



INCOME PROFILE GEOLOCATION

DATAWISE Dashboards

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1 PRODUCT DESCRIPTION WITHIN THE DATAWISE SERVICE

The DATAWISE product was created by B3 with the aim of helping its clients in strategic decisions consolidating various reliable and/or sensitive data in the form of interactive dashboards (DATAWISE Dashboard) and reports (DATAWISE Reports). It should be noted that as stated in the Commercial Policy, the DATAWISE service does not allow the distribution or redistribution of data.

Each of these modules can be contracted separately as well as their products (individual dashboards and reports), according to the client's intention. Through the interactive panels it's possible analyze the behavior of stocks (BOVESPA), derivatives and stock futures (BMF) and rental of stocks (BTB) with DATAWISE Dashboards. Already in DATAWISE Reports you can analyze trading and post-trade asset data, mainly from the OTC market thought reports with raw data (Data Report) or worked reports (Market Report).

In this manual we will show the Income Profile Geolocation dashboard layout, data and filters contained in the DATAWISE Dashboard module.

2 DASHBOARD DESCRIPTION

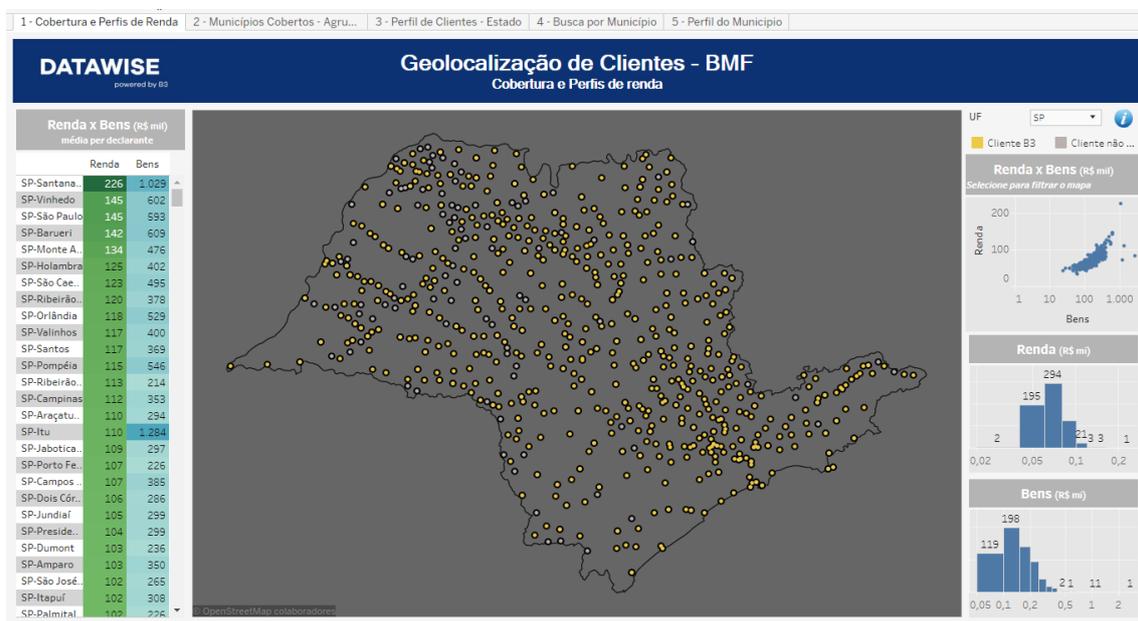
The Income Profile Geolocation dashboard allows you to assess the regions of Brazil, up to the municipality level, to understand how the local investment level is and cross-reference it with income data.

Data are also divided between States, in addition to municipalities. Next to the division, there are panels that generate groupings based on shares and financial volume invested (median in both cases).

The Income Profile Geolocation dashboard features 8 interactive dashboards and views are divided into B3 markets – BM&F (futures and derivatives), BOVESPA (Variable Income) and BTB (Asset Lending).

IR statement taken into account in vision is 2 years back normally.

2.1 Coverage and Income Profile by City



The panel aims to inform the user of the average economic profile of the population of deponents by municipality of the selected Federative Units.

