Real Estate as an Asset Class

Introduction to real estate investment

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1 Introduction

What are we going to do during this class:

- In the first section we are going to discuss the investment industry (not just real estate investors!);
  - Objective and constraints.
  - Who are they?
- In the second section we will specifically discuss real estate as one real estate investment asset among other assets.
  - How did it perform compared to other asset classes?
- If we have the time, we will also quickly go over the history of real estate investment.

Note CRE = Commercial Real Estate

2 Investor Objectives

- Why do people *invest*?
- Investment is the act of putting <u>money aside</u> that would otherwise be used for <u>current consumption expenditure</u>.
- Why would anyone do that?
  - They have more money that they currently need.
  - They have a future objective, for which they willingly sacrifice current consumption.
- Consider the following examples;
  - Dual-income couple in their 20s. They need to save up for a down payment on their house. (3 – 5 years.)
  - Dual-income couple in their 30s. They want to save up for their children's college tuition. (10 – 15 years.)
  - Retired couple in their 60s. They start to draw out cash from their investments accumulated over the years.

2 Investor Objectives

- What are the major **investment objectives** and the major constraints faced by most investors? At the fundamental level we have the following mutually exclusive types of investor objectives;
  - The **growth** (or **savings**) **objective**: This implies a relatively long-time horizon with no immediate or likely intermediate need to use the cash being invested. Any cash that does come out of the investment can be plowed back.
  - The **income** (or **current cash flow**) **objective**: This implies that the investor has a short-term and ongoing need to use cash generated from the investment.
- What types of investor would have which objective?

2 Investor Constraints (1/2)

- In addition to certain objectives, investors also come with a set of constraints/concerns;
  - **Risk:** The possibility that future investment performance may vary over time in a manner that is not entirely predictable at the time when the investment is made. Obviously, investors dislike risk, all things equal.
  - **Liquidity:** The ability to sell and buy investment assets quickly at full value and without much affecting the price of the assets. Investors will pay more, for more liquid assets. This is possibly a major constraint to invest in real estate.
  - **Time Horizon:** The future time over which the investor’s objectives, constraints/concerns are relevant. This affect’s investors tolerance for illiquidity and their ability to bear risk.

2 Investor Constraints (2/2)

- In addition to certain objectives, investors also come with a set of constraints/concerns;
  - **Investor Expertise** and **Management Burden:** How much knowledge, ability, and desire the investor has, to manage the investment process and the investment assets. This is also a specific concern to real estate, as you need to manage the properties themselves.
  - **Investor Size:** How “big” the investor is in terms of the amount of capital in need of investment. You need economies of scale to purchase real estate, and to hire the management expertize.
  - **Capital constraint:** Whether the investor faces an absolute constraint on the amount of capital he or she has available (e.g. from stockholders or depositors).

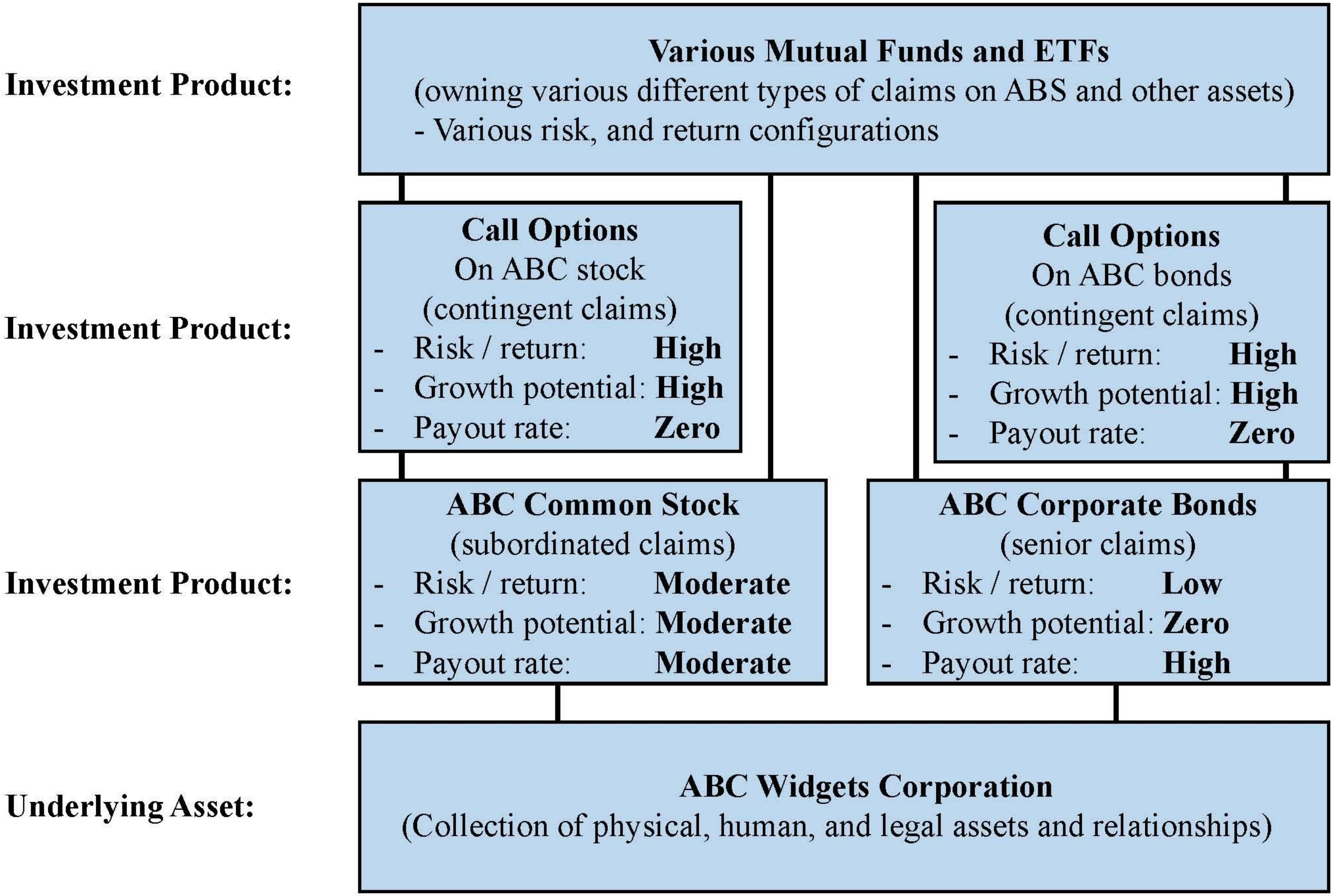
2 Investor Heterogeneity

- Note that because there are so many combinations or objectives/concerns/constraints we have a lot of investor heterogeneity.
- Every investor has their own different constituencies, different liabilities, different levels or types of expertise, and the are subject to different types of regulations and legal constraints.
- One implication of **investor heterogeneity** is that this allows for market segmentation. Different products can be tailored to different objectives and constraints.
- Very big picture; **Investment industry**, matches the **heterogeneous investors**, with **heterogeneous products**.
- However, even with just one product, we can still cater to different investor demands… (see next slide)

2 Underlying Assets vs Investment Products

- The investment industry matches heterogeneous investors (sources of capital) with heterogeneous productive assets (physical capital).
- It is useful to distinguish underlying assets from investment products (also known as vehicles);
  - **Underlying asset**. Refers to the directly productive physical capital, such as an office building, or an industrial or service corporation. The latter is a collection of physical, human, and legal assets that produce net cash flow over time through production.
  - **Investment product**. Are typically one or more levels removed from the underlying asset but are based on the underlying asset. They have a direct, or indirect claim on the productive underlying physical asset. They may or may not have a governing authority over the underlying asset.
- The secondary layer(s) are typically used to match investors.

2 Underlying Assets vs Investment Products



3 Enter Real Estate

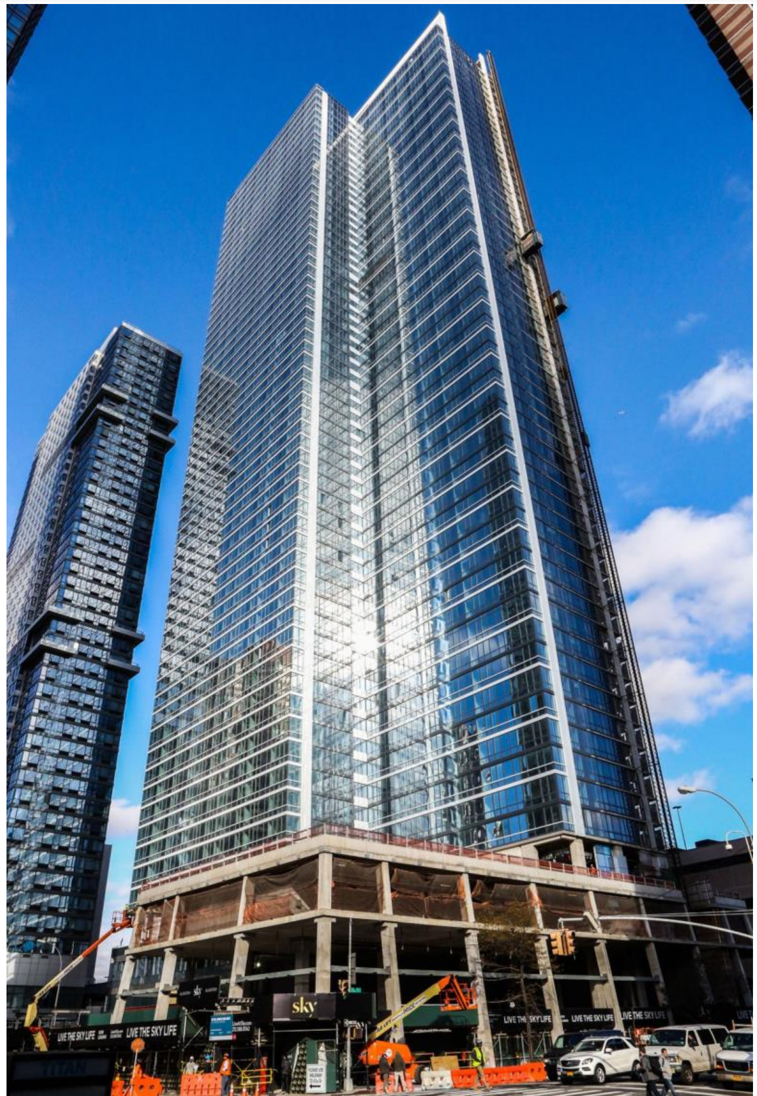
- With commercial real estate we mean **rent producing**, **investable** real property.
  - Rent producing. The property must produce some sort of cash flow (either now, or in the future) that investors want to enjoy.
  - Investable. The property should be able to be bought and sold.

