54_Equatorial_Guinea

October 26, 2025

1 How have the shares of liquid liabilities, central bank assets, and financial system deposits relative to GDP evolved in Equatorial Guinea between 1985 and 2019?

1.1 Abstract

Using World Bank World Development Indicators (WDI) data, this study examines the evolution of key financial sector indicators in Equatorial Guinea between 1985 and 2019, focusing on liquid liabilities, central bank assets, and financial system deposits relative to GDP. These indicators provide insight into the structure, depth, and stability of the country's financial system. Over the period, all three measures declined, reflecting both macroeconomic shifts and structural changes in financial intermediation. Liquid liabilities and central bank assets decreased significantly, suggesting reduced reliance on broad monetary aggregates and a possible contraction of central bank interventions relative to the economy. Financial system deposits fell more modestly, indicating that deposit mobilization within commercial banks remained somewhat resilient despite broader contractions. At the beginning of the period, liquid liabilities and central bank assets were more than twice the size of financial system deposits, highlighting a concentrated financial system dominated by monetary authority measures and limited bank intermediation. By 2019, the three indicators had converged closely, reflecting a more balanced financial structure and reduced disparities between liquidity, central bank activity, and deposit mobilization. The overall trajectory shows a long-term contraction across monetary and financial measures alongside convergence, suggesting that Equatorial Guinea's financial system evolved toward greater equilibrium between liquidity, central bank interventions, and deposit-based intermediation. These patterns offer a lens into the country's financial development, highlighting both the challenges of monetary management and the gradual adaptation of the banking sector in supporting economic growth and stability.

1.2 1. Question

How have the shares of liquid liabilities, central bank assets, and financial system deposits relative to GDP evolved in Equatorial Guinea between 1985 and 2019?

- **Liquid liabilities proxy**: Liquid liabilities (% of GDP)
- **Central bank assets proxy**: Central bank assets (% of GDP)
- **Financial system deposits proxy**: Financial system deposits (% of GDP)

1.3 2. Data

- **Source**: World Bank World Development Indicators (WDI)
- **Indicators**:

  - Liquid liabilities (% of GDP)
  - Central bank assets (% of GDP)
  - Financial system deposits (% of GDP)
- **Coverage**: Equatorial Guinea, 1985–2019
- **Notes**: National-level data only

1.4 3. Method

1. Filtered the dataset for Equatorial Guinea and selected the three financial indicators.
2. **Extracted relevant columns**: Year, Indicator Name, and Value.
3. Pivoted the dataset to create a side-by-side chronological comparison of liquid liabilities, central bank assets, and financial system deposits.
4. Produced a multi-line time series plot to visualize trends, relative magnitudes, and convergence over time.

(Analysis is descriptive; no causal inference applied.)

1.5 4. Results

- **Liquid liabilities (% of GDP)**: Decreased significantly over the period, starting as the largest share and remaining first throughout.
- **Central bank assets (% of GDP)**: Declined substantially, initially the second-largest share, ending almost tied with financial system deposits by 2019.
- **Financial system deposits (% of GDP)**: Decreased slightly, initially the smallest share, but converged closely with the other indicators by the end of the period.
- **Comparison**: At the beginning of the period, liquid liabilities and central bank assets were over twice the size of financial system deposits. By 2019, all three indicators converged, with liquid liabilities remaining slightly highest, financial system deposits second, and central bank assets nearly tied with deposits.

(Figure 1. Equatorial Guinea: Liquid Liabilities, Central Bank Assets, and Financial System Deposits (% of GDP), 1985–2019)

(Table 1. Pivoted dataset summary)

1.6 5. Interpretation

- The initial high ratios of liquid liabilities and central bank assets relative to financial system deposits reflect a concentrated financial structure with dominant monetary authority and liquidity measures.
- Long-term declines suggest reduced reliance on central bank assets and liquid liabilities as a share of GDP, potentially indicating financial deepening, structural adjustments, or macroeconomic shifts.
- Convergence across the three indicators highlights a more balanced financial system by 2019, with less disparity between monetary and deposit measures.
- Overall, the trends point to structural change in Equatorial Guinea's financial sector, reflecting evolving monetary management, deposit mobilization, and liquidity dynamics.

1.7 6. Limitations

- National-level aggregates may obscure sectoral, institutional, or regional differences in financial development.
- WDI data for earlier years may include modeled estimates, introducing uncertainty.
- The descriptive analysis does not identify causal factors behind declines or convergence in the indicators.

1.8 7. Next Steps / Extensions

- Investigate correlations between these financial ratios and macroeconomic growth, inflation, or fiscal policy.
- Compare Equatorial Guinea's financial system evolution with other Central African countries to assess regional trends.
- Analyze post-2019 data to evaluate whether convergence persisted or new patterns emerged.
- Examine institutional reforms, banking sector policies, or credit expansion initiatives to explain the observed shifts.

