

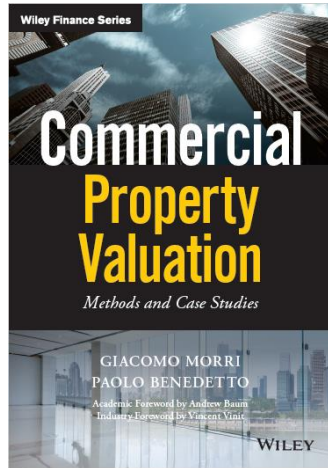
Commercial Property Valuation

Giacomo Morri & Paolo Benedetto

WILEY, 2019

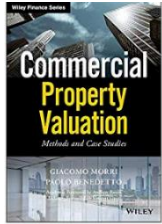
Economic Characteristics and Elements of Risks of Properties

Chapter 2



Index

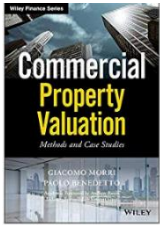
- **Characteristics of Property Investments**
- **Categories of Property Investments**
- **Skills in Asset and Investment Management**
- **Economic Classification of Properties**
- **A Simple Definition of Risk**
- **Common Risk Elements in Real Estate Investments**



Characteristics of Property Investments

Building and Land

Property = Land + Building	
Land	Building
<ul style="list-style-type: none"> • Area on which Building stands • Building rights • Location 	<ul style="list-style-type: none"> • It is the structure built on the Land
<ul style="list-style-type: none"> • Unlimited duration → its utility does not decrease over time 	<ul style="list-style-type: none"> • Limited duration → loses its utility over time <ul style="list-style-type: none"> – Physical senescence – Functional obsolescence



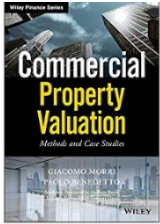
Characteristics of Property Investments

Building and Land

- **It is difficult to estimate separately the value of the Land and of the Building**
 - The value of the Building can be lower than the construction costs (ex. modern office park in the middle of nowhere)
- **Different value dynamics of Land and Building**
 - The value of the Land can vary over time based on many factors
 - The value of the Building will only fall (obviously ignoring any extraordinary maintenance or refurbishment work)
- **The different possibility of intervention**
 - The property owner can only intervene on the Building, in fact there is a limited amount of work that can be done on the Land
- There are also properties without Buildings which, nevertheless, generate Highest and Best Use (HBU) usable Space



Value of the Building \neq Value of the Land + Construction Costs



Characteristics of Property Investments

Use of Space and Investment Asset

- **The property produces the 'Use of Space'**
 - The utility depends on many factors:
 - Size, shape, quality, efficiency, location (e.g. centrality, connection, accessibility) of the Building
 - The demand for the Use of Space for a specific property
- **The property is an investment asset**
 - The Owner receives some utility not from the direct use but from the income resulting from the sale of the Use of Space (rent)
 - The property has a value based on the future income it may generate and its risk

Characteristics of Property Investments

Owners and Users

The choice between being both Owners and Users of the property or exclusively Users is based on financial and strategic factors

Residential sector

- Space is a consumer good
- Strategic control over the property
- Low returns and high legal risks



Owner and Users

Commercial Real Estate

- Space is a means of production
- Strategic control is often (not always!) of less value
- Lower legal protection for the tenant reduces the risk for the Owner



Space Market and Investment Market

Characteristics of Property Investments

Business Perspective

- A property can be compared to a business:
 - The good produced by the property business is the Use of Space
 - The end client is the User
- The value of the property depends solely on its capacity to generate income



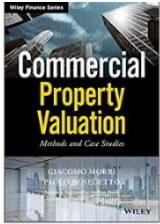
Simplified profit and loss account of an Income producing Property

+ Revenues
Rents (Use of Space)
- Costs
Maintenance
Real Estate Taxes
Management
= Net Operating Income

Characteristics of Property Investments

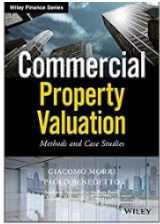
Location

- The property is a business with a single reference market → **the rent is closely connected with the dynamics of supply and demand at the local level**
- The location has a dual meaning:
 - **Macro level** → the geographical market in which the property is located
 - » Economic trends → Offices
 - » Spending capacity of the population → Retail
 - » Demographic dynamics → Residential Sector
 - **Micro level** → exact location
 - » Connectivity and ease of access → Offices
 - » Number of potential clients → Retail
 - » Availability of services, quietness and security → Residential Sector