- As such, we identity almost 100B of square foot of CRE, worth about $18T.

3 Enter Real Estate (office)

3 Enter Real Estate (strip mall)

3 Enter Real Estate (apartment)



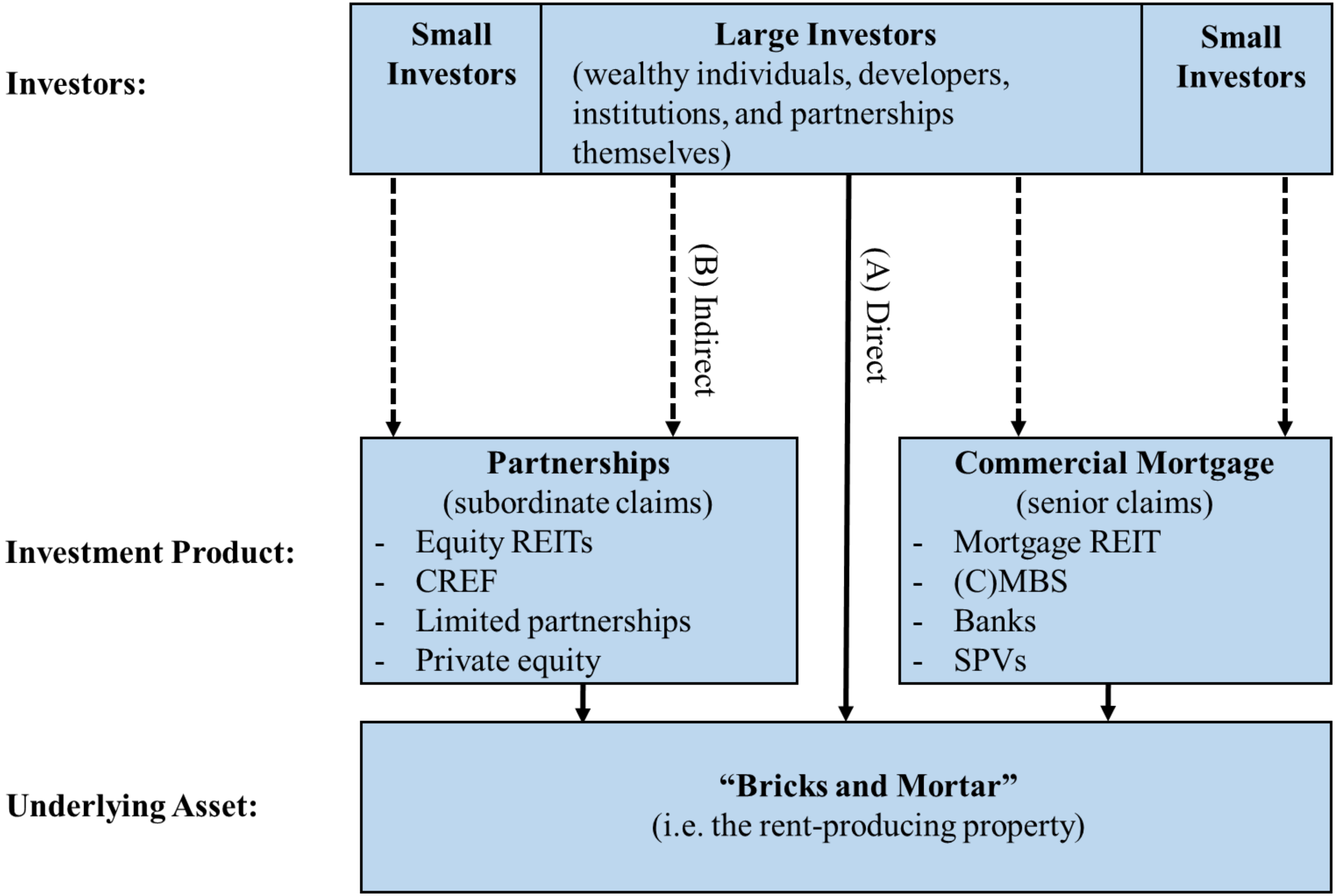
3 Enter Real Estate (Boeing)

3 Enter Real Estate (p. station)

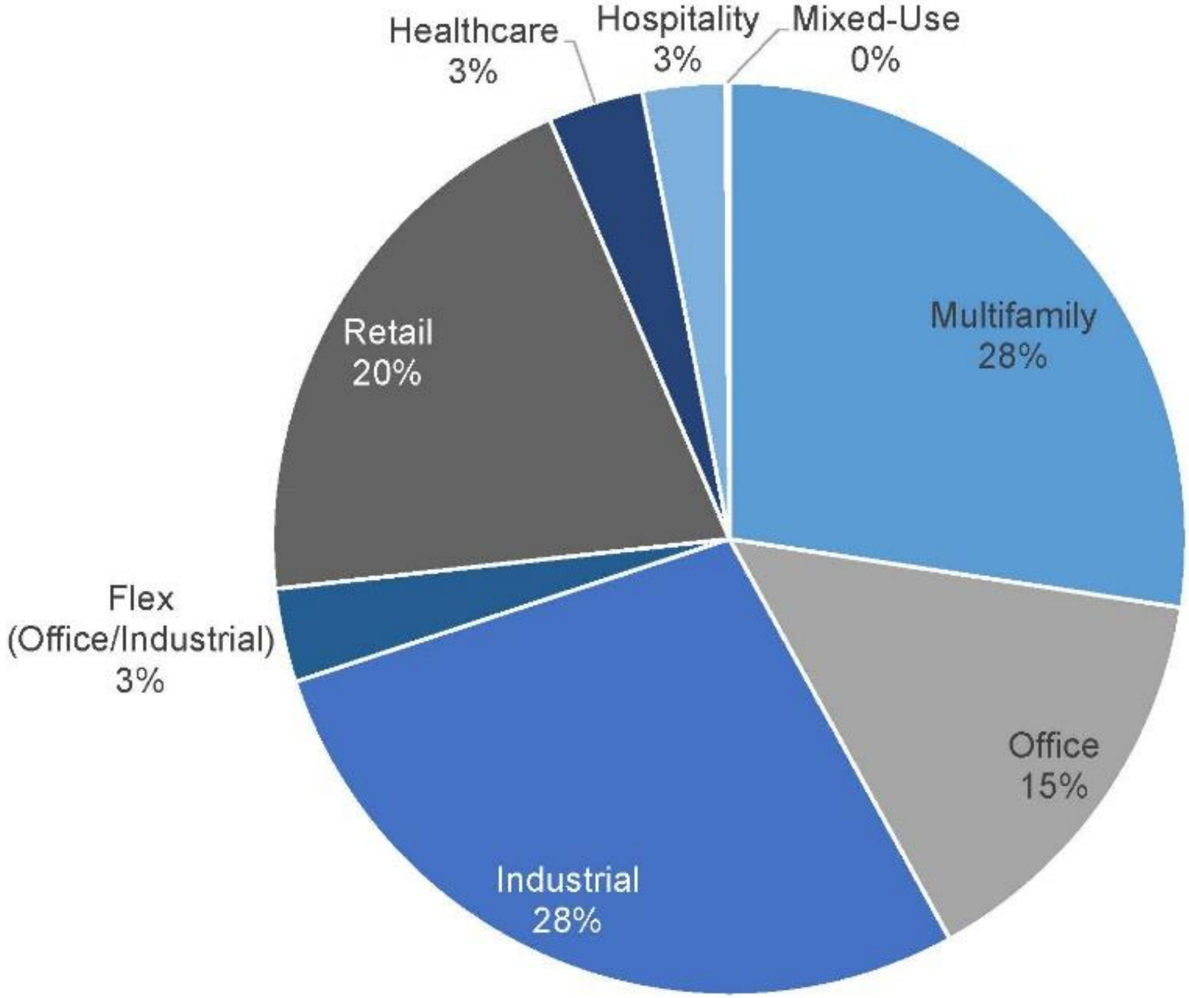
3 Enter Real Estate

- The investment industry pertains to real estate as well.
- The underlying assets is the actual "**bricks and mortar**", i.e. the real estate itself.
- **Real Estate Investment Trusts (REITs)** own real estate, and are publicly traded, meaning that all the investment products exist for real estate as well.
- Commercial mortgages (including CMBS) are like corporate bonds.
- Unlike the typical industrial corporation, however, investors can actually own and trade the underlying assets directly!
- The ownership is also structured in many cases, including Joint Ventures, private REITs, RELPs, and CREFs. However, in most case,s it is kept private.

