

THE LAND CYCLE

PROSPER
AUSTRALIA

By Catherine Cashmore

*Prosper Australia acknowledges
the Traditional Custodians of
the country throughout Australia
and we pay our respect to their
elders past and present.*

*We honour their unbroken
connection to country, and
acknowledge that sovereignty
was never ceded.*

About Prosper:

Prosper Australia is an economic research organisation founded in the Georgist tradition of political philosophy. Our work centres on the monopolistic nature of land and how it shapes our economy and society. Our vision is a just and equitable society, created by ensuring everyone who benefits from our land, natural resources, and natural monopolies pays a fair rent for their use.

About the author:

Catherine Cashmore is a real estate market analyst with over 20 years of experience. Her work focuses on long-term property cycle analysis, particularly the land price cycle and its interaction with credit conditions, population dynamics, and government policy.

Former President of Prosper Australia, Catherine is an established commentator and public speaker, specialising on the relationship between tax policy, urban development, and real estate markets. She has held senior editorial roles within the financial publishing industry. Catherine currently publishes the independently published Land Cycle Investor, examining real estate cycles, commodity trends, and macroeconomic conditions, with a focus on land market cycles.

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CHAPTER 1 - Overview of the land cycle

The 18–20 year Land Cycle has been one of the most reliable and predictable recurring patterns in Western economies for more than 250 years.

This paper will demonstrate that wherever land becomes commodified and speculation is allowed to flourish, a repeating rhythm of booms and busts emerges – disrupted only by major wars or extraordinary government intervention.

The land cycle is not a standalone feature but interlocks with broader economic and financial cycles. As each expansion progresses, capital is drawn away from productive activity into speculation on land and location. Credit is increasingly leveraged against inflated collateral values. Eventually, the system reaches its limits. With the productive base eroded away, the debt burden becomes unserviceable and the financial structure buckles, culminating in an economic collapse that can be forecast with remarkable accuracy.

Cycles do not repeat to the week or month - they operate within a window defined by the time it takes for credit to expand, building to

oversupply, and then reverse. Across the historical record, this window falls consistently into an 18-year pattern on average, with only small variations caused by policy distortions or external shocks.

Like all cyclical systems, the land cycle does not operate to an exact calendar date. The timing window and volatility of the cycle depend on the degree of government intervention and the pace of credit expansion. Yet the timing window is sufficient to enable well-informed forecasters to identify the exact year in which both major financial banking collapses and minor recessions will occur.

For more than a century, followers of Henry George have pointed out that land speculation lies at the heart of wealth inequality and recurrent depressions in capitalist economies. Their argument is not that capitalism fails, but that its gains are intercepted. As productive activity increases, improved infrastructure, rising wages, enterprise, innovation and public investment all make particular locations more desirable. The resulting gains are then capitalised into land prices rather than being retained by the productive economy.

In effect, the unique locational advantage of land enables owners to appropriate the unearned increment created by the entire community. As land values rise, the cost of access to opportunity rises with them. Prosperity increases, yet poverty deepens. Eventually, debt and speculation reach their peak, and a collapse follows. Until land speculation is removed from the system, crashes will remain the only reset by which the economy resolves the distortions it creates.

This paper draws on the empirical work of the few analysts who correctly foresaw major turning points, among them Georgist

economists Fred Harrison and Fred Foldvary and cycle researchers Roy Wenzlick, Homer Hoyt, Clarence Long, Samuel Benner, W.D. Gann, and Edward Dewey.

The Australian land cycle

Before the 1950s, Australia did not consistently exhibit the clean, measurable 18-year pattern seen in the United States or the United Kingdom.

This is because:

- Australia was financially tied to Britain, and capital flows were dictated by London.
- Credit creation was limited and more heavily regulated.
- Federal land taxes (1910–1953) suppressed speculation.
- Rent controls (especially during WWII) muted real estate rents and prices.
- Banking was more conservative than today, and banks were slower to extend housing credit.

However, when Australia did experience land price collapses in the 1840s, 1890s, and 1930s, the timing closely matched the turning points already evident in the US and UK land cycles and recessions.

Australia developed a consistent, on average, 18-year land cycle when:

- Credit was liberalised (1950s onward).
- Financial deregulation enabled mortgage expansion (1980s).
- The currency was floated, integrating Australia into global capital flows (1983).

- State-based land taxes were weakened, and tax policies favoured speculative investment in real estate (1990s).
- Migration surged into capital city markets with structural constraints on supply, increasing competition (1950s, 1960s, 2000s).

From the mid-1950s on, speculation became both possible and profitable, and the 18-year rhythm emerged with clarity. Each cycle has followed a consistent pattern of around 12-16 years of rising land values, fuelled by credit expansion and speculation, followed by a property price-led collapse.

Australia is now approaching the end of its fourth post-WWII land cycle.

The Land Cycle predicts that Australia is headed for a peak in real estate prices in 2026/7, followed by a property market-induced recession into 2028-2030.

Australia's Four Post-WWII Land Cycles

Cycle 1: 1950s–1974 (Peak 1973/74)

Cycle Length 1956–1974 (18 years)

Following the post-war reconstruction period and the mild recession of the early 1950s, Australia entered its first clearly identifiable 18-year land cycle.

Land values rose through the mid-late 1950s and 1960s, supported by population growth, post-war migration, and a gradually liberalising mortgage market. This cycle peaked with the 1973/74 downturn, triggered by soaring land prices, credit tightening, and the global oil shock.

Cycle 2: Mid-1970s–1992 (Peak late 1980s, crash early 1990s)

Cycle Length 1974-1992 (18 years)

After the 1974 slump, land prices began their new ascent, accelerating sharply during the deregulated 1980s.

Aggressive lending, financial liberalisation, and speculative construction drove land values to extreme levels. The cycle ended with the early 1990s recession - a severe banking crisis, collapsing commercial property values, and sharp declines in construction.

Cycle 3: Early 1990s–2008 (Peak 2007, downturn 2008–2009 softened by government intervention)

Cycle Length 1992-2009 (17 years)

A new upswing began in the early 1990s recovery. Land values rose steadily through the 1990s and surged in the 2000s, fuelled by rapid credit expansion and speculation. The property price peak occurred around 2007–early 2008. The Global Financial Crisis (GFC) should have produced a deep collapse in Australia, but aggressive intervention - record rate cuts, first-homebuyer grants, bank guarantees, and infrastructure spending - prevented a significant land price crash. Nonetheless, construction, approvals, and commercial values contracted sharply.

Cycle 4: 2008– projected to peak in 2026/27 (Current cycle)

Cycle Length 2008 – 2026 (18 years)

Australia's current cycle began after the post-GFC stagnation. From 2012 onward, land values accelerated into one of the strongest booms ever recorded, driven by ultra-low interest rates, foreign capital inflows, population growth, speculative apartment construction, and unprecedented credit expansion. This cycle is

now in its final phase, with the peak expected around 2026/27 and a major downturn forecast into 2028–30.

The anatomy of the land cycle

The amplitude, defined by the price range, of the property collapse varies, as its size is, in part, dependent on the capability, willingness, timing and extent to which governments are prepared and able to intervene to rescue the property and banking sectors.

These cycles are structural, driven by the enclosure and commodification of land, alongside the banking system's tendency to lend excessively against rising land prices.

Once the flow of money into land and property is exhausted, the turning point is set. The stock market crash typically follows shortly after, marking the true end of the cycle. The crash occurs because the stock market captures a large share of land-derived economic rent– beyond the obvious real estate investment trusts, construction firms, and the financial sector.

Much of the apparent value of listed companies reflects the land they occupy or control. Corporate balance sheets include substantial holdings of land and location-based assets, such as office sites, retail outlets, mining leases, data centres, or distribution hubs. As urban land values rise, so too do the book values and market capitalisations of these companies, even when their productive output remains unchanged.

In this way, the stock market becomes like a secondary market for land values, with investors effectively trading the capitalised rent of location. When land values reach their peak, the share market inevitably follows with a downturn, as the rent of land can rise no further, and asset prices built upon it begin to contract.

The peak of the current land cycle will trigger a major downturn by 2028, which will last until 2030.

The consequences for Australia are significant.

Falling land values will undermine bank balance sheets and squeeze household *wealth*. Wealth is often conflated with income, yet it is not merely the numbers in our bank accounts. It represents the resources needed to produce goods and services (capital) for both business and pleasure. A person's wealth is derived from personal enterprise, while a country's wealth comes from its land and natural resources.

As a consequence of falling household wealth, credit will contract sharply. Based on our knowledge of past cycles, business and construction will stall, unemployment will rise, and public revenues will decline just as spending pressures increase.

The warning signs are clear to those familiar with the land cycle. However, policymakers, the public, and most economists will continue to misread the danger signals.

The solution to the devastating cycle of booms and busts, discussed and understood for more than 100 years, is to strip speculation out of the real estate market. This is most effectively achieved by changing how we raise public revenue.

By collecting the economic rent of the unimproved value of land and, in return, freeing productivity from taxation, we remove the incentive to speculate and shift investment back toward productive activity. With a fair land rent in place, land prices would stabilise, small businesses would thrive, and home ownership would become genuinely affordable.

Until this key piece of tax reform takes place, Australia will remain locked in a predictable cycle of booms and busts, which will be harder to recover from each time.

CHAPTER 2 – How a financial crisis unfolds

To most people, the 2008 Global Financial Crisis and land price collapse (in major economies) were totally unexpected. The world was blindsided by a financial catastrophe that brought economies to their knees.

The headlines screamed of failing banks and crashing stock markets, but beneath the surface, the crisis was rooted in something far more fundamental: land.

For years leading up to the collapse, global real estate prices soared to unsustainable heights, fuelled by easy credit, speculative buying, and a culture that believed land values could only go up. In the US, banks eagerly handed out risky subprime mortgages to buyers who could barely afford them, while the debts were packaged into complex financial products, which concealed their true risk.

This economic house of cards was built on the backs of everyday punters chasing the dream of unearned gains from continuously inflating land values.

What triggered the fall was as simple as it was devastating. As money was siphoned away from the productive sectors of the economy into land speculation – weakening small industries and increasing unemployment – people became increasingly unable to pay their mortgages. Defaults rose, land prices started to slide, and the once "safe" mortgage-backed securities became toxic, dragging down major financial institutions with them.

On 15 September 2008, Lehman Brothers collapsed. Making it the largest bankruptcy filing in US history, involving \$639 billion in assets. The news sent shockwaves through global markets. That day, the Dow Jones Industrial Average plunged 504 points, a drop of 4.4%, marking its worst single-day decline since 9/11.

The Lehman Brothers collapse triggered a full-blown credit crisis, froze interbank lending, and marked the tipping point into a recession that became known as the Global Financial Crisis (GFC).

Australia avoided a technical recession, largely due to substantial government intervention that rescued banks and property developers and prevented major property devaluations. But the country was not immune from the turmoil.

The GFC and its impact on the local economy made 2008 the worst year for the CBD office investment market since the recession of the previous land cycle bust, in the early 1990s. Office and retail property values in major cities such as Sydney, Melbourne and Brisbane began declining as businesses cut costs and credit availability dried up.

Many commercial developers had overbuilt speculative office space, expecting continued strong demand, but as the economy slowed, rental vacancies rose, and property values dropped

sharply.¹ Jones Lang LaSalle reported that the total volume and value of office transactions fell to its lowest levels in 13 years as buyers and vendors became paralysed by the deteriorating situation. Developers who had relied on short-term, high-leverage loans struggled to refinance, leading to financial distress and a sharp contraction in commercial property prices.

The pace of economic growth slowed significantly, and unemployment rose sharply. Housing transactions dropped abruptly, and real estate prices started to fall, threatening the nation's major banks.

By April 2009, the RBA had slashed interest rates from 7.25% to 3.00% – starting with a notable 100-basis-point reduction in October 2007. It was a desperate attempt to save the economy from falling into recession.

Assisted by a decade-long commodity boom, Prime Minister Kevin Rudd threw every cent of Australia's budgetary surplus (and then some) into supporting land prices. The process behind those decisions is documented in former Australian Treasurer Wayne Swan's autobiography *The Good Fight*.

As the GFC unfolded, the then-Treasurer received a critical call from US Treasury Secretary Hank Paulson. Paulson stressed, in no uncertain terms, that propping up land prices was the only way to prevent a complete economic collapse.

"Paulson: 'Look...if we can avoid a meltdown in house prices, then we might be able to see a way through this,' he said.

¹ Vedelago, C. (2009). CBD office sales sink to 13-year low. *The Age*, 28 January 2009. <https://www.theage.com.au/business/cbd-office-sales-sink-to-13year-low-20090128-7s5q.html>

This was a big 'if,' and I suspect the real motivation behind his call was underpinned by the housing market stabilising, given that it was the very stench of toxic home loans that had, only a few months earlier, brought to their knees two of the managed hedge funds run by Bear Stearns, one of America's oldest investment banks...²

The message was clear - the real estate market was too big to fail.

First home buyers were gifted with grants of more than \$20,000. Strict rules on foreign investment were lifted, allowing overseas buyers to purchase established homes. Billions were poured into infrastructure spending - road and rail upgrades, school construction, public housing, and the early groundwork for the National Broadband Network (NBN) – policies that fed directly into land prices. Thus, land prices began to soar.³

While the rest of the world's real estate markets were crashing, Australia's median house prices rocketed up around another 25% reaching a new peak by October 2010.

Australia dodged the immediate fallout of the GFC in 2008-12, but in doing so, the government fed the very cycle of land speculation that has historically led to economic downturns. They were simply kicking the can down the road.

"No one saw it coming" - or did they?

Queen Elizabeth II's famous question "why did no one see it coming?" was directed at economists during a visit to the London School of Economics in November 2008, a mere six weeks into

² Swan, W. (2014) *The Good Fight: Six Years, Two Prime Ministers and Staring Down the Great Recession*, Allen & Unwin, Crows Nest, NSW.

³ Department of Social Services, (2008). *\$10.4 Billion economic security strategy to strengthen the Australian economy*, https://formerministers.dss.gov.au/1912/home_owners_14oct2008

what turned out to be the biggest crisis affecting the global financial system in modern history. The Queen's remark captured the widespread disbelief that the world's top economists, policymakers, and financial experts had failed to predict the catastrophic collapse of the global financial system.

How could it happen?

Former Federal Reserve Chairman Alan Greenspan said that the criticism he received for not anticipating the 2008 financial crisis was not fair since "nobody" saw it coming - including forecasters from the International Monetary Fund.⁴

In Australia, former governor of the RBA, Glenn Stevens, echoed the same, commenting:

"I don't know anyone who predicted this course of events. This should give us cause to reflect on how hard a job it is to make genuinely useful forecasts. What we have seen is truly a 'tail' outcome."⁵

Yet the collapse of housing markets - and precisely when it would occur - *had* been predicted, and with remarkable accuracy.

Two notable economists who did so were Fred Harrison and Fred Foldvary.

Both successfully forecast the timing of the 2008 GFC with extraordinary foresight, over ten years in advance, long before mainstream economists raised a single red flag.

How was this possible when the entire mainstream missed it?

⁴ Greenspan, A. (2008). Testimony before the US House Committee on Oversight and Government Reform, *The Financial Crisis and the Role of Federal Regulators*, 23 October 2008.
<http://www.govinfo.gov/content/pkg/CHRG-110hrg55764/html/CHRG-110hrg55764.htm>

⁵ Stevens, G. (2009). *The Road to Recovery*. Reserve Bank of Australia Australian Industry Group Annual National Forum, Sydney, 16 July 2009.
<https://www.rba.gov.au/speeches/2009/sp-gov-160709.html>

CHAPTER 3 - Two Georgist economists predicted the peak

Fred Harrison

Fred Harrison's passion for analysis of land markets and cycles evolved from his study of the late 19th-century economist Henry George (1839 -1897), particularly George's 1879 seminal work, *Progress and Poverty: An Inquiry into the Cause of Industrial Depressions and of Increase of Want with Increase of Wealth... The Remedy*.

The book started as a potential magazine article written to address the paradox of why 'poverty' rises in tandem with 'progress.' When it was published 17 months later in 1879 during an industrial depression, George's ideas electrified the world.

He had not only identified the underlying cause of the boom and bust cycle, George also provided a practical remedy. The book was an international bestseller, translated into multiple languages. At its epoch, it was rumoured to have outsold even the Bible.

Progress and Poverty exposed the destructive impact of land speculation and the cyclical nature of economic depressions. It was a revelation that deeply resonated with Harrison.

After gaining his degree at Oxford University, first at Ruskin College and then at University College, Harrison set out to put George's insights to the test. In the 1980s, he launched an ambitious historical investigation into the UK property market, meticulously analysing over two centuries of land price fluctuations, booms, and busts.⁶

What he uncovered was revolutionary. A near-clockwork major real estate cycle that lasted, on average, 18 years.

The discovery of this cycle was more than academic - it was a blueprint for understanding economic crises, long obscured by flawed economic thinking that ignored land's essential role in influencing market movements.

Harrison's insights enabled him to make a bold prediction about when the next economic crisis would arrive. In his 1997 publication, *The Chaos Makers*, Harrison wrote:

*"By 2007 Britain and most of the other industrially advanced economies will be in the throes of frenzied activity in the land market... land prices will be near their 18-year peak... on the verge of the collapse that will presage the global depression of 2010."*⁷

If this had been an isolated prediction, one might be tempted to dismiss it as a mere coincidence or luck. However, Harrison's track

⁶ Harrison, F. (1983). *The power in the land: An inquiry into unemployment, the profits crisis and land speculation*, Shephard-Walwyn, London, UK.

⁷ Harrison, F. (1997). *The Chaos Makers*, Shephard-Walwyn, London, UK.

record of accurate forecasts - derived from nothing more than a count of years - is both extensive and compelling.

In his 1983 publication, *The Power in the Land*, for example, he forecast the land-led recession of 1990, a full eight years before it unfolded. He wrote:

*"...the Western economy will recover and enjoy 18 years of growth before tail-spinning into yet another deep-seated depression of even greater magnitude than the structural recession which began in 1974..."*⁸

Right on cue, the UK, US, and Australia sank into recession in the early 1990s, just as Harrison had predicted.

Fred Foldvary

Fred Foldvary (1946–2021), was another prescient Georgist economist who foresaw the GFC long before it unfolded, using the same economic cycle analysis.

