

Real estate price index methodology



Content:

i	Subject
	Introduction.
1	Data Sources.
2	Determining the Base Year.
3	Objectives.
4	Real Estate Price Index Bulletin Terminology and Concepts
5	Coverage
6	Used Statistical Classifications.
7	Weighting (Relative Importance).
8	Method of Data Collection.
9	Preparation and Revision of Results
10	Data Publication
11	Implemented Quality Procedures
12	Beneficiaries and Benefits of the Bulletin

Introduction:

Real estate is an important part of the Kingdom's sustainable development system, given that it is a strategic production factor for all vital sectors. It is also an important area for encouraging productive, income-generating and job-creating investment, which is the basis for launching investment projects in all economic and social fields.

The real estate price index aims at creating significant real estate statistical indicators that measure the performance of the real estate market in the Kingdom and close the data gap in this sector. It is also an important tool for helping competent authorities take relevant economic decisions. Its data are also useful for people with interest in economic and statistical analyses of real state price movement and forecasts within various periods of time.

Therefore, rapt attention has been given to following the price movement of the units that compose the real estate sector, monitoring the values of their transactions in the Kingdom's regions, and following the changes they may undergo from time to time within the real estate price index program which was first issued by GaStat at the beginning of the year 2017 and included the quarterly results of the two previous years, 2015 and 2016. The program is still being issued quarterly.

GaStat is pleased to present this bulletin to researchers, planners, research centers and all those interested in economic affairs, with the hope that the data which will be periodically and regularly provided by the authority in this field will get close to their interests and be in line with their expectations.

GaStat extends its gratitude and appreciation to the Ministry of Justice for its favorable response with regard to offering data. It also extends gratitude and appreciation to the Saudi Arabian Monetary Authority for its support during the early stages of preparing the real estate price index in a way that achieves integration and cooperation between all government bodies to accelerate the process of sustainable development in the Kingdom. Their response, second to the success granted by Allah, had great impact on the issuing of this bulletin. GaStat hopes that all sides will send it their suggestions and remarks on this bulletin to (info@ststs.gov.sa) to improve the bulletin content and lead to improvements to future bulletins.

Allah is the Arbiter of Success

General Authority for Statistic

1. Data Sources of the Real Estate Price Index Bulletin:

The real estate price index bulletin uses data of the real estate transactions necessary to construct the real estate price index through the data of real estate transactions available and registered in the Ministry of Justice in its capacity as the sole reference and source of real estate data in the Kingdom. Such data is an output of the electronic operations of registration and documentation adopted by the ministry. GaStat is provided with such data so that it can calculate and issue its indicators in the real estate price index bulletin.

2. Setting the Base Year:

After studying and evaluating data of real estate transactions submitted by the Ministry of Justice for the period (1/2012-6/2016), the base year was set to be (2014 = 100).

3. Objectives:

- To provide statistics and real estate statistical indicators that measure the performance of the Kingdom's real estate market.
- To close the data gap in the real estate sector.
- To meet international, regional and domestic requirements in this regard.

4. Terminology and Concepts of the Real Estate Price Index Bulletin:

- **4.1** Index Number: Index number is a rational number that measures variation in one or more phenomena. It is calculated by dividing its face value at the comparison period by its value at the base period.
- **4.2** Real Estate Price Index: A tool, which measures relative change in real estate price between two periods.
- **4.3** Relative Importance of a Real Estate Type: It is the ratio of the total value of transactions for a real estate type to the total value of transactions for all real estate types in the base year.
- **4.4** Base Year: It is a year or a period to which the prices of the comparison year or comparison period are related. When the base year is chosen, it should be a normal period characterized by stability and being free from sudden and serious conditions, such as economic crises and wars. It should also be relatively close to the comparison period.
 - 4.5 Indicators:

Calculation/Description Equation						
The following Laspeyres formula is used:						
District	i	Relative Importance	wt			
Real Estate Type	k	Current Price	Pı	$R_{ik} = \prod \left(\frac{P_1}{P_0}\right)^{wt}$		
Previous Price:			Po			
Current Price: It is the registered price of one square meter of a real estate type in the current period. Previous Price: It is the registered price of one square meter of a real estate type in the previous period. period.						

