Data: The Unhidden Mystery of Turkish Property Valuation System

Ümit YILDIRIZ and Tuğba GÜNEŞ, Turkey

Key words: Turkish property market, valuation, data, land registry and cadaster.

SUMMARY

Development of Turkey cannot be achieved without real estate sector which amounts to 7.7 percent of the GDP in Turkey in 2016. Main data source for real properties in Turkey is General Directorate of Land Registry and Cadaster (TKGM). Thanks to its own information systems called TAKBIS and MEGSIS, TKGM share land registry and cadaster data with hundreds of institutions and municipalities via web services. TKGM records consist of data regarding all properties, ownership rights, restrictions and property attributes both in hardcopy documents and in aforementioned information systems. However, there are two major problems required to be overcome: unreliable value data and lack of data standardization.

Property valuations in Turkey are carried out by various private companies such as members of the Turkish Appraisers Association (TDUB), some public institutions for expropriation purposes, individual experts for different purposes, commissions for taxation, etc. Data produced during the valuation activities are either kept in local databases of different institutions or kept in hard copies. Standards for data and valuations, structures of databases, procedures, definitions etc. may vary among these institutions. In these circumstances, thereby, in order to monitor real property market in a holistic approach, these databases should be standardized and integrated with the official land registry and cadaster records.

In this paper, after showing property market activeness of Turkey with official data taken from TKGM, capabilities and shortcomings of official records are evaluated. By explaining the importance of land registration data for the Turkish property market with original examples and statistics, property valuation activities carried out in Turkey are summarized and a valuation data bank is offered to achieve the purpose of monitoring real property market with its all aspects, especially in terms of property valuation.

By reading this paper, it will be understood clearly that even though all data regarding immovable properties exists in official records and there are various data sources for property values, this data cannot be used efficiently. Obviously, the data is not hidden, but remains as a mystery. Establishing a common valuation data bank is recommended to assure a transparent and monitorable property market in Turkey,
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1. INTRODUCTION

Real estate activities\(^1\) amount to 7.7 percent of the Gross Domestic Product (GDP) in Turkey in 2016, which is the fourth largest share after manufacturing, wholesale and retail trade, and construction industries (TurkStat 2017). If the construction and real estate activities sectors are considered together because of closeness of their fields, they account for 16.2% of GDP which makes them second largest industry in the country (Figure 1).

![Figure 1: Construction and Real Estate Activities in GDP (%)](image)

Turkey has an active real estate market with over two million property transactions every year (TKGM 2017) and monitoring the real property market has an essential role in a country like Turkey as the real estate has a significant share in GDP. Monitoring the activeness of property market can be achieved through Land Registry and Cadastre Information System (TAKBIS) and Spatial Property System (MEGISIS) which are developed by TKGM, the only government institution in Turkey responsible for carrying out land registry and cadaster operations and keeping all relevant data. However, these official records have lack of data standardization and reliable value information. The fact that some data fields have been structured in the text format and some other ones cannot be classified systematically because of legislative issues (like property types) makes performing statistical analysis difficult.

\(^1\) By Statistical Classification of Economic Activities in the European Community (NACE) Rev. 2 sections, real estate activities section includes buying and selling of own real estates, renting and operating of own or leased real estates, real estate activities on a fee or contract basis, real estate agencies and management of real estate on a fee or contract basis (Eurostat 2008).
Besides that, property values recorded in TAKBIS do not reflect true prices since sellers and buyers do not declared the actual prices at the time of transactions. Consequently, even though all data regarding immovable properties exists in official records, this data cannot be used efficiently or not reliable. Data is not hidden, but remains as a mystery.

On the other hand, some other public and private institutions carry out property valuation activities for various purposes. Data of these institutions will be insufficient if they are taken into consideration separately. Because valuation standards, geographical coverages, property types, value definitions etc. can vary among implementations and/or institutions, and most importantly their data is meaningless without land registry and cadaster data which is the baseline of any property market analysis. Consequently, monitoring real property market requires

- Data standardization of official records,
- Integration of data kept in different databases in different institutions with the official land registry and cadaster records,
- Standardization of data structures of different databases of different institutions,
- Common data and value definitions,
- Using data in an efficient way.

