

NICK TYRRELL 2023: APPROACHES FOR PRUDENT PROPERTY VALUATIONS ACROSS EUROPE

Welcome



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Nick Tyrrell Prize Webinar - Prudent Value



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The proposal

- Long-term or prudent valuation regime proposed by Basel III (2017), accepted by EU and under Prudential Regulation Authority (PRA) consultation in UK.
- The potential outcome is by 2025 a Prudent Value will be required at each individual loan origination (and any subsequent monitoring valuations) across the EU and UK.
- All the regulations concerning risk weighting, etc. could be based on LTV against Prudent not Market Value.
- This is the Prudent Value definition in Basel 3.

*“Value of the property: the valuation must be appraised using prudently conservative valuation criteria. To ensure that the value of the property is appraised in a prudently conservative manner, **the valuation must exclude expectations of price increases and must be adjusted to take into account the potential for the current market price to be significantly above the value that would be sustainable over the life of the loan.** National supervisors should provide guidance, setting out prudent valuation criteria where such guidance does not already exist under national law. **If a market value can be determined, the valuation should not be higher than the market value...**”*

Basel Committee Banking Standards (2017) “Basel III: Finalising post-crisis reforms”

Background

- Real Estate identified as a major contributor to the GFC.
- Valuation identified as a major part of the loan origination and monitoring process.
- Regulators don't believe that Market Value in isolation is now sufficient because:
 - i. Market Value is an exchange price identification only.
 - ii. It tells you where you are now and gives no information as to the future movements in value
 - iii. It is pro- rather than counter-cyclical. Exchange price definition tied to LTV ratios thought to encourage over-lending in the boom period and restricted lending in the aftermath of a downturn, and
 - iv. Most loan losses occur in loans granted in the last two years of any boom (Clarke, 2018).
- Add to that the arguments that individual lenders and investment managers are actively incentivised to act pro-cyclically and not exercise restraint in that dangerous period, regulation needed to create sustainable behaviour?

The Nick Tyrrell Prize paper

- Written in 2020/2021, aimed to examine the possible implementation of the Basel 3 prudent value framework.
- It discussed the different concepts of value and created a framework for the various definitions.
- It examined the four principal components of a prudent value and how it compared to market value
- It reviewed the relevant existing research that had already been undertaken on long-term value including all the testing that had been undertaken using the UK as the case study
- It recommended an approach and detailed the major problems of implementing that approach.
- We have subsequently addressed two of the issues raised by the paper in a follow-up paper (Crosby and Hordijk, 2023) used by RICS and others in their responses to the recent UK PRA consultation on prudent value.

Research Structure : focus on effect for industry and society

- a. Getting support from the industry by membership of a steering committee
 - From the valuers side : Involvement of IVSC, TEGoVA and RICS
 - From HypZert which developed LTSV
 - Representation from EU South (Spain) and EU East (Romania)
- b. Forming a technical reflection team
 - From Universities of Reading, Tilburg, Cambridge, Theurgy, KTH Stockholm
 - From Verband Deutscher Pfandbriefbanken, LTSV Network
 - From individuals with expertise in Valuation and policy around it
- c. Communication
 - Original report sent to European Banking Association
 - Report published on the RICS website