A dedicated researcher, author, and university educator, Foldvary was also deeply influenced by the economic philosophy of Henry George and a passionate advocate for Georgist principles throughout his career.

His landmark 1997 paper, *The Business Cycle: A Georgist-Austrian Synthesis*, stands as a testament to his brilliance.⁹

In it, Foldvary integrated Georgist theories of land speculation with Austrian economic insights into credit expansion and

malinvestment. His analysis pinpointed two crucial economic principles:

1. The 18-Year Land Cycle is a consistent cyclical pattern in land prices driven by speculative activity.
2. Credit expansion increases borrowing capacity, which is quickly capitalised into higher land prices rather than productive output. This distorts price signals and drives malinvestment – projects appearing viable under easy credit conditions, but exposed as unsustainable once credit tightens and land values come under pressure.

By connecting these principles, Foldvary was able to both anticipate a significant economic downturn and accurately forecast its timing.

Like Fred Harrison, Foldvary made his forecast 11 years before the 2008 GFC occurred.

He wrote:

*"The 18-year cycle in the US and similar cycles in other countries give the Geo-Austrian cycle theory predictive power: the next major bust, years after the 1990 downturn, will be around 2008, if there is no major interruption such as a global war."*¹⁰

He noted:

"Land is essential for all production. In any particular economic region, the quantity of surface sites is fixed."

⁸ Harrison, F. (1983), *The Power in the Land*, Shepherd-Walwyn, London, UK.

⁹ Foldvary, F. E. (1997) "The Business Cycle: A Georgist-Austrian Synthesis", *American Journal of Economics and Sociology*, 56(4), pp. 521–41.

¹⁰ Foldvary, F. E. (1997), "The Business Cycle: A Georgist-Austrian Synthesis", *American Journal of Economics and Sociology*, 56(4), pp. 538.

The supply of land for particular purposes expands with increasing rent (including the conversion of water to solid surface), but the total site area is fixed.

When a boom is underway, the anticipated increase in rent induces speculators to buy land for price appreciation rather than for present use, which causes the current site value to rise above that warranted by present use.

Once widespread speculation sets in, land values are carried beyond the point at which enterprises can make a profit after paying for rent or mortgages.

The rate of increase of investment slows down, eventually reducing aggregate demand as the slowdown ripples through the economy, increasing unemployment and bringing forth a depression.”¹¹

Land as the hidden economic engine

Harrison and Foldvary demonstrated that each repeating 18-year financial crisis stemmed from a failure to understand the economic importance of land and the land price cycle.

As Henry George - and economists who preceded him, such as Adam Smith and John Locke - argued, land and the resources derived from it form the foundation of the economy, the stage upon which all economic activity takes place. Its value arises not from individual effort, but from collective public investment and demand for location.

When economic rent - unearned gains from monopolising land - becomes a driving force of behaviour, a land cycle becomes

inevitable – and it chimes to a pattern that lasts on average 18-20 years.

Speculation in rising land values siphons capital away from the productive sectors of the economy. This is especially true in economies dominated by rent-seeking and capital-extractive industries like finance, mining, and real estate.

In summary, the majority of economists and politicians did not anticipate the 2008 financial crisis or those that preceded it because they overlooked land's central role in driving economic cycles. Instead, they blamed external shocks - wars, pandemics, financial instability - while ignoring the predictable pattern that unfolds when land speculation is left unchecked.

¹¹Foldvary, F. E. (1997), “The Business Cycle: A Georgist-Austrian Synthesis”, *American Journal of Economics and Sociology*, 56(4), pp. 538.

CHAPTER 4 – What is the land cycle?

If land speculation follows a predictable rhythm, then it should also be possible to describe that rhythm. The land cycle is the recurring pattern through which rising land values drive speculative behaviour, distort investment decisions, and ultimately destabilise the wider economy.

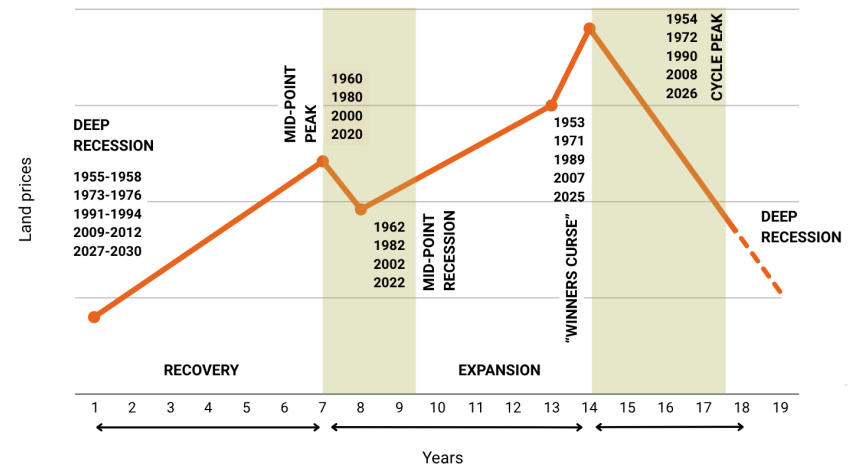
The stylised chart of the land cycle opposite illustrates the pattern. The model is elegant in its simplicity. It was initially devised by UK economist Fred Harrison.

It is based on the historical behaviour of the UK and US property markets (the two most influential economies since the beginning of the Industrial Revolution).

The structure of the land cycle

The 18-year land cycle is divided into distinct stages, punctuated by two economic recessions: a mid-point recession, which does not crash land prices, and an end-of-cycle recession, which, without intervention, results in a major land price collapse in both the commercial and residential sectors.

Figure 1: The Land Cycle.



Original chart design: Fred Harrison

Recovery & expansion phases (years 1–14)

As the recovery commences from the last economic downturn, interest rates play a crucial role in stimulating buyer activity. Throughout the first half of the cycle, central banks typically maintain supportive monetary settings – low or stable interest rates that allow credit to expand. This encourages households and investors to borrow more, steadily pushing land values upward.

In the final years of the expansion, pressure begins to build. Inflation edges up, land prices accelerate faster than incomes, and banks become more aggressive in extending credit. Eventually, central banks intervene.

Historically, in every major land cycle documented by Harrison, Foldvary and others, interest rates rise heading into the cycle peak.

In the lead-up to the GFC, the U.S. Federal Reserve raised rates from 1% in 2004 to 5.25% by 2006 while oil prices surged to a peak in 2008. In Australia the RBA lifted rates to 7.25% by 2008, just as housing and credit fragilities were emerging. The same dynamic appeared in the late 1980s, when Australian rates reached around 17% amid an inflationary boom in land and construction before the early 1990s recession, and again in the early 1970s, when tightening monetary policy combined with the oil shock and rising inflation to precede the 1974 crash.

Rising rates do not immediately dent the market as investors rush to “get in before prices rise further”, adding urgency to already heated bidding, before the rate hikes strike. Developers push projects forward to lock in finance while they still can.

Leverage increases as buyers stretch to avoid being “priced out forever”. Risk becomes mispriced. Lenders assume rising collateral makes lending safer. Seasoned investors quietly begin taking profits while novices crowd in. Rental yields compress as prices accelerate faster than rents.

By the peak of the expansion, the market’s foundation becomes dangerously fragile. Values depend more on the expectation of future gains than on income. When interest rates finally bite – or even when expectations about future rates shift – confidence cracks. The productive sectors of the economy have been eroded away and are no longer able to support the debt that has been channelled into speculative activities. The cracks in the system (mortgage fraud, loose lending practices, etc) are exposed, and the downturn follows rapidly.

This is usually when banking institutions either fail or must be stabilised with external assistance.

It is this combination of rising rates, overconfidence, over-leverage, and the fading memory of the last crash that makes the final years of the expansion phase the most treacherous for new buyers. And it explains precisely why Harrison warned that “The trades in housing are now almost exclusively driven by the motive to speculate in the prospect of reaping huge windfall gains.”¹²

Mid-point peak and recession (years 7–9)

Around seven to nine years after land values begin their ascent, the cycle experiences a characteristic pause.

This is what Fred Harrison identified as the *mid-cycle slowdown* - an economic recession. It’s basically the mid-point of the expansionary phase of the cycle – a short, sharp interruption that relieves pressure without derailing the broader 14-year expansion of land values.

At this point in the cycle, the banks can generally withstand the slowdown. The system hasn’t taken on enough structural stress for major failures or breakdowns to appear.

This downturn is typically triggered by an external shock or a deliberate tightening of monetary policy, often after several years of strong credit growth and elevated asset prices. These shocks usually first strike the stock market, where over-leveraged speculative positions unwind rapidly, generating panic that ripples outward through the economy.

Common triggers include:

- central banks raising interest rates to curb inflation,

¹² Harrison, F. (2005), *Boom bust : house prices, banking and the depression of 2010*, Shephard-Walwyn, London, UK.

- financial bubbles in equities or tech sectors,
- geopolitical events that disrupt confidence, and
- global liquidity contractions.

Recent examples of mid-cycle recessions include:

- early 1980s recession – triggered by US Federal Reserve Chair Paul Volcker’s rapid tightening to crush inflation.
- 2020 COVID19 panic – a global shutdown causing financial markets to seize before rebounding into a V-shaped recovery.
- 2001 dot-com bust – a stock market collapse that barely touched land prices.

Despite the occasional severity of these episodes, they do not crash the land market. The banks are in a better position to weather the crisis than is typical at the end of the cycle.

Land values may stall, soften, or dip briefly, but the fundamental drivers of the cycle – rising population, expanding credit availability, and speculative expectations – remain intact.

The broader 14-year rise in land values continues almost immediately after the shock passes.

This resilience often misleads policymakers and the public. Because land prices do not fall dramatically, many interpret the mid-cycle downturn as evidence that *‘the system is strong’*, or that property is immune to crisis. This false sense of security encourages even greater borrowing and more aggressive investment once growth resumes.

The mid-cycle slowdown performs a structural role. It clears out weaker equity-market speculation, resets expectations, and

creates the conditions for the final, more explosive phase of the cycle.

The years immediately following the mid-point recession often show some of the strongest increases in land values, building activity, credit creation and speculative behaviour. The mid-cycle downturn is therefore not a failure of the cycle, but an essential feature of it – a brief interruption that strengthens the conditions for the final boom to come.

Recessionary Phase (Years 15–18):

The recessionary phase is the point at which the speculative bubble finally breaks.

After years of accelerating land-price growth, increasingly fragile credit structures, and the widespread belief that property prices *‘can only go up’*, a trigger event arrives that the system cannot absorb.

As land prices accelerate and more credit is issued against them, the productive sectors of the economy gradually erode. Profits, wages, and business investment cannot keep pace with the rising costs of land, leaving the real economy too weak to service the expanding debt burden.

Eventually, the financial system reaches a point where it cannot justify further lending against already-inflated land values. When credit tightens - whether through rising interest rates, stricter lending standards, liquidity shortages, or external shocks - the system buckles.

With the productive economy unable to support the debt that speculation has created, the land market turns, and the downturn becomes self-reinforcing.

Once land values begin to fall, the collateral base of the entire financial system is undermined. Banks pull back lending, developers abandon projects, investors retreat, and households that purchased late in the cycle find themselves highly leveraged with shrinking equity positions.

As credit tightens, forced sales increase, amplifying the decline in land values. What follows is typically four years of falling or stagnant land prices (depending on local policies).

This pattern has been observed repeatedly across documented cycles:

- the 1930s Great Depression land price collapse
- the early 1970s and 1990s recessions
- the 2008–2012 downturn, softened by unprecedented intervention
- and earlier cycles in the 1840s and 1890s.

The decline in land values is rarely gentle. Land is the asset against which most credit is created. When it falls, the contraction reverberates through every sector of the economy. Construction activity collapses first, followed by business investment, employment, and consumer confidence.

Recessions that emerge during this part of the cycle are often deeper and longer-lasting than mid-cycle recessions because they impact the broader economy which has choreographed itself around the finance, insurance and real estate sectors.

Two points are relevant:

1. The extent of the bust depends on the magnitude of the boom.

Every boom is followed by a bust. The severity of the downturn depends on how much speculation in land prices there has been during the upswing. The more inflated the land price market, the harder the eventual correction.

2. Government policy shapes the crash - and reinflates the cycle

The extent of the damage during a downturn is often determined by government intervention - such as homebuyer grants, mortgage holidays, and stimulus payments - which can soften the blow and prevent widespread foreclosures.

However, these measures also delay market correction and set the stage for the next cycle, repeating the same pattern rather than resolving the root cause.

The periods above can vary between locations and countries, but in general, the pattern remains consistent.

The 14-year upswing and the 5% interest rule

The key to timing the peak in land values is based on research by Fred Harrison. It lies in accurately identifying when the 14-year trend of upward land prices begins.

This count starts from the point where land prices first turn upward following the economic downturn at the end of the previous cycle.

Recognising this shift serves as a crucial regional indicator for predicting the land price peak.

That prediction proved prescient. US property prices reached their peak in June 2006, precisely when Harrison forecast the market would turn.

Harrison further theorised that the consistent 14-year upswing in land values was historically tied to the long-term interest rate of 5%, a rate that emerged as a standard in property markets dating back centuries.

He traced its origins to the late 18th-century terminating societies, early cooperative lending institutions that pooled member funds to finance land purchases and home construction.

The completion period for these projects was typically set at 14 years - mirroring the repayment period dictated by a 5% borrowing cost.

Harrison noted that the Usury Law of 1714 had enshrined 5% as a legal limit on interest, while even earlier, in the 1580s, 5% was considered the standard return on property investments.

He also observed that the Copyright Act of 1710 granted authors a 14-year window to recover the value of their intellectual property - further reinforcing the logic that a 14-year return period was embedded in economic thinking.

As Harrison wrote in *Brussels Blitz or £500bn Dividend* (2018):

“Fourteen years created a property right that was equivalent to a return of 5%. In the late 18th century, the 14-year period shaped the terminating societies... The timescale to complete the construction of the last house was 14 years - the period set by the cost of borrowing money at 5%.”¹³

It has since been observed that in most peacetime periods, the long-run interest rate hovers around 5%, lending ongoing support to this theoretical framework.

¹³ Harrison, F. (2018). *Brussels Blitz or £500bn Dividend: How the EU can end the crisis*. London: Land Research Trust.

Whether or not this is the sole cause of the 14-year upswing, the pattern has proven strikingly consistent and reliable in cycle forecasting in international markets.

Even so, as explained later, Australia hasn't followed the 14-year pattern as neatly as other markets. The differences probably reflect the smaller population base and the lower number of sales available for analysis.

War and the land cycle

Historically, there have been only two forces capable of interrupting or resetting the land cycle.

The first is war, which removes speculative activity from the land market as national resources are redirected toward defence, production, and survival. Major conflicts such as WWI and WWII effectively halted land speculation by diverting labour, capital and government spending away from property and into the war effort.

The second is policy intervention that directly curbs speculation - through measures that capture or neutralise unearned gains in land values, thereby breaking the feedback loop between rising land prices and credit expansion.

The land cycle can only manifest where speculation is allowed to flourish and where population growth meets restricted land supply. It is most pronounced in large urban centres, where access to well-located land confers the greatest economic rent and the strongest incentive for speculative investment.

In contrast, smaller regional markets - where supply is more elastic and demand less concentrated - tend to experience milder fluctuations and are less subject to the full boom-and-bust rhythm of the cycle.

Chapter 4 - The 18-year cycle: Over 200 years of evidence

The identification of an 18-year cycle did not begin with Harrison or Foldvary.

It's part of a far older tradition of forecasting rooted in time cycles and natural law - going back well over a century.

W.D. Gann

William Delbert Gann (1878 – 1955), one of the most famous of all stock market traders, utilised the knowledge in his own trading methods.

Although Gann did not write directly about an 18-year land cycle, there is some reference to an 18-19 year cycle in his work and in the Financial Timetable, not authored by him, but ascribed to him – shown on the following page.

The dates at the top of the Gann Financial Timetable oscillate between 18 and 19 years to align with an 18.6-year rhythm.

The 18.6-year cycle aligns with the lunar nodal cycle, a recognised astronomical rhythm that governs long-term tidal forces. This

natural oscillation was explicitly recognised by cycle analysts such as Louise McWhirter in *The Theory of Stock Market Forecasting* (1938), and in the original Financial Timetable published and maintained by Lowry Research.

The alternation between 18- and 19-year intervals is the practical market expression of this underlying 18.6-year rhythm.

The years flow downward from these dates in chronological order.

The timetable was copied by Gann in 1909.

As you can see from the legend to the right hand side of the table (overleaf), the timetable predicts the dates that mark recessions and depressions. It foretells years of very high stock prices and low stock prices. It also warns of panics and crashes, as well as labour strikes and poverty.

Image: Financial Time Table, W.D. Gann (1909)

FINANCIAL TIME TABLE											compiled by W.D. Gann (1909)	
1784	1803	1821	1840	1858	1877	1895	1914	1932	1951	1969	1988	LEGEND A-Extreme low stock prices, strikes, depression, despair, beginning of new business, repairs of 1000 years, 4 years of falling stock prices and improving business. Markets bare of goods. Young men becoming prominent.
1785A	1804A	1822A	1841A	1859A	1878A	1896A	1915A	1933A	1952A	1970A	1989A	
1786	1805	1823	1842	1860	1879	1897	1916	1934	1953	1971	1990	
1787	1806	1824	1843	1861	1880	1898	1917	1935	1954	1972	1991	
1788	1807	1825	1844	1862	1881	1899	1918	1936	1955	1973	1992	
1789B	1808B	1826B	1845B	1863B	1882B	1900B	1919B	1937B	1956B	1974B	1993B	B-High stock prices.
1790	1809	1827	1846	1864	1883	1901	1920	1938	1957	1975	1994	
1791C	1810C	1828C	1847C	1865C	1884C	1902C	1921C	1939C	1958C	1976C	1995C	C-Panic.
1792D	1811D	1829D	1848D	1866D	1885D	1903D	1922D	1940D	1959D	1977D	1996D	D-Low stock prices.
1793	1812	1830	1849	1867	1886	1904	1923	1941	1960	1978	1997	
1794	1813E	1831	1850E	1868	1887E	1905	1924E	1942	1961E	1979	1998E	E-High stock prices.
1795E	1814F	1832E	1851F	1869E	1888F	1906E	1925F	1943E	1962F	1980E	1999F	F-Panic
1796F	1815	1833F	1852	1870F	1889	1907F	1926	1944F	1963	1981F	2000	
1797G	1816G	1834G	1853G	1871G	1890G	1908G	1927G	1945G	1964G	1982G	2001G	G-Low stock prices.
1798	1817H	1835	1854H	1872	1891H	1909	1928H	1946	1965H	1983	2002H	H-Very high stock prices most extravagant year waste over, excessive most money in circulation, such speculation.
1799H	1818	1836H	1855	1873H	1892	1910H	1929	1947H	1966	1984H	2003	
1800J	1819J	1837J	1856J	1874J	1893J	1911J	1930J	1948J	1967J	1985J	2004J	J-Major panic-CRASH! 4 years of falling prices, business stagnated, bread lines, soup kitchens, despair, unemployment.
1801	1820	1838	1857	1875	1894	1912	1931	1949	1968	1986	2005	
1802	1821	1839	1858	1876	1895	1913	1932	1950	1969	1987	2006	
1803	1822K	1840	1859K	1877	1896K	1914	1933K	1951	1970K	1988	2007K	K-Same as A plus strikes, unemployment, many prominent deaths.
1804K	1823	1841K	1860	1878K	1897	1915K	1934	1952K	1971	1989K	2008	
		1842										Dec. 25, 1989 revises to Mar. 13, 1934.