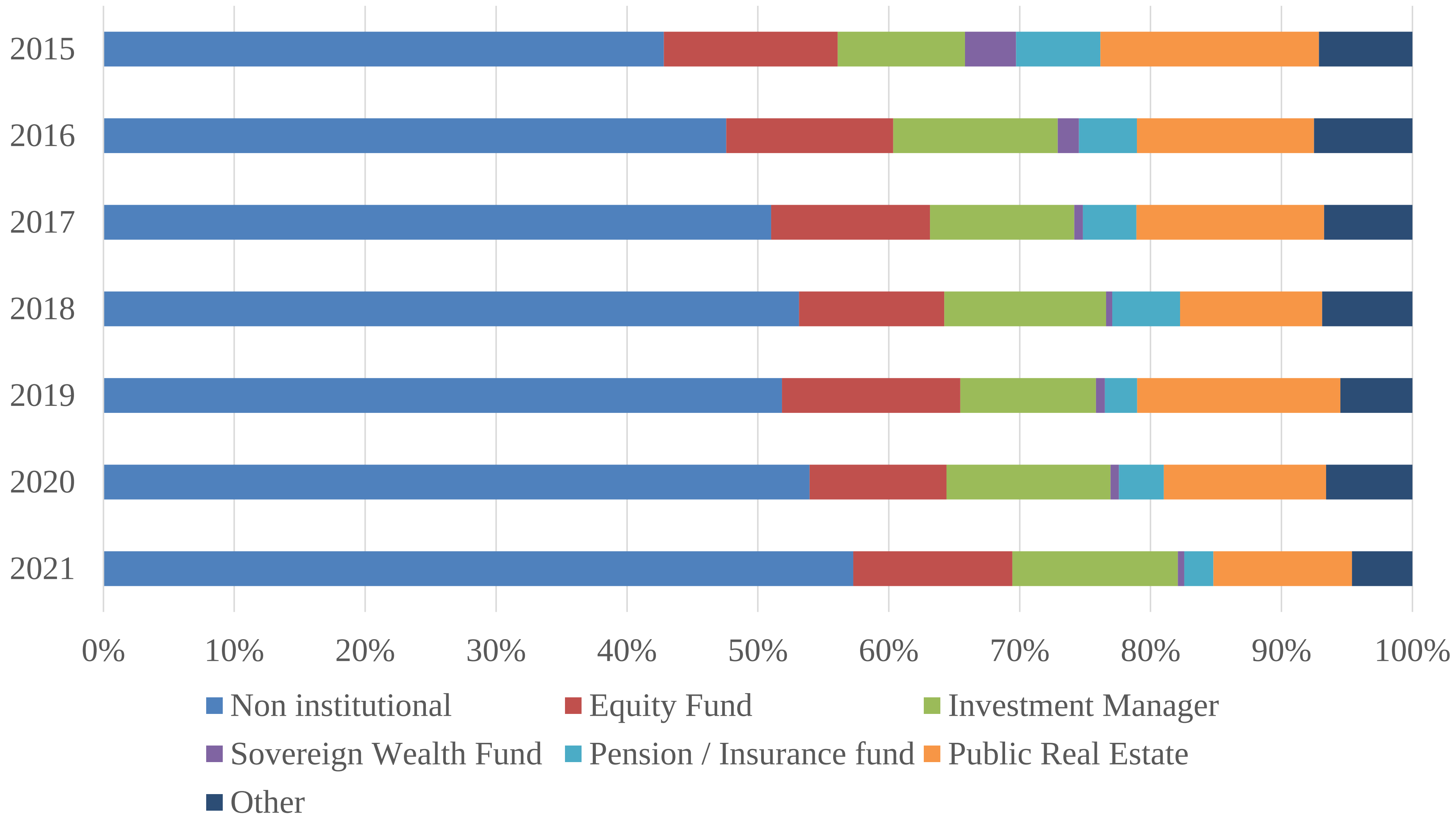
3 Real Estate Investment



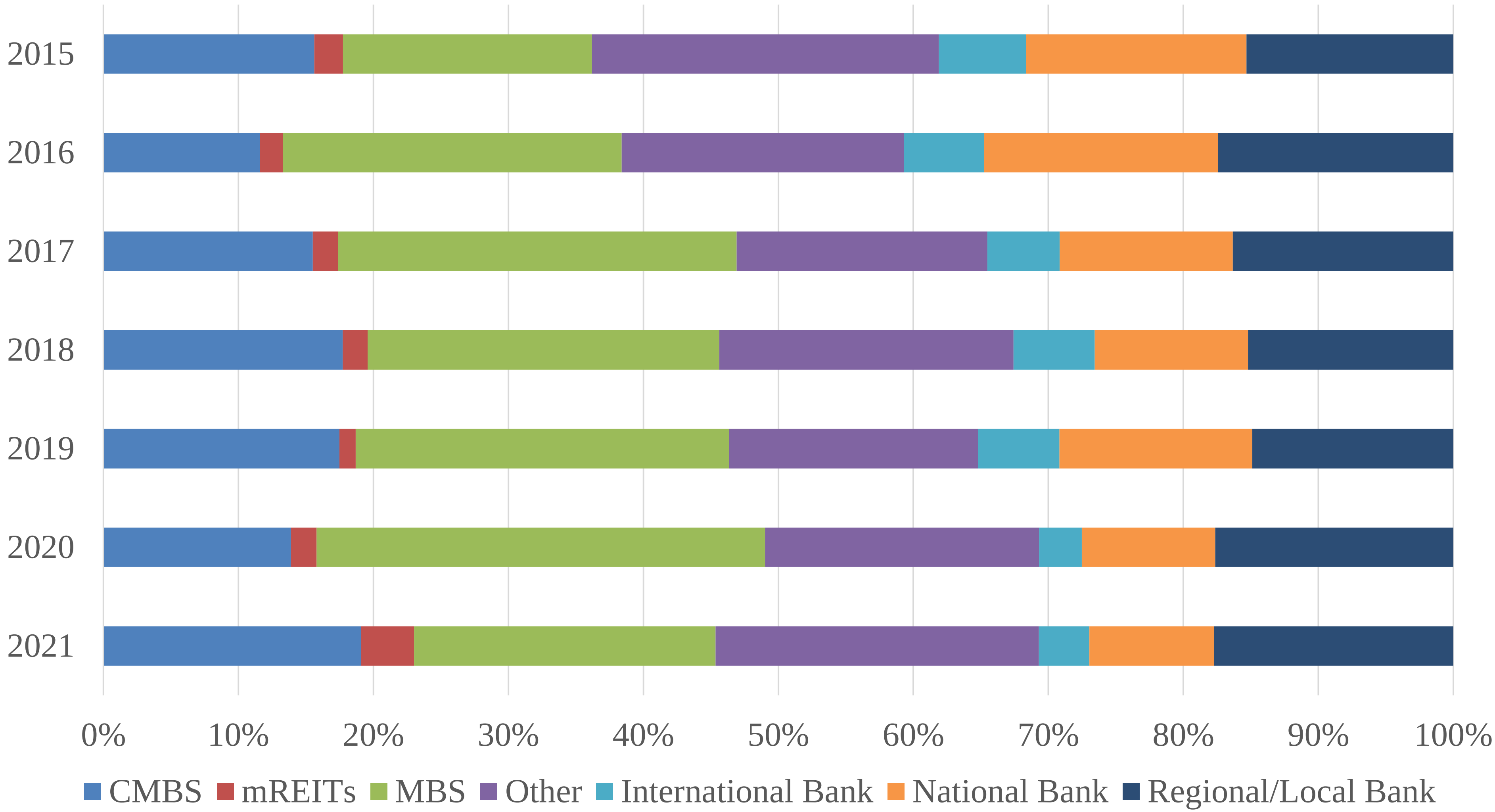
3 Having a look at typical "investable" properties.



