



“Real Estate Cycles – They Exist...And Are Predictable”

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Friends & Colleagues:

For the past 30 years or so, I have tried to understand, compartmentalize, explain, project and extol the virtues, myths, risks and opportunities within real estate cycles. I am often asked, “Do real estate cycles truly exist?” or “How are real estate cycles the same as or different from non-real estate cycles?” However, the more common set of questions I’m asked is, “Where are we in the cycle...when do you think this cycle will end...what do you think will drive the new cycle?” My answer to these three most commonly asked questions has always been, “You cannot control when a cycle begins or ends, but you can dramatically increase your odds of benefitting in and from the cycle when you understand the fundamental drivers of the events and variables that comprise, determine and define a ‘cycle’ -- and those are predictable.”

Cycle Sound Bytes

We are bombarded daily with sound bytes about cycles. Today we have the “economic cycle,” “business cycle,” “recovery cycle,” “stock market cycle” and recently the “climate cycle.” We have “natural cycles,” “energy cycles,” “commodities cycles” and “currencies cycles.” Cycles can be short-, intermediate- or long-term, as well as seasonal. A Foundation for the Study of Cycles was started in 1941 by Edward Dewey who attempted to link economic, natural and social cycles into “rhythms” or cycle predictability (www.foundationforthestudyofcycles.org). **Wall Street Analysts, governmental agencies and talking heads assign the term “cycle” to all that can’t be quantifiably explained or that which needs a catchy phrase to be explained.** We have “vicious cycles” and “theoretical cycles.” We have notable business consulting gurus use phrases such as “cycle time” or the “customer cycle.” Very sophisticated computer models at many universities and colleges seek to “quantify” business cycle theory (with the hope of a prediction), and one can blog and/or communicate with others 24/7 regarding economic cycles.

The issue with the term “cycle” is that it mandates an acknowledged beginning and an end, thus creating the endless challenging dilemma of knowing when to “get out” or when to “get in.” A cycle is generally defined as “an interval of time during which characteristics, or often regularly repeated events or a sequence of events occur.” However, **regardless of what cycle you are in, no two cycles have the same start or finish date, and no two cycles have precisely similar characteristics.** Cycles are both business and human multi-dimensional mosaics of varying duration. Predicting a precise date or time for a cycle to begin or end is next to impossible. With cycles, there is only one certainty -- they exist, and they ultimately will have a



significant impact on success or failure. **The key is to not try to control but to take advantage of the cycles.**

A Brief History Of Business Cycle Theory

While we may not be certain when the study of “economic” or “business” cycles began, we can look to the early and mid-19th century when fluctuations, patterns or cycles were first recognized, analyzed and explained. As shown in the table below, the study of economic or business cycles began around 1860.

Cycles 101 – A Brief Chronology

Year/Period	Corresponding Event
1860	French economist and physician Clement Juglar identified the presence of economic cycles to be 8-11 years in length. The Juglar fixed investment cycle (often called the true “business cycle”) was 7-11 years in length.
1923	Joseph Kitchin addressed movements of economic factors by introducing: <ul style="list-style-type: none">◆ Minor Cycles averaging 3.5 years in length.◆ Major Cycles, which are merely aggregates of Minor Cycles.
1925	Research by Russian economist Nikolai Kondratiev brought the now-familiar “K wave” to the dialogue of cycles. He observed cycles would last 45-60 years, and that people act differently over time in a continuing repetitive pattern. The “K wave” has four distinct phases.
1920 – 1936	John Maynard Keynes studied and developed theories of income determination. Unemployment crises inspired his two main works: <u>A Treatise on Money</u> and <u>General Theory of Employment, Interest and Money</u> .
1946	American economists Arthur Burns and Wesley Mitchell wrote and published <u>Measuring Success Cycles</u> .
1961	John Muth and Robert Lucas explore Real Business Cycle Theory. This is the assumption that business cycles are driven entirely by technology shocks rather than by monetary shocks or changes in expectations.
Late 1970s	Martin Armstrong constructed the “Pi Cycle Economic Confidence Model” that revealed a panic every 8.6 years between 1683 and 1907. The significance of 8.6 years, Martin later discovered, was exactly 3,141 days...the number of pi times 1,000.