The original copy is hard to read, so a clearer version is recreated below.

Figure 2: Financial time table, W.D. Gann, reproduced.

FINANCIAL TIME TABLE Compiled by W.D. Gann (1909)												LEGEND	
1784	1803	1821	1840	1858	1877	1895	1914	1932	1951	1969	1988		
1785	1804	1822	1841	1859	1878	1896	1915	1933	1952	1970	1989	A	Extreme low stock prices, strikes, repression, despair, beginning of new business generation of 18.6 years, 4 years of rising stock prices and improving businesses. Markets bare of goods.
1786	1805	1823	1842	1860	1879	1897	1916	1934	1953	1971	1990		
1787	1806	1824	1843	1861	1880	1898	1917	1935	1954	1972	1991		
1788	1807	1825	1844	1862	1881	1899	1918	1936	1955	1973	1992		
1789	1808	1826	1845	1863	1882	1900	1919	1937	1956	1974	1993	B	High stock prices
1790	1809	1827	1846	1864	1883	1901	1920	1938	1957	1975	1994	C	Panic
1791	1810	1828	1847	1865	1884	1902	1921	1939	1958	1976	1995	D	Low stock prices
1792	1811	1829	1848	1866	1885	1903	1922	1940	1959	1977	1996		
1793	1812	1830	1849	1867	1886	1904	1923	1941	1960	1978	1997	E	High stock prices
1794	1813	1831	1850	1868	1887	1905	1924	1942	1961	1979	1998	F	Panic
1795	1814	1832	1851	1869	1888	1906	1925	1943	1962	1980	1999		
1796	1815	1833	1852	1870	1889	1907	1926	1944	1963	1981	2000	G	Low stock prices
1797	1816	1834	1853	1871	1890	1908	1927	1945	1964	1982	2001	H	Very high stock prices, most prosperous year, most money in circulation, most speculation.
1798	1817	1835	1854	1872	1891	1909	1928	1946	1965	1983	2002		
1799	1818	1836	1855	1873	1892	1910	1929	1947	1966	1984	2003	J	Major panic, CRASH! 4 years of falling prices, business stagnated, breadlines, soup kitchens, despair, unemployment.
1800	1819	1837	1856	1874	1893	1911	1930	1948	1967	1985	2004		
1801	1820	1838	1857	1875	1894	1912	1931	1949	1968	1986	2005		
1802	1821	1839	1858	1876	1895	1913	1932	1950	1969	1987	2006	K	Same as A plus strikes, unemployment, many prominent deaths.
1803	1822	1840	1859	1877	1896	1914	1933	1951	1970	1988	2007		
1804	1823	1841	1860	1878	1897	1915	1934	1952	1971	1989	2008		
		1842										Dec 25, 1989 revises to March 13, 1934.	

Knowledge of the 18.6-year cycle, and observations of the patterns that it produced economically, enabled Gann to accurately forecast the historical stock market and land price lows in 1914, 1933, 1952, 1970 and 2008, decades in advance.

In this respect, Gann’s Financial Timetable has proven remarkably accurate in forecasting the overall direction of the economy. It has also been very consistent in marking the overall direction of US equity prices.

The dates of major downturns at the bottom and top of the ledgers align with the final years of the 18-year land cycle – especially after the World Wars.

These dates all fall in row ‘K’ of the financial timetable and again in row ‘A’.

These are the periods Gann said that the economy would undergo: *“Major panic CRASH”* ...

As shown on the timetable above - the text reads:

- Row “K” – a period of “strikes unemployment, many prominent deaths”
- Row “A” – starts at the same date at which Row K finishes – a period of “Extreme low stock prices, strikes, repression, despair, beginning of new business generation of 18.6 years, 4 years of rising stock prices and improving businesses. Markets bare of goods..”

The dates in this area of the timetable have all, without exception, correlated with U.S economic recessions.

They are listed below, along with the impact they had on land values, for reference.

Figure 3: US recessions, timing and effects

Year	Effect
1802–1807	The Embargo Act of 1807 caused a severe downturn. Trade collapsed, and land prices fell sharply.
1819–1821	Speculative land bubble bursts after credit tightening. There were widespread foreclosures and bankruptcies.
1837–1843	Land values dropped over 50% in some areas due to speculative mania and easy credit.
1857–1858	Panic triggered by railroad speculation and land/commodity investments produced a major land value collapse.
1873–1879	Long Depression: railroad crash triggered prolonged land value declines.
1893–1895	The Panic of 1893: triggered by a collapse in railroad over-expansion and shaky financing, leading to a series of bank failures.
1913–1914	Speculation paused amid wartime uncertainty and the founding of the Federal Reserve – this disrupted the land cycle to some extent.

1929–1933	The Great Depression: producing a massive collapse in urban and rural land values.
1953	A mild recession due to post-war population growth and expansion - real estate growth slowed.
1970–1973/4	Land speculation and oil price shock led to a real estate crash.
Early 1990s	Land price collapse - land values fell sharply, especially in the US, UK, and areas of Australia.
2008	The GFC - the housing bubble burst, leading to a sharp decline in land values globally.

The starting dates of each recession reveal a recurring pattern, averaging roughly every 18 years, with only minor variation. That's not to say that recessions have not occurred at other periods. They have. There are two recessionary periods within the broader rhythm of the land cycle. But those tied to a collapse in land values tend to be more severe and longer lasting than milder downturns driven by factors like stock market corrections or policy tightening.

Samuel Benner

The concept of an average 18-year boom-bust cycle in markets was also identified by the renowned 19th-century commodity forecaster, Samuel Benner (1832–1913).

Benner conducted a detailed analysis of historical price trends, climatic cycles, and even astrological influences, culminating in a

widely circulated timetable that illustrates recurring market rhythms - many of which align with harmonics of the 18-year cycle.

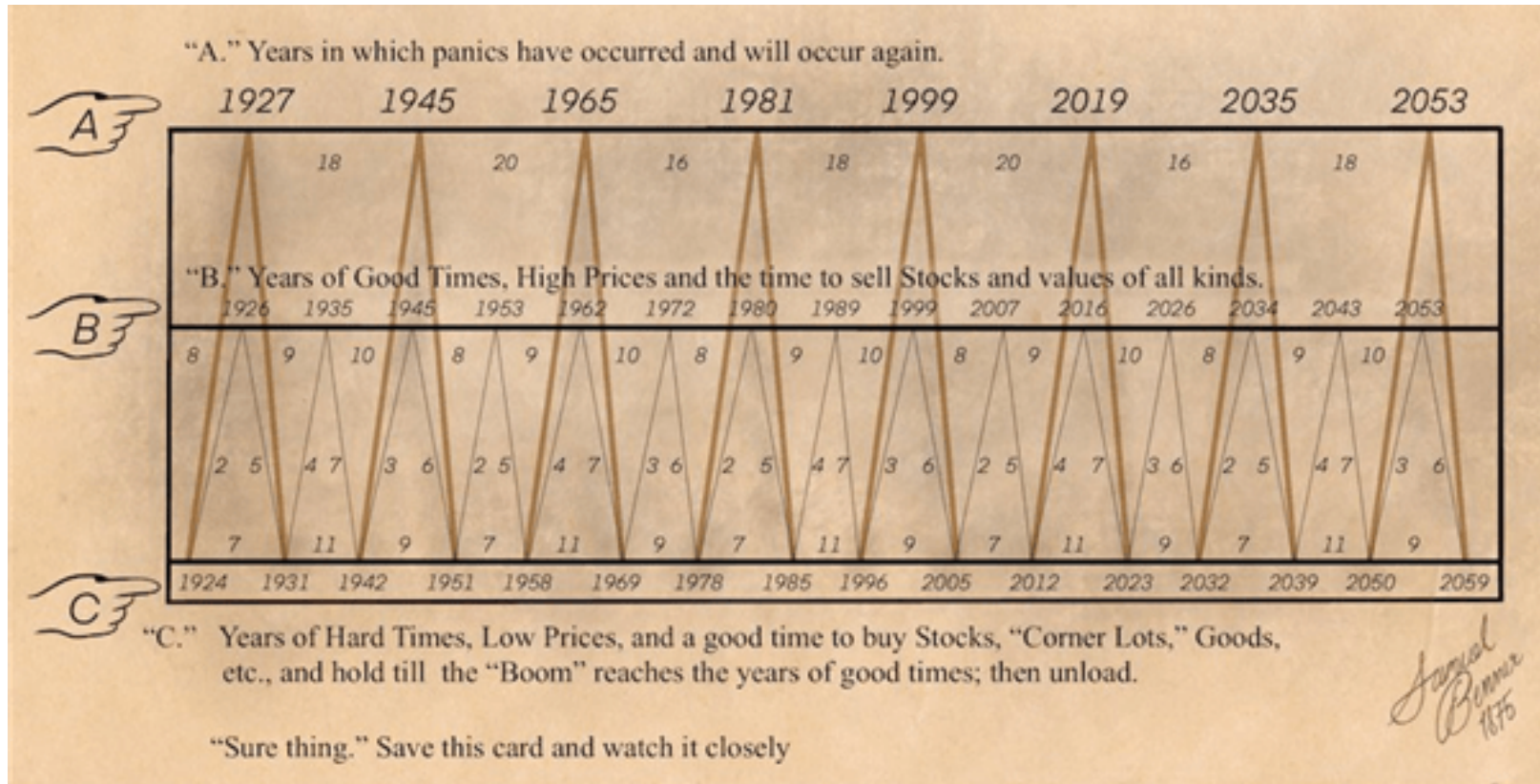
His chart, known as the Benner Cycle, continues to surface periodically in financial commentary, particularly when its predictions appear to correspond closely with actual market movements - though its original authorship is often overlooked.

There are many cycles written into the Benner timetable that would naturally correlate with the land cycle.

- An 8 → 9 → 10 years Pig Iron Price Cycle – with the highs repeating every 27 years (middle line).
- An 11 → 9 → 7 Year Pig Iron Price Cycle with the lows repeating every 27 years (bottom line).

Pig iron was a material that played an essential role in building activity, particularly during the Industrial Revolution and into the 20th century – it's therefore understandable to notice an interaction with the land cycle.

Image: Financial trading timetable, Benner 1875



Source: Samuel Benner

The highs (indicated by the middle line) correspond closely with the peaks of the land cycle after World War I (1926, 1953, 1972, 1989, 2007 - the next being 2026 - and so forth).

- The 16 →18 →20 Year Cycle that adorns the top row gives us an average of 18 years, with panics repeating every 54 years – 1819, 1837, 1857, 1873.

The 54-year cycle, Benner called the 'panic' cycle – (3 x 18)

Comparing the chart to the recessionary periods outlined in W.D. Gann's financial timetable with Benner's chart – created in 1875 - gives almost perfect timing for the peaks and troughs in market prices for the century that followed.

The Benner chart forecast the 2007 high in land markets, some 150 years in advance, based on a cycle of (on average) 18 years. That this can be done by a mere count of years should cause all economists to stop in their tracks and question "why?"

Benner's research culminated in the publication of a book in 1875 titled *Benner's Prophecies of Future Ups and Downs in Prices*.

Notably, Edward R. Dewey, founder of the Foundation for the Study of Cycles, analysed Benner's forecasts over a 60-year period, calling it "*the most notable forecast of prices in existence*."¹⁴

Considering Dewey's remarkable breadth of research, that's quite the compliment!

¹⁴ Dewey, E. R. and Edwin F. Dakin, E. F. (1947), *Cycles: The Science of Prediction*, Henry Holt and Company, New York.

Edward Dewey

Edward R. Dewey (1895 -1978) was an absolute pioneer in the study of cycles. He was also aware of the 18-year land cycle's significance in forecasting economic downturns.

In his writing, he referenced the 18-year cycle as not only "*...the clearest most regular pattern revealed in our economic life*". But also, "*... one of the most important economic clocks we have*".

In fact, Dewey pondered why it was not more widely accepted, seeing as the rhythm is so obvious in many areas of economic life.

*Strangely enough, in the face of a cycle that is so regular, so clear to the eye on any chart, and so often repeated that there can be no reasonable doubt of its reality, few businessmen refer to it in their operations, and neither does the home-buying public.*¹⁵

The quote above is taken from his book, co-authored with financial journalist Edwin F. Dakin, *Cycles: The Science of Prediction*, published in 1947.

In the publication, Dewey explicitly acknowledges that his understanding of the 18-year cycle was informed by earlier researchers who had tied this rhythm to the land market - most notably Roy Wenzlick (1894–1988) and economist Homer Hoyt (1895-1984).

This foundational insight, which underpins much of Dewey's work, deserves clear recognition in any serious exploration of cyclical economic behaviour.

¹⁵ *ibid*

CHAPTER 5 – The golden era of research

The 1930s marked a golden era in the study of the land cycle. It was an era defined by brutal economic truths, and one that holds powerful lessons for understanding the deeper rhythms of the land cycle.

It wasn't just the numbers that made the decade remarkable, but the sheer urgency that drove so many economists, statisticians, and policy advisors to dig deeper into the roots of collapse.

In the aftermath of the Great Depression, they weren't just looking back for the sake of it - they were determined to use hindsight to find answers that could prevent history from repeating. It became clear that land was not just part of the story, but the lead character.

In fact, the historic crash that ushered in the 1930s had far more in common with the land-fuelled devastation of the 1880s and the depression of the 1890s than it did with a Wall Street stock market bubble.

Capital didn't just vanish in a flurry of Wall Street trades - it settled into the land market, producing one of the most explosive real estate booms in American history.

At that time, US President Warren Harding appointed Andrew Mellon as Treasury Secretary. A powerful figure in finance, Mellon advocated for lower taxes, especially for the wealthy.

He persuaded Harding to cut taxes on high incomes from 75% to 25%.

The Revenue Act of 1924 increased the personal exemption to \$2,500 for single filers and \$3,500 for married couples, resulting in a large share of Americans paying little or no federal income tax (the average annual income being around \$1,200).

These cuts were phased in during the final years of the 1920s land cycle: 1924, 1926, and 1928.

While the tax cuts were seen as beneficial for economic growth, without additional land taxation to stem the increased incomes flowing into the real estate markets, the result was a dramatic increase in land prices.

The wealth funnelled to landowners was immense. Thousands of new banks sprang up in fringe areas - many of them created solely to capitalise on the boom.

As historian Elmus Wicker observed in his book, *The Banking Panics of the Great Depression*, (1996):

'...(they) were either operated by real estate promoters or exhibited excess enthusiasm to finance a local real estate boom.'

Nowhere did prices rise more than in Florida. The so-called "Florida Land Boom" was the epicentre of a nationwide story of speculative mania.

The extreme character of the Florida boom was so historically significant that economist John Kenneth Galbraith (1954) described it as follows:

“The Florida boom was the first indication of the mood of the twenties and the conviction that God intended the American middle class to be rich.”¹⁶

The delusion was that the Florida swamps could be wonderful residential real estate.

In some parts of the state, prices reportedly increased by over 500% as people flocked to buy vacant lots, often sight unseen.

By 1925, Miami's population had doubled, and the city was seeing 300 new residents arriving daily at its peak.

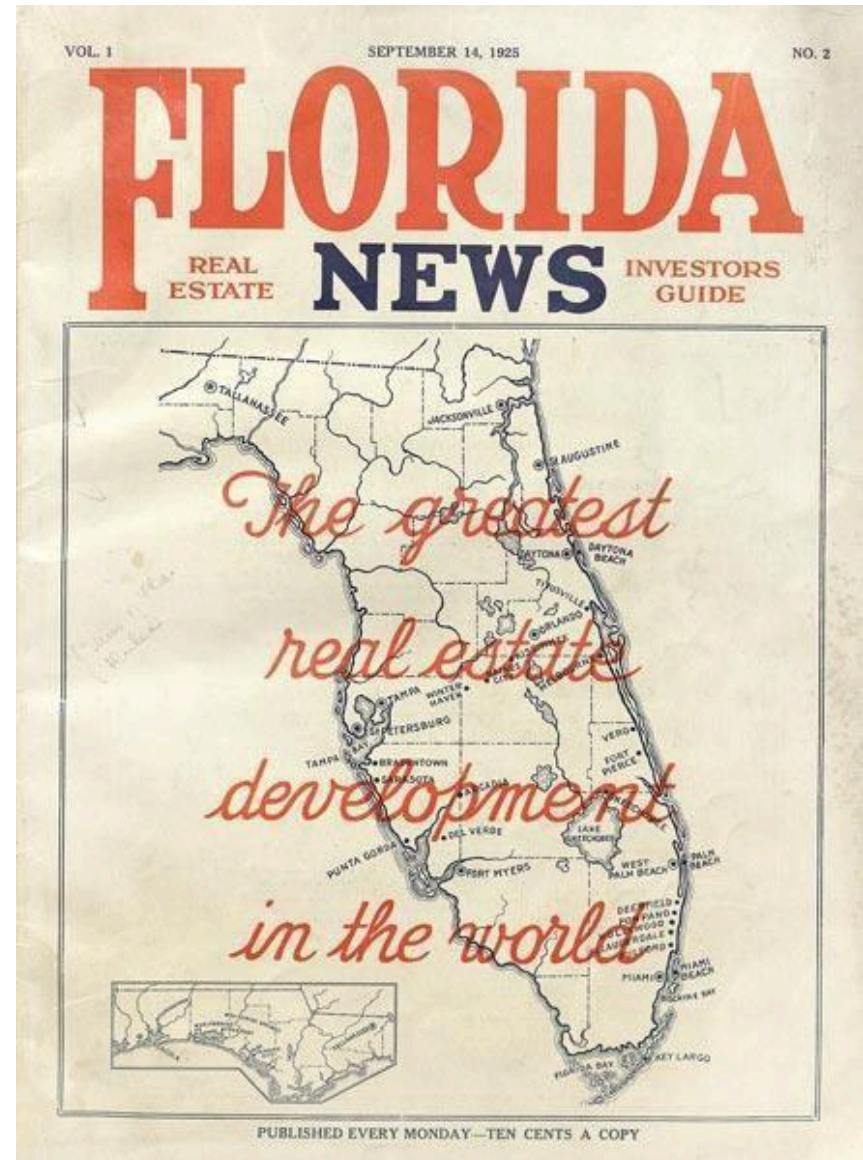
The state issued over \$1.5 billion in real estate mortgages between 1920 and 1925, an enormous sum for the time, demonstrating the extent of leverage employed in property transactions.

