

# REAL ESTATE MARKET

TBILISI SNAPSHOT

## # 1 | January-June 2016

Market Highlights

REM lab (Real Estate Market Laboratory)



ISET



## CHAPTER 1

### RESIDENTIAL PROPERTY PRICES IN TBILISI CITY

Average Sale Price in Tbilisi City & Districts  
Average Rent Price in Tbilisi City & Districts  
REI: SPI & RPI

## CHAPTER 2

### COMMERCIAL PROPERTY PRICES IN TBILISI CITY

Average Sale Price in Tbilisi City  
Average Rent Price in Tbilisi City  
REI: SPI & RPI

## CHAPTER 3

### REAL PROPERTY SALES IN TBILISI CITY

Number of Sales in Tbilisi City & Districts

## ANNEX

### METHODOLOGICAL FRAME

Real Estate Index (REI) is an index, which represents real value of the real estate. Whenever we observe the prices of real estate, the first thing we look at is the average price per square meter. However, average price can increase, if the sales of better quality properties (more flats in central districts or renovation etc.) increases, which does not mean that generally real estate prices went up. We need Real Estate Price Index to track pure price changes. REI excludes `QUALITY EFFECT` and observes how price of the given property changes comparing it to the base period (April 2015).

Types of REI are Sale Price Index (SPI) & Rent Price Index (RPI).  
For more details see annex - methodological frame on pg. 21

### ABBREVIATIONS USED

<b>ASP</b>	Average Sale Price per sq.m.
<b>ARP</b>	Average Rent Price per sq.m.
<b>SPI</b>	Sale Price Index
<b>RPI</b>	Rent Price Index
<b>MoM</b>	Month-over-Month Change
<b>YoY</b>	Year-over-Year Change
<b>X-RATE</b>	Exchange Rate

# CHAPTER 1

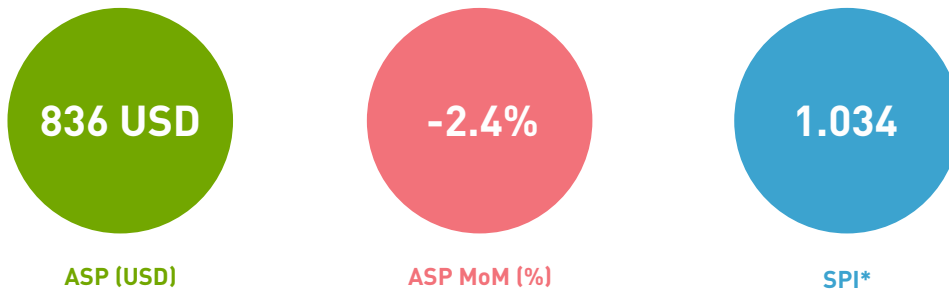
## RESIDENTIAL PROPERTY PRICES IN TBILISI CITY

Source: REM lab (Real Estate Market Laboratory)



## 1.1 SALE OF RESIDENTIAL PROPERTY

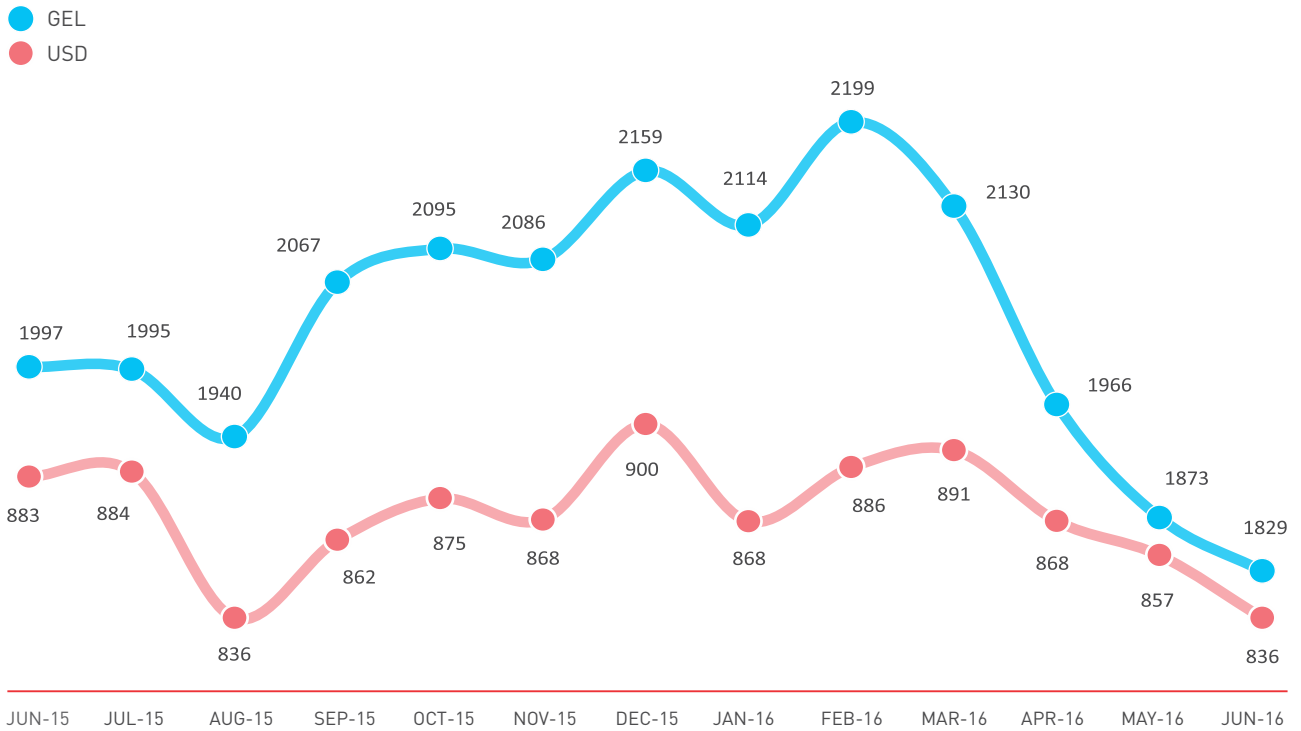
**KEY DATA** June 2016... ASP/SPI for residential property... Tbilisi City



\* base period: April 2015

ASP for residential properties has fallen consistently over last 3 months, to its current level of USD 836 [GEL 1829]. ASP rose to a year-high of USD 900 [GEL 2159] in December 2015 and fell to a year-low of USD 836 [GEL 1940] in August 2015 and June 2016. Appreciation of GEL since February 2016 exerted downward pressure on prices expressed in local currency decreasing at faster rates compared to prices in USD.

**ASP (USD, GEL)  
RESIDENTIAL PROPERTY... TBILISI CITY  
MONTHLY TREND, 2015-2016**



Source: REM lab 2016

**ASP & X-RATE**  
**RESIDENTIAL PROPERTY... TBILISI CITY**  
**MONTHLY TREND, 2015-2016**

(USD, GEL)  
 ASP & X-RATE USD|GEL

M-Y	ASP (USD)	USD   GEL	ASP (GEL)
JUN-15	883	2.2629	1 997
JUL-15	884	2.2564	1 995
AUG-15	836	2.3199	1 940
SEP-15	862	2.3985	2 067
OCT-15	875	2.3928	2 095
NOV-15	868	2.4017	2 086
DEC-15	900	2.3992	2 159
JAN-16	868	2.4360	2 114
FEB-16	886	2.4829	2 199
MAR-16	891	2.3894	2 130
APR-16	868	2.2652	1 966
MAY-16	857	2.1860	1 873
JUN-16	836	2.1877	1 829