In this paper, valuation data bank is offered as to achieve the purpose of monitoring real estate market. First chapter is allocated for revealing the activeness and changes of property market in Turkey with concrete numbers and examples. Those statistics and examples are taken from official records and published for the first time as this way. Importance of land registry and cadaster records are emphasized as well. In the second chapter, shortcomings of official records are analyzed in terms of unreliable value data and lack of data standardization. Again original examples are shown to make readers see these issues clearly. Following chapter shows real property valuation activities carried out by TDUB, public institutions conducting expropriation implementations, local governments for taxation purposes. TKGM registers and logs taken during queries made by TDUB members and other institutions were used in order to figure out these activities. TDUB is a professional association whose members are the only ones that can make valuations under the framework of capital markets according to the Turkish Capital Market Law. How TDUB members access TKGM data and relevant statistics are given for the first time with this study. Geographical distribution of expropriation implementations registered in official land registries will be seen in this chapter, which is not seen before in any studies again. This chapter is closed with the offer of valuation data bank for integrating data in different institutions and for monitoring property market in a holistic approach. Finally, last chapter is written as a summary of conclusions of this paper and emphasizes importance of using data efficiently.
2. REAL PROPERTY MARKET IN TURKEY

Turkey has an active property market with almost two million transactions averagely every year. In this study, only full share sales which account for approximately 86% of all sales are examined in order to avoid complexity of partial share sales. The year of 2012 was accepted as base year since TAKBIS’ dissemination process had completed at that year. Number of all sales and full share sales between the years of 2012 and 2016 are shown on Table 2.

<table>
<thead>
<tr>
<th>Years</th>
<th>Total Number of Sales</th>
<th>Total Number of Full Share Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>1,915,673</td>
<td>1,639,843</td>
</tr>
<tr>
<td>2013</td>
<td>2,151,666</td>
<td>1,866,160</td>
</tr>
<tr>
<td>2014</td>
<td>2,211,382</td>
<td>1,922,118</td>
</tr>
<tr>
<td>2015</td>
<td>2,380,553</td>
<td>2,052,463</td>
</tr>
<tr>
<td>2016</td>
<td>2,446,966</td>
<td>2,117,645</td>
</tr>
</tbody>
</table>

Table 2: Number of Property Sales between 2012 and 2016 in Turkey

Establishment of a modern-way housing finance system was started with the Housing Finance System Law (Nr. 5582) in 2007 and after the entry into force of the new Capital Market Law (Nr. 6362) in 2012 the Turkish mortgage system has been activated in the country. As shown on Table 3, number of full-share mortgaged sales averagely account for at around 23% of all full-share sales in Turkey since 2012. However, this number may increase to almost 45% especially in metropolitan cities while decreasing to level of 15% in some small cities.

<table>
<thead>
<tr>
<th>Years</th>
<th>Number of Other Sales (full-share)</th>
<th>Number of Mortgaged Sales (full-share)</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lands*</td>
<td>Individual Units</td>
<td>Total</td>
</tr>
<tr>
<td>2012</td>
<td>646,578</td>
<td>662,098</td>
<td>1,308,676</td>
</tr>
<tr>
<td>2013</td>
<td>695,747</td>
<td>699,294</td>
<td>1,395,041</td>
</tr>
<tr>
<td>2014</td>
<td>738,302</td>
<td>776,588</td>
<td>1,514,890</td>
</tr>
<tr>
<td>2015</td>
<td>763,189</td>
<td>844,714</td>
<td>1,607,903</td>
</tr>
<tr>
<td>2016</td>
<td>776,192</td>
<td>882,409</td>
<td>1,658,601</td>
</tr>
<tr>
<td>Total</td>
<td>4,117,453</td>
<td>4,421,598</td>
<td>8,539,051</td>
</tr>
</tbody>
</table>

Table 3: Number of Mortgaged and Other Sales in Turkey between 2012 & 2016

In Article 704 of the Turkish Civil Code, real properties are listed as “land”, “independent and permanent rights registered in a separate page in the land registry records” and “individual units registered in the condominium registry records”. There are 57.5 million parcels in Turkey as of September 2017. While out of 56.1 million parcels are lands (and improvements), there are 18.7 million individual units on the 1.4 million parcels.

