

Comparative Study of Countries

Submission By:

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Tableau Project Link:

https://public.tableau.com/app/profile/gina.chee/viz/Project1_ComparativeStudiesofDifferentCountries/Dashboard1?publish=yes

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Task Description

You are a data analyst working for an insurance company. The company is expanding and wants to open new branches in various parts of the world. Your task is to compare various parameters such as income, life insurance share, market share, penetration, ratio of reinsurance accepted, and retention ratio of different countries using the sample insurance dataset and world development indicators dataset

Task Objective

Create a dashboard to compare all the parameters mentioned above for different countries, to strategize market penetration and to target new customers.

Datasets

1. Primary Dataset – Insurance Sample Dataset
2. Secondary Dataset – Global Financial Development Database

Data Cleaning

1. Changing “year” type from number type to date type for both primary and secondary dataset

Fields			
Type	Field Name	Phys...	Rem...
⊕	Country Code	Insura...	Count...
⊕	Country	Insura...	Country
#	Year	Insura...	Year
#	Life insurance share	Insura...	Life in...

Fields			
Type	Field Name	Phys...	Rem...
⊕	Country Code	Insura...	Count...
⊕	Country	Insura...	Country
🕒	Year	Insura...	Year
#	Life insurance share	Insura...	Life in...

Workflow Process

1. Add and connect both primary and secondary dataset into Tableau
2. Data Cleaning

i. Map Sheet

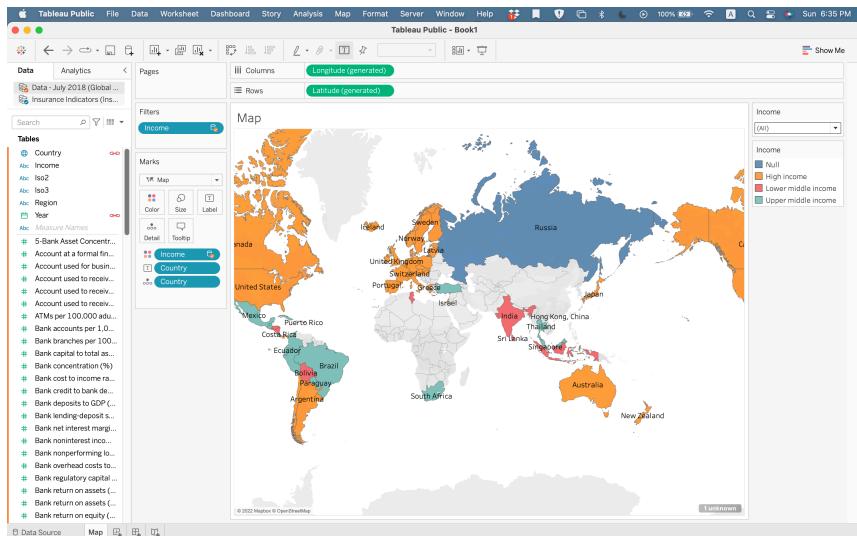
1. Create a Map Sheet

a. Drag

- i. **Longitude** (from primary dataset) to Columns
- ii. **Latitude** (from primary dataset) to Rows
- iii. **Country** (from primary dataset) to Details and Text Marks card
- iv. **Income** (from secondary dataset) to Colors Marks card

