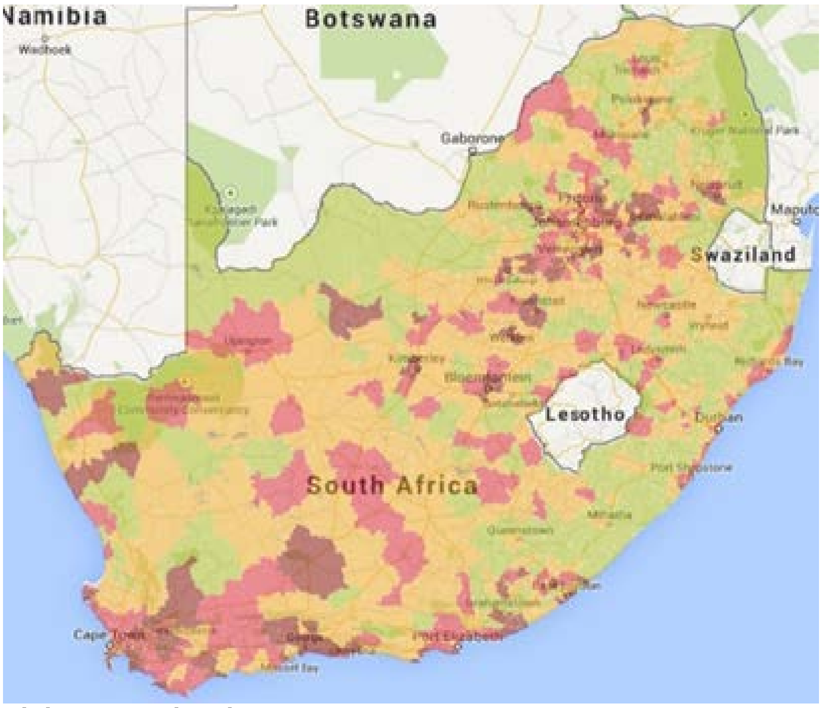
Lightstone crime metrics measure impact of crime on property prices   Feb 2015

"Are you sure you want to buy there? There's been a lot of crime in that area lately."

This is not something any potential home buyer wants to hear when house hunting, however, in a country with some of the highest crime rates in the world, this is a huge consideration in buyers' decisions. While it is obvious that there are many reasons for not wanting to stay in an area that has been affected by crime, Lightstone set out to shed some light on the impact criminal activity has had on the wealth generating capability of property investors and home owners.

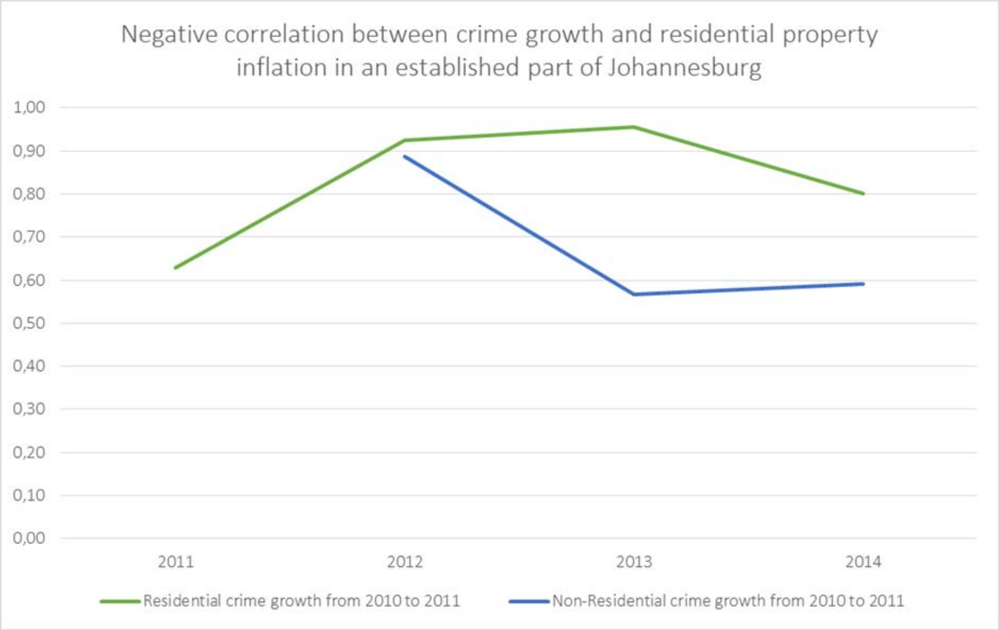
In order to do this, *Lightstone crime risk metrics* (a set of characteristics that distributes police district crime statistics into more granular spatial environment like suburbs) were used in conjunction with the *Lightstone repeat sales indices* which is utilised to determine the value of around six million residential properties in South Africa.