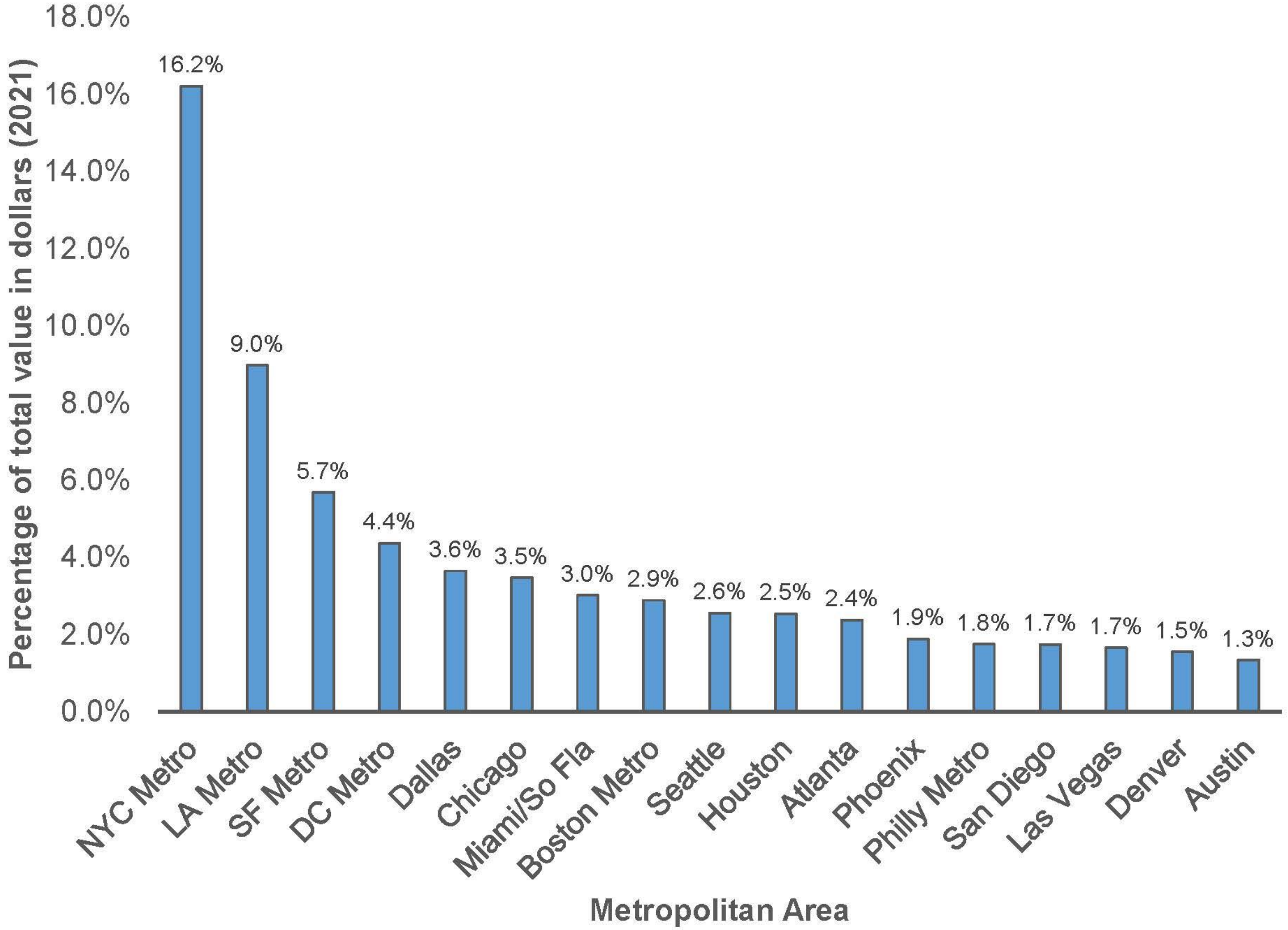
3 CRE Investor Heterogeneity



3 CRE Debt Heterogeneity



4 Location of typical “investable” properties.



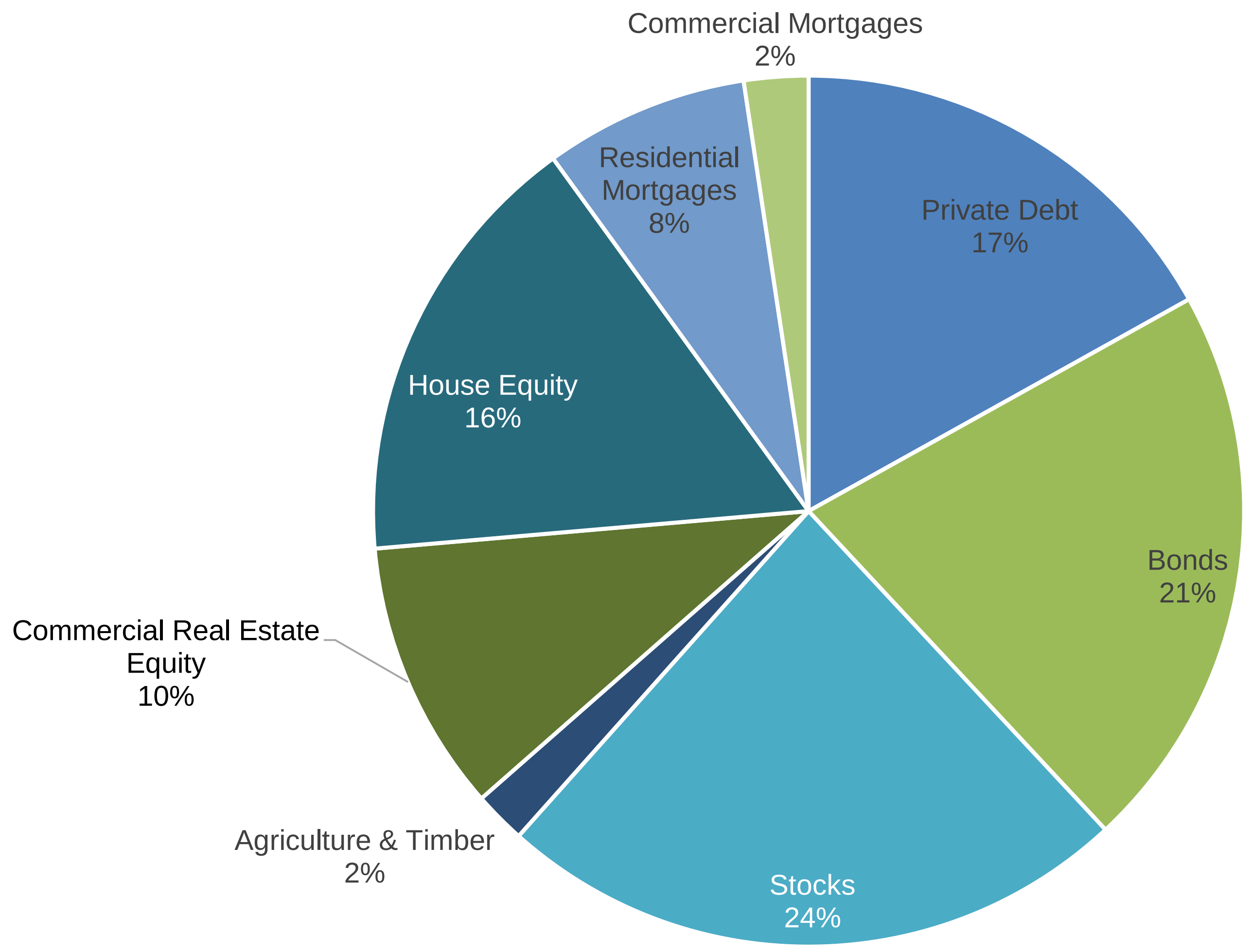
4 Real Estate as an Asset Class

- Let's take a few steps back and put ourselves in the shoes of an investor. Say we have the following 4 options to invest in;
  - Cash (T-bills)
  - Stocks
  - Bonds (Long-run government debt)
  - Real Estate (NPI)
- With "real estate" in this context we mean direct unlevered investment in large-scale commercial property. Also known as **"core"**, with AAA tenants.
- These investment groups are interesting as they are large, unique and "investable."

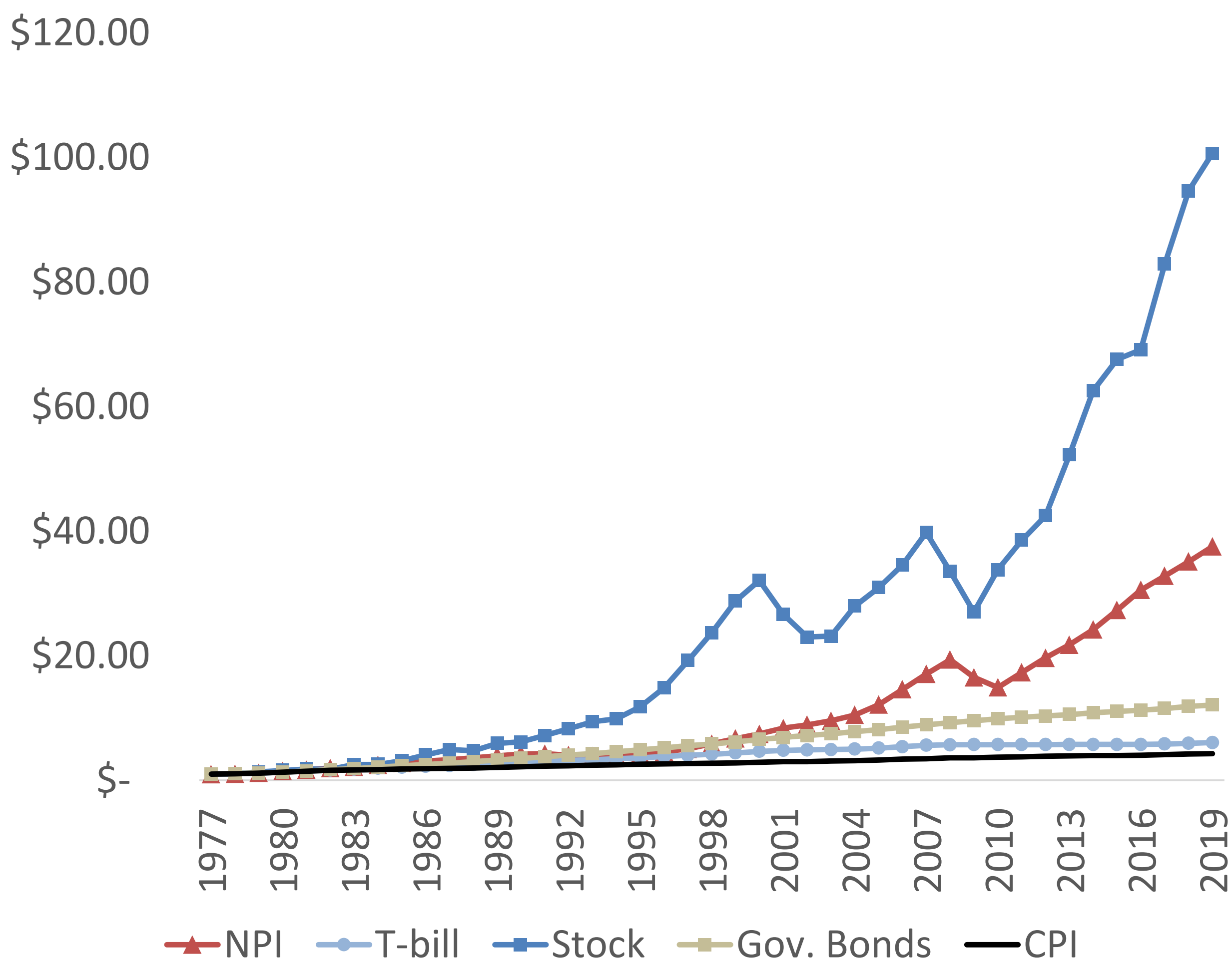
4 Commercial Real Estate

- We typically subdivide accordingly;
  - Core real estate: returns from current income; target 6-9% (?); low risk (compared to other real estate); low leverage (below 50% LTV); long hold (10 years or more). Trophy properties in CBDs with solid economies; properties fully leased to AAA tenants.
  - Core plus real estate: mix of current income and growth (price appreciation), target 9-12% (?), moderate risk, 50-60% LTV, 5-7 year hold. Stabilized building generating steady rents.
  - Value-added: some yield, expected significant appreciation; target 18-21% return with accompanying risk; often 60-70% leverage, 5-7 year horizon. Modestly performing property, anticipating that improved asset management can raise rent and value.
  - Opportunistic: most expected return from capital gains; target returns of 20% or more, but with substantial risk. Often highly levered albeit at high rates, complex capital stack; short holds (5 years, or less). Undermanaged assets requiring substantial rehabilitation and repositioning.

