Travel Score

Open Data for Tourists

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Motivation

Ranking Travel Destinations by Attractivity

There are 35 American countries.

- Where can go as a tourist?
  - ▸ Is it safe?
  - ▸ How affordable is it?
  - ▸ What is there to do?

North America
South America

Can we answer these questions using open data?

Open Data to the rescue?

Travel & Tourism Datasets

- High quality T&T datasets do exist
  - But they are not open

- Open datasets do exist
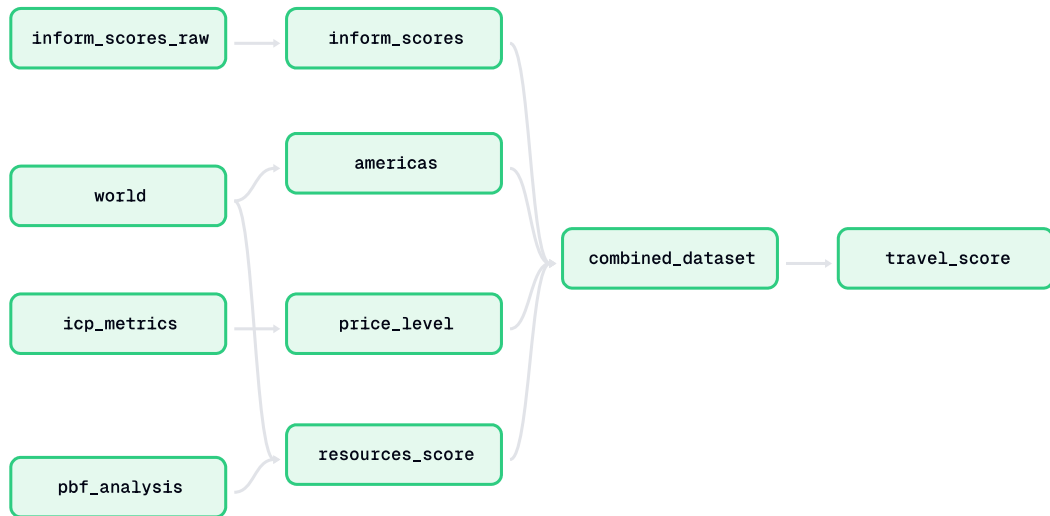 - But they are not directly about T&T

Data Processing

Travel-related Data Sources

Data source	License
Inform Risk Index	CC-BY 4.0
International Comparison Program	CC-BY 4.0
OpenStreetMap	ODbL
Natural Earth	PD

Data Pipeline

inform_scores_raw → inform_scores

world → americas

icp_metrics → price_level

pbf_analysis → resources_score

combined_dataset → travel_score

Combined Dataset

iso	name	continent	geometry	inform risk index	lack of coping capacity	lack of coping capacity (infrastructure)	lack of coping capacity (institutional)	hazard & exposure	hazard & exposure (human)	
VEN	Venezuela	South America	*MultiPolygon*	5.6	5	4.4	5.6	5.5	5.1	
URY	Uruguay	South America	*Polygon*	2.3	2.5	1.4	3.5	1.3	0.1	
USA	United States of America	North America	*MultiPolygon*	3	2	1.1	2.9	4.4	0.3	
TTO	Trinidad and Tobago	North America	*MultiPolygon*	2.8	3.4	1.3	5	2	0.1	
SUR	Suriname	South America	*Polygon*	3.1	5.3	3.7	6.5	1.8	0.1	