Categories of Property Investments

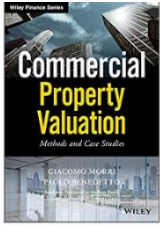
- Property investment operations can be divided into three main categories:
 1. **Development Projects**
 2. **Income-producing Properties**
 3. **Trading Operations**
- In reality it is not easy to identify precisely the category, as intermediate situations exist, such as Income-producing Properties to be redeveloped, Income-producing Properties completed but not yet leased and Income-producing Properties already leased



Categories of Property Investments

Development Project

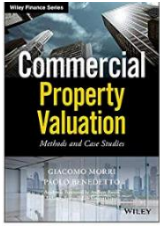
- It is very similar to the launch of a new industrial production activity which involves acquisition of the area and the construction phase
- **There is a considerable operational risk** stemming from many uncertainties:
 - Time needed to complete the entire operation
 - Actual costs of construction
 - Price dynamics and sales volumes
 - High degree of complexity (not possible to modify the project due its particular nature)
 - Uniqueness of the product
- Three main risks:
 - **Zoning:** the initial intended use of the property differs from the target use
 - **Industrial:** risks inherent in the construction activity
 - **Market:** incorrect assumptions in the business plan



Categories of Property Investments

Income-Producing Properties

- Similar to already existing companies which are selling a good to already existing clients with a supply agreement already in place
- **The cost structure of a property**, in terms of maintenance, management, insurance and taxes payable by the Owner, **is quite constant** over time and easily predictable
- **The volatility of its cash flows is lower than that of a Development Project**, as there is less uncertainty: the rent is relatively constant, both because of the existence of lease contracts and of the relative stability of market rents over time
- Consequently, **the risk, and therefore also the expected return, are lower than in a Development Project**

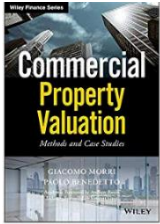


Categories of Property Investments

Trading Operations

- In Trading Operations (of single properties or portfolios), properties are sold in a **short period of time**, either as a result of an initial strategic decision or because market conditions have changed
- **The former includes acquisitions of real estate portfolios** where the Investor benefits from a price difference by buying 'wholesale' in a segment where there is a reduced competition due to the large size of investment **and reselling on a 'retail' basis** to other investors with a lower investment capacity
- In other cases, a real estate investment becomes a Trading Operation when, because of changes in market conditions, it may have become convenient to sell the property before the initially forecasted period

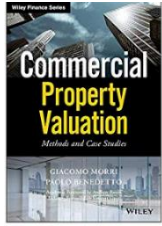
Categories of Property Investments Development Projects



City Life, Milano, Rendering

Categories of Property Investments

Income-Producing Properties



Piazza Cordusio, Milano, Current Status



Value-Add
Investment

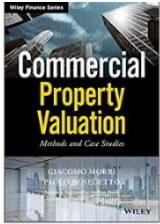


Piazza Cordusio, Milano, Rendering



Via Crespi, Milano, Current Status

Core
Investment



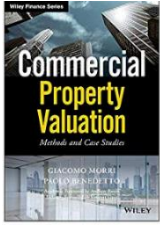
Skills in Asset and Investment Management

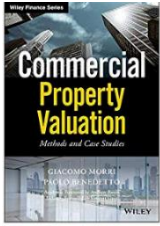
- Differently from other asset classes such as stocks and bonds, real estate investments require active management and a specific investment process
- The skills required for real estate investment differ considerably in the case of:
 - **Development Projects:**
 - High complexity and long duration
 - The value of a Development Project is not directly proportional to the stage it has reached, but only to the achievement of certain stages when it might be negotiable
 - **Income-producing Properties**
 - The Owner has limited impact on its performance if it is leased while it has more possibility if it is just partially leased or vacant
 - **Trading Operations**
 - Require considerable commercial skills (during the sale) and ability to execute the transaction (due diligence, contract drafting, financing, etc..)