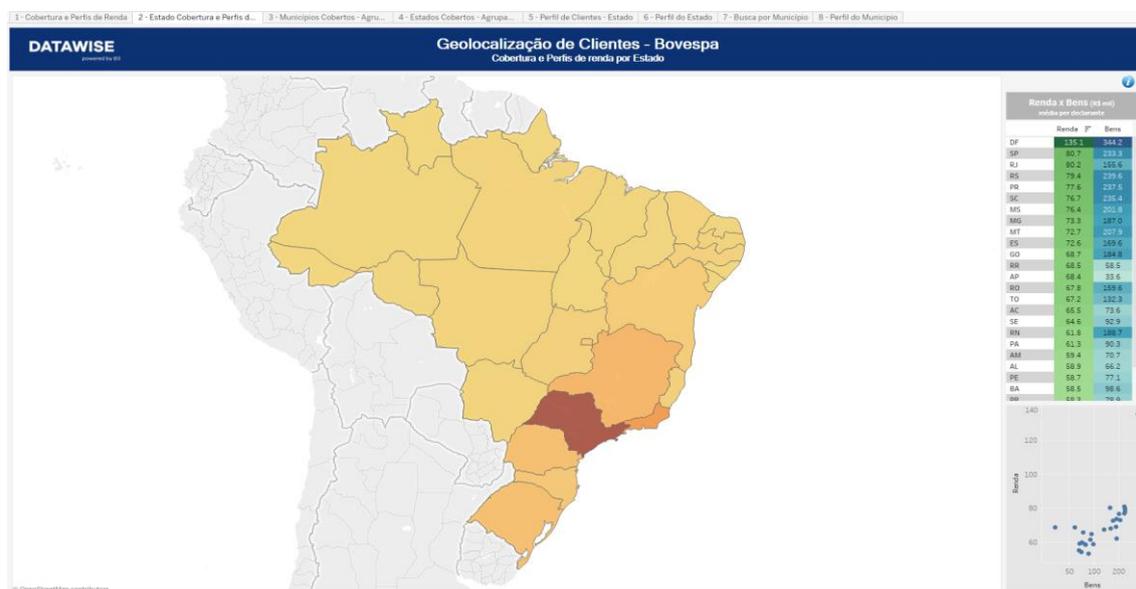
The consolidated metrics of the municipality are presented in the table "Income x Declared Assets and Rights", which show, respectively, the average of income and declared assets per declarant.

The profile of the Federative Units is described by the scatterplots and histograms of the "Income" and "Assets and Rights" metrics, in which it is possible to visualize the correspondence between the municipalities. It is worth noting that when passing the cursor over the histogram, it is possible to identify municipalities that have similar characteristics.

The map has interactive tool tips, which provide additional information on volumes traded on B3, and segregate by color the municipalities that have B3 clients from the others.

Consolidated Assets and Income information by municipality extracted from the open database of the Large Numbers of the Federal Revenue. Calendar Year 2016. More information at <http://idg.receita.fazenda.gov.br>.

2.2 Coverage and Income Profile by State



The panel aims to inform the user of the average economic profile of the population of deponents by municipality of the selected Federative Units.

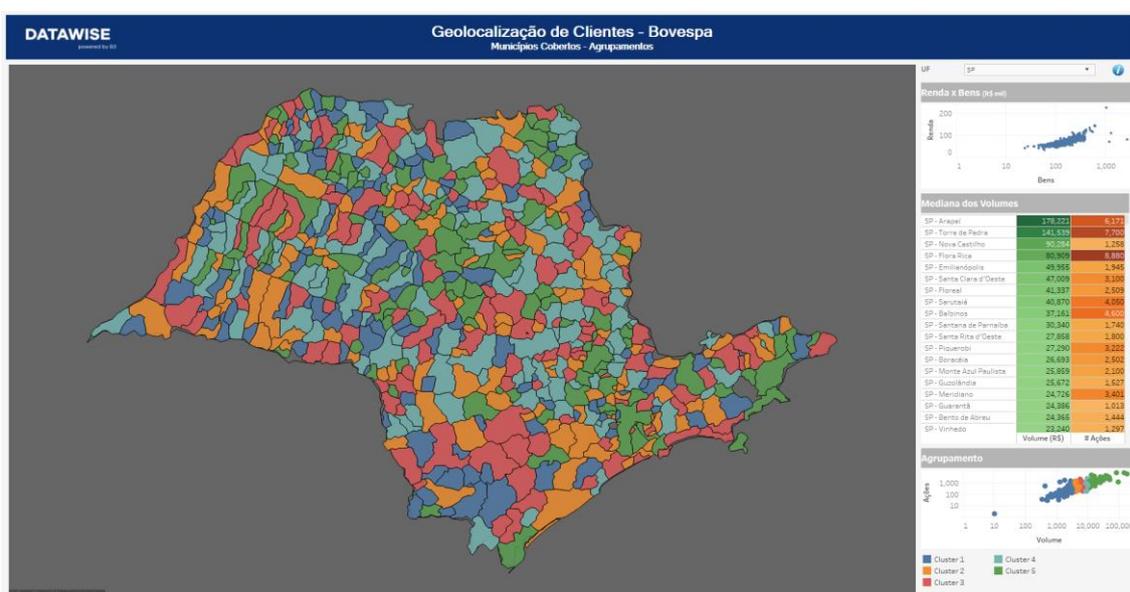
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Consolidated Assets and Income information by municipality are extracted from the open database of the Large Numbers of the Federal Revenue. Calendar Year 2016. More information at <http://idg.receita.fazenda.gov.br>.

2.3 Covered Cities – Clustered



The objective of this vision is to differentiate the covered municipalities according to the trading volumes.

Volumes per Investor (median)

The metric chosen is the median of the trading volumes of individual investors in the municipality in the last 6 months.

Groupings

The grouping criterion used is the division of the median of negotiated contracts.

