



Report of the European Commission / ECB joint expert group on commercial property price indicators

1. INTRODUCTION

In October 2016 the European Systemic Risk Board issued to the national macroprudential authorities a recommendation on data gaps in the real estate field.¹ This was the most recent in a wide group of calls from policy-makers to improve the data in this statistical domain.²

The statistical community has been examining the issue raised in the interim period starting with the residential real estate sector. The commercial real estate sector (CRE), which is generally acknowledged as being more statistically challenging, albeit arguably more relevant for financial stability analysis, was left to a later stage. Notwithstanding this prioritisation of the residential real estate variables some progress has been made to provide experimental indicators of commercial property prices by the European System of Central Banks (ESCB) albeit only at the euro area aggregate level.³

As a result of this increasing user demand at the Union level for commercial property price indicators, the European Commission and the ECB established a joint expert group (JEG) to explore the further development of commercial property price and associated indicators.⁴ This work was additionally supported by the EFC Sub-Committee on Statistics. The current report summarises the results of examining the user requirements and a stock-taking of the physical market variables (including their breakdowns) of data which already exist or are under development at the Member State level, including relying on commercial data providers where necessary. In addition, the report summarises experiences in selected G20 non-EU economies.⁵

¹ See the Recommendation of the European Systemic Risk Board on closing real estate data gaps (ESRB/2016/14).

² For instance, see *The Financial Crisis and Information Gaps*, Financial Stability Board, International Monetary Fund, 2009.

³ See 'Experimental indicators of commercial property prices,' *ECB Monthly Bulletin*, February 2014, p. 54 – 58.

⁴ The ESCB's Statistics Committee has established a parallel task force regarding the requirements for the financial data in the domain.

⁵ The second phase of the G20 Data Gaps Initiative (DGI-2), specifically Recommendation II.18, mentions the need for further conceptual guidance as well as data collection and dissemination of commercial property prices.

The next section of the report sets out the user requirements and lists the variables required. Section 3 first explains how the stock-taking of information was done and then continues by highlighting the key results of this exercise along with a methodological discussion of issues that need to be considered when assessing data availability and quality. Section 4 concludes.

2. USER REQUIREMENTS

The most prominent use of the data is for micro and macro-prudential risk analysis. As CRE markets are an important potential source of risk, they therefore require close monitoring and analysis.

CRE fundamentals are affected by a number of different variables, including the purpose of the property and its geographical location. Changes in these fundamentals can have a systemic impact on the financial sector even in the absence of market exuberance. Further, market exuberance may develop in only one subsector, which could take a long time to have an impact on the aggregate price data. Therefore, as far as possible indicators should be broken down by geography and by market segment.

A second-best approach is to use aggregate indicators to monitor financial stability in the CRE market. These will help users to monitor the CRE market, by giving indications of when prices may not reflect underlying values, when cash flow may not support the level of investor activity, when liquidity is low and when there are likely to be supply shocks.

The ESRB in its recent recommendation has identified the following indicators to be particularly important: price indices, rent indices, rent yields, vacancy rates, 'construction and building' indices and transaction numbers as well as transaction value. These should be available on a country-by-country basis, using harmonised definitions and collection methods to ensure fair comparison.

2.1. Price indices

Price indices are the primary early indicators of a build-up of risk. If prices do not reflect underlying market fundamentals then the market may be prone to sudden, rapid adjustments. These price adjustments can negatively affect financial system stability in two ways: firstly, by generating non-performing loans and secondly by reducing the value of collateral held against these and other loans.

In addition to price growth, price volatility is an important component of CRE analysis. Markets for 'similar' properties tend to be relatively thin; transaction numbers for functionally identical properties are often low and prices are correspondingly volatile. Thin markets tend to have limited liquidity, and a substantially higher risk of fire sales in the event of a negative system-wide shock.

In order to effectively monitor CRE risks to financial system stability, it is therefore important to have consistent price indices which are comparable across countries and over time.

2.2. Rent indices and rent yields

Price indices alone are insufficient indicators of a build-up of risk, as price developments may reflect changes in fundamentals driven by the real economy. In addition, it is necessary to consider investor cash flow, as this partly drives CRE investors' decisions. The supply of CRE is inelastic in the short run, so larger cash flows will tend to lead to higher prices.

CRE rent indices and rent yields are good aggregate proxies for cash flows to investors. The value of a property should increase when rental income increases or when the yield decreases. These indices are therefore important indicators of whether a given price level reflects realised returns (lower risk), or potentially inflated expectation of uncertain future returns (higher risk).

The yield can provide additional insights, as it can be decomposed into the risk free rate and the risk premium for CRE. A higher risk-free interest rate provides a higher yield because investors have to be compensated for the risk-free option becoming more profitable. Similarly, a low-interest-rate environment can support higher prices, as there is more competition for yields. Thus, yields and margin spreads can also help to assess the impact of monetary policy on price developments in the CRE market. A highly compressed or negative spread between yields and the risk-free rate can indicate an overvalued property market.

