

# 52\_Egypt

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## 1 How has the share of communications and computer services, insurance and financial services, transport services, and travel services in Egypt's total service imports evolved between 1977 and 2023?

### 1.1 Abstract

Using World Bank World Development Indicators (WDI) data, this study examines the evolution of service import composition in Egypt between 1977 and 2023. The analysis compares the share of communications and computer services, insurance and financial services, transport services, and travel services in total service imports, capturing long-term trends, sectoral shifts, and volatility in the economy. Over the period, all four service categories displayed high volatility. Communications and computer services as well as transport services were significantly higher than insurance and travel services at the start of the period in 1977. Long-term trends show that communications and computer services declined substantially, transport services increased slightly, travel services grew moderately, and insurance and financial services increased modestly. By 2023, transport services dominated total service imports, followed by travel services, communications and computer services, and finally insurance and financial services.

### 1.2 1. Question

How has the share of communications and computer services, insurance and financial services, transport services, and travel services in Egypt's total service imports evolved between 1977 and 2023?

- **Communications and computer services proxy:** Percentage of total service imports
- **Insurance and financial services proxy:** Percentage of total service imports
- **Transport services proxy:** Percentage of total service imports
- **Travel services proxy:** Percentage of total service imports

### 1.3 2. Data

- **Source:** World Bank World Development Indicators (WDI)
- **Indicators:**
  - Communications and computer services (% of service imports, BoP)
  - Insurance and financial services (% of service imports, BoP)
  - Transport services (% of service imports, BoP)
  - Travel services (% of service imports, BoP)
- **Coverage:** Egypt, 1977–2023

- **Notes:** National-level data only

## 1.4 3. Method

1. Filtered the dataset for Egypt and selected the four service import indicators.
2. **Extracted relevant columns:** Year, Indicator Name, and Value.
3. Pivoted the dataset to create a side-by-side chronological comparison of all four service categories.
4. Produced a multi-line time series plot to visualize trends, relative magnitudes, and volatility over time.

(Analysis is descriptive; no causal inference applied.)

## 1.5 4. Results

- **Communications and computer services (% of service imports):** Started high in 1977, decreased substantially over the period, ending as the third-largest category by 2023.
- **Transport services (% of service imports):** Initially high, increased slightly over the period, becoming the largest service import category by 2023.
- **Travel services (% of service imports):** Began lower than communications and transport, increased moderately over time, ranking second in 2023.
- **Insurance and financial services (% of service imports):** Lowest initially, experienced slight growth, remaining the smallest share in 2023.
- **Comparison:** All four categories exhibited high volatility. Initially, communications and computer services and transport services dominated, but by 2023, transport services led, followed by travel services, communications and computer services, and insurance and financial services.

(Figure 1. Egypt: Service Imports by Category, 1977–2023)

(Table 1. Pivoted dataset summary)

## 1.6 5. Interpretation

- The volatility of all categories indicates sensitivity to domestic and global economic conditions, policy shifts, and trade dynamics.
- The decline of communications and computer services' share suggests relative stagnation or slower growth compared with other service sectors.
- The steady rise of transport and travel services highlights increasing trade connectivity, tourism, and logistics development in Egypt.
- The modest growth in insurance and financial services reflects gradual expansion of the financial sector, though it remains a minor component of imports.
- Overall, the shifting composition signals structural changes in Egypt's service import economy and evolving sectoral priorities.

## 1.7 6. Limitations

- National aggregates may hide regional variations, sector-specific policies, or firm-level dynamics.
- WDI estimates may incorporate modeled data for earlier years, adding uncertainty.

- Descriptive analysis does not identify causal factors behind volatility or sectoral changes.