b. Show **Income** Filter to the right pane

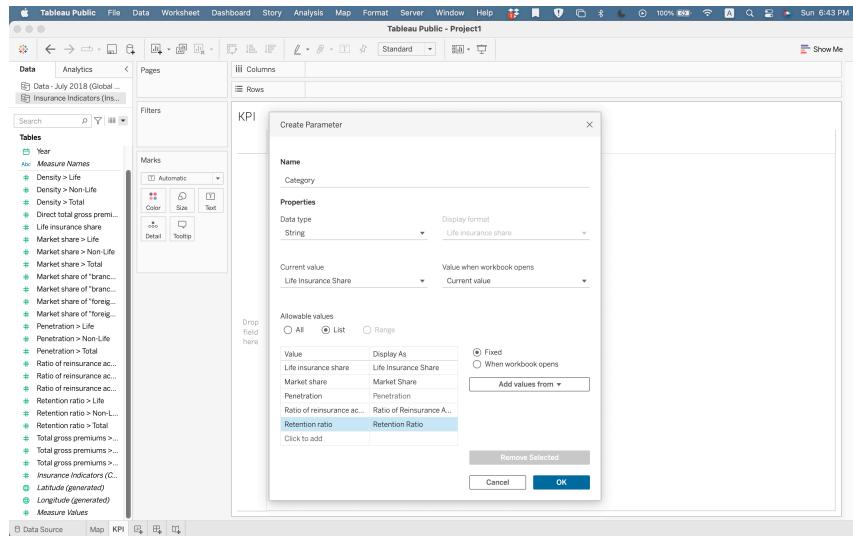
Finalized Map Sheet:



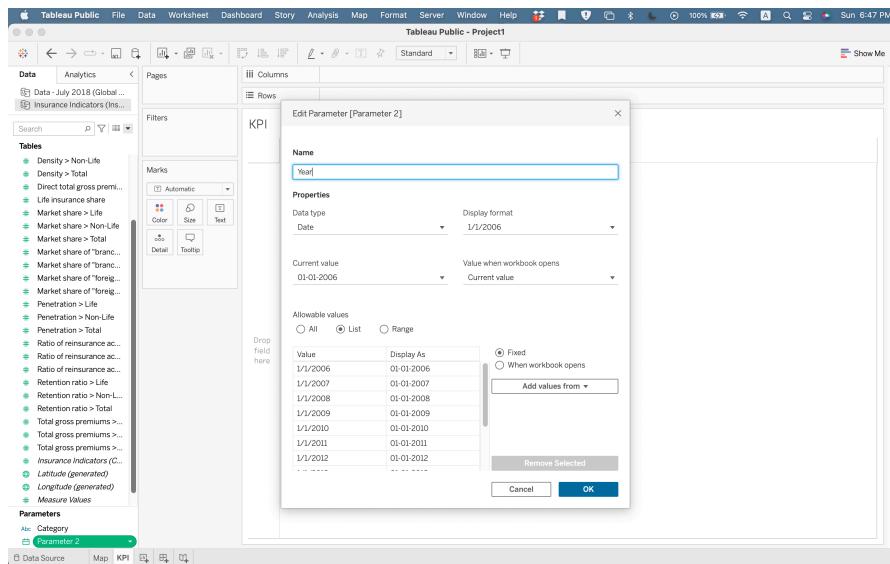
ii. KPI Sheet

1. Create a KPI Sheet

a. Create Category Parameter



b. Create Year Parameter



c. Create Category Calculated Field to make Category Parameter interactive. All 5 selection to be reflected –

- i. Life Insurance Share
- ii. Market Share
- iii. Penetration
- iv. Ratio of Reinsurance Accepted
- v. Retention Ratio

The screenshot shows the Tableau Calculated Field dialog for a 'Category Field'. The formula is:

```
CASE [Category]
WHEN 'Life insurance share' THEN [Life insurance share]
WHEN 'Market share' THEN [Market share > Total]
WHEN 'Penetration' THEN [Penetration > Total]
WHEN 'Ratio of reinsurance accepted' THEN [Ratio of reinsurance accepted > T]
WHEN 'Retention ratio' THEN [Retention ratio > Total]
END
```

The right pane displays the 'CASE' function documentation, which states: 'Finds the first <value> that matches <expr> and returns the corresponding <return>.' An example is provided: CASE [RomanNumeral] WHEN 'I' THEN 1 WHEN 'II' THEN 2 ELSE 3 END.