2.3. Vacancy rates

Vacancy rates indicate the level of demand for premises of a given supply and rent. There is a natural vacancy rate that varies across cities, which reflects the frequency of turnover of commercial property users. In addition, vacancies fluctuate due to changes in economic activity.

Vacancy rates are important for determining financial stability as they affect the expected return and the volatility of cash flows faced by investors. A high vacancy rate means that a large proportion of the rentable area is empty, generating no revenue. A high vacancy rate may also increase the risk that investors will lose existing tenants, or will have to reduce their rents in order to keep them. A high vacancy rate can therefore increase the risk that many investors will simultaneously cease to be financially viable, which would in turn cause a sudden spike in financial sector losses.

Further, a high vacancy rate can be a leading indicator of a price decline. This is particularly likely in the event that there is substantial investment in CRE at the same time as vacancy rates remain elevated.

2.4. Building permits, construction starts and construction work completed

The construction market of CRE is both directly and indirectly important from a financial stability perspective. Lending for construction is generally much riskier than lending for existing CRE, as construction must be planned well in advance of demand. In addition, construction increases the supply of premises, affecting the balance of the rental market. This affects key indicators such as rent levels and vacancies, which in turn affects the market values of existing properties.

Building permits indicate the level of future supply that could be built and made available. They dictate the maximum medium-term capacity of the CRE construction sector. Lower building permits indicate that either the private sector believes that future demand has fallen, or that the public sector believes that new commercial property will have externalities that exceed their benefit.

Construction work completed (starts) indicate that new commercial property is likely to come online in the short (medium) term. An increase in construction work completed (starts) increases the short- (medium-) term risk faced by CRE investors, as demand may not increase or remain high enough to support the new supply at the existing prices. The risk is likely to be particularly pronounced if vacancy rates are already high. In addition, new construction starts indicates the level of CRE construction projects, which are inherently more risky than established commercial property.

2.5. Transaction numbers and transaction value

Financial stability requires market liquidity; distressed investors and foreclosing banks need to be able to sell the assets they hold to recover their position. Low or falling liquidity should therefore be closely monitored.

Liquidity is not directly measurable, but transaction numbers and values are good proxies. The more activity present in the market, the more likely there are investors who have funds available and are seeking to purchase additional CRE.

Neither indicator is sufficient on its own. Transaction numbers may be high, but if they are only high in the low-value sector then larger, high-cost projects still suffer from significant liquidity risk. In contrast, high value transactions with low numbers means that the transaction value data is dominated by a few large projects, and the market may therefore be less liquid than otherwise assumed.

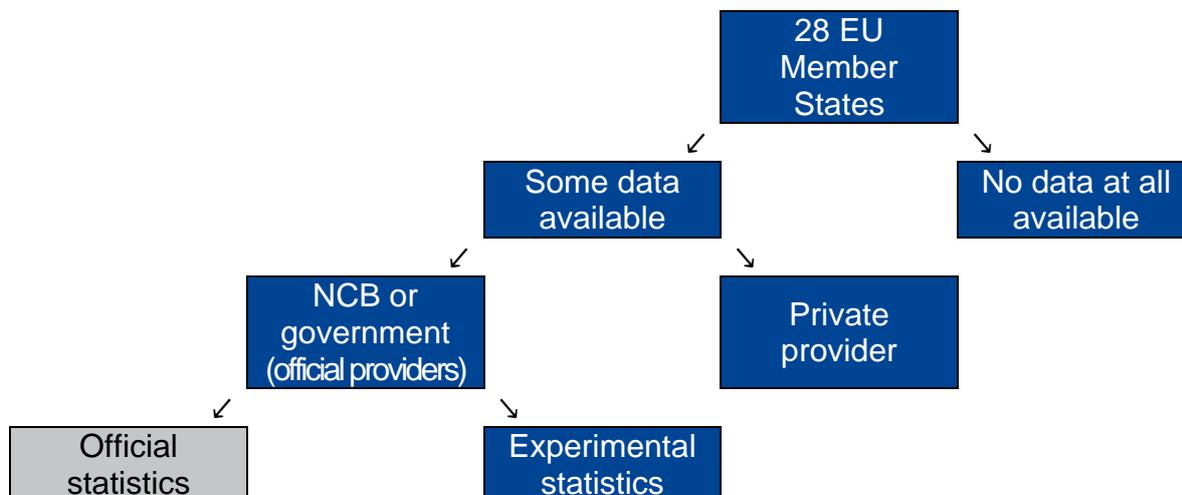
In addition to liquidity, large and growing transaction numbers and values relative to the size of the market suggests a pickup in investor activity, which may result in overheating. When combined with price, rent and yield data they may help indicate when investors are becoming exuberant.

3. STOCK-TAKING RESULTS

While Member States in the European Union have built and are continually expanding their experience in housing price statistics⁶, the availability of data from official institutions on commercial property is scarce. If available at all, the published information is mostly to be considered of experimental nature and comes at varying frequencies from monthly to annual and with very different length of the time series.

⁶ See Commission Regulation (EU) No 93/2013 laying down detailed rules as regards establishing owner-occupied housing price indices.