4 Aggregate Value of Assets (in 2020) in Trillions of $



4 Total return of all asset types, between 1977 – 2019 ($1 inv)

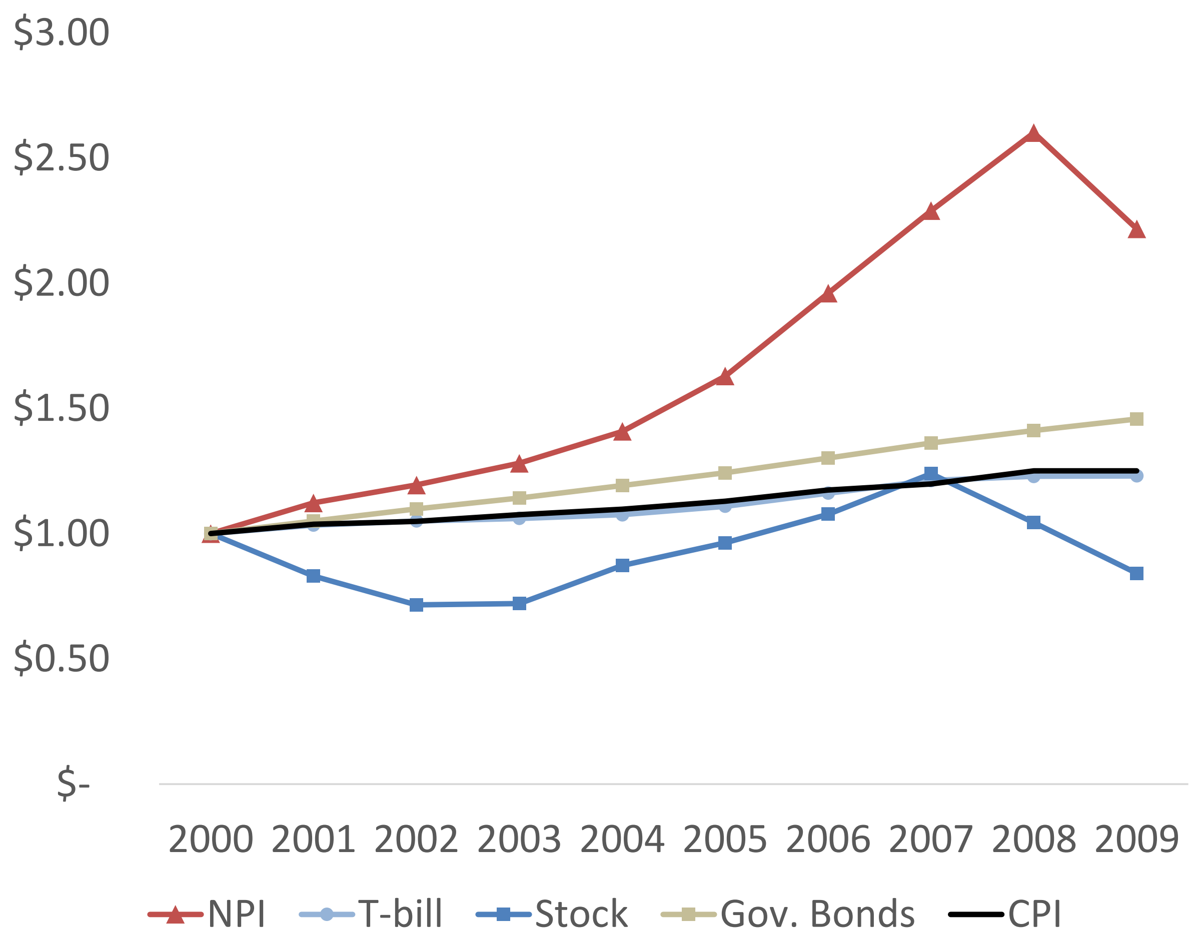


4 Makes sense… right?

- Stocks had the highest returns, followed by real estate, gov bonds, T-bills.
- All “out-performed” the CPI, which is reassuring…
- However, note that returns are highly dependent on the timing of one gets “in the game.”
- See next slide for example…

	Real Estate	T-bill	Stock	Gov. Bonds	CPI
average	9.28%	4.44%	12.45%	6.17%	3.57%
standard deviation	7.50%	3.58%	13.47%	3.29%	2.84%

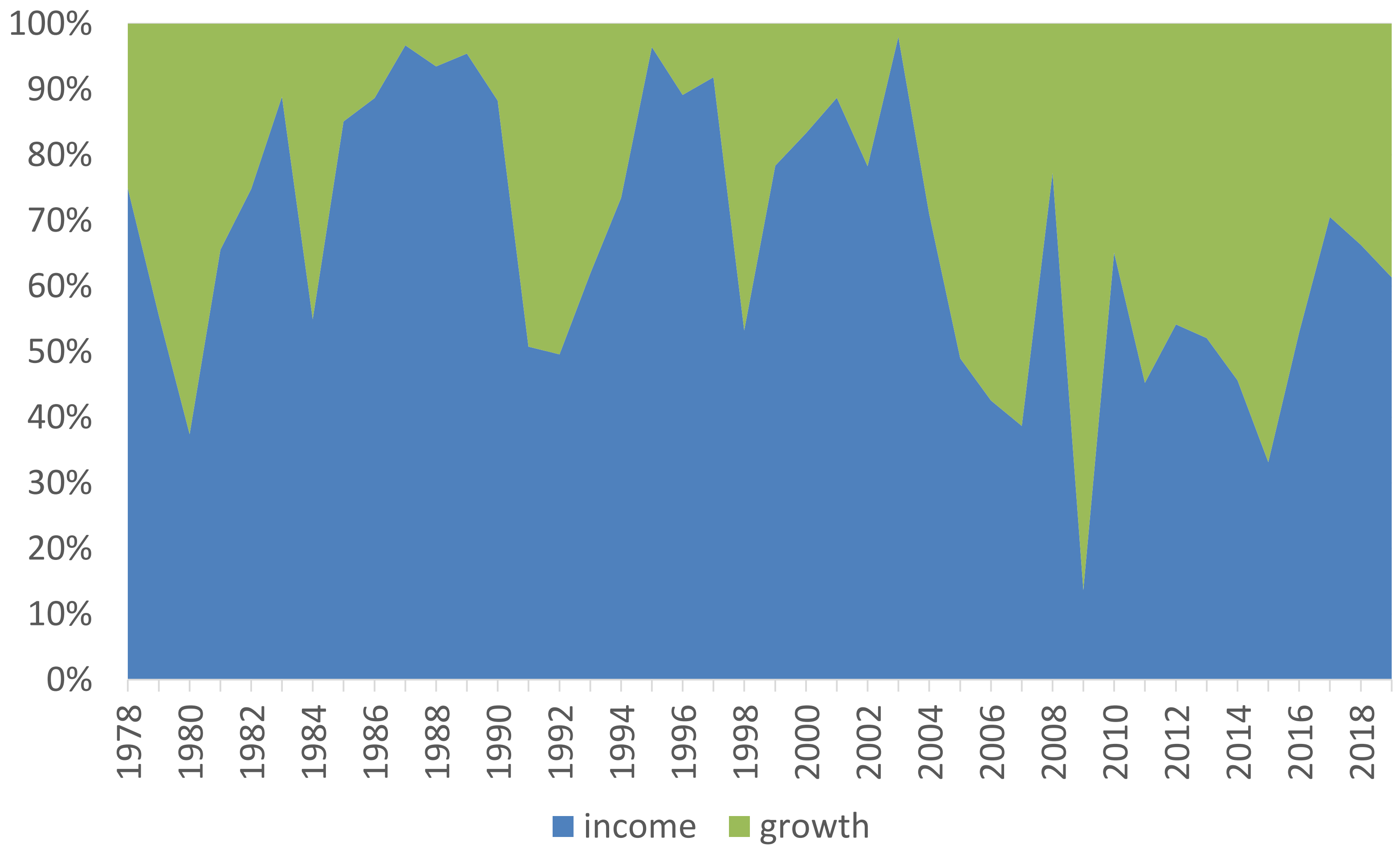
4 Total returns between 2000 and 2009.



4 Income versus growth

- It is also important to note the source of the return. Again, we have growth and income. A general rule of thumb is;
  – For T-bills and bonds all return come from income.
  – Real Estate (especially our NCREIF returns) also had relative more income with about 65% of the returns coming from income (rents) and the remainder from growth (price appreciation).
  – With stocks it’s the other way around. About 70% is growth and “only” 30% is income (dividend).
- Note that there seems to be an inverse relationship with the amount of return coming from income and the risk.

4 Source of return for real estate



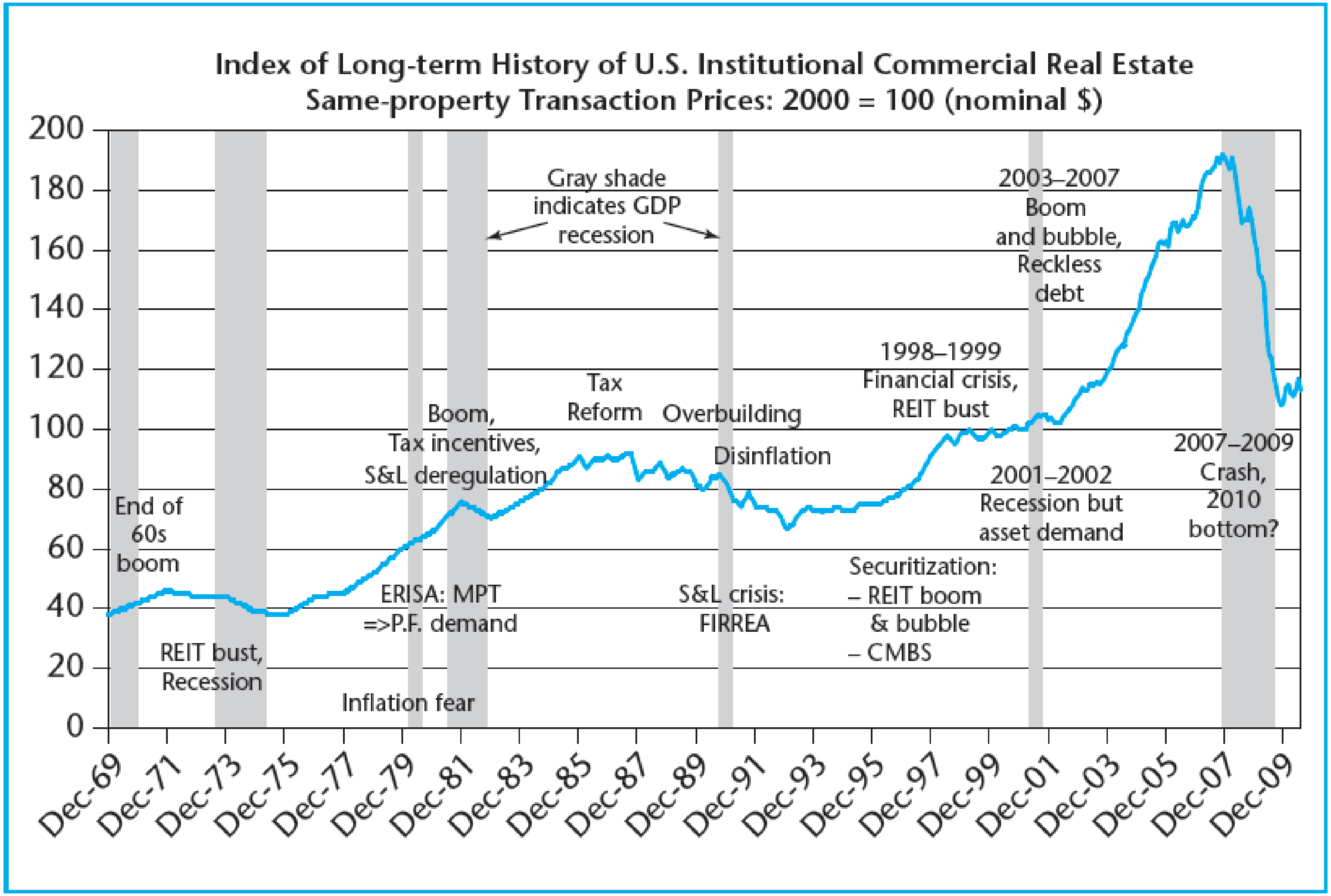
4 Comparing the Investments

Investment Objective	Stocks	Real Estate*	Long-Term Bonds+	Cash (T-bills)
Return	High	Moderate	Moderate to Low	Low
Income (as % of return)	Low	Moderate	High	High
Growth (as % of return)	High	Moderate	None	None

Investment Constraint / Concern	Stocks	Real Estate	Long-Term Bonds	Cash (T-bills)
Risk	High	Moderate	Moderate to Low	Low
Liquidity	High	Low	Moderate	High
Time Horizon	Short	Long	Moderate	Short
Investor Expertise and Management Requirement	Small	Large	Small	Small
Investor Size	Small	Large	Small	Small
Capital Constraint	Small	Large	Small	Small

With **real estate** we mean a direct "core" investment, without the use of debt.