Skills in Asset and Investment Management

Real estate investments can be classified according to a risk/return profile:

- **Core investments** = Income-producing Properties
- **Valued Added investments** = existing properties with a potential value increase achievable with building refurbishment
- **Opportunistic investments** = are those with the highest risk/return profile as Development Projects and Trading Operations





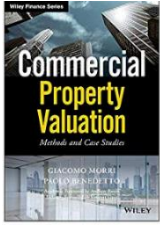
Economic Classification of Properties

- The most well-known classification is the one used by the land registries, which identifies different categories based on the use of urban property units
- In determining the right way to estimate the value of an asset it is useful to classify properties according to an economic logic:
 - Capacity to generate usable Space
 - Space as an end consumer good or as a raw material for the production of other goods and services
 - Type of User of the Space: family/individual or business
 - Durable consumer good or means of production
 - Flexibility for Users
 - Income-earning potential resulting from the activity carried out in the specific property

Economic Classification of Properties

Capacity to generate usable Space

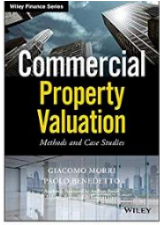
- Properties, particularly can generate potentially usable space for various purposes such as or for families or office properties
- Other properties, even if they consist of land and buildings, do not, however, generate usable space, such as in the case of old buildings for which there are even potentially no Users at all
- Finally, one has to consider properties without a building, i.e. Land, some of which are commercial properties with a specific purpose, as in the case of agricultural land:
 - There is no scope to build on these, neither legally nor in financial terms. The Land has already achieved its maximum capacity to generate a utility through the agricultural use (HBU)

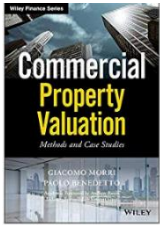


Economic Classification of Properties

Users and Different Purpose of Space Asset Use

- Residential Space are the properties in which Space is a consumer good. The end consumers, individuals and/or families, use the Residential Space as an end consumer good, without it being used directly to produce other goods or services
- Commercial properties are the ones where Space constitutes a means of production, meaning that it is used in a production process by Users, covers businesses in a broad sense, both private and public. In this case, Commercial Space is a necessary means of production, on a par with the raw material needed to produce other goods and services





Economic Classification of Properties

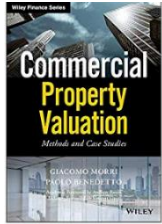
Durable Consumer Goods and Investment Assets

- Properties can also be classified according to the reasons they are purchased:
 - **Durable consumer goods** (not chosen according to an investment logic, typical of the Residential Sector)
 - **Investment assets** (typical of the Commercial sector, possible to identify the Space Market and Investment Market)

Flexibility

- It is important to consider flexibility on at least two levels:
 - **Building** (one has to determine whether it was built for a specific User and/or for a specific use)
 - **Use** (there may be a limit even where there are no limits associated with the Building in itself)
- Also location and dimension play a relevant role