Whatever the “natural” life cycle of business or economic cycles might be, on occasion they have been interrupted by government intervention as policy makers seek to lessen, correct, enhance, extend or reduce the impact or eventual outcome of cycles. Unfortunately **this intervention (regardless whether political or well-intentioned) inevitably results in a deferral of a cycle’s natural course or the creation of a new economic bubble** that inevitably creates its own set of consequences. This further highlights the fact that cycle theory is often the historic offspring of technical analysis and modeling, based not on “natural” cycles, but emanating from monetary and fiscal policy decisions.

Today one of the more common explanations of business cycles is found in Keynesian economics, which argues for government intervention in the form of fiscal and monetary policy to “smooth out” fluctuations in the business cycle. The alternative to Keynesian economics is the Real Business Cycle Theory (“RBC Theory”) which argues that business cycles are real and recessions merely respond to changes in the economic environment and that markets, not government, should be the agents of “self-clearing” or “self-correction.”

In recent years economists have begun to look at “economic fluctuations” rather than business cycles. It’s been reported that noted economist and Keynesian opponent Milton Friedman believed it is a misnomer to refer to a business cycle as a “cycle.” For every change in business activity, a cycle theory undoubtedly will be applied. The Internet has also spawned a number of “cycle bloggers” and “economic theorists,” adding to the seemingly instant need for real-time explanations to very complex factors and trending information. **For most real estate leaders, explaining and/or understanding cycle theory is like having a wisdom tooth extracted without Novocain. However, the real estate industry is clearly defined and measured by cycles,** regardless of the definition or title/name applied.

So what does all this mean to the real estate industry?

Real Estate Cycles Explained

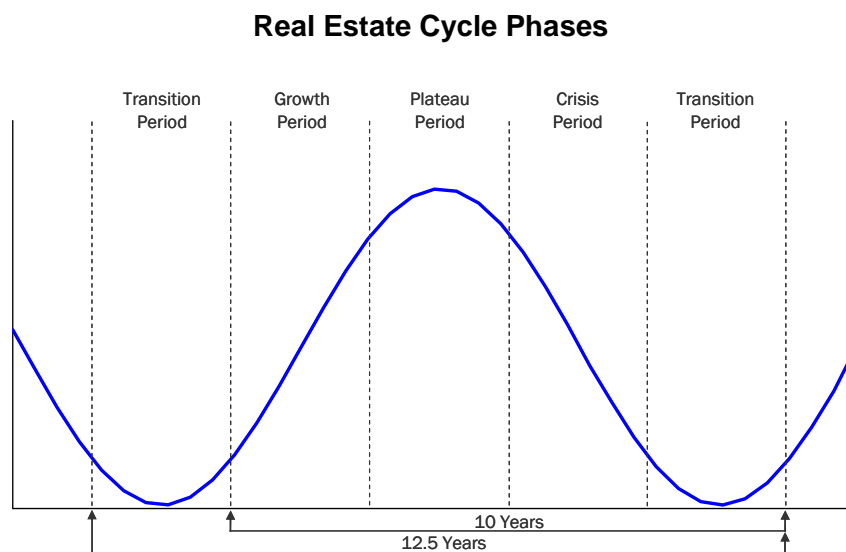
My research, experience and exposure to approximately 500 real estate firms over the past 30-plus years has revealed that real estate cycles tend to follow a fairly consistent 10-year pattern. Obviously it is not a precise 10-year period – one cannot pick specific beginning or ending dates; and real estate cycles vary by asset type, market factors and location. However, real estate cycles are comprised of four **Periods of Opportunity**, as highlighted below.