The status bar at the bottom left says 'The calculation is valid.' Buttons for 'Apply' and 'OK' are at the bottom right.

d. Create various Calculated Fields

- Create **Current Year** calculation field to show the total earnings of the current year (selected on the right pane) of the different categories under **Category Parameter**

The screenshot shows the Tableau Calculated Field dialog for a 'Current Year' field. The formula is:

```
IF YEAR([Year])=YEAR([Select Year])
THEN [Category Values]
END
```

The right pane displays the 'ABS' function documentation, which states: 'Returns the absolute value of the given number.' An example is provided: ABS(-7) = 7.

The status bar at the bottom left says 'The calculation is valid.' Buttons for 'Apply' and 'OK' are at the bottom right.

- Create **Previous Year** calculation field to show the total earnings of the previous year (depending on the selected year on the right pane) of the different categories under **Category Parameter**

The screenshot shows the Tableau Calculated Field dialog for a 'Previous Year' field. The formula is:

```
IF YEAR([Year])=YEAR([Select Year]-1)
THEN [Category Values]
END
```

The right pane displays the 'ABS' function documentation, which states: 'Returns the absolute value of the given number.' An example is provided: ABS(-7) = 7.

The status bar at the bottom left says 'The calculation is valid.' Buttons for 'Apply' and 'OK' are at the bottom right.

- Create **Current Year %** calculated field to calculate earnings of the different categories depending on the year selected in the right pane

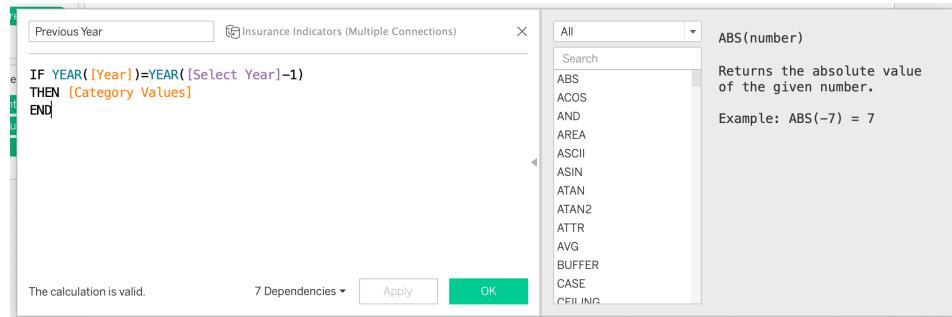
The screenshot shows the Tableau Calculated Field dialog for a 'Current Year %' field. The formula is:

```
Totals summarize values from Table (across).
SUM([Current Year])/TOTAL(SUM([Category Values]))
```

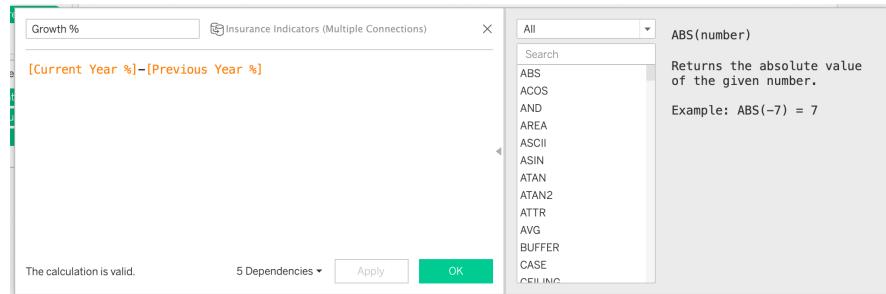
The right pane displays the 'ABS' function documentation, which states: 'Returns the absolute value of the given number.' An example is provided: ABS(-7) = 7.

The status bar at the bottom left says 'The calculation is valid.' Buttons for 'Apply' and 'OK' are at the bottom right.