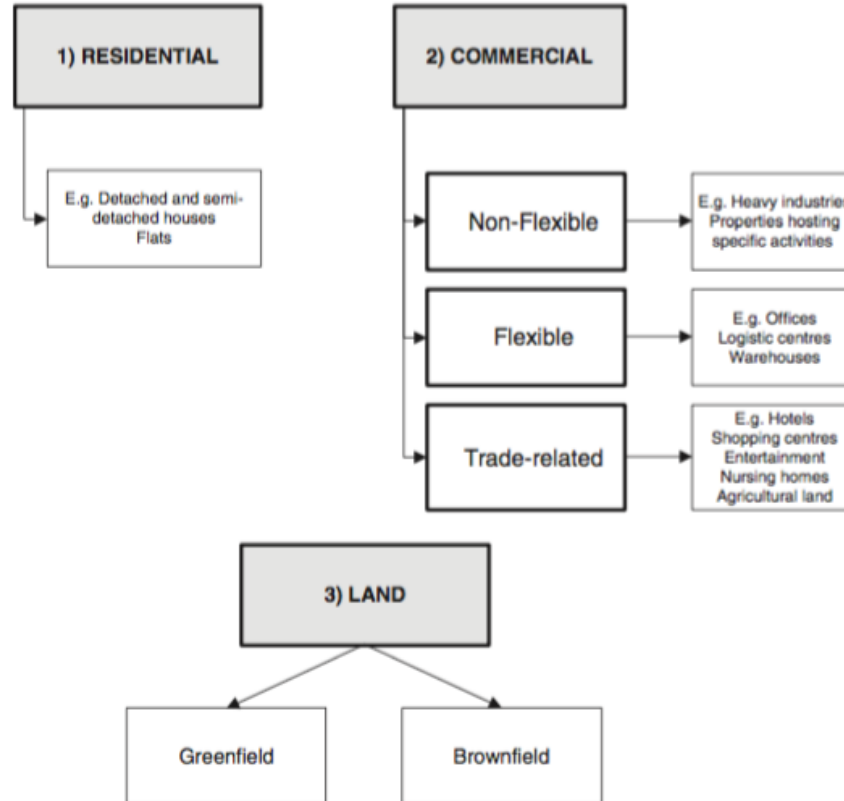
Economic Classification of Properties

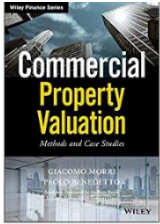


Business and the Specific Property

- The category of Flexible Properties includes those defined as Trade-Related Properties, in which the tenant's activity coincides with the product/ service offered, such as in the case of hotels or retailers
- For this particular kind of asset, **the operating margin** generated by the activity performed in it **must be sufficient to pay the price of the Use of Space, i.e. the rent**, (it must be sustainable)
- **The price of the Use of Space of Trade-Related Properties** not only depends on demand and supply (such as in the case of an office), but **is also linked to the economic result of the activity performed** in them and may potentially be proportional to it

Economic Classification of Properties



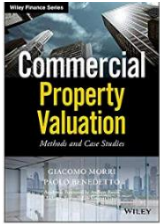


Economic Classification of Properties

Macro Categories of Properties

1. Residential Properties

- The use and purchase decisions are primarily dictated by the needs of the family (consumption decisions)
- **Residential Properties are more flexible** for Users (higher uniformity) compared to Commercial. In this respect, there are no particular problems in identifying new Users within the same local market and for qualitatively similar properties
- **The value of Residential Properties is lower when they are occupied/leased**
- Finally, Residential Properties are bought and sold frequently, representing the highest number of transactions in any market. For this reason, **it is often possible to collect samples of data of comparable transactions** for each asset

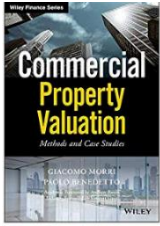


Economic Classification of Properties

Macro Categories of Properties

2. Non-Flexible Commercial Properties

- Non-Flexible Commercial Properties are used and usable only by a specific User. This category mainly includes non-flexible Buildings developed for the purpose of hosting specific activities
- In this case, a separation between Owners and Users is unlikely because few real estate Investors are interested in taking a risk linked to the solvency of a specific User
- Consequently, **there are no real Investment and Space Markets for these types of property and the User is forced to be the Owner as well**
- **Non-Flexible Commercial Properties are rarely bought and sold** and are extremely different from each other. For this reason, it is very hard to get samples of comparable transactions which have recently taken place in the market

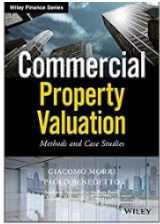


Economic Classification of Properties

Macro Categories of Properties

3. Flexible Commercial Properties

- These are flexible assets, which means that, **for the User, using a specific property is not central to their decisions**; what is important is to have the availability to use a certain amount of Space with some specific characteristics
- There is separation between Owners and Users, which gives rise to both a Space Market and an Investment Market
- **For Investors, the decision to purchase such properties is very much dictated by investment purposes**, such as the relationship between risk and the expected return, while the consumer logics typically applied by families when buying homes are not relevant

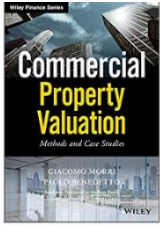


Economic Classification of Properties

Macro Categories of Properties

3. Flexible Commercial Properties

- For valuation purposes, in addition to the features of the property itself (location and quality of the Building) and on its supply and demand, the value also depends on the actual rental situation
- To conclude, since these properties do not always present a high degree of uniformity, **it is easier to conduct a search for comparables in the two different markets:** in the **Space Market** one can determine the Market Rent by analysing comparable properties, in terms of rent and the lease agreement (i.e. rent per square metre), while in the **Investment Market** one can determine the rate of return for assets comparable in terms of investment risk

