**You want to understand the impact of economic data like GDP, inflation rate or business climate index on your business?**

*Andreas Traut*

Certified PowerBI Data Analyst.
In love for data, programming and my son😊😍

# HOW TO SOLVE THIS?

First you need to download raw data from different data sources, like “Worldbank” or “Ifo-Institute”.

Different table structures and formats will be challenging!

THE WORLD BANK
IBRD · IDA

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This page is in English Español Français عربي 中文

# DataBank | World Development Indicators

Table | Chart | Map | Metadata | Download options

Variables | Layout | Styles | Save | Share | Embed

Database — Available 85 | Selected 1

Country — Available 3 | Selected 8

Series — Available 11 | Selected 4

Search: price

C G I L P W

(constant LCU)

- [ ] Gross value added at basic prices (GVA) (current LCU)
- [ ] Gross value added at basic prices (GVA) (current US$)
- [x] Inflation, consumer prices (annual %)
- [ ] Logistics performance index: Ease of arranging competitively priced shipments (1=low to 5=high)
- [ ] Price level ratio of PPP conversion factor (GDP) to market exchange rate

Create Custom Indicator

Define Aggregation Rule

Time — Available 63 | Selected 5

## Preview

Clear Selection | Add Country (8) Add Series (4) Add Time (5)

Austria

| | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|
| GDP (current US$) | 454,991,174,09 | 444,621,176,10 | 435,225,238,00 | 480,368,403,89 | 471,400,066,09 |
| GDP growth (annual %) | 2.43 | 1.52 | -6.45 | 4.56 | 5.00 |
| Consumer price index (2010 = 100) | 116.28 | 118.06 | 119.69 | 123.00 | 133.51 |
| Inflation, consumer prices (annual %) | 2.00 | 1.53 | 1.38 | 2.77 | 8.55 |

Source: World Development Indicators. Click on a metadata icon for original source information to be used for citation.

Automatisches Speichern — gsk-d-20231... • Zuletzt geändert: vor 7 Std. — Suchen — Andreas Traut

Datei Start Einfügen Seitenlayout Formeln Daten Überprüfen Ansicht Add-Ins Hilfe — Kommentare

A235: 10/2023

**ifo Geschäftsklima Deutschland und seine Komponenten**

(seit Januar 2005)

Lange Zeitreihen für das ifo Geschäftsklima Deutschland

und seine beiden Komponenten Geschäftslage und -erwartungen

**Deutschland**

| | Indexwerte, 2015 = 100, saisonbereinigt | | | Salden, saisonbereinigt | | | ifo Geschäftsunsicherheit | ifo Konjunkturampel |
|---|---|---|---|---|---|---|---|---|
| Monat/Jahr | Geschäftsklima | Geschäftslage | Geschäftserwartungen | Geschäftsklima | Geschäftslage | Geschäftserwartungen | Ursprungswerte ab 04/2019 | Wahrscheinlichkeit für eine expansive Entwic |
| 09/2021 | 99.8 | 100.9 | 98.8 | 18.2 | 29.8 | 7.2 | 61.5 | |
| 10/2021 | 98.8 | 100.6 | 97.0 | 15.9 | 29.2 | 3.4 | 60.5 | |
| 11/2021 | 97.2 | 99.5 | 95.0 | 12.4 | 26.7 | -0.9 | 62.8 | |
| 12/2021 | 94.9 | 97.3 | 92.6 | 7.5 | 21.8 | -5.9 | 62.7 | |
| 01/2022 | 95.8 | 96.6 | 95.1 | 9.5 | 20.1 | -0.6 | 62.7 | |
| 02/2022 | 98.4 | 98.9 | 97.8 | 15.0 | 25.3 | 5.2 | 61.7 | |
| 03/2022 | 90.1 | 97.2 | 83.6 | -3.0 | 21.5 | -24.7 | 69.2 | |
| 04/2022 | 91.5 | 97.4 | 86.0 | 0.0 | 22.0 | -19.7 | 67.9 | |
| 05/2022 | 92.8 | 99.7 | 86.4 | 2.9 | 27.2 | -18.8 | 66.6 | |
| 06/2022 | 92.4 | 99.5 | 85.9 | 2.0 | 26.6 | -19.9 | 65.4 | |
| 07/2022 | 88.6 | 97.9 | 80.2 | -6.2 | 23.1 | -31.8 | 69.0 | |
| 08/2022 | 89.1 | 97.8 | | | | | | |
| 09/2022 | 85.4 | 94. | | | | | | |
| 10/2022 | 85.3 | 94. | | | | | | |
| 11/2022 | 86.8 | 93. | | | | | | |
| 12/2022 | 88.7 | 94. | | | | | | |
| 01/2023 | 90.1 | 94. | | | | | | |
| 02/2023 | 90.8 | 94. | | | | | | |
| 03/2023 | 92.9 | 95. | | | | | | |
| 04/2023 | 93.2 | 95. | | | | | | |
| 05/2023 | 91.5 | 94. | | | | | | |
| 06/2023 | 88.7 | 93. | | | | | | |
| 07/2023 | 87.3 | 91. | | | | | | |
| 08/2023 | 85.8 | 89. | | | | | | |
| 09/2023 | 85.8 | 88. | | | | | | |
| 10/2023 | 86.9 | 89. | | | | | | |

ifo Geschäftsklima Deutsch

Bereit — Barrierefreiheit: Keine Probleme

Automatisches Speichern — P_Data_Extract_From_World_Development_Indicato... • Zuletzt geändert: Gerade eben