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Monitoring real property market is important in order to realize sustainable development goals in Turkey. As summarized below, some studies on monitoring real property market are currently being carried out by some of relevant public institutions and private companies.

- Turkish Central Bank publish house price indices based on valuation reports prepared for mortgage loans within the context of housing finance system,
- Tukstat publish numbers of houses sold with and without mortgage by getting data from TKGM,
- TKGM publish number of land registries carried out in land registry offices,
- Some private institutions with the cooperation of professional associations and organizations publish price indices and sectoral reports by using data in real estate broker websites.
- Real estate valuation companies publish sectoral reports based on their own data.

Even though these indices and analysis reports are being used in the property sector, they cannot be sufficient because of especially lack of spatial data analysis. As it is stated in “An Agreement Common Vision for Cooperation and Cadaster and Land Registry Issues” document published by 5 organizations in the European Union in 2013, “meeting the needs for land tenure, land value, land use and all other land related development functions” will be able to be achieved by innovating of land registry and cadastral systems (Anonymous 2013).

Land registry and cadaster data are kept respectively in TAKBIS and MEGSIS developed by TKGM, and these systems enable making property market analysis in geospatial sensitiveness. Its geographical and political characteristics make Turkey indeed a sui generis country and geographical distribution of transactions is not homogeneous in the country. Some variables causing this heterogeneity are city type (metropolitan and others), population, political or regional developments and decisions, tourism, geographical and topographical conditions, security, etc. Three interesting examples shown below will help to see the importance of land registry and cadaster data in monitoring real property market.

First example is regarding the Syrian refugee crisis. Syria is one of border neighbors of Turkey and officially almost 3,2 million Syrians have been registered in Turkey since 2012, making Turkey the host country with the largest refugee population in the world (UNHCR 2017). About 90% of Syrian refugees are currently living outside the camps (European Commission 2017), which makes housing is the most important problem and property market increased to an unprecedented scale especially in the Turkish-Syrian border cities. Figure 2 shows distribution of property sales in Şahinbey district of Gaziantep in 2012 and 2013. While number of property sales in 2012 had been at around 21.000, it increased to almost 30.000 in 2013 and decreased again to averagely 21.000 in following years.

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Another example worth to mention is from Istanbul, the most populated city in Turkey. In addition to the two other bridges between Asia and Europe, it was decided to build a new one. After the financial agreements in 2013, the third bridge was built and has been brought into service.
service in 2016. Figure 3 shows the land sales intensities regarding the years of 2012 and 2016 in Beykoz district in Istanbul’s Anatolian Side. Land transactions occurred at around the north forests and linking road to the third bridge show an increase in 2016 relative to 2012.
Figure 3: Geographical Density of Property Sales in 2012 and 2016 in Beykoz, İstanbul

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Decision of increasing the investment on energy sector in Çanakkale, a seaport city at the southern (Asia) coast of Dardanelles’ narrowest point, has started to emerge in 2010 and some of these investment projects have been started to put into practice. An example for the effect of these projects on real estate market in the region is showed in Figure 4. As seen, number of land transactions in Biga district in Çanakkale increased in 2016 compared to 2012.

![Map of Biga, Çanakkale 2012](image)

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Figure 4: Geographical Density of Property Sales in 2012 and 2016 in Biga, Çanakkale

The answer of why these increases are happened in the number of property sales in those areas is absolutely potential value increment expectations or estimations of people. Therefore, only number of sales cannot provide a whole perspective for monitoring property market without detailed analysis especially on value changes. On the other hand, current data structure of TAKBIS and MEGSIS has lack of standardized and reliable data. Lack of reliable property value data and data standardization in official records will be summarized in the following chapter.