Full dataset contains 35 rows and 89 columns

Benchmarking against TTDI
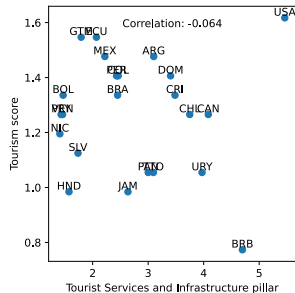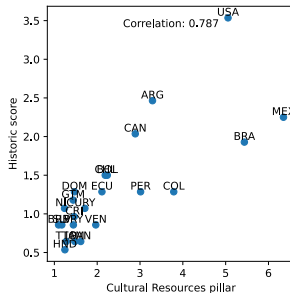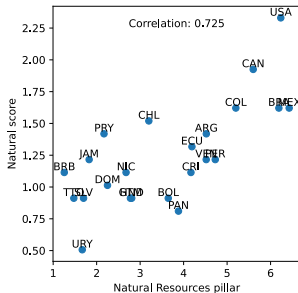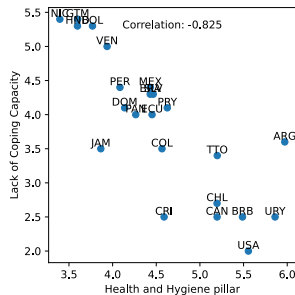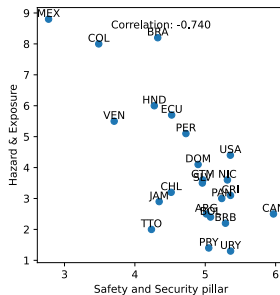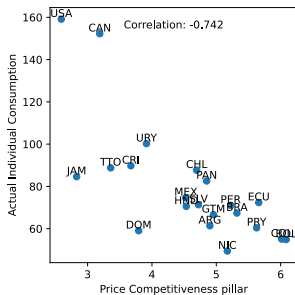
Travel Score Calculation

$$\text{travel score} = \text{safety} \cdot \text{affordability} \cdot \text{attractiveness}$$
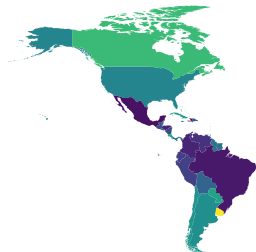
risk factors

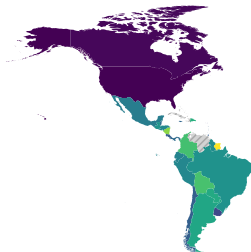price level of consumption

natural, historic & touristic resources
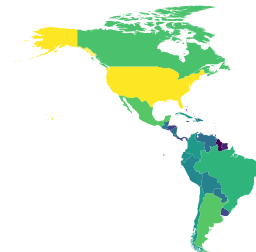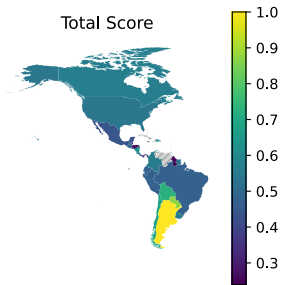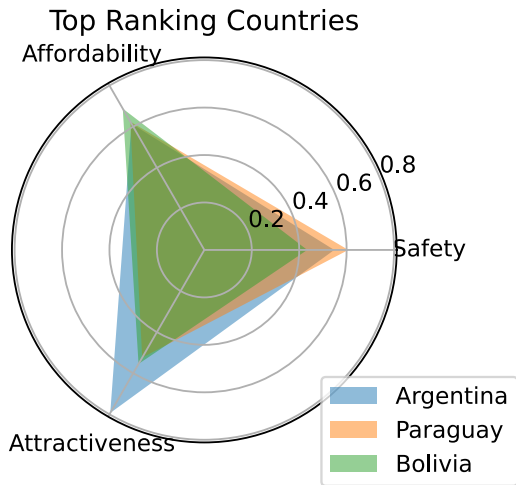
Results

Result Maps

Safety

Affordability

Attractiveness

Total Score

Top 3 Countries

Top Ranking Countries

- Affordability
- Safety
- Attractiveness

- Argentina
- Paraguay
- Bolivia

Limitations

Methodology

- Objective ranking does not consider personal preferences
- Limited amount of push- & pull-factors could be included
- Aggregation at country level is not ideal

Data

- Lower accuracy due to biases?
- Data misaligned with tourist perspective?

Outlook

Further Ideas

Zooming in

- Calculate scores on finer resolution than per-country
  - ‣ Possible with OSM data
  - ‣ Requires new data sources for risk and price level

Zooming out

- Calculate scores for other continents as well
  - ‣ This is possible with current data sources!
  - ‣ But OSM is heavily biased towards Europe
  - ‣ Improved methodology is necessary

References

Travel Score
https://github.com/tims777/travel-score/

Travel & Tourism Development Index
https://www.weforum.org/publications/travel-tourism-development-index-2024/

Inform Risk Index
https://drmkc.jrc.ec.europa.eu/inform-index/INFORM-Risk

International Comparison Program
https://www.worldbank.org/en/programs/icp

OpenStreetMap
https://www.openstreetmap.org/about

Natural Earth
https://www.naturalearthdata.com/