Methodology

Why Asking Prices?

Timeliness - comprehensive data that does not need revision as the sample size is complete. Being able to assess where vendors sit with the market is also very useful. Do they have the confidence to be lifting their asking prices, or are they keenly dropping their prices in order to get out?! In compiling SQM Research's new market indexes, we have been surprised at how reactive vendors and landlords are to the market. It is clear vendors are very responsive when considering the whole market on aggregate. Indeed, there is some evidence to suggest that they at times, drive the market, especially when it enters into a new upswing.

Base Methodology

After considering all various house price methodologies, SQM Research came to the conclusion that using a stratified methodology based on geography for these new indexes, would be most optimal for the required task. SQM Research declined to use a hedonic model as there was negligible additional accuracy provided compared to the stratified model, which accurately adjusts for compositional bias. All capital city regions and city wide averages were stratified based on splitting postcodes into decile brackets. The decile brackets were calculated based on the relative long term median sold price ranking of each postcode. SQM Research will monitor and update longer term pricing points and suburb rankings annually and make revisions to the decile bands accordingly. Subsequent revision of the index is expected to be negligible.

All compilations of cities are based on the Statistical division of each capital city as measured by the Australian Bureau of Statistics. Rural regions and postcodes indexes are calculated based on a median of listing prices for the period concerned. They were not able to be stratified due to the lack of consistent sample sizes.

Percentage of Listings That Have an Asking Price

89% of all listings captured have a price indicator. Listings that have an asking price range are included, using the bottom of the price range. Auctions are left out of the calculation unless an asking price is provided after the auction event.

Vendor Discounting and the Effect on the Indexes

Where a vendor has discounted their asking price, it is calculated in the overall aggregate median of asking prices in the index. There are no weightings applied to various asking prices based on age of listing or discounting.
Weightings of the Eight Capital City Average

The weightings applied to the collation of the capital city averages for both rents and for-sale asking prices have been based on the 2011 Census data for total established dwellings. The weightings applied are as follows:

<table>
<thead>
<tr>
<th>City</th>
<th>Houses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sydney</td>
<td>0.321</td>
<td>0.458</td>
</tr>
<tr>
<td>Melbourne</td>
<td>0.292</td>
<td>0.272</td>
</tr>
<tr>
<td>Brisbane</td>
<td>0.127</td>
<td>0.086</td>
</tr>
<tr>
<td>Adelaide</td>
<td>0.073</td>
<td>0.053</td>
</tr>
<tr>
<td>Perth</td>
<td>0.144</td>
<td>0.094</td>
</tr>
<tr>
<td>Hobart</td>
<td>0.011</td>
<td>0.006</td>
</tr>
<tr>
<td>Canberra</td>
<td>0.024</td>
<td>0.022</td>
</tr>
</tbody>
</table>

Correlations at the City Level Between Asking Prices and the ABS Quarterly House Price Series

SQM Research’s Weekly Vendor Sentiment Index versus ABS Price Index (weighted average of eight capital cities)

The figure above charts the correlation between SQM Research’s Vendor Sentiment Index and the ABS’ House Price Index for the eight Australian capital cities from March 2009 to December 2012. Taking this correlation into account, we believe SQM Research’s Vendor Sentiment Index to be a leading indicator of house prices movement in Australia. As at December 2012, the correlation between the two indices was recorded at 0.98, making them highly correlated. Essentially, SQM Research’s index tracks the vendor’s expectations of asking prices for house, proving to be an accurate leading indicator of the direction in which house prices are likely to move, going forward.
The correlation coefficient noted for the two indices for the city of Sydney between March 2009 and December 2012 was 0.90, signifying a high degree of correlation.

The correlation coefficient noted for the city of Melbourne between March 2009 and December 2012 was 0.94, implying a high degree of correlation.
The correlation coefficient noted between the two indices for Brisbane between March 2009 and December 2012 was 0.95, implying a high degree of correlation.

The correlation coefficient noted for the two indices for Perth between March 2009 and December 2012 was 0.97, indicating a very high degree of correlation. The correlation coefficient noted for Perth was the highest amongst all capital cities.
The correlation coefficient noted for the two indices for the city of Canberra between March 2009 and December 2012 was 0.69. Although the coefficient is lower than other capital cities, it nevertheless indicates a high degree of correlation.

The correlation coefficient noted between the two indices for the city of Adelaide between March 2009 and December 2012 was 0.96, implying a high degree of correlation.
The correlation coefficient noted for the two indices for the city of Darwin between March 2009 and December 2012 was 0.47. The correlation coefficient noted for Darwin was the lowest amongst all capital cities.

The correlation coefficient noted for the two indices for the city of Hobart between March 2009 and December 2012 was 0.75, although lower than some of the other capital cities, it nonetheless signifies a high degree of correlation.
Three-Bedroom House, Two-Bedroom Unit Focus

SQM Research has published not just the median for all houses and units, but specifically three-bedroom houses and two-bedroom units which is also a first for the Australian housing market. SQM Research has published this from a national level right down to a postcode level on a consistent basis. We chose these two property types over others (such as 1 bedroom units, etc.) due to the consistent and deep sample size of the data. Data on other bedroom counts is available, however the sampling size is smaller and hence the data is regarded as being too volatile for public use.
Comparing the overall median against the bedroom median is also useful in terms of confirming a new trend in the market. Generally, having both the 3 bedroom house index and the overall house index move in the same direction is of value before confirming a new trend is in effect for a local market.

Sources

SQM Research conducts on-going monitoring of a number of real estate listings websites. Through this monitoring, SQM Research believes we capture over 97% of all real estate listings, making this index as well as its stock on market and vacancy rates index the most comprehensive dataset available.

Tips and Tricks

There are some suburbs where the price chart is quite volatile. This normally occurs on locations where there are fewer listings and/or there is considerable variation between the top end of the market and the bottom end. Indeed, even on less volatile charts you will still find some oscillation at the postcode level. At this micro level it is impossible to properly stratify and so the postcodes can be skewed on a shorter term basis. However as SQM Research has provided back series, it is possible to work out a trend by making note of the low points and comparing various low points (and high points) within the chart (see below).
Postcode 2089

It is also useful to compare the Stock on Market data SQM Research also provides for each postcode, region and city.

Rental Yields

It is possible to calculate an approximate gross rental yield by comparing the vendor asking prices verses the asking rents that SQM Research has also provided with this release.