Source: REM lab 2016

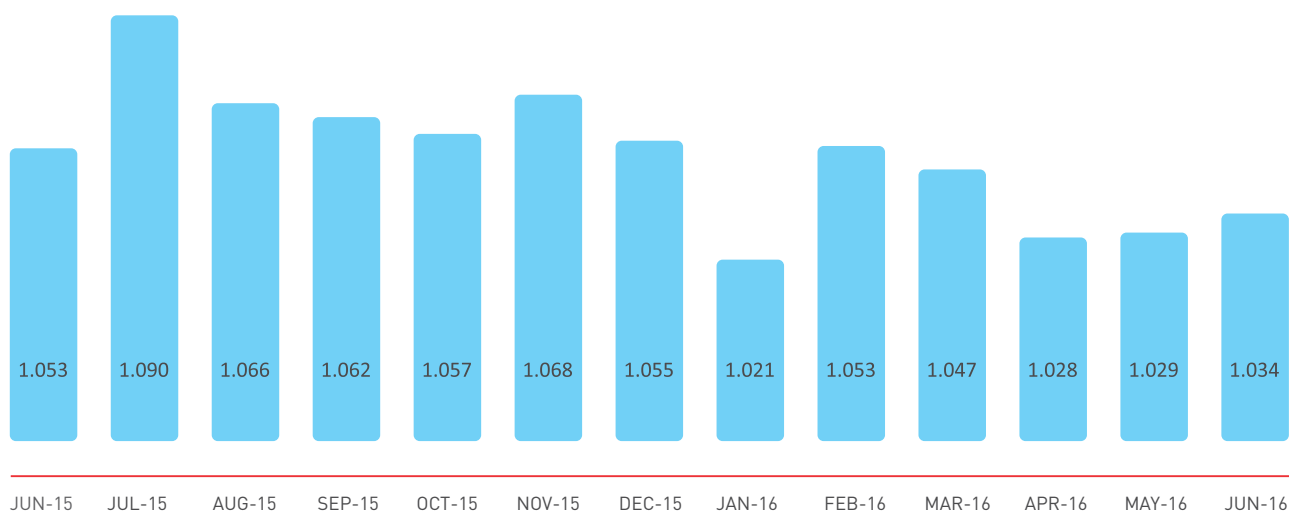
MoM (%)  
 ASP & X-RATE USD|GEL

M-Y	ASP (USD)	USD   GEL	ASP (GEL)
JUN-15	0.2%	-2.6%	-2.4%
JUL-15	0.2%	-0.3%	-0.1%
AUG-15	-5.5%	2.8%	-2.8%
SEP-15	3.1%	3.4%	6.6%
OCT-15	1.6%	-0.2%	1.3%
NOV-15	-0.8%	0.4%	-0.4%
DEC-15	3.6%	-0.1%	3.5%
JAN-16	-3.6%	1.5%	-2.1%
FEB-16	2.1%	1.9%	4.0%
MAR-16	0.6%	-3.8%	-3.2%
APR-16	-2.6%	-5.2%	-7.7%
MAY-16	-1.3%	-3.5%	-4.7%
JUN-16	-2.4%	0.1%	-2.3%

Source: REM lab 2016

SPI for residential property reached 1.034 in June 2016, which represents 0.5% increase MoM and 1.8% decrease YoY. Therefore, observed decrease of ASP for last month is reflection of lower quality of supply rather than deterioration in market fundamentals.

**SPI  
RESIDENTIAL PROPERTY... TBILISI CITY  
MONTHLY TREND, 2015-2016**



Source: REM lab 2016

Mtatsminda with ASP of USD 1011 continues to be one of the most expensive districts in Tbilisi City, followed by Saburtalo [USD 904] and Vake [USD 899] well above Tbilisi City ASP of USD 836.

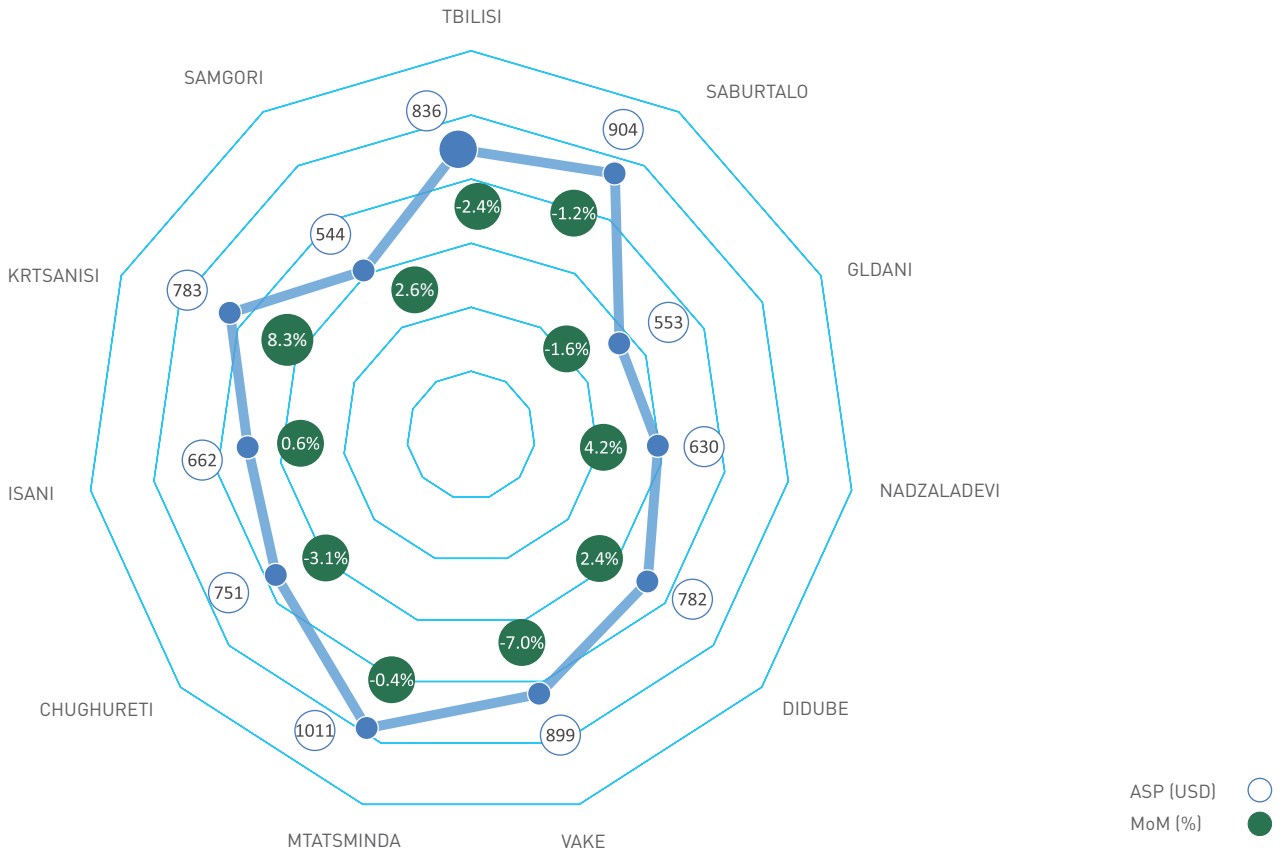
**ASP (USD, GEL) & MoM (%)  
RESIDENTIAL PROPERTY... TBILISI CITY & DISTRICTS  
JUNE 2016**

DISTRICT	ASP (USD)	MoM (%)	ASP (GEL)	MoM (%)
SABURTALO	904	-1.2%	1 977	-1.1%
GLDANI	553	-1.6%	1 209	-1.5%
NADZALADEVI	630	4.2%	1 378	4.2%
DIDUBE	782	2.4%	1 711	2.5%
VAKE	899	-7.0%	1 967	-6.9%
MTATSMINDA	1 011	-0.4%	2 211	-0.4%
CHUGHURETI	751	-3.1%	1 644	-3.0%
ISANI	662	0.6%	1 449	0.7%
KRTSANISI	783	8.3%	1 713	8.4%
SAMGORI	544	2.6%	1 189	2.6%
TBILISI CITY	836	-2.4%	1 829	-2.3%

Source: REM lab 2016

Samgori with ASP of USD 544 remains the cheapest district of the capital. Price dynamics by district reflects overall decreasing trend in ASP with Vake taking the major hit of -7.0% MoM.