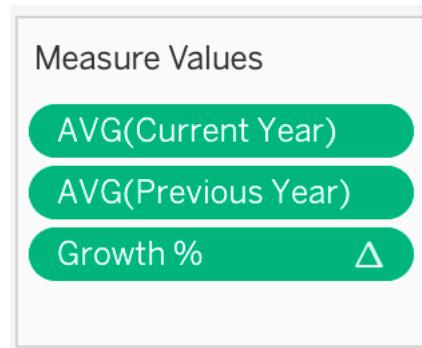
- iv. Create Previous Year % calculated field to calculate earnings of the different categories of the previous year depending on the year selected in the right pane



- v. Create Growth % calculated field to calculate the total growth percentage of the different categories from the previous year to the current year

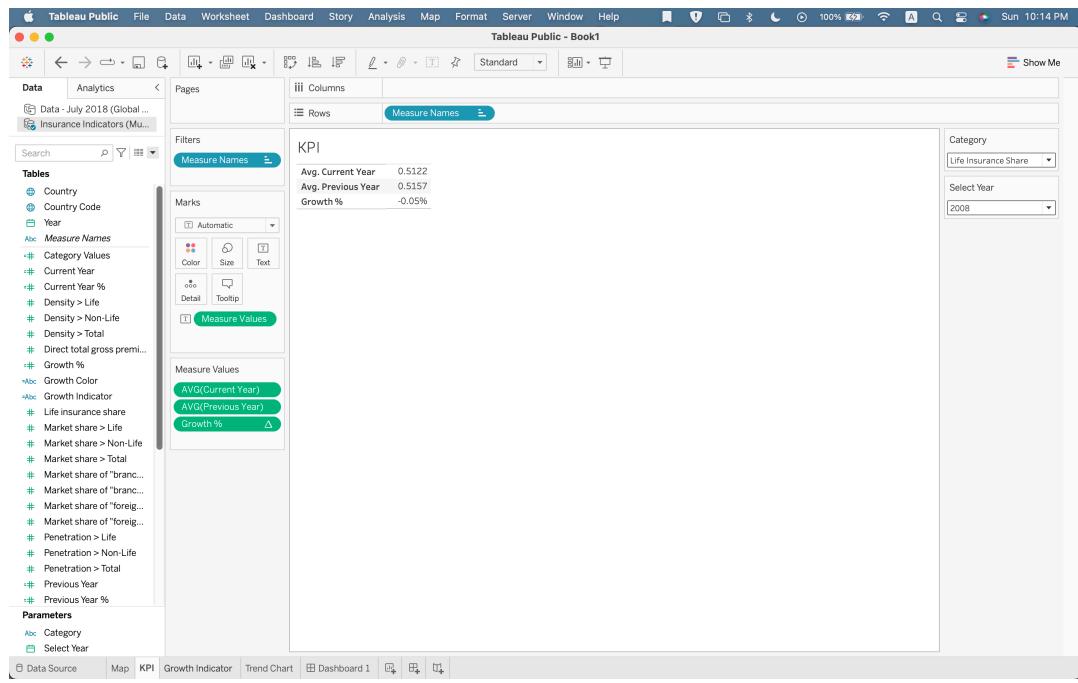


- vi. Change the measure from “Sum” to “Average” for both the current and the previous year calculation field



- vii. Drag Measure Names to Rows and Measure Values to Text Marks Card

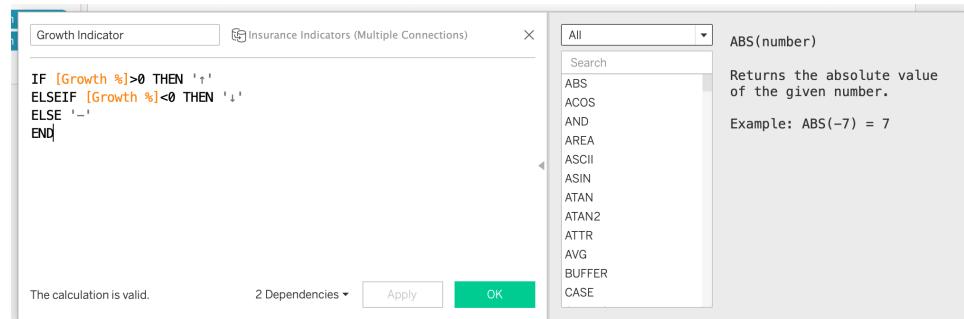
Finalized KPI Sheet:



iii. Growth Indicator Sheet

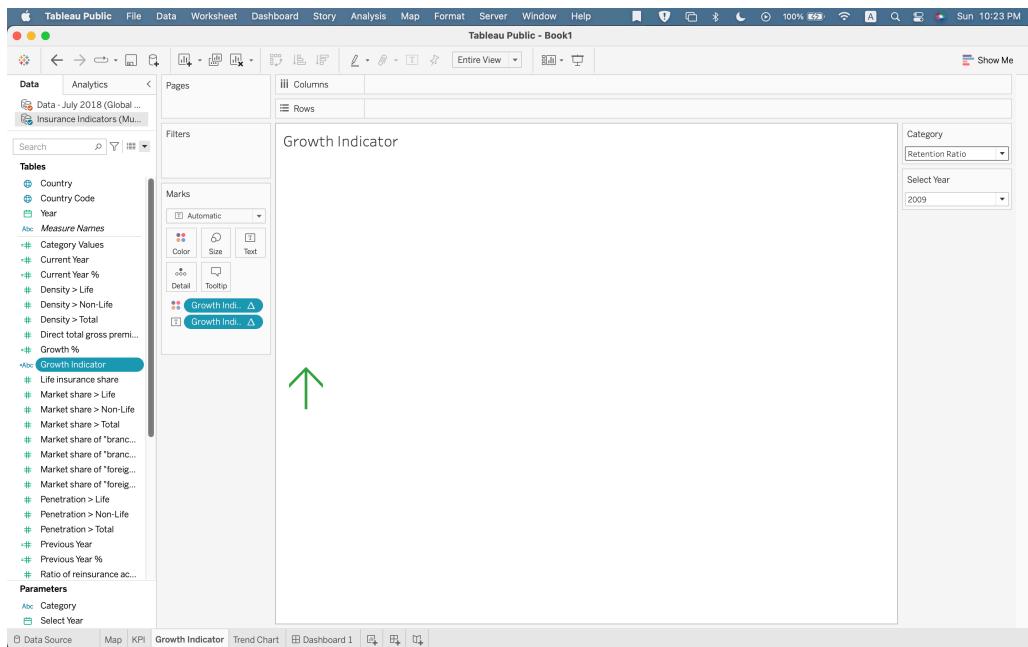
1. Create a Growth Indicator Sheet

- Create a “**Growth Indicator**” calculated field to show the indicators if growth is neutral, positive or negative for the selected year compared to the previous year



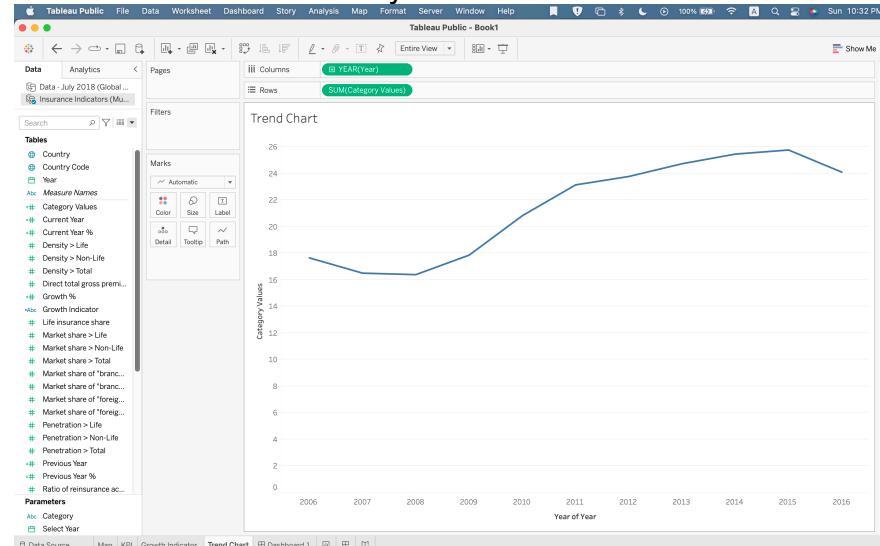
- Drag **Growth Indicator** calculated field to Colors and Text Mark cards

