analysis of Brazilian financial investment funds CVM - Escola Politécnica - PPGEE - PCS

A Data Management Plan created using DMPTool

Creators: Antonio Newton Licciardi Jr, Andhros Silva, Jefferson Mendonca

Affiliation: Non Partner Institution

Template: Department of Energy (DOE): Generic

Last modified: 11-20-2017

Copyright information:
The above plan creator(s) have agreed that others may use as much of the text of this plan as they would like in their own plans, and customize it as necessary. You do not need to credit the creator(s) as the source of the language used, but using any of the plan's text does not imply that the creator(s) endorse, or have any relationship to, your project or proposal.
Data types and sources

This DMP proposal encompass data provided by Brazilian Government site (dados.gov.br), in fact managed by CVM (**Comissão de Valores Mobiliários** - securities commission), on Brazilian financial investment funds. Data will be obtained from the database - data.gov.br: "http://dados.gov.br/dataset/fi-doc-inf_diario". Data are exposed on files type .csv. As the volume of data is relatively low (some MB per monthly file), so they will be imported as tables in Python environment (or alternatively R) for the interesting analysis on them.

Content and format

Input Datasets available by CVM on dados.gov.br - http://dados.gov.br/dataset/fi-doc-inf_diario are in .csv file and divided per month (since starting of 2017). The files available in this data set have the names (up to sep-2017):
- Informes Diários FI (Janeiro/2017)CSV - Fundos de Investimento ICVM 555 - Informes Diários (Janeiro/2017);
- Informes Diários FI (Fevereiro/2017)CSV - Fundos de Investimento ICVM 555 - Informes Diários (Fevereiro/2017);
- Informes Diários FI (Março/2017)CSV - Fundos de Investimento ICVM 555 - Informes Diários (Março/2017);
- Informes Diários FI (Abril/2017)CSV - Fundos de Investimento ICVM 555 - Informes Diários (Abril/2017);
- Informes Diários FI (Maio/2017)CSV - Fundos de Investimento ICVM 555 - Informes Diários (Maio/2017);
- Informes Diários FI (Junho/2017)CSV - Fundos de Investimento ICVM 555 - Informes Diários (Junho/2017);
- Informes Diários FI (Julho/2017)CSV - Fundos de Investimento ICVM 555 - Informes Diários (Setembro/2017);
- Informes Diários FI (Agosto/2017)CSV - Fundos de Investimento ICVM 555 - Informes Diários (Setembro/2017);
- Informes Diários FI (Setembro/2017)CSV - Fundos de Investimento ICVM 555 - Informes Diários (Setembro/2017);

The input dataset contains the following fund information (fields), related to the date of competence:

- Fund CNPJ (government public identification to it);
- Total value of the fund portfolio (alphanumeric);
- Date of competence (format AAAA-MM-DD);
- Net worth (numeric);
- Value of the quota (numeric);
- Captures carried out on the day (numeric);
- Redemptions paid on the day (numeric);
- Number of quota holders (numeric).

The output files will be stored in a public folder (from Microsoft Onedrive) in csv format where the 1st field will be the Fund CNPJ and the second one depending on the calculation done to the following questions proposed to analysis. Until now, to be know:

1. What are the ten largest active investment funds (with funding and redemption movements) in 2017 (considering the average monthly net worth)? Numeric - as lower, as larger.
2. What are the ten most profitable active investment funds (gross profitability accumulated) in 2017? Numeric - as lower, as higher.
3. What are the ten active investment funds with the largest number of (average) quota holders in 2017? Numeric - as lower, as larger.
4. What are the ten funds of lowest daily negative fluctuation of quota value in 2017? Numeric - as lower, as larger.
5. What are the ten active funds in 2017 in which the highest volume of redemption was realized (monthly average in R$)? Numeric - as lower, as higher.
6. What are the ten active funds in 2017 in which the highest funding volume (monthly average R $) was made? Numeric - as lower, as higher.

Sharing and preservation

Datasets to be analysed are publicly available on dados.gov.br from Brazilian government and maintained/updated by CVM. Answers
of study being proposed will be let public available as well in a OneDrive (Microsoft) are. Link will be complemented further in this template, when available.

**Protection**

Data will be preserved: input data based on policies from Brazilian Government (data.gov.br) and csv files to be used on analysis and its answers in an OneDrive (Microsoft) public area. For instance, there is no need for special confidential, intellectual, proprietary protection.

**Rationale**

Data analysed will be done public (for public access), as well dataset used (in csv format). Output Data should help to answer some research analytical questions, to be known:

1. What are the ten largest active investment funds (with funding and redemption movements) in 2017 (considering the average monthly net worth)?
2. What are the ten most profitable active investment funds (gross profitability accumulated) in 2017?
3. What are the ten active investment funds with the largest number of (average) quota holders in 2017?
4. What are the ten funds of lowest daily negative fluctuation of quota value in 2017?
5. What are the ten active funds in 2017 in which the highest volume of redemption was realized (monthly average in R$)?
6. What are the ten active funds in 2017 in which the highest funding volume (monthly average R$) was made?

Considering them, there are the intention to maintain datasets/answers public, allowing further and complementary prospections on analysis done, that will bring visibility to major questions done commonly by researchers in this area, even fund investors.

**Software & Codes**

Software, procedures and code to be used will be stored in OneDrive public area together csv files containing input and output datasets. Additional documentation on them (besides comments on code) will be provided to enable a good understanding on DMP established and Data usage.