[1]:
```
# How have the shares of liquid liabilities, central bank assets, and financial␣
 ↪system deposits relative to GDP evolved in Equatorial Guinea between 1985␣
 ↪and 2019?

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 = "financial-sector_gnq_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 Equatorial Guinea 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["Liquid liabilities to GDP (%)"],
         marker='o', linestyle='-', label="Liquid liabilities to GDP (%)")
plt.plot(df_plot["Year"], df_plot["Central bank assets to GDP (%)"],
         marker='o', linestyle='-', label="Central bank assets to GDP (%)")
plt.plot(df_plot["Year"], df_plot["Financial system deposits to GDP (%)"],
         marker='o', linestyle='-', label="Financial system deposits to GDP␣
 ↪(%)")

plt.title("Equatorial Guinea: Liquid liabilities vs Central bank assets vs␣
 ↪Financial system deposits to GDP (1985-2019)")
plt.xlabel("Year")
plt.ylabel("Percentage")
plt.legend()
plt.grid(True)
plt.tight_layout()
plt.savefig(os.path.join(figures_folder,␣
 ↪"equatorial_guinea_liquid_liabilities_vs_central_bank_assets_vs_financial_system_deposits_t
 ↪png"))
plt.show()

# Save cleaned CSV
df_pivot.to_csv(os.path.join(data_clean_folder,␣
 ↪"equatorial_guinea_liquid_liabilities_vs_central_bank_assets_vs_financial_system_deposits_t
 ↪index=False)
```

Pivoted Equatorial Guinea dataset:

Indicator Name	Year	Central bank assets to GDP (%)	\
0	1985	29.838390	
1	1986	24.700110	
2	1987	20.134210	
3	1988	20.231050	
4	1989	15.082970	
5	1990	10.106760	
6	1991	29.622190	
7	1992	27.243750	
8	1993	31.616920	
9	1994	31.875060	
10	1995	24.602470	

11	1996	14.573190
12	1997	6.143023
13	1998	6.416452
14	1999	5.464909
15	2000	1.912112
16	2001	0.364215
17	2002	0.198129
18	2003	0.099644
19	2004	0.033904
20	2005	0.006160
21	2006	NaN
22	2007	NaN
23	2008	0.005111
24	2009	0.009315
25	2010	0.011347
26	2011	0.012838
27	2012	0.017138
28	2013	0.022840
29	2014	3.462766
30	2015	6.670442
31	2016	9.325769
32	2017	8.648127
33	2018	8.417307
34	2019	9.501668

Indicator Name	Financial system deposits to GDP (%) \
0	13.376300
1	11.564480
2	9.791883
3	12.149320
4	10.984610
5	9.470563
6	7.073145
7	7.648106
8	5.269487
9	7.130794
10	6.750852
11	6.732426
12	4.435681
13	6.884242
14	6.041236
15	4.392487
16	4.322588
17	5.743925
18	8.262800
19	6.924821
20	5.105043
21	4.732649

22	5.877133
23	5.592354
24	7.993185
25	10.725350
26	8.669295
27	10.383220
28	11.628270
29	9.400925
30	12.516940
31	11.568390
32	10.238480
33	9.932877
34	9.662605

Indicator Name	Liquid liabilities to GDP (%)
0	32.148980
1	39.814320
2	33.628190
3	18.708210
4	27.996010
5	12.399200
6	10.665650
7	12.191530
8	8.410413
9	13.866720
10	16.326330
11	13.880270
12	6.988173
13	9.533681
14	9.194562
15	6.432835
16	6.043296
17	7.868236
18	10.749830
19	8.891184
20	6.438123
21	6.039362
22	7.181620
23	6.618902
24	9.799519
25	12.822880
26	10.912700
27	12.678010
28	14.200540
29	12.053430
30	15.449970
31	14.275100
32	12.726820

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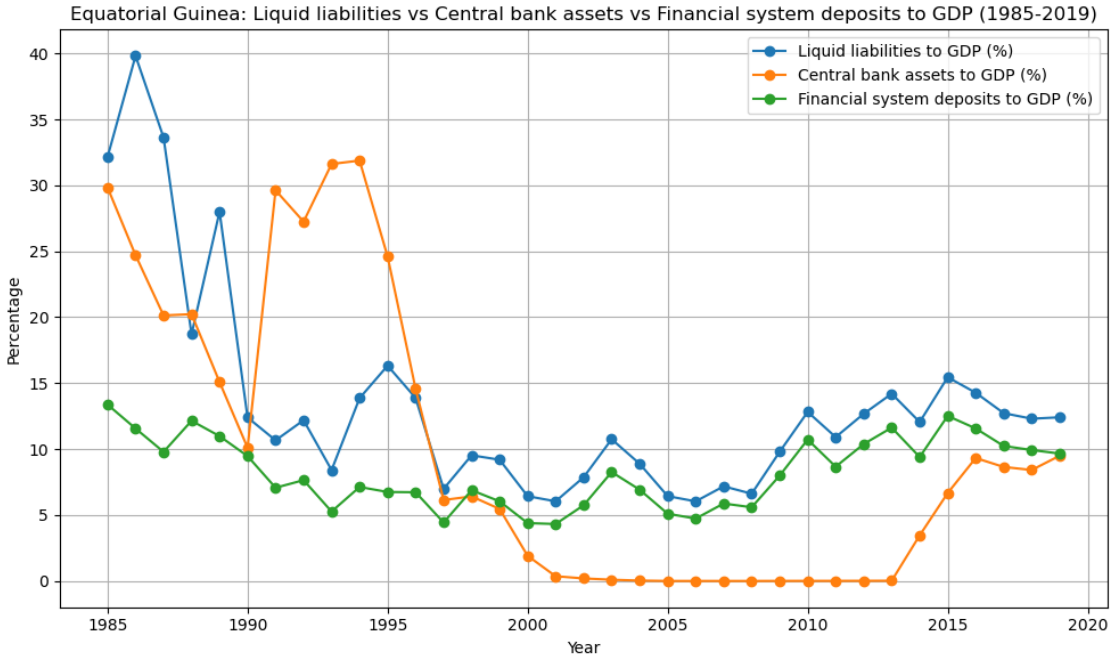
33                                12.306390
34                                12.412930
```



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