Datei Start Einfügen Seitenlayout Formeln Daten Überprüfen Ansicht Add-Ins Hilfe

C15: Consumer price index (2010 = 100)

| | Country Name | Country Code | Series Name | Series Code | 2018 [YR2018] | 20 |
|---|---|---|---|---|---|---|
| 2 | Austria | AUT | GDP (current US$) | NY.GDP.MKTP.CD | 4.54991E+11 | |
| 3 | Austria | AUT | Consumer price index (2010 = 100) | FP.CPI.TOTL | 116.277887 | |
| 4 | Austria | AUT | Inflation, consumer prices (annual %) | FP.CPI.TOTL.ZG | 1.998379814 | |
| 5 | Germany | DEU | GDP (current US$) | NY.GDP.MKTP.CD | 3.97444E+12 | |
| 6 | Germany | DEU | Consumer price index (2010 = 100) | FP.CPI.TOTL | 111.2466294 | |
| 7 | Germany | DEU | Inflation, consumer prices (annual %) | FP.CPI.TOTL.ZG | 1.732168798 | |
| 8 | Finland | FIN | GDP (current US$) | NY.GDP.MKTP.CD | 2.75708E+11 | |
| 9 | Finland | FIN | Consumer price index (2010 = 100) | FP.CPI.TOTL | 111.1929914 | 112.3317121 |
| 10 | Finland | FIN | Inflation, consumer prices (annual %) | FP.CPI.TOTL.ZG | 1.083820984 | 1.02409393 |
| 11 | Italy | ITA | GDP (current US$) | NY.GDP.MKTP.CD | 2.09193E+12 | 2.0113E+12 |
| 12 | Italy | ITA | Consumer price index (2010 = 100) | FP.CPI.TOTL | 109.9515203 | 110.6235956 |
| 13 | Italy | ITA | Inflation, consumer prices (annual %) | FP.CPI.TOTL.ZG | 1.137487636 | 0.611246944 |
| 14 | Switzerland | CHE | GDP (current US$) | NY.GDP.MKTP.CD | 7.25563E+11 | 7.21369E+11 |
| 15 | Switzerland | CHE | Consumer price index (2010 = 100) | FP.CPI.TOTL | 99.1869606 | 99.54689637 |
| 16 | Switzerland | CHE | Inflation, consumer prices (annual %) | FP.CPI.TOTL.ZG | 0.936335464 | 0.36288618 |
| 17 | France | FRA | GDP (current US$) | NY.GDP.MKTP.CD | 2.79096E+12 | 2.72887E+12 |

Data | Series - Metadata

Bereit — Barrierefreiheit: Keine Probleme

Histo... • Auf "dies... — Andreas Traut

Datei Start Einfüge Seitenla Formelr Daten Überpr Ansicht Add-Ins Hilfe

A1: Date, Open, High, Low, Close

| | Date, Open, High, Low, Close |
|---|---|
| 2 | 10/31/23, 14741.44, 14829.62, 14722.38, 14810.34 |
| 3 | 10/30/23, 14770.95, 14798.00, 14678.73, 14716.54 |
| 4 | 10/27/23, 14757.11, 14824.29, 14667.37, 14687.41 |
| 5 | 10/26/23, 14696.22, 14795.41, 14655.08, 14731.05 |
| 6 | 10/25/23, 14870.63, 14933.69, 14789.63, 14892.18 |
| 7 | 10/24/23, 14802.52, 14916.60, 14750.32, 14879.94 |
| 8 | 10/23/23, 14823.03, 14838.01, 14630.21, 14800.72 |
| 9 | 10/20/23, 14872.02, 14936.49, 14798.47, 14798.47 |
| 10 | 10/19/23, 15060.65, 15104.37, 14984.59, 15045.23 |
| 11 | 10/18/23, 15244.05, 15271.15, 15081.69, 15094.91 |
| 12 | 10/17/23, 15211.29, 15288.32, 15117.24, 15251.69 |
| 13 | 10/16/23, 15219.42, 15271.51, 15103.12, 15237.99 |
| 14 | 10/13/23, 15400.09, 15409.89, 15178.07, 15186.66 |
| 15 | 10/12/23, 15537.87, 15575.28, 15413.20, 15425.03 |
| 16 | 10/11/23, 15366.78, 15486.11, 15361.74, 15460.01 |
| 17 | 10/10/23, 15272.57, 15443.45, 15272.57, 15423.52 |
| 18 | 10/09/23, 15143.29, 15201.06, 15077.66, 15128.11 |
| 19 | 10/06/23, 15109.16, 15230.89, 15033.55, 15229.77 |
| 20 | 10/05/23, 15113.94, 15157.70, 15048.42, 15070.22 |
| 21 | 10/04/23, 14979.81, 15174.63, 14948.08, 15099.92 |
| 22 | 10/03/23, 15184.49, 15257.86, 15074.85, 15085.21 |
| 23 | 10/02/23, 15439.96, 15476.38, 15192.01, 15247.21 |
| 24 | 09/29/23, 15394.82, 15515.99, 15382.56, 15386.58 |
| 25 | 09/28/23, 15229.10, 15323.73, 15138.66, 15323.50 |
| 26 | 09/27/23, 15225.58, 15299.68, 15194.68, 15217.45 |
| 27 | 09/26/23, 15330.91, 15360.43, 15229.35, 15255.87 |
| 28 | 09/25/23, 15513.32, 15572.14, 15329.40, 15405.49 |
| 29 | 09/22/23, 15473.80, 15592.27, 15471.75, 15557.29 |

