

## **Nationwide real estate market transparency prevents a bubble - From local expertise to statewide market knowledge -**

**Peter ACHE, Germany**

**KEY WORDS:** Geoinformation/GI Property taxes Real estate development Spatial Valuation Real Estate Market Database Purchase Monitoring Valuation Analyses Marketreport

### **SUMMARY (ENG.):**

In Germany, about 237 billion euros are currently being invested in the purchase of real estate. This corresponds to a share of about 7.6% of the gross domestic product in the Federal Republic of Germany. Against the background that real estate has an outstanding importance of the quality of living and working, the transparency of this market is of particular importance. Corruption, money laundering and white-collar crime are the more difficult the more transparent the market is. Banks reduce the risks of mortgage lending, the safer the development of property values can be, and the risks of a financial crisis are reduced if investors can be sure that the price of a property is not completely off the market. In addition, governments can use the data to make funding decisions for reducing soaring real estate prices. The system of local expert committees in Germany has proven itself since 1960, it faces extraordinary challenges now. But the local expertise on the real estate market is the base for a nationwide good and independent determination of real estate market data.

### **SUMMARY (DE.):**

In Deutschland werden aktuell etwa 237 Milliarden Euro in den Kauf von Immobilien investiert. Dies entspricht einem Anteil von etwa 7,6% des Bruttoinlandsproduktes in der Bundesrepublik Deutschland. Vor dem Hintergrund dass Immobilien eine herausragende Bedeutung von die Lebens-, Wohn- und Arbeitsqualität hat ist die Transparenz dieses Marktes von besonderer Bedeutung. Korruption, Geldwäsche und Wirtschaftskriminalität fallen umso schwerer je transparenter der Markt ist. Banken verringern die Risiken der Beleihung, je sicherer die Entwicklung von Immobilienwerten abgeschätzt werden können und die Risiken einer Finanzkrise sind verringert, wenn Investoren sicher sein können, dass der Preis für eine Immobilie nicht marktfern ist. Darüber hinaus können Regierungen die Daten nutzen, um Entscheidungen über Förderkulissen zur Reduzierung von stark steigenden Immobilienpreisen zu kommen. Das System der lokalen Gutachterausschüsse in Deutschland hat sich seit 1960 bewährt, es steht vor außerordentlichen Herausforderungen, aber die lokale Expertise zu dem Immobilienmarkt ist die Grundlage für eine bundesweit gute und unabhängige Ermittlung von Immobilienmarktdaten.

---

Nationwide Real Estate market Transparency Prevents a Bubble – From Local Real Expertise to Statewide market Knowledge - (9866)  
Peter Ache (Germany)

FIG Working Week 2019  
Geospatial information for a smarter life and environmental resilience  
Hanoi, Vietnam, April 22–26, 2019

# **Nationwide real estate market transparency prevents a bubble - From local real estate expertise to statewide Real Estate Market Knowledge -**

**Peter ACHE, Germany**

## **1 SIGNIFICANCE OF THE REAL ESTATE MARKET IN GERMANY**

The real estate industry in Germany represents the third strongest segment of the German economy. The gross value added of the real estate sector currently amounts to around € 500 billion, this corresponds to a share of 21% of total German gross value in 2017. Only the manufacturing industry (excluding the construction industry, which belongs to the real estate sector) with a share of 31% and the sector of Public services with a share of 22% are ahead of the real estate industry. Another important aspect is, that around 60-70% of all real estate purchase investment is detected in the residential real estate sector.

