**Modeling Retail Fuel Prices**

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# Introduction

Project scope

Preliminary thoughts about possible factors

# Data Sources, Cleaning and Transformation

Minden adattisztítás R-ben vagy lehet előre Excelben?

Fuel prices excel

* date, settlement, company, address, diesel price, gasoline price
* NAs

Settlement data

* <https://www.ksh.hu/apps/hntr.egyeb?p_lang=EN&p_sablon=LETOLTES>
* name, legal status, county, district, population, dwellings
* 3178 rows (with BP and BP districts)
* let’s merge with fuel prices excel

Other data sources

* Regional data from the TIMEA app – nem működik: https://map.ksh.hu/timea/?locale=en

# Descriptive statistics

# Modeling

Dependent variables:

diesel and gasoline – same model or different models?

Independent variables:

* simple
  + settlement type (dummy) - Martina
  + (settlement population) - Martina
  + Benzinkút dummy márkákra
* formed
  + number of stations / capita in the given settlement - Gergő
  + development level of the given settlement/county (átlagfizetés) - Martina
  + Legközelebbi kút távolsága - Marci
  + Autópályán van-e - Marci
  + Finomítótól való távolság - Marci

Possible model structures:

* simple level-level multivariate regression
* complex models: nonlinearities (functional forms), interaction dummies

Model estimation:

* train-test split

# Results

Evaluation of models

Model selection

Interpretation of model parameters

Illustration – figures, tables

# Conclusion

Brief summary

## Feladatok

R kód:

* Magyarázó változók
* Data cleaning and transformation
* Building models, evaluation
* Results, figures, output

Essay

Presentation