Periods Of Opportunity Real Estate Cycle

Period I	Growth Phase	
	<ul style="list-style-type: none"> ◆ Accelerated development activity ◆ Increasing leasing activity ◆ Access to inexpensive credit ◆ Rising rents and asset values ◆ Expanding risk profile 	<ul style="list-style-type: none"> ◆ Growth in “start ups” ◆ Geographic expansion ◆ Rising GDP ◆ Rapid job growth ◆ New competitors entering the market
Period II	Plateau Phase	
	<ul style="list-style-type: none"> ◆ Overly optimistic underwriting ◆ Increase in capital raising ◆ Aggressive compensation for talent ◆ Blind entrepreneurship ◆ Low cap rates 	<ul style="list-style-type: none"> ◆ Supply/demand out of balance ◆ Protracted closing period ◆ Increase in “guarantees” ◆ High investment sales activity ◆ Generous TIs and lease terms
Period III	Crisis Phase	
	<ul style="list-style-type: none"> ◆ Declining asset values ◆ Entity downsizing ◆ Declining rents and occupancy ◆ Discounted asset/loan sales ◆ Cash is king 	<ul style="list-style-type: none"> ◆ Workouts/restructurings ◆ Little to no development activity ◆ Leasing concessions ◆ Limited access to credit ◆ Government intervention
Period IV	Transition Phase	
	<ul style="list-style-type: none"> ◆ Focus on fundamentals ◆ Recapitalization ◆ Industry consolidation ◆ New business models emerge ◆ Reduced/restructured compensation 	<ul style="list-style-type: none"> ◆ Government incentives ◆ Commitment to CRM ◆ Realistic underwriting ◆ Diversification of risk ◆ Next-generation leaders emerge

Note: It is important to understand that the attributes highlighted within each Period Of Opportunity are not intended to represent an all-encompassing list. There are, obviously, many more attributes. Readers are encouraged to share their recommendations by sending them to newsletter@celassociates.com.

Furthermore, the appearance of these four **Periods of Opportunity** is best highlighted in the following wave graphic.



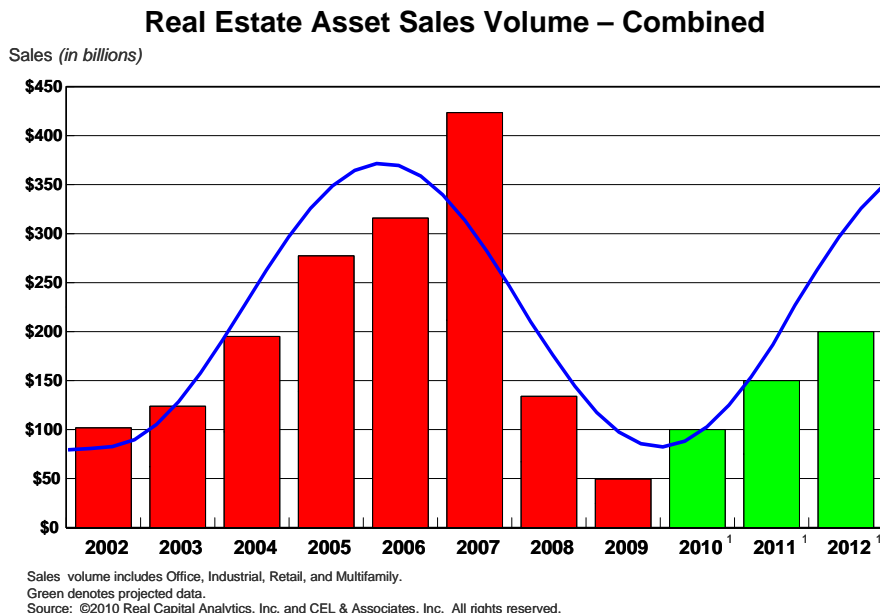
As you can see, the length of time within a period is typically uniform. However, the “Plateau” and “Crisis” periods can be shorter in duration. It appears that, **as the real estate industry nears its peak during the Growth Period, the level of denial, misguided expectations, blind optimism and “one more day” mindset appears to creep into the C-suite.** How many times have we heard, “I know it is probably time to get out, but I just need to get this deal done,” or “I’m not sure I believe these numbers, but debt is cheap, I am using OPM and this opportunity is just too good to pass up.” **A good time to exit is probably 6-12 months before or 6 months after the peak of the Plateau Period.** A good time to enter is in the Transition Period. A good time to be very cautious is near the end of the Growth Period.

