

**Real Estate Investment: A Strategic Approach
Fourth Edition, 2023**

Andrew Baum

Chapter Fourteen
The Future of Real Estate Investment

Real Estate Investment: A Strategic Approach

Andrew Baum

1

Forces of change

The drivers of change in commercial real estate markets of the future will be

- the fourth industrial revolution
- healthy (smart) buildings
- climate change

Real Estate Investment: A Strategic Approach

Andrew Baum

2

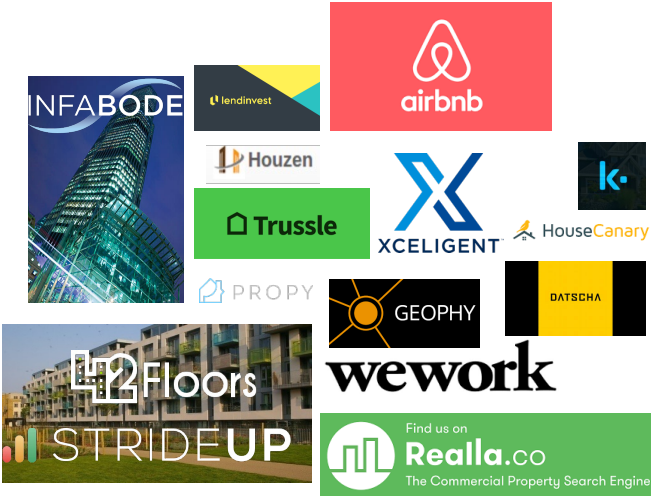
Timeline

- PropTech 1.0: 1995 – 2005**
 - CoStar, Trulia, Zillow, Rightmove
 - Consolidation leading to...
- PropTech 2.0: 2008 -2018**
 - Airbnb, WeWork, Nest, Datscha, REALLA, LendInvest
 - Consolidation leading to...
- PropTech 3.0: 2020 -2025?**
 - Blockchain, tokenisation

Real Estate Investment: A Strategic Approach Andrew Baum

3

PropTech 2.0



Real Estate Investment: A Strategic Approach Andrew Baum

4

2005-2008

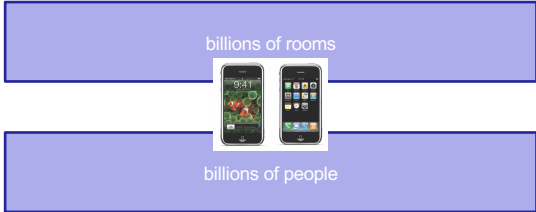


The image shows a movie poster for 'The Big Short' on the left, featuring the names of the main cast members: Christian Bale, Steve Carell, Ryan Reynolds, and Brad Pitt. The title 'THE BIG SHORT' is prominently displayed in large, bold letters. To the right of the poster is a blue plus sign, followed by two smartphones (an iPhone and an Android) representing mobile devices.