It couldn't last, of course.

In 1926, Florida's property bubble burst due to a mix of overbuilding, tax-evasion investigations, and the devastation of the Great Miami Hurricane of 1926, which killed hundreds, wiping out entire neighbourhoods in its path.

The collapse in investor confidence led to a sharp decline in property values, with some land losing up to 90% of its value.

Image: Florida News – September 14, 1925 – Real Estate and Investors Guide – “The Greatest Real Estate Development in the World”



¹⁶ White, E. N. (2008), Lessons from the Great American Real Estate Bubble: Florida 1926, [Conference Paper] National Bureau of Economic Research (NBER) Conference on Development of the American Economy, Summer 2008.

The bubble had not been limited to Florida. It was evident nationwide.

Manhattan, in the lead-up to the Great Depression, experienced a dramatic boom that peaked alongside Wall Street's speculative frenzy.

According to Nicholas and Scherbina (2012), property prices in Manhattan climbed steadily throughout the 1920s, reaching a local peak in 1926, then after a fall, climbing to their highest point in the third quarter of 1929 before collapsing by 67% by the end of 1932.

*"Our indexes reveal that prices for a typical property reached a local peak in 1926. They then fell and rebounded to reach their highest peak in 1929, coincidentally with the high point of the late 1920s stock market run-up. From then prices fell to a new low by 1932, and they did not recover for the remainder of the 1930s."*¹⁷

Depressions are never fun - but the 1930s Depression, known as the worst economic downturn in modern history, was on another level.

People lost their jobs, were evicted from their homes, and many ended up on the streets.

First-hand accounts describe the utter devastation of those years:

Have you ever seen a child with rickets? Shaking as with palsy. No proteins, no milk. And the companies pouring milk into gutters. People with nothing to wear, and they were plowing up cotton. People with nothing to eat, and they killed the pigs. If

that wasn't the craziest system in the world, could you imagine anything more idiotic? This was just insane.

And people blamed themselves, not the system. They felt they had been at fault: ... "if we hadn't bought that old radio" ... "if we hadn't bought that old second-hand car." Among the things that horrified me were the preachers - the fundamentalists. They would tell the people they suffered because of their sins. And the people believed it. God was punishing them. Their children were starving because of their sins.

*People who were independent, who thought they were masters and mistresses of their lives, were all of a sudden dependent on others...."*¹⁸

Between 1929 and 1932, property prices fell in lockstep with the stock market.

Median prices in Manhattan collapsed a whopping 67% by the end of 1932. There were widespread mortgage defaults, bank failures, and a prolonged period of devastatingly low property values that lasted for years.

However, out of the wreckage came the first serious attempts to understand how land speculation drives economic collapse.

Roy Wenzlick and Homer Hoyt led the way, uncovering a striking regularity in the data - an 18-year rhythm of boom and bust tied to land values.

¹⁷ Nicholas, T. and Scherbina, A. (2012), "Real Estate Prices During the Roaring Twenties and the Great Depression", *Real Estate Economics*, 41, pp. 278-309.

¹⁸ Facing History & Ourselves, 2016. *Firsthand Accounts of the Great Depression*. Available at: <https://www.facinghistory.org/resource-library/firsthand-accounts-great-depression>

Homer Hoyt

Homer Hoyt was an American economist and a pioneering real estate analyst. Between 1925 and 1934, while working as a real estate broker and consultant in Chicago, he earned his PhD in Economics from the University of Chicago.

His doctoral dissertation, *One Hundred Years of Land Values in Chicago: 1830–1933* (published in 1933 and reprinted in 1970), remains one of the most comprehensive historical studies of urban land markets.

Hoyt's research, conducted well before the advent of computers or

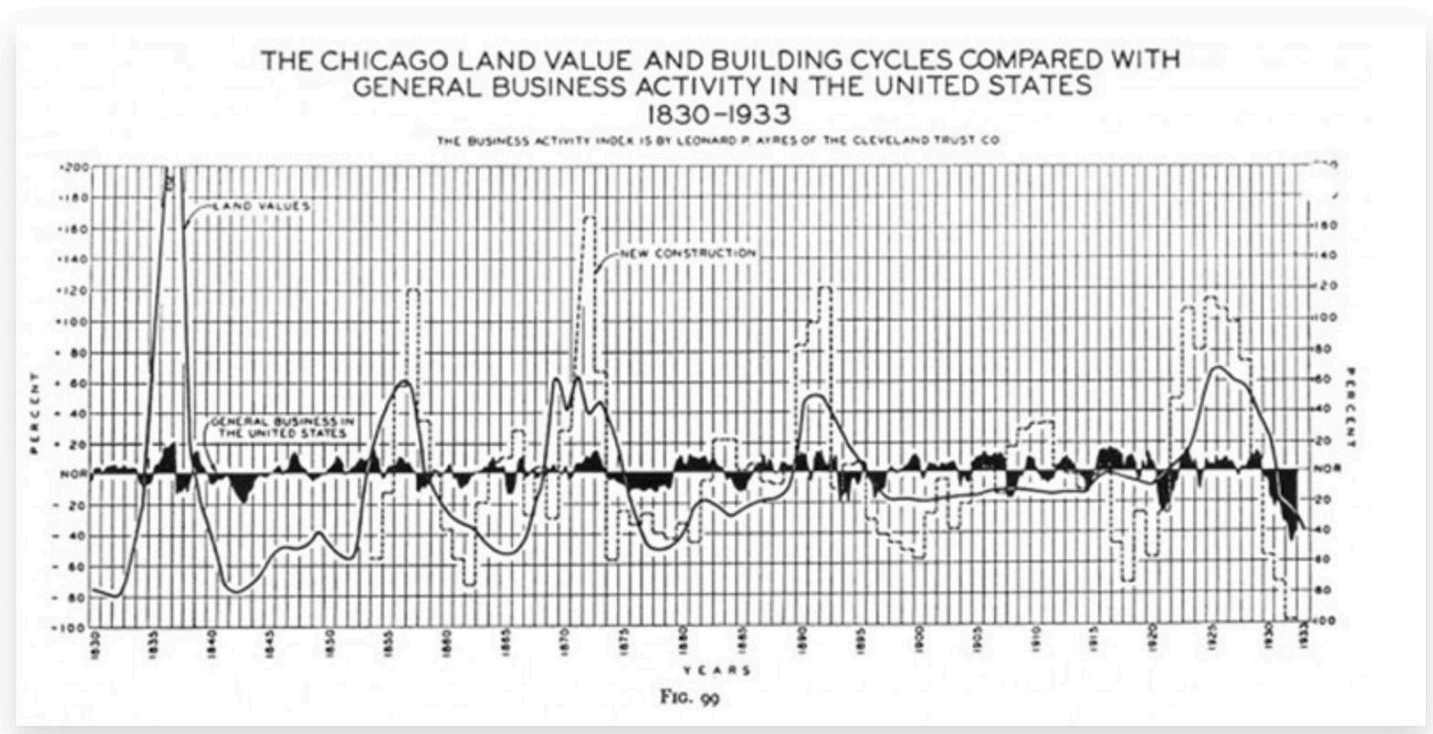
digital databases, involved a vast and meticulous collection of land sales data.

The first five chapters of his dissertation identify and analyse five major land cycles, each marked by a peak and subsequent collapse: 1837, 1857, 1873, 1893, and 1926–1929.

These cycles, spanning a century, reveal an average duration of approximately 18.4 years - offering one of the earliest empirical demonstrations of the land cycle's regularity.

The pattern is unmistakably visible in the chart reproduced below:

Image: *The Chicago land value and building cycles compared with general business activity in the United States 1830-1933.*



Source: Homer Hoyt, 1933. *One Hundred Years of Land Values in Chicago*.

In the final two chapters of his dissertation, Hoyt identified twenty distinct stages that recur in the same sequence throughout each land cycle, giving the process an almost clockwork regularity.

The way these phases interconnect (as elaborated in the impact notes below) offers a compelling framework for understanding how speculative land booms unfold - and for anticipating their turning points.

This makes Hoyt's framework a powerful tool for forecasting future market behaviour.

Figure 4: Hoyt's land cycle stages and impacts

Stage		Impact
1	Gross rents begin to rise rapidly.	Demand for property increases, allowing landlords to charge more.
2	Net rents increase even more sharply.	Operating costs remain stable, so profit margins grow faster than gross rents.
3	Selling prices of existing buildings rise due to increasing rents.	Investors value properties based on income - higher rents justify higher asset prices.
4	New construction becomes profitable	Elevated prices make development financially attractive.
5	The volume of new construction expands.	Developers respond to profitability with a surge in building activity.
6	Easy credit further stimulates building activity.	Cheap and abundant financing accelerates development.

7	"Shoestring" financing leads to excessive new construction.	Speculators borrow with minimal equity, pushing construction beyond sustainable levels.
8	Vacant land is absorbed, triggering a land boom.	Scarcity of undeveloped land drives up site values dramatically.
9	Optimistic population forecasts encourage further speculation.	Projected demand growth reinforces bullish expectations for land.
10	Developers envision "new cities" in undeveloped areas.	Speculative enthusiasm leads to grandiose, often unrealistic planning.
11	Lavish public spending on infrastructure takes place.	Governments invest heavily, reinforcing the speculative frenzy.
12	All real estate factors peak - land boom reaches its climax.	Prices, construction, and sentiment all hit unsustainable highs.
13	A slowdown begins - the market enters a lull.	Demand slows; oversupply becomes evident.
14	Foreclosures rise as financial strain increases.	Overleveraged owners begin to default on debt.
15	Stock market declines, and a general economic downturn follows.	The real estate bust spreads to broader financial markets.
16	The cycle enters a period of attrition.	Asset values erode slowly; confidence remains low.

17	Banks reverse their previous expansionary credit policies.	Tightened lending further dampens investment and recovery.
18	Foreclosures and stagnation continue, extending the downturn.	Losses accumulate, wiping out late-stage speculators.
19	The wreckage of the previous boom is eventually cleared.	Unprofitable projects are liquidated or absorbed, setting the stage for stabilisation.
20	The market is primed for another boom - but it does not happen automatically.	Favourable conditions emerge, but renewed confidence and capital are required for recovery.

Despite minor variations shaped by historical context, Hoyt's analysis revealed a remarkably consistent sequence in the unfolding of land cycles. At the time of its publication, his work was considered groundbreaking - not only for its methodological rigour but also for its practical application.

So compelling were its implications for anticipating market movements that the University of Chicago Press marketed the dissertation primarily as a forecasting tool for real estate professionals and speculators.

In their promotional materials, the publishers openly emphasised its commercial utility:

"This book... will help you make money. One sale alone can pay for it twenty times over. Wouldn't it help you make sales if you knew when Chicago land values will reach their next peak? What types of real estate have the best prospect for a rise in

value? In what areas of the city will the increase in land values be greatest in the next period of activity?"¹⁹

Hoyt's research remains one of the most comprehensive and empirically grounded studies of land value cycles ever undertaken. While his conclusions were drawn primarily from the historical land market dynamics of Chicago, they laid the foundation for broader inquiries.

Building on Hoyt's work, Roy Wenzlick would later demonstrate that the cyclical patterns Hoyt identified were not unique to Chicago but were echoed across the US real estate market more broadly, revealing a national rhythm in land value fluctuations.

Roy Wenzlick

Roy Wenzlick was immersed in the world of real estate from an early age.

His father, Albert Wenzlick, headed the Albert Wenzlick Real Estate firm in St. Louis, where Roy gained hands-on experience in property markets and data collection. In 1928, he founded the Roy Wenzlick Research Corporation and, by 1932, began publishing *The Real Estate Analyst*, serving as both editor and publisher.

At its inception, *The Real Estate Analyst* was the only national statistical forecasting service dedicated to the real estate sector – a pioneering achievement at the time.

Without the benefit of modern computing, Wenzlick's team manually gathered data from real estate firms, newspapers, local government records, and other sources. This painstaking work

¹⁹ Hoyt, H. (1933), *One Hundred Years of Land Values in Chicago*, [Promotional Material], University of Chicago Press.

positioned him as one of, if not the first, to systematically compile and analyse property market data for forecasting purposes.

Wenzlick's expertise was sought by banks, insurance companies, and institutional investors for property valuation. Yet his enduring passion lay in economic forecasting - particularly in identifying the cyclical patterns underlying land values and their impact on broader economic conditions.

"When I started accumulating data on urban real estate in 1928 it was, insofar as I know, the first attempt in the world to undertake this type of real estate research on a commercial basis.

In the 38 years that have elapsed since then I have accumulated vast amounts of information in an attempt to reduce rough and inaccurate descriptive terms to quantitative measures.

I have been primarily interested in studying fluctuations in the past, and in answers to the questions of, "how much?" "how long?" and "why?"

The field is so large, however, that sometimes I feel I have only scratched the surface, but I have considerable confidence in research techniques and in the cumulative value of measured data.

It seems to me that real estate forecasting should constantly become more accurate and reliable...²⁰ (Inflation and Real Estate (1966), Wenzlick)

In 1936, amid the depths of the Great Depression, Wenzlick published his landmark book *The Coming Boom in Real Estate*. It went on to become a New York Times bestseller.

In it, he outlined his forecast for a sustained upswing in real estate activity, projecting a peak between 1943 and 1945, followed by a cyclical low around 1955. His predictions were grounded in extensive data analysis and a belief in the regularity of land value cycles - even during a period when optimism in real estate markets was scarce.

"Every real estate boom in the history of this nation had passed through the same stages in the same sequence. The coming boom will be no exception... large contractors will do well, and owners of office buildings will again realize handsome returns on their investments.

When this stage arrives, the boom will have reached its crest... When will it arrive? Probably not until 1943 or 1944." (The Coming Boom in Real Estate and What to Do About It (1936), Wenzlick)

It was a bold and controversial forecast - yet history validated it.

In the aftermath of World War II, real estate markets in both the US and the UK surged during the 1940s post-war boom. Housebuilding in the US surged between 1946 and 1950, with housing starts peaking at 1.95 million in 1950.

However, the US economy slipped into a recession in 1953, triggering a sharp slowdown in residential construction. By 1954, housing starts had fallen to 1.3 million. Home prices declined. As Wenzlick had predicted, this upswing culminated in a mid-1950s

²⁰ Wenzlick, R. (1966), *Inflation and Real Estate*, St. Louis: Real Estate Research Corporation.

downturn, roughly 18 years after the 1933 bottom. His cyclical model had played out with remarkable accuracy.

Wenzlick's book, *The Coming Boom in Real Estate*, resonated widely with the public. It sold over 100,000 copies in its first year and secured a place on The New York Times Best Sellers list, alongside literary classics such as *Gone With the Wind*.

When the book was reissued 34 years later, in January 1970, the *Greater Portland Commerce* publication described it as follows:

*'The Coming Boom in Real Estate, published in 1936 and reprinted in the Reader's Digest, was such an accurate forecast that it was reprinted 25 years later without changing a single word.'*²¹

Wenzlick's foundational evidence for the existence of an 18-year real estate cycle is captured in the chart reproduced opposite.

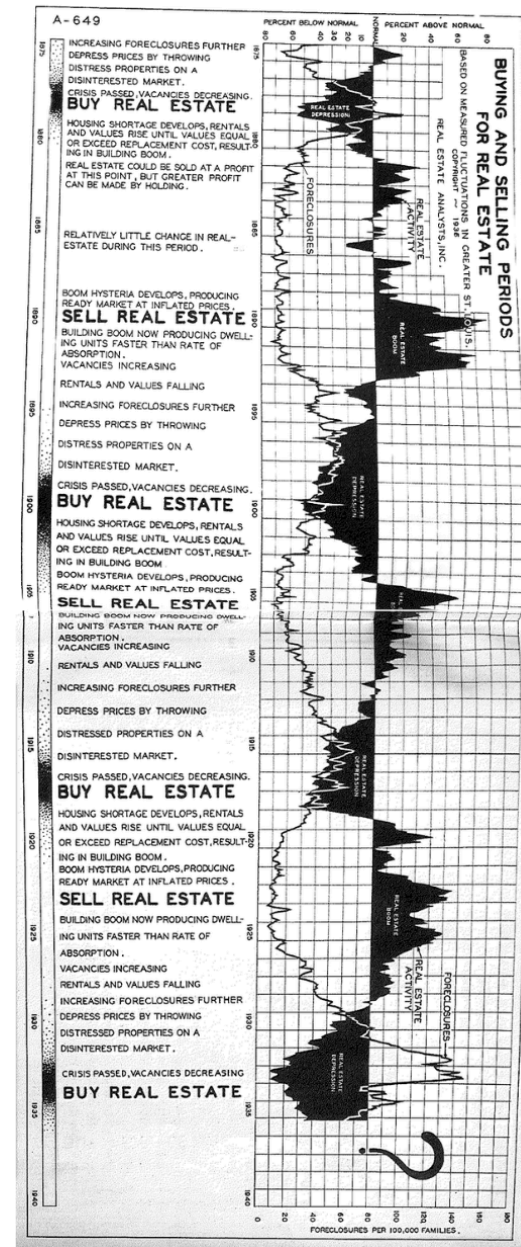
The chart presents a classic boom–bust framework driven by the basic dynamics of supply and demand. For ease of reference, the chart's script is transcribed below:

BUY REAL ESTATE

Housing shortage develops, rentals and values rise until values equal, or exceed replacement cost, resulting in building boom. Real estate could be sold at a profit at this point, but greater

Image: *Buying and selling periods for real estate.*

Source: *The Coming Boom in Real Estate and What to Do About It* – Roy Wenzlick, 1936



²¹ Wenzlick, R.(1936), *The Coming Boom in Real Estate*, Simon & Schuster, New York

profit can be made by holding. Relatively little change in real estate during this period.

