marketplace*
 - *Declining Workplace Participation Rate*
 - *Demographic & Generational Shifts*
 - *Disruptive Technologies*
 - *Emergence Of New Competitors*
 - *Geo-Centric Market Shifts*
 - *Housing Affordability Challenges*
 - *Industry Consolidation*
 - *The Internet Of Everything*
 - *Urbanization & The Emergence Of Multi-Purpose Real Estate*
 - *Robotics & Artificial Intelligence*
- ◆ *What Real Estate Companies Should Do*
- ◆ *Closing Comments*

Friends & Colleagues:

The road to recurring success is not without challenges, setbacks and the unexpected. Many moment-in-time victories, while feeling good when they occur, can be difficult to replicate and even more difficult to sustain. In 1978, American historian and authority on leadership studies James MacGregor Burns introduced *transformational leadership*. This leadership style emphasizes the need for a leader's personality to make change through example and, more importantly, through the articulation of a clear and engaging vision and challenging goals. Within the real estate industry, becoming transformational will alter the status quo to being successful. During the accelerated pace of the transformative times we are experiencing today – leaders, leadership and inspiring others will be the deciding factors between success and failure. CEL & Associates, Inc.'s research has uncovered over 30 transformative events that now and will continue to have significant impact on the real estate industry.

The unprecedented impact of multiple transformative events occurring simultaneously mandates visionary leaders and leadership. Reacting to unfolding events, responding to challenges, either as they occur or to the outcomes they bring, are characteristics of followers rather than leaders. **Real estate leaders must step out ahead of these transformative events or be relegated to years of watching from the sidelines.** To quote John Quincy Adams, "If your actions inspire others to dream more, learn more, do more and become more, you are a leader."

Leadership is the ability to articulate a vision about which others are passionate to achieve. Today many in the real estate industry struggle with setting a vision that is inspirational and empowering. For some, leadership is manifest in managing others. For others, leadership is following in the footsteps of those who walked before. And for still more, leadership is “doing what we have always done.” **Leadership is not about telling people what to do.** Instead, it is constantly evolving, growing and enabling others to be accountable and to take on responsibility for guiding and teaching others.

By 2025, the real estate industry will consist of 25% - 35% fewer firms than exist today. Several factors are contributing to this industry consolidation: legacy retirements and exits; inability to compete and retain a competitive advantage; capital limitations that inhibit/prevent investments in the future; and unfortunately, for a growing number of firms, the inability to create a sustainable future. According to a recent CEL & Associates, Inc. survey, **55% of real estate leaders indicated that they will be dramatically phasing down or retired in the next 10 years.** Nearly 62% of today’s CEOs and 48% of today’s CFOs are expected to retire. The question that looms over the future leadership challenge is two-fold: **who and where are tomorrow’s leaders, and what are today’s leaders doing to assure future success?**

Researching the etymology or the origin of the word, “lead,” I discovered it first surfaced around 900 AD. Ironically, the modern terms “leader” or “leadership” were derived from a psychological study in search of trait theory and responses to stimuli.

**Qualities of Great Leaders
&
Leadership**

- *Trustworthiness.*
- *Ability to think and plan the future with imagination and wisdom...a visionary.*
- *Ability to delegate.*
- *Effectively communicate.*
- *Ability to think strategically.*
- *Possess a positive attitude and convey confidence.*
- *Living by a demonstrable set of key values and principles.*
- *Ability to inspire others to achieve their own potential and celebrate those successes.*
- *Encourage creativity and innovation.*
- *Flexibility and the ability to respond uniquely as each situation demands.*

Top CEO Priorities In 2017

Top Priorities	Rank
Reshaping The Business Model For The Future	1
Growing Recurring Revenues	2
Attracting And Retaining Talent	3
Brand Differentiation And Brand Management	4
Securing Growth Capital	5
Containing Operating Costs	6
Acquiring And Keeping Clients	7
Mitigating Risk	8
Building The Balance Sheet	9
Keeping Up With Technology	10
Growing Market And Client Share	11
Succession Planning	12
Tax Reform That Is Unfavorable to Real Estate	13
Increase In Interest Rates	14
Rising Tenant/Resident Demands And Expectations	15
Cyber Security	16

Source: CEL & Associates, Inc. and Participating Firms.

Over the past 50 years, and increasingly during the last 20 years, a cottage industry has erupted with thousands of books, many more training seminars and conferences on leadership and how to become a leader. **Unfortunately, the wisdom of words has not achieved the anticipated reality of outcomes.**

In this issue of *Strategic Advantage*, we will highlight 14 of these transformative events happening simultaneously today that mandate leaders and leadership to overcome, take advantage of and chart a course to create opportunities. It is helpful to remember this quote from Lao Tzu, **“A leader is best when people barely know he exists, when his work is done, his aim fulfilled, they will say: we did it ourselves.”** Will today’s real estate leaders be up to the transformational challenge?

Transformative Events Impacting The Real Estate Industry

A Perfect Storm Of Transformative Events Happening Simultaneously		
➤ Abundance of Capital	➤ Housing Affordability Challenges	➤ Redefining Human Capital & Work
➤ Accelerating Technological Advancements	➤ Impact of Collaborative Economy	➤ Retrenchment of Debt Markets
➤ Accelerating Tenant & Resident Disruption	➤ Impact of Influencers	➤ Rise of Experiential Real Estate
➤ Changing Global Economy and Borderless Marketplace	➤ Increasing Government Regulations & Oversight	➤ Rise of the Independent Worker
➤ Demographic And Generational Shifts	➤ Increasing Role of Big Data	➤ Rising Operating Costs, Tenant Expectations & TIs
➤ Disruptive Technologies	➤ Infrastructure Improvements	➤ Robotics & Artificial Intelligence
➤ Emergence of New Competitors	➤ Internet Of Everything	➤ Shifting Household Formation & Consumption Patterns
➤ Energy Shifts & Emergence of Alternative Options	➤ Legacy Exits Amid Multi-Generational Workforce Shifts	➤ Uncertain Economic Growth
➤ Geo-Centric Market Shifts	➤ Product & Service Innovation	➤ Unprecedented Federal Debt
➤ Growth of the Sharing & Collaborative Economy	➤ Real Estate Industry & Corporate America Consolidation	➤ Urbanization and the Emergence of Multi-Purpose Real Estate

Source: CEL & Associates, Inc.