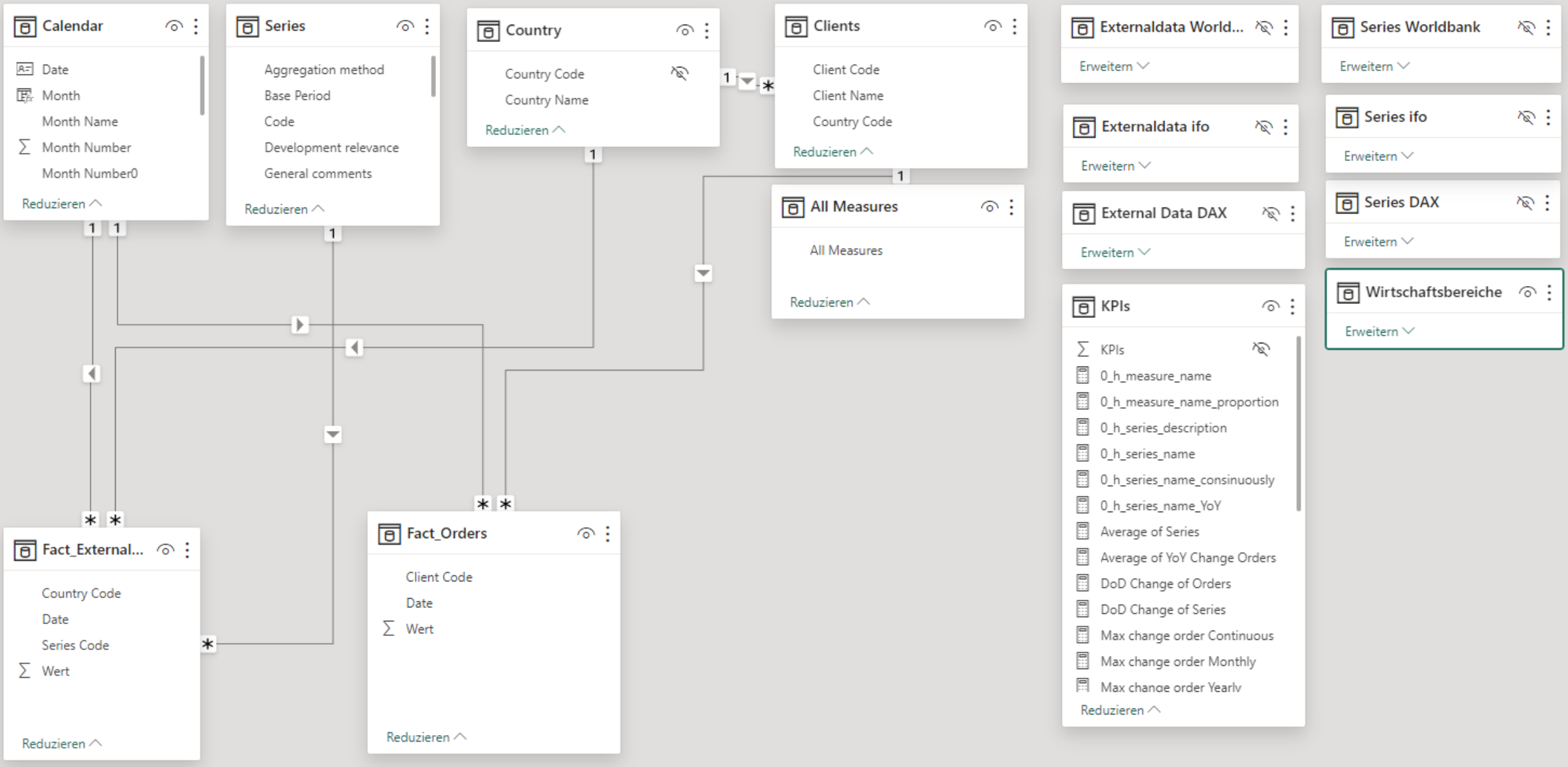
HistoricalPrices

Bereit — Bedienungshilfen: nicht verfügbar — 100%

Next you need to load, clean and transform the raw data into your data model.

Creating (key, value)-fact tables and dimension-tables will be needed.


c:\users\andre\onedrive\...
c:\users\andre\onedrive\...
c:\users\andre\onedrive\...
c:\users\andre\onedrive\...
Externaldata ifo
Geladen
Wirtschaftsbereiche
Geladen
Externaldata Worldbank
Geladen
Country
Geladen
Series Worldbank
Geladen
Clients
Geladen
Fact_Orders
Geladen
Series ifo
Geladen
Fact_Externaldata
Geladen
Series
Geladen