The municipalities are divided into 5 Clusters divided by the 20%, 40%, 60% and 80% percentiles.

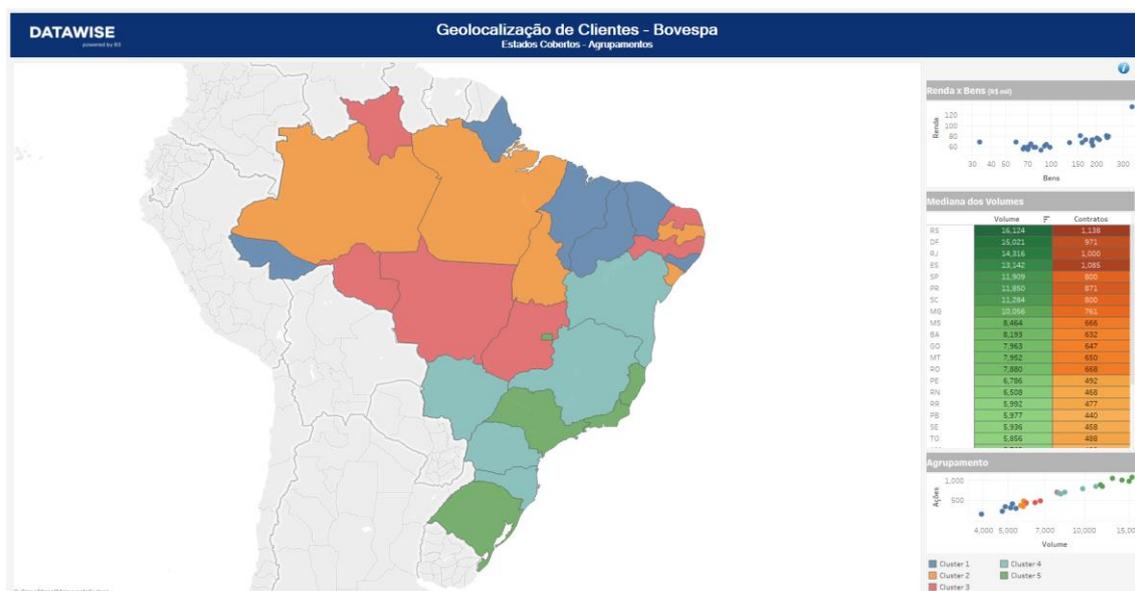
Clusters can be highlighted on the scatter and on the map by clicking on the legend.

More detailed information for each municipality can be obtained either through the "Volumes per Investor" table, or through the tool tips on the map.

By clicking on any mark on the map, a link is generated that directs you to another panel containing more detailed information about the municipality.

Consolidated Assets and Income information by Municipality are extracted from the open database of the Large Numbers of the Internal Revenue Service. Calendar Year 2016. More information at <http://idg.receita.fazenda.gov.br>.

2.4 Covered States – Clustered



The objective of this vision is to differentiate the covered municipalities according to the trading volumes.

Volumes per Investor (median):

The metric chosen is the median of the trading volumes of individual investors in the municipality in the last 6 months.

Groupings:

The grouping criterion used is the division of the median of negotiated contracts.

The municipalities are divided into 5 Clusters divided by the 20%, 40%, 60% and 80% percentiles.

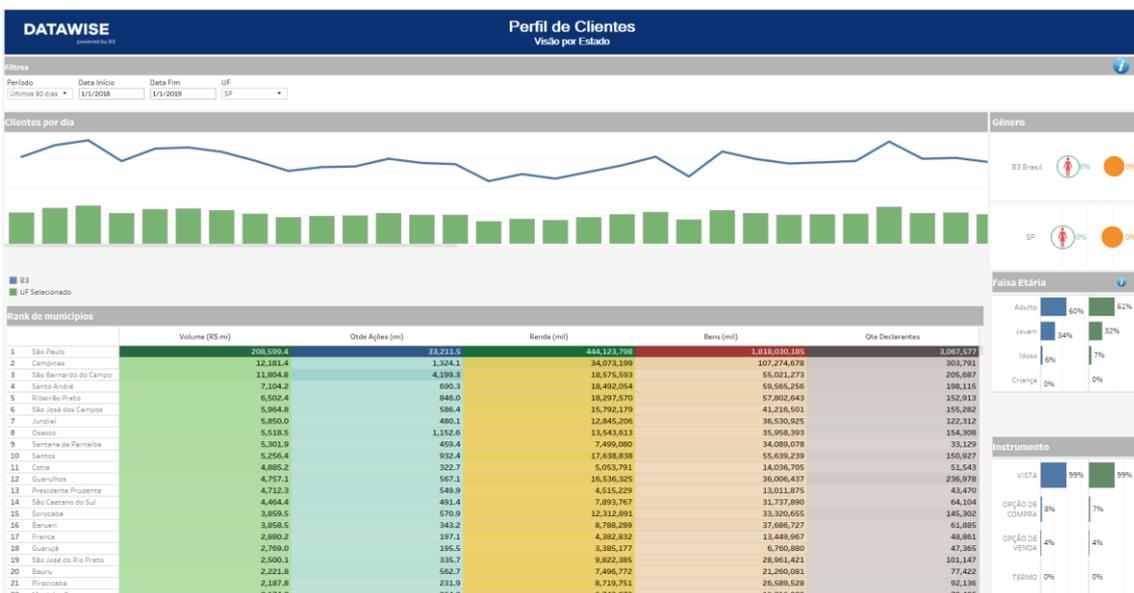
Clusters can be highlighted on the scatter and on the map by clicking on the legend.

