

Location risk score

Measuring risk of the location for commercial portfolio management strategies

Habitatum's Location Risk Score (LRS) data feed helps to harness the power of the *hard to quantify* local market factors surrounding assets and asset valuation. LRS paired with property's financials can both highlight assets with high revenue and strong location score as well as "undervalued" properties. Asset managers may efficiently adjust portfolio holdings in order to deliver on KPIs such as portfolio value increase or target cap rate.

The data feed is a composite of human mobility data, business volume, and business diversity; with numerous submetrics based on location accessibility to other locations, the LRS is adaptable to the complexities of geographically dispersed, multi-asset class portfolios. With granular location data and accessibility isochrones involved, LRS allows taking both the assets' localities (closest proximity) and local markets (catchment areas) into account.

Monitoring the local market

Property owners have no ownership of "location", meanwhile location highly influences property value.

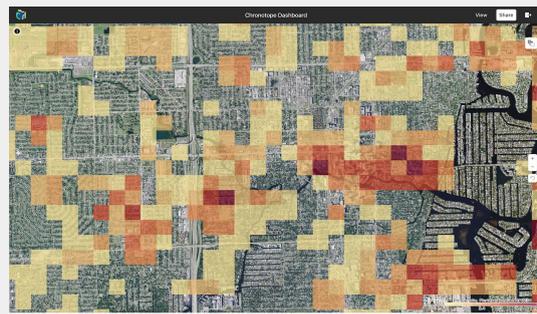
By scoring locations portfolio managers can measure and monitor the local market – the score is a proxy for liquidity risk. LRS is a data standard, leveraging clusterization, accessibility isochrones, and dynamic ranking methods in order to transform *location* into a financial benchmark. Underlying data consists of proprietary human mobility data from GPS devices, business volume, and business diversity.

MOBILE DEVICE CONCENTRATIONS



The average daily number of GPS devices within each 250*250 meter grid

POI DENSITY & POI DIVERSITY



The number of points of interest within each 250*250 meter grid

Location's liquidity

Property value can be split into two parts: building and location. However, buildings are

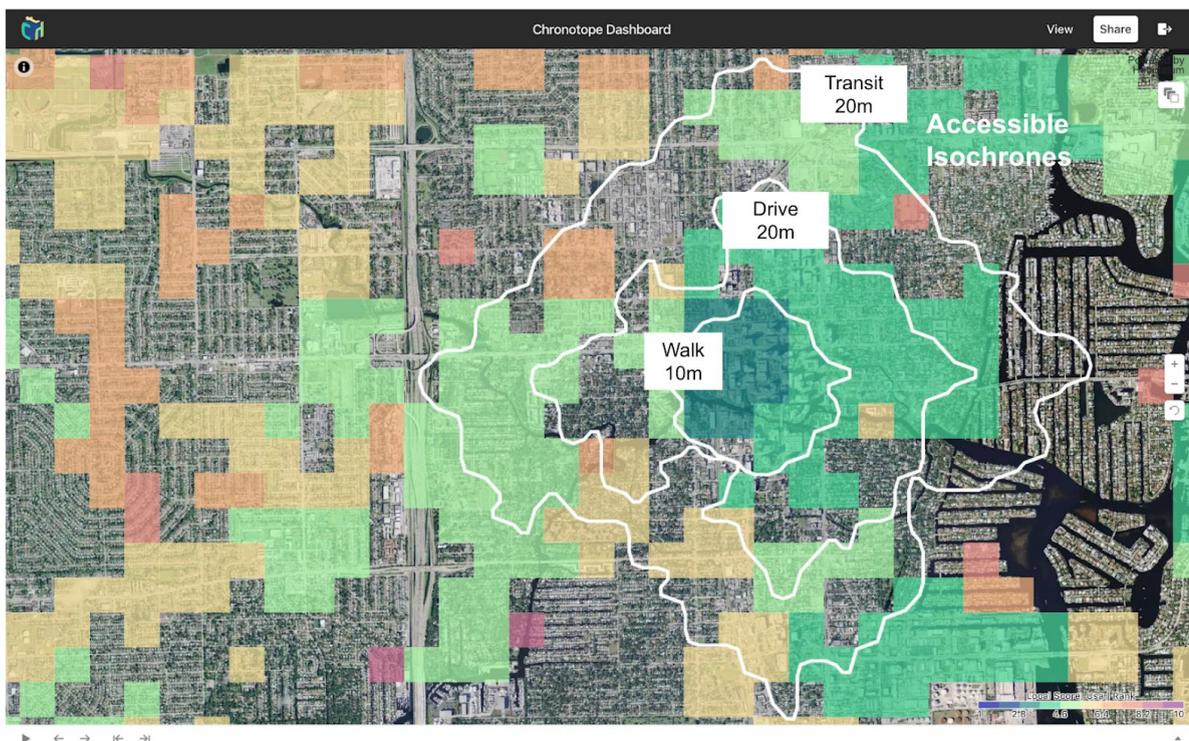
non-liquid due to their uniqueness, difficulty to find a common denominator with other buildings, and dependence on a function that's inside and the local market that the owner does not control. At the same time for location it's visa versa:

- The *location* is subject to very slow changes, being determined by the parameters of the settlement system, which are stable and can guarantee stability for quite a long time, if not for a large infrastructural changes (new transit development, redevelopment, renovation or area's regeneration that heavily influences the exiting area usage patterns);
- It is possible to assess the commercial potential of a *location* alone, exclusive of the parameters of an asset that may depend on small distinctive factors;
- Locations can be comparative in relative positions to one another.

Location risk score composition

LRS defines the commercial potential of the place which is a characteristic of the local market, offering property owners a limited set of opportunities with regards to the purchase, sale or reprofiling of their assets.

Apart from the human activity and available number of businesses, the score accounts walking and transit accessibility from other locations – **local, accessible and overall LRS**.



Local score is the commercial potential of the locality. **Accessible LRS** is the quality of local scores within the catchment area – some transport accessibility of the location in minutes. It is divided into 3 scores that can be used separately or combined together – pedestrian, automobile and public transit, which are sums of local scores within a given radius. Together with local score they make **Overall LRS** for a given location.

LRS vs. Property's financials

To identify trends and mismatches in property financials including OPEX, CAPEX, NOI and their components as well as rent rates, asset and location can be decoupled using the following quadrant diagramme.



Using this scheme, we allocate properties to one of four categories – *normal* ones are the top left and bottom right quadrants, that indicate asset performance which is predictable. **Low risk and high rents** represent strong LRS the same as **high risk locations with low rent** are those to be sold or reprofiled.

The other 2 groups are more interesting to explore. Here fall undervalued (bottom left) and overvalued (top right) properties. **Opportunity** quadrant show that the local market capacity is high but the rents are not keeping up with it. This can be improved, for example, by best use adjustment. This **abnormal** group is usually populated by unique assets with high-quality concept and management strategy (not applicable on scale).

Location risk is an operational benchmark for commercial portfolio management. Monitoring LRS, we connect it with the asset's financial performance and foresee if there are any changes in the local environment that may (or already) influence its value.