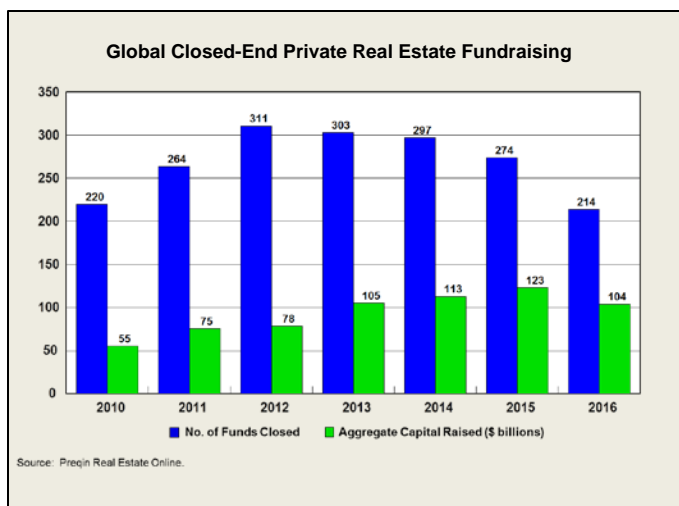
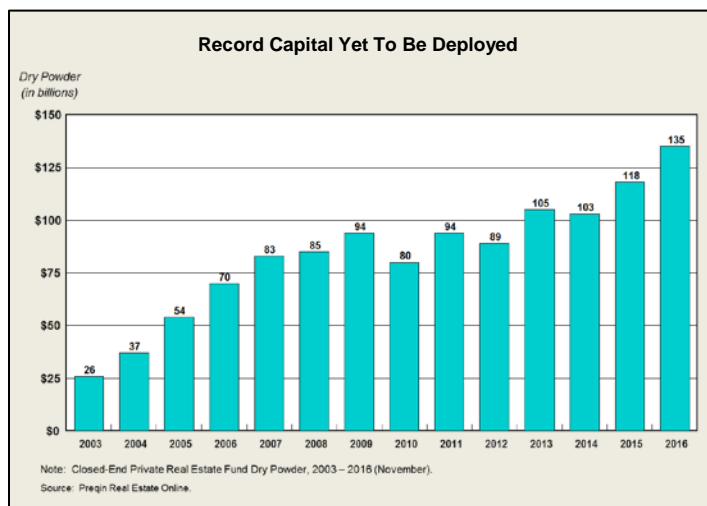
Probably **100 or so transformative events occurring simultaneously today are creating confusion, challenge, discomfort, change and opportunities within the real estate industry.** From a rapidly changing debt marketplace to legacy exits and “gone-to-the-highest bidder” talent changes; from a lack of “deals that make sense” to technological advancements that render yesterday’s building designs obsolete; and from uncertain regulatory and tax law changes to increasing tenant and resident expectations and redefinition of “quality,” **the real estate industry is under a constant barrage of “can-you-believe-this” moments.** CEL & Associates, Inc.’s team of researchers and analysts has narrowed that list to some of the more significant transformative events. The following is a summary description of 14 of these and the impact each will have on the real estate industry today and tomorrow. These transformative events have not been presented in order of importance, priority, concern or impact.

The New Business Model	
Current Model	Future Model
Dominated By Personalities	→ Dominated By Knowledge
Staffed By Employees	→ Comprised Of Collaborative Talent
Hierarchical Structure/Silos	→ Virtual Integration & Teams
Geo-Centric	→ Customer-Centric
Driven By Process	→ Driven By Creators Of Value
Governed By Organizational Charts	→ Consisting Of Networks & Alliances
Market Share	→ Customer Share
Based On Contracts	→ Based On Relationships & Connectivity
On-Time Fulfillment	→ Real-Time Fulfillment
Commodity-Driven	→ Experience-Driven
Service By Policy	→ Service By Intuitive Behavior
Focus On Service	→ Focus On Solutions

Source: CEL & Associates, Inc.

The emerging new business model, as highlighted to the left, reveals a dramatic shift from asset- and personality-centric organizations to knowledge- and customer-centric enterprises. Real estate can be a fairly easy business to understand if one focuses on the end user, the valued and trusted relationships needed to create a result, and the caliber and dedication of those vested with the responsibility to deliver results and exceed expectations. Let’s examine 14 of those transformative events occurring today.

Abundance Of Capital



Approximately \$247 billion in closed-end private real estate fund capital is yet to be deployed.

In 2016, 214 funds closed with an aggregate capital raise of \$104 billion. Real estate pension funds have increased their allocations into real estate (7.3% in 2016 vs. 6% in 2011). Capital from high net-worth investors, REITs, institutions, endowments, sovereigns, broker dealers, local/regional real estate funds, flight capital, corporations and others seeking real estate investments can easily add another \$100 billion or so. **While estimates vary, beginning in 2017, around \$250 billion to \$350 billion is chasing real estate...with a declining pool of viable investments.** However, 49% of Real Estate Fund Managers in January 2017 expressed “concerns about asset pricing.” “Too much money chasing too few deals that make sense.” The March 2017 Trepp CMBS delinquency rate was 5.4%. **We may also be heading toward a credit implosion.** While build-to-core, strategic value-add and secondary market investing will continue, albeit at a more measured pace, a shift to international, strategic entity, debt platform, entity, portfolio and core asset investing will be the dominant themes going forward. There will be distressed asset opportunities, however, the challenge of deploying capital will be far more strategic versus programmatic. **With up to 40% unpaid loans due this year, CEL & Associates, Inc. expects some unique note purchase opportunities.**

Accelerating Technological Advancements

From medicine to manufacturing, from retail distribution channels to shifting residential/lifestyle patterns, the dramatic shifts in how real estate occupiers use space is underway and accelerating. **Technology is changing every 12 - 24 months. However, the real estate industry continues to play catch-up...focusing on today's IT solutions and deferring tomorrow's transformative technological decisions. Building and tenant experience automation is accelerating.** Tech companies within the real estate sector (e.g., LiquidSpace, Leverton, Real Capital Analytics, Xceligent, SquareFoot, RealtyShares, CoStar, Floored [acquired by CBRE in January], and Yardi, among others) are reshaping the way real estate is purchased, leased managed, financed and sold. In 2015 Zillow acquired Trulia (\$2.5 billion), while Altisource Portfolio Solutions acquired RentRange and Investability.