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By clicking on any mark on the map, a link is generated that directs you to another panel containing more detailed information about the municipality.

Consolidated Assets and Income information by Municipality are extracted from the open database of the Large Numbers of the Internal Revenue Service. Calendar Year 2016. More information at <http://idg.receita.fazenda.gov.br>.

2.5 Clients Profile – State

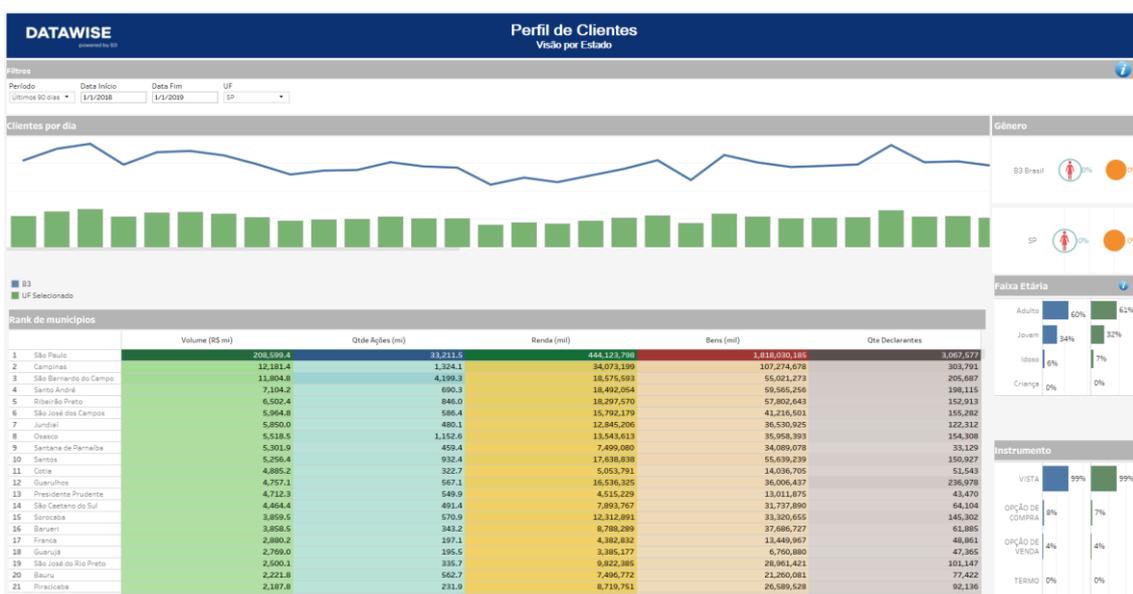


The dashboard displays the investor profile of municipalities in a given state. Such profiles are presented against the profile of B3 investors in terms of

gender, age group, traded instrument, and municipalities in that same state will be ranked by volume.

There is another view that presents the number of investors who traded on B3 over time, where the time series has a day step and, when passing the cursor in the series, the day and the number of investors are displayed.