The prudent value definition

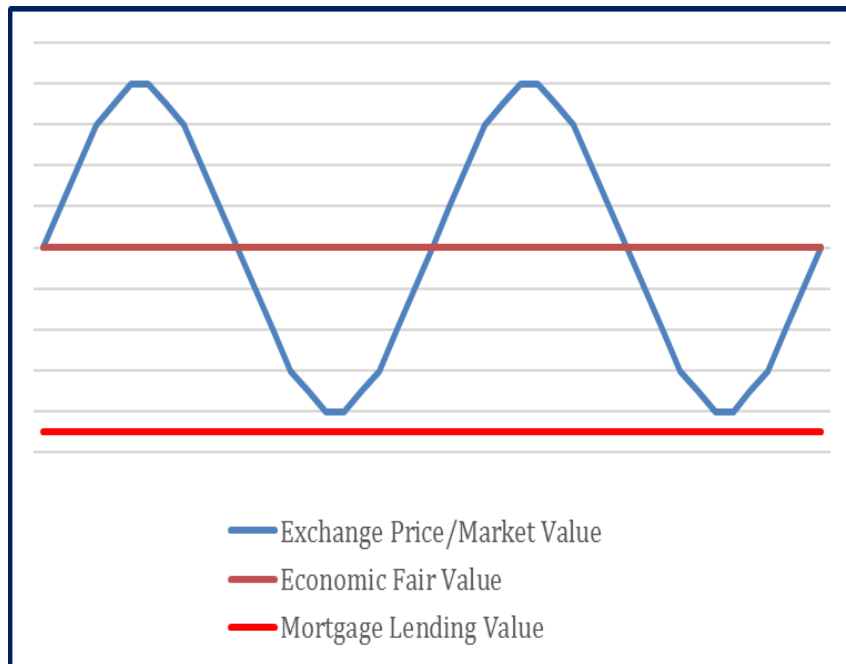
- Bit of a wish list but the four principal components are that the valuation:
 - *must exclude expectations of price increases*
 - All prices include expectations of price change so this makes little sense. In 1980s UK the cap rate excluding expectations of price increases would have been 13%, not 5%.
 - *must be adjusted to take into account the potential for the current market price to be significantly above the value that would be sustainable over the life of the loan.*
 - *This is a more logical part of the wish list – significantly above signifies irrational overpricing rather than a static environment*
 - *National supervisors should provide guidance, setting out prudent valuation criteria where such guidance does not already exist under national law.*
 - *There is past evidence of national supervisors coming up with some crazy stuff (anybody remember ERP).*
 - *if a market value can be determined, the valuation should not be higher than the market value...” so market value implied for every valuation undertaken*

What is the appropriate response?

- Assume Prudent Value will be implemented by both EU and UK
- Three major alternatives
 1. Argue that MV is appropriate and is prudent.
 2. Develop a new valuation method at the individual asset level (such as Mortgage Lending Value, which I have characterised as under-the-cycle) or Investment Value/Economic Fair Value (which I have characterised as a through-the-cycle individual asset model).
 3. Develop a market analysis rather than a valuation approach - identifying individual market price adjustments for over/under-priced segments. Needs an industry commitment to bi-annual publication of adjustment factors plus regular testing of outcomes.

It has been done already in the UK (IPF, 2020). The UK CRE industry can deliver this approach now, more difficult in some other parts of Europe.

What does Under-the-Cycle and Through-the-Cycle mean?



- The objective is to identify when markets are over-priced and in enough time for regulators to act to restrict over-lending in those over-priced markets.
- While *valuers* are identifying current price, *investors* routinely undertake analysis of price to spot over and under-pricing. (Worth to the investor/market, Investment Value)
- We should be looking for a through-the-cycle model with a prudent value defined as the lower of market value or through-the-cycle (long-term) value.
- Not everyone believes that there are “cycles” within real estate markets. We do. We think we go through irrational periods of over and under-pricing. Doesn't mean prices are static through time.

Long term valuation models : developed by Universities of Reading and Cambridge with Investment Property Forum (industry) funding

JLL all property capital values 1989 to 2017
Ratio of MV/LTV using econometric model



- Project supported by the Bank of England, funded by the Investment Property Forum in 2019/20
- Results showed significant over-pricing of CRE in period prior to subsequent crashes in 1990 and 2007 and in enough time to give a two-year early warning. No hindsight involved.
- Most losses occur in last 2 years of a boom market

Recommendations of the Nick Tyrrell paper (and 2023 update)

- MV base valuation at the individual property for both loan origination and monitoring
- Prudent value is not a valuation model, it is a market analysis
- PV should be “institutionalised” and produced at a market level in consultation with the national regulator and the CRE industry.
- Letting the valuers undertake PV adjustments at the individual property level would create inconsistent carnage.
 - Some will adjust MV by 10% regardless of market state
 - Some will identify market state and adjust accordingly, others will not notice to same extent.
 - Inconsistency will be rife, no real indicators of crisis for regulators.
 - Ensuing crisis followed by even greater number of negligence claims.
 - PI insurance will go through the next roof (already above a normal roof)

Recommendations of the NT paper (and 2023 update)

- The method should be some form of equilibrium through the cycle modelling with the PV being the lower of MV or PV. PV should be reported as an MV adjustment factor.
- The three major impediments to this approach are:
 - Nothing much done so far on residential owner-occupation, most research aimed at CRE
 - More research into the precise methods (ease of use v required sophistication)
 - More research into the levels of disaggregation required.
 - Crosby and Hordijk,(2023) looked at that and found that the different submarkets have a very similar shape, confirming lots of market research, even if the values and returns are very different. Some very broad indicators could well suffice.
- Data issues across Europe.
 - A major issue for the less mature CRE markets.