Finalized Growth Indicator Sheet

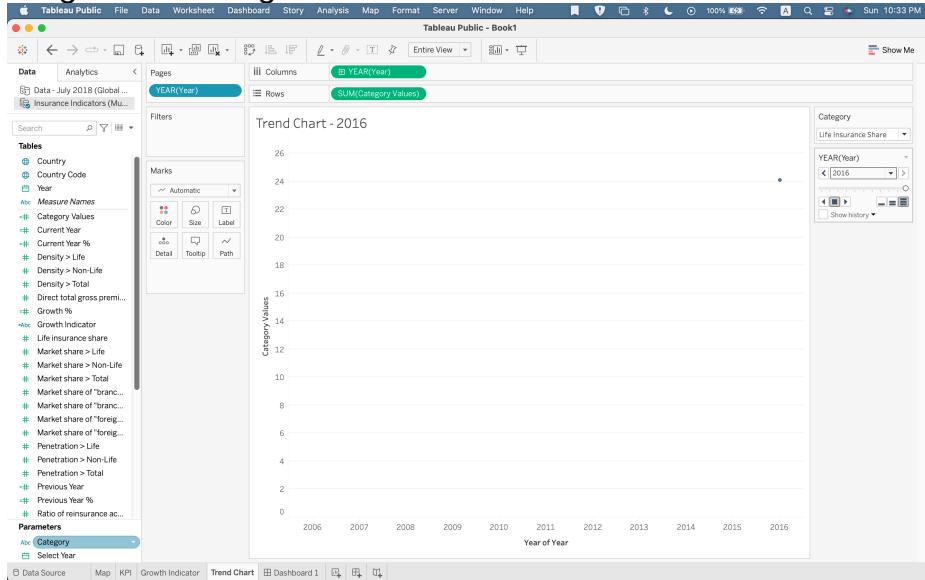


iv. Trend Chart

1. Drag “Year” to Columns and “Category Values” calculated field to Rows
2. Drag “Year” to Pages section
3. Line chart will automatically be reflected