## 1.8 7. Next Steps / Extensions

- Examine correlations between service import shares and economic growth, trade liberalization, or sector-specific policies.
- Investigate the role of tourism, logistics infrastructure, and ICT development in shaping transport and travel import trends.
- Compare Egypt's service import composition with other MENA countries to assess regional patterns and competitiveness.
- Analyze post-2023 trends to evaluate continuity, structural shifts, or emerging service sectors.

```
[1]: # How has the share of communications and computer services, insurance and
      ↪ financial services, transport services, and travel services in Egypt's total
      ↪ service imports evolved between 1977 and 2023?

import pandas as pd
import matplotlib.pyplot as plt
import os

# Folders
data_raw_folder = "data_raw/"
data_clean_folder = "data_clean/"
figures_folder = "figures/"

# Load CSV
filename = "trade_egy_filtered.csv" # Filtered dataset with only relevant rows
df = pd.read_csv(os.path.join(data_raw_folder, filename))

# Keep only needed columns
df = df[["Year", "Indicator Name", "Value"]]

# Convert Year and Value to numeric, drop invalid rows
df["Year"] = pd.to_numeric(df["Year"], errors="coerce")
df["Value"] = pd.to_numeric(df["Value"], errors="coerce")
df = df.dropna(subset=["Year", "Value"])

# Pivot indicators into separate columns
df_pivot = df.pivot(index="Year", columns="Indicator Name", values="Value").
    ↪reset_index()
df_pivot = df_pivot.sort_values("Year")

print("Pivoted Egypt dataset:")
display(df_pivot)

# Interpolate missing values for smooth plotting (optional)
df_plot = df_pivot.interpolate(method='linear')
```

```

# Plot the indicators
plt.figure(figsize=(10,6))
plt.plot(df_plot["Year"], df_plot["Communications, computer, etc. (% of service_
↳imports, BoP)"],
        marker='o', linestyle='-', label="Communications, computer, etc. (% of_
↳service imports, BoP)")
plt.plot(df_plot["Year"], df_plot["Insurance and financial services (% of_
↳service imports, BoP)"],
        marker='o', linestyle='-', label="Insurance and financial services (%_
↳of service imports, BoP)")
plt.plot(df_plot["Year"], df_plot["Transport services (% of service imports,_
↳BoP)"],
        marker='o', linestyle='-', label="Transport services (% of service_
↳imports, BoP)")
plt.plot(df_plot["Year"], df_plot["Travel services (% of service imports,_
↳BoP)"],
        marker='o', linestyle='-', label="Travel services (% of service_
↳imports, BoP)")

plt.title("Egypt: Communications, computer, etc. vs Insurance and financial_
↳services vs Transport services vs Travel services as shares of service_
↳imports (%) (1977-2023)")
plt.xlabel("Year")
plt.ylabel("Percentage")
plt.legend()
plt.grid(True)
plt.tight_layout()
plt.savefig(os.path.join(figures_folder,
↳"egypt_comm_comp_etc_vs_insurance_and_financial_services_vs_transport_services_vs_travel_se
↳png"))
plt.show()

# Save cleaned CSV
df_pivot.to_csv(os.path.join(data_clean_folder,
↳"egypt_comm_comp_etc_vs_insurance_and_financial_services_vs_transport_services_vs_travel_se
↳index=False)

```

Pivoted Egypt dataset:

Indicator Name	Year	\
0	1977	
1	1978	
2	1979	
3	1980	
4	1981	
5	1982	
6	1983	

7	1984
8	1985
9	1986
10	1987
11	1988
12	1989
13	1990
14	1991
15	1992
16	1993
17	1994
18	1995
19	1996
20	1997
21	1998
22	1999
23	2000
24	2001
25	2002
26	2003
27	2004
28	2005
29	2006
30	2007
31	2008
32	2009
33	2010
34	2011
35	2012
36	2013
37	2014
38	2015
39	2016
40	2017
41	2018
42	2019
43	2020
44	2021
45	2022
46	2023

Indicator Name	Communications, computer, etc. (% of service imports, BoP) \
0	48.588069
1	42.267701
2	41.735837
3	49.058099
4	47.946700
5	51.649906

6	52.023539
7	50.355297
8	55.033587
9	60.172626
10	55.775543
11	54.060067
12	53.615042
13	53.854277
14	49.851367
15	54.181220
16	53.661263
17	52.666076
18	37.040837
19	37.726200
20	48.964519
21	43.930992
22	42.768348
23	50.019965
24	48.731614
25	45.700881
26	39.917591
27	37.277939
28	37.476804
29	35.002420
30	29.671464
31	30.587741
32	28.626787
33	27.337831
34	25.685876
35	26.276565
36	27.144572
37	22.297944
38	20.874598
39	22.689480
40	34.441639
41	29.533969
42	28.512902
43	28.283253
44	28.067594
45	22.289840
46	19.659940