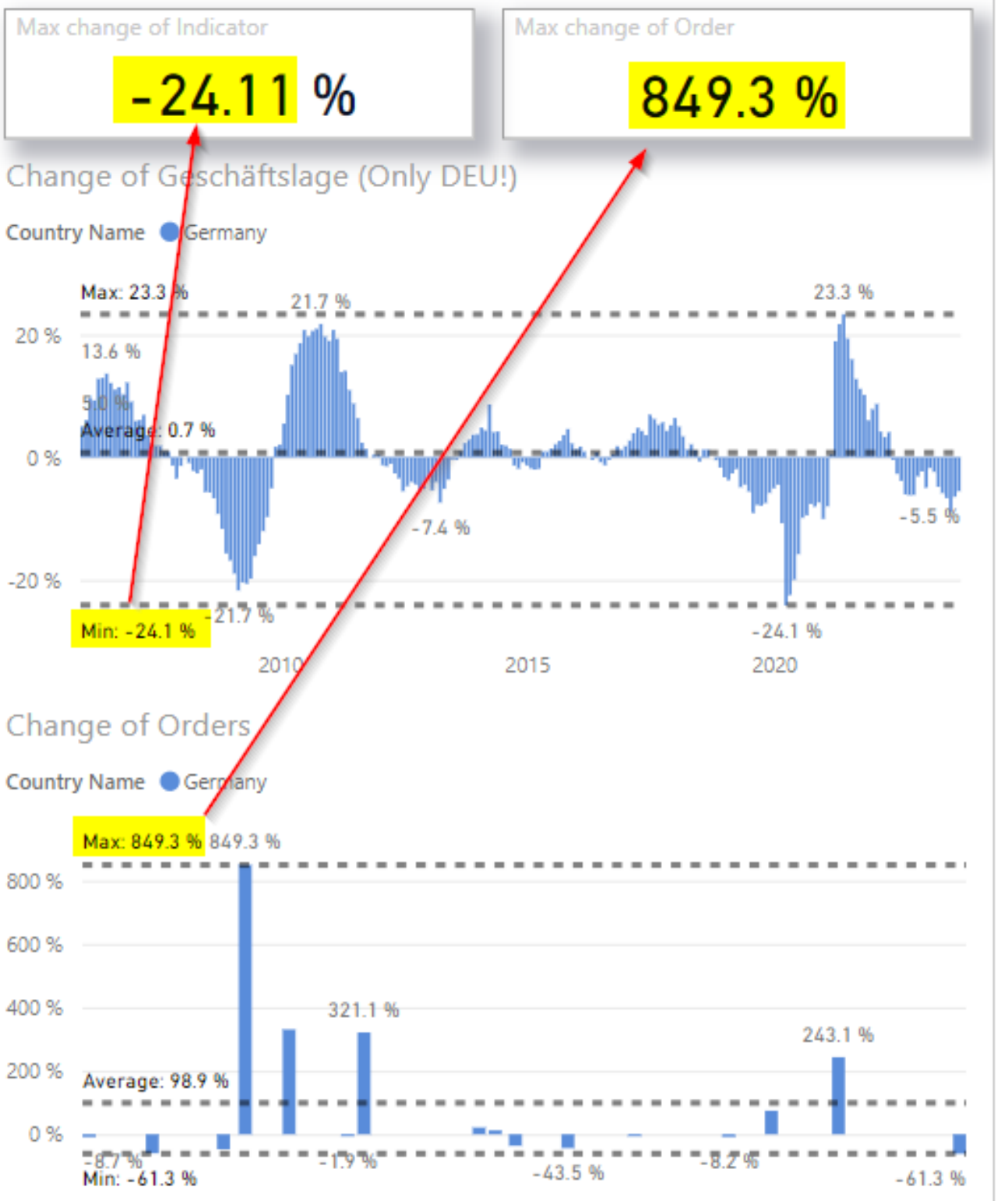

Calendar
Date
Month
Month Name
Month Number
Month Number0
Reduzieren
Series
Aggregation method
Base Period
Code
Development relevance
General comments
Reduzieren
Country
Country Code
Country Name
Reduzieren
Clients
Client Code
Client Name
Country Code
Reduzieren
All Measures
All Measures
Reduzieren
Externaldata World...
Erweitern
Externaldata ifo
Erweitern
External Data DAX
Erweitern
KPIs
KPIs
0_h_measure_name
0_h_measure_name_proportion
0_h_series_description
0_h_series_name
0_h_series_name_consinuously
0_h_series_name_YoY
Average of Series
Average of YoY Change Orders
DoD Change of Orders
DoD Change of Series
Max change order Continuous
Max change order Monthly
Max change order Yearly
Reduzieren
Series Worldbank
Erweitern
Series ifo
Erweitern
Series DAX
Erweitern
Wirtschaftsbereiche
Erweitern
Fact_External...
Country Code
Date
Series Code
Wert
Reduzieren
Fact_Orders
Client Code
Date
Wert
Reduzieren

Next you will have to define DAX-formulas.

Sometimes even a MAX calculation can be more challenging than expected when different dimensions and filter selections are involved.

[YoY Change of Series] :=

```
VAR __PY =
    CALCULATE (
        SUM ( 'Fact_Externaldata'[Wert] ),
        DATEADD ( Calendar[Date], -1, YEAR )
    )
VAR __CY =
    CALCULATE ( SUM ( 'Fact_Externaldata'[Wert] ) )
VAR __result =
    IF (
        DIVIDE ( __CY - __PY, __PY, BLANK () ) = -1,
        BLANK (),
        DIVIDE ( __CY - __PY, __PY, BLANK () )
    )
RETURN
    __result
```



Select “GDP”, different countries & years. Analyze relationships between “GDP” and “Turnover”.

GDP (current US$) *Yearly*

Country | Year, Month

Mehrfachaus... | Mehrfachau...