5. Coverage :

- **5.1 Spatial Coverage:** The real estate price index covers all administrative regions of the Kingdom, despite the fact that some administrative regions constitute a very small percentage of the total value of transactions at the level of the Kingdom. The administrative regions of Riyadh, Makkah, Madinah and the Eastern Region make up 92% of the value of total transactions at the level of the Kingdom.
- **5.2 Temporal Coverage:** GaStat is provided with the data of all real estate transactions carried out in urban districts covered by the survey on a monthly basis (at the end of each calendar month).

6.Adopted Statistical Classification:

When the real estate price index data were collected they were classified, as per the order in which the Ministry of Justice provided them, into three main sectors:

- **Residential Sector:** It includes residential plots, residential buildings, villas, apartments and houses.
- Commercial Sector: It includes commercial plots, commercial buildings, galleries/shops, and malls.
- Agricultural Sector: It includes agricultural lands.

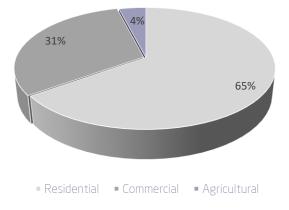
	General index	
Residential	Commercial	Agricultural
Plot	Plot	Agricultural Land
Building	Building	
Villa	Gallery / Shop	
Apartment	Commercial Center	
House		



7. Relative Importance (Weighting):

Weighting is done by calculating the value of real estate transactions for each real estate type in the index in every district, city and region in the base year.

Relative importance by sector in the Kingdom



8. Data Collection:

GaStat coordinated with the Ministry of Justice to obtain the data of the real estate price index bulletin which included data of notarized real estate transactions, such as the value and area of the real estate transaction, its sector (residential/ commercial/agricultural), the category of the real estate type within the sector (residential plot, residential building, villa, apartment, house, commercial plot, commercial building, gallery, shop, mall or agricultural land), and the geographical location of the real estate unit (region/ city/ district). That data was stored on GaStat's database. The process of checking and reviewing them is done according to scientific statistical methodology and recognized quality standards in coordination with the issuer of data.

9. Preparation and Reviewing of Results:

After reviewing the data collected from administrative records in previous stages, results are analyzed and extracted. Outputs will be uploaded to and stored in the database. Afterwards, final reviewing will be conducted by specialists in price statistics using modern technologies and software designed for reviewing and auditing purposes.

10. Data Publication:

First: Setting and Preparing Results due for Publication:

During this stage, GaStat coordinates, organizes and reviews the data of the administrative records included in the bulletin. Publication tables, data graphs and indicators will then be prepared. Metadata and methodology data will be added to them after that as the case is in this bulletin which has been prepared in Arabic and English.

Second: Preparing media material and announcing the bulletin release:

GaStat will announce the date of issuing the bulletin on its official website at the beginning of the calendar year. At that stage, GaStat will prepare the media content of the announcement of issuing the bulletin on all media outlets as well as its various social media platforms. The announcement will be made on the date of publication. The bulletin will be published on the official website in various templates of open data inExcelformat to guarantee its circulation and accessibility to all clients and parties interested in real estate prices. The bulletin will be included in the website's statistics library.

Third: Communicating with clients and providing them with the bulletin:

GaStat pays great importance to communicating with the clients who use the data. Therefore, GaStat communicates with the clients upon the publication of the real estate price index bulletin to provide them with it. GaStat also receives the clients' questions, enquiries and requests with regard to the bulletin and its results through various communication channels:

- GaStat website: www.stats.gov.sa
- GaStat email: info@stats.gov.sa
- Client Support email: cs@stats.gov.sa
- Visiting GaStat's headquarters in Riyadh or one of its branches in the regions of the Kingdom.
- Official Letters.
- By Statistical Phone: (920020081)

11. Implemented Quality Procedures:

The real estate price index bulletin is subject to many technical quality procedures to ensure data quality. Such procedures include:

- 1. Reviewing the data of administrative records and verifying their comprehensiveness.
- 2. Verifying the rationality of outputs by comparing them to historical figures and matching them with real estate prices in reality.
- 3. Committing to publishing the results on the basis of previously set publication date.

12. Beneficiaries and Benefits of the Bulletin:

The real estate price index bulletin is useful to all sectors concerned with the real estate field in the Kingdom of Saudi Arabia. The Saudi Arabian Monetary Authority is considered the main beneficiary, along with international and regional organizations and planners with interest in real estate prices. The data and indicators of the real estate price index are among the most important statistical products that contribute to providing aid to making decisions on this field.