Because real estate cycles tend to work on 10-year cycles, it is important to note that all asset classes or markets do not begin or end a cycle at the same time. **The impact of global, state and regional economic and government activity does affect the length and severity of a real estate cycle.** For example, the Tax Reform Act of 1986 eliminated/removed many tax shelter-based investments and probably contributed to the savings and loan crisis that sent the real estate industry into a rapid downturn by the late 1980s/early 1990s. The aftermath of 9/11 delayed the economic recovery for 12-18 months. The current financial stimulus and bailout programs may contribute to a slower recovery of the non-residential real estate market.

Interestingly REITs tend to cover two “normal” real estate cycles. Bob Case, NAREIT’s economist, recently stated that REIT real estate cycles tend to last 18 years with two-year transition periods. This closely parallels the findings of CEL & Associates, Inc. regarding the 10-year “normal” real estate cycle.

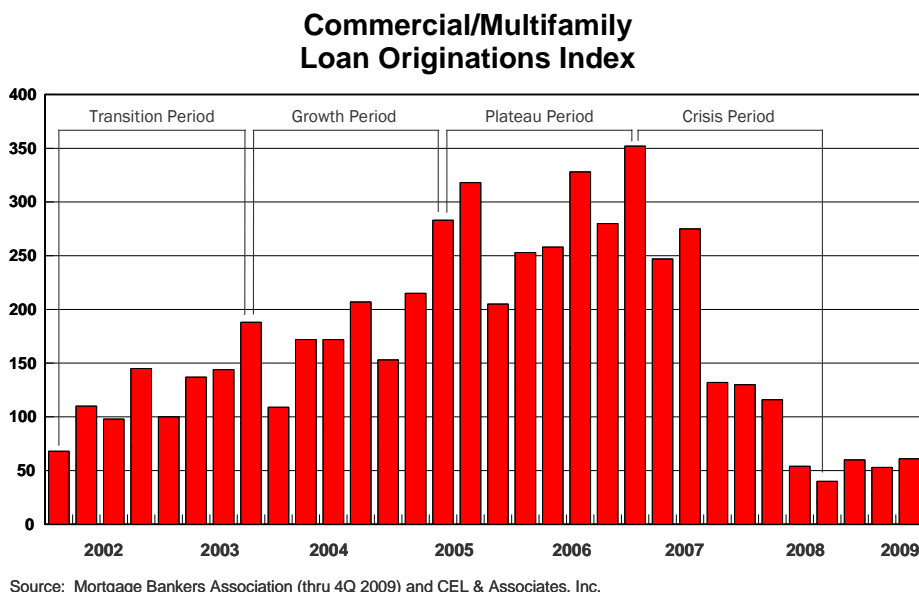
Most real estate cycles have begun around the third year of a decade (1973, 1983, 1993, 2003) and usually end by the eighth year of that same decade (1978, 1988, 1998, 2008). Between the finish and start of a new cycle, a period of transition occurs (1989-1992, 1999-2002, 2009-2012). We are in a period of transition now (two years of bottoming out and two years of recovery) that will end around 2011-2012, depending on which asset class or market you are watching.

The cyclical nature of real estate can best be seen using real data in the graphic below. This chart highlights the total and projected sales of office, industrial, retail and multifamily assets in the U.S. from 2002 – 2012, with the real estate cycle wave imposed on the graphic.