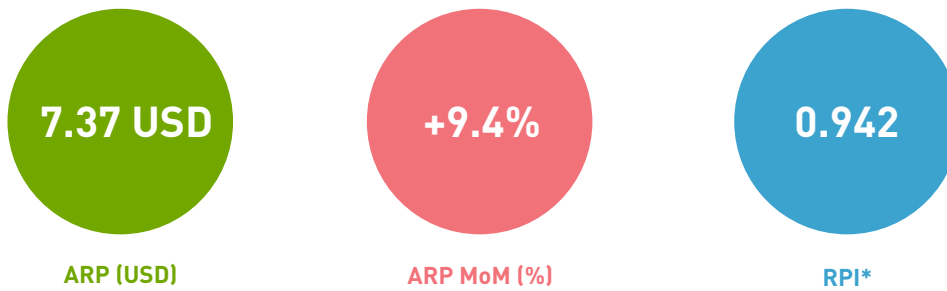
**ASP (USD) & MoM (%)**  
**RESIDENTIAL PROPERTY... TBILISI CITY & DISTRICTS**  
**JUNE, 2016**



Source: REM lab 2016

## 1.2 RENT OF RESIDENTIAL PROPERTY

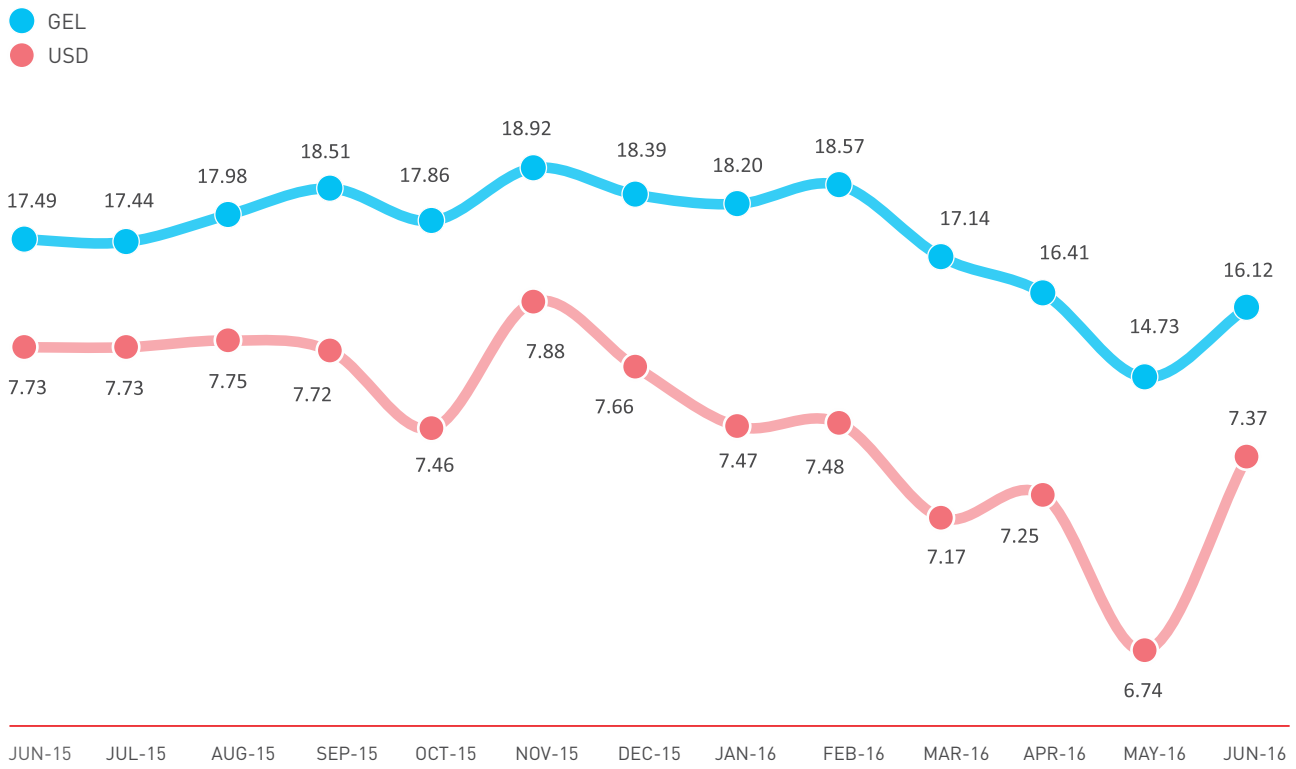
**KEY DATA** June 2016... ARP/RPI for residential property... Tbilisi City



\* base period: April 2015

ARP for residential properties trended downward since November 2015 with short-lived upticks throughout. In June 2016 the sharpest growth of ARP was observed with 9.4% increase in both currencies (USD and GEL).

**ARP (USD, GEL)  
RESIDENTIAL PROPERTY... TBILISI CITY  
MONTHLY TREND, 2015-2016**



Source: REM lab 2016

RPI peaked in September 2015 reaching 1.131 and continued to slowly trend downwards ending up at 0.865 in May 2016, which was below base value of April 2015 and RPI of the same month of previous year [1.079]. In June 2016 RPI grew at 0.942 (increase by 8.9% MoM).



**ARP & X-RATE  
RESIDENTIAL PROPERTY... TBILISI CITY  
MONTHLY TREND, 2015-2016**

(USD, GEL)  
ARP & X-RATE USD|GEL

M-Y	ARP (USD)	USD   GEL	ARP (GEL)
JUN-15	7.99	2.2629	18.07
JUL-15	7.73	2.2564	17.44
AUG-15	7.75	2.3199	17.98
SEP-15	7.72	2.3985	18.51
OCT-15	7.46	2.3928	17.86
NOV-15	7.88	2.4017	18.92
DEC-15	7.66	2.3992	18.39
JAN-16	7.47	2.4360	18.20
FEB-16	7.48	2.4829	18.57
MAR-16	7.17	2.3894	17.14
APR-16	7.25	2.2652	16.41
MAY-16	6.74	2.1860	14.73
JUN-16	7.37	2.1877	16.12