The chart below provides a schema of the potential situations for data availability. In what follows, the term ‘government’ is used to refer to NSIs or other departments of the national administration. Together with NCBs they are subsumed under the label ‘official providers’.



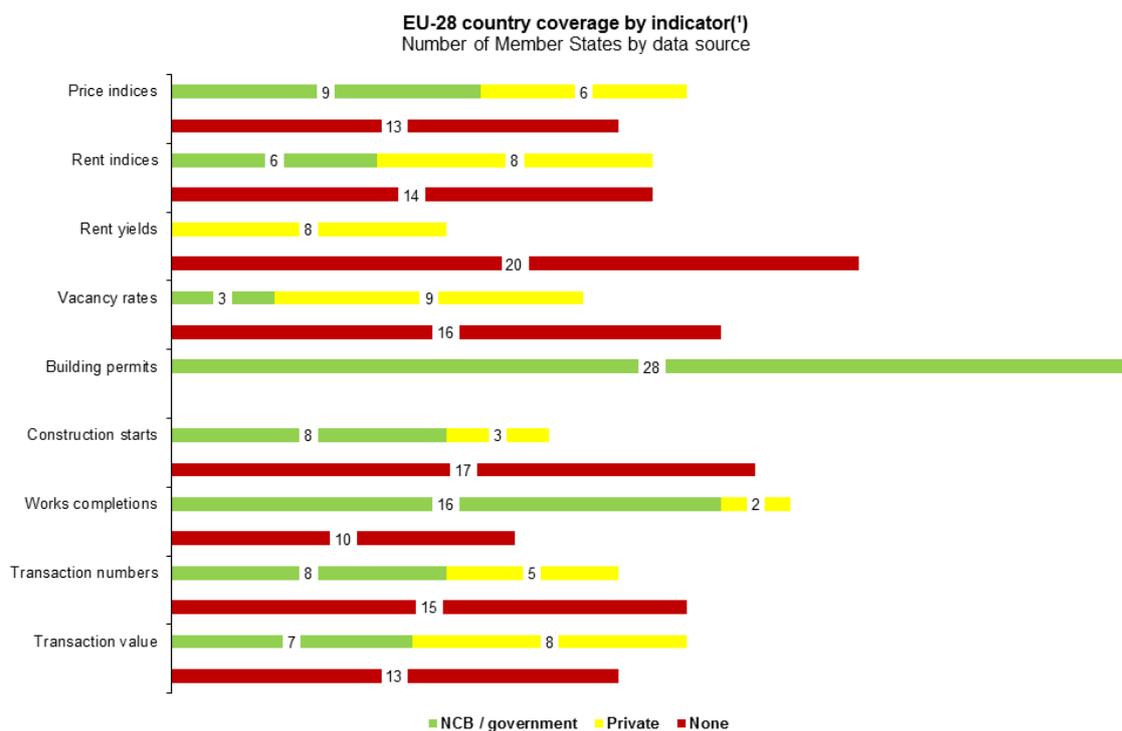
In order to ascertain which data sources exist both within the EU and internationally, the JEG jointly approached the central bank and administration⁷ of each EU Member State and, via the Bank for International Settlements, selected members of the G20 (Australia, Brazil, Canada, Japan, Saudi Arabia and the United States). Central banks and administrations were asked to work together in completing the questionnaire and the JEG received replies from all Member States and all selected G20 countries except the US. In addition, the European Commission and the ECB took the lead for assessing the data from four of the biggest commercial data providers in this field (MSCI, Jones Lang LaSalle, CBRE and Real Capital Analytics).

In the following two sections the nine indicators identified under ‘User requirements’ are assessed indicator-by-indicator. This is done in two blocks – price and associated indicators, and other economic indicators – since there are conceptual relationships between the indicators:

- The price and associated indicators price indices, rent indices and yield indices are dependent on each other and are interrelated in the income approach to valuation.
- For the other economic (activity) indicators building permits, construction starts and construction work completed follow the process flow of production.

⁷ The primary responsibility for this topic differs between Member States. In some cases the National Central Bank takes the lead, while in others it may be the National Statistical Institute or a government department that is responsible.

An overall summary of the availability of any form of data without taking into account the quality, timeliness, periodicity or coverage for EU Member States is shown in the graph below.



(*) A country is included as soon as anything for any sub-sector and at any frequency is available. The chart, therefore, overstates the actual coverage.
Source: European Commission / European Central Bank Joint Expert Group

3.1. Price and associated indicators

Price index. Nine EU countries have some kind of commercial property price statistics sourced from either NCBs or government. In addition, six more have access to private sources – a good part to MSCI (formerly IPD), some to Jones Lang LaSalle (JLL) but also to national providers. That leaves 13 EU countries that are without any data all.

Even when official sources are available they are not derived by a harmonised methodology. National definitions differ, breakdowns (according to property location) are mostly missing, the coverage varies considerably between countries, the timeliness and desired frequencies are limited and several more quality issues remain. With private data sources the situation further deteriorates. On top of the already mentioned drawbacks, reliability and, not least, lack of methodological transparency are further issues.