In 2015, global funding for startup real estate tech companies was a record high \$1.9 billion. In 2016, that total rose to nearly \$2.7 billion. With driverless cars, increasing use of biofuels, the shift to ultra-thin OLED so surfaces become computational, universal translation on our mobile devices, building system automation, tenant smart technology, augmented reality games, 4 billion Internet users, as well as cars that can go nearly 750 miles on a single charge, the real estate industry is in for a major shock. **By 2020, the use of telepresence robots, 3D printing, gesture control devices, augmented reality and wearable technology will change real estate from a place to work, live and shop to an experience.** Just think of a time when workers with a wearable chip/technology can gain access to parking garages, elevators, unit or office entry...and configure their office before they



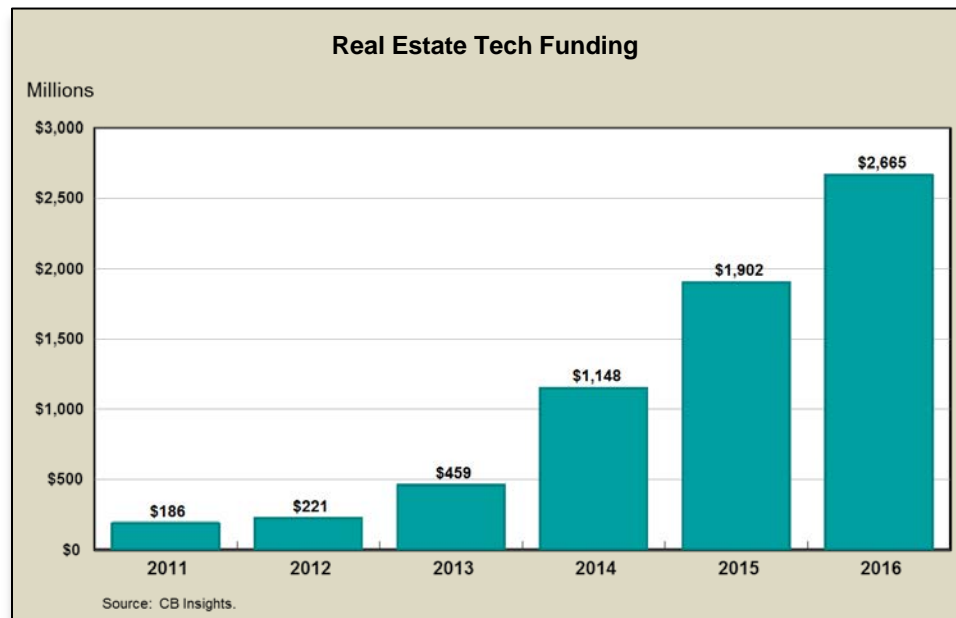
arrive. Think of the impact when building equipment can fix itself or be serviced by robots. Not one aspect of the real estate industry will remain untouched. However, **the real estate industry, at best, is only 20% - 30% fully engaged with technology.** Consider the possibilities when that number becomes 40% - 50% or perhaps even 70%.

Uncertain Economic Growth

U.S. GDP grew a meager 2.1% in 4Q 2016, resulting in an annual GDP growth rate of only 1.6% in 2016 (the slowest pace of growth since 2011). While 1Q 2017 registered at 0.7%. **Real GDP growth rate is expected to be around 2.2% in 2017, 2.1% in 2018, 1.9% in 2019, 1.7% in 2020 and 1.6% in 2021.** With an ideal desired rate in the 2.5% - 3% range, **the lack of growth in the U.S. economy is at best uncertain and at worst, poor.** The lack of a

national jobs growth focus, unprecedented government deficit spending, growing entitlement programs, the lowest labor force participation rate in nearly 40 years, rising consumer debt, higher cost of living and a protracted economic recovery (one of the largest in history), low wage growth and the uncertainty of the ability of **the Trump Administration, working with the politics of Congressional factionalism, to “turn things around,”** reflect a period of **“muddling through.”** **Private domestic investment has not grown since 2015.** Tax and regulatory reform is sorely needed. The Affordable Care Act is financially broken.

The way to grow the economy today will require cutting marginal tax rates, massive regulatory reforms, enacting tax policies that encourage investments in the U.S. and a national message of investing in America's future. Cutting entitlements, reducing the cost of governing (at all levels) and aligning strategic priorities are significant leadership challenges. It is a fact that **bailouts, stimulus spending, deficit spending, expanding government debt and increased regulations have not restored economic growth.** It is unlikely that Congress and the White House will be able to move as quickly as needed...hence uncertainty surrounding economic growth is the likely background facing the real estate industry. Multiple healthcare cooperatives have shut down due to the ACA. Medicare will be insolvent by 2024 or 2028 depending on the repeal or retention of the 0.9% tax on high income earners. In addition, state and local government pension funds have over \$5 trillion of unfunded liabilities (a funding ratio of only 39%). Do not expect major reforms to occur until the fall of 2017. Watch for a wave of Executive actions in an attempt to “get the economy going.”



Remember...

“An economist’s guess is liable to be as good as anybody else’s.”

Will Rogers

Changing Global Economy Combined With A Borderless Marketplace

The way in which goods and services are provided/delivered to businesses and the consumer is changing rapidly. The growth of e-commerce (more than 80% of those “online” have used the Internet for purchases) has grown in double digits for several years. In 2016, web sales were estimated at \$394.9 billion...a 15.6% increase over the 2015 total e-commerce sales (\$341.7 billion). Online retail sales represented 8.1% of total U.S. retail sales in 2016...up from a 7.3% share in 2015.



For comparison, total U.S. retail sales were \$3.375 trillion, in 2016, after factoring out sale of items not normally bought online (e.g., fuel, automobiles, restaurants and bars). According to *internet RETAILER*, **e-commerce represented approximately 42% of all retail sales growth in 2016.** Online sales are growing faster than store sales. According to a new report from Pew Research Center, 8% of Americans have earned money using digital platforms to take on a job or task. Nearly one-in-five Americans (18%) have earned money selling something online.

can be performed by anyone and performed anywhere. Outsourcing work tasks to India, China, Viet Nam, the Philippines and other countries is growing. Workers are now producing (because of technological advancements) 47% more than they were 20 years ago. Amazon currently has over 45,000 kiva robots working alongside 250,000 humans. By 2025, there will be 128,000 Co-Bots in the U.S. The emergence of fetch robotics is transforming warehouse and distribution facilities. A fetch robot can work 16 hours a day, 365 per year, and has a lifespan of 13,000 hours before regeneration.