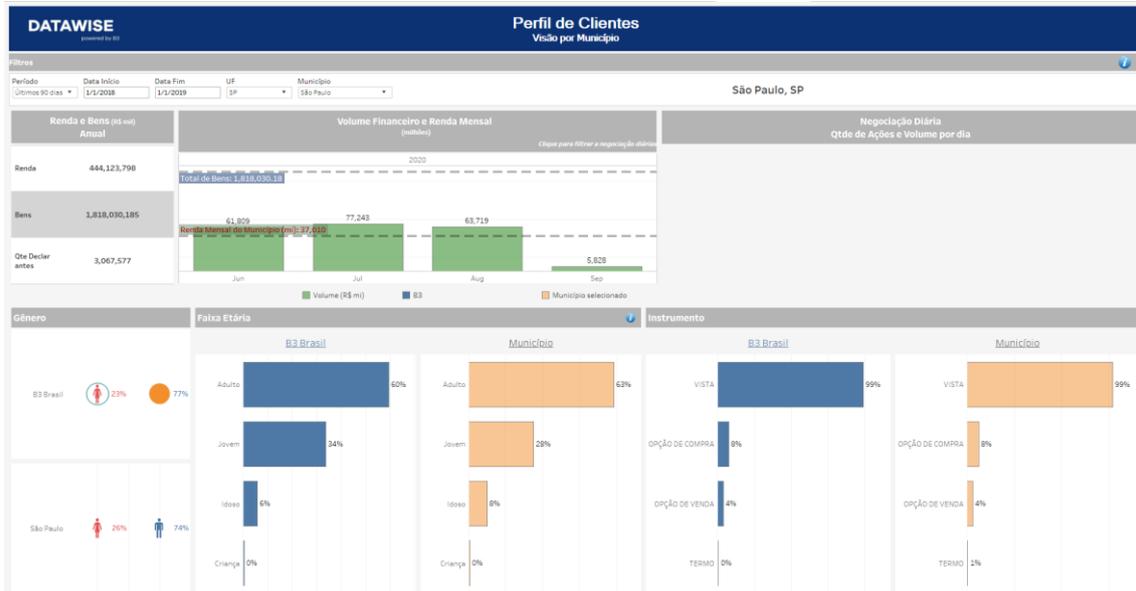
2.6 Clients Profile by State



The dashboard displays the investor profile of municipalities in a given state. Such profiles are presented against the profile of B3 investors in terms of gender, age group, traded instrument, and municipalities in that same state will be ranked by volume.

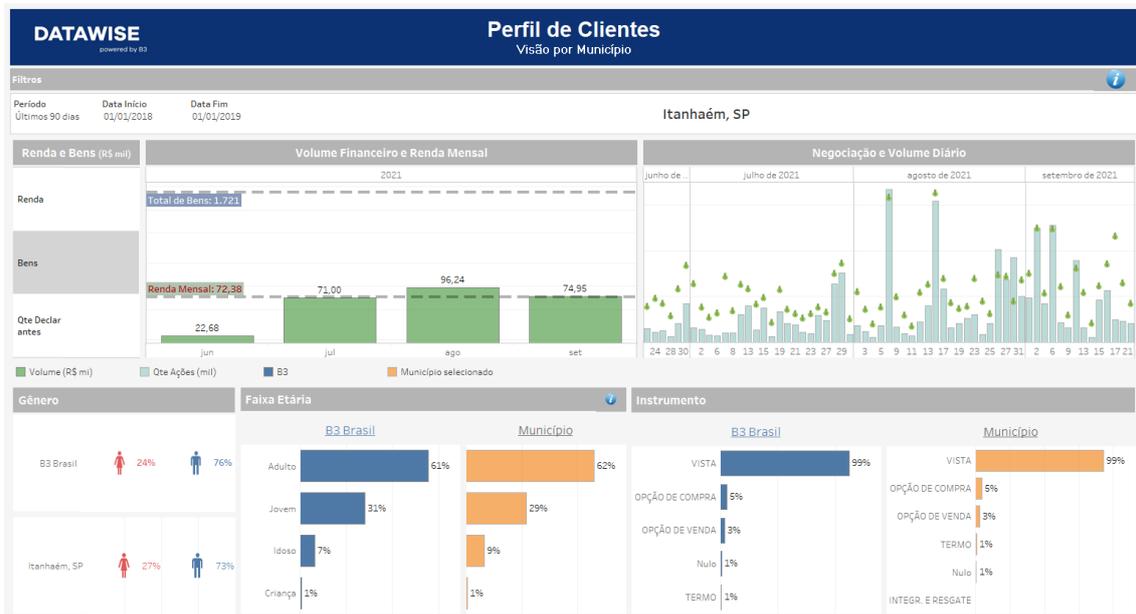
There is another view that presents the number of investors who traded on B3 over time, where the time series has a day step and, when passing the cursor in the series, the day and the number of investors are displayed.

2.7 Clients Profile – City Vision



In this dashboard, it is possible to extract information from the profiles of investors in this municipality against the investor in B3, in terms of gender, age group and Instrument traded. There is also a time series that shows the financial volume and number of contacts traded on a daily basis on B3. More details about the metrics are seen in the tooltips for this time series.

2.8 Search by City



Through the links arranged in the tool tips on the maps. In it, it is possible to extract information from the profiles of investors in this municipality against the B3 investor, in terms of gender, age and negotiated instrument. There is also a time series that shows the financial volume and number of contacts traded on a daily basis on B3. More details about the metrics are seen in the tooltips for this time series.

The information is displayed when the tooltip link for the 'Coverage and Income Profiles' and 'Covered Municipalities - Clusters' panels is triggered.

3 FILTERS

3.1 Period

Period
Last 30 days

Period – Choose a period between August 28, 2017 and the last date which will be between T-2 or T-3.

When choosing the **date selection** option in the period filter it allows users to choose start date and end date.

Start Date End Date
02/01/2019 02/01/2019

When choosing the **last 30 days** option it will display data from the last 30 calendar days.

3.2 Federative Unit

UF
(Tudo)

It is possible to select geographic regions at the state level such as SP, RJ BA, GO, MT, among others.