Important insights have been derived from the questionnaire with respect to data sources (used by the official providers if available). In no case are designed surveys set up but all nine EU countries use administrative data such as land registries and tax records. While this is certainly an effective (albeit not necessarily efficacious) approach in terms of both production costs and reporting burden, it may generate problems with a view to the measurement target.

1. In general, no meta information is available from such sources as regards the quality characteristics of the properties transacted. Yet, these are *sine qua non* for the derivation of (pure) price indices.⁸ This shortcoming is even more evident in some of the indices disseminated by private data providers. This caveat needs to be underlined for the reason that property prices are much harder to measure than consumer prices, where transaction prices of like-with-like representative goods and services can be compared. Property prices, on the other hand, have to be compiled from infrequent transactions on heterogeneous properties.⁹ Furthermore, there might be a considerable time lag between the transaction and the administrative recording, negatively affecting the timeliness of the thus derived indicators. While these are well-known problems in residential property, they are elevated with commercial property.
2. It is common practice in many Member States for tax reasons to hive off special purpose entities (SPEs), whose only operation is the ownership of the (commercial) property in question. In case of a transaction – of the SPE –, no property taxes are due and no property transaction is recorded in either of the administrative sources since the owner of the property itself has not changed. To date it has not been possible to make even a rough estimate of the potential impact of this effect; this is in part also due to the fact that estimates of the market sizes in general, calculated by large real estate firms, show significant divergence.

In addition, the following more generic issues have to be considered.

3. Several small and large countries alike have reported that the population of transactions is so low that a quarterly frequency at the national level is unfeasible (the country figures could still feed in European aggregates, though).
4. From time to time the use of valuations is suggested as an alternative instead. There are, however, two decisive caveats, which render this endeavour questionable. First, valuations tend to lag and smooth the corresponding results from transactions. This is rather unfortunate as turning points tend to be of high importance to analysts. Second,

⁸ Price indices aim for a quality-adjusted indicator and, as such, prices here denote a constant quality *numéraire*. Therefore, an index for property prices in its pure form will reflect movements in prices that are stripped of quality changes. However, the change in market values between two consecutive periods does not necessarily reflect the pure, i.e. quality-adjusted, change in prices. It is rather a *mixtum compositum* of quality changes due to depreciation and renovation as well as the quality-adjusted change in prices; if the floor area remains the same.

The Royal Institution of Chartered Surveyors (RICS) defines market value as '[t]he estimated amount for which an asset or liability should exchange on the valuation date between a willing buyer and a willing seller in an arm's length transaction, after proper marketing and where the parties had each acted knowledgeably, prudently and without compulsion' (see International Valuation Standards 104 paragraph 30.1), *RICS Valuation – Global Standards (RICS Red Book)*, 2017 (advance copy).

⁹ See Silver, M. (2016), 'How to better measure hedonic residential property price indexes,' *IMF Working Paper*, WP/16/213. While Silver discusses residential property his arguments are equally valid for commercial property as well, where the issue is even more pronounced.

valuations are thought to be based on similar actual transactions. But when transactions are scarce, there is nothing an appraiser can base her assessment on and, thus, structural effects might prevail.

5. The International Property Measurement Standards Coalition (IPMSC) has found that for office buildings the current terminology used internationally to describe 'floor area' results in an up to 20% difference between countries.¹⁰
6. Only very recently has an international definition of what constitutes commercial property in the first place been agreed – a harmonised breakdown (including selection criteria) according to property types like office or retail is still lacking. Eurostat (with input from the ECB) prepared a complete system in the form of building blocks for different definitions according to the varying uses of these indices in macroeconomic and macroprudential policies. This work has been approved by the Inter-Secretariat Working Group on Price Statistics (IWGPS)¹¹ and will be elucidated later this year as part of a Working Paper publication on commercial property price indicators.

Rent and yield indices. The situation for rent indices is significantly worse than for price indices. Just six EU countries have data from official providers generally based on ad-hoc surveys. Eight EU countries have at a minimum access to private data sources. 14 Member States have neither official nor private data.

Yield indices are virtually non-existent. There are no official data at all in any Member State and just eight EU countries have some kind of private data. Little is publically available about the methodology used, et cetera.

The difficulties faced here are an expression of a fundamentally different notion of measurement targets between official statisticians and the real estate industry. Following the well-reasoned tradition of measuring other economic phenomena, official statistics measures prices (and volumes). In contrast, the real estate industry is more interested in investment performance indicators. These indicators serve the specific purpose to provide a benchmark for investors and fund managers for commercial property investment portfolios.

The concept closest to a price index in the investment performance domain would be the capital growth, which measures the change in a portfolio value. But an index based on the growth of capital values introduces quality aspects in the form of (net) depreciation that, in turn, may lead to a biased measure of pure price change.¹² Likewise, the concept closest to a yield (index) would be the

¹⁰ See *International Property Measurement Standards: Office Buildings*, 2014. A comparable standard for residential buildings exists by now (2016), for industrial buildings the consultation is now open and for retail buildings it is coming soon.

¹¹ Members of the IWGPS are UNECE, ILO, IMF, OECD, Eurostat and World Bank (current chair).