Real Estate Investment: A Strategic Approach Andrew Baum

5

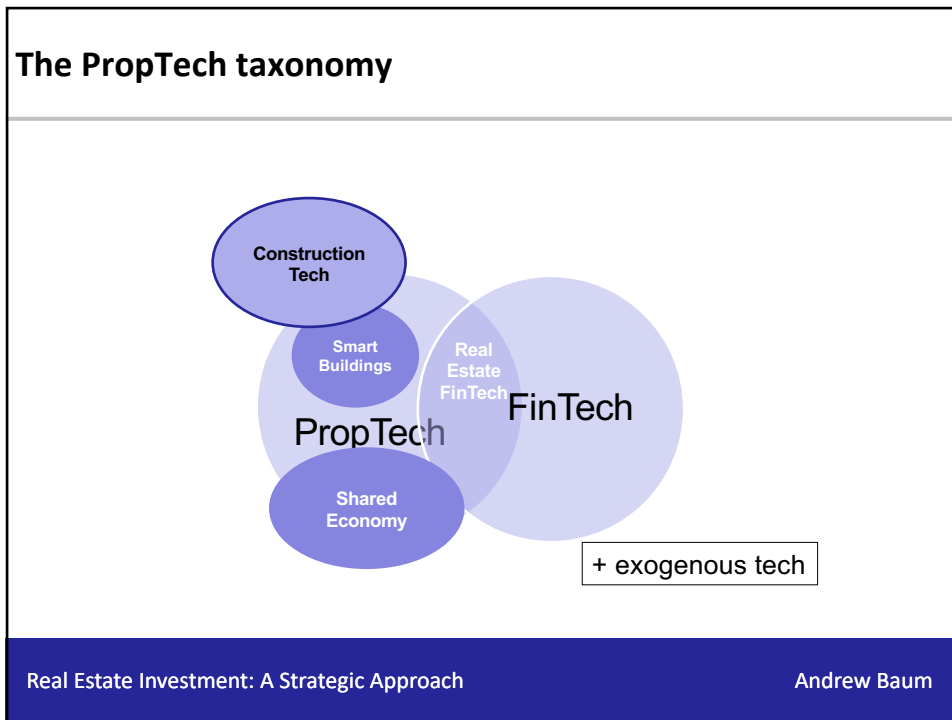
2008: the app



The diagram consists of two horizontal purple bars. The top bar is labeled 'billions of rooms' and the bottom bar is labeled 'billions of people'. In the center, where the two bars meet, is an icon of a smartphone, representing the app that connects these two groups.

Real Estate Investment: A Strategic Approach Andrew Baum

6



7

Top tech companies by value

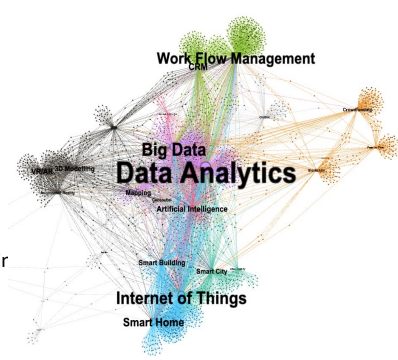
US	Europe	Asia
Apple		Tencent
Microsoft		Alibaba
Amazon		Samsung
Alphabet		Foxconn
Facebook		Baidu

Real Estate Investment: A Strategic Approach Andrew Baum

8

It's all about digitalisation...

- Data – ‘the new oil, the new oxygen’
 - IPSX, Brickvest
 - IoT, intelligent buildings
 - Location data: Gyana, Datscha
 - Lease information extraction: Proda, Leverton
- Complexity
 - Shorter leases, more data
 - Tokenisation, fractionalisation, blockchair
- Social property media
 - Property passports




Real Estate Investment: A Strategic Approach Andrew Baum

9

The drivers of value have changed

- Dying property types
 - Retail, office?
- New property types
 - Social infrastructure
 - Data centres
 - Rooftops
 - Satellite stations
 - Carbon capture
- Space as a service
 - Hospitality v office space
- Smart buildings




Real Estate Investment: A Strategic Approach Andrew Baum

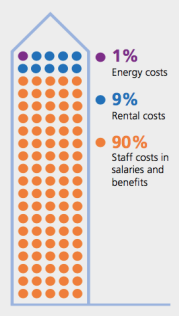
10

Smart buildings/real estate

Smart houses


More information is being generated about human patterns than ever which, if processed, can yield insights on property improvement





What makes a building productive? Efficient?

Factor	Average weighted impact on productivity (%)
Lighting	1.1
Noise	1.4
Temperature	1.2
Ventilation	1.4
Control	1.2
Furniture	2.1
Space	3.5



The internet of things

- By 2020 there will be 50bn connected devices
- The IoT market size forecasts range from 1tn to 7tn
- Infrastructure efficiency will be the biggest driver

Real Estate Investment: A Strategic Approach
Andrew Baum

11

Occupier market transformation...