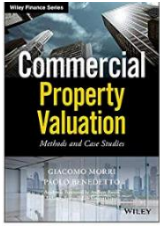


Economic Classification of Properties

Macro Categories of Properties

4. Trade-Related Commercial Properties

- Present a number of **similar features to Flexible Commercial Properties** in terms of separation between Owners and Users, but they are distinguished by the fact that the price of the Use of Space depends directly on the activity
- While Owners will apply investment logics to their purchase decisions here as well, when analysing the Space Market, **it is not enough to look at demand and supply, but it is fundamental to analyse the sustainability of the rent paid by the business** which can actually be performed in the property. This is the case with hotels, leisure properties, cinemas and retail establishments, mainly shopping centres, retail boxes and factory outlets

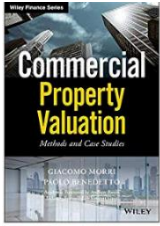


Economic Classification of Properties

Macro Categories of Properties

5. Land

- Without the presence of the Building component, **Land does not generate any utility for the User**, except in limited cases
- **The value of a plot of Land is influenced by the Development Project that could be realised on it**, and therefore by the value of the property that could be built on it, net of the total cost required to produce it (Building)
- **The value of Land varies more intensely than the value of property.** Consequently, during real estate market expansionary phases, even if the value of properties increases, the value of the Land will increase more than proportionally

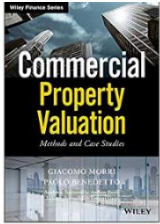


Economic Classification of Properties

Macro Categories of Properties

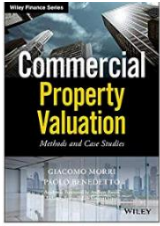
5. Land

- For explanatory purposes, Land can also be divided into the following categories:
 - **Buildable and Non-Buildable Land:** Buildable Land fulfils all the legal and economic requirements for building
 - **Brownfield and Greenfield:** The term Brownfield indicates an area that was used in the past for other buildings. In economic terms, there are no significant differences with Greenfield Land, on which no Building has ever been constructed before. The only two additional elements to consider are the costs associated with the demolition and the decontamination costs



A Simple Definition of Risk

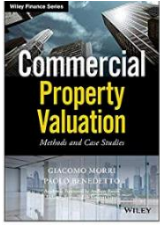
- In literature, there are several ways of quantifying **risk** based on statistical measurements such as the variance and correlation of returns, which are **based on a distinction between diversifiable** (can be eliminated through the diversification process) **and non-diversifiable risk** (market risk which cannot be eliminated through diversification)
- **Creating truly diversified property portfolios is quite a complex operation.** The main limitations include the need for active management, which can become problematic where there are many different types of properties in different geographical markets. In short, there is a trade-off between the benefits of diversification and management complexity



A Simple Definition of Risk

- It is estimated that around **30% of the risk associated with a real estate investment can be eliminated with a portfolio of five properties** and that minimal reduction of risk is achieved above the threshold of thirty properties: the risk that remains is around 60% of a non-diversified portfolio
- In estimating the cost of capital, it is often assumed that the investor is perfectly diversified and, consequently, that the return is solely a function of the non-diversifiable risk. When one is valuing a single property investment, or the Market Value of a specific asset, this assumption seems challenging to satisfy. It is, therefore, preferable to estimate the risk in an overall logic, i.e. assuming that risk is a concept more similar to variance, specifically the likelihood of future deviation in future income compared to the expected value

Common Risk Elements in Real Estate Investments



Capital Market

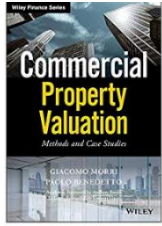
- In the capital market all investments are competing to attract capital: **all risks being equal, Investors will shift capital allocation to investments that offer the higher expected return**
- The returns on Commercial Properties is affected by:
 - the rate of growth of real consumption per inhabitant
 - the real short-term interest rate
 - the term structure of interest rates
 - unexpected inflation
- **Capital market risk is associated with a change in capital market rates**, both in relation to the risk-free rate and in relation to the incremental risk premium associated with the real estate investment