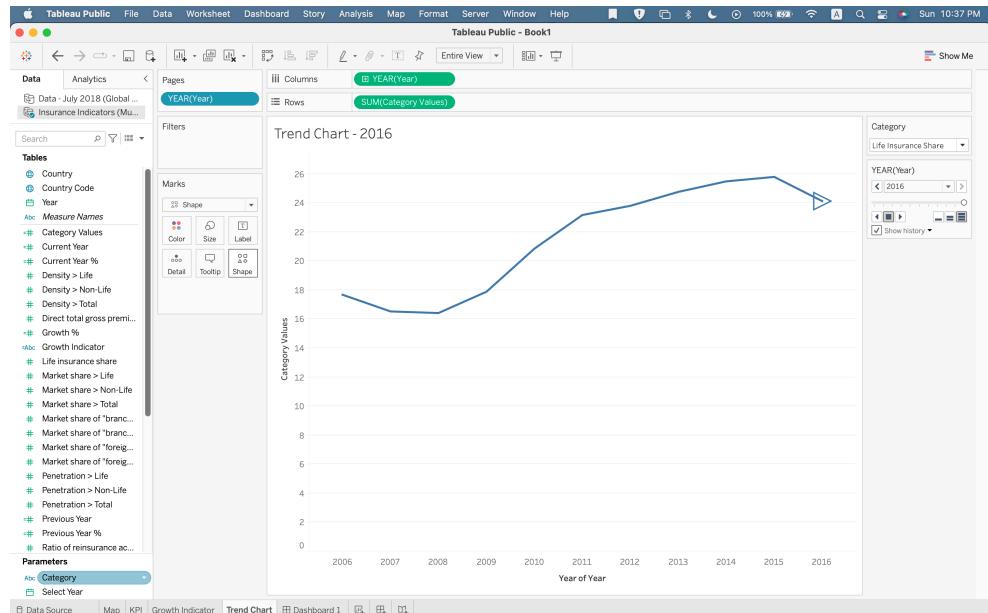


4. Drag "Year" to Pages Section



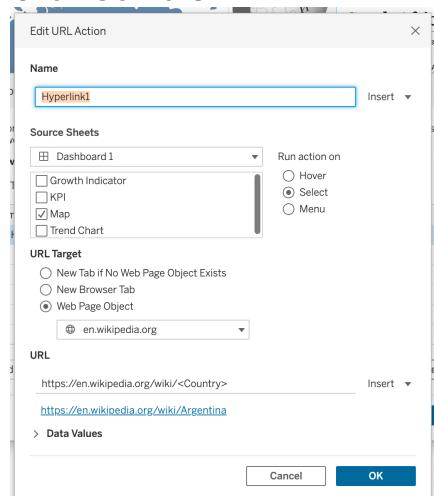
5. Change the Marks card type to “Shape” and add a triangle shape
6. Tick “Show History” and show the “Trails” to see the changes through the years depending on the selected category
7. In the Menu

Finalized Trend Chart Sheet

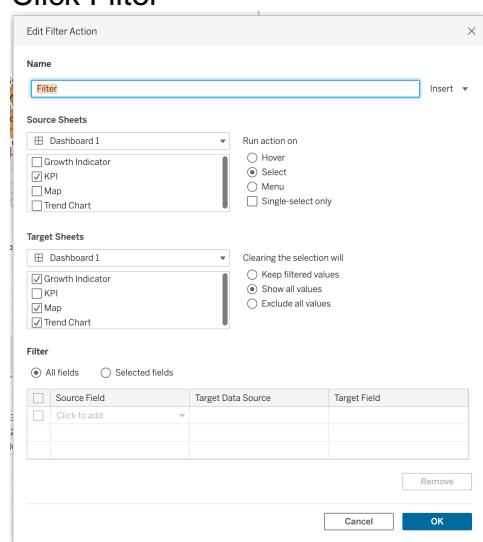


Create a Dashboard

1. Change the dashboard size to “Automatic”
2. Insert the Horizontal Object to the Dashboard canvas
3. Drag the following to the Dashboard canvas
 - a. Map Sheet
 - b. Web Page object and key in URL
https://en.wikipedia.org/wiki/Main_Page
 - c. KPI Sheet
 - d. Growth Indicator Sheet
 - e. Trend Chart Sheet
4. Link the Geographic Map to the Wikipedia. Whenever a country is selected, the country Wikipedia will be reflected in the Wikipedia web page object
 - a. In the menu bar, click Dashboard
 - b. Click Actions
 - c. Click Add Actions
 - d. Click Go To URL



5. Add a filter action to make the dashboard dynamic
 - a. In the menu bar, click Dashboard
 - b. Click Actions
 - c. Click Add Actions
 - d. Click Filter



Finalize Dashboard View

Geographic Map

WIKIPEDIA

Trend Chart - 2016

Objects

- Horizontal
- Vertical
- Text
- Image
- Web Page
- Data Story
- Blank
- Navigation
- Download
- Extension
- Ask Data

KPI

Avg. Current Year	0.5103
Avg. Previous Year	0.5122
Growth %	0.62%

Growth Indicator

Category Values

Year of Year	Category Values
2007	~18
2009	~19
2011	~20
2013	~21
2015	~22

Income

- (All)
- Null
- High income
- Lower middle income
- Upper middle income

Category

Select Year

Year of Year

Show History