Data Issues

- Mainland Europe has a bigger problem than the UK.
- The success of the different models in identifying the downturn in advance is based on the level of data (time and disaggregation).
- The range of data availability and quality across Europe/EU is from the best (UK and few of the bigger CRE markets in Europe) to more challenging (Eastern Europe for example).
- Europe is as equally diverse as global markets regarding data.
- Crosby and Hordijk (2023) addressed requirements and data availability across Europe.

Data Requirements

Variables within the econometric modelling of rents in addition to rent series

| | Office | Retail | Industrial |
|---------------|--|--|--|
| Demand | GDP/GNP | Real household consumption | Real GDP |
| | Real GDP/GNP | Real income | Industrial and other related sector employment |
| | Total employment | Real retail sales | |
| | Finance, business services and office-based employment | Real consumer expenditure | |
| | Unemployment | | |
| Supply | Foreign Direct Investment | | |
| | Total floorspace | Total floorspace | Total floorspace |
| | Office stock by grade | Floorspace of malls/centres and major stores | Vacancy rates |
| | Vacancy rates | Vacancy rates | |

Variables within modelling of cap rates

Basic inputs include past capitalisation rates, real interest rates, inflation, risk premia and rental growth rates.

Data Availability

- MSCI publishes asset level real estate Indices for a number of European countries, some of them with longer time series (see appendix slide). MSCI series : years per European country : 13>20, 5>10, 12 have no index).
- INREV developing European wide data but some major markets and still in development stage
- Major issues with less mature CRE markets across Europe; i.e. Eastern Europe
- Crosby and Hordijk (2023) found that capital city level data was available across most of Europe, incl. Eastern Europe.
- Conclusion is that there is enough data to produce basic rent and yield data for EU markets at the capital city level.
- Initial testing (Crosby and Hordijk, 2023) suggests that high levels of aggregation and city level data produce reasonable indicators for prudent value adjustment factors to individual property level market valuations.
- There is some major expertise on constructing data sets and indices retrospectively within Europe (NL case study)

Data Availability : Creation of historic time series : example from Netherlands

Method Used : Repeat measures regression (David Geltner, MIT)

- At least 30 observations per year
- *Data assembly hurdles*
- Company's movements : ⇒ Historic data thrown away
- Changes in data systems: ⇒ Historic data haven't been converted
- Mergers and acquisitions: ⇒ New historic cost price
- Take-overs of 'packages' : ⇒ Single purchase price is arbitrary
- Data of valuations scantily available for the early years
- Cash flow and capital expenditure mostly unknown for the early years

Data Availability : Creation of historic time series : example from Netherlands

Data quality control/Data selection

- Observations with extreme capital growth excluded
- Partial sales excluded also : allocation of sale price arbitrary
- External valuations only : internal valuations often biased
- Original purchase prices net of purchase costs
- Transfer prices (take-over)
- Sale prices
- Total investment of development projects

Data Availability : example from Netherlands : plausibility and Delphi method

| <i>Indication of strength</i> | Significance | | |
|-------------------------------|--------------|-------------|-------------------------------|
| | | Correlation | Leading indicator |
| Office returns | | 0,354 | Real GDP Growth |
| Retail Returns | | 0,549 | Growth in retail sales volume |
| Residential Returns | | 0,551 | Market of owner-occupancy |

CONCLUSIONS

- The office time serie is checked by several indicators and shows a very plausible pattern over the years
- The retail time serie tends to follow the changes in retail sales volume and also seems to have a plausible trend
- In the main line the residential time serie tracks the owner-occupancy's market, and doesn't seem to be implausible

Plan of action: medium and longer term

- EU regulations should set out the broad principles only (no single approach)
- PV needs to be supported by :
 - additional interpretation or guidance and valuation standards
 - equally applicable in every national real estate market
 - will cause alterations to the valuation profession and banking practice
 - additional education and training will be an absolute necessity
- Major constraints are :
 - the econometric modelling needs long timeseries to cover RE cycles
 - data availability for historic time series varies per EU country
 - to assemble reliable data about the past is a major challenge