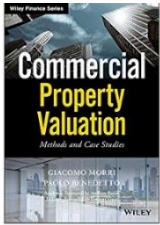


Common Risk Elements in Real Estate Investments

Liquidity

- **Real estate assets have lower liquidity than public securities** since they are highly diverse and are traded in a private market, so matching supply to demand is more difficult than it is with the homogeneous securities traded on stock exchanges
- The level of liquidity of properties depends on the specific characteristics:
 - **Intended use**
 - **Location**
 - **Size**
 - **Phase of the Market cycle**





Common Risk Elements in Real Estate Investments

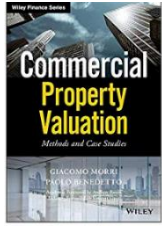
Financial Structure

- Financial structure risk is linked to recourse to debt and, consequently, to the possibility of insolvency and bankruptcy
- Even though a hedging instrument is not always used to hedge the risk of rate fluctuations, **it is advisable to assume fixed rates when valuing a property**, as this risk factor should not be included in the asset valuation
- Typically, properties are financed with higher leverage than that used in other business sectors, as the property represents excellent collateral
- The level of deb depends on the category on investments:
 - **In the case of Income-producing Properties**, relatively stable operating cash flows ensure good debt servicing coverage (**high leverage**)
 - **In a Development Project**, owing to the greater volatility of cash flows, due to the greater risks, it is advisable a **lower leverage**

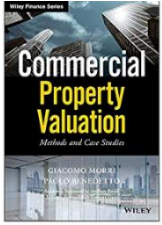
Common Risk Elements in Real Estate Investments

Regulatory

- Regulations have a considerable impact on real estate investments as they govern every stage of the asset's life and impose restrictions on its use
- The following elements have a significant bearing:
 - **Unpredictability** of change in the regulatory framework
 - **Number of entities** responsible for issuing authorisations
 - Uncertainty about the **interpretation** of regulations
 - **Duration** of authorisation processes and resolution of disputes



Common Risk Elements in Real Estate Investments



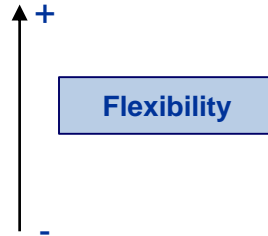
Location

- The location is the main risk to analyse in real estate investments
→ “**Location, location, location!**”
- Two main elements must be considered:
 - Great importance must be attributed to the economic development prospects of the region where the property is located (**macro-location**)
 - The second distinction is based on the **micro-location** of the property within a specific economic area

Common Risk Elements in Real Estate Investments

Intended Use and Type of Properties

- The variety of potential uses and of the number of potential Users reduces the risk of having a vacant property
- **An increasing risk differential can be identified from the most flexible sector:**
 - Residential
 - Offices and retail
 - Hotels
 - Multiplexes
 - Industrial plant
- The current use of a property may not coincide with the HBU under existing regulations, which means one needs to consider the potential for future development and, therefore, a smaller potential risk



Specific Risks in Development Projects

- **Authorisation**

- Is associated with the uncertainty about when and if all the permits required for the property to be built will be obtained
- Depending on the stage at which the Development Project is analysed, the associated risk will be different (and potentially decreasing)

- **Environmental**

- Is associated with the presence of polluting substances either in the Land or in the Building
- It is difficult to quantify the cost and time needed for proper environmental decontamination