- Westfield converts 104,000 sqft of shopping centre retail into co-working



- CBRE launches HANA, invests in Industrious



- Honeywell and SAP partner to develop smart building system infrastructure

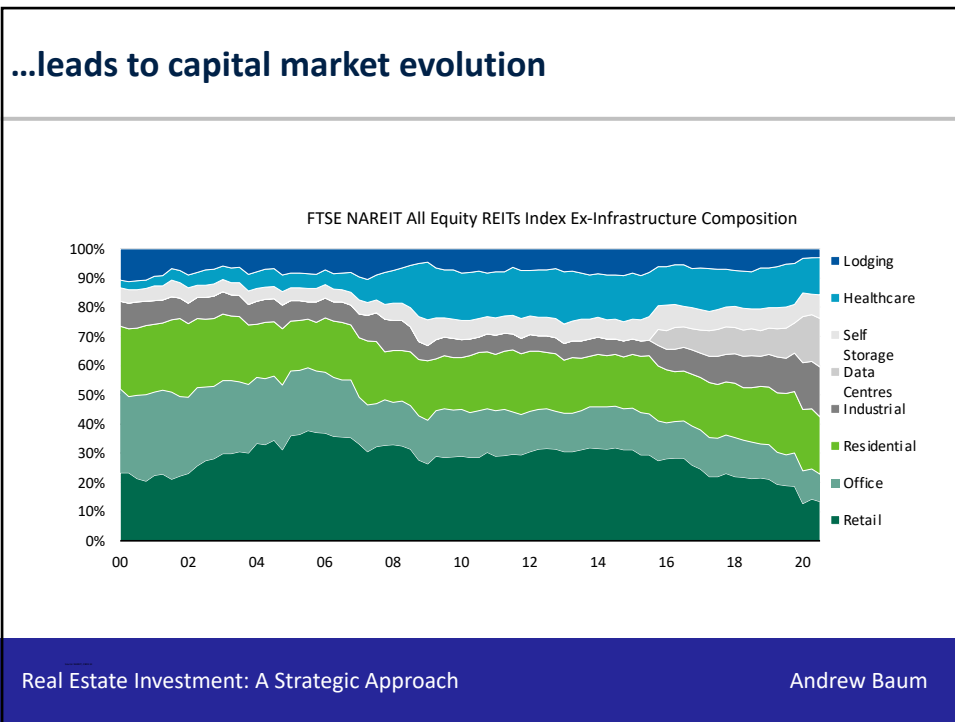


- Space as a service



Real Estate Investment: A Strategic Approach
Andrew Baum



12






13

The capital markets: real estate fintech

- Tech platforms are aiming at creating a **tokenised primary and secondary market for units** in commercial real estate and funds
- How big can this market be?
- Will this create liquidity and access? And data....?


↔

↔


Bricklane, BrickVest, Bricklet, Bricknest...

LLC **RealTokens**

Real Estate Investment: A Strategic Approach Andrew Baum

14

The biggest managers are poised to accelerate

Table 1: global fund managers by AuM, 2007

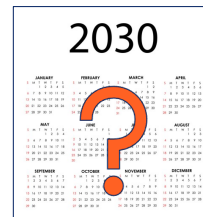
Rank	Fund Manager	AUM (€m) 2006
1	ING Real Estate	79,220
2	RREEF	53,685
3	Morley Fund Management	47,979
4	Morgan Stanley Real Estate	47,655
5	Pramerica Financial Inc	46,519
6	LaSalle Investment Management	32,005
7	Axa Real Estate Investment Managers	32,000
8	UBS Global Asset Management Real Estate	30,459
9	Principal Real Estate Investors	28,144
10	PRUPIM	27,666

Source: PFR (2020): Global Investment Managers 2020, Institutional Real Estate Inc., Special Report

Table 2: global fund managers by AuM, 2017

Rank	Manager name	Total 2017 €m
1	Blackstone	161,542
2	Brookfield	137,453
3	PGIM	108,008
4	Hines	91,728
5	Nuveen/TH Real Estate	90,941
6	CBRE Global Investors	86,010
7	UBS Global AM	76,411
8	AXA IM - Real Assets	71,115
9	Swiss Life Asset Management	69,258
10	JP Morgan Asset Management	69,042

Source: PFR (2020): Global Investment Managers 2020, Institutional Real Estate Inc., Special Report



Focus or diversify? **Why big specialist managers will win**

What are property businesses doing?

- Appointing chief digital, innovation officers
- Setting up innovation groups
- Investing directly in PropTech startups: strategic alliances
- Investing in PropTech accelerators and VC funds – with co-invest rights
- Backing research
- Just watching