5 History of Commercial Real Estate (in US)



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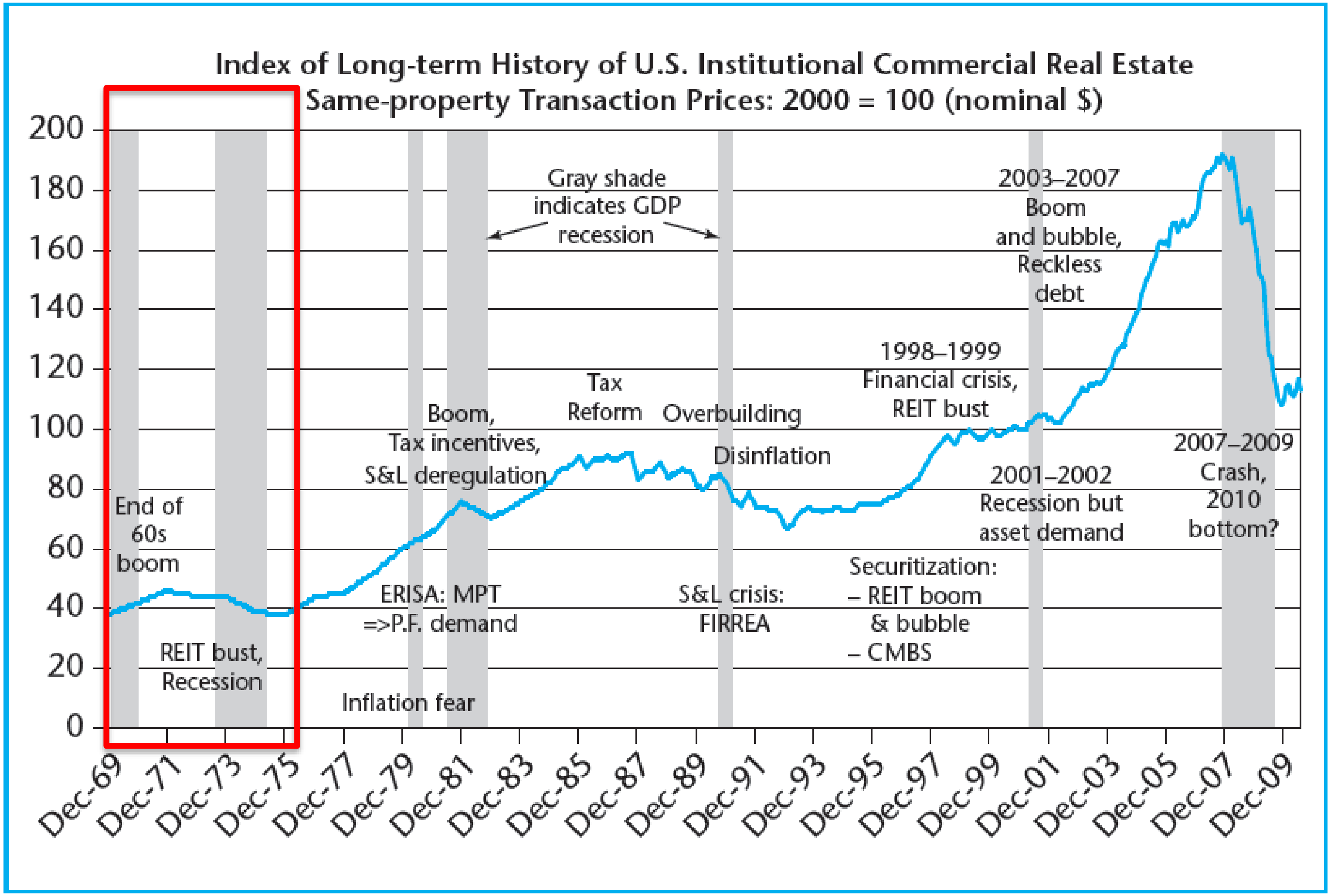
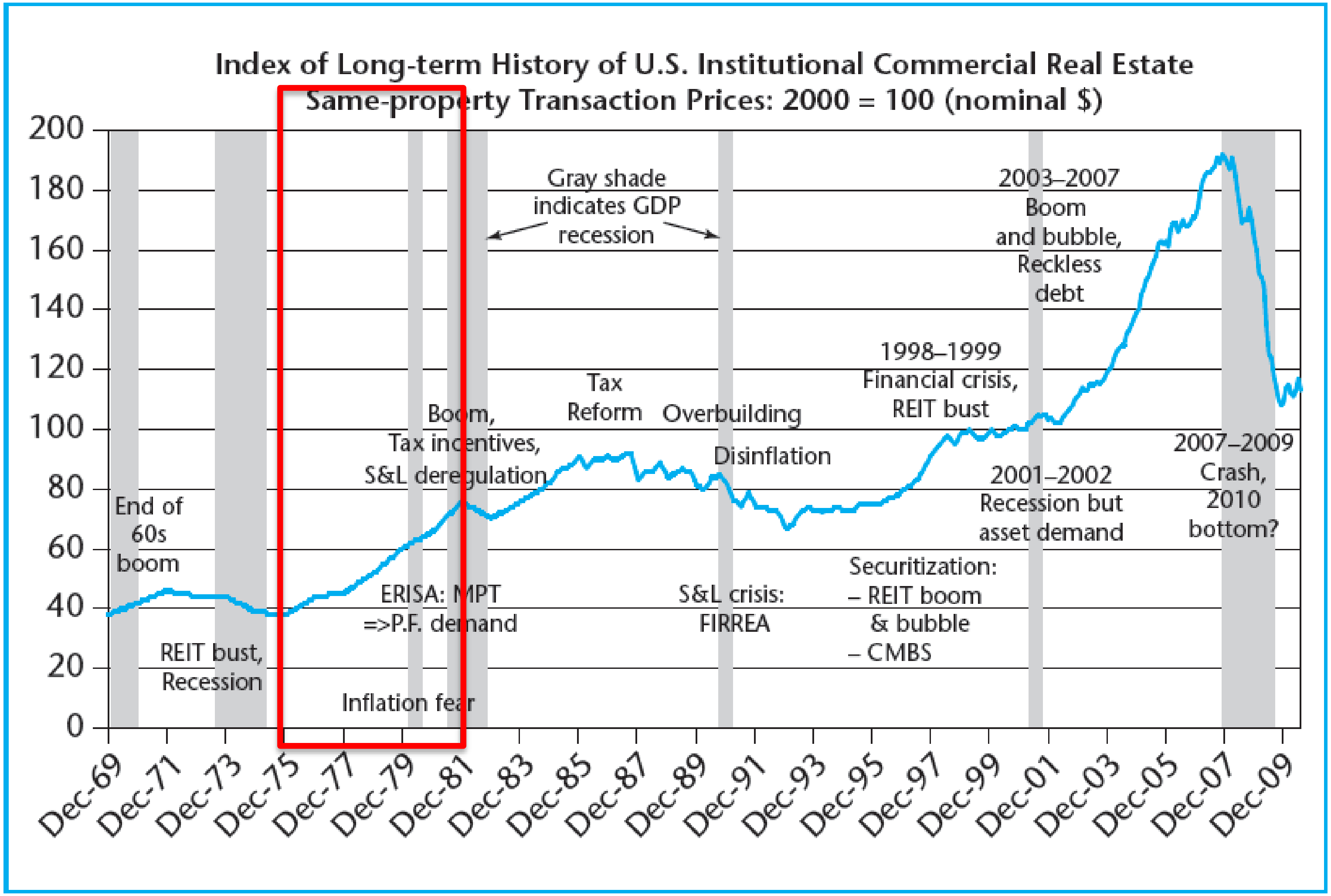


5 Stagflation early 1970s

- After the economic growth of the 1960s, the early 1970s were not good for real estate investment.
- At this point in time, we had (mostly) mortgage REITs. They borrowed short-term at low interest rates and issued mortgages at higher interest rates to real estate investors, on a long-term fixed basis.
- Unfortunately (for them), inflation (and thus interest rates) started to rise at unprecedented levels.
  - Government deficit started rising due to Vietnam war.
  - Oil crisis (1973 – 1974).
- The results were devastating for the REIT industry.
- Rents also dropped during this era.