Boom hysteria develops, producing ready market at inflated prices.

SELL REAL ESTATE

Building boom now producing dwelling units faster than rate of absorption,

Vacancies increasing, rentals and values falling.

Increasing foreclosures further depress prices by throwing distressed properties on a disinterested market.

Crisis passed, vacancies decreasing.

The chart, taken from Wenzlick's 1936 publication, clearly identifies peak real estate activity in the years 1872, 1890, 1906, and the 1920s, with corresponding troughs in 1878, 1900, 1918, and 1933. From this sequence, Wenzlick inferred an average cycle length of 18.3 years.

These were not minor price movements - real estate's boom and bust phases proved far more extreme than typical business cycles, underscoring land's status as one of the most cyclical asset classes in economic history.

Much of Wenzlick's analysis was rooted in a clear understanding of supply-side variables including construction costs, vacancy rates, and replacement values. His genius lay in linking these fundamentals to the rhythm of the broader cycle - a skill that set him apart from his contemporaries.

CHAPTER 6 – The forgotten analysts

They mapped the land cycle uncovering the lead indicators.

Hoyt and Wenzlick were not the only ones to spot the cyclical pattern; other researchers of the era delivered remarkable feats of analysis that deserve attention if we're serious about deepening our understanding of the land cycle.

Across the US - and even internationally - other researchers, working independently, and often from entirely different angles, identified the same repeating cycle. Perhaps most significant among them was Dr John R. Riggleman (1895 -1974).

As a senior figure in the Division of Building and Housing at the US Department of Commerce during the Great Depression, Riggleman had a front-row seat to one of the most turbulent periods in America's economic history. What he uncovered would cement his legacy as one of the earliest and most rigorous analysts of real estate cycles.

Long before most economists were even thinking about construction trends, Riggleman co-authored "*Building Cycles in the United States, 1875–1932*"²², later updating his research in "*Business Statistics*" co-authored with Ira N. Frisbee, in 1938.²³

Based on the available evidence, Dr Riggleman was the first to systematically track and publish a quantitative analysis of US building cycles using hard construction data. The analysis laid the foundation for much of what we know today about the timing and mechanics of the land cycle.

What he discovered was a consistent, near-perfect rhythm in real estate cycles stretching back over a century. He found building booms peaking in 1836, 1853, 1872, 1890, 1909, and 1925 - spaced almost 18 years apart. The lows from 1843 to 1934 mirrored this cadence, averaging 18.2 years between troughs.

These weren't minor fluctuations. The amplitude of the building cycles he evidenced dwarfed that of general business activity, confirming that real estate moves to a deeper, more powerful rhythm, making the economy far more vulnerable to speculative booms and busts.

Riggleman didn't just chart construction data - he uncovered the rhythm of the land cycle charted through construction activity, decades before most economists even knew it existed.

The chart below demonstrates an overview of Riggleman's findings.

²² Riggleman, J. R. (1933), "Building Cycles in the United States, 1875–1932", *Journal of the American Statistical Association*, 28(182).

²³ Riggleman, J.R. and Frisbee, I.N. (1938) *Business statistics*. New York: McGraw-Hill.

Image: General business cycles compared with building cycles, United States, 1830-1937

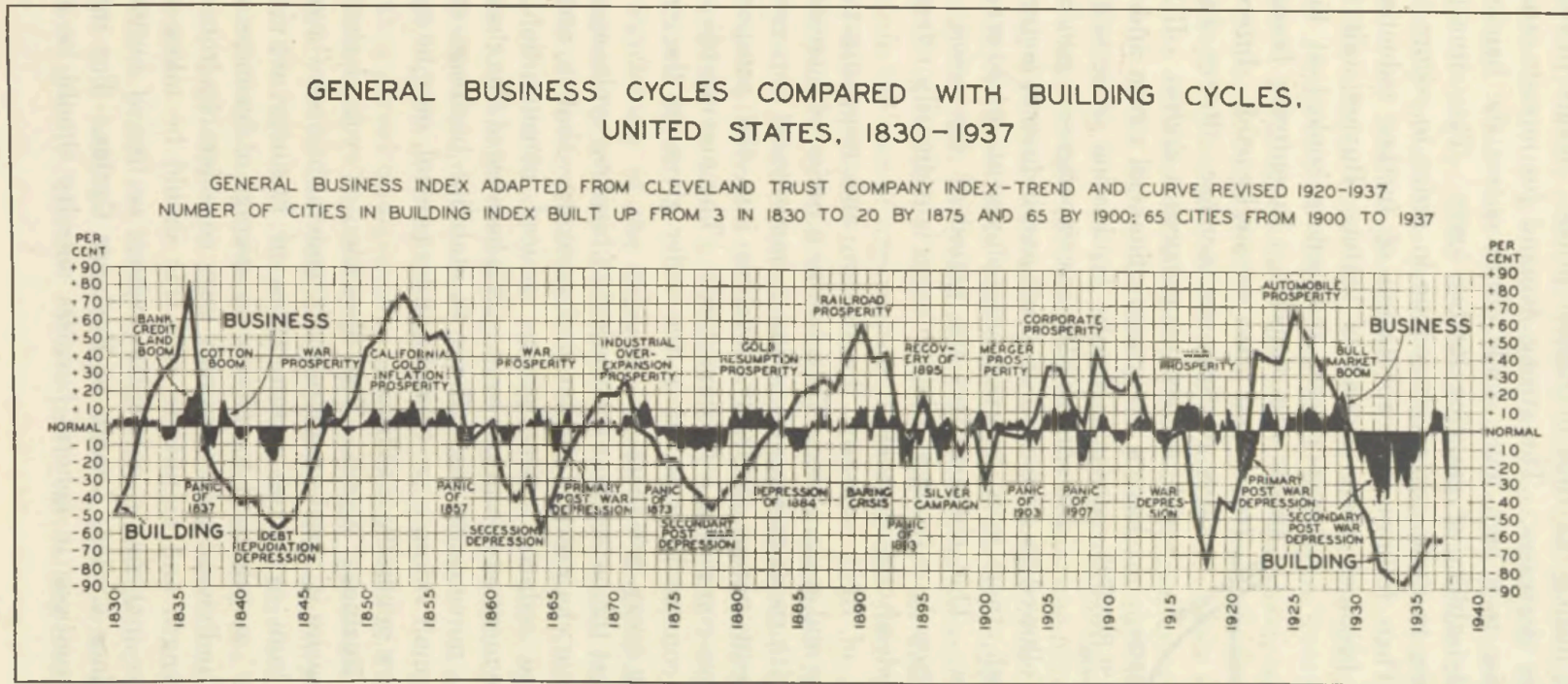


EXHIBIT 158.—The shaded curve shows how general business has swung above and below the normal expectations for each year from 1830 to 1937, inclusive. Note, especially, the boom of the middle 1830's and the panic of 1837; the "golden age" of the early 1850's and the panic of 1857; the overexpansion of the early 1870's, the panic of 1873, and the long depression of the 1870's; the prosperity of the early 1880's and the depression of 1884; the prosperity of the early 1890's and the great panic of 1893; the decline in 1896; the minor panic of 1903; the prosperity from 1905 to 1907 and the panic of 1907; the War prosperity; the primary postwar depression; the automobile prosperity and bull market boom of the 1920's; and the great depression of the 1930's. The index of building cycles is indicative of the much greater swings that characterize building activity and certain other lines of business that do not move in short cycles like those of general business. (For descriptions of indexes, see Appendix VI, pages 719-722.)

Source: Riggelman, J.R. and Frisbee, I.N. (1938) Business statistics, McGraw-Hill, New York

The chart compares general business cycles (shaded curve) with building cycles in the US from 1830 to 1937.

The building cycle is based on the number of cities included in a building index (i.e. tracking how widespread building activity was over time).

But there was one key observation important to our analysis: building activity peaks and then declines before general business activity does. For example, around 1836, there was a construction peak, followed by the business peak a little later, just before the Panic of 1837. The same happens around 1853–1857, 1872–1873, and 1925–1929. Each collapse in construction foreshadows economic downturns - sometimes by several years.

Building activity drops markedly before major business slumps, including:

- The Long Depression (1870s),
- The Panic of 1907,
- The Great Depression in the 1930s.

The volatility of the construction cycle is more pronounced than the general business cycle. This reflects both the speculative drivers of construction and its sensitivity to sentiment and credit, making it one of our best early warning signals for what lies ahead.

Riggleman wasn't the only one uncovering these patterns beneath the land cycle. American economist, academic and Congressman Clarence D. Long later built on this foundational work with his 1940 paper "Long Cycles in the Building Industry"²⁴ - correlating annual

data on residential and non-residential construction from around the 1870s to 1935.

Within that study, he commented:

The average length of fluctuations in the two types of building since the Civil War has been eighteen or nineteen years, with close agreement between the various building types.

Although there has been little difference in length between one type of building and another within the same period, differences between one cycle and the next have been considerable.

The shortest fluctuation, the one following the Civil War, lasted only fourteen to sixteen years.

Only slightly longer than this was the cycle following the World War.

At the other extreme was the movement ending about 1900, which lasted 21 to 23 years.

Of the four cycles since the 1860's, the cycle before the World War was the only one to agree in length with the average.'

As the decade wore on, other scholars were picking up the scent of the same drivers behind the economic boom and bust.

In the United States, Lewis A. Maverick's 1932 study *Cycles in Real Estate Activity*²⁵ tracked property data across Los Angeles, San Francisco, and Alameda Counties from 1865 to 1929. He pinpointed peaks in 1869, 1889, 1906, and 1926, and troughs in

²⁴ Long, C. D. (1939) "Long Cycles in the Building Industry." *The Quarterly Journal of Economics*, 53(3), pp. 371-403.

²⁵ Maverick, L. A. (1932), "Cycles in Real Estate Activity," *The Journal of Land and Public Utility Economics*, 8(2), pp. 191-199.

1882, 1898, and 1918 - averaging 18 to 19 years between each turning point.

"Peaks in Los Angeles County activity are found in 1887, 1906, and 1923, suggesting a cycle approximately 18 years in length.

The northern study showed a later date for each of these peaks and suggested a 15 or 16-year cycle, though the estimate of the shorter period was based in part upon happenings prior to 1880.

If the peak of the early activity were considered to occur in 1870 rather than later in that cycle, the length of the periods in subdivision activity in the northern section of the State would have been found more nearly in agreement with the 18-year period observed for Los Angeles County."²⁶

His findings further reinforced the idea of a land cycle that lasts, on average, 18 years.

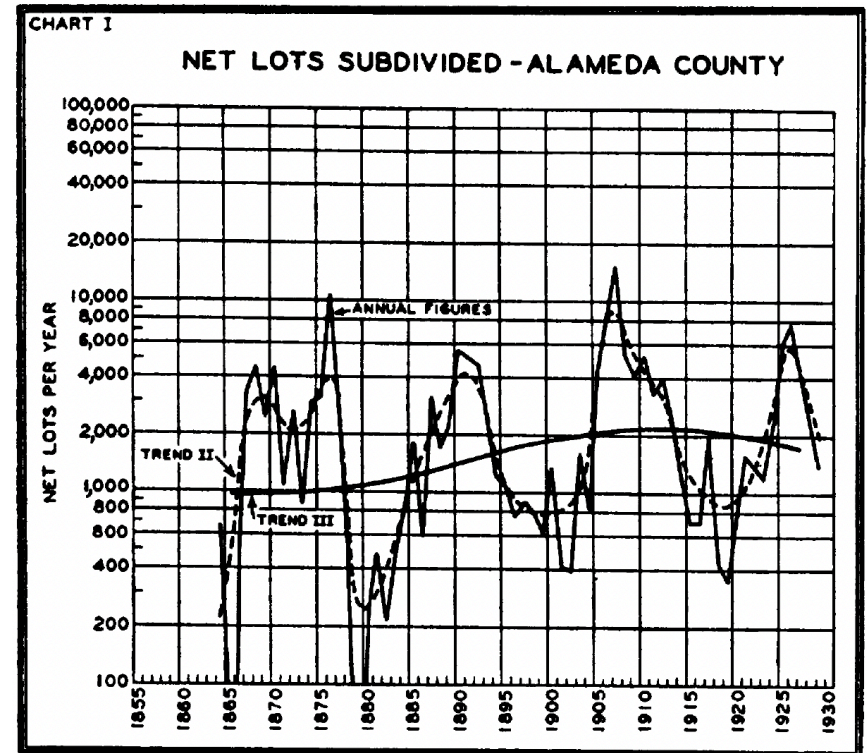
The land cycle is global

Meanwhile, on the other side of the Atlantic, two economists were about to weigh in on the case with a fresh line of evidence. They were Dr Frank A. Pearson and George F. Warren, two brilliant minds from Cornell University, whose analysis in the 1930s proved that the land cycle was global.

Warren wasn't just any academic - he was a trusted adviser to President Franklin D. Roosevelt during the darkest days of the Great Depression. His counsel helped guide the US off the gold

²⁶ Maverick, Lewis A. (1932). *Cycles in Real Estate Activity*. The Journal of Land & Public Utility Economics, pp 191-199, 8(2), May.

Image: Net lots subdivided - Alameda County



Source: Lewis A. Maverick, *Cycles in Real Estate Activity* (San Antonio: Principia Press, 1932).

standard in 1933 in a desperate bid to break deflation's grip.

Before making presidential history, Warren, alongside Pearson, was poring over decades of real estate prices and building activity, including data in London from 1871 to 1935.

Their seminal work was entitled *World Prices and the Building Industry* (1937). In the publication, Pearson quotes an article by H. A. Shannon, entitled *Bricks - A Trade Index, 1785-1849*. Bricks were the primary material used in construction at the time. When land

values soared, brick production surged. When the cycle collapsed, demand for building materials plummeted. But importantly, Pearson, in his analysis, noted that the production data revealed “definite cycles... about 16–18 years in length.”²⁷

What makes the chart opposite so powerful is that it shows bricks leading - not lagging - the economic collapses.

In other words, as others had identified, building activity was already collapsing before the economy followed. The post-Napoleonic depression, the slump of the late 1820s, and the economic crash of the 1840s were all preceded by a sharp fall in brick output.

There’s a tremendous amount to glean from Warren and Pearson’s publication. As they make clear in the opening sentence of their book, land (and the materials derived from it) serves as both the fundamental economic driver and a leading indicator of imminent economic distress.

“The most important single business indicator is the index of prices of basic commodities. The second most important is the building cycle.”

They also emphasise in the final chapter that when rising commodity prices occur at the same time as rising building activity, it supercharges the booms, leading to crashes that hit harder and longer, just as they’d witnessed in 1929.

Their findings highlight a clear cyclical pattern in global real estate markets. London’s construction activity, for example, shows “definite periods of over- and under-building in London”²⁸ lasting

²⁷ Warren, G. F. and Pearson, F. A. (1937), *World Prices and the Building Industry, 1871–1935*, McGraw-Hill Book Company, New York.

²⁸ *ibid.*

Image: Bricks produced per capita in England and Wales, 1785-1849.

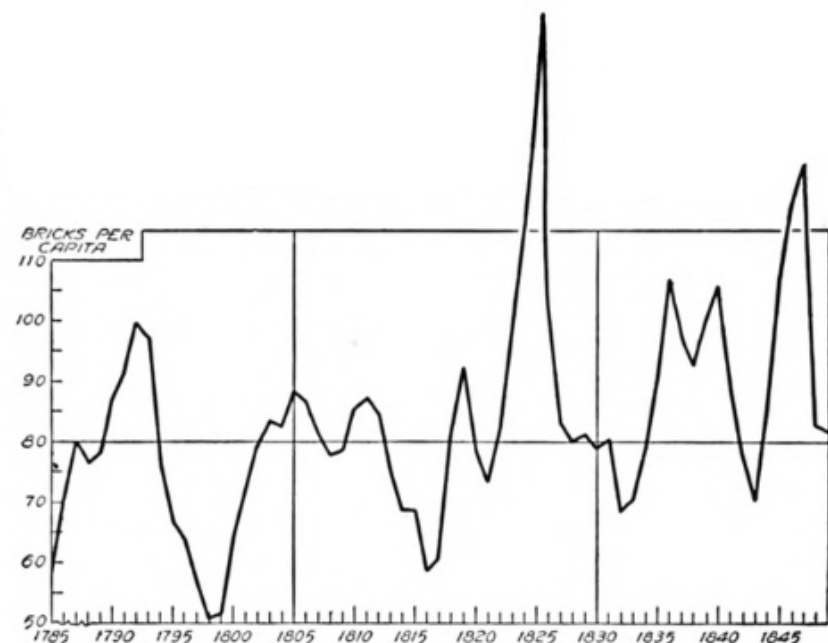


FIGURE 26.—BRICKS PRODUCED PER CAPITA IN ENGLAND AND WALES, 1785-1849.
There were fairly definite cycles in brick production about 16 to 18 years in length.

Source: Frank A. Pearson and G.F. Warren, *Real Estate Prices and Building Activity in London, 1871–1935*, Cornell University Agricultural Experiment Station, Bulletin No. 655 (Ithaca, NY: Cornell University, 1937).

around 18 years.

Pearson also charted the total number of new buildings constructed in the city of Hamburg, Germany, from 1885 to 1935. Once again, the data revealed a consistent, repeating cycle.

Beneath the chart, Pearson observed:

*"Peaks in construction occurred in 1890, 1910, and 1928; low points occurred in 1897, 1919, and 1934."*²⁹

The timing of those peaks was around 18 years apart.

Pearson and Warren didn't just chart the regular rise and fall of construction activity across decades and countries; they also uncovered the way those waves shaped everything from railways to interest rates. Reading their work is an education in how the land cycle impacts the broader economy.