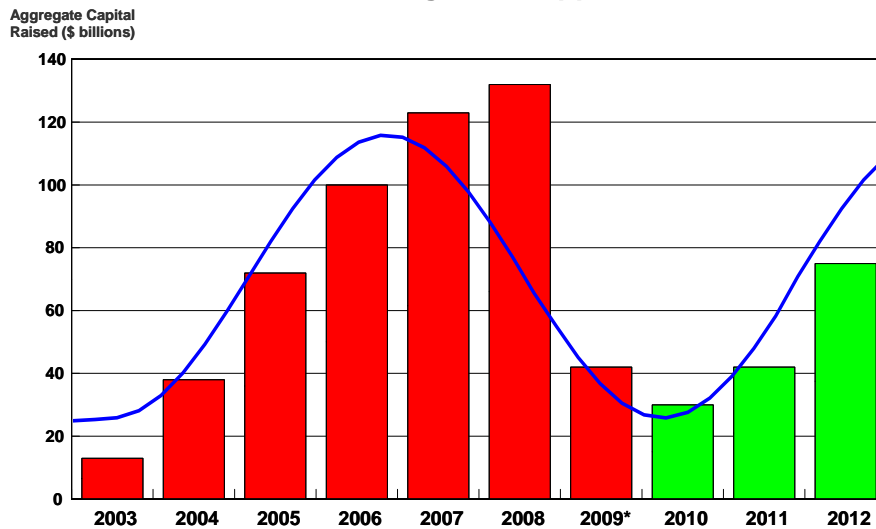
Based on when assets are bought and sold, the time to “get out” was in late 2006/early 2007. Today we are clearly in the “Transition Period,” a time of deleveraging and depressed values. **Unless delayed or altered by government intervention, the bottoming out of real estate asset declines should occur in 2010 and the new growth phase should begin to accelerate into 2013.** Total asset sales could reach \$100 billion in 2010. Real estate cycles are predictable!

If one examines the trending data from the Mortgage Bankers Association, it is again clear that real estate cycles do occur. Based on the chart below, **I would expect lending to slowly return as the industry moves through the Transition Period.**



Private equity fund raising for real estate investments exhibits the same “wave” effect, as highlighted below.

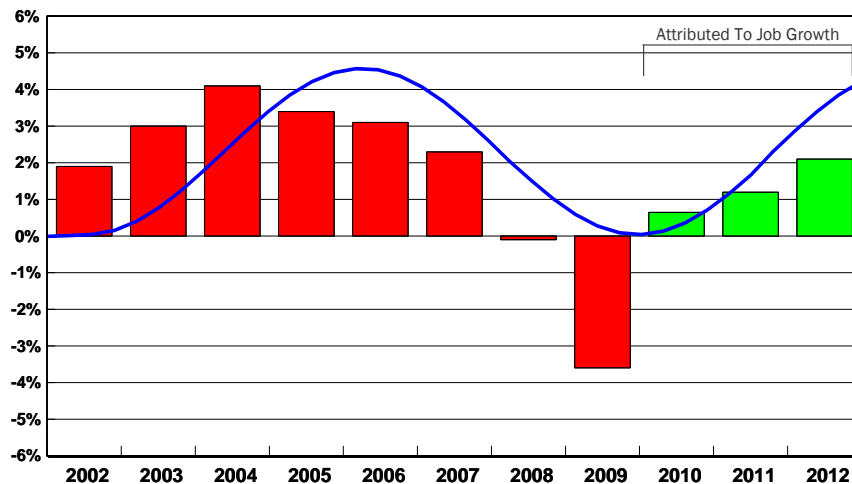
Private Equity Real Estate Fundraising Has Stopped



* Green denotes projections.
Source: Preqin and CEL & Associates, Inc.

Even the growth rate of “Worker Productivity,” as collected by the U.S. Bureau of Labor Statistics, highlights the repeating nature of real estate cycles.

Worker Productivity Growth Rate



* Major Sector Productivity and Costs Index, Non-Farm Business Output.
Source: U.S. Bureau Of Labor Statistics and CEL & Associates, Inc.

While there are many “fundamental” drivers of real estate cycles, **no single factor determines a real estate cycle.** CEL & Associates, Inc. has identified nearly 50 “cycle drivers;” however, 20 “core” or “fundamental” drivers tend to dominate a real estate cycle. Since all drivers are not created equal or their weighted impact the same, they can be divided into the following two groupings.