3. DATA ISSUES IN OFFICIAL LAND REGISTRY AND CADASTER RECORDS

Official land registry and cadaster records provide wide range information of properties in Turkey. On the other hand, some shortcomings of data prevent performing some analysis in an efficient way. These issues are categorized under two titles in this paper in general, lack of data standardization and property value confusions.

3.1 Lack of Data Standardization in Official Records

All property ownership data is kept in the TAKBIS developed by TKGM in 2013. However, TAKBIS has lack of data standardization, which is mostly arising from structure of data fields. Some fields are structured as “text” and users are free to write anything in these fields,
which is causing data classification problems and obstacles for statistical analysis. Besides
that, some other institutions obtain TAKBIS and MEGSIS data and consequently they face
same problems for their own analysis as well. As details of data structure and problems with
standardization are not the main subject of this paper, just an example is given here to make
readers have a view on the issue.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Sales</td>
<td>604 640</td>
<td>697 078</td>
<td>678 635</td>
<td>775 692</td>
<td>739 968</td>
<td>854 932</td>
<td>775 934</td>
<td>891 945</td>
</tr>
<tr>
<td>Mortgaged Sales</td>
<td>446 481</td>
<td>460 112</td>
<td>382 203</td>
<td>389 689</td>
<td>417 025</td>
<td>434 388</td>
<td>434 673</td>
<td>449 508</td>
</tr>
</tbody>
</table>

Table 4: House Sales Statistics in Turkey

In TAKBIS, property types are registered in the text format and not classified in a standard
way. Statistics based on property types are not accurate as they are produced via SQL queries
upon request. As it is shown on Table 4, numbers of home sales published by the TurkStat
and the ones produced by the query written for TAKBIS analysis are not equal even though
both of those statistics are taken from TAKBIS.

3.2 Property Value Confusions in Official Records

Turkey has an active property market. According to the TAKBIS records, approximately 3.4
million lands and 5 million individual units were subject to at least one transaction between
the years of 2012 and 2017, which account for 4.2 and 6.2 million transactions respectively.
While over 80% of those properties were transacted only one time, rest of them was re-sold
two times or more (Table 5).

<table>
<thead>
<tr>
<th>Number of Transactions</th>
<th>Number of Lands</th>
<th>Number of Individual Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 time</td>
<td>83%</td>
<td>81%</td>
</tr>
<tr>
<td>2 times</td>
<td>13%</td>
<td>15%</td>
</tr>
<tr>
<td>3 times</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>3+ times</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Table 5: Number of Repetitiveness of Transactions on Same Property (2012-2017)

TAKBIS records provide attributes data of all immovable properties and prices that are
declared by sellers and buyers at the time of transaction. However, these records do not reflect
true transaction prices because sellers and buyers avoid declaring the actual prices to avoid transaction fees and legalization. Therefore, official records become useless in terms of property values. Dramatic differences can be seen between the declared values of a property which is resold in short time of period. A few examples revealing this situation clearly are shown below.

A land located in Kahramanmaraş were transacted 5 times averagely in approximately 190-days, as transaction dates and declared values are shown on Table 6. Value of the property was declared highest for the mortgaged sales even though it is the oldest transaction of all. After almost only 9 months, the declared value decreased dramatically by 405.000 Turkish Liras. It should be considered that when a mortgaged sales happen creditors need a valuation report prepared by a valuation company authorized by Capital Market Board. Ministry of Finance have begun to control declared values between credit amount since 2012. Therefore, actual sales prices are more close to registered values in mortgaged sales.