In 2015, around 2.4 million jobs were outsourced overseas. Per a global outsourcing survey by Deloitte, 59% of businesses that outsource did so to cut costs. Seventy percent of companies surveyed by Deloitte are either discussing or actively using robotic and cognitive process automation to improve outsourcing. **If work follows the individual, then what become the role, use and application of office, industrial and retail space? If geographic/physical borders are irrelevant, then the globalization of work processes is having and will have an increasing impact on the real estate industry. The definition of what constitutes a “building” is currently under debate and will, more than likely, be redefined.**

In addition, demographics and an increasing likelihood for intergenerational workforce (the rising dependency ratio) plus the shift by Millennials to a more sharing economy will reshape the future of real estate.

U.S. Metro Areas With The Highest Risk Of Job Outsourcing

Metro Area	% Of Jobs At Risk
– San Jose	18.0%
– San Francisco	16.5%
– Boston	14.0%
– Atlanta	13.0%
– New York	12.5%
– Chicago	12.0%
– Houston	11.0%
– Los Angeles	10.5%
– Detroit	10.0%
44% of U.S. companies outsource to reduce or control costs.	

Source: Statistic Brain.

Declining Workforce Participation Rate

The workforce participation rate is now 63%. The U6 unemployment rate is now 8.9%. Around 93 - 94 million Americans age 16 and older are not in the workforce (albeit this includes retirees and high school/college students). **Nearly 50% of U.S. households receive benefits from one or more government programs.** With fewer workers and rising entitlement programs, the demand for real estate assets is becoming redefined.

Today, approximately 10 million American men between the ages of 25 - 54 (prime working age) have dropped out of the workforce. This invisible crisis is growing at an alarming rate. It is present in every city, county and state in the U.S. Technological advancements have moved so fast that low-skilled jobs are disappearing rapidly. Co-habitation instead of marriage, breakdown in the traditional family structure and other factors are a net result of this workforce-driven challenge. If this trend continues, **by**

2050 approximately one-third of all men in the U.S. ages 25 - 54 will be out of work. This separation of men from work is not healthy for the economic vitality of the U.S.

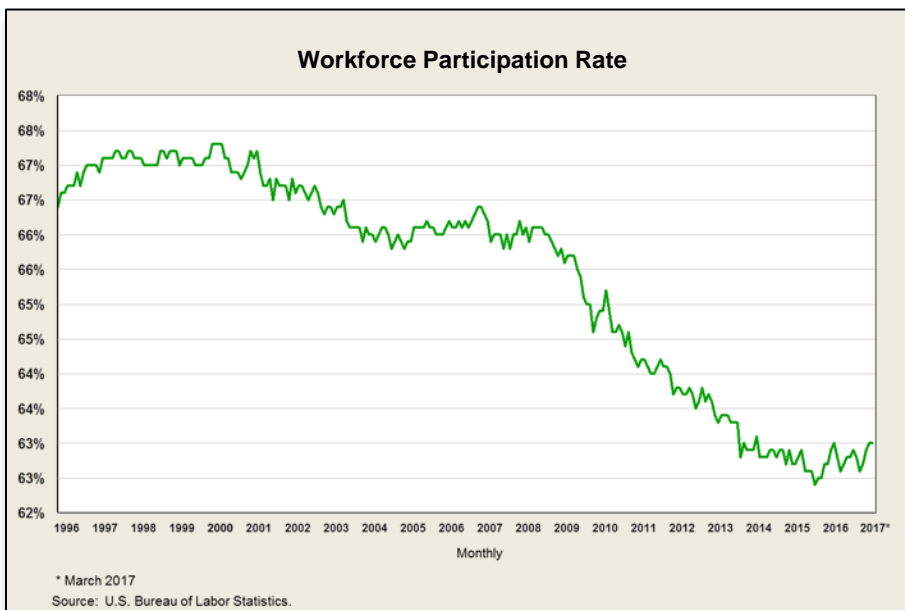
Contrasting this crisis is the rapid growth of women in the workplace. **In 1948, 35% of women ages 25 - 54 worked...in 2015, that percentage had risen to 57%.** In addition, 20 million convicted felons out of prison have difficulty getting work. The combination of a retirement surge, men leaving the workforce and a growing entitlement society will mean a shortage of qualified workers within the real estate industry.

Demand for real estate assets and space correlates directly to: jobs and job growth; wages and household income; cost of living; and taxes, including income, property and sales tax.

Many believe that the decline in the workforce participation rate is due to structural changes such as:

- Aging population.
- Rising entitlements and government benefits/programs that can provide higher financial benefits than working.
- The absence of a job creation plan at the Federal level.
- Decline in jobs for unskilled workers...many of those job holders were men.
- The worse economic recovery after a recession in decades.
- Globalization.
- Rising costs to run a business and employ others.
- Technological advancements.
- Economic mobility.

In 2016, the average starting salary for college graduates was \$50,556, and the average graduate has \$37,172 in student loan debt. Over 60% of student loan borrowers have delayed buying a car, 75% delayed buying a home and 40% have delayed starting a family.



Over 7 million student loan borrowers have defaulted on their loans. Today there are 14 job seekers for every 10 openings, and potential candidates get discouraged. The real estate industry must have a robust job market to grow. **Today we are seeing the contrasts between job growth and jobless markets. The outcome will be transformative to the real estate industry.**

Demographic & Generational Shifts

Multiple demographic shifts underway in the U.S. are reshaping the location, type and demand for real estate. The U.S. population today is around 324 million. By 2025, the U.S. population will have added 23 million, and by 2030, the U.S. population will be around 360 million. Between 2005 and 2050, new immigrants and their descendants will account for around 82% of the population increase. The annual immigration level is expected to grow from around 1.4 - 1.6 million per year to over 2 million per year by 2050.

The Hispanic population as a percent of the U.S. population is expected to double by 2050 to approximately 29%. By 2050, 20% of Americans will be foreign born. **By 2030, 19% of the U.S. population will be age 65 and older.** The dependency ratio is

expected to increase from 67 to 83 between 2010 and 2030. By 2034, all Baby Boomers will be over 70 years of age. Females will represent 55% of the U.S. population age 65 and older (they will be 62% of the U.S. population 85 years and older by 2030). Coping with this transformative demographic shift will ultimately become a societal challenge. **The U.S. is getting older (aging Baby Boomers), the ethnic composition is changing and the dependency ratio is rising.** The U.S. fertility rate has fallen to its lowest level (59.8 births per 1,000 women...in 1957 that rate was 122.9). The average age of first-time mothers has increased to 26.3 years. The age of men and women at their first marriage has increased four years since 1980.