*"Activity in building construction seems to have a considerable bearing on the business and revenues of railways... and on extension of mileage and other railway expenditures."*³⁰

In other words, construction has a "strong influence" on the iron and steel industry - hence we also see new highs in core building materials, such as copper, prior to the land cycle collapse.

Construction also touched shipbuilding, as transport needs to expand through periods of high construction activity:

*"The tonnage of vessels built fluctuates with the building cycle."*³¹

What they found about banking and credit still applies today:

*"Among all the statistical series... those which appear... to show the closest correspondence with building activity are the indices of bank loans and discounts and of interest rates."*³²

²⁹ ibid

³⁰ Harrod, R.F. (1938), 'Review of World Prices and the Building Industry by G.F. Warren and F.A. Pearson', *The Economic Journal*, 48(190), pp. 317–319.

³¹ ibid

³² ibid

In other words, what happens in construction or the land market doesn't stay there - it moves capital, drives borrowing, and dictates where the money lands in financial markets.

The authors noted:

*"Loans and discounts... follow changes in building construction with a lag of about 3 years."*³³

And while day-to-day interest rates might not always match building trends, the smoothed-out data told a different story,

*"A 3 or 5-year moving average of interest rates would show an extraordinary degree of correspondence with the index of concurrent building activity."*³⁴

The building cycle (aka the land cycle) offers one of the clearest early warning systems for the economy at large - well before broader business activity starts to shift. Their observations were not just a study about real estate – but a roadmap to where money flows through the land cycle.

Building surges signal future economic pain

A.K. Cairncross, one of Britain's most influential post-war policy minds, who later served as Chief Economic Adviser to the UK Treasury from 1961–64, is often overshadowed in discussions about land cycles, but his contribution was foundational for British cycles research.

In 1934, at just 22 years old and while still a student at Cambridge, Cairncross published *"The Glasgow Building Industry (1870–1914)"* in the *Review of Economic Studies*.

³³ ibid

³⁴ ibid

His meticulous analysis of housing, demolition rates, rents, site values, and heavy industry activity over a 44-year span demonstrated that Glasgow's construction industry moved in long, repeating waves of around 20 years.

A little later, in a landmark 1956 paper, *Fluctuations in Building in Great Britain*, Cairncross and statistical researcher B. Weber untangled a further six decades of British construction history from 1785 to 1849.³⁵

They observed that the building cycle was not trailing the economy; it was leading it. In doing so, they also clarified the duration of the land cycle. Comparing multiple building-material series, they found a striking similarity in movement, concluding that brick production was 'undoubtedly the most satisfactory' indicator of building activity.

*"There is a general similarity in the movement of all the series. A rise beginning early in the 1780s seems to have been checked in 1788 or 1789 and, when resumed, continued until 1793 or 1794. From then until the next trough in 1799 there was a gradual fall, temporarily checked in 1796. This cycle of about eighteen years was followed by a second of the same length with a fresh trough in 1816 or (less probably) in 1817."*³⁶

The conclusion?

Construction activity surged ahead of other economic metrics, particularly in London and Liverpool, then crashed just as hard - well before broader economic pain set in. This made it one of the clearest real-world signals for what was coming next.

³⁵ Cairncross, A. K. and Weber, B. (1956), 'Fluctuations in Building in Great Britain, 1785-1849', *The Economic History Review*, 9(2), pp. 283-297

³⁶ *ibid*

*"Of all the series, that for bricks is undoubtedly the most satisfactory... [and] the building industry... was the first to turn from boom to slump while other construction, including railway construction, lagged behind."*³⁷

The list of researchers into the land cycle is extensive. There are many more than those highlighted above, such as William H. Newman's 1935 work *The Building Industry and Business Cycles*³⁸, which also concluded that construction peaks reliably preceded economic downturns in major building cycles, ranging on average, around 15 -20 years in length.

Also worthy of mention is the landmark 1976 study *Long Cycles in Real Estate*, by Manuel Gottlieb, which offered one of the most comprehensive empirical investigations into real estate cycles ever conducted.

Gottlieb's work analysed building activity, financial data, and demographic trends across ten major countries, including the United States, the United Kingdom, Sweden, France, Australia, the Netherlands, Germany, Canada, Italy, and Japan.

Despite institutional and policy differences between the countries, both local and national building cycles consistently demonstrated durations typically clustered between 15 and 25 years.

For national building activity, the records covered 28.5 long specific cycles in residential or total building in seven countries. Local cycles varied widely in duration, with a substantial clustering between fifteen and twenty-five years

³⁷ *ibid*

³⁸ Newman, W. (1935), *The Building Industry and Business Cycles*, University of Chicago Press

*and with fewer than 5 per cent of the long cycles running over twenty-five years.*³⁹

Gottlieb confirmed that Australia wasn't immune to the long rhythms of real estate booms and busts. In fact, he identifies a cycle trough in Victoria in 1866, aligning Australia with the global pattern of mid-19th-century economic downturns.

However, the data for Australia was patchier than for other countries due to differences in land policies and population growth at the time, which meant he couldn't always trace these patterns as precisely as in US cities.

Building permits a strong cycle predictor

Nearly a century after the initial cyclical analysis of land and real estate markets, the same insights continue to unfold.

Building on the earlier work of Clarence Long and John Riggleman, a landmark 2023 study titled *Housing Is the Financial Cycle* by Cameron LaPoint and Gustavo Cortes, analysing a century of US data, reveals that building permit activity - particularly sharp surges followed by abrupt declines - is among the most reliable indicators of impending financial market turmoil.

Their findings show that, in cities with elastic housing supply, construction booms consistently foreshadow financial crises with greater accuracy than credit indicators.

We show that the option to build embedded in permits renders volatility in residential building permit growth (BPG) a strong

*predictor of aggregate and cross-sectional stock and corporate bond return.*⁴⁰

The conclusion is unambiguous. Land isn't simply a symptom of economic forces - it is a primary engine.

Across all the studies cited above - from Wenzlick and Hoyt to Cairncross, Maverick, Riggleman, and LaPoint – an average 18-year cycle appears consistently. Despite differences in location (US, UK), method (building permits, land values, construction activity), or material tracked (e.g., brick production), they all converge on the same rhythmic boom-bust structure.

The common drivers identified in each study are as follows.

1. Credit expansion and speculation
 - Hoyt, Wenzlick, and Riggleman & Frisbee all emphasised how credit availability fuels land speculation, which then drives sharp increases in construction and values, eventually leading to busts when credit tightens.
 - Maverick observed the same in California - rapid run-ups in land prices followed by collapse, aligning with lending cycles.
 - LaPoint & Cortes confirmed that building booms (often credit-driven) are leading indicators of financial instability, reinforcing the importance of real estate in macroeconomic dynamics.

³⁹ Gottlieb, M. (Ed.) (1976), 'Long Swings in Urban Development'. *National Bureau of Economic Research*, NBER Books, National Bureau of Economic Research Inc, pg 11.

⁴⁰ Cortes, G. S., and LaPoint, C. (2025), *Housing Is the Financial Cycle: Evidence from 100 Years of Local Building Permits*. University of Florida and Yale School of Management, 5, p. 1

2. Construction response and overbuilding

- Pearson & Warren, Shannon, and Cairncross & Weber all identified that overbuilding follows a predictable pattern, closely tied to population expectations, rent levels, and material demand (e.g. bricks). Their data shows that builders often oversupplied the market in anticipation of continued demand - just as speculative optimism was peaking, an indication that excessive demand for building materials precedes each cycle bust.
- More recent research, like that of LaPoint and Cortes, makes this connection more explicit. They show that sudden increases in building permits - often fuelled by easy credit - are one of the clearest early signals that a market is overheating. Importantly, building permits, as analysed by LaPoint & Cortes, serve as a proxy for this supply-side overreaction.

3. Population growth and housing demand

- Cairncross noted that fluctuations in construction were aligned with the number and income of potential tenants, reinforcing the role of demographic pressure.
- Although not always foregrounded, many studies acknowledge population and migration as underlying demand drivers that set the stage for cycles, but on their own, they don't trigger turning points without speculative amplification.

4. Speculative euphoria and sentiment

- Nearly every study - from Wenzlick's identification of the boom hysteria phase to Hoyt's 20 stages of the land cycle - underscores the role of market sentiment, especially once fundamentals (like rent growth) are overtaken by speculative momentum. In other words, at some point in the cycle, rational price growth driven by genuine demand gives way to speculative euphoria - driven by greed for economic rent.

5. Building permits as a leading economic indicator

- The most modern of the studies, LaPoint & Cortes, brings this full circle - housing (aka land) is not a passive economic sector - it is the cycle itself. The title of their paper, *Housing Is the Financial Cycle*, says it plainly.
- Their claims directly validate what earlier researchers like Wenzlick and Hoyt observed - that land booms lead, rather than follow, economic downturns.
- LaPoint & Cortes show that sudden increases in building permit activity precede significant downturns in financial markets and thus economic recessions. Permit activity serves as a critical barometer of economic vitality.

Permit activity as a lead activity makes sense when we consider that the construction industry is a cornerstone of the national economy, which, in Australia, accounts for about 9.3% of the total workforce.⁴¹

⁴¹Construction workforce share, Jobs and Skills Australia
<https://www.jobsandskills.gov.au/data/occupation-and-industry-profiles/industries/construction>

The ripple effects of construction extend into numerous ancillary sectors, including finance, insurance, real estate, manufacturing and retail.⁴² Given this extensive interconnectivity, fluctuations in building permit activity foreshadow broader economic trends.

A surge in building permits signals late-cycle excess, reflecting peak optimism, abundant credit, and a delayed supply response to rising prices. Permit booms typically precede economic downturns.

When the additional supply eventually comes to market demand weakens, vacancy rates rise, construction slows abruptly, and job losses spread well beyond the housing sector.

Monitoring these trends is crucial for anticipating economic shifts, including rapid declines in stock prices. Building permits in Miami peaked at \$65.7 million in 1925 and plummeted to \$1.2 million by 1928, preceding the Wall Street Crash that led to the Great Depression. Florida's permit activity was also a leading indicator prior to the 1973 OPEC Recession. Building permits in the state peaked five months prior to the 1973/74 recession, indicating a similar pattern of overbuilding prior to the stock market crash and economic downturn.

We can also cite examples in Australia. Data from the Australian

⁴² Small businesses in the construction sector contributed \$86.7 billion in value added in 2022–23, highlighting the industry's expansive economic footprint, as reported by the Australian Small Business and Family Enterprise Ombudsman <https://www.asbfeo.gov.au/sites/default/files/2024-09/Contribution%20to%20Australian%20GDP.pdf>

Bureau of Statistics (ABS) indicates that building approvals reached a peak in the late 1980s, with a notable decline commencing around 1989, preceding the early 1990s stock market crash and economic recession.

Additionally, prior to the GFC, approvals in Australia peaked in April 2007 before they began declining in the second half of 2007 and into 2008.

Once again, it was a clear early signal of the housing market cooling ahead of the broader economic impacts of the GFC.

Real estate/land cycles are not random

The recurring land cycle has been independently verified across different eras, countries, and economic conditions. The length of each cycle varies slightly - some lasting 16 years, others up to 20 - but the rhythmic nature of real estate peaks and collapses that last on average 18 years is undeniable.

In fact, so well-studied is this cycle that history repeatedly shows us that real estate is one of the most predictable asset classes. Yet, time and time again, economists, policymakers, and the public fail to recognise the cycle in motion - until it's too late.

As the research from Hoyt, Wenzlick, Riggelman and others demonstrates, the 18-year cycle emerges wherever credit, constrained supply and speculative expectation converge.

From the mid-20th century onward, Australia developed exactly these conditions.

CHAPTER 7 - A history of booms & busts: the Australian land cycle

In Australia, the 18-year cycle has not always been as clearly defined in the real estate market as it has in the US and the UK. This is primarily because it only becomes apparent when speculation on rising land values is in play.

For long stretches of Australia's history, land prices remained relatively stable and affordable. This was largely due to government interventions, including federal land taxes (1910-1953), rent controls (1941), as well as state-based land taxes, which also played a part.

The main differences between Australia's early history and that of the US are summarised in the table opposite.

When Australia did suffer a significant land price collapse, however, the timing correlated with the end of the 18-year land cycle in the US, as outlined on the Gann Financial Timetable.

These price collapses occurred in the 1840s, 1890s, and 1930s, each of which is outlined as follows.

Figure 5: US Australian cycle factor comparison

Factor	United States	Australia
Speculation Culture	Deeply embedded from early on (1800s land speculation, railroad expansion, Florida boom, etc.).	Speculation existed, but credit was more restricted, and land taxes played some role.
Financial Deregulation	Private banks and easy credit enabled speculation earlier in US history compared to Australia.	Banking was more controlled until the late 20th century.
Taxation & Land Policies	No strong land value taxation, allowing rent-seeking to flourish.	The Federal Land Tax (1910-1952) and state land taxes slowed speculation, discouraging land hoarding.
Mortgage Market	Banks offered speculative mortgages in the 1920s & post-WWII period.	Australia had stricter mortgage controls: housing credit was limited until the 1970s.
Rent Controls	Rarely implemented, allowing market rents to rise freely.	Various rent controls, particularly during wartime and into the post-war era, kept land rents from escalating as sharply, reducing the gains investors could make.
Great Depression	Massive real estate bust (1929-1934).	Less extreme property bust, perhaps due to stricter financial controls in the lead-up.
Major Crashes	Regular land cycle crashes: 1819, 1837, 1857, 1873, 1893, 1929, etc.	Less frequent national crashes but major downturns align with the US land cycle in the early 1840s, early 1890s, and the 1930s Great Depression, due to land speculation booms.

Early 1840s: The first great depression

In the late 1830s, Australia underwent rapid economic expansion, leading to extensive land speculation.

Rapid growth was driven by expanding land settlement and a surge of capital inflows from Britain. In response, existing banks broadened their operations; British banks established a local presence, and new colonial banks quickly emerged to meet the demand.

In June 1841, The Sydney Gazette reported on the rapid escalation of land values due to speculative activities:

*"Those gentlemen who have been fortunate enough to obtain special surveys in our province, have had ample reason to be thankful. Mr Rutledge has disposed of one acre of his special survey on the Sydney road (which cost him £1) for £100..."*⁴³

The speculative frenzy culminated in a financial collapse in the early 1840s. Six banks failed during this period, marking Australia's first wave of bank failures. The widespread insolvencies led to a severe economic depression. Historian Douglas Pike, in his essay on the 1840s depression in New South Wales, highlighted the devastation:

*"The Insolvent Office in Sydney handled more than 1,900 cases between 1842 and 1849, reflecting the scale of personal and commercial ruin."*⁴⁴

⁴³ The Sydney Gazette and New South Wales Advertiser (1841) 'Special Surveys', *The Sydney Gazette and New South Wales Advertiser*, 10 June, p. 2

⁴⁴ Pike, D. (1967), 'Essay on 1840s Depression', *Australian Dictionary of Biography, Volume 2: 1788-1850, I-Z*, Melbourne University Press, Melbourne.

Squatters and speculators alike were wiped out, and the economic damage was deep.

1890s: Land boom and bust

In the late 1800s, Melbourne earned its nickname "Marvellous Melbourne" – not because of industry or innovation, but because of an extraordinary land boom. Grand mansions still line St Kilda Road, remnants of a time when speculation, not productivity, drove the city's economy.

Victoria's goldfields were among the richest in the world. Immigrants flooded in from every corner of the globe, drawn by stories of nuggets the size of cannonballs. Between 1851 and 1871, the Australian population jumped from 430,000 to 1.7 million.

But the gold rush didn't reward everyone equally.

The real legacy wasn't gold in the hands of diggers; it was wealth that flowed straight into land. It carved a lasting divide between those who would inherit the wealth and those who would not.

The most successful speculators developed an intricate web of land banks, mortgage companies, and building societies. They were set up on a web of complex cross-ownership and financial arrangements. As long as confidence held, the boom in land values continued to grow.

By the mid to late 1880s, land values had skyrocketed.

The period is documented in great detail in Michael Cannon's meticulously researched book, *The Land Boomers: The Complete Illustrated History* (Melbourne University Press, 1966).

Companies and individuals were making huge profits flipping undeveloped land - often multiple times over.

*"Land selling in Surrey Hills for 15s. a foot in 1884 rose to £15 in 1887. Land at Burwood rose from £70 to £300 an acre. The Fitzroy Junction Estate was bought by members of a syndicate in November 1887 for £18,000. When the railway was extended to Heidelberg a few months later, they resold for £28,000. An extra 134 acres were provided when the Elwood swamp was filled in at a cost of £40,000. In the city there was fantastic competition for blocks, fanned by constant reports of fortunes which had been made by holding on to the blocks for a few months and reselling. Rowland & Lewis's premises at 226 Collins Street (near Gustave Damman's tobacco shop) were bought by M. McCaughan for £25,000; then resold by him four months later for a clear profit of £30,000."*⁴⁵

One widely used business guide, Michael G. Mulhall's *Industries and Wealth of Nations* (1896), even claimed Australians were wealthier than people in Britain, the US, and Canada - but only because it counted inflated land values as part of their wealth.

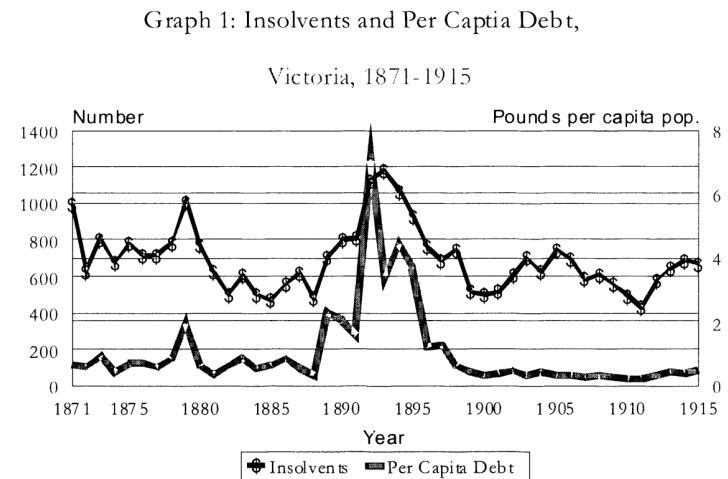
Banks eventually grew uneasy, tightening credit in 1886. But the boom still had momentum. In 1887, a new speculative wave emerged, fuelled by syndicates and lightly regulated land banks. Hundreds of new companies were registered, many thinly capitalised and operating like Ponzi schemes. Syndicates often resold the same land at ever-higher prices, disguising their own involvement and falsifying details to draw buyers in.