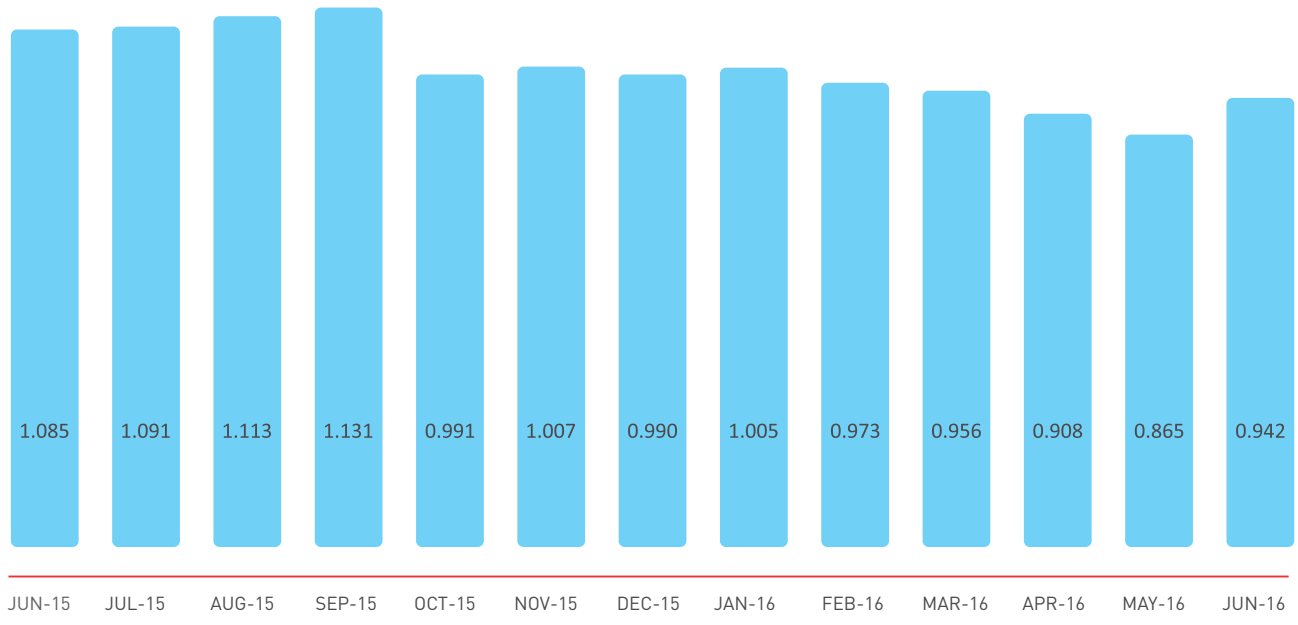
Source: REM lab 2016

**MoM (%)**  
ARP & X-RATE USD|GEL

M-Y	ARP (USD)	USD   GEL	ARP (GEL)
JUN-15	-3.1%	-2.6%	-5.6%
JUL-15	-3.2%	-0.3%	-3.5%
AUG-15	0.3%	2.8%	3.1%
SEP-15	-0.4%	3.4%	2.9%
OCT-15	-3.3%	-0.2%	-3.5%
NOV-15	5.5%	0.4%	5.9%
DEC-15	-2.7%	-0.1%	-2.8%
JAN-16	-2.5%	1.5%	-1.0%
FEB-16	0.1%	1.9%	2.1%
MAR-16	-4.1%	-3.8%	-7.7%
APR-16	1.0%	-5.2%	-4.2%
MAY-16	-7.0%	-3.5%	-10.2%
JUN-16	9.4%	0.1%	9.4%

Source: REM lab 2016

**RPI**  
**RESIDENTIAL PROPERTY... TBILISI CITY**  
**MONTHLY TREND, 2015-2016**



Source: REM lab 2016

ARP also varies significantly from district to district. Mtatsminda and Vake, the most expensive Tbilisi districts with USD 9.03 and USD 8.00 per sq.m, drive the overall average ARP (USD 7.37) of Tbilisi City.

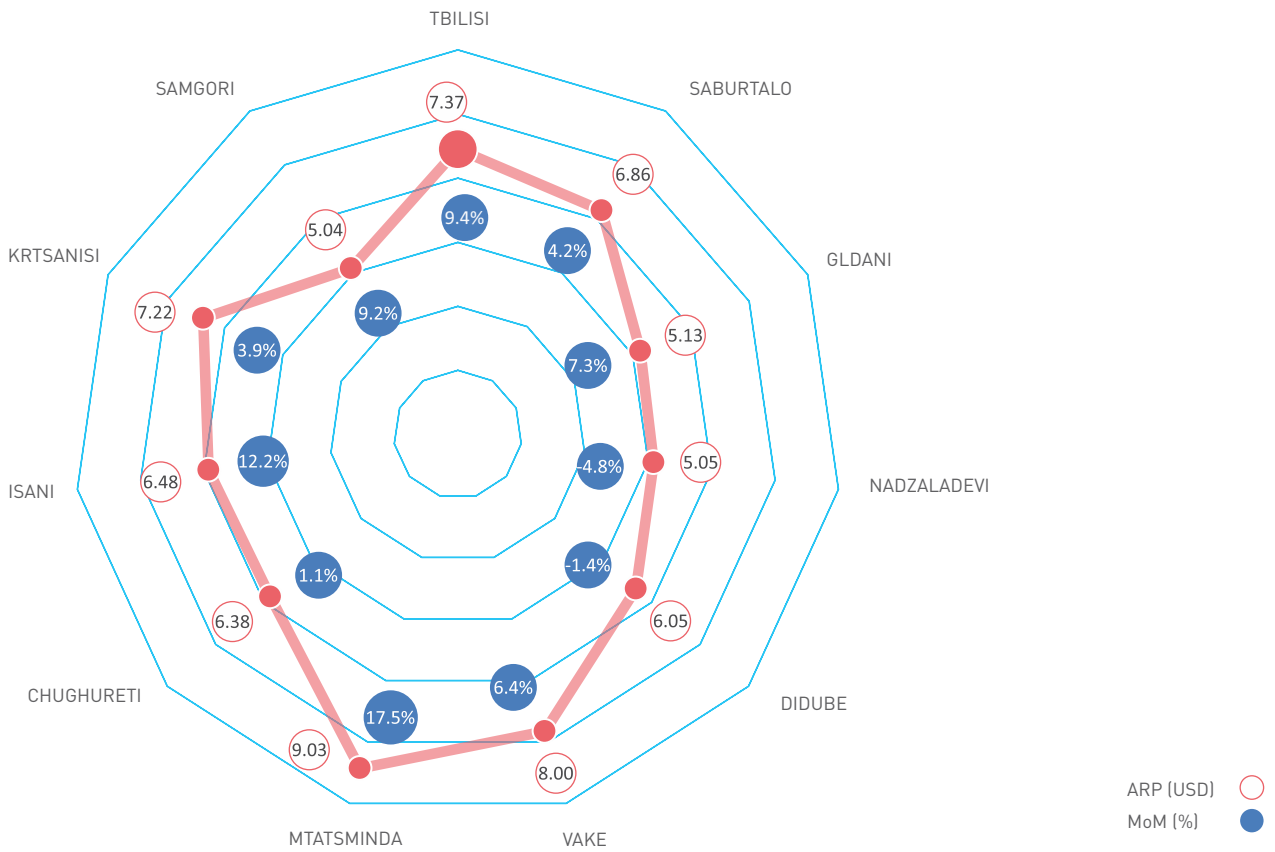
**ARP (USD, GEL) & MoM (%)**  
**RESIDENTIAL PROPERTY... TBILISI CITY & DISTRICTS**  
**JUNE 2016**

DISTRICT	ARP (USD)	MoM (%)	ARP (GEL)	MoM (%)
SABURTALO	6.86	4.2%	15.01	4.3%
GLDANI	5.13	7.3%	11.22	7.4%
NADZALADEVI	5.05	-4.8%	11.04	-4.7%
DIDUBE	6.05	-1.4%	13.23	-1.4%
VAKE	8.00	6.4%	17.51	6.5%
MTATSMINDA	9.03	17.5%	19.76	17.6%
CHUGHURETI	6.38	1.1%	13.95	1.1%
ISANI	6.48	12.2%	14.17	12.3%
KRTSANISI	7.22	3.9%	15.80	3.9%
SAMGORI	5.04	9.2%	11.02	9.2%
TBILISI CITY	7.37	9.4%	16.12	9.4%

Source: REM lab 2016

During last month ARP grew in both districts by 17.5% (Mtatsminda) and 6.4% (Vake). The cheapest district Samgori (USD 5.04) also suffered the sharpest increase (9.2%) in ARP MoM.