Rank	State
1	Florida
2	Arizona
3	Texas
4	North Carolina
5	Utah
6	Oregon
7	Georgia

46	New Jersey (-.5m)
47	New York (-.7m)
48	Pennsylvania (-.7m)
49	California (- 1.1m)
50	Illinois (- 1.3m)

Source: Allied Van Lines 2016

Growth Market Characteristics

- Presence of major colleges and universities.
- Markets exhibiting population and economic growth.
- Markets with strong employment growth.
- Creative class and 24/7 cities.
- Presence of transit centers and robust mass transit systems.
- Markets of interest to investors and lenders.
- Markets where a competitive edge can be achieved.
- Presence of major hospitals and healthcare facilities.
- Markets with high barriers to entry.
- Markets with cultural/sports/entertainment amenities/options.
- Tax- and business-friendly markets.
- Markets lacking rent control.
- Markets with mild weather climates.
- Capital cities.
- Markets creating an economic multiplier.
- Markets with positive net-immigration rate.

Source: CEL & Associates, Inc.

In the late 1960s/early 1970s, approximately 70% of Americans age 18 and older said that they lived with their spouse. Today that percentage has dropped to approximately 50% as cohabitation continues to grow. Forty-three percent (43%) of Millennial adults are non-white, the highest share of any generation. **Millennials will be 75% of the U.S. workforce by 2025.**

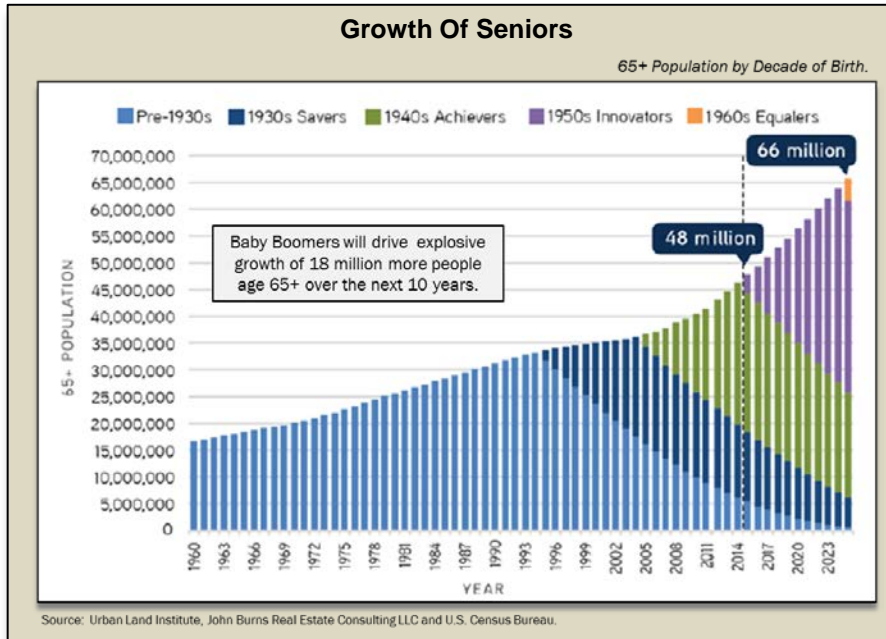
While these demographic shifts are accelerating, **the impact on where people live, work and shop is changing dramatically.** For real estate companies and leaders,



recognizing and adjusting to these transformative events and trends is essential to assure sustainable success in the years ahead.

Disruptive Technologies

According to Clayton Christensen who first defined and analyzed the term in 1997, “A disruptive technology is a new emerging technology that unexpectedly displaces an established one.”



Disruptive technologies are those which change the way we work, live, interact, etc. Clearly one can see the dramatic impact on the real estate industry caused by advanced robotics, the Internet of Things, 3D printing, renewable energy and the automation of knowledge work. From the “out-of-nowhere” disruptors such as Airbnb, Uber, Lyft, Travelocity, Priceline, Snapchat, Comfy, Alibaba, Netflix, Blue Apron, Rent the Runway and many, many more, the demand for space has been redefined, changed consumer behavior and **called into question the**

definition of workspace, retail centers and where people live. Amazon’s goal is to break into the \$800 billion grocery market via Amazon Go, Amazon Fresh and Amazon Pantry and become one of the Top 5 grocers by 2025. According to Green Street Advisors, 334 malls are at a “high risk” of closing. Sears’ stock has declined 90% over the past 10 years; JC Penney stock is down 94% since 2007; and Macy’s stock is down 56% over the past two years. These disruptive technologies are very similar to the impact caused by the invention of the telephone (1875), television (1928), elevator (1852), automobile (1885) or air conditioning (1902).

Failure to acknowledge the impact of disruptive technologies (“that is the other guy’s problem” syndrome) will significantly reduce future opportunities for growth and financial reward. **The real estate industry is witnessing the dramatic shift from those who control information and**

consumption options to a marketplace where everyone has access to information and optionality. Our computers, cell phones, iPads and other digital devices are shifting from our ability to “command and control” to a “partner relationship” that facilitates choices and decision making. In addition, disruptive technologies can, are and will continue to improve business processes and practices. **The real estate industry will be impacted first by disruptive technology in data and analytics, on-demand marketplace platforms and cloud software and storage.** One thing is clear: Just when you think things are “settling down,” an entirely new wave of change will be upon us.