- **Construction-Related**

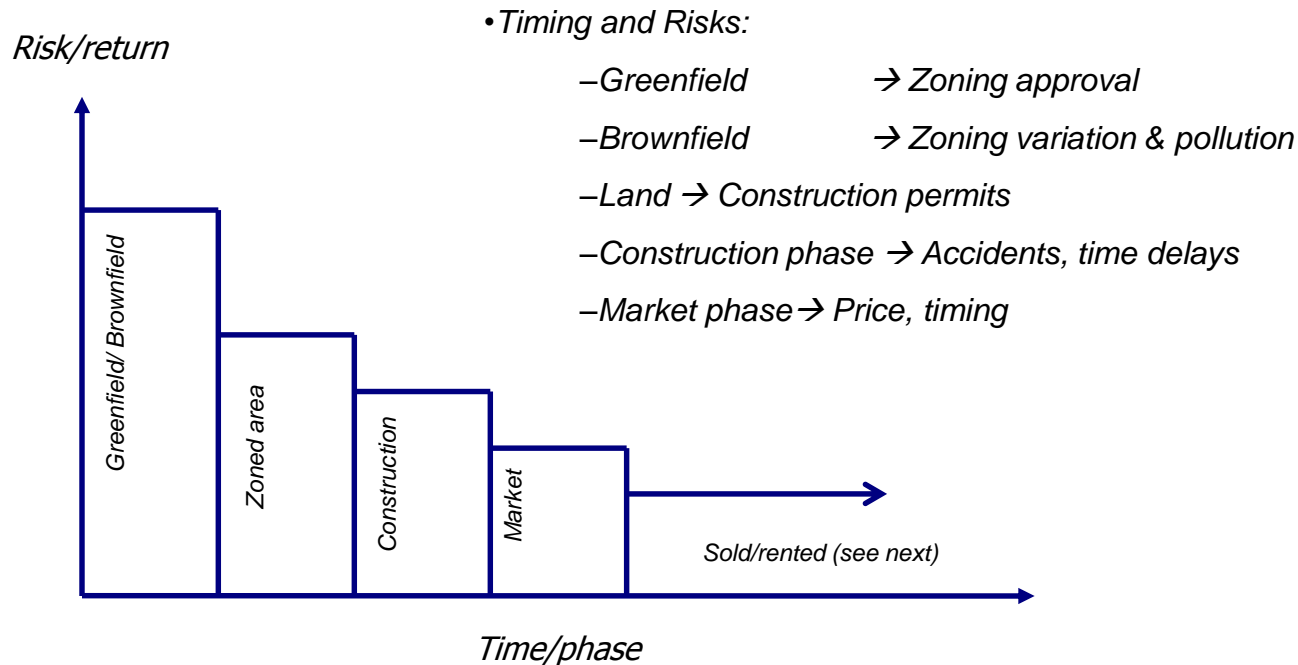
- The risk that the complete property might not conform to the original plan, or the overall costs might be higher, or delays might arise for different reasons
- The time within which the asset will be sold becomes longer, it will be more exposed to market value fluctuations and changes in preferences

- **Market**

- Is connected with uncertainty about future interest among Users and Investors
- Pre-lease agreements and pre-sale contracts reduce this type of risk

Specific Risks in Development Projects

Specific elements (*DEVELOPMENT PROJECTS*)



Common Risk Elements in Real Estate Investments

Specific Risks in Income-Producing Properties

- **Physical and Technical Features:**
 - The ‘better’ the quality of the physical Space the lower the risk that a User will not be found
 - In particular, the risk linked to the level of technical and functional obsolescence refers to any unforeseen problems of a Building: they are unforeseen costs that lead to a lower actual level of profitability
- **Management and Market:**
 - Market risk is the risk about selling the Use of Space
 - Management risk represent the risk that the asset and property management is not carried out properly (depends on on the different types of properties and their complexity)
- **Rental and Contractual Situation:**
 - Higher the creditworthiness of the client, higher the income it will guarantee (“*Tenants, tenants, tenants*”)
 - Fundamental to analyse the contract clauses (i.e. duration, break option...)



Property Finance

Real estate books, resources and links

<http://www.propertyfinance.it/it/home-english/>



Giacomo Morri, Ph.D. 

giacomo.morri@sdabocconi.it

www.linkedin.com/in/giacomo-morri-0596b2



Associate Professor of Practice & Faculty Deputy of
Corporate Finance & Real Estate

SDA Bocconi School of Management

Professor of Real Estate Finance, Finance Department

Bocconi University

Milano – Italy



Paolo Benedetto 

paolo.benedetto@unibocconi.it

www.linkedin.com/in/paolobenedetto



SDA Fellow of Corporate Finance & Real Estate

SDA Bocconi School of Management

Academic Fellow of Real Estate Finance,
Finance Department

Bocconi University

Milano – Italy

www.sdabocconi.it/realestate