**ARP (USD) & MoM (%)**  
**RESIDENTIAL PROPERTY... TBILISI CITY & DISTRICTS**  
**JUNE, 2016**



Source: REM lab 2016

## CHAPTER 2

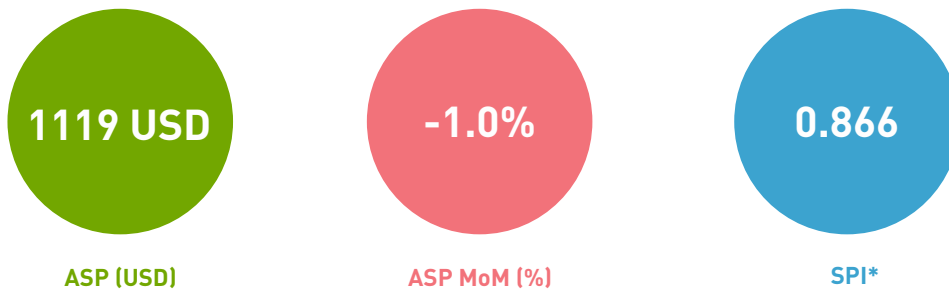
# COMMERCIAL PROPERTY PRICES IN TBILISI CITY

Source: REM lab (Real Estate Market Laboratory)



## 2.1 SALE OF COMMERCIAL PROPERTY

**KEY DATA** June 2016... ASP/SPI for commercial property... Tbilisi City

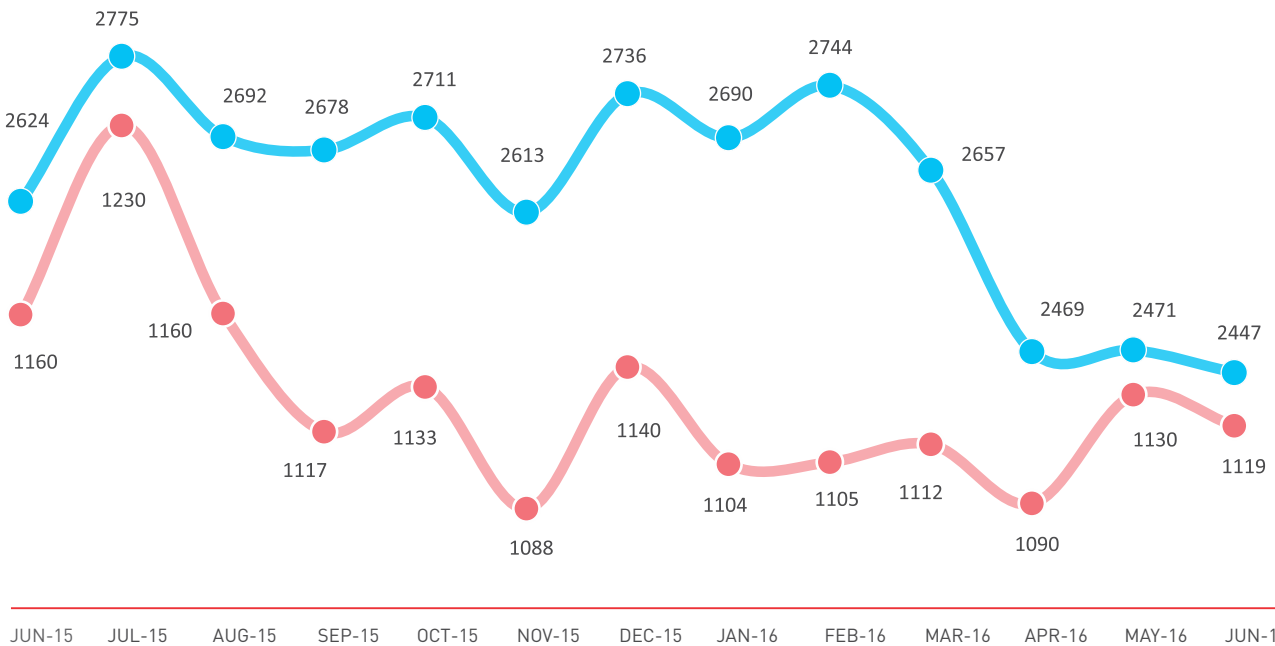


\* base period - April 2015

Since peaking at USD 1230 in July 2015, ASP of commercial properties continued to decline except for short periods reaching its current price of USD 1119. Prices in local currency replicate the trend during the whole 12-month period, except months with fast GEL appreciation.

**ASP (USD, GEL)  
COMMERCIAL PROPERTY... TBILISI CITY  
MONTHLY TREND, 2015-2016**

● GEL  
● USD



Source: REM lab 2016

**ASP & X-RATE  
COMMERCIAL PROPERTY... TBILISI CITY  
MONTHLY TREND, 2015-2016**

(USD, GEL)  
ASP & X-RATE USD|GEL

M-Y	ASP (USD)	USD   GEL	ASP (GEL)
JUN-15	1 160	2.2629	2 624
JUL-15	1 230	2.2564	2 775
AUG-15	1 160	2.3199	2 692
SEP-15	1 117	2.3985	2 678
OCT-15	1 133	2.3928	2 711
NOV-15	1 088	2.4017	2 613
DEC-15	1 140	2.3992	2 736
JAN-16	1 104	2.4360	2 690
FEB-16	1 105	2.4829	2 744
MAR-16	1 112	2.3894	2 657
APR-16	1 090	2.2652	2 469
MAY-16	1 130	2.1860	2 471
JUN-16	1 119	2.1877	2 447

Source: REM lab 2016

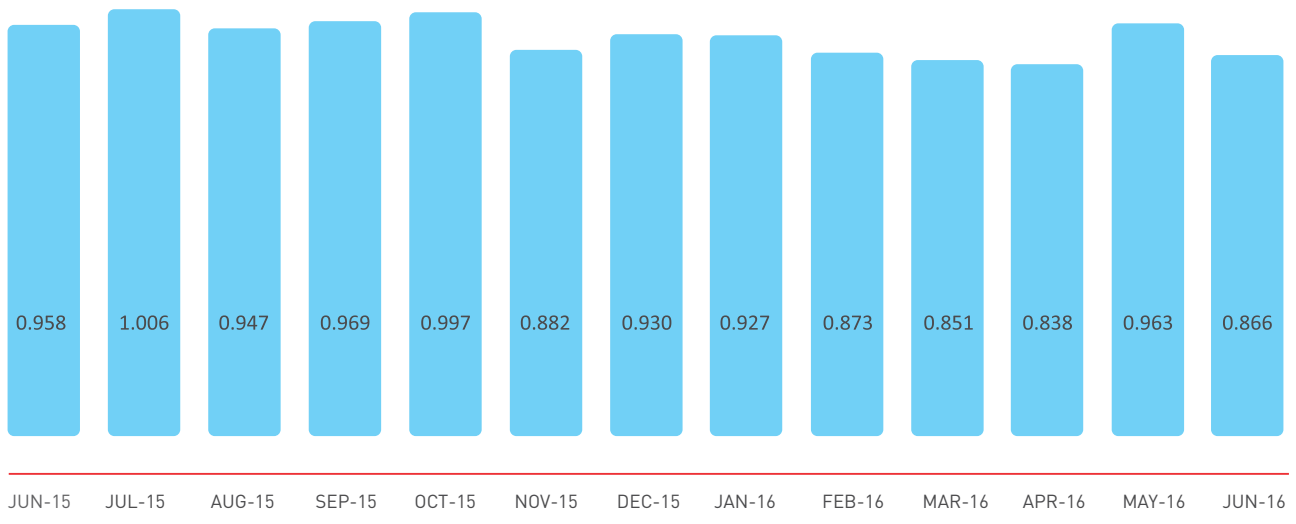
MoM (%)  
ASP & X-RATE USD|GEL

M-Y	ASP (USD)	USD   GEL	ASP (GEL)
JUN-15	6.4%	-2.6%	3.7%
JUL-15	6.0%	-0.3%	5.7%
AUG-15	-5.7%	2.8%	-3.0%
SEP-15	-3.8%	3.4%	-0.5%
OCT-15	1.5%	-0.2%	1.2%
NOV-15	-4.0%	0.4%	-3.6%
DEC-15	4.8%	-0.1%	4.7%
JAN-16	-3.2%	1.5%	-1.7%
FEB-16	0.1%	1.9%	2.0%
MAR-16	0.6%	-3.8%	-3.2%
APR-16	-2.0%	-5.2%	-7.1%
MAY-16	3.7%	-3.5%	0.1%
JUN-16	-1.0%	0.1%	-0.9%

Source: REM lab 2016

SPI for commercial property reached its all-year minimum of 0.838 in April 2016 and maximum of 1.006 in July 2015, the only month, when SPI exceeded base value (April, 2015). Last month has brought sharp decrease (by 10.0% | MoM) in prices bringing SPI close to data for March 2016.