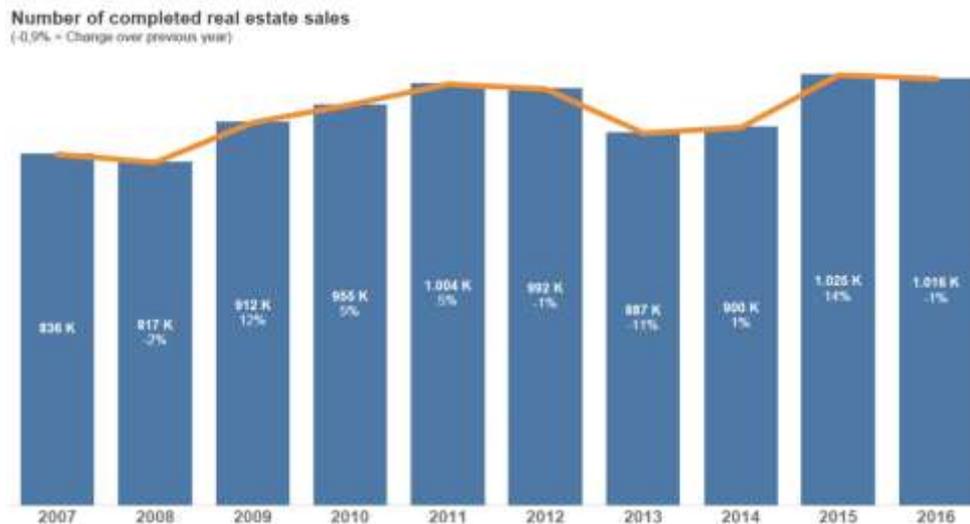
The real estate sector therefore has an extraordinary bad influence for the economic situation in Germany in general. If the real estate market were not transparent, this would have also a significant impact on the economic situation of each individual citizen.

In comparison to many other material submarkets, real estate represents special features insofar as it is not replicable, not changeable in its geographic position and it is very individual. Each property is unique and can't be compared to another property from the outset. This complicates the analysis of real estate data; it enables the lack of transparency and increases the risk of corruption, money laundering and white-collar crime.

The Government of the Federal Republic of Germany therefore created already in 1960 a legal basis for the fact that the real estate market observation is also carried out by official bodies. The Government has anchored this in its German Building Code. The database for the work is every concluded purchase contract for the sale of real estate across the country. In 2016, the number of these transactions was about 1 million contracts.

## 1.1 Transactions and turnover since 2009 in Germany

In Germany since 2007, the real estate market data of the local expert committees are nationwide collected and analyzed. One of the results is a time series about all concluded real estate contracts in Germany as shown in [Fig. 1](#). The number of transactions via real estate sales in Germany has been relatively stable since 2016. Since 2011, about 1 million properties are sold each year.



**Fig. 1: Number of completed real estate sales**

An important but often underrated indicator of a real estate bubble arising is, when it is determined then a real estate objects are bought to sell them. Especially to buy an sell in a relatively short period of time to take the meantime increased price as a profit. The number of concluded purchase contracts would have to rise significantly in such a case. As can be seen from [Fig. 1](#), there is no significant change in the number of sales over the years. The assumption that in Germany a real estate bubble is to be feared can be nearly negated already with this presentation.

## 3 1.2 Economic significance of the subject submarkets

In a first level, the different types of real estate are subdivided in different submarkets as shown in [Fig. 2](#).

### Purchase investments by property-category, 2016 (in billion euro)

Total = 237,5 Billion Euro

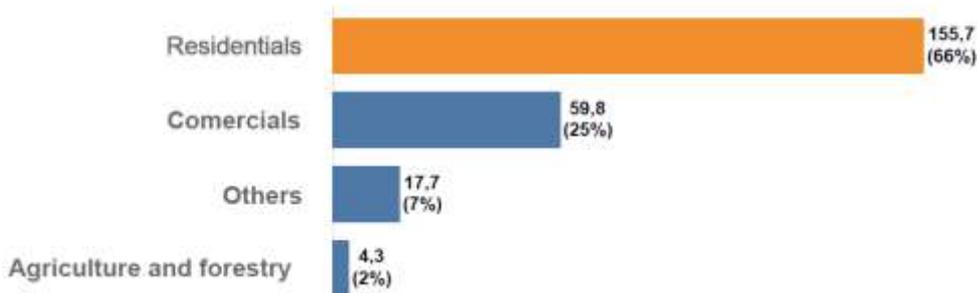


Fig. 2: Purchase investments by property-category, 2016 (in billion euro)

With a total turnover of € 237.5 billion in 2016 there are € 155.7 billion been invested in sales of built-up residential, apartments and building sites for residential real estate; this corresponds to a share of 66% of total sales. With € 59.8 billion is a 25% of money turnover in the purchase of commercial real estate been invested.

