The Battle of Neighborhoods - Applied Data Science Capstone Project

Real estate in the Italian economic hub, Milan

Introduction

Milan has historically been one of the most international cities in Italy, as well as its financial and economic center. Its fashion and design businesses are famous worldwide and have greatly contributed to the success of the city, known as one of the fashion capitals of the world.

The real estate market saw a sharp decline both in number of sales and house prices, following the Global 2008 financial crisis.
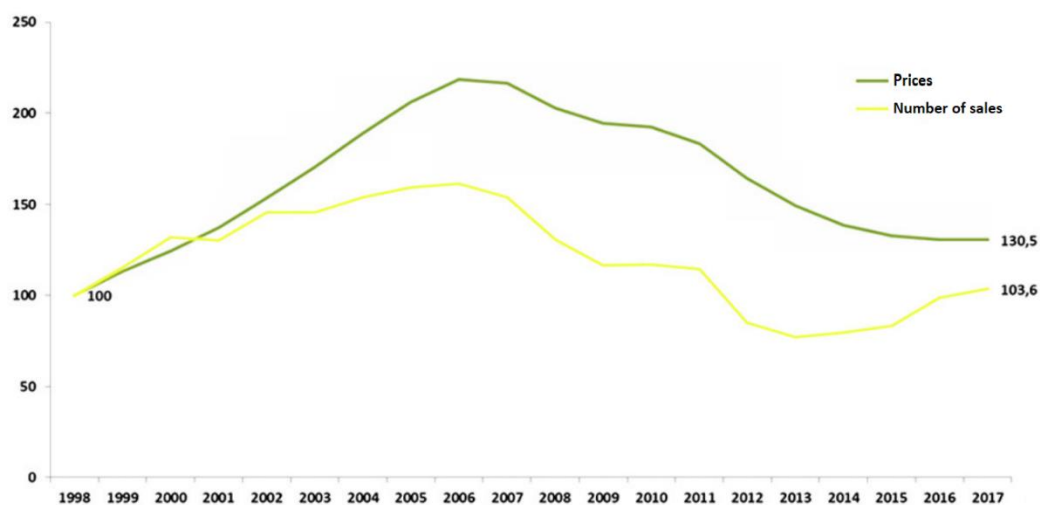

Fig. 1 House prices and number of sales for the period 2008-2017. Source Tecnocasa Group

Starting from 2017 there has been a rebound in both prices and number of sales, however the recovery has been slower than that of other main European cities.

House Price Change						
2013	2014	2015	2016	2017	2018	2019
-6,9%	-5,5%	-1,7%	-0,1%	+3,5%	+8,4%	+13%

Fig. 2 House price changes for the period 2013-2019. Source Tecnocasa Group

The last three years have been extremely positive with an average increase of over 8% each year, however the prices are still around 20% below the pre-crisis levels, making the city extremely interesting to those who are looking to invest in real estate.

The growth is attributed by many to the World Expo which took place in Milan in 2015, counting over 20 million visitors and with over 140 participating countries. This event put Milan under the international spotlight and the demand from both national and international buyers has grown since.

Problem

Due to its nature, Milan has long been attracting buyers and visitors with a taste for multicultural experiences and innovation, for this reason it is safe to assume that most buyers will be particularly interested in the availability of services in each area.

The goal of this research is to classify the different areas of the city by category of venues and find any correlation with the real estate market.

The research will also evaluate how the presence of subway stations contributes to the diffusion of these venues and to the house prices.

Ultimately, the report should be able to guide a potential house buyer regarding:

- what parts of the city have affordable houses compatibly with their budget
- what areas have a high density of commercial or residential spaces
- what areas are best served by public transport

Data

- The data regarding real estate market prices will be scraped from the website of one of the largest real estate advertising websites (https://www.immobiliare.it/).
  This data will be useful to understand which area are affordable.

- The coordinates of each subway station are provided on the official website of the City Council (https://dati.comune.milano.it/dataset/ds535_atm-fermate-linee-metropolitane/resource/dd6a770a-b321-44f0-b58c-9725d84409bb).
  This data will be useful to understand what areas are best served by public transportation, granting reduced commuting time.

- The information regarding what venues are present in each area will be collected thanks to Foursquare.
  This data can be used to find areas which offer the type of venues desired by the buyer (i.e. a buyer with small children might prefer to move to a residential area, instead a young couple might prefer one with many bars and restaurants).