Show Yearly | Show Monthly | Show Continuously

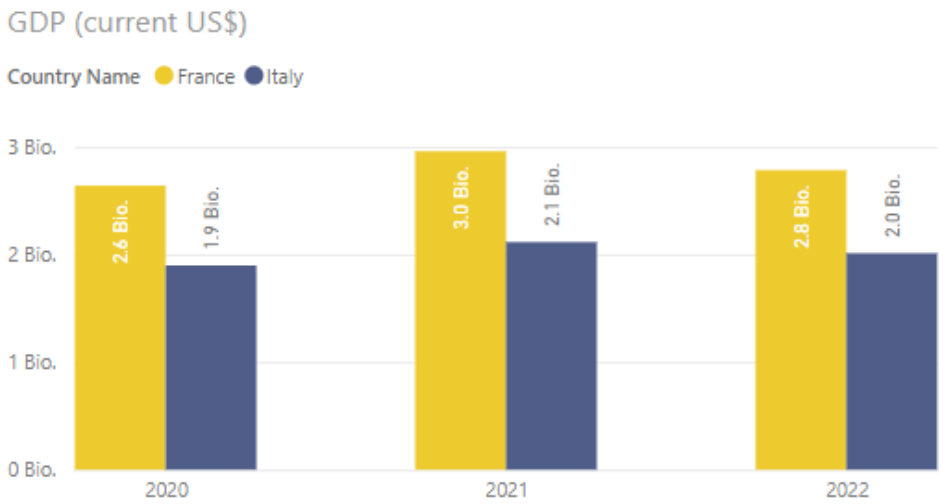
Max change of Indicator: 12.1 %

Max change of Order: 44.8 %

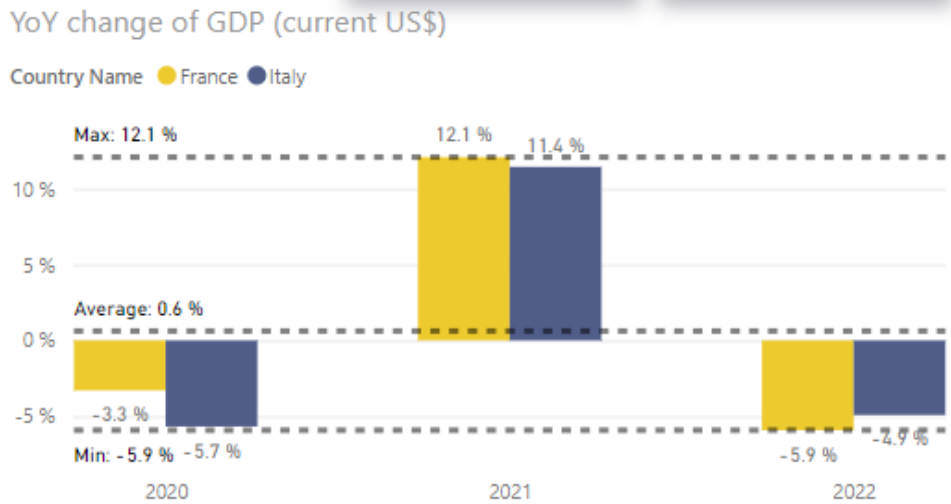
Indicator Name

- Air transport, passengers carried
- Consumer price index (2010 = 100)
- DAX (Only DEU!)
- GDP (current US$)
- Geschäftserwartungen (Only DEU!)
- Geschäftsklima (Only DEU!)
- Geschäftslage (Only DEU!)
- Inflation, consumer prices (annual %)
- Net migration
- Population, female
- Population, male
- Population, total
- Rail lines (total route-km)
- Urban population

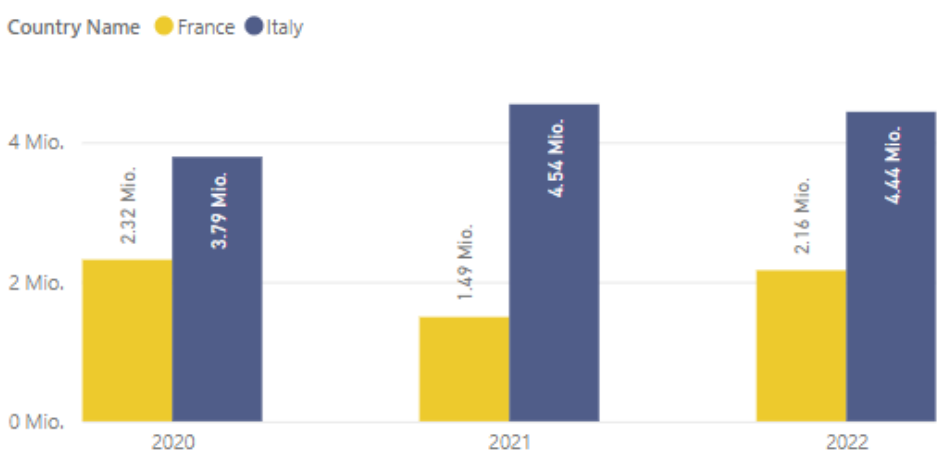
GDP (current US$)



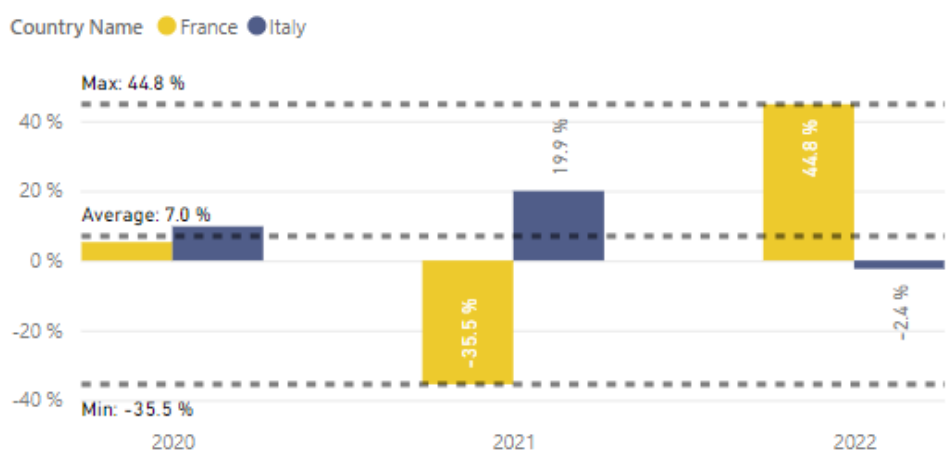

YoY change of GDP (current US$)




Turnover




YoY change of Turnover




GDP (current US$)

GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Da...

**Datasources**: Worldbank, Ifo and WSJ-Markets

**Author**: Andreas Traut

# Select “Inflation” and countries / years. Analyse if YoY-changes of “Inflation” and “Turnover” correlate.

Inflation, consumer prices (annual %) *Yearly*

Country | Year, Month

Mehrfachaus... | Mehrfachausw...