## 2 SUB-MARKET DEFINITIONS

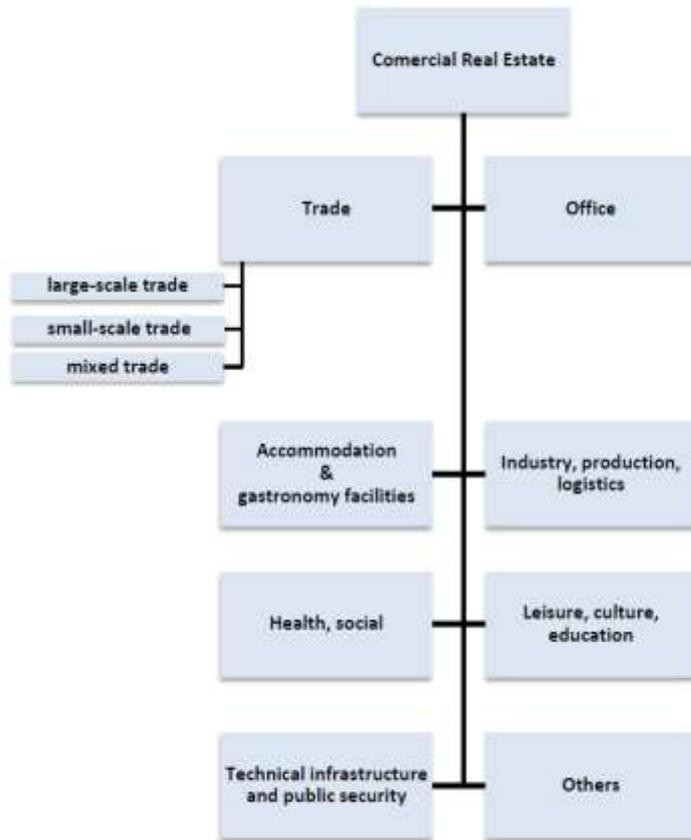
For bringing together the large number of locally different expert committees it is first and foremost important to arrive at clear and non-overlapping definitions of the subject sub-markets (the real estate types). Occasionally, very different views exist even for seemingly simple types of real estate. So for example, areas with a size of 1,000 m<sup>2</sup> usually would not be classified as arable land if they are located in the federal state of Lower Saxony. In Bavaria, on the other hand, such areas are considered as arable land. So, if sales of arable land are reported at the federal level, it is not the same size categories but it is the view of the local market which type of property it is. Only local experts can recognize and define such subtle differences in the view of the market. This is especially true because the classification features over time are not static but dynamic.

When forming submarkets, a distinction is made between factual (property types) and spatial (regions) submarkets.

### 4 2.1 Property Types

In order to achieve a nationwide aggregation of real estate data, sales and price data are assigned to the different types of real estate. The classification of the real estate types takes place in hierarchically ordered categories. [Fig. 3](#) shows an example of categories within commercial objects on a first and second level.

### Example: Factual submarktes in Comercial Real Estate in 1st and 2nd level



**Fig. 3: Example of hierarchically classification of the factual submarket in commercial property in 1st and 2nd level**

---

Nationwide Real Estate market Transparency Prevents a Bubble – From Local Real Expertise to Statewide market Knowledge - (9866)  
Peter Ache (Germany)

FIG Working Week 2019  
Geospatial information for a smarter life and environmental resilience  
Hanoi, Vietnam, April 22–26, 2019

## 2.2 Spatial submarkets

That the home-market in Munich is different from that market in a small town in the east of Germany is not to be doubted. In the analysis of purchase case data, in addition to the clear decision for a property type, the decision on which spatial level the analysis is to take is also to be made. So, for example, the suburban ring around the capital of Germany, Berlin, must be separated from the backward rural areas in the countryside of the federal state of Brandenburg. In order to analyze the real estate market data for the whole of Germany, we have divided the entire state at the district level (in some cases below) into structurally different areas.