Lightstone crime heat map

Paul-Roux De Kock, Data and Analytics Director at Lightstone, points out that the results were extremely interesting. "Not only does crime growth have a direct impact on property inflation, but past high crime experience in an area has lasting effects that subdue property price growth for years to come," De Kock notes.

When looking at established areas where there were not significant new residential property developments (like those around the Rosebank, Norwood and Bramley police stations) the growth (or decline) in residential related crime from 2010 to 2011 had a strong correlation with the property inflation experienced in 2011, but an even stronger correlation in the following two years. This indicates that one year of high crime growth in an area can be to the detriment of homeowners for at least two years before the effect starts to slowly taper off as time passes. This "bad reputation effect" takes a while to catch on, but reaches a peak within the first two years after a crime wave has hit, and can have a long lasting effect on property inflation in the following years. The converse is also true in the sense that a huge reduction in residential crime will generally also positively impact property price growth in the years to come.



It is important to note that the effect is much less pronounced in developing areas as the inflow of more residents distorts the crime growth picture.

“The responsiveness of the market is also determined by the type of crime, and how quickly news can spread in the market,” De Kock adds.

When looking at how quickly the market responds to crime waves and how long the effect lasts, it also becomes important to understand the interplay between different market sectors and the different types of crime.

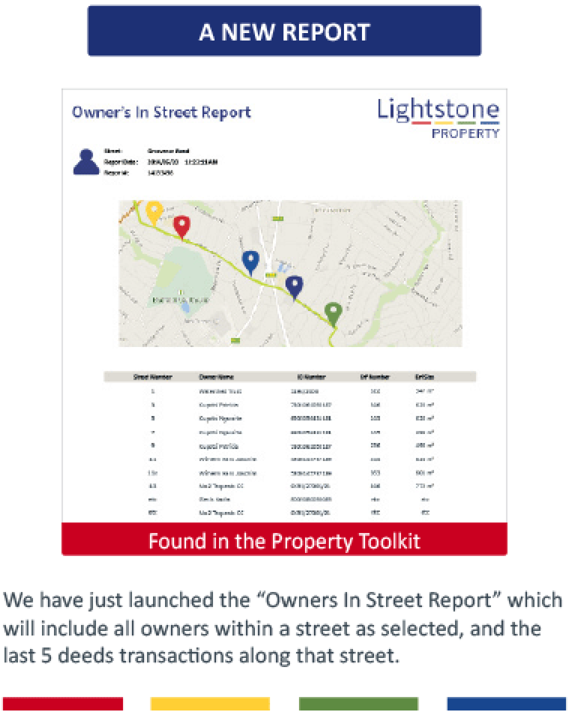
Lightstone has found that there is a very strong relationship between contact crimes experienced in estates and sectional schemes, and the house price growth experienced in that same year. One explanation would be that the combined effect of these closed communities, and the nature of contact crimes, normally result in people within the community spreading the news faster. Potential buyers are therefore more likely to come to know about the crime wave, and potential sellers are likely to sell at a lower price that same year. Lightstone estimates that a 20% increase in contact crimes generally result in about a 0.4 percentage point drop in residential price growth in estates experienced during that same year. That may not sound like much, but considering that luxury properties currently only grow at around 4.5% year on year, homeowners lose out on almost a tenth of the growth they could’ve experienced during that year.

When looking at crime in the middle income freehold sections of the market, the “bad reputation effect” is generally more lagged. Property price growth in these markets tend to have a closer relationship with crime rates five years ago, than the crime experienced in that same year. This indicates that the market might be taking longer to catch on to the idea that it’s a bad area (and also takes longer to respond to positive improvements) because the news travels slower than in closed communities like gated estates and sectional schemes. The bad news is that the detrimental effect still remains, it just take a bit longer to be reflected in home values.

Whether the impact of crime is immediate, or takes a while to catch on, it is clear that there is a capital deterioration of homeowners’ wealth in that area. It also directly affects the spending power of the people staying in the area as insurers are trying to keep up with increased claims. Where the common practice in the past was to rate everyone using the same postal code in a similar way, an increasing number of insurers are improving their actuarial models to rate at a suburb level, and they are using these dynamic crime metrics in determining short term insurance premiums.

Apart from the unmeasurable positive effects like increased safety for your family and a greater sense of community, there is also a clear financial incentive for homeowners and renters alike to get involved in community crime fighting initiatives. Insurers and future home buyers are, in essence, paying you to fight crime in your area.

Don't forget about our latest report available:



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