- Emergence Of Disruptive Technologies**
- Mobile/Wearable Technology
 - Augmented Reality
 - Cloud Technology
 - Advanced Robotics
 - Automation of Knowledge Work
 - Energy Storage
 - E-Commerce
 - Artificial Intelligence
 - 3D Printing
 - Next-Generation Genomics
 - Renewable Energy
 - Advanced Materials
 - Autonomous Vehicles
 - Social Media
 - Indoor Farming
 - Smart Technologies

Emergence Of New Competitors

For decades, one's competitors within the real estate industry were "companies like us." **A paradigm shift is changing the competitive landscape from peers to platforms.** Over the next decade, tech firms will take an increasing role in the management, operation, leasing, acquisition and dispositions, financing and business processes/analytics within real estate firms. In a global battle to "control data" and "control the consumer," **it would not be surprising to see Google acquire CBRE, or LinkedIn acquire JLL. Or Marriott acquire AvalonBay. It would not be surprising to see A.P. Moller-Maersk or Mediterranean Shipping acquire, say, Prologis. Large real estate data analytics may shift from CoStar and Xceligent to Google Analytics.** International capital will continue one of their strategic goals by acquiring development pipelines (i.e., equity acquisitions). **A commercial real estate alternative to Airbnb could emerge.**

Looming Economic Threats To the Future Of The Real Estate Industry
□ Social Security...needs \$3.7 trillion today to meet future liabilities.
□ Medicare...needs \$22.1 trillion to fund future liabilities.
□ Global restructuring (Europe) and Middle East tensions/conflicts.
□ Infrastructure...needs over \$1.0 trillion to keep up with demand and decay.
□ State Pension Funds...need \$2.5-\$3.0 trillion to fund future liabilities.
□ Health Care...needs \$2.0 trillion to fund future liabilities.
□ Federal Debt...now \$20.0 trillion projected to rise to over \$30.0 trillion by 2026.
□ Approximately 43% of the U.S. population does not pay any Federal income tax.
□ Nearly 50% of the U.S. population is receiving some form of government benefit.
□ Approximately 50% of Americans have <u>zero</u> savings.

Source: CEL & Associates, Inc. and various other sources.

Virtual tours of apartment buildings for rent and assets for sale may be accommodated on a dedicated site within YouTube or LinkedIn. **KPMG or PWC could become a Certified Underwriter for assets to be sold.** BambooHR or Fairsail HRMS may become the digital human resources department for many real estate firms. Amazon may link with, say, Regency Centers and offer "exchange depots" for those returning unwanted items.

Over the next decade, the real estate industry is in for a jolt of immense proportion. Remember, you can't take advantage of the future if you keep looking in the rear view mirror.

Geo-Centric Market Shifts

The U.S. population is continuing to shift from the Rust Belt and Snow Belt states to the Sun Belt states. North Carolina in 2015 became the ninth state to pass 10 million in population. Florida added more people than California, pushing its population to over 20 million. Texas is the second most populous state (27.5 million). From July 1, 2014, to July 1, 2015, Texas added nearly 490,000 residents (#1), while Florida added nearly 366,000 (#2). Georgia (#4), North Carolina (#6) and South Carolina (#9) rounded out the top 10 fastest growing states. New York, New Jersey and Illinois experienced population declines (due to higher costs of living, higher taxes, potential insolvency due to unfunded liabilities, higher cost to do business and/or burdensome regulations).

There is also a shift to industry-sector regionals such as: tech to the Silicon Valley, Austin, Seattle and Raleigh; healthcare to Houston and Los Angeles; bio tech to San Diego; logistics to Los Angeles/Long Beach, Oakland, Charleston, Savannah, and Miami; financial services to New York City, San Francisco and Chicago; oil to Texas and Oklahoma; or diversified cities such as Nashville, Charlotte, Denver. However, these emerging geo-centric market shifts (first highlighted in 1981 by Joel Garreau in his book *The Nine Nations of North America*), while creating incredible real estate opportunities, may soon be faced with a sudden reality...**housing affordability may cause great talent to move to more affordable markets and "work remotely."** Further, California continues, as it has done since 1990, to be the No. 1 state for attracting immigrants. While only 5% or so of retirees move out of state, those who do are beginning to seek smaller cities and "tax free" states (e.g., Florida, Texas, Tennessee, Nevada and Washington).

Understanding the geo-centric shifts is a must for real estate firms. Many markets are changing, and "what was" will clearly become "what isn't."

Housing Affordability Challenges

Nearly 25% of U.S. counties were less affordable than their historic affordability averages in the Q1 2017, the highest share of markets below the normal affordability index since 4Q 2009 according to RealtyTrac. Average home prices outpaced wage growth in 81% of U.S. counties (up from 57% in 2015). Per RealtyTrac, the national median home price has increased 60%, while average wages have increased only 1% since Q1 2012. Most housing affordability challenges are California and New York. The median sales price of new homes sold in the U.S., according to the U.S. Census Bureau, was \$315,100 in March 2017...the average new home sales price was \$388,200. The Housing Affordability Index compiled by the Federal Reserve Bank of St. Louis was 214.5 in January 2013...by January 2017 that Index had dropped to 162.0 (the higher the index, the greater number of families can qualify for a mortgage or a median-priced home). Per RealtyTrac, **housing affordability is at an eight-year low...and this is after a “supposed” eight-year economic recovery and historically low interest rates. Further interest rate hikes could cause more deterioration of home affordability.**

CEL & Associates, Inc. predicted in June 2004 that the U.S. home ownership levels would decline to the low 60s...**in 2010 CEL & Associates, Inc. revised its prediction of home ownership levels by 2025 to the high 50s...**a dramatic drop from the peak of 69.2% (2Q 2004). There is a 5.4 month supply of new homes for sale and a 3.8 month supply of existing homes for sale. According to the Transamerica Center For Retirement Studies, **in 2015 the median retirement savings for those in their 20s, 30s and 40s was only \$16,000, \$45,000 and \$63,000, respectively.** This is hardly enough to put a down payment on a home. With a median household income in 2015 (the latest government figures) of only \$55,775, the U.S. shift to a rental society is well underway.

According to Axiometrics, around 582,000 apartment units are under construction today. Only 18.5% of households in Silicon Valley can afford a median-price home in 2017...that percentage in Los Angeles is only 25.8%, Seattle is 41.7% and in Austin only 52.3% can afford a median-priced home in 2017. While affordability is reaching a crisis level, real estate investors and owners must carefully weigh the risks of occupancy and value appreciation if households cannot afford to live there.