At the end of investigations and discussions, we have defined the following seven types of cities and counties. These regional demarcations, which are mainly defined by area structure, are suitable for the presentation of transactions, turnover and prices in the real estate market.

- 7 Big Cities such as Berlin or Munich (more than 600 K inhabitants)
- 8 Large Cities such as Leipzig or Bremen (500 to 600 K inh.)
- 61 Small Cities such as Wolfsburg or Augsburg (100 to 500 K inh.)
- 41 County-free cities such as Schwerin, Baden-Baden or Salzgitter (10 to 100 K)
- 171 Central County Cities and urban districts
- 90 Compacted rural areas
- 107 Sparseley populated rural areas

A closer look at the market in these regions shows the significant differences in developments on the real estate market. In addition to this structural spatial categorization, the classification into western, eastern, northern and southern regions has been made. With this double categorization for example, price trends in rural areas in western Germany can now be compared well with those in the east.

## 3 THE PRINCIPLE OF THE OFFICIAL EXPERT COMMITTEES FOR PROPERTY VALUES

### 3.1 The local expert committees

The basic idea of the official committees of expert valuers consists of two essential components:

- The local experience about the real estate market.
- The independence of the committee-members from any financial or political influence.

#### Local experience

Basically, one could be of the opinion that in modern times of Big-Data-Analysis a local experience is no longer absolutely necessary. But considering the fact that subject submarkets behave very differently, the problem arises that the original idea of big data suddenly becomes "little data". Experience shows that in many cases market behavior already varies

---

Nationwide Real Estate market Transparency Prevents a Bubble – From Local Real Expertise to Statewide market Knowledge - (9866)  
Peter Ache (Germany)

FIG Working Week 2019  
Geospatial information for a smarter life and environmental resilience  
Hanoi, Vietnam, April 22–26, 2019

from neighborhood to neighborhood; this leads to very few or none real estate transactions in some residential or commercial districts of a county or city. Therefore statistical models have to be used to bridge these "gaps".

In many cases, these statistical models are sufficient, but the plausibility of the analysis results is nevertheless of great importance. Only in this way the transition from pure statistical considerations to the actual truth about the market can succeed.

---

Nationwide Real Estate market Transparency Prevents a Bubble – From Local Real Expertise to Statewide market Knowledge - (9866)  
Peter Ache (Germany)

FIG Working Week 2019  
Geospatial information for a smarter life and environmental resilience  
Hanoi, Vietnam, April 22–26, 2019

### Independence of the committees

The real estate market represents one of the major investment markets in Germany. Under this circumstance, it can be assumed that the financial interests of companies, institutes and private persons are closely linked to the real estate market. For example, real estate agents will not be interested in reporting that home prices will decline in the future. Also banks will defend, when published that the real estate will no longer serve as a pension in the future, because this investment is no longer safe in the long term. Whoever has his own information about the market, will use this information to protect his interests. This is a normal behavior in a free market economy.

Nevertheless, it is necessary for a well-functioning market to create comprehensive transparency. This can only happen free of interests of any kind; the only interest must be to make the market as transparent as possible.

To this end, the German parliament has established the official expert committees; the work of the honorary members of the committees is subject to the regulations of the authorities. The committees also have independent offices which are only subject to the instructions of the committees.

### **3.2 The upper expert Committees at a federal state level**

In the past 10 years, the observation and reporting in the real estate market has become more important. Not least due to the financial and economic crisis in 2007 pp. it has become clear, that the observation of only local markets is not sufficient; the real estate market is increasingly acting beyond the regions, beyond the states and in some cases international.

With the amendment of the Building Code in 2009, it has been made mandatory that the federal states of Germany have to establish upper expert committees. For that there are now 16 upper expert committees to join together the reports and market information from the local committees to the federal state level. Some federal states already had upper committees of experts before 2009 and others have completed the establishment of their committees around 2018.