5 History of Commercial Real Estate (in US)

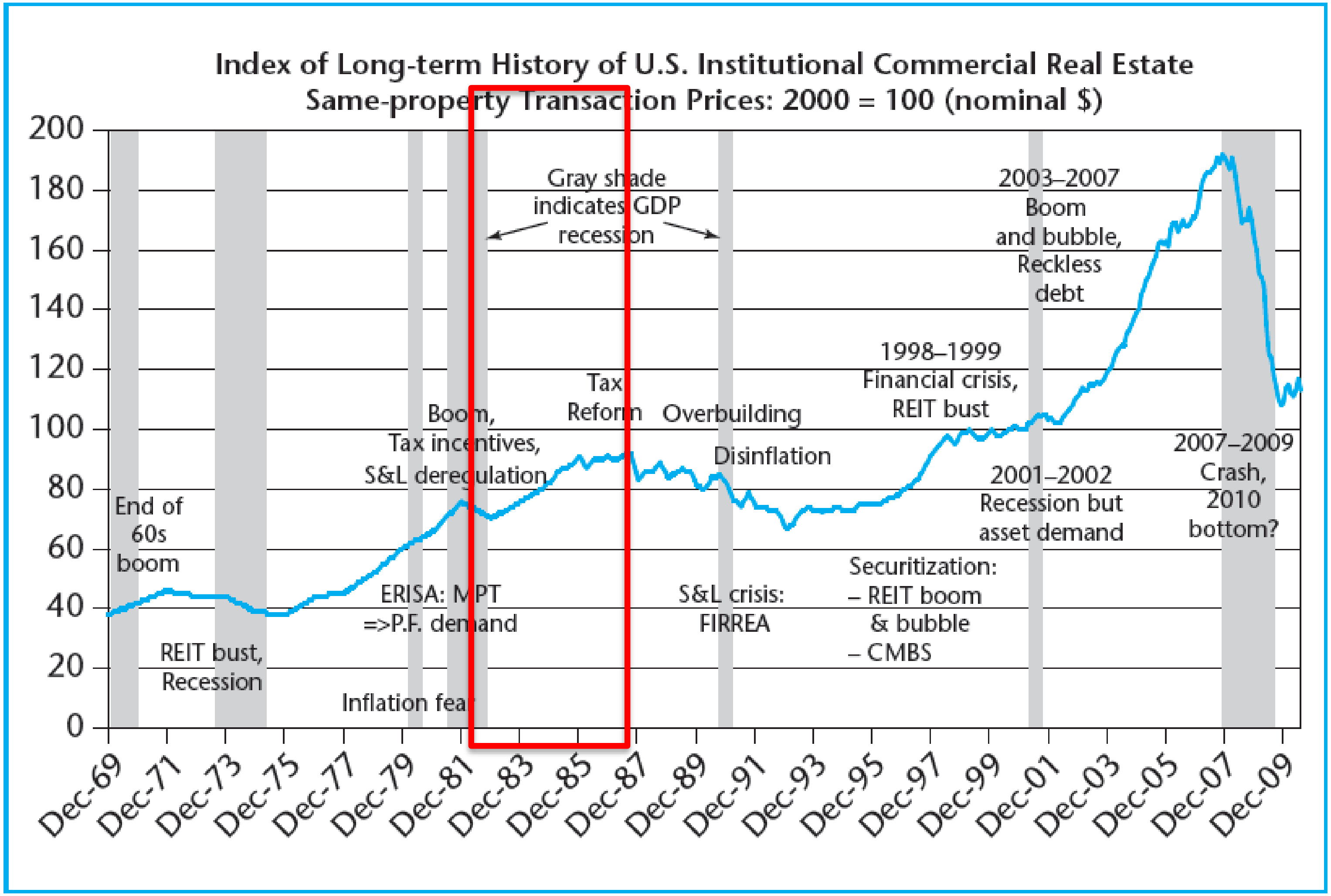


5 Late 1970s

- Something interesting started to happen in the late 1970s.
  - Investors were getting very afraid of <u>inflation</u> at this point. (It was hitting double digits!) They thought of real estate as a natural <u>hedge against said inflation</u>. (**WHY?**)
  - Congress passed the Employee Retirement Income Security Act (ERISA). This essentially forced <u>pension funds to invest in real estate</u>.

- All of the above meant that there were new players and thus new capital on the market, increasing property values. Yey!
- Some crises happened during this period, but it did not impact commercial property prices. Double yey!

5 History of Commercial Real Estate (in US)

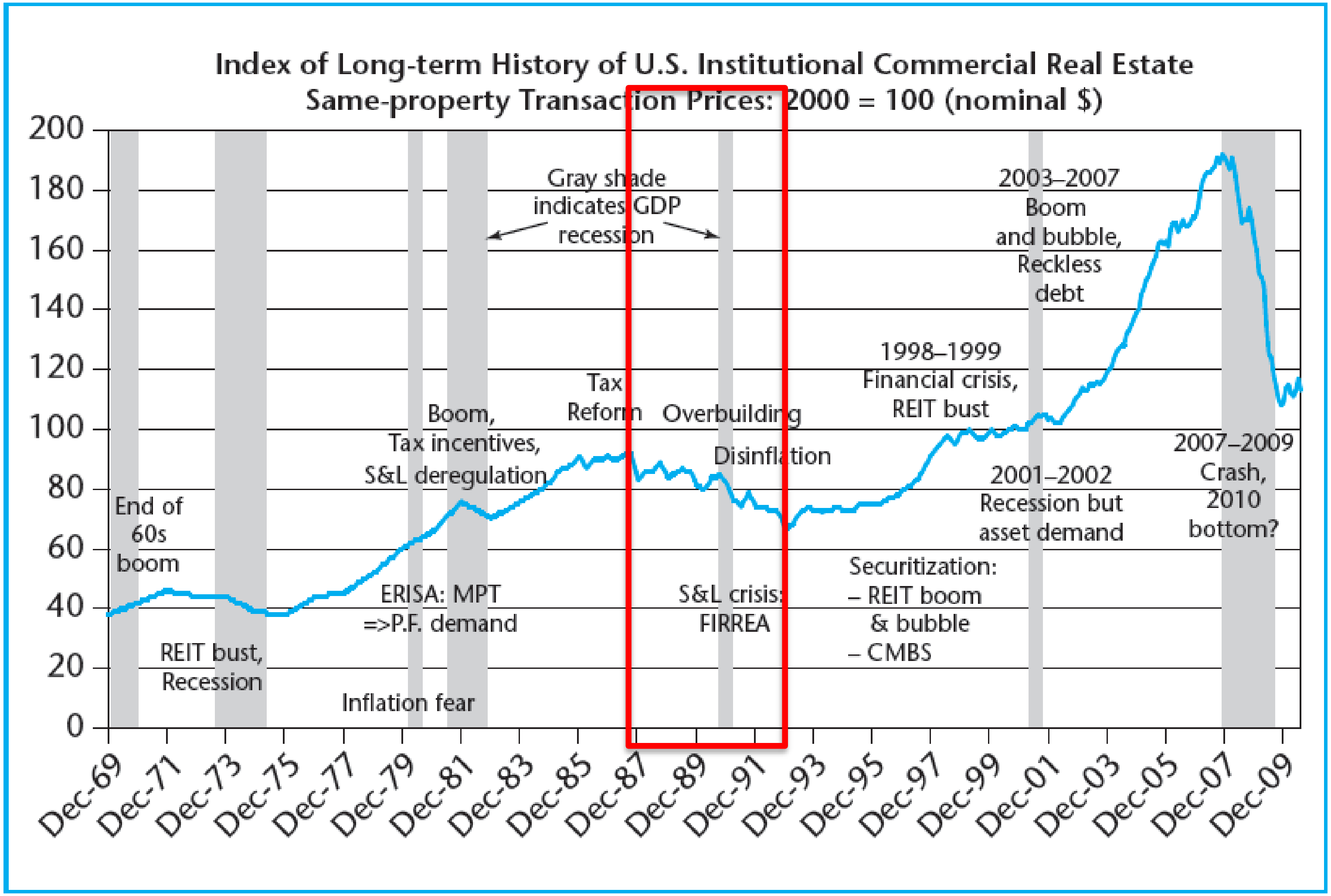


5 Deregulation in the 80s

- The Reagan administration provided investment for real estate investment.
  - Very generous depreciation schemes.
  - Tax shelter for wealthy individuals.

- Banks (saving & loans) were deregulated as well. This opened up a new source of capital, which was <u>inexperienced</u> in commercial real estate.
- Combined with the economic recovery in the 80s, we find increasing property prices. Still yeeeeey!

5 History of Commercial Real Estate (in US)

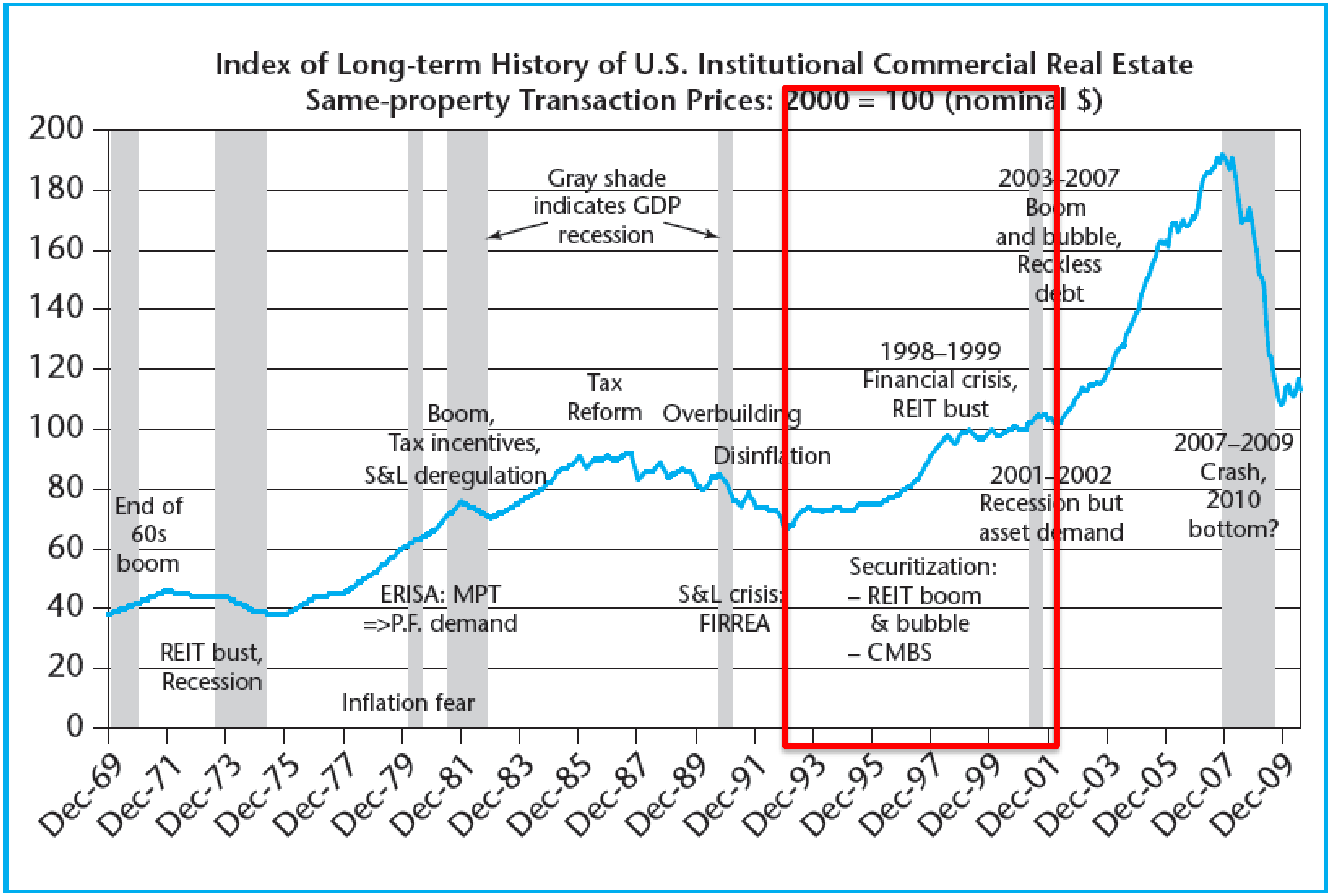


5 Trouble starting mid 1980s

- By now, commercial real estate prices have been going up for about 15 years. Investors were riding high!
- However, the many tax incentives resulted in development that had <u>nothing to do with catering for any demand</u>.
- Also, because the deposits of the S&L banks were guaranteed by government deposit insurance, banks didn't really do their *due diligence*. (Ergo, <u>moral hazard</u>!)
- With that in mind;
  - In 1986, a new tax reform removed virtually all tax benefits.
  - Inflation stopped being an issue.