By 1889, central Melbourne land was selling at London-level prices:

*"...a 52-foot block next to the English, Scottish & Australian Chartered Bank was sold in September 1887 for £65,000. A few months later it was resold to the Melbourne Stock Exchange Company for £120,000 - nearly double the price."*⁴⁶

The downturn that followed was the deepest and longest Australia has ever experienced. It was worse than the downturns in the 1930s Great Depression and in the early 1990s; worse than anything we have seen since. The lesson was a harsh one. Land prices didn't rise again until the 1920s.

Figure 6: Insolvents and per capita debt, Victoria, 1871-1915



Source: *A Pathology of Insolvents: Melbourne, 1871 -1915* John C. Weaver - Australian Journal of Legal History (2004) Vol 8.

⁴⁵ Cannon, M. (1966), *The Land Boomers*, Melbourne University Press, Melbourne.

⁴⁶ *ibid*

The Great Depression – the 1920s land cycle

During the 1920s, housing activity in Australia remained robust. The number of new dwellings rose sharply, reaching peaks in 1925 and again in 1927. However, construction expanded far more rapidly than population growth, leading to an oversupply of homes in many urban areas. This imbalance caused building activity to slow after 1927, coinciding with the first recorded decline in Australia's GDP.

The downturn in construction and confidence foreshadowed broader financial instability, unfolding just before the 1929 Wall Street crash that triggered the Great Depression and sent shockwaves through Australia's heavily indebted economy.

In terms of house prices, both Sydney and Melbourne experienced strong gains following the post-World War I low in 1919. By 1921, prices had risen sharply and reached their peak in 1924, up approximately 35 per cent in Sydney and 39 per cent in Melbourne compared with 1919 levels. Prices remained elevated throughout most of the 1920s, even as new housing construction slowed sharply after 1927. The market held steady for several years despite weakening economic conditions, but following the 1929 stock market crash, the downturn spread globally, and Australian house prices finally began to fall.⁴⁷

When Wall Street crashed in 1929, the overseas funding that underpinned Australia's credit system evaporated almost overnight. London closed its lending tap. Australian banks, suddenly exposed, tightened credit sharply.

The 1930s Great Depression devastated Australia's economy, and land speculation in the preceding decade played a critical role in the severity of the crash. By the early 1930s, house prices had fallen in real terms across all major capitals. Real house prices fell only 11–13 per cent in the early 1930s, but because the period was one of deep deflation, nominal prices dropped more than 25 per cent.⁴⁸

Deflation pushed up the real value of debt and increased debt-to-asset ratios, yet banks were in far better shape than in the 1890s, so credit did not contract as severely. That helped support demand. However, construction activity had collapsed, and unemployment soared to nearly 30 per cent – one of the highest rates in the world.

Australia enters the rhythm of the 18-year land cycle

While the United States had been cycling to an 18-year rhythm since the 1800s, Australia did not display a clean, measurable pattern until after the Second World War.

Before the 1950s, the Australian economy was still heavily tied to Britain and shaped by forces that disrupted any natural real-estate cycle; commodity-led booms and busts, British monetary policy, wartime controls on building activity, and a population that was small and highly concentrated. Australia was, in effect, a satellite economy of the UK, responding more to imperial trade flows and commodity prices than to domestic land speculation.

It was only as Australia industrialised, urbanised, and became more financially independent through the 1950s–70s - supported

⁴⁷ Stapledon, N. D. (2010). *A History of Housing Prices in Australia 1880–2010*. University of New South Wales, School of Economics, Australian School of Business.

⁴⁸ *ibid*

by post-war migration, a deeper banking system, rising household credit, and eventually the break from sterling and the floating of the dollar - that the ingredients for a consistent, rent-driven land cycle emerged.

From this point onward, the three classic phases of the 18-year cycle become visible. A post-crisis recovery, a mid-cycle slowdown or credit squeeze, and a final speculative boom culminating in a peak and correction. This alignment with the global rhythm is why the post-1950s cycles in Australia map so cleanly to the 18-year pattern.

Australia has now undergone three full boom and bust 18-year land cycles since World War II and is well into its fourth.

Mid 1950s-70s: Australia's first post-WWII land cycle

The 1950s land cycle had a shaky start. There were two notable recessions in the US.

The first occurred between July 1953 and May 1954, triggered by the end of the Korean War and a sharp reduction in defence spending. Unemployment rose above 6% and the Dow Jones Index fell around 13% from mid-1953 highs to early 1954 lows.

The second recession unfolded following the Federal Reserve's aggressive rate hikes to combat inflation. The Federal Reserve raised its discount rate from 1.75% in early 1955 to 3.5% by mid-1957, effectively doubling borrowing costs. It caused a near 20% decline in the Dow from its August 1956 peak to its October 1957 low.

Neither had a significant impact on the real estate markets. The post-war migration boom was in full swing, and demand remained high. The impact did ripple across to Australia, however, slowing the economy.

It was only after the downturn that rising demand, a loosening of post-war rent controls, easier credit, and tightening land supply pushed Australian house prices decisively upward, kicking off the first Australian post-war land cycle upswing.

From the mid-to-late 1950s, real house prices in Australia climbed rapidly, fuelled by strong population growth, the rapid spread of suburbia (with increasing car ownership), more buyers gaining access to credit, and more women entering the workforce.

1961: Mid-cycle credit squeeze

The upswing in the cycle hit a temporary setback at its mid-point with what became known as the 1961 credit squeeze.

In February 1960, Treasurer Harold Holt scrapped long-standing import restrictions that had kept Australia's balance of payments in check. Imports surged faster than exports, draining foreign currency reserves under Australia's fixed exchange rate system. New dwelling construction activity peaked in the September quarter of 1960, falling by 24% in the next four quarters.

In November 1960, the Menzies government moved to protect the Australian pound by sharply hiking sales taxes and slamming on credit restrictions. The effect on housing was immediate. Sales activity in Sydney and Melbourne fell by about 35–40%.⁴⁹

⁴⁹ Stapledon, N. (2010), *A History of Housing Prices in Australia 1880-2010*, School of Economics Discussion Paper, UNSW School of Business, 2010(18).

Restrictions gradually eased from late 1962, banks reopened lending, and interest rates settled around the 5–6% range. Builders ramped up activity, and housing approvals and starts rebounded strongly once again.

These forces set the stage for the second half of the cycle.

Building booms and wage surges

Prices and construction activity moved steadily higher through the 1960s and into the early 1970s. But by then, inflation was becoming a serious problem once again.

Between 1972 and 1974, government spending exploded by 46%. The newly elected Whitlam government embarked on an ambitious reform agenda.

Massive public spending followed. The government poured money into universal healthcare through Medibank, introduced free university education, expanded welfare support, and rolled out major infrastructure programs including new roads, rail upgrades, urban development schemes.

The money injection sharply reduced unemployment, which dropped below 2% by 1974, while strong union bargaining power and wage indexation policies pushed average weekly wages up by more than 35% over two years.

As happens whenever speculation is permitted, new economic gains were quickly absorbed into rising land values as buyers pushed prices higher.

This phenomenon wasn't limited to Australia. The US and Europe had also ramped up spending on social programs and the war in

Vietnam. Powerful unions won big wage increases, fuelling wage and commodity price spirals everywhere.

Inflation swept the Western world.

Flush with rising bank and building society deposits, developers piled into new projects. By August 1973 (around the peak), Australian developers were reporting soaring profits for the previous year.

Hooker Corporation (one of Australia's largest and most influential property and development companies) saw earnings rise 38%, Lend Lease 76%, and Mainline Corporation's earnings (one of Australia's most aggressive construction companies at the time) rose a staggering 102%.

Finance companies also saw big gains.

Major lenders for housing and commercial property, such as Mercantile Credits, Mutual Acceptance, Lensworth, Australian Securities Limited, and Commercial and General Acceptance Limited, reported profits up 28%, 22%, 10%, 25%, and 16%, respectively.

Between 1972 and 1973, general inflation surged to 14.4% - with Sydney housing prices jumping even higher, up 15% during the same year. The average Sydney house hit \$26,778, but the real fireworks were in the land market. Sydney's median block price soared an unprecedented 42% in a year.⁵⁰

⁵⁰ Vander Have, J (1989), *The 1974 collapse of the property market in Sydney*, University of New South Wales, Sydney.

1974: The bust arrives

Inevitably, it came to an end.

The oil shock hit in October 1973, during the Yom Kippur War. Arab OPEC countries imposed an embargo on nations supporting Israel, sending oil prices from US\$3 to over US\$12 per barrel by early 1974.

In response, the Whitlam government unleashed strict monetary tightening. The RBA raised the official cash rate dramatically from around 5.25% in late 1973 to 9% by August 1974, nearly doubling rates in less than a year. Liquidity vanished overnight, and by May 1975, Sydney fringe land prices had fallen 14%, with 73% of new units sitting unsold.⁵¹

The downturn was deep and prolonged.

Between January 1973 and December 1974, major stock markets like the US S&P 500 and Australia's All Ords crashed 45–50%, marking one of the worst bear markets since the Great Depression. Signs of recovery didn't appear until 1976–77, largely driven by renewed population growth.

In summary, the first Australian post-WWII land cycle:

- Land values rose for roughly 17 years from the mid-1950s (around 1956/7) to the peak in 1974. The mid-cycle downturn around 1961 was muted due to a limited speculative run-up on land values post-WWII. This may have prolonged the final upward run to the peak.

- The stock market peaked before the mid-1950s recession in January 1953 and then again in January 1973, a twenty-year peak-to-peak interval.
- Construction activity surged dramatically through the late 1960s and early 1970s into the peak – the classic land cycle playbook - with developers racing to meet soaring demand.
- Inflation (rising costs for mortgage holders) popped the bubble. By late 1974, the benchmark bank lending rates reached around 10–11%. This was extremely high by historical standards.

Mid 1970s-90s: Second Australian post-WWII land cycle

Between June 1975 and June 1979, Sydney's population grew 5.1%, vacancy rates plunged to just 1.4%, and rents surged, pulling land values back up. This marked the start of a new land cycle upswing.

In 1979, the second oil crisis began after the Iranian Revolution, sending global oil prices soaring again and reigniting inflation worldwide. By the early 1980s, Australian inflation was running in double digits with fears of stagflation – a toxic mix of high inflation and weak economic growth.

The Reserve Bank hiked interest rates sharply, pushing mortgage rates from around 8% into double digits. Globally, the US Federal Reserve under Paul Volcker took similar aggressive action, hiking rates above 15%.

⁵¹ ibid

The mid-cycle shock of the 1980s

1982–83 was the mid-point crisis of the 1970s to 1990s land cycle. In Australia, the country tipped into a sharp recession. While the recession was deep, causing a large spike in unemployment and a slump in property and construction, the banking system remained intact. Interest rates were cut, inflation fell, and the floating of the dollar in 1983 boosted exports and confidence.

The stock market's wild ride

Global conditions improved, lifting commodity prices, and strong population growth kept housing demand up. These factors kick-started a solid rise through the second half of the land cycle through the mid to late-1980s.

Interest rates were highly volatile through the 1980s. After hitting lows around 8–9% in the early 1980s, rates were hiked aggressively in response to inflation pressures later in the decade.

The stock market crashed on October 19, 1987, a day now known as Black Monday. Program trades – which emerged in the early to mid-1980s – kicked in, overwhelming buyers and causing prices to collapse at an unprecedented speed. The All Ords fell 25%, and by November, the Australian stock market had fallen nearly 50% from its pre-crash peak.

The sheer scale of the crash shattered investor confidence in equities, but it was not the end of the land cycle.

A roaring winner's curse

Investors redirected their funds into property, which was viewed as more stable. This was a winner's curse if ever there was one. The

shift helped intensify the late 1980s property boom, driving land and housing prices even higher in Australia's major cities.

As reported in the Jewish News at the time:

Image: Happy New (Financial) Year! Jewish News.

Happy New (Financial) Year!

THE financial year ending June 1988 has seen a tremendous growth in the real estate market. Residential, commercial and industrial property have all increased markedly in value.

Contrary to public opinion, the real estate market was not adversely affected by the Stock Market crash last October — just the reversal — the investor who previously played the stock market is now putting his money into bricks and mortar.

Every facet of the real estate market has shared in the boom. Rental flats, once regarded as a headache, are now achieving reasonable returns and, furthermore, owners of blocks of flats which have Strata Title potential are the major beneficiaries of the re-introduction of Negative Gearing and have seen phenomenal price increases.

We have also seen the return of the small investor, e.g. the \$20,000 deposit buyer who has considerably boosted the own-your-own market.

Shops in good locations are leasing and selling well with purchasers buying on returns of 3-8 percent. There is a great shortage of this type of real estate as demand far exceeds supply.

Office buildings, both in the city and suburbs, are also proving to be a bonanza with both local and overseas investors pushing prices higher. This response is due to the availability of quality tenants and the rent they are prepared to pay.

The industrial market has also seen a remarkable upsurge of interest from both tenants and investors with the subsequent price increases which go hand in hand with boom conditions.

We have seen an amazing year in residential property sales — increases of 25-35 percent in the last 12 months are not uncommon. Residential sales in Caulfield, St. Kilda, Malvern, Kew, Toorak and South Yarra have sold well in excess of vendors' expectations.

The Melbourne Age reported that the number of properties sold at auction increased by 26 percent, while properties passed in fell by 37-38 percent and those sold before auction increased by 35 percent. It has not been unusual to find as many as four disappointed bidders at some auctions!

IT IS difficult to predict the trend of the next 12 months. Prior to Mr Keating's deregulation of the banking system, we lived in a simpler world of finance and economics. Now, however, we are strongly dictated by overseas influences. I have noted that all developed countries have seen tremendous increases in real estate prices in the last year.

It certainly was a great year for anyone associated with the real estate industry and at the moment the green light is still showing! We, at Talbot Diamond, wish you all a happy new financial year.

Mark Kausman is a director of Talbot Diamond Pty. Ltd.

MARK KAUSMAN

REAL ESTATE REVIEW

Source: Trove Newspaper Archives

"Contrary to public opinion, the real estate market was not adversely affected by the Stock Market crash last October

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Office buildings, both in the city and suburbs, are also proving to be a bonanza with both local and overseas investors pushing prices higher...

It certainly was a great year for anyone associated with the real estate industry and at the moment the green light is still showing!"

Sydney's land values had climbed to 53% above their 1974 peak in real terms, and Melbourne 27% higher.

After October 1987, stock markets also rebounded strongly. In Australia, the All Ords recovered through 1988 and into 1989, reaching a new post-crash high around September 1989 before rolling over into the early 1990s downturn.

By 1989, standard variable mortgage rates neared 17%, their highest level in Australian history. It crushed affordability for homebuyers – bringing a sudden stop to the speculative frenzy.

The 1990s recession and banking crisis

The collapse, when it came, was devastating.

The early 1990s recession was considered Australia's most severe since World War II. The country entered its second major banking crisis.

The State Bank of Victoria ran into huge losses, mostly from commercial property lending. It was eventually sold to the Commonwealth Bank in 1991 to prevent a full collapse.

The State Bank of South Australia suffered even greater losses through its subsidiary, the State Bank of South Australia Savings Bank, which had aggressively lent into speculative property deals. SBSA required a massive government bailout in 1991. It left South Australia with a debt burden that took years to pay down.

Some smaller building societies and finance companies also failed or were forced to merge.

The decline in the All Ords during this period was significant - roughly 30 percent peak-to-trough from late 1989 into early 1991.

The fallout was starkest in the commercial property sector: median commercial property values fell by approximately 40% in nominal terms, and an estimated 60% in real terms.⁵²

By 1993, Melbourne CBD office vacancy rates had reached 26%, and agents reported difficulty selling million-dollar-plus commercial buildings even at half their former prices.

⁵² Stapledon, N. D. (2010). *A History of Housing Prices in Australia 1880–2010*. University of New South Wales, School of Economics, Australian School of Business.

It was the contraction in non-residential construction – more than housing – that played the biggest role in the broader economic slowdown.

Melbourne was more deeply affected by the recession than other cities, recording a peak-to-trough fall in house prices of 19%, making it the hardest hit of the capital markets. Some properties that were purchased in 1989 experienced losses exceeding 40% when resold in the mid-1990s. The downturn was prolonged, with only tentative signs of recovery emerging by 1995–96.

Sydney's median house prices fell around 10 - 15% from the 1989 peak to the early 1990s trough.

In contrast, other capitals like Brisbane, Adelaide, Perth, and Hobart saw more modest price growth during the 1980s. These markets didn't have the same levels of speculative excess or explosive investor demand, so while they also slowed when credit tightened, they didn't suffer the same dramatic downturn in prices as Sydney and Melbourne.

In summary, the second Australian post-WWII land cycle:

- The run-up in prices lasting from the turn in 1977–78 to the peak in 1989 was around 12 years.
- The stock market formed two distinct tops ahead of the 1974 land price collapse. The first came in December 1968, followed by a downturn into the 1970 recession. But because land prices continued climbing into the early 1970s, equity markets were pulled higher again, reaching a new all-time high in January 1973, just as land values approached their final peak.

From these two highs, the timing is clear - the interval from the 1968 peak to the next major stock-market peak in 1989 spans roughly twenty-one years, while the interval from the higher 1973 peak to 1989 is around sixteen years. Meanwhile, the land market itself followed a cleaner rhythm, with a 17/18-year interval from the land price crash in 1974 to 1991/2.

- Construction activity was strong through most of this upswing, leading to overbuilding in office and retail sectors.
- The Reserve Bank hiked rates sharply into the peak, and this popped the bubble. By 1989, standard variable mortgage rates peaked near 17 percent, dramatically increasing borrowing costs.

Early 1990s - GFC: The last Australian land cycle

The third land cycle emerged out of the ashes of the early 1990s recession.

As interest rates fell and credit conditions stabilised, the groundwork was laid for a powerful upswing in land values. A combination of neoliberal tax policy, global capital flows, and financial innovation triggered a new era of speculation.

Prices started to rise again around 1995. The introduction of the capital gains tax discount in 1999, combined with the expansion of negative gearing, made land and property more attractive to investors than ever before.