### **3.3 Working group of federal upper expert committees of state level**

Almost parallel to the legal steps taken to set up the upper Expert committees on federal state level, a working group was formed in 2006. It had to deal with the publication of a nationwide real estate market report. And this goal was accelerated by the effects of the financial and economic crisis. The first report appeared in 2009 and has been published every two years since then.

The data base is the data of the local expert committees combined with the experience on that local level. Therefore, only aggregated real estate market data is collected, which has been made plausible by the local committees. The task of the local expert committees is to provide the aggregated and plausible market information over the federal state level to the working group on nation level.

---

Nationwide Real Estate market Transparency Prevents a Bubble – From Local Real Expertise to Statewide market Knowledge - (9866)  
Peter Ache (Germany)

FIG Working Week 2019  
Geospatial information for a smarter life and environmental resilience  
Hanoi, Vietnam, April 22–26, 2019

The concept "Local to National" proves in principle to be well suited to represent the real estate market truthfully. However, it requires disciplined data analysis, good project management and a high degree of good communication between all stakeholders. In the end, one can assume that this form of transparency has played its part in ensuring that the real estate bubble in Germany did not have the disastrous effects of other European and non-European countries.

---

Nationwide Real Estate market Transparency Prevents a Bubble – From Local Real Expertise to Statewide market Knowledge - (9866)  
Peter Ache (Germany)

FIG Working Week 2019  
Geospatial information for a smarter life and environmental resilience  
Hanoi, Vietnam, April 22–26, 2019

## 4 CURRENT CHALLENGES

The developments and challenges of market information have changed rapidly in recent years. The establishment of the smartphone since 2007 with appropriate information retrieval applications has revolutionized the information retrieval system:

- Information must be available completely and quickly.
- Market analyses results must be up to date.
- The information must be concentrated and recognizable at a glance.
- The handling must be equally good on the desktop, on the pad and on the smartphone.

So the challenge for the next five years is to quickly process the data to meet modern needs. It is certain that information-dashboards on electronic devices will replace the printed publications. And it is certain that the official data of the expert committees or the market data of private companies alone are not sufficient to realize the "Amazon's Pace", which is the today's benchmark to map market information in modern times.

Therefore, the big challenge for government and private analysts is to bring their data together to make the analysis better and more reliable. This will require improving data collection standards, ensuring the electronic exchange of data while ensuring that these data remain protected.

In summary, it can be said that the pace of collecting, bringing together, analyzing and presenting real estate market data needs to be increased. It is important to focus on artificial intelligence while maintaining local competence.

## 5 BIOGRAPHICAL NOTES

- Managing Director of the Upper Expert Committee in Lower Saxony, Germany
- Managing director for the working group of the upper expert committees
- Editorial manager for the real estate market report Germany
- Head of the working group "Real Estate Valuation" of the DVW- Society for Geodesy, Geoinformation and Landmanagement
- Studied at the Jade University in Oldenburg in Lower Saxony

## 6 CONTACTS

- Dipl.- Ing. Peter R. Ache
- Expert Board for Real Estate Valuation in the Federal Republic of Germany
- c/o  
Stau 3, 26122 Oldenburg  
Germany  
Tel. +49 441 9215 633 / mobile: +49 173 930 851 48

---

Nationwide Real Estate market Transparency Prevents a Bubble – From Local Real Expertise to Statewide market Knowledge - (9866)  
Peter Ache (Germany)

FIG Working Week 2019  
Geospatial information for a smarter life and environmental resilience  
Hanoi, Vietnam, April 22–26, 2019

Email: [peter.ache@lgl.niedersachsen.de](mailto:peter.ache@lgl.niedersachsen.de)

Website: [www.immobiliemarktbericht-deutschland.info](http://www.immobiliemarktbericht-deutschland.info)

---

Nationwide Real Estate market Transparency Prevents a Bubble – From Local Real Expertise to Statewide market Knowledge - (9866)  
Peter Ache (Germany)

FIG Working Week 2019  
Geospatial information for a smarter life and environmental resilience  
Hanoi, Vietnam, April 22–26, 2019