<table>
<thead>
<tr>
<th>Transaction Date</th>
<th>Transaction Type</th>
<th>Declared Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb 2013</td>
<td>Mortgaged Sales</td>
<td>700 000</td>
</tr>
<tr>
<td>Nov 2013</td>
<td>Sales</td>
<td>295 000</td>
</tr>
<tr>
<td>March 2014</td>
<td>Sales</td>
<td>400 000</td>
</tr>
<tr>
<td>Nov 2014</td>
<td>Sales</td>
<td>400 000</td>
</tr>
<tr>
<td>April 2015</td>
<td>Sales</td>
<td>467 000</td>
</tr>
</tbody>
</table>

Table 6: Example 1 for Declared Value Changes – Kahramanmaraş

Another example is a five-storey office building located in Beylikdüzü district in Istanbul. As it is seen on Table 7, this building was transacted averagely in every 343-day between 2014 and 2016. Value differences can make sense as type of the property is commercial and it may have a brand value or may have been renovated. But, this example is shown to reveal the dramatic value differences for the same property in a very short time of period.

<table>
<thead>
<tr>
<th>Transaction Date</th>
<th>Transaction Type</th>
<th>Declared Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 2014</td>
<td>Sales</td>
<td>7 500 000</td>
</tr>
<tr>
<td>Aug 2015</td>
<td>Sales</td>
<td>4 000 000</td>
</tr>
<tr>
<td>March 2016</td>
<td>Sales</td>
<td>12 350 000</td>
</tr>
<tr>
<td>Nov 2016</td>
<td>Sales</td>
<td>25 000 000</td>
</tr>
</tbody>
</table>

Table 7: Example 2 for Declared Value Changes – Beylikdüzü, İstanbul

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A villa house in Büyükçekmece district of Istanbul was transacted three times in 2014 in every two months and in 2017 it was transacted via a mortgaged sale. Table 8 obviously show the declared value differences between the transactions happened in every two months in 2014 and the dramatic change in value when the property was sold with mortgage. This property is one of the villas in a famous luxury building complex named “Park Village”. According to the real estate broker websites, asking prices of similar villas in this complex are currently between 675.000 and 1.000.000 US dollars Figure 3 (www.hurriyetemlak.com).

<table>
<thead>
<tr>
<th>Transaction Date</th>
<th>Transaction Type</th>
<th>Declared Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb 2014</td>
<td>Sales</td>
<td>423,108</td>
</tr>
<tr>
<td>April 2014</td>
<td>Sales</td>
<td>1,290,772</td>
</tr>
<tr>
<td>May 2014</td>
<td>Sales</td>
<td>1,518,692</td>
</tr>
<tr>
<td>Feb 2017</td>
<td>Mortgaged Sales</td>
<td>2,500,000</td>
</tr>
</tbody>
</table>

Table 8: Example 3 for Declared Value Changes – Büyükçekmece, İstanbul

The last example is a new commercial property located at the Bosphorus front, in Üsküdar, Istanbul. Huge changes in the declared values do not need any comments as they are clearly seen on Table 9.

<table>
<thead>
<tr>
<th>Transaction Date</th>
<th>Transaction Type</th>
<th>Declared Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 2014</td>
<td>Sales</td>
<td>14,500,000</td>
</tr>
<tr>
<td>May 2015</td>
<td>Sales</td>
<td>15,000,000</td>
</tr>
<tr>
<td>June 2015</td>
<td>Sales</td>
<td>45,528,000</td>
</tr>
</tbody>
</table>

Table 9: Example 4 for Declared Value Changes – Bosphorus, Üsküdar, İstanbul

4. PROPERTY VALUATION AND LAND REGISTRY & CADASTER DATA

Official land registry and cadaster records kept in TKGM contain geometrical situation and ownership rights information of immovable properties. Fundamental rights-responsibilities and restrictions regarding the properties are also included in the official records. Therefore, land registry and cadaster data is obviously the major basis of property valuation activities.

In this chapter, property valuation activities in Turkey will be briefly summarized and a proposal for accessing “value” data will be brought forward for the purpose of monitoring Turkish property market efficiently.

