**In-sample and out-of-sample sheet:**

|  |  |
| --- | --- |
| Date | Date of the variables (note: some variables are time-independent) |
| Date\_str | Date in string format |
| Id | ID number of particular loan |
| Type | Type of loan |
| Years\_to\_matur | Time remaining to maturity date of the loan in years |
| Age\_owner\_years | Age of the credit account owner in years |
| Original\_matur\_years | Original maturity of the loan in years |
| Client\_rate | client rate, fixed for a loan contract (in other words - rate paid by client) |
| Original\_volume | The original volume in the loan agreement |
| Age\_loan\_years | Age of the loan in years (years from origination of loan) |
| Outstanding\_volume | Volume of the loan left to be repaid (note: it is available only for in-sample because it takes into account prepayment volume form months before) |
| Volume\_schedule | Volume of the loan left to be repaid based on original schedule (note: it is available only for out-of-data sample because it doesn’t take into account prepayment volume form months before) |
| Planned\_installments | The volume from the planned repayment schedule for a given month |
| Prepaid\_amount | The sum of partial and full prepayments (actual prepaid amount for particular loan) note: it is available only for in-sample data |
| Type | Product type, there are 3 products type:  Mtg\_fix – fixed rate mortgages  Mtg\_grn\_fix – fixed rate mortgages classified as “green mortgages\*”  Cl\_fix – fixed rate cashloans |
| Res\_Addr\_City | The borrower's city of residence |
| Education | Level of education:   |  | | --- | | D - no data available  H – higher  L – undergraduate  N – None  P – basic  R – Professional  S- Medium | |
| Number\_of\_family\_members | Number of family members |
| Residential\_status | Type of residential |
| Marital\_status | Marital status:  D – Divorced  I – Living with a partner  M – Married  P – in separation  S – Bachelor / Virgo  W – Widower / Widow |
| Fixed\_monthly\_expenses | Monthly expenses |
| Flat\_house | Flag whether the loan is for flat or house:  F – flat  H - home |
| Open\_date | Starting a relationship with a bank |
| Income\_households | Income per family |
| dpd | Number of days of delay in repayment (Days Past Due) |

**Macro sheet:**

|  |  |
| --- | --- |
| date\_str | Date in string format |
| avg\_monthly\_product\_client\_rate\_cln | Monthly average market client rate for cash loans products (offer available for clients) |
| avg\_monthly\_product\_client\_mtg | Monthly average market client rate for mortgages products (offer available for clients) |
| avg\_monthly\_product\_client\_rate\_mtg\_grn | Monthly average market client rate for mortgages products classified as “green mortgages\*” (offer available for clients) |
| avg\_empl\_enterprise | Average employment in enterprise sector (in thous.) |
| register\_unemployed | Registered unemployed persons (end of period) (in thous.) |
| unemployment\_rate | Registered unemployment rate (end of period) (%) |
| avg\_monthly\_salary\_enterprise\_val | Average monthly nominal gross salary in the enterprise sector (in PLN) |
| avg\_monthly\_salary\_enterprise\_index | Average monthly real gross salary in the enterprise sector (the same period of the previous year =100) |
| wheat\_purchase\_price\_index | Wheat procurement price indices (without sowing grain) (analogous period of the previous year = 100) |
| milk\_purchase\_price\_index | Milk buying-in price indices (analogous period of the previous year = 100) |
| production\_price\_energy\_index | Price indices of production sold in industry - in production and supply of electricity, gas, steam and hot water (analogous period of the previous year = 100) |
| production\_price\_water\_supply\_index | Price indices of sold production in industry - in water supply; sewage and waste management; reclamation (analogous period of the previous year = 100) |
| inflation | Price indices of consumer goods and services (analogous period of the previous year = 100) |
| inflation\_apartment\_usage | Price indices of consumer goods and services - flat or house occupancy and energy carriers (analogous period of the previous year = 100) |
| new\_flats | Flats put into use (pcs.) |
| economy\_index | Indicator of the general climate of the economic situation: construction |
| economy\_index\_real\_estate | Indicator of the general climate of the economic situation: real estate market services |

\* “green mortgages” – energy-saving mortgages, environmentally friendly houses with low CO2 emissions