4 SPECIFIC FILTERS FOR EACH PANEL

In the Covered Municipalities and Covered States panels there are specific filters as we can see below:

4.1 Coverage and Income Profile by City

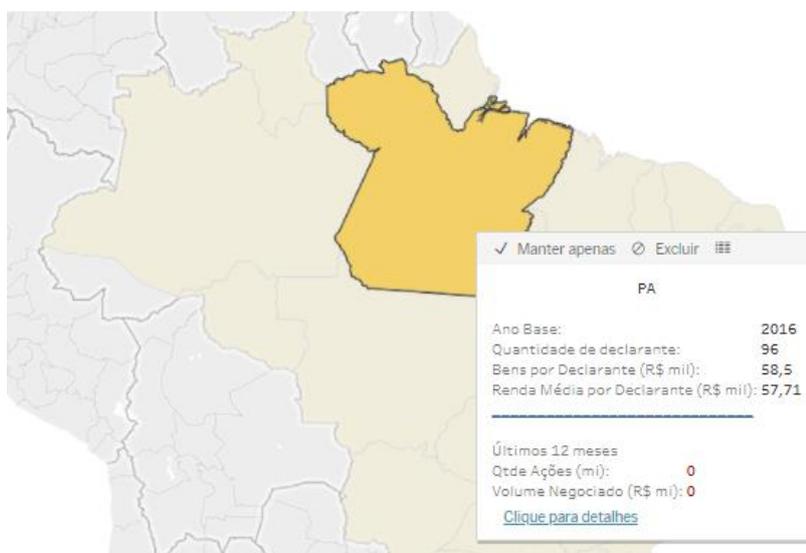
In addition to the Federative Unit selection filter, it is possible to filter the information by interacting with the panels and to select more than one piece of information, just press the CTRL key and, to undo it, click on the selected items.

It is worth noting that the main map of this panel has interactivity with the Municipality Profile (8), thus the information on panel 8 will change after clicking on the region you want to filter and selecting "Click to detail the municipality" as we can see below:



4.2 Coverage and Income Profile by State

The same mechanism as the panels above works for the Covered States and Income Profiles Panel (2) and the State Profile (6), in which the filtered information in the main panel can be opened in more detail in panel 6 by selecting the option “Click to detail”.



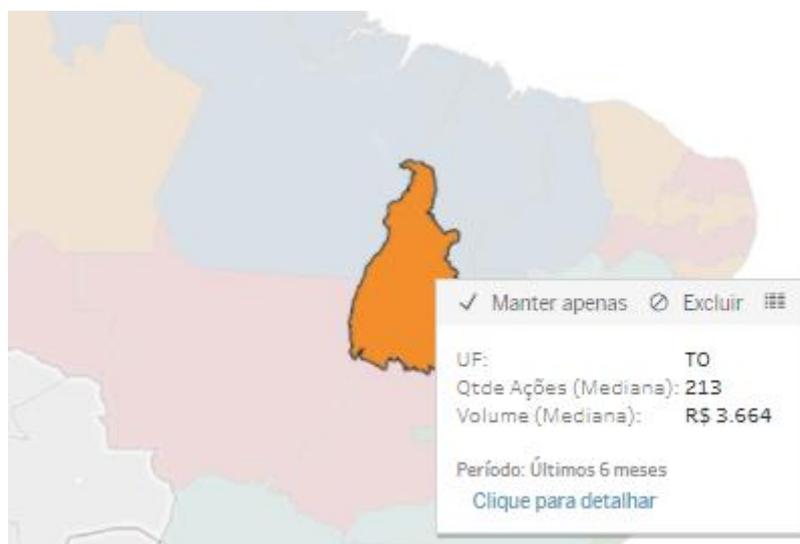
4.3 Covered Cities – Clustered

The same mechanism of the panels above works for the Covered Municipalities Panel (3) and the Municipality Profile (8), in which the filtered information in the main panel can be opened with more details in panel 8 by selecting the “Click to drill down” option .



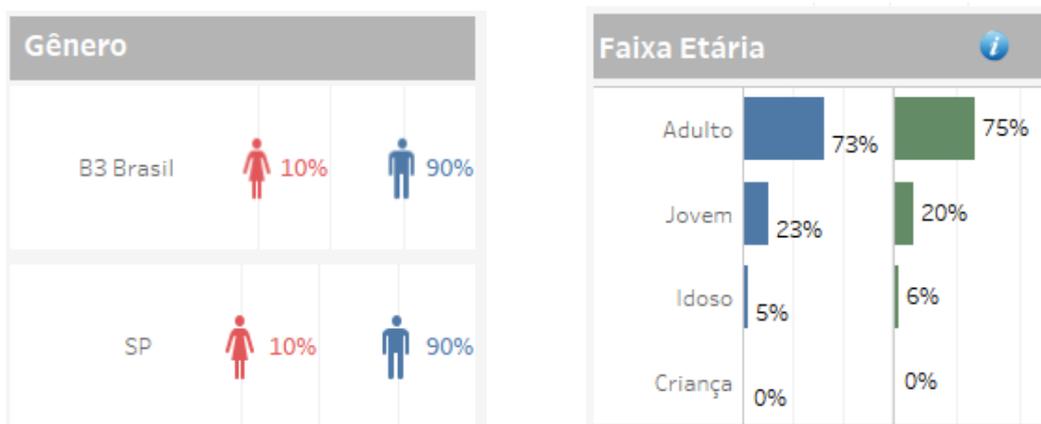
4.4 Covered State – Clustered

The same mechanism of the panels above works for the Covered States Panel (4) and the Status Profile (6), in which the filtered information in the main panel can be opened with more details in panel 6 by selecting the option “Click to drill down”.