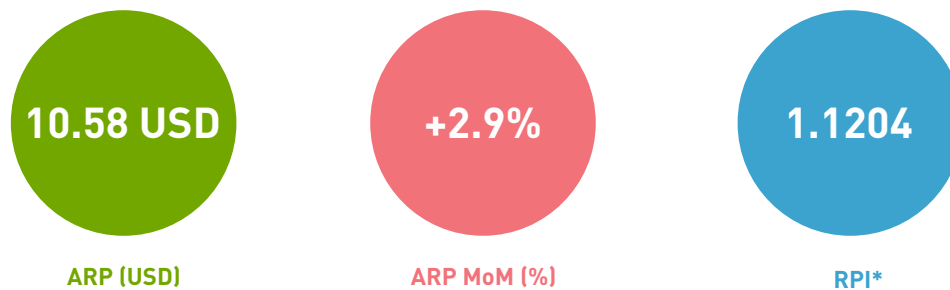
**SPI  
COMMERCIAL PROPERTY... TBILISI CITY  
MONTHLY TREND, 2015-2016**



Source: REM lab 2016

## 2.2 RENT OF COMMERCIAL PROPERTY

**KEY DATA** June 2016... ARP/RPI for commercial property... Tbilisi City

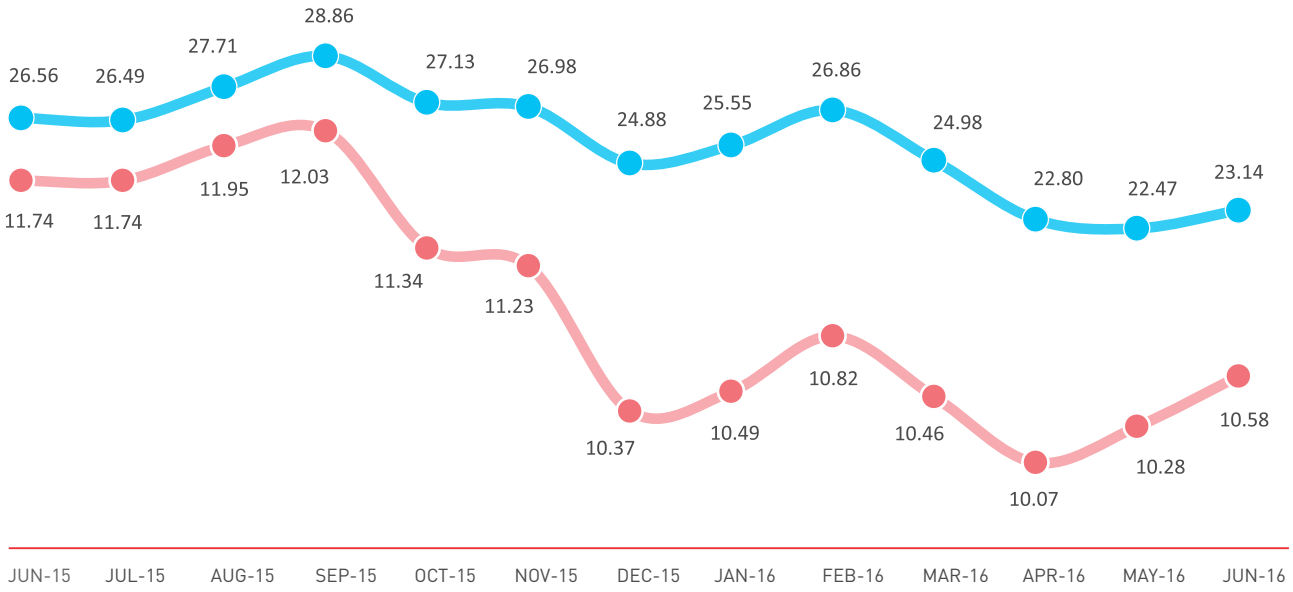


\* base period - April 2015

ARP peaked at a year-high of USD 12.03 in September 2015 and currently stands at USD 10.58, slightly higher than a year-low of USD 10.07 in April 2016. Starting from September 2015, ARP in local currency also show pronounced downward-sloping trend.

**ARP (USD, GEL)**  
**COMMERCIAL PROPERTY... TBILISI CITY**  
**MONTHLY TREND, 2015-2016**

● GEL  
 ● USD



Source: REM lab 2016

**ARP & X-RATE**  
**COMMERCIAL PROPERTY... TBILISI CITY**  
**MONTHLY TREND, 2015-2016**

(USD, GEL)  
 ARP & X-RATE USD|GEL

M-Y	ARP (USD)	USD   GEL	ARP (GEL)
JUN-15	11.34	2.2629	25.66
JUL-15	11.74	2.2564	26.49
AUG-15	11.95	2.3199	27.71
SEP-15	12.03	2.3985	28.86
OCT-15	11.34	2.3928	27.13
NOV-15	11.23	2.4017	26.98
DEC-15	10.37	2.3992	24.88
JAN-16	10.49	2.4360	25.55
FEB-16	10.82	2.4829	26.86
MAR-16	10.46	2.3894	24.98
APR-16	10.07	2.2652	22.80
MAY-16	10.28	2.1860	22.47
JUN-16	10.58	2.1877	23.14

Source: REM lab 2016



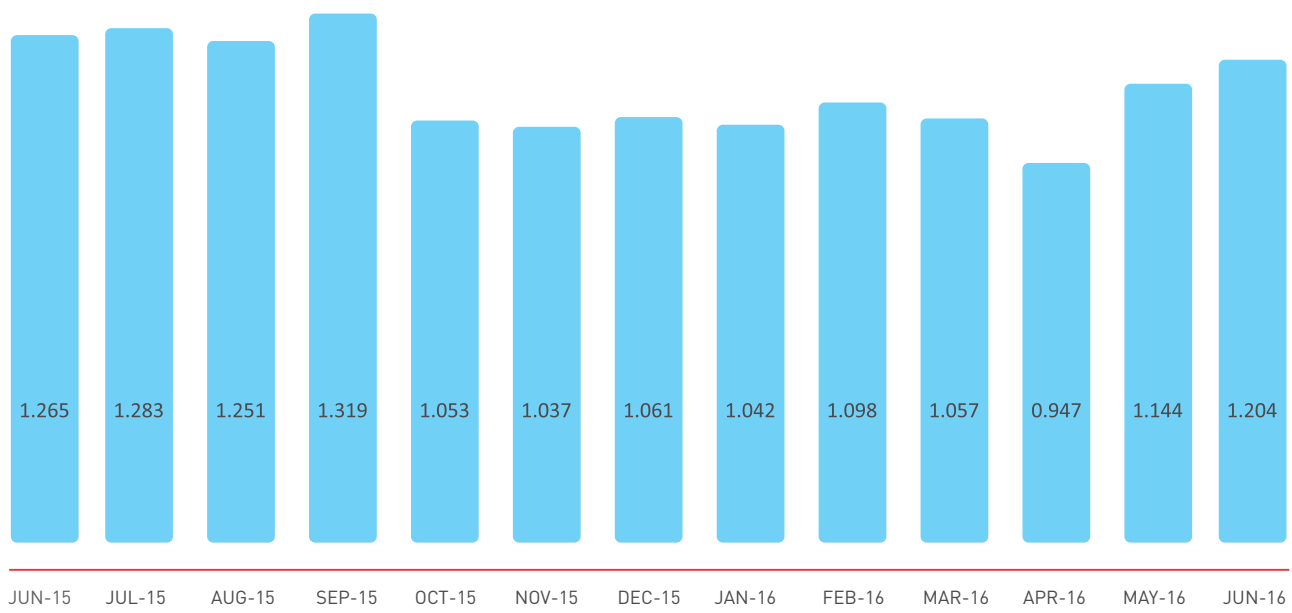
**MoM (%)**  
**ARP & X-RATE USD|GEL**

M-Y	ARP (USD)	USD   GEL	ARP (GEL)
JUN-15	6.4%	-2.6%	3.7%
JUL-15	6.0%	-0.3%	5.7%
AUG-15	-5.7%	2.8%	-3.0%
SEP-15	-3.8%	3.4%	-0.5%
OCT-15	1.5%	-0.2%	1.2%
NOV-15	-4.0%	0.4%	-3.6%
DEC-15	4.8%	-0.1%	4.7%
JAN-16	-3.2%	1.5%	-1.7%
FEB-16	0.1%	1.9%	2.0%
MAR-16	0.6%	-3.8%	-3.2%
APR-16	-2.0%	-5.2%	-7.1%
MAY-16	3.7%	-3.5%	0.1%
JUN-16	-1.0%	0.1%	-0.9%

Source: REM lab 2016

In contrast to SPI, RPI for commercial real estate almost always remained above its base value. Overall, the index exhibits more stability thus observed fluctuation in average prices is mostly due to quality changes of properties supplied rather than pure price effect.