Show Yearly | Show Monthly | Show Continuously

Max change of Indicator: 2'016.7 %

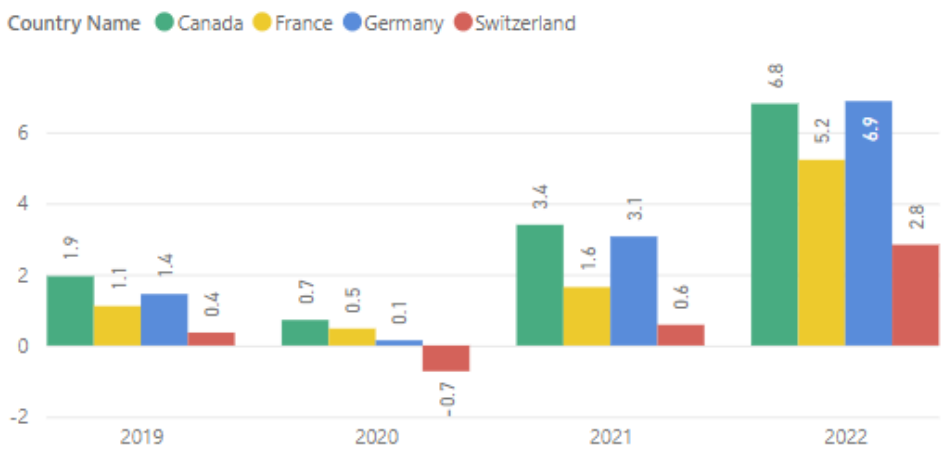
Max change of Order: 44.8 %

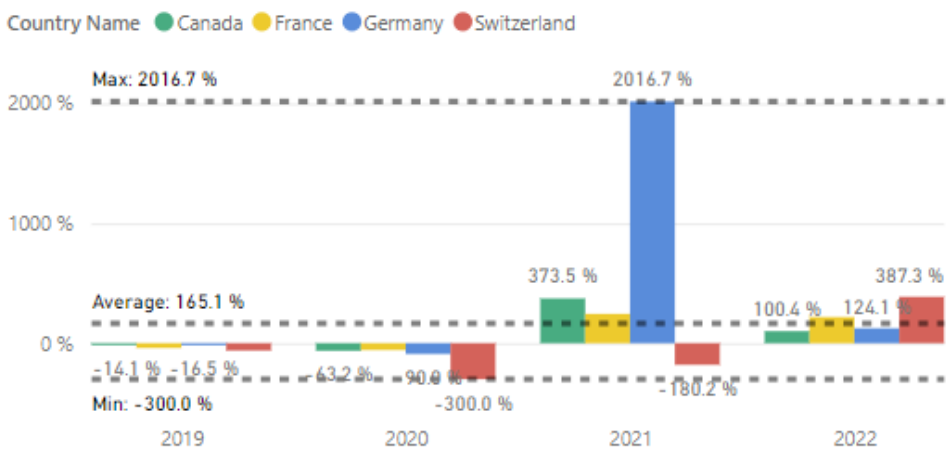
Indicator Name

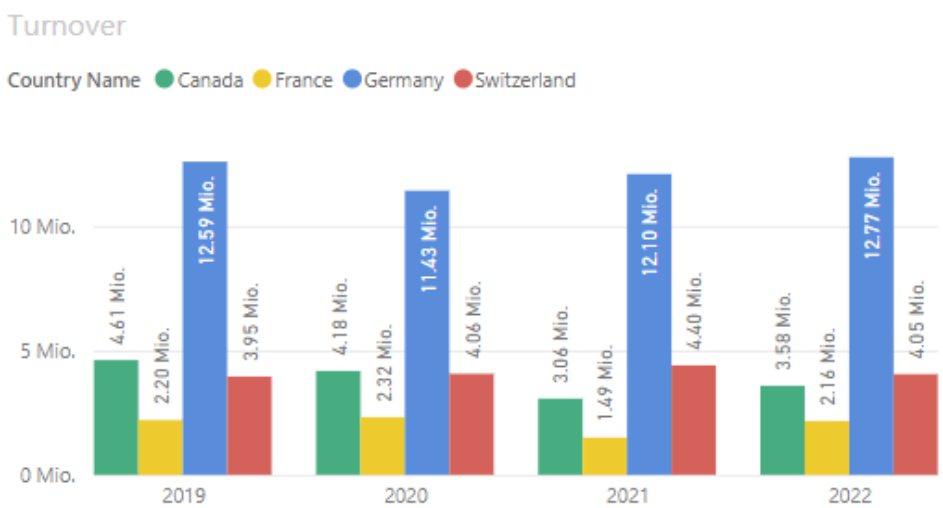
- Air transport, passengers carried
- Consumer price index (2010 = 100)
- DAX (Only DEU!)
- GDP (current US$)
- Geschäftserwartungen (Only DEU!)
- Geschäftsklima (Only DEU!)
- Geschäftslage (Only DEU!)
- (●) Inflation, consumer prices (annual %)
- Net migration
- Population, female

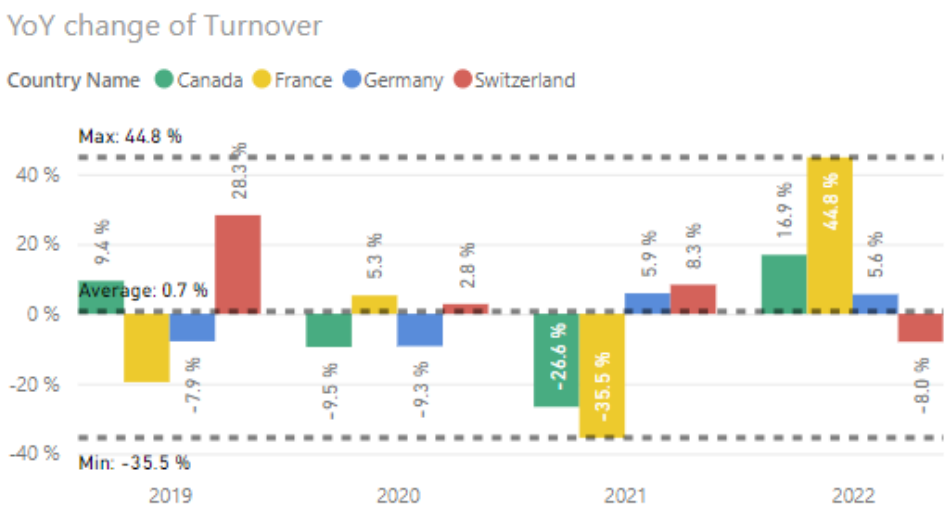
Inflation, consumer prices (annual %)

Inflation as measured by the consumer price index reflects the annual percentage change in the cost to the average consumer of acquiring a basket of goods and services that may be fixed or changed at specified intervals, such as yearly. The Laspeyres formula is generally used.