¹² This is exactly why the Recommendation of the European Systemic Risk Board on closing real estate data gaps (ESRB/2016/14) demands the 'application of a suitably chosen mark-down to account for the depreciation of the property' in the estimation of its current loan-to-

income return that links the cash flow, or net income, to the portfolio value of an earlier period. The picture drawn from price indices and performance indicators can be fundamentally different. Eventually, this may lead to the wrong conclusions being drawn in analyses and for policy making.

Box 1: The income approach to valuation

The interrelationship between price, rent and yield would be lost if only prices would be taken into account. Indeed, the yield is just the ratio of (annual) rent to price; and as such the inverse of the well-known valuation indicator price-to-rent ratio.¹ By the same token, the income approach directly capitalises an income stream (of the real estate) into a value indication. To this end, the basic identity below is employed.

$$\text{Market value} = \frac{\text{Net operating income (annual)}}{\text{Capitalisation rate (\% p.a.)}}$$

It implicitly assumes that the cash flow is a perpetuity and the capitalisation, or 'cap', rate is a constant. Loosely speaking – and at the aggregate level, only –, the numerator is said to be proportional to the rent, while the denominator is equivalent to the yield.² Thus, the nexus of this trio of indicators needs to be exploited in property price statistics. To this end, not only meta information on the property would be needed but also on the transaction itself, i.e. the link between the price on the one hand and the rent as well as the yield on the other.

¹ While the price-to-rent ratio certainly is the easiest to calculate and to understand valuation indicator, it is also the most simplistic one and it might oversimplify the high dimensional, complex and diffuse relationships in property markets. In particular, using either rent prices from the consumer price index (compared to actual prices of housing transactions) or deviations from long-term averages (compared to modelling trends in the fundamentals) might give a very misleading assessment of (over)valuation.

² Net operating income is equal to potential gross income (i.e. if fully rented) minus vacancy allowance minus operating expenses; if the latter two are assumed to be constant percentages, the above approximation holds. Compared to the yield (which already includes the investment-specific risk premium), the cap rate includes a factor for anticipated cash flow growth; again, should that factor be constant, the above approximation holds. The cap rate itself is empirically derived from other typical properties. For the theoretical background see Geltner, D.M. et al. (2014), *Commercial Real Estate Analysis and Investments*, OnCourse Learning Publishing.

Vacancy rates. Data on vacancy rates from official providers are available in only three EU countries, where both administrative and public sources are used. Private data can be found in nine more EU countries. A major drawback is that the coverage both of property types and geographical breakdowns is limited; if at all, to mainly offices in the largest cities. There are no data at all for 16 Member States.

value ratio when a price index is used. It should be noted, though, that this applies only to specific use in macroprudential oversight.

Summary. The table below summarises the findings as regards availability and frequency for the first four indicators (price and associated indicators). The percentages at the EU-28 and euro area aggregate level, respectively, indicate the GDP coverage with data from either NCB / government or private sources at a quarterly frequency or higher. To some extent the percentages overestimate the actual coverage since a country is included in full as soon as anything for any sub-sector is available. Caution should, therefore, be exercised in interpreting the results.

Availability and frequency of price and associated indicators⁽¹⁾

	Price indices		Rent indices		Rent yields		Vacancy rates	
	NCB / Gov't	Private	NCB / Gov't	Private	NCB / Gov't	Private	NCB / Gov't	Private
EU-28 ^(*)	57.1		61.9		52.9		39.4	
Euro area ^(*)	76.5		57.5		51.0		24.2	
Belgium	:	:	:	:	:	:	:	:
Bulgaria	:	:	:	:	:	:	:	:
Czech Republic	:	:	Monthly	:	:	:	:	:
Denmark	Quarterly	:	:	:	:	:	:	:
Germany	:	Quarterly	:	Quarterly	:	Quarterly	:	Annual
Estonia	:	:	:	:	:	:	:	:
Ireland	:	Quarterly	:	:	:	:	Quarterly	Quarterly
Greece	Half-yearly	:	Half-yearly	:	:	:	:	:
Spain	:	:	:	:	:	:	:	:
France	:	Quarterly	:	Quarterly	:	Quarterly	:	Quarterly
Croatia	:	:	:	:	:	:	:	:
Italy	Quarterly	Quarterly	Half-yearly	:	:	:	:	:
Cyprus	Annual	(Yes)	:	Quarterly	:	Quarterly	:	:
Latvia	:	:	:	:	:	:	:	:
Lithuania	:	:	:	Quarterly	:	Quarterly	:	Quarterly
Luxembourg	:	:	:	Annual	:	Annual	:	Annual
Hungary	:	:	:	:	:	:	:	Half-yearly
Malta	Quarterly	:	:	:	:	:	:	:
Netherlands	:	Quarterly	Quarterly	Quarterly	:	:	Annual	Annual
Austria	:	:	:	:	:	:	:	:
Poland	Annual	(Yes)	Half-yearly	:	:	:	Quarterly	(Yes)
Portugal	Annual	:	:	:	:	:	:	:
Romania	:	:	:	:	:	:	:	:
Slovenia	Half-yearly	:	:	:	:	:	:	:
Slovakia	:	:	:	Quarterly	:	Quarterly	:	Quarterly
Finland	Monthly	Annual	Half-yearly	:	:	Annual	:	Annual
Sweden	:	Annual	:	Monthly	:	:	:	Quarterly
United Kingdom	:	(Yes)	:	Monthly	:	Monthly	:	Monthly
Australia	:	Quarterly	:	Quarterly	:	Quarterly	:	Quarterly
Brazil	:	Monthly	:	Quarterly	:	Monthly	:	:
Canada	:	:	:	(Yes)	:	:	:	:
Japan	Quarterly	:	:	:	:	:	:	:
Saudi Arabia	Quarterly	:	:	:	:	:	:	:
United States	:	:	:	:	:	:	:	:

(*) A country is included as soon as anything for any sub-sector is available. The table, therefore, overstates the actual coverage.

(*) % of gross domestic product, 2016 (covered with data from either NCB / government or private sources at a quarterly frequency or higher)

(:) not available

Source: European Commission / European Central Bank Joint Expert Group

3.2. Other economic indicators

The second set of indicators is related to the economic activity, i.e. variables on 'construction and building' as well as data on transactions. Unlike the price and associated indicators these indicators are flows.

Building permits, construction starts and construction work completed.

The natural process flow of production is:

Building permit → Construction start → Works completion.

For building permits all 28 EU countries collect official data at quarterly or even monthly frequency under the Short-Term Statistics Regulation.¹³ Breakdowns by property type and geographical area are available in many cases and the time series have a good length mostly. As a consequence of confidentiality, however, the data availability for end users might be different to that for compilation purposes.

While the administrative procedures, thus, give an excellent overview of building permits, the situation for construction starts and construction work completed is considerably worse. While construction starts are, in international discussions on residential property, seen as the best leading indicator, it appears that in most Member States there is no recording mechanism of the progress of production in place once the permit is granted. As a result, there are no data on construction starts at all for 17 Member States. Official data are available in eight EU countries, which come from administrative sources. Three more EU countries have private data.

The picture for construction work completed is similar, with no data being available in ten EU countries. 16 Member States have official statistics albeit, in general, at lower frequency than building permits. If they have data, they exploit basically the same sources. The two other countries use data from private providers.

Transaction numbers and value. Transactions data are not only at the heart of price measurement but also have a right as stand-alone indicators regarding market activity. Notwithstanding this, the coverage of transaction numbers is limited with no information for 15 EU countries. Eight Member States use official sources, i.e. administrative data such as from land registries, tax records or valuation offices.¹⁴ Five more EU countries have access to private sources.

The situation for transaction values is similar with no data being available in 13 EU countries. Seven Member States use basically the same official sources. Eight EU countries use private data.

A central dilemma is that transactions might be scarce, in particular in times of market stress, where such evidence would be most needed by policy-makers.

¹³ Council Regulation (EC) No 1165/98, as amended by Regulation (EC) No 1158/2005, concerning short-term statistics requires transmission of building permits (square metres of useful floor area), broken down by office and other non-residential buildings.

¹⁴ As such these are subject to the same shortcomings as regards their coverage with respect to special purpose entities as price indices (inevitably, the two are more or less directly linked to each other).

Summary. The overview table below details the availability and frequency of the other economic indicators. As in the previous summary table it should be kept in mind that the coverage is shown using GDP figures and, as a result, caution should be exercised in interpreting the results.

Availability and frequency of other economic indicators(*)