**RPI**  
**COMMERCIAL PROPERTY... TBILISI CITY**  
**MONTHLY TREND, 2015-2016**

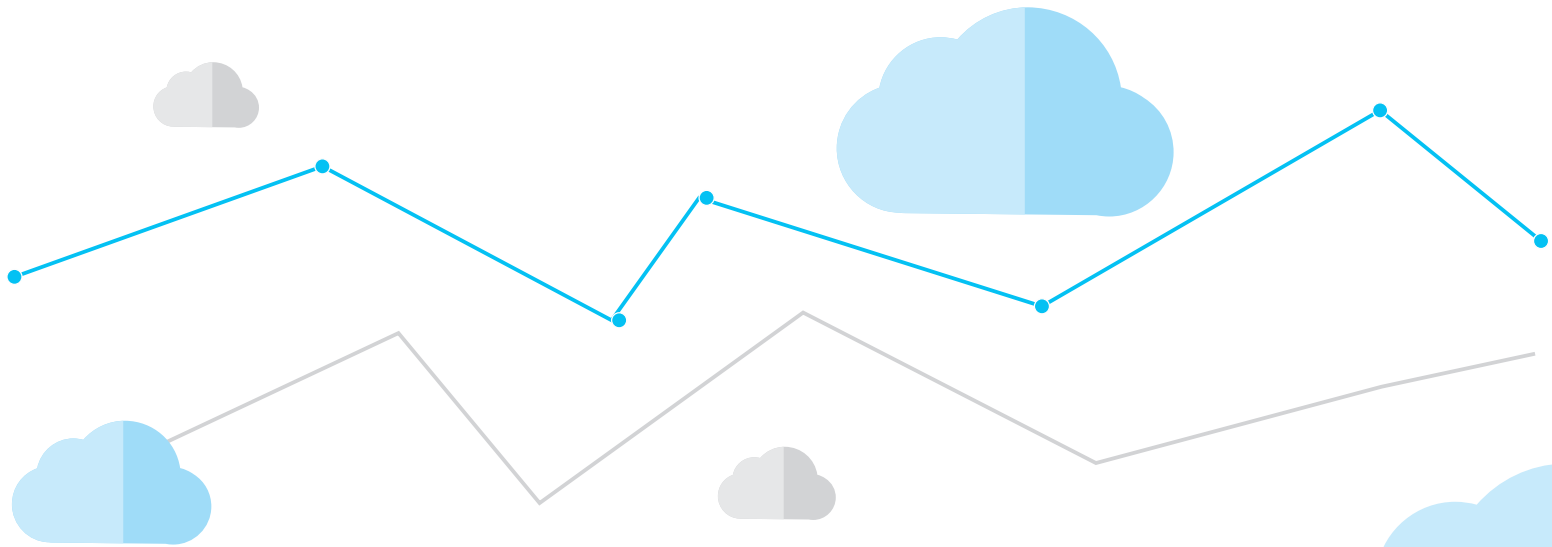


Source: REM lab 2016

# CHAPTER 3

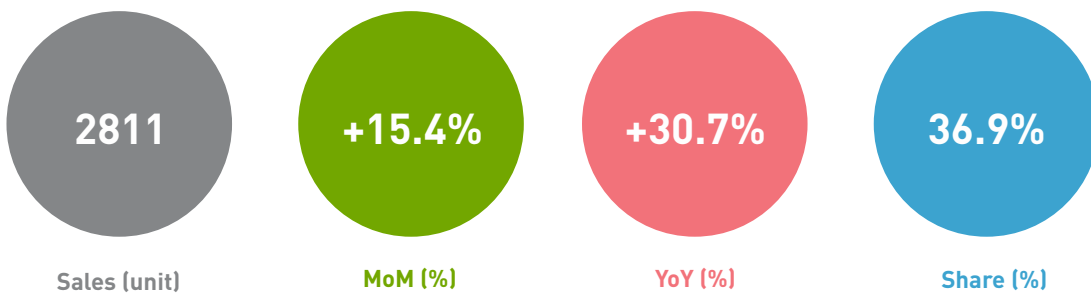
## REAL PROPERTY SALES IN TBILISI CITY

Source: NAPR (National Agency of Public Registry)



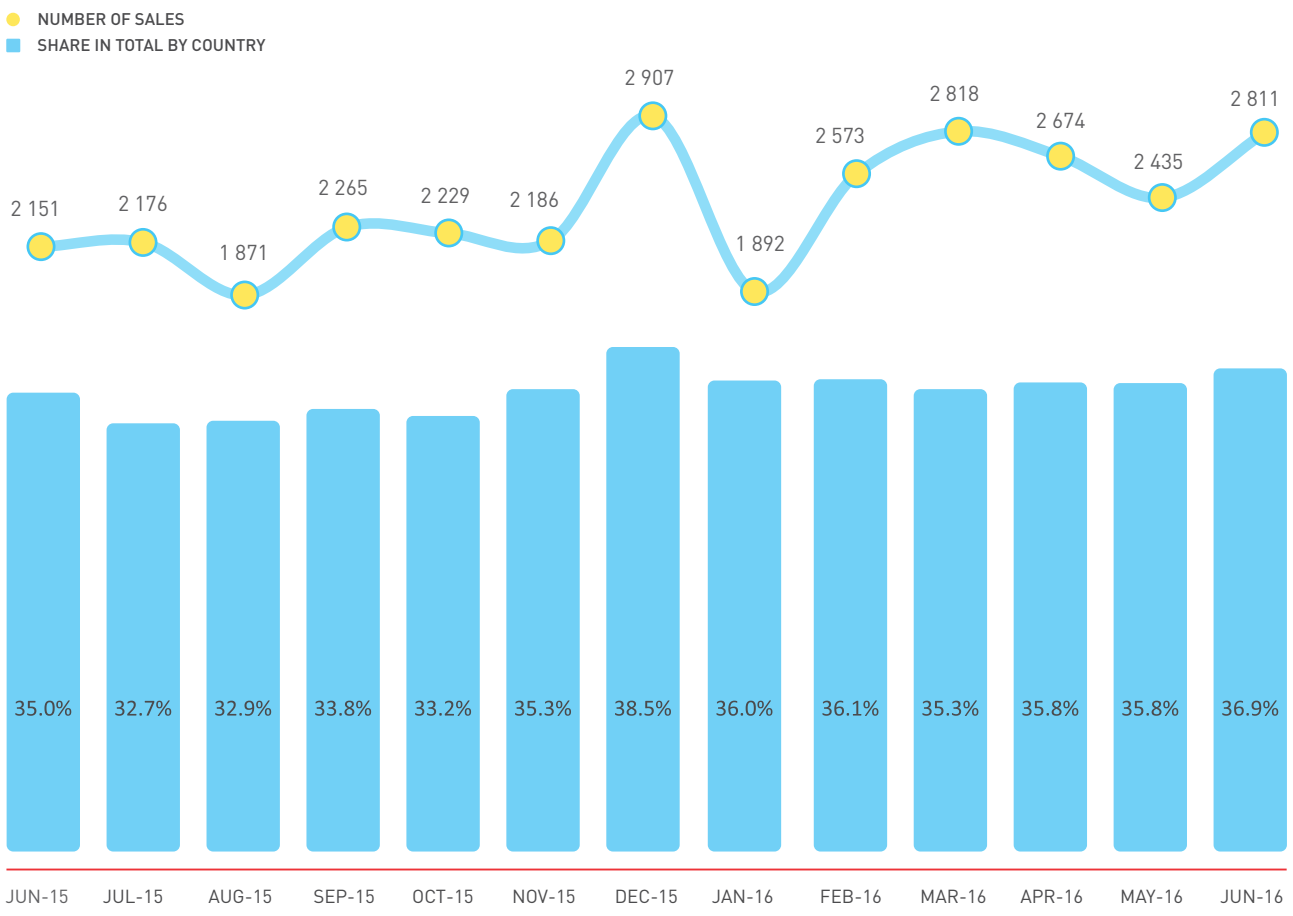
### 3. REAL PROPERTY SALES IN TBILISI CITY