Fundamental Drivers Of Real Estate Cycles

Primary Drivers

- | | |
|--|---|
| <ul style="list-style-type: none"> ◆ Federal Policy & Priorities ◆ Access To/Cost Of Capital ◆ Job Growth (Quantity & Type) ◆ Commodity Prices ◆ Demographic Shifts | <ul style="list-style-type: none"> ◆ Consumer Confidence/Spending ◆ Labor Force Productivity ◆ Supply/Demand Ratios ◆ Infrastructure Investments ◆ Economic Growth |
|--|---|

Secondary Drivers

- | | |
|---|--|
| <ul style="list-style-type: none"> ◆ International Trade ◆ State/Local Regulations ◆ Population Migration ◆ Small Business Performance ◆ Consumer Credit/Savings | <ul style="list-style-type: none"> ◆ Business Start-Ups ◆ Advancements In Technology ◆ Competitor/Industry Factors ◆ Household Formation/Characteristics ◆ Household Income/Net Worth |
|---|--|

Source: CEL & Associates, Inc.

Note: There are other indicators of demand (e.g. housing, savings rates, money supply, cap rates, cost of capital, asset sales volume, migration, etc.); however, most, if not all of these are the net result of a core driver, and not the basis for creating business demand.

Past, Present & Future Cycles

Since 1973, real estate cycles can be characterized by these primary business drivers, as highlighted below.

Cycle Growth Period	Primary Drivers Of The Real Estate Cycle
1973-1978	Growth from pent-up demand caused by the oil embargo and economic stagnation.
1983-1988	Growth from an abundance of capital, financial engineering and tax incentives.
1993-1998	Growth from industry consolidation, securitization, and the digital economy.
2003-2008	Growth from an abundance of inexpensive debt, mortgage-backed securities and a "bull" stock market.

The business drivers' characteristics of the next two real estate cycles will likely be:

Cycle Growth Period	Primary Drivers Of Future Real Estate Cycles
2013-2018	Growth from recapitalization, generational shifts, global debt restructuring, "green" technologies, data storage/management, knowledge-centered industries and healthcare.
2023-2028	Growth from life sciences, bio-technology, Gen Y shifts, alternative energy, artificial intelligence, robotics, micro-farming, genetic engineering and water reclamation.

The wild card in these next two real estate cycles will be the role and/or impact of government intervention/policies, taxes, regulations, 2010 and 2012 election outcomes, terrorism, global unrest, U.S. Federal and State debt levels and availability of capital. The speed of available information and role of the Internet is having an impact on the cycle length. However, the U.S. population is projected to increase by 49.2 million between 2010 and 2030, and the aging real estate asset stock will need to be replaced, renovated and/or redeveloped. **Increasing demand for real estate assets will be driven by the fundamental drivers that have guided the real estate industry for over 100 years.** My good friend, Arthur Nelson, who directs the Metropolitan Research Center at the University of Utah, estimates between 2000 and 2040 the U.S. will need over 112 billion square feet of non-residential space. The issue going forward will not be trying to figure out supply/demand or cap rate fluctuations; it will be understanding real estate cycles to know when and where to invest.

It is also important to note that the next global credit crisis could occur in the 2012-2013 period, followed by a recession that could last into 2015. Based on U.S. real estate cycles, I believe 2010 – 2013 is the time to buy domestically, and 2015 – 2018 will be the time to buy internationally. The U.S. real estate cycle generally occurs two to three years before the international real estate cycle, which can vary widely by market and product. But real estate cycles are predictable.

Conclusion

The study of real estate cycles will never be complete. The unexpected and predictable outcomes of national and global events will impact the start, end and duration of a cycle. In the years ahead, the continuing study and understanding of real estate cycles will be important in setting strategic priorities and direction. **However, one fact is very clear, real estate cycles exist...and are predictable.** How will you take advantage in the current and next real estate cycle?

Regards,



Christopher Lee

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