	Building permits		Construction starts		Works completions		Transaction numbers		Transaction value	
	NCB / Gov't	Private	NCB / Gov't	Private	NCB / Gov't	Private	NCB / Gov't	Private	NCB / Gov't	Private
EU-28 (*)	100.0		26.0		28.0		54.3		43.0	
Euro area (*)	100.0		32.1		32.3		42.2		26.6	
Belgium	Monthly	:	:	:	:	:	:	:	:	:
Bulgaria	Quarterly	:	Quarterly	:	:	:	:	:	:	:
Czech Republic	Monthly	:	:	:	Annual	:	:	:	:	:
Denmark	Quarterly	:	Quarterly	:	Quarterly	:	Quarterly	:	Quarterly	:
Germany	Monthly	:	:	:	Annual	:	:	:	:	:
Estonia	Quarterly	:	Quarterly	:	Quarterly	:	Monthly	:	Monthly	:
Ireland	Quarterly	:	:	:	:	:	Monthly	:	Monthly	:
Greece	Monthly	:	:	:	:	:	:	:	:	:
Spain	Monthly	:	:	:	:	:	:	:	:	Annual
France	Monthly	:	Monthly	:	Monthly	:	Quarterly	:	Quarterly	:
Croatia	Monthly	:	:	:	Annual	:	:	:	:	:
Italy	Quarterly	:	:	:	:	:	Quarterly	:	Annual	:
Cyprus	Monthly	:	:	:	Annual	:	:	:	:	:
Latvia	Quarterly	:	:	:	Quarterly	:	:	:	:	:
Lithuania	Quarterly	:	Quarterly	:	Quarterly	:	:	:	:	:
Luxembourg	Monthly	:	:	:	Annual	:	Annual	:	Annual	:
Hungary	Monthly	:	Monthly	:	:	:	:	:	:	Half-yearly
Malta	Quarterly	:	:	:	:	:	:	:	:	:
Netherlands	Monthly	:	Quarterly	:	Monthly	:	Half-yearly	:	Half-yearly	:
Austria	Quarterly	:	:	:	Annual	:	Monthly	:	Monthly	:
Poland	Quarterly	:	:	:	Quarterly	:	Quarterly	:	Quarterly	:
Portugal	Monthly	:	Monthly	:	Quarterly	:	:	:	:	:
Romania	Monthly	:	:	:	:	:	:	:	:	:
Slovenia	Monthly	:	:	:	Annual	:	Annual	:	:	:
Slovakia	Quarterly	:	Quarterly	:	Quarterly	:	:	:	:	Annual
Finland	Monthly	:	Monthly	:	Monthly	:	Annual	Annual	Annual	Annual
Sweden	Quarterly	:	:	:	:	:	Quarterly	Half-yearly	Quarterly	Half-yearly
United Kingdom	Quarterly	Half-yearly	:	Half-yearly	:	Half-yearly	:	Monthly	:	Monthly
Australia	Monthly	Half-yearly	:	Half-yearly	:	Quarterly	:	Quarterly	:	Quarterly
Brazil	:	:	:	:	:	:	:	:	:	:
Canada	Monthly	:	:	:	Quarterly	:	:	:	:	:
Japan	:	:	Monthly	:	:	:	Monthly	:	Quarterly	:
Saudi Arabia	:	:	:	:	:	:	:	:	:	:
United States	:	:	:	:	:	:	:	:	:	:

(*) A country is included as soon as anything for any sub-sector is available. The table, therefore, overstates the actual coverage.

(*) % of gross domestic product, 2016 (covered with data from either NCB / government or private sources at a quarterly frequency or higher)

(:) not available

Source: European Commission / European Central Bank Joint Expert Group

3.3. Comparison with the selected G20 countries

The situation in the selected G20 non-EU economies is somewhat similar to that in EU Member States. On the price and associated indicators, just two of the six G20 countries have data from official sources on commercial property prices, for everything else there is no coverage from the NCB / government side either and scattered information from private sources. As regards other economic indicators, the pattern is not that much different, too, with the exception of building permits, where the EU has full country coverage, while variables on 'construction and building' in general as well as data on transactions are available to a limited extent for the selected members of the G20. Notably, Australia shows a good performance, mixing official but mainly private sources to achieve full coverage of the nine indicators identified in this report.

4. CONCLUSIONS AND RECOMMENDATIONS

As explained in Section 2 above, it is clear that there are well founded and justified reasons for the establishment of the nine commercial real estate indicators listed in this report for each of the EU Member States. The use of the data is primarily, but not solely, for macro and micro prudential analysis. While the justification for the data is therefore fully acknowledged, establishing the data flows is likely to be an extremely challenging and resource intensive exercise. While for all of the variables there is something available for, at minimum, some of the EU Member States the actual data available is often of rather poor quality and, even where the quality is of a minimum standard, it is neither comparable across Member States nor available with the requested breakdowns or the needed timeliness.

The stock-taking exercise also revealed that there are no 'quick wins' that would allow comparable and reliable data to be supplied. Not least because of this, the short to medium-term solution is likely to rely on the already available price and associated indicators from private sources. For the longer term, on the other hand, it is necessary to look in-depth at how the current uncertainties might be reduced. Expertise is in general scarce and depending on the Member State may be found National Statistical Institutes, other areas of national administrations, in National Central Banks or external to all of these. In this context, coordination and capacity building are important aspects.

Box 2: Potential longer-term options

In the longer term, there are essentially three avenues to consider. The potential ways forward reach from establishing a fully integrated data collection (alternative 1) via exploiting more administrative sources (alternative 2a) and setting up small surveys (alternative 2b) to continuing with the status quo (alternative 3). It should be noted, though, that before any further steps can be initiated, more country experience needs to be gathered in the form of pilot studies to learn more about what can be achieved and how, and what cannot be achieved and why not.

Fully integrated data collection (alternative 1): A fully-fledged and integrated system is arguably the best approach technically, yielding a consistent recording of transactions along with all price and associated indicators. However, the framework for such an approach is not yet existent as that process would need to have responses from all of the relevant stakeholders (encompassing holders of the property and their funding sources – banks, pension funds, insurance companies, private investors, etc.). More importantly, even if it was in place already, the resource requirements would be commensurate. To establish a data collection of this type is likely to require the establishment of a new dedicated survey in each Member State after the appropriate specification, testing, legislation, etc. The first results would, therefore, not come until after all of these steps had been successfully undertaken.