4.1 Capital Market Regulations and Property Valuation

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Turkish Capital Market Law (No. 6362) indicates that property valuation companies to operate in capital markets are accepted as capital market institutions and property valuations to be realized within the scope of capital market should be made in accordance with the principles to be determined by the Capital Market Board. Turkish Appraisers Association (TDUB) is a professional association established as a public legal entity according to Article 76 of Capital Market Law (Nr. 6362). Valuation companies and experts must be members of TDUB in order to make property valuation under the framework of capital markets.

A Protocol which enables sharing land registry data was drawn up on March 8, 2013 between TKGM and TDUB. Thanks to this Protocol, property valuation experts can access TAKBIS records through web services by paying a fee for each query (in 2017 this fee is 3 US Dollars for per query). Numbers of queries made by TDUB members between 2014 and August 2017 are shown on Table 10.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Queries</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>1 615 170</td>
</tr>
<tr>
<td>2015</td>
<td>1 869 655</td>
</tr>
<tr>
<td>2016</td>
<td>1 892 617</td>
</tr>
<tr>
<td>Until end of August 2017</td>
<td>1 192 301</td>
</tr>
</tbody>
</table>

Table 10: Number of Queries Made by TDUB Members

While averagely 25 percent of these queries are resulted in mortgaged sales, rest of them might be made due to various purposes such as:

- Revaluation activities raised from regulations that Turkish banking system subject to,
- Valuation activities which are made for those purposes (such as REITs) other than property finance and are required in accordance with capital market legislation
- Valuation activities that TDUB members can perform for the purposes other than capital market framework,
- Special valuation requests by real or legal persons.

Web services enabling data sharing between the TKGM and TDUB has been renewed in April 2017. Property attributes regarding the queries made after this date can be obtained from TAKBIS while it is unfortunately impossible for the queries made before the renovation. Geographical distribution of queries on a city basis in between April and September 2017 is shown on Figure 3. Average monthly number of valuations is 60 in the city with the fewest number of valuations. If 20 cities with the fewest number of valuations are considered, it is calculated as 210.
If it is assumed that number of queries equals to the number of valuation activities performed by the TDUB members between the years of 2014 and 2016, two important conclusions can be made: Valuation activities are carried out in almost whole country, and number of valuations is higher in big cities while it is decreasing in smaller –less populated- cities.

Above estimations are calculated based on only the number of queries. Thanks to the system renovation in April 2017, TAKBIS can provide information regarding which properties are queried and detailed analysis can be made. As some of details shown on Table 11, 690,000 queries were made by the TDUB members between April and September 2017.

<table>
<thead>
<tr>
<th></th>
<th>Number of Queries</th>
<th>Number of Queried Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lands</td>
<td>167,937</td>
<td>143,303</td>
</tr>
<tr>
<td>Individual Units</td>
<td>525,893</td>
<td>434,490</td>
</tr>
</tbody>
</table>

*Table 11: Numbers of Queries and Queried Properties between April & September 2017*

It is understood from the Table 11 that number of queries and number of queried properties do not equal to each other. Approximately 15 percent of the queries is made for the same properties. For instance, the most queried land and individual unit were queried 57 and 26 times respectively in this period. The fact that a property which was queried that much in a short time of period gives an opinion that properties are queried not only for preparation of valuation reports and revaluation activities but also for other purposes.
If the TDUB members’ queries are evaluated together with the relevant TAKBIS records, following conclusions can be drawn:

- For the **individual units** queried by the TDUB members, acquisition reason of 45 percent of them is “mortgaged sales” and 23 percent of them is “sales without mortgage”. There are at least 30 days between the query and acquisition dates of 85 percent of individual units that were queried and acquired via mortgaged sales.
- For the **lands** queried by the TDUB members, acquisition reason of 24 percent of them is “mortgaged sales” and 57 percent of them is “sales without mortgage”. There are at least 30 days between the query and acquisition dates of 12 percent of lands that were queried and acquired via mortgaged sales.