**KEY DATA** June 2016... Sale Transactions... Tbilisi City



Tbilisi City continues to be the busiest market in the country. Tbilisi experienced mixed market conditions during the first months of 2016. The robust market activity of last December did not carry over into the first month of the current year (seasonal decrease), but the market activity picked up again in February 2016, followed by increase of sales in March (+9.5% | MoM) and decrease in April (-5.1% | MoM). Sales of real property dropped again in May (-8.9% | MoM) and grew in June (+15.4% | MoM) remaining busier than June of previous year (+30.7% | YoY).

**SALES TREND**  
**REAL PROPERTY... TBILISI CITY & GEORGIA**  
**MONTHLY TREND, 2015-2016**



Source: REM lab 2016

The share of Tbilisi City in total sales by Georgia is still high for current month (36.9%).

**SALES TREND**  
**REAL PROPERTY... TBILISI CITY & GEORGIA**  
**MONTHLY TREND, 2015-2016**

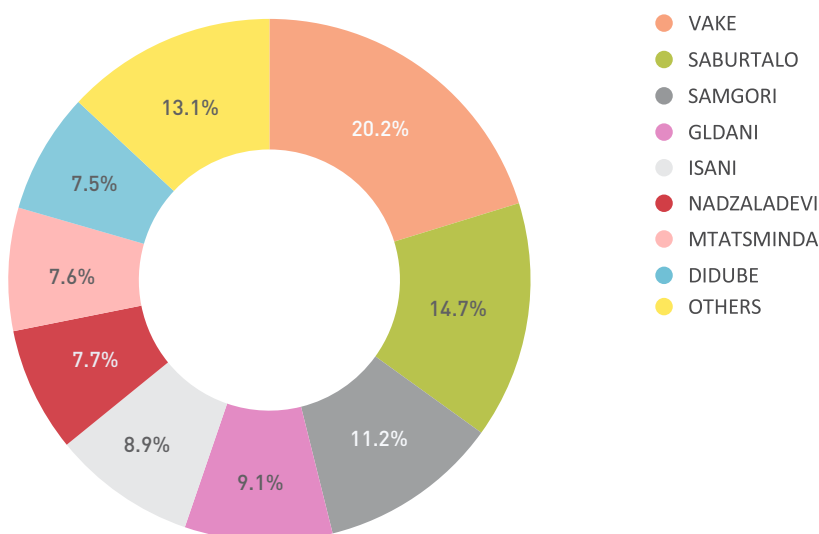
NUMBER OF SALES (UNIT), SHARE IN TOTAL (%)

M-Y	TBILISI CITY	GEORGIA	SHARE (%)
JUN-15	2 151	6 138	35.0%
JUL-15	2 176	6 655	32.7%
AUG-15	1 871	5 687	32.9%
SEP-15	2 265	6 703	33.8%
OCT-15	2 229	6 704	33.2%
NOV-15	2 186	6 191	35.3%
DEC-15	2 907	7 547	38.5%
JAN-16	1 892	5 262	36.0%
FEB-16	2 573	7 135	36.1%
MAR-16	2 818	7 981	35.3%
APR-16	2 674	7 468	35.8%
MAY-16	2 435	6 806	35.8%
JUN-16	2 811	7 620	36.9%

Source: NAPR 2016

Among districts, Vake and Saburtalo led the way with 20.2% and 14.7% share in total sales (real property sales in Tbilisi City), respectively.

**SALE TRANSACTIONS**  
**SHARES BY DISTRICTS OF TBILISI CITY**  
**JUNE, 2016**



Source: NAPR 2016

Samgori accounted for 11.2% of total sales, closely followed by Gldani (9.1%) and Isani (8.9%). In June 2016 the lowest share in total sales had Krtsanisi and Chughureti (3.7%-3.7%).

## ANNEX | METHODOLOGICAL FRAME

According to the best global practices, residential and commercial real estate price indices are calculated using several measures, namely the Laspeyres index or the Paasche index. Another popular measure, Fisher index is a combination of the two mentioned. These indices heavily depend on the available sample and do not take into account sample volatility across time (for example, the quality of purchased units in the sample may increase over time, which will be reflected in higher prices). One way of remedying this issue is to construct a standardized real estate unit in each time period (using a hedonic regression technique) and to use this unit to obtain quality-adjusted indices. The latter indices are called the Laspeyres hedonic imputation index and the Paasche hedonic imputation index (Handbook on Residential Property Price Indices, Eurostat Methodologies and Working Papers, 2013).

To implement this methodology, we first collect data from the online real estate marketplace, that contains information about residential and commercial real estate sold in different locations of the country. Data are collected from the marketplace by our partner organization JumpStart Georgia, on a daily basis. For the period June 2015 - June 2016, there were more than 130 000 useable observations/offers, about 11 000 on average per month. Although we have data from all over Georgia, given limitations with the sample size this analysis is limited to Tbilisi City.

The prices that are found on online marketplaces are offered prices and not actual transaction prices. This has two main drawbacks:

- (1) prices are overestimated and
- (2) price decrease on the market is picked up with a delay

On the positive side, the database is well structured and there is no incentive for advertisers to misreport prices.

Second, we determine the characteristics of a typical real estate unit in each month. This is done for both groups of real estate (residential and commercial). For example, to determine a typical residential property in any given month we calculated the median of the log area of the property advertised in that month, mode of renovation type, mode of district, median of the number of bedrooms, median of the number of bathrooms, and median of the number of balconies. Similarly, to determine a typical commercial property, we calculated the median of the log area of the property, mode of renovation type, mode of district, median of the number of rooms, and median of floor.

Finally, we construct a linear regression model on the data controlling for various characteristics of the real estate unit. The coefficient estimates and the characteristics of a typical property unit are then combined to calculate both the Laspeyres and Paasche monthly indices.

The Paasche hedonic imputation index is somewhat different. The Paasche index takes the characteristics of a typical property unit advertised the current month, and compares the current price of this unit to the price it would have had in the base month. Essentially the Paasche index answers the question: what is the price of a typical property unit today relative to the price of the same unit in the base month?

Both of these indices have advantages and disadvantages. The Laspeyres index could possibly overstate any price increase, as it would not account for substitutions towards cheaper (e.g. smaller or in a less prestigious area) real estate units as prices increase. At the same time, the Paasche index could understate any price increase for the same reason - it would `allow` people to substitute lower quality housing options as prices go up.

The best way to reconcile both measures is to obtain a Fisher-type hedonic imputation index - geometric average of the Laspeyres and Paasche indices. The Fisher index is used as the main indicator of real estate price movement in our report.