Industry Consolidation

By 2025, 25% - 30% of real estate firms in existence during 2015 will be gone. We have seen a plethora of entity acquisitions, mergers and consolidation over the past few years. The DTZ/Cassidy Turley, DTZ/Cushman & Wakefield, Newmark acquiring ARA, CBRE acquiring Global Workplace Solutions, Cushman & Wakefield acquiring Multi-Housing Advisors, Colony Capital acquiring NorthStar, Greystar acquiring Riverstone, MAA acquiring Colonial Properties Trust, the merger of Regency Centers and Equity One and multiple Colliers International conversions are only the tip of a looming pyramid of future consolidation. Driven by aging founders “ready to get out,” owners who feel that entity values are peaking, the rising costs of “staying competitive,” and the need for a consistent source for “growth capital,” the pace and number of firms to be acquired and/or merged will accelerate over the next decade. **According to Ernst & Young, “real estate company mergers and acquisitions are approaching the 2007 peak.”**

The Internet of Everything

The Internet of Everything (“IoE”) is a \$14.4 trillion (according to Cisco) value of increased revenues and lower costs that is created or will mitigate among companies from 2013 - 2022. For the real estate industry, that means: (1) greater asset utilization and efficiency; (2) improved worker productivity; (3) enhanced supply chain logistics; (4) innovation; and (5) improved customer connectivity, relationships and experiences.

Did you know...

U.S. companies are holding \$2.5 trillion (nearly 14% of the GDP) abroad. Microsoft, Apple and GE have more than \$100 billion each overseas.

The reason...

The U.S. has the highest corporate tax rate in the world at 35% (among the 35 industrialized nations of the OECD)!

According to Cisco, 99.4% of all physical objectives that may be part of the Internet of Everything are still unconnected. The IoE is reinventing how real estate companies operate, will cause significant personnel and organization restructuring, and it will create many new jobs. **By 2020, the IoE has the potential to connect 50 billion people, devices and things. Retail real estate will experience the greatest impact of the IoE. In 2017, there could be as many as 8,640 store closings as compared to the peak number of closings in 2008, which was 6,200.** Retail centers must become dynamic, offer far more programmatic options, and shift to becoming a destination, not a stop. There will be far fewer brick and mortar stores; Kroger is rapidly losing market share to Walmart. Healthcare will originate from wearable devices. From parking to farming, from infrastructure monitors to banking and from travel to health, everyone will be connected and monitored.

The biggest impact to the real estate industry will be the speed and manner in which opportunities will be created, business processes will be streamlined, and decisions will be supported by facts not emotions. Connectivity will be continuous and self-correcting. Success will be defined by one's willingness to innovate products and services around IoE connections. **I am always amazed (perhaps bewildered) at the incredible opportunities for real estate firms to collect productive data...and yet less than 1% take advantage of a reservoir of opportunities.**

The IoE is transformative, and it is a tsunami of change that will dramatically alter the way real estate firms invest, develop, lease, manage, finance, sell and service office, industrial, retail, multifamily, hospitality, self-storage and healthcare sectors. This is exciting but an incredibly daunting challenge ahead for real estate companies and their leaders.

Urbanization & The Emergence of Multi-Purpose Real Estate

In 1790, 95% of the U.S. population lived in rural areas. By 1890, the industrial revolution caused a wave of relocations to manufacturing areas, increasing the percentage of urban dwellers from 5% to 35%. **The number of Americans living in urban areas did not surpass those living in rural areas until 1920.** After WWII and the growth of household formation, the shift to suburbs and urban areas accelerated. **By the late 1990s, approximately 75% of Americans lived in urban and suburban areas...**and the real estate industry followed building subdivisions, retail centers, corporate campuses and home-like apartment communities.

**Real Estate Cycle Trends To Watch
Over The Next 18 – 24 Months**

2017 - 2018

<input type="checkbox"/> Plateauing Occupancy Levels	<input type="checkbox"/> Rising Tenant/Renter Expectations
<input type="checkbox"/> Hard-To-Find Deals	<input type="checkbox"/> Rent Concessions
<input type="checkbox"/> High Investment Sales Activity	<input type="checkbox"/> Protracted Negotiations & Entitlements
<input type="checkbox"/> Peaking Asset Values	<input type="checkbox"/> Slowly Rising Cap Rates
<input type="checkbox"/> Abundance Of Capital	<input type="checkbox"/> Limited Access To Construction Loans
<input type="checkbox"/> Global Uncertainty / Unrest	<input type="checkbox"/> Competition For Talent
<input type="checkbox"/> Overbuilding In Select Markets	<input type="checkbox"/> Reduced Target Returns
<input type="checkbox"/> Consolidation & Legacy Exits	<input type="checkbox"/> Renewed Focus On Recurring Income
<input type="checkbox"/> Tax Reform Surprises	<input type="checkbox"/> Protracted Political Discourse

Source: CEL & Associates, Inc.

Traffic congestion and the option of better housing caused a shift to the exurbs (rural areas adjacent to cities). The Middle Class began shrinking in metropolitan areas throughout the U.S. Gated and walled communities flourished. By the 1980s and 1990s, due to shifting demographics, **the average household size declined (averaging 3.3 persons in 1960 to 2.53 in 2016),** the lack of improvable land in many urban markets and the wave of

Millennials entering the workplace saw a revitalization of new urbanism and the emergence of multipurpose real estate. **Mixed-use projects, combined live/work buildings, cohabitation, micro units, Airbnb and the ability to buy online provided multiple reasons to return to the urban and urban/suburban core.** Municipal governments recognize the need to create vibrant space and walkable communities. Retailers have created smaller store formats. Apartment developers have created exciting new designs that stress efficiency. **Between 2015 and 2016, the U.S. Census Bureau estimates that 321,000 more residents left the core counties than moved in...up from 199,000 in 2015.** Suburban counties continue to attract net domestic migrants. Public transportation

use is at its highest level in over 50 years. Ride providers such as Uber and Lyft have reduced the need to own a car. Richard Florida has described “The Great Reset” underway to create more people-friendly communities. The Great Reset is not just for cities but for suburbs as well. **More than 50% of Americans live in the suburbs. The emergence of the “second tier” metropolitan areas (between 500,000 and 1 million) are performing better than the larger, more urban cities.** Reducing the carbon footprint has caused real estate projects and assets to be more environmentally friendly. **CEL & Associates, Inc.’s studies reveal a rebirth of the suburban areas into the new urbanization of the 21st century.** Millennials want an affordable place where they can work, live, raise a family, walk to “just about everything,” have access to public or private transportation options (U.S. auto sales in 2017 are in a dramatic freefall) and entertainment/cultural venues. **The shift to a more urban living environment is not financial, but generational.** Over the next 10-15 years, real estate investors should expect numerous redevelopment multipurpose real estate opportunities as more Americans (all ages) discover the benefits of living in a walkable, not static, downtown. Over the next 10 years, 79% of household growth will occur in the suburbs. While many urban areas are nicer than they were years ago, social problems still persist.