Datasources: Worldbank, Ifo and WSJ-Markets

Author: Andreas Traut

The report pages should work for yearly, monthly but also continuously time series, like “DAX index”.

DAX (Only DEU!) *Continuous*

Country: Germany | Year, Month: Mehrfachausw... | Show Yearly | Show Monthly | Show Continuously

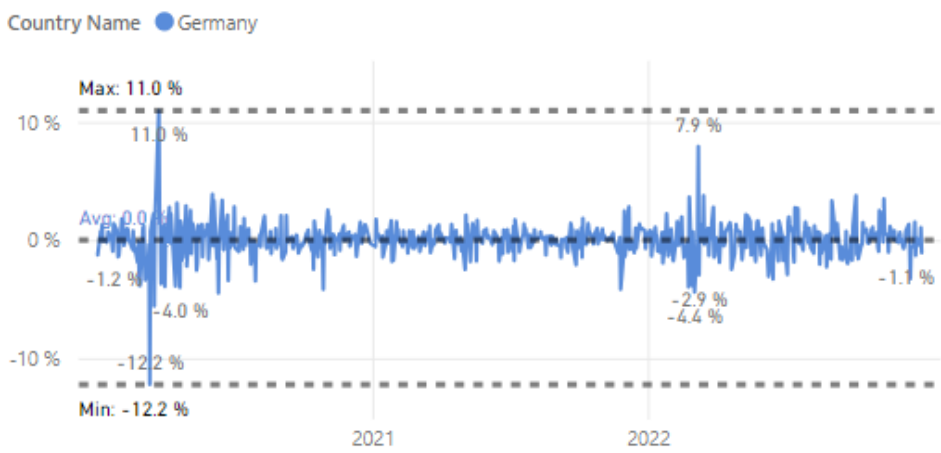
Max change of Indicator: -12.2 %

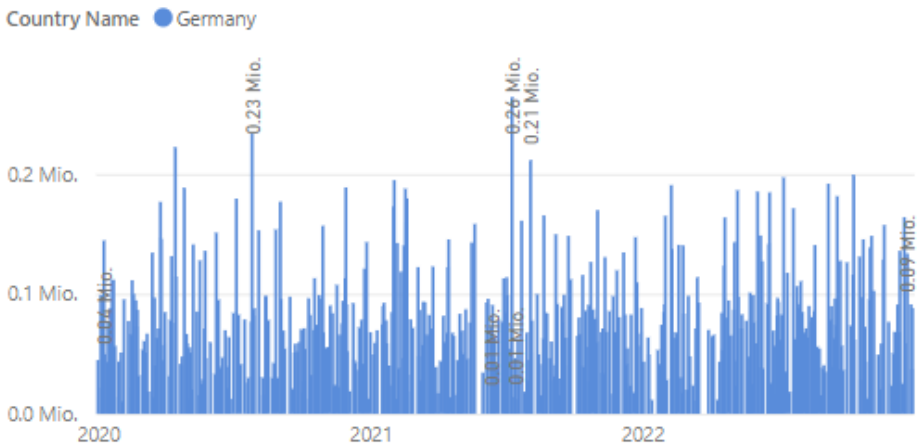
Max change of Order: 797.2 %

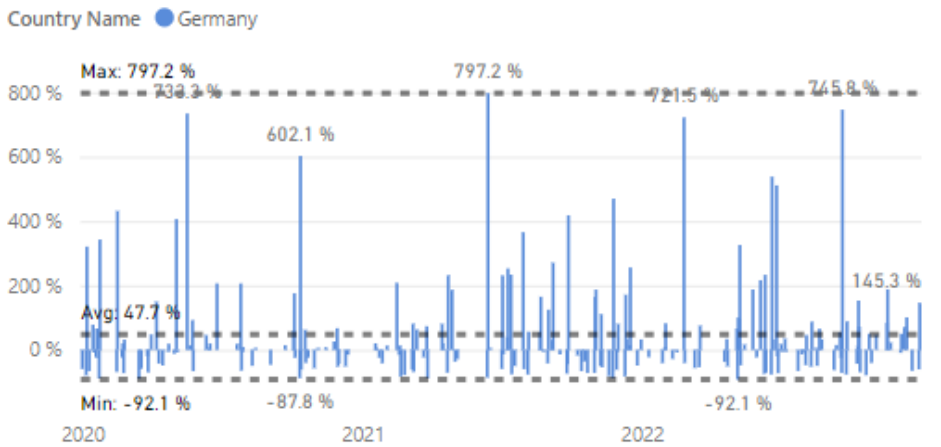
Indicator Name
- Air transport, passengers carried
- Consumer price index (2010 = 100)
- DAX (Only DEU!)
- GDP (current US$)
- Geschäftserwartungen (Only DEU!)
- Geschäftsklima (Only DEU!)
- Geschäftslage (Only DEU!)
- Inflation, consumer prices (annual %)
- Net migration
- Population, female

DAX (Only DEU!)

German stock market index consisting of the 40 major German blue chip companies trading on the Frankfurt Stock Exchange.


Datasources: Worldbank, Ifo and WSJ-Markets

Author: Andreas Traut

# Analyse if proportion of "GDP" corresponds to your Turnover and use the Ratio to draw conclusions.



Country: Mehrfachaus...