Indicator Name	Insurance and financial services (% of service imports, BoP) \
0	3.406283
1	4.010563
2	4.166331
3	3.438395
4	4.026190

5	3.635030
6	3.933512
7	4.835733
8	4.527541
9	4.396282
10	4.814255
11	4.908231
12	3.765957
13	4.078669
14	3.626635
15	2.547771
16	2.571269
17	3.401240
18	4.268418
19	3.815893
20	2.886053
21	6.993222
22	7.548632
23	6.269134
24	6.231791
25	6.435309
26	6.926765
27	7.671111
28	9.316622
29	9.030011
30	9.531180
31	9.398293
32	10.369424
33	10.143569
34	10.748706
35	9.942615
36	9.590010
37	10.079432
38	9.845367
39	10.540577
40	10.015152
41	10.652400
42	10.700041
43	11.697447
44	10.267973
45	9.619593
46	11.614704

Indicator Name	Transport services (% of service imports, BoP) \
0	38.492764
1	40.188150
2	43.202514
3	40.321892

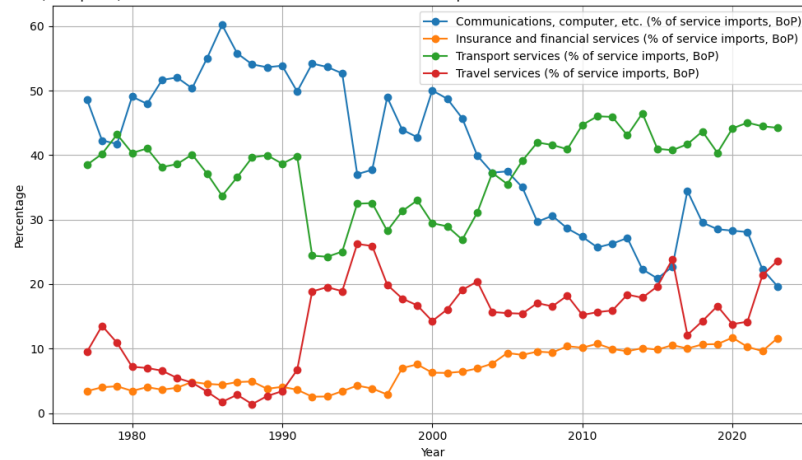
4	41.025788
5	38.141630
6	38.596944
7	40.088594
8	37.115987
9	33.690600
10	36.565414
11	39.641268
12	39.971755
13	38.661563
14	39.833532
15	24.409287
16	24.240730
17	25.031001
18	32.464601
19	32.553108
20	28.249284
21	31.315465
22	32.981477
23	29.442300
24	28.954736
25	26.889225
26	31.089906
27	37.236792
28	35.508798
29	39.113335
30	41.955321
31	41.563676
32	40.912940
33	44.676818
34	46.014812
35	45.918640
36	43.055395
37	46.477413
38	40.976317
39	40.758211
40	41.690236
41	43.669371
42	40.353156
43	44.136963
44	45.026302
45	44.458689
46	44.237568

Indicator Name	Travel services (% of service imports, BoP)
0	9.512884
1	13.533586
2	10.895318



3	7.181613
4	7.001321
5	6.573434
6	5.446005
7	4.720377
8	3.322884
9	1.740491
10	2.844787
11	1.390434
12	2.647246
13	3.405491
14	6.688466
15	18.861722
16	19.526737
17	18.901683
18	26.226144
19	25.904799
20	19.900145
21	17.760320
22	16.701542
23	14.268601
24	16.081859
25	19.097975
26	20.403663
27	15.677008
28	15.499472
29	15.419389
30	17.053631
31	16.550193
32	18.213589
33	15.216372
34	15.654319
35	15.916330
36	18.366986
37	17.889866
38	19.645640
39	23.848729
40	12.119529
41	14.266522
42	16.599654
43	13.786671
44	14.179435
45	21.357712
46	23.608015

Egypt: Communications, computer, etc. vs Insurance and financial services vs Transport services vs Travel services as shares of service imports (%) (1977-2023)



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