The dot-com bubble formed in the late 1990s as investors poured money into technology and internet-related companies, many of which had little to no profits but sky-high valuations.

The dot-com bubble bursts amid mid-cycle volatility

2000-2002 was the mid-point of the land cycle.

The US Nasdaq index soared more than 400% between 1995 and its peak in March 2000. When reality set in that most of these companies wouldn't deliver expected earnings, the stock bubble burst. Over the next two years, the Nasdaq collapsed by around 78%, wiping out trillions in global wealth.

While Australia wasn't at the centre of the tech mania, it was affected by the global stock market downturn. Local tech stocks and superannuation funds exposed to US equities suffered significant losses.

In the middle of the fallout, on September 11, 2001, terrorist attacks hit the US. Global stock markets reacted with panic.

The New York Stock Exchange closed for four days - its longest shutdown since 1933 - and when it reopened on September 17, the Dow Jones Industrial Average fell nearly 7% in one day, marking one of its biggest single-day point drops at the time.

As would be expected at the mid-point of the land cycle, US and global stock markets recovered fast, taking about six months to regain losses. By March 2002, major indexes like the Dow Jones and the S&P 500 had clawed back to pre-September 11 levels.

Australia's economy proved resilient overall and, helped by the mining sector's early 2000s growth, the country avoided an economic recession.

Loose lending takes over

At the same time, Australia's banking sector adopted increasingly loose lending standards - especially during the early to mid-2000s. The rise of low-doc and no-doc loans, interest-only mortgages, and leverage-heavy investment lending flooded the property market with credit.

Between 1996 and 2008, residential land values in Australia rose by over 200% in real terms. In capital cities like Sydney and Melbourne, house prices doubled between 2000 and 2004 (the Sydney peak in median values during this cycle).

The winner's curse period of speculative investment started at the end of 2006. Land speculation reached new heights as investors assumed prices would rise indefinitely.

Meanwhile, the subprime mortgage crisis overseas, which had been brewing since mid-2007, was starting to send shockwaves through financial markets. Credit markets froze as banks pulled back on lending, liquidity vanished, and panic set in among investors - setting the stage for the dramatic downturn that followed.

From the October 2007 highs to the March 2009 lows, the US S&P 500 fell about 57%, and Australia's All Ords around 55%, marking one of the worst bear markets since the Great Depression.

Sydney and Melbourne's median house prices fell about 5-8% before bouncing back due to rate cuts and government stimulus. Perth was hit harder, with prices down around 10%, and mining towns decimated. When the mining boom ended around 2012-14, prices collapsed 60-80%, wiping out most of the gains and leaving some towns with the steepest property crashes in the country.

In summary, the third Australian post-WWII land cycle:

- The upswing in land values ran roughly 12 years, from around 1995 (when prices started rising again after the early 1990s slump) to the peak in early 2008.
- From the post-1987 crash rebound high in 1989, the stock market began a new cycle that unfolded across the 1990s and early 2000s. After the brief downturn of the 2000–02 tech-wreck correction, the market continued climbing into its next major cyclical high in 2007. An 18-year peak-to-peak interval.
- Interest rose steadily through the mid-2000s as the Reserve Bank tried to cool overheating markets. By late 2007, the cash rate reached 6.75 percent, sharply increasing borrowing costs and exposing the euphoric instability built into the mortgage markets, thus popping the bubble.

In summary, the third land cycle since WWII took hold from the mid-1990s as lower interest rates, expanding credit, and investor-friendly tax changes reignited demand for land. A brief mid-point interruption/recession came with the Dot-com Bubble collapse, but markets recovered quickly and the upswing continued, driven by increasingly loose lending and land price speculation, ultimately peaking around 2007–08 before the downturn that followed - which was appropriately named the Global Financial Crisis.

CHAPTER 8 - Lessons from Australia's land cycle

In each of the three full Australian land cycles since WWII the same key elements played out.

1. First, prices rose for more than a decade (12 -17 years), supported by strong population growth, easy access to credit, and policies favouring land speculation.
2. Second, the latter stages of each boom saw speculative frenzy, surging construction, rapidly rising land prices outpacing wages, and a belief that prices could only go up. The boom in construction left an overhang of vacancies into the following cycle.
3. Third, each cycle ended with aggressive monetary tightening.
 - In the early 1970s, rates nearly doubled.
 - In the late 1980s, mortgage rates hit a record 17%.
 - And in the 2000s, rates climbed sharply into 2007.

This credit tightening cut off liquidity, exposed over-leveraged borrowers, and ultimately popped the

bubble. The simple logic is that, through the course of the cycle, credit is siphoned away from the productive sectors of the economy, which had become a house of cards.

4. Finally, governments ultimately stepped in with stimulus or policy changes to cushion the downturn and reignite the cycle, but only after substantial damage had been done.

The Sahm Rule indicator highlights the land cycle

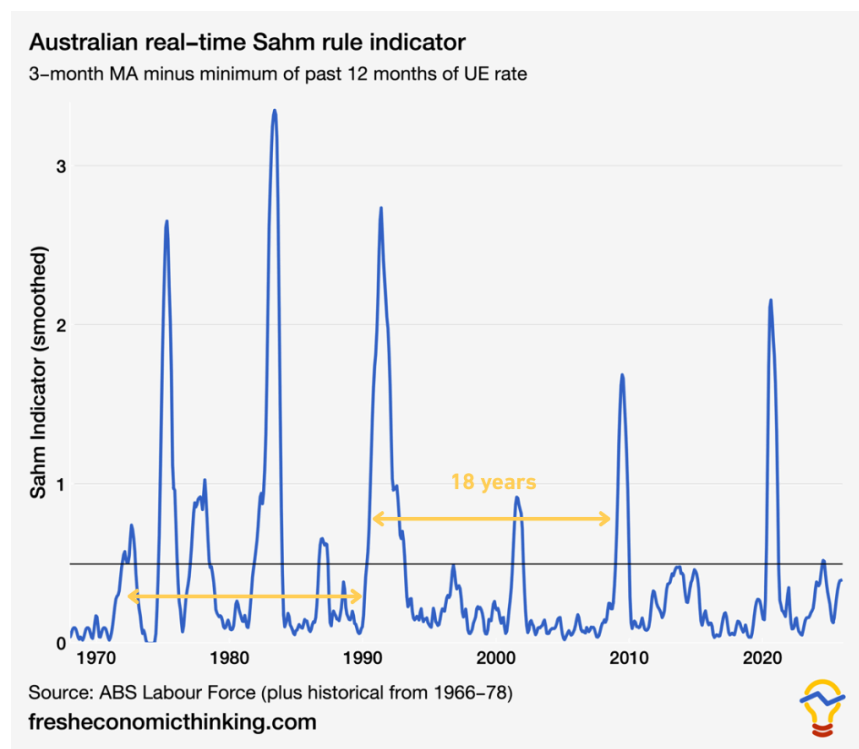
Developed by Claudia Sahm, the Sahm Rule indicator uses a 3-month moving average of the unemployment rate compared to the minimum of that average over the previous 12 months.

The Australian Sahm Rule Indicator, which tracks sudden spikes in unemployment, clearly shows the 18-year economic cycle at work - and warns of what could lie ahead as we approach the recessionary phase of the land cycle into 2028.

This chart highlights major peaks in unemployment roughly every 18 years, matching key downturns and closely reflects the history of the 18-year Australian land cycle. Significantly, it also shows the mid-cycle recessions, which don't usually crash housing but spark stock market panics and either minor or major recessions.

You can see this clearly on the chart below.

Figure 7: Australian real-time Sahm rule indicator



Source: Dr Cameron Murray, Fresh Economic Thinking

The peak in unemployment aligns with the early 1980s mid-point recession, the early 1990s end-of-cycle crash, the 2001 mid-point dot.com bust, the end-of-cycle GFC in 2008, and the 2020 mid-cycle COVID-panic - all lining up with the cycle.

Additionally, these surges in unemployment closely mirror the timeline presented in the updated Gann and Benner financial

timetables, reinforcing the cyclical rhythm visible across both labour and asset markets.

Each of the dates marks points of explosive change in unemployment - aligning with key turning points in land-led economic cycles – both mid- and end-of-cycle. Which supports the argument that unemployment shocks are not random, but part of a deeper structural rhythm tied to land speculation, credit expansion, and their inevitable unwinding.

Mapping the current cycle, forecasting the peak

If history is our guide, Australia is heading into a recessionary downturn into 2028. Although the GFC landed in 2008 and triggered a global downturn, unprecedented government intervention in Australia prevented the usual post-peak correction.

Consequently, land values did not resume a genuine, non-stimulus-induced upward trajectory until mid-2012. That date marks the Australian low for the purposes of cycle timing. Counting forward from 2012 gives us the familiar 14-year upward phase identified by Harrison, placing the peak in Australian land values around late 2026. This would also fit within the 12–17-year time window observed in previous Australian land cycles. Some regional markets may lag into early 2027, as is normal at the end of the cycle in Australia.

This timing remains entirely consistent with both historical structure and contemporary market behaviour. The GFC intervention did not break the cycle – it deferred the downward phase and shifted the upward restart to 2012. Nothing in the current data negates the 2012–2026/27 trajectory. The peak in land values is not the end of the economic impact.

Historically, equity market downturns follow the land market with a lag of 6–18 months, and the recessionary low typically follows 12–30 months after that. For this reason, a recessionary trough into 2028 following the stock market collapse, remains a reasonable expectation, even if land prices top in 2026.

To date, the trajectory of land prices remains broadly consistent with this cyclical forecast, reinforcing the reliability of the 18-year land cycle framework in anticipating market turning points. Prices rose substantially in Sydney and Melbourne prior to COVID-19, peaking around 2017, prior to the Royal Commission into Misconduct in the Banking, Superannuation and Financial Services Industry that commenced in December 2017. The Banking Royal Commission had a major chilling effect on lending in Australia, even before its final recommendations were handed down.

Labor's proposed policies - particularly the removal of negative gearing for existing properties and the reduction of the capital gains tax discount - had threatened to significantly reduce investor demand.

When the Coalition unexpectedly retained government in the 2019 Federal Election, the threat of those tax changes vanished overnight. The result triggered a swift U-turn in market sentiment. Coupled with the easing of credit restrictions that had followed the Royal Commission and a subsequent RBA rate cut, confidence surged back into the housing sector. Buyers who had been sitting on the sidelines re-entered the market, and prices began rising sharply in the second half of 2019.

COVID marked the mid-cycle recession. For those familiar with the 18-year land cycle, the 2020 COVID recession was expected.

The following was published for Fat Tail Investment Research subscribers in 2015, indicating that 2020 would be a recessionary period in the economy:

"..2020 will mark a period of depressed economic activity. If you're a savvy investor it could be an excellent time to buy land in preparation for the second half of the real estate cycle beginning 2021."

"The current 'boom' is largely contained to Sydney and Melbourne (for now). Other states are not seeing the same gains. ..."

The second half of the 18-year cycle is typically stronger than the first half. Just as the second half of the last cycle spread into other states, so will the gains in this cycle - once we've passed the midway point (in 2020). "

Source: Subscriber newsletter, Fat Tail Investment Research, Catherine Cashmore, 2015.

The sheer size of the COVID stimulus, which fed into land prices and stocks, arguably brought forward much of the speculative demand that typically builds in the second half of the land cycle. With ultra-low interest rates, direct government handouts, and a surge in liquidity, buyers rushed in, bidding up property and equities at a pace that had only been exceeded by the 1989 surge prior to the 1990s downturn. This acceleration pulled forward demand that would ordinarily have stretched into later years, creating an artificial peak within the cycle at the beginning of 2022.

As central banks responded by aggressively hiking interest rates through 2023 to counter supply-induced inflation following the COVID lockdowns, Australia experienced one of the sharpest

monetary tightenings on record. The Reserve Bank of Australia lifted the cash rate from an emergency low of 0.10 per cent to 4.35 per cent – a cumulative increase of 4.25 percentage points in just eighteen months. Inevitably, such a rapid withdrawal of credit set the stage for a dramatic pullback on the other side.

The normal pattern of the 18-year land cycle had been disrupted somewhat, but the timing had not changed. Despite the turbulence, the structural forces underpinning demand did not disappear.

Record levels of immigration and rapid population growth helped sustain housing demand through 2023–25. In the year to March 2025, Australia's population expanded by about 423,400 people, with more than 300,000 of that coming from net overseas migration, and in prior years, net migration exceeded 400,000. At the same time, chronic shortages in dwelling construction and a tight rental market kept vacancy rates unusually low, with national residential vacancy hovering around 1.2–1.4 per cent in 2025, well below what would ease upward price pressure. Together, the surge in demand and constrained supply placed a firm floor under the major real estate markets, and once again, prices pushed up, suggesting the cycle had regained its momentum as it moved into the final expansionary phase.

The introduction of the Federal Government's five-percent deposit scheme in October 2025 was expected to inflate prices in the final surge to the peak. This was a prime example of intervention pushing demand into the market at precisely the wrong stage of the cycle. By enabling buyers to enter with minimal equity, the scheme has driven forward first-home-buyer demand into the major cities just as land prices are approaching their cyclical peak.

Participants are required to occupy the property as their principal place of residence until their loan-to-value ratio falls below 80 per cent. In practice, this can lock many lower-income buyers into a difficult position, because they're already confined to the cheaper end of the market and frequently steered toward apartments that tend to deliver limited, to no capital growth. As a result, many remain highly leveraged for longer than expected, with little ability to sell the property or convert it to a rental.

As the cycle turns, a significant proportion of these entrants risk becoming trapped, unable to move, and potentially underwater on loans taken out at inflated late-cycle prices.

The pattern of incentive driven demand is consistent with previous late-cycle periods.

Emerging inflationary pressures continued to push markets upward, keeping the RBA cautious with the likelihood of rates potentially rising into the peak of the land cycle. This mirrors the final stages of past cycles, where tightening financial conditions accompany the last surge in prices before the broader economy reaches its limit.

The stock market also fits neatly into the long-range timing. The previous major peak was in October 2007. Add 18-20 years, and the window for the next major top falls in 2026-2027. This aligns with the expected peak in land values (2026) and the broader real estate cycle's culmination.

CHAPTER 9 - Conclusion

Real estate cycles are driven by policy failure.

Interest rate changes might influence housing prices in the short-term, but the long-term cycle is shaped by deeper structural forces - the cost of replacing buildings, supply shortages, and ultimately by speculative manias. It is speculation that drives the cycle to extremes, accelerated by fear of missing out and a desire to profit from rising land values.

At its root, therefore, the cycle is driven directly by taxation policies on land, income and production, that dictate the way people invest and spend. Although Australia taxes land, the rates are modest and riddled with exemptions, so the bulk of rising land values are privately captured, continuing to fuel speculation rather than directing activity toward productive enterprise.

Behind this behaviour sits the familiar overconfidence of economic advisors and politicians, who keep inflating demand with populist home-buyer schemes, convinced that *'this time will be different'*.

As the cycle matures, land values rise beyond what the productive sectors of the economy - like manufacturing or services - can sustain through debt. Capital is increasingly diverted into

speculative land investments, eroding the base of real economic activity. This imbalance eventually stalls new construction, as projects become financially unviable.

At the same time, housing that was planned and financed during the boom continues to be completed and delivered, even as demand begins to soften. This lag in supply response leads to overbuilding. When these new properties flood a cooling market, vacancy rates rise, and prices begin to fall.

Once this imbalance is in place, even a small shock - a rise in interest rates or inflation impacting the cost of living, a tightening of credit, or an external event like a war or pandemic- can trigger a cascade of loan defaults at both the micro (household) and macro (banks, government) levels.

These so-called 'black swan' events don't cause the collapse on their own, they simply expose the structural fragility created by inflated land prices and overleveraged speculation. When confidence evaporates, the cracks in the system widen rapidly - and the full force of the land bust is unleashed.

It is no coincidence that major downturns are so often remembered by the banking fraud or financial excess that accompanied them - the US Savings and Loan crisis, the subprime mortgage collapse, or the shadow-banking failures that followed. In each case, the misconduct did not solely create the downturn but flourished during the late stages of a speculative boom, when rising asset prices masked deteriorating lending standards.

When the cycle turned, what had been tolerated, ignored or quietly embedded within the system suddenly came into view, providing a convenient narrative for the collapse while obscuring its true

cause; the speculative pursuit of land's economic rent and the crowding-out of productive activity.

Across more than two centuries of data, research, and real-world experience, the land cycle reveals itself as one of the most enduring and predictable economic rhythms ever identified.

Across every generation of researchers – whether it was Hoyt and Wenzlick digging through more than a century of US sales records, Pearson, Warren, Riggelman and Cairncross analysing global construction cycles and development pipelines, or LaPoint and Cortes applying modern econometrics – the conclusion is the same.

Over and over, across datasets, the same on average 18-year rhythm appears. Once land speculation gathers pace, the entire economic system is drawn into a multi-year upswing that inevitably runs its full course. No matter the era or methodology, the duration and repetition of this cycle stand out as the most consistent finding of all.

Australia has not always synchronised with this pattern. For much of its early history, land taxes, credit restrictions, rent controls and institutional limits muted speculative behaviour. But once these constraints fell away - particularly after financial deregulation and the floating of the currency - the cycle emerged with the same clarity seen in the United States and the United Kingdom.

Since the 1950s, Australia has moved through four unmistakable 18-year cycles, each marked by a prolonged upswing, a mid-cycle pause, and a final burst of speculative excess before collapse. The current land cycle is now approaching its peak in 2026–27 and the usual post-peak recessionary period into 2028–30. The implications are profound.

As long as the economic rent arising from land's locational advantage is not fully captured by taxation, and credit is permitted to capitalise those future rents into higher prices, speculative activity will overwhelm productive investment, driving the economy through recurring boom–bust cycles.

There is, however, a clear policy implication arising from this analysis. When increases in land values are largely retained by private owners while the tax system falls primarily on labour and productive activity, rising land prices become an attractive target for speculative investment. Credit markets then capitalise these expected gains into higher land prices, reinforcing the cycle.

Reforms that shift a greater share of taxation onto the economic rent of land would alter these incentives. By reducing the private capture of land value gains and limiting the extent to which future rents can be capitalised into prices, such policies could dampen speculative pressures and redirect capital toward productive investment. Without structural changes of this kind, the historical pattern described here suggests that the Australian economy will remain susceptible to the same recurring land-driven boom–bust dynamics observed over the past century.