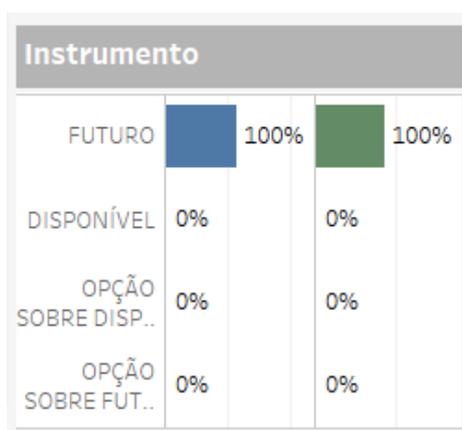
5 METRICS

5.1 Investor profile



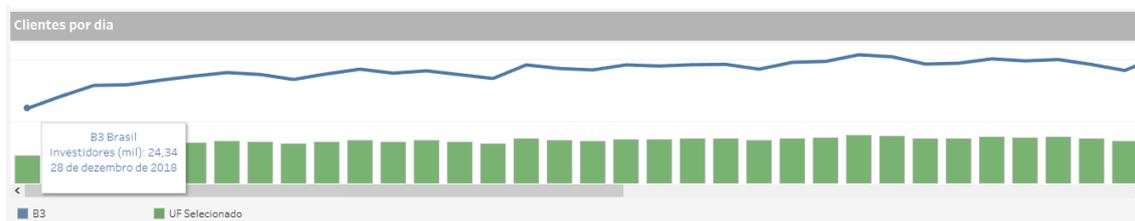
In gender, the profile of B3 Brasil people is related to the gender of investors in the Bovespa segment, while that of the comparison will be from the selected state.

The same is true for the age group, in which the right will be in relation to investors in the Bovespa segment, while the left will be from the selected state.



In instrument, it is possible to check the distribution of instruments traded by all investors in Brazil on the right and the distribution of instruments traded by investors in the selected state on the left.

5.2 Customer per day



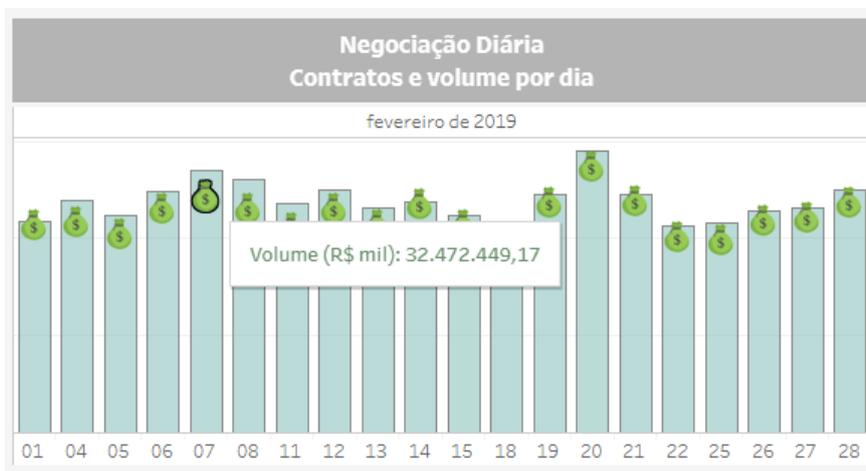
In this table, it is possible to check the number of investors by trading date. The blue line shows data on the total number of investors in Brazil, while the green bars refer to the selected state. In the example above, there were approximately 24 thousand investors on 12/28/2018.

5.3 Income and goods

Renda e Bens	
Renda	444.123.798
Bens	1.818.030.185
Qte Declar antes	3.067.577

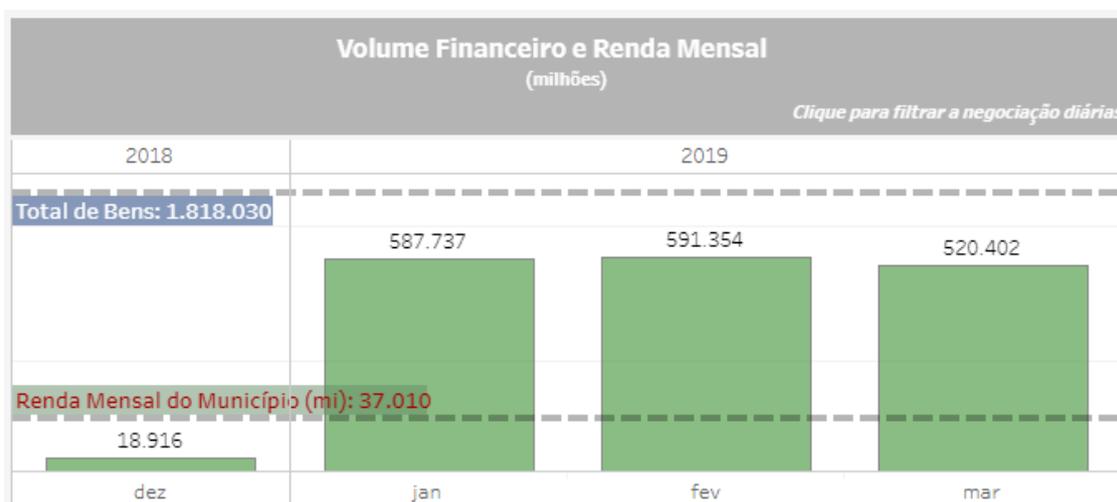
In income, we were able to verify the total income declared in the municipality in thousands, while in goods, we were able to verify the total declared assets in the municipality.