Box 2 (continued)

Exploiting more administrative sources (alternative 2a): As explained in Section 3 some of the required variables naturally group together (e.g. building permits, construction starts, and works completions). In all Member States the granting of a permit is subject to an administrative process. Similarly, the finalisation of a building is normally subject to a reporting requirement or an approval process, albeit that in many EU countries this data appears not to be used for statistical purposes. In some countries there are also statutory reporting requirements when building work commences although these, too, are not always used for statistical purposes. One potential drawback with producing this data from an administrative source might be the timeliness of the results. Further analysis is required to better understand the possibilities that these data offer for statistical compilation.

Transactions data, to be used in the calculation of price indices as well as for transaction indicators, can be collected from administrative sources such as land registries and tax records. However, the potentially significant issue of special purpose entities would not be captured; neither would the necessary meta information for quality adjustment be readily available from these sources. Above all, use of these sources can be made only in a limited number of countries for the time being since the way the data are entered in the administrative sources currently disqualifies them for the purpose (e.g. missing identification variables). Further exploration is required.

Setting up small surveys (alternative 2b): It should be possible, at large, to survey the rent variables (rent indices and rent yields) as well as vacancy rates via existing business surveys as stand-alone indicators. However, at the present juncture this is not done in EU Member States. Adding these variables would therefore require legislative change after suitable testing and specification, leaving the possibility open that some data in some countries may be collected from private sources that fulfil the quality requirements. The existing business surveys at EU level do not generally give the full breakdowns of the data as set out in the user requirements. This aspect would need to be further investigated. The resource requirements, albeit not as onerous as for a fully integrated survey, are likely to be large.

Continuing with the status quo (alternative 3): An alternative approach would be to partly or completely rely on private sources for the data collection. There are well known international real estate groups that collect similar data at present albeit in no case for all of the EU Member States. The stocktaking exercise showed in some cases that the variables are only available from these private data sources. However, methods employed are often far from clear and the available data do not currently fully cover the user requirements. Advantages of this approach are that the necessary capacity building in each Member State could be significantly less and that the data would come on-stream faster. As a result, even in the longer term, existing private data sources may be the predominant option to fulfil some user requirements. There are, however, operational risks in the approach as well (e.g. a particular source may not be maintained over time or compilation approaches may be changed).

Since data sources for some of the indicators are absent, international consensus on appropriate methods is lacking, and resources at national level in general, as well as experts in this domain in particular are scarce, the collection of data is, in conclusion, technically difficult and in its infancy both in the EU and around the world. There is not, at the current juncture, a clear path forward. The scenarios above may not be stand-alone; hybrid solutions may be necessary. Nonetheless, the importance of the data appears to be high – there has been an element of real estate problems in the vast majority of financial crises recorded. In view of these considerations, it seems warranted to proceed gradually with a clear set of milestones before reaching any decision on the longer term scope of a new or extended data collection in this field.

In concrete terms, the following milestones are proposed:

- The Commission (Eurostat) will publish a Working Paper on Commercial Property Price Indicators (CPPI) in early-2018. This paper makes a first attempt at describing methods and issues related to data collection and index compilation. It was produced under the aegis of the IWGPS, in the context of the G20 Data Gaps Initiative (DGI).
- As a direct follow up to the above paper, the possibilities of establishing an international CPPI Manual will be investigated, with the aim of initiating the work on the Manual in the course of 2018. Manuals are used in the global statistical community as the single most important reference. They are normally produced by a lead agency.
- As commercial real estate building permits data are already collected in the Short-Term Statistics Regulation, investigations will be initiated to see if, and how, the closely related data on construction starts and works completions can be compiled. Once methodological work is more advanced, vacancy rates could be further investigated. The legal framework for these additional indicators would be the Framework Regulation Integrating Business Statistics.
- The establishment of a set of training resources on the topic for all Member States at a European level by 2019. This will help in capacity building within the EU (and beyond). This is particularly important in this field as, although there is some knowledge about residential property statistics, commercial real estate is considerably more complex and there is very little statistical expertise for data collection and index compilation.
- An accompanying set of workshops and conferences on the topic is likely to also be beneficial. A thematic G20 DGI workshop, where the BIS, Eurostat, OECD and IMF are taking the lead (the ECB will be requested to contribute), will be held in January 2018 in Argentina. Eurostat will also organise an international conference on real estate statistics in early 2019. Such gatherings help to learn from the experience of others, in particular outside the EU, who face similar issues in the endeavour to increase information on developments in commercial property markets.

- For those Member States that want to go forward faster on the subject financial and non-financial support for pilot projects should be made available (e.g. via grants for concrete actions; or a network of relevant experts across National Statistical Institutes, other areas of the national administrations, and National Central Banks). Similarly, official initiatives for innovative, interim or experimental data should be supported at the EU and national levels.
- The Commission (Eurostat) and the ECB will continue to work closely together with the main user, the ESRB, in particular its Working Group on Real Estate Methodologies, to contribute to the efforts on an on-going basis.

All of the above, and the subsequent establishment of data collections, are likely to take significant time and resources. While it is too early to enumerate these fully it is highly likely that the resource requirement will be substantially in excess of that faced within each Member State to establish and maintain residential real estate data collections. Once the way forward is clearer, it will be important to undertake an examination of the merits and costs of possible data collections.