REAL ESTATE THEORY AND MODELLING

INSTITUT DE L'ÉPARGNE IMMOBILIÈRE & FONCIÈRE

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Why write these Chronicles today?

In a context where everything is changing, all property markets are being turned upside down, whether for commercial property (offices, retail, logistics, etc.) or residential property. Theoretical analysis and modelling of the main real estate variables therefore need to be adapted to the new context.

These essential variables, of which there are a limited number, and the interactions between them, are the keys to understanding property markets: they include net absorption of space, supply, rent, initial yield, income return, risk premium, total return, etc.

The context is changing for several reasons:

- financial: the introduction and then withdrawal of quantitative easing policies by central banks, but above all the end of the secular decline in interest rates followed by their rise.
- related to planetary limits: the predicted scarcity of raw materials and the rising cost of processing them.
- linked to global warming: increased risks for both property and the businesses/households that occupy it.
- work organisation: acceleration of teleworking due to repeated pandemics.
- geopolitical: an acceleration in the resurgence of inflation linked to the consequences of the war in Ukraine.
- regulatory, more or less because of the first points, in the form of CSR constraints in particular.
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To take just a few examples, here are some of the consequences of these changes on the essential variables in real estate:

- Teleworking has an impact on the surface area occupied by companies and therefore an impact on the net absorption of occupied space overall. It reduces the real estate footprint.
- As demand evolves, supply must adapt, considering the functional, technical, digital and CSR expectations of occupiers and the new context of financing and associated risks.

- As demand and supply evolve, the dynamics of rents change mechanically, and more radically now that we have left behind, at least in the short-term, a stable world of low inflation that has lasted for over 30 years.
- As a result of these factors (the rise of numerous risks and changes in macroeconomic parameters, including the end of the secular fall in interest rates), the dynamics of property yields need to be totally rethought.
- By extension, the same obviously applies to the dynamics of total return on real estate and the share of real estate in a global portfolio.

Real estate research has not yet fully grasped this new situation. There is a lot of work coming out on one subject or another, but to my knowledge there is no structured research that aims to cover all these topics.

The aim of these Chronicles will be to deal with all these topics over several years, one by one and then all together. It should be noted that I will initially restrict my analysis to direct real estate as opposed to listed real estate, which is the subject of much more work.

I will take things one step at a time, starting with definitions and analysing several concepts that will be useful for understanding the models I develop. I will sometimes refer to older research that has left its mark, but generally I will concentrate on comments on recent research and on the results of my own work.

For those less familiar with real estate analysis, these chronicles can be a source of information and a knowledge base. For experts in the field, they are intended to launch discussions and debates on the various subjects I cover.

Some of the chronicles will be based on known and mastered elements, while others will deal with elements of research and present some of the results of my work.

I'm delighted to be taking this intellectual journey with you and look forward to hearing your comments.

These chronicles are linked to my activity at the IEIF, a Paris based think tank on real estate where I conduct research into the modelling of major property variables.