- This resulted in capital drying up, and prices dropping.

5 History of Commercial Real Estate (in US)

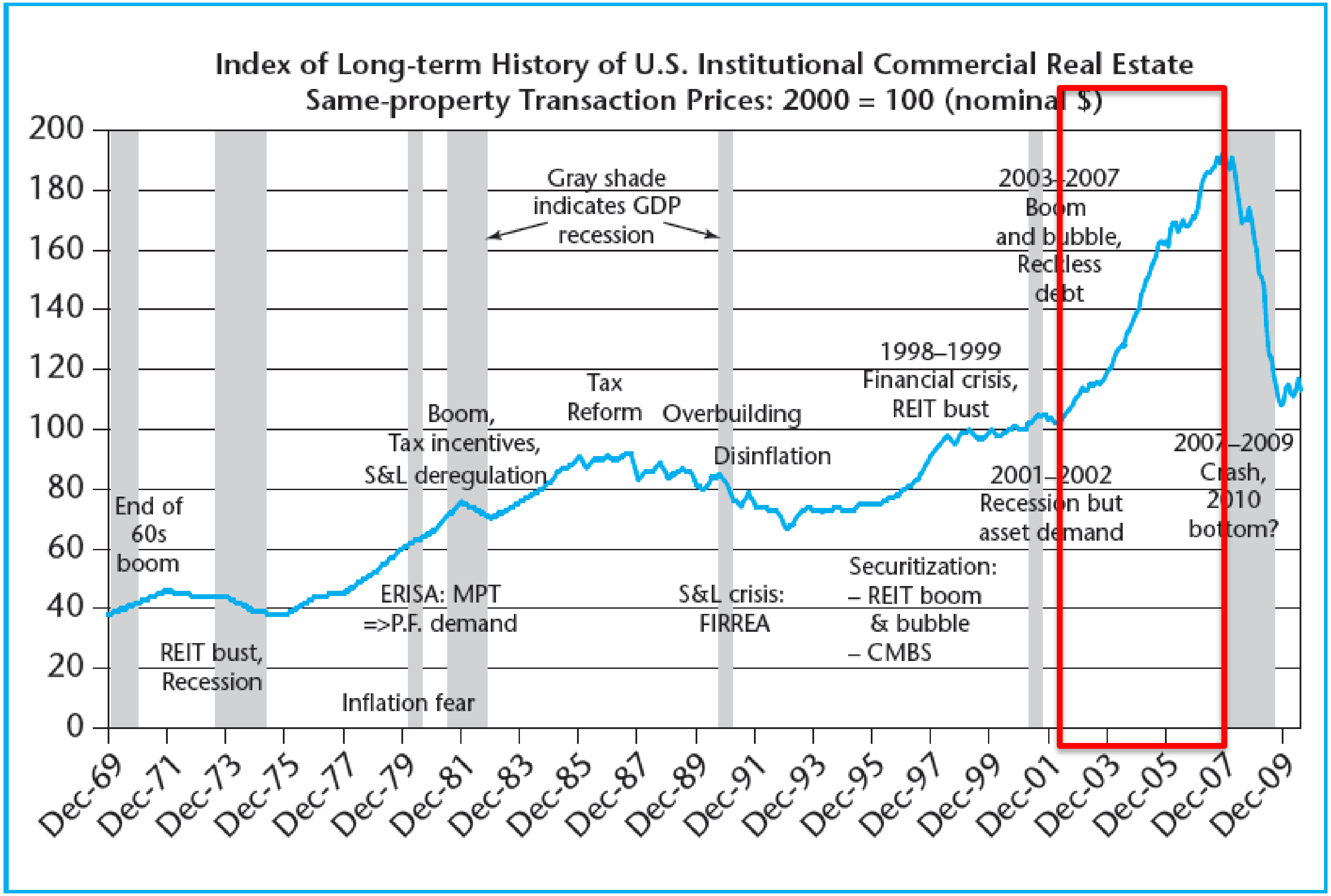


4 Capitalizing gains / socializing losses

- The many issues pressed the US congress to take action;
  - On the <u>mortgage side</u>: Government took over the bad loans from all the banks that went bankrupt. They also forced financial institutes to *securitize* loans.
  - On the <u>equity side</u>: REITs got greater management flexibility (before REITs could not manage their own real estate) and did not have to pay transfer taxes anymore after changing from a private party into a (public) REIT.

- With the 90s Clinton boom, the oversupply was filled with tenants.
- The 1998 Russian / Asian crisis did have an impact, but not large enough to (completely) reverse the positive trend.
- Pension funds and commercial bank started returning to the commercial real estate market in full force.

5 History of Commercial Real Estate (in US)

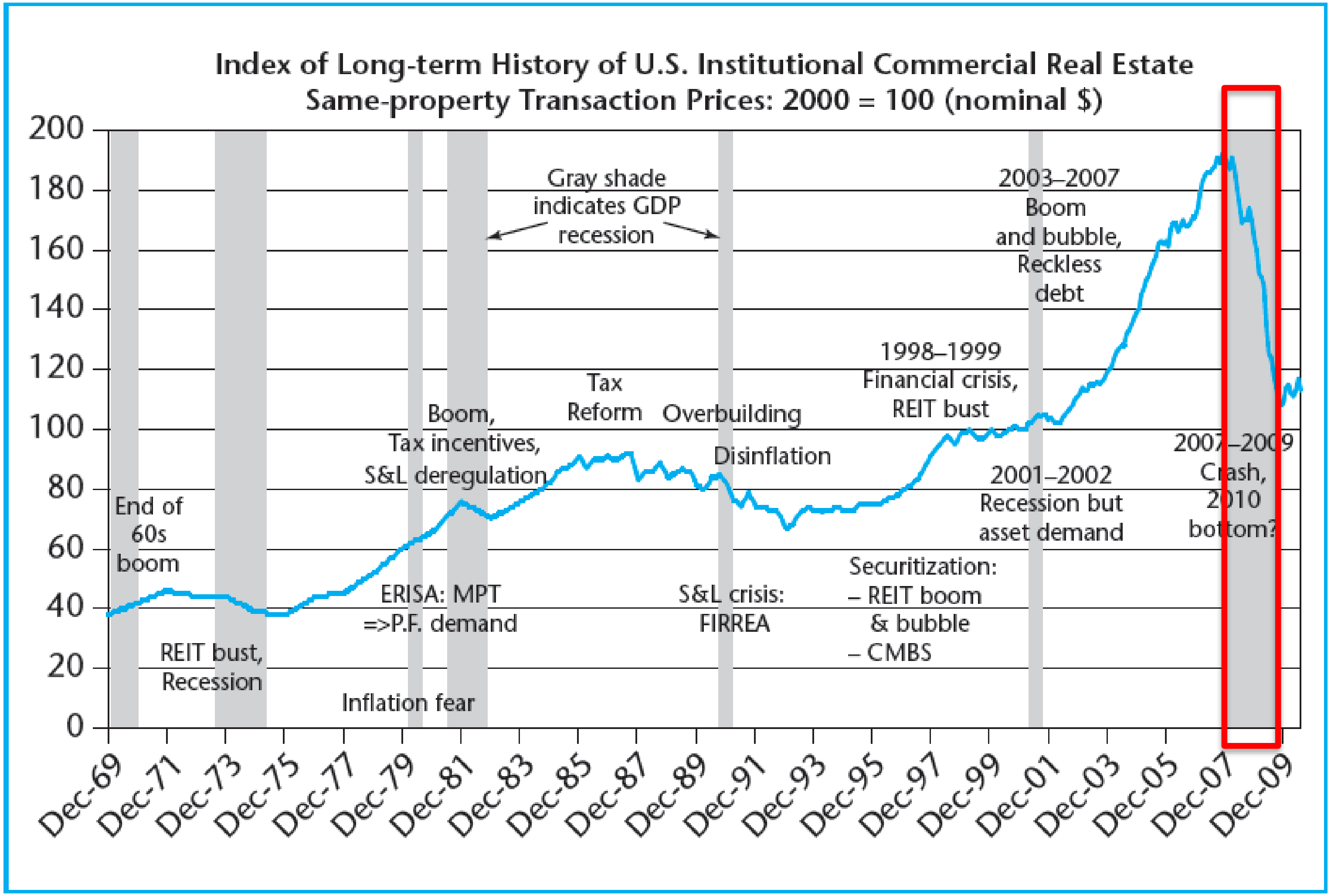


5 The Big Boom of the 2000s

- With the burst of the “dot-com” crisis, history repeated itself;
  - Investors got spooked by the start-up firms that did not make a single dollar, and ran to the dividend rich, tangible asset called real estate.
  - For the first time, even Wall Street started to notice, and recognized real estate as a legitimate investment. FINALLY!
  - Money from India and China started flowing in the US as well.

- With lower and lower interest rates, and more demand (investors) property prices surged.
- You did notice there was a bit of a “bubble-mentality.” Investors started flipping properties like crazy.
- Still, it was not as bad as the housing market… Right?

5 History of Commercial Real Estate (in US)



5 The GFC for Commercial Real Estate

- It is really true that commercial real estate investors did not believe that would be hit so hard. CRE *was* in better shape than the single-family housing market. For example, there was <u>less overbuilding</u> in the commercial property market.
- However, there was <u>excessive lending</u> in CRE as well.
  - The total amount of loans issued in the *first half* of 2007 was as high as all loans issued in the 1992 – 1998 period.
  - The complex CMBS market did not price risks well, resulting in too low interest rates, and way to lax underwriting criteria.
  - The life insurance companies did see it coming though! However, because they were realistic when underwriting, no-one wanted to do business with them anymore… They bounced back after the GFC though.
- Real estate was not safe enough, and investors fled to T bills, resulting in high price drops in CRE as well.