5.4 Daily Trading



It will be able to analyze the city's daily trading data, for example, on February 7th, the city of São Paulo registered 32 billion 472 million financial volume traded.

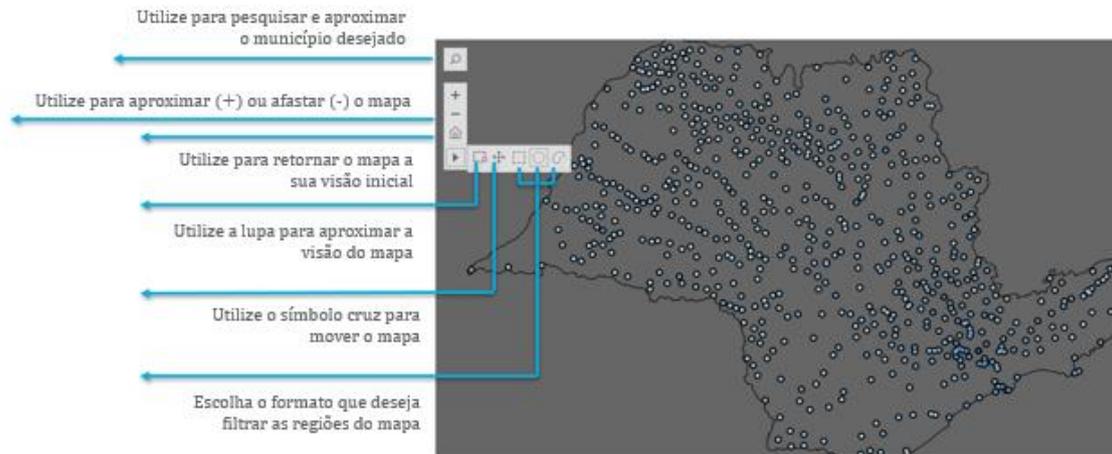
5.5 Financial Volume and Monthly Income



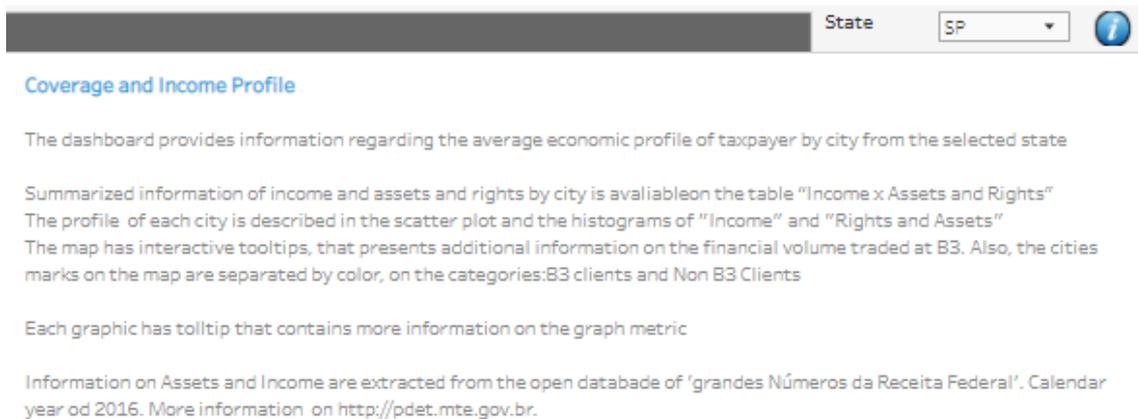
It will be able to analyze the total of declared goods in the city of São Paulo was 1 trillion 818 million and monthly income of 37 billion, for example, in the month of January, the city registered a total of 587 billion 737 million of traded volume.

6 FINAL CONSIDERATIONS

Regarding the use of the map, each button has its functionality as shown in the image below:



Regarding the symbol on the dashboards, hovering over it will open a dialog box where there will be additional information about a certain spreadsheet, chart, among other information, as shown in the image below:



7 SERVICE TEAMS

Take a major step and optimize your decision making. Explore our products. If you have any query, talk to our team.

Any query? Talk to us

DATAWISE Sale: produtosdedados@b3.com.br

Contracting: contratacao@b3.com.br

Technical Support: dataservices@b3.com.br