Article 76/5 of the Capital Market Law states that “Information concerning appraisals made within the context of housing finance must be transmitted to the Association of Appraisal Experts of Turkey in line with principles and procedures to be determined by the Association of Appraisal Experts of Turkey.” Within this context, Property Information Center Inc. was established by TDUB in February 2016. Enlarging the coverage of the Property Information Center will enable to include not only those valuation reports prepared within the context of housing finance but also all other ones prepared for the other purposes into a single information center. Besides that, land registry queries made by TDUB members can be under control and monitored if the data will be able to be kept in Property Information Center in accordance with the TAKBIS infrastructure.

### 4.2 Property Valuations for Public Purposes

Based on various regulations and/or standards, governmental institutions carry out (or have someone carry out) property valuations for a plenty of purposes like expropriation, taxation, administration of national real estates, acquisition implementations of rural lands etc. Property valuation reports and data are kept in the local archives of various institutions. While some of those archives are established by benefitting technology and information systems and can provide digital or semi-digital data, some other ones include only hardcopy documents which cannot be used efficiently. Besides, digital archives may have different structures and/or standards, which is resulted in inconsistencies and inefficiencies among the different data centers. Therefore, the fact that all valuation activities and property attributes would be able to be kept in a single central system will not only ease monitoring, evaluation and control activities, but also will prevent the repetitive works and costs.

According to the TAKBIS records, 39,656 immovable properties were expropriated and registered in the land registry in 2016. These properties were expropriated by local governments, village legal entities and governmental institutions for various purposes such as airport constructions, pipelines, electric lines, roads etc. Whilst some expropriation activities can be concluded by reconciliation, some others are carried out via exchange method or court decisions. Values of the most of the expropriated properties are not recorded in TAKBIS. Geographical distribution of expropriated and registered properties is shown on Figure 4.
One of the other property valuation activities is carried out for the purpose of taxation by commissions establishing according to Tax Procedure Law. According to the Property Tax Law introduced in 1970, annual property tax has two parts: a building tax and an urban and rural tax. The tax value of urban land is calculated by examining various factors that influence the value, based on an area-based system. Building valuations are calculated using construction costs determined jointly each year by the Ministry of Finance and the Ministry of Environment and Urbanization. Minimum property tax values for lands are determined by valuation commissions and they do not include any qualified professional valuers. These valuations can vary among municipalities and value data is kept in local databases or only in physical archives. The other problem is the fact that tax values are too below than the market values and causes tax losses and unfair situations. As the property tax values are also used as the base value of many other fees, valuations for taxation purposes become more significant. Valuation for taxation purposes in Turkey is discussed in more detail Güneş and Yıldız (2015).

5. VALUATION DATA BANK AND CONCLUSIONS

A kind of information system to be called “Valuation Data Bank” will provide integrating value data with land registry and cadaster data, which will enable making analysis required for administrating and monitoring the real estate market.
Results of valuation activities carried out by TDUB members (Figure 3), values of those parcels registered in land registry records after the expropriation activities (Figure 4), parcel values that are calculated during the expropriation implementations but not registered in land registry yet, outcomes of rural land valuations that are being carried out by General Directorate of Agricultural Reform, inventory activities of General Directorate of National Estate, etc. are some of the implementations that contain “property value information”. Inclusion of outcomes of all these implementations under a common central system will be able to be achieved via a valuation data bank to be established based on data sharing principles of relevant institutions. Therefore, monitoring real property market will be achieved in all its aspects, a system ensuring fair taxation and efficient property administration will be established and development policies will be implemented and monitored successfully.

As a conclusion, reliable value information is at the top of the requirements for a comprehensive valuation data bank. Right along with this, data standardization should be achieved and required new registries should be defined besides the traditional registries. It should do be noted that in addition to purpose of monitoring real estate market efficiently, financial instruments backed by immovable properties (mortgage backed securities, real estate certificates etc.) have started to take place in Turkish markets recently. Besides, projects are developed for the purpose of public needs like urban development, energy and transportation infrastructure, and need for expropriation, zoning and urban transformation implementations is being increased as well. The common requirement for all of these activities is standardized property data and reliable accurate property value data as well.

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