**Team Members: Dion Daniels, Musah Abdulai and Shreestina Tamrakar**

**Project Title:**

Impact of Commodity Prices on Property Prices in Australia

**Project Description/Outline (2-4 sentences)**

We’ll take a look at available housing prices data of 2 capital cities (Perth of WA) and (Sydney of NSW) and cross-reference it with commodity prices (iron ore) over the period of 12 years (2007 to 2019) to determine if there is positive relationship between them. For the house prices we have narrowed down to 3 bedroom houses and 4 bedroom houses but we will be choosing one among two.

**Research Questions to Answer**

1. Is there increase or decrease in housing prices over the years?
2. Is there increase or decrease in commodity prices over the years?
3. Is there a correlation between housing prices and commodity prices?

**Null Hypothesis:**

* There is no correlation between Commodity prices and Housing Prices

**Alternate Hypothesis:**

* There is correlation between Commodity prices and Housing Prices

**Data Sources:**

* From Kaggle for Perth and Sydney House prices

<https://www.kaggle.com/syuzai/perth-house-prices/version/3>

<https://www.kaggle.com/mihirhalai/sydney-house-prices>

[https://explore.data.abs.gov.au/vis?tm=Residential%20property%20index&pg=0&df[ds]=ABS\_ABS\_TOPICS&df[id]=RES\_DWELL\_ST&df[ag]=ABS&df[vs]=1.0.0&pd=2011-Q4%2C&dq=..Q&ly[cl]=REGION&ly[rw]=TIME\_PERIOD&ly[rs]=MEASURE&vw=tb](https://explore.data.abs.gov.au/vis?tm=Residential%20property%20index&pg=0&df%5bds%5d=ABS_ABS_TOPICS&df%5bid%5d=RES_DWELL_ST&df%5bag%5d=ABS&df%5bvs%5d=1.0.0&pd=2011-Q4%2C&dq=..Q&ly%5bcl%5d=REGION&ly%5brw%5d=TIME_PERIOD&ly%5brs%5d=MEASURE&vw=tb)

* For commodity prices

<https://tradingeconomics.com/commodity/iron-ore>

S&P GSCI commodities index usd

<https://au.investing.com/indices/sp-gsci-commodity-total-return-historical-data>

Iron ore and more index usd

<https://www.marketindex.com.au/iron-ore>

**References:**

<https://thepropertytribune.com.au/industry/how-much-do-commodity-prices-impact-property-prices/>

<https://thepropertytribune.com.au/data-insights/property-values/australian-house-prices-rose-by-221-during-2021/>

<https://www.rba.gov.au/publications/bulletin/2015/sep/4.html>

**Rough Breakdown of Task (Who's doing what)**

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|  | **Task** | **(Who's doing what)** |  |
| 1 | Find additional data sources if need be | Everyone |  |
| **2** | Decide what data is needed for analysis | Everyone |  |
| **3** | Create starter notebook (Jupyter) |  |  |
| **4** | Create data frame – house prices | Dion |  |
| **5** | Create data frame – commodity price | Dion/Shreestina |  |
| **6** | Plot graphs and hypothesis testing | Musah/Shreestina |  |
| **7** | Write a summary report | Shreestina |  |
| **8** | Make presentation slides | Musah |  |