Plan of action : short term

- EU regulations should set out the broad principles only (no single approach)
- The right to choose from the two definitions of Market Value and Mortgage Lending Value should remain.
 - the applications of Market Value and Mortgage Lending Value are established, standardised, tried and tested and well understood by both valuers and lenders.
 - the implementation of the new definition of value as proposed in Basel III should be based upon appropriate evidence and a general consensus amongst member states and valuation bodies
 - if not, it would result in significant and disruptive changes in valuation practice
- Real Estate data for the major cities in Europe are already assembled by larger brokerage firms and should be made available for analysis related to Prudent Value drivers
- Major constraints are :
 - data availability for historic time series varies per EU country
 - to assemble reliable data about the past is a major challenge

Further Research

- Possible areas for further research include:
 1. Nothing much done so far on residential owner-occupation, most research aimed at CRE
 2. More research into the precise methods (ease of use v required sophistication)
 3. More research into the levels of disaggregation required.

Crosby and Hordijk (2023) carried out a review of existing research and some very basic analysis of the shape of change in different segments, but more is needed to determine the level of disaggregation needed.
 4. More research into data availability vs requirements across Europe - A major issue for the less mature CRE markets. Crosby and Hordijk (2023) investigated long-term City level data held by agents across Europe, including Eastern Europe. It exists but it needs unlocking to operationalise even basic past trend models.

Appendices



**Endnote to Crosby, N., Devaney, S., Lizieri, C, and Mansley, M. (2021)
Modelling sustainable rents for estimation of long-term or fundamental
values of commercial real estate. *Journal of Property Research*, VOL. 39:1, 30-55**

“The research for this paper was undertaken well before the pandemic and so we have not addressed the issues raised specifically in the paper apart from a couple of footnotes. The Lucas critique supports the view that it is impossible to predict unforeseen events by examining past data and while we have not collated or tested the most recent data illustrating the effects of the pandemic, we are sure the modelling we have undertaken would not predict the extent of the impacts of COVID-19 on rental values in the UK. But what these models can do (and are doing within the UK central bank) is form the basis of stress testing markets for unforeseen events. By their nature we do not know what the next unforeseen event will be after COVID-19, we can be fairly sure there will be one.”

Data Requirements : HypZert initiative : LTSV Network suggestion



MSCI Real Estate Market Size Report- 2019/20

(authors compilation)

| Country | Date of commencement of data | Estimated market size 2018 (USD Billion) | Estimated market size 2019 (USD Billion) | MSCI index coverage in annual index 2019. (USD Billion) | Coverage ratio in annual index (%) |
|----------------|------------------------------|--|--|---|------------------------------------|
| Austria | 2004-12-31 | 42.8 | 45.1 | 9.7 | 21.50% |
| Belgium | 2005-12-31 | 57.8 | 59.8 | 8.2 | 13.70% |
| Czech Republic | 2005-12-31 | 25.8 | 28.1 | 3.7 | 13.20% |
| Denmark | 2000-12-31 | 66.7 | 70.7 | 2.2 | 3.10% |
| Finland | 1999-12-31 | 79.4 | 86.5 | 25.7 | 29.70% |
| France | 1998-12-31 | 426.6 | 441.2 | 197.8 | 44.80% |
| Germany | 1996-12-31 | 535.4 | 580.1 | 100.3 | 17.30% |
| Hungary | 2005-12-31 | 10.7 | 10.8 | 0.7 | 6.70% |
| Ireland | 1984-12-31 | 30.3 | 32.1 | 10 | 31.10% |
| Italy | 2003-12-31 | 125 | 128.1 | 28.9 | 22.50% |
| Netherlands | 1995-12-31 | 167.2 | 184.3 | 64.7 | 35.10% |
| Norway | 2000-12-31 | 53.7 | 56.7 | 20.4 | 36.00% |
| Poland | 2005-12-31 | 48.2 | 49.8 | 6.6 | 13.20% |
| Portugal | 2000-12-31 | 29.2 | 30.2 | 9 | 29.70% |
| Spain | 2001-12-31 | 104.4 | 110.8 | 21.5 | 19.40% |
| Sweden | 1984-12-31 | 213.1 | 231.5 | 104.9 | 45.30% |
| Switzerland | 2002-12-31 | 241 | 266.3 | 111.2 | 41.70% |
| United Kingdom | 1981-12-31 | 713.8 | 745.5 | 282.3 | 37.90% |

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