Year: 2022

Unit: in $ | in T$ | in M$ | **in B$**

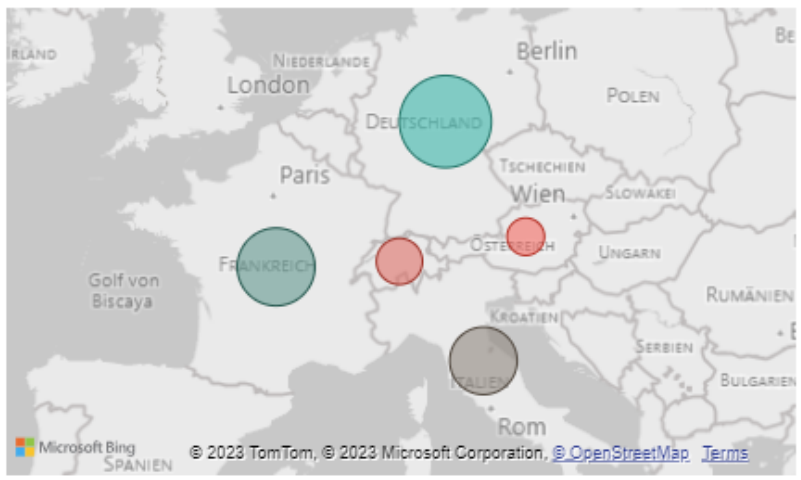
Total Measure: 10.14 Bio.

Total Turnover: 31.48 Mio.

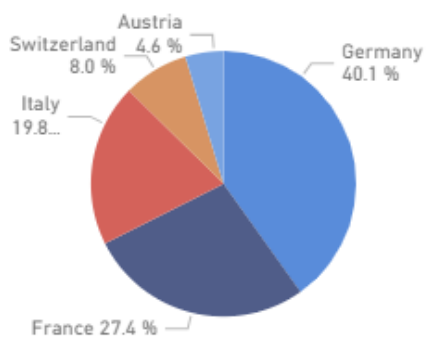
All Measures

- Air transport, passengers carried
- (●) GDP (current US$)
- Population, female
- Population, male
- Population, total
- Urban population

## GDP (current US$)



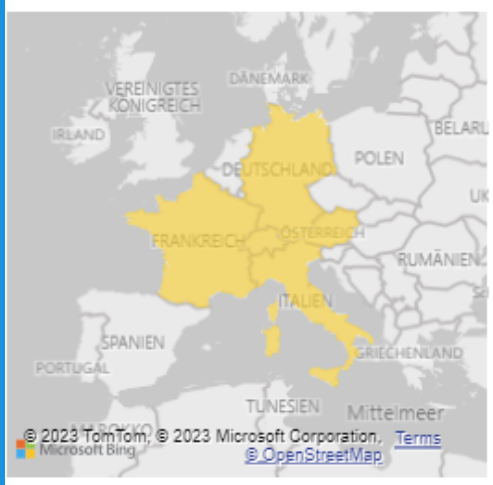

## GDP (current US$) Proportion



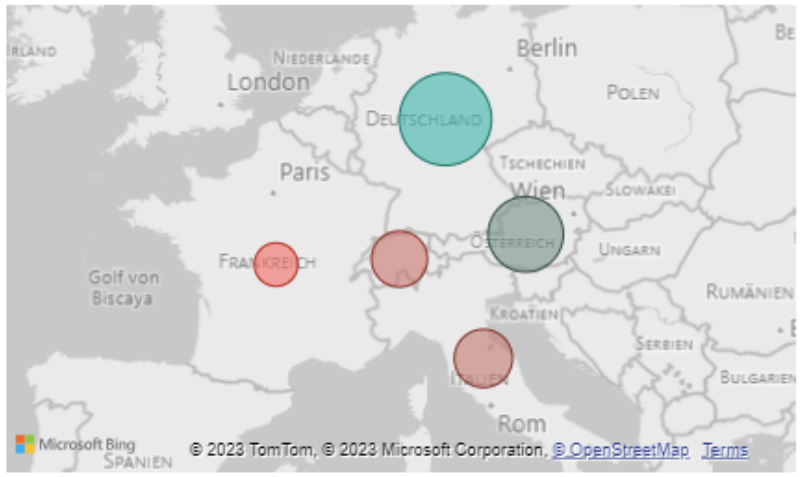

## GDP (current US$) Proportion

| Year | | | 2022 |
|---|---|---|---|
| Country Name | Measure | Propotion | Ratio |
| Germany | 4'072.2 | 40.1 % | 1.01 |
| France | 2'782.9 | 27.4 % | 0.25 |
| Italy | 2'010.4 | 19.8 % | 0.71 |
| Switzerland | 807.7 | 8.0 % | 1.61 |
| Austria | 471.4 | 4.6 % | 5.51 |
| **Gesamt** | **10'144.6** | **100.0 %** | **1.00** |

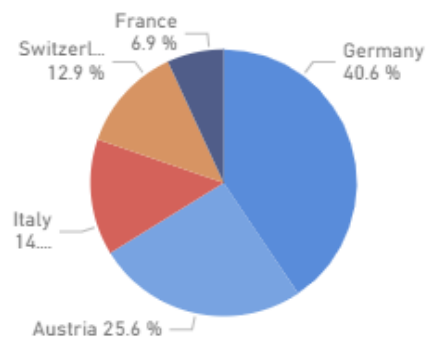
## Selected Countries




## Turnover




## Turnover Proportion




## Turnover Propotion

| Year | | | 2022 |
|---|---|---|---|
| Country Name | Turnover | Proportion | Ratio |
| Germany | 12'770 | 40.6 % | 1.01 |
| Austria | 8'068 | 25.6 % | 5.51 |
| Italy | 4'436 | 14.1 % | 0.71 |
| Switzerland | 4'046 | 12.9 % | 1.61 |
| France | 2'163 | 6.9 % | 0.25 |
| **Gesamt** | **31'483** | **100.0 %** | **1.00** |

**Was this helpful for you?**

I published my PowerBI report on novyPro, which is a nice platform for data analysts. You can open and work with my PowerBI report on the novyPro page without installing anything:

novypro.com/profile_projects/andreastraut

**Please follow me on LinkedIn!**

Andreas Traut

Graduated Diploma Mathematician and Certified Advanced Data Scientist. Certified PowerBI Data Analyst.
In love for data, programming and my son😊🥰