Robotics & Artificial Intelligence (“AI”)

By 2019, worldwide spending on robotics and related services will exceed \$188 billion (it was \$91 billion in 2016). In the U.S. the industrial robotics market will be valued around \$80 billion by 2022. From construction to security, from education to healthcare, from entertainment to warehouse storage, robots will become an increasingly integral part of our lives. The AI market is expected to grow to a \$5 billion industry by 2020. From drones to surgery and from telepresence robots to consumer robots, the growth in robotics will be transformative to the real estate industry. Imagine an office building with no maintenance personnel or every apartment with its own “personalized” robot. By 2020, robots will replace 5 million human workers. Many experts believe that by **2025, up to 33% of all jobs will be replaced by software, robots and/or smart machines.** AI and robots also will render many white-collar jobs obsolete.

U.S. consumers are expected to spend \$632 billion online by 2020 (up from \$385 billion spent online in 2016). **In this “Second Machine Age,” robots will transform the real estate industry.** However, the combination of human ingenuity and critical thinking with the consistency and efficiency of a robot should be manifest in real estate companies in the future focus on creating value, not fulfilling tasks.

What Real Estate Companies Should Do

These 14 transformative changes are an insight into the 30+ transformative changes confronting the real estate industry simultaneously. It is very difficult to keep track of four or five Megashifts...but 30 or more transformative changes occurring at the same time can be a daunting challenge. However, these key strategies, if embraced and adopted, will enable your company to stay relevant, competitive and profitable. How many has your company adopted?

Today’s Robots Include

- *Social robots*
- *Virtual service robots*
- *Cloud robots*
- *Industrial/Manufacturing robots*
- *Warehouse/Distribution robots*
- *Information robots*

2017 Key Strategies

- Create a three-to-five-year strategic plan and a five-to-10-year outlook plan.
- Grow recurring revenues to offset 75% or more of corporate overhead.
- Create and implement a robust talent management plan.
- Create and implement an aggressive branding and marketing plan.
- Build the balance sheet with adequate rainy-day funds.
- Streamline business practices and reduce/eliminate redundancies.
- Upgrade and integrate technology throughout the organization.
- Identify and lock-in next generation (High Potential) stars.
- Create sustainable governance and No. 2s for all mission-critical positions.
- Eliminate all non-core, non-essential services, products and/or assets.
- Secure sufficient capital for growth and future opportunities.
- Grow customer share and wallet share.
- Create a sense of urgency with accountability throughout the organization.
- Instill and govern by a set of Key Values and Principles.
- Create a workplace environment that encourages innovation and collaboration.
- Forget yesterday, execute today and plan for tomorrow.
- Create a more contemporary/engaging organizational structure.
- Remove those who do not embrace your Key Values or culture.
- Strengthen and enhance customer service and relationships.
- Make quality and service behaviors, not policies.
- Celebrate success...collaborate...listen...and never tolerate "exceptions."
- Learn how to lead a multi-generational workforce.
- Do different things...not do the same things differently.
- Have fun.

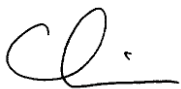
Source: CEL & Associates, Inc.

Closing Comments

If 2016 was a "tipping-point year," 2017 will be the year of breakthroughs and positioning for tomorrow's relevance and prosperity. Robert Frost, one of America's great poets, wrote, "The afternoon knows what the morning never suspected." Real estate companies, their Boards of Directors, CEOs, senior leadership teams and committed associates must recognize, acknowledge and embrace the dramatic and transformative changes ahead. If you don't control your destiny, someone else will. If you don't create your future, your future will be shaped by others. Success doesn't just happen...it is created by readers like you. It is time to get going when you can still do something about it.

I welcome your comments, feedback, insights and perspectives.

Regards,



Christopher Lee

SPECIAL ANNOUNCEMENT

Over the past 23 years, we have received hundreds of emails and inquiries asking us to create a more frequent “one- to two-pager” on matters of strategic importance. We are pleased to announce that **we will soon launch a bi-weekly brief entitled *Leadership Conversation***. This will feature one topic, provide recommended strategies, include a prediction and highlight key questions to ask at your next Executive or Management Committee. The results of our pilot test with the concept and format have been very positive, and we are excited for this kickoff. ***Strategic Advantage*, our regular newsletter, will continue as a quarterly publication.**

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<http://www.celassociates.com/onlinenewsletter/DistrutorsTransformingREIndustry-SA-K012917.pdf>

The Real Estate Industry In 2025 100 Bankable Predictions You Need To Know Part III

<http://www.celassociates.com/onlinenewsletter/BankablePredictions-PartIII-SA-K031416.pdf>

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Millennials Will Have A Dramatic Impact On Real Estate!

<http://www.celassociates.com/onlinenewsletter/MillennialsImpactOnRealEstate-SA-K091215.pdf>

The 6 Ps For Success

<http://www.celassociates.com/onlinenewsletter/The6PsForSuccess-SA-K042615.pdf>

It's All About Jobs

<http://www.celassociates.com/onlinenewsletter/ItsAllAboutJobs-SA-K111214.pdf>

The Future Of Retail Real Estate...A Tsunami Of Change Is Underway

<http://www.celassociates.com/onlinenewsletter/FutureOfRetail-SA-K051914.pdf>

Succession Planning Must Begin...Now!

<http://www.celassociates.com/onlinenewsletter/SuccessionPlanning-SA-K041114.pdf>

The Future Of The Office Sector

<http://www.celassociates.com/onlinenewsletter/TheFutureOfTheOfficeSector-SA-K062013.pdf>

Breaking Strategic Gridlock

<http://www.celassociates.com/onlinenewsletter/BreakingStrategicGridlock-SA-K041713.pdf>

The Great Generational Divide

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Becoming A Customer-Centric Company

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It Is Time To Get Rid Of Oldco!

<http://www.celassociates.com/onlinenewsletter/TimeToGetRidOfOldco-SA-K030712.pdf>

A Contrarian Perspective

<http://www.celassociates.com/onlinenewsletter/AContrarianPerspective-SA-K110211.pdf>

The Role Of Real Estate In Society

<http://www.celassociates.com/onlinenewsletter/TheRoleOfRealEstateInSociety-SA-K091411.pdf>

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Real Estate Outlook 2010-2020 Part II

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