IMF WEO Macroeconomic Forecasts dataset (Draft)

The analysis, opinions, and views expressed in this document are those of the author and do not necessarily reflect the positions or policies of Bank Al-Maghrib.

Nour-eddine ECHCHARFI [a]
Mohammed V University of Rabat

Abstract:

I organized IMF WEO forecasts into a tidy dataset, covering GDP growth, CPI inflation, and current account balances for every country and year from 1990-2028. The data is from the WEO historical database, updated until 2028. This dataset offers extensive opportunities for analyzing and conducting empirical research, including assessments of IMF forecasts and studies on equilibrium exchange rates.

Table 1: Specifications Table

Subject	Economics
Specific subject area	IMF WEO forecasts
Type of data	Table (Excel Format)
How data were acquired	Hand collected from IMF website
Data coverage	196 economies over the period 1990-2028.
Data accessibility	Repository name: Mendeley Data
	doi: 10.17632/8dt6xpp6x4.1
	URL: https://data.mendeley.com/datasets/8dt6xpp6x4/1

This paper introduces a dataset compiling IMF WEO macroeconomic forecasts. The dataset is arranged in a user-friendly format within an Excel spreadsheet. It includes WEO projections for GDP growth, CPI inflation, and the current account balance for the period 1990-2028.

The IMF regularly produces forecasts of macroeconomic variables for a large number of economies around the world. The Fund publishes these projections twice a year (in April and October) as part of its World Economic Outlook (WEO). The IMF relies primarily on information gathered by its country desk officers in the context of their missions to IMF member countries and through their ongoing analysis of the evolving situation in each country.

I arranged the WEO historical data into a tidy format — where variables are in columns, and each observation corresponds to a row (Wickham, 2014) — and updated it until October 2023. For every country c and every year t, the dataset contains WEO projections $f_{c,t,h}$ for horizons spanning from the year t to $t+5$. These forecasts are released biannually, in April and October. Additionally, I added region and income group attributes for each country in the dataset. These forecasts are released twice a year, in April and October. Additionally, I added region and income group attributes for each country in the dataset.

The dataset covers 196 countries over the period 1990–2028. These countries are collected into eight groups or regions, namely South Asia (8 countries), Europe and Central Asia (32 counties), Middle East and North Africa (21 countries), Western Europe (19 countries), Sub-Saharan Africa (48 countries), Latin America and Caribbean (34), East Asia and Pacific (32 countries), and North America (2 countries).

This dataset can serve academic researchers, economists at central banks, and finance ministries, among others, in their various analyses. One practical application of this dataset is to compare a country's forecasted GDP growth with regional and income group averages. For instance, Figure 1 compares Morocco's 2-year GDP growth forecast with the MENA region and lower-middle-income countries averages. This information is crucial for both policymakers and private investors. Foreigner investors may rely on this data to make strategic investment decisions, especially in countries with limited reliable alternative sources. Faster-

[a]
E-mail addresses: nordi.echcharfi@gmail.com (N. ECHCHARFI).

growing countries attract more foreign investment and may signal positive investor sentiment, potentially leading to exchange rate appreciation.

Second, the dataset allows for the assessment of WEO macroeconomic forecast performance. The IMF and academic researchers have conducted a series of evaluations of WEO macroeconomic forecasts (Artis, 1996; Heinisch **and** Lindner, 2019; Ho **and** Mauro, 2016; Jakaitiene **and** Dees, 2012; Timmermann, 2007). Moreover, a substantial body of literature treats the "optimism bias" in IMF forecasts (Beaudry **and** Willems, 2022; Carrière-Swallow **and** Marzluf, 2023; Dreher, Marchesi **and** Vreeland, 2008). A compelling use of this dataset is to assess IMF forecasts during the COVID-19 pandemic.

Third, central banks can use the IMF's projections to assess the medium-term evolution of the real exchange rate. GDP growth and inflation rates are two fundamental variables that drive equilibrium exchange rates in medium- and long-run. Economists at central banks may use the dataset to compute predicted GDP growth and inflation for different horizons (1 to 5 years).

Table 2: Variable description.

Variable	Description
Country	The country's name
CCode	Country and Area Codes
WEO_year	The publication year of the WEO
region	The country's regional grouping
incomegroup	The country's income group
year	the year of forecast
exercise	WEO exercise (April or October)
h	The horizon (1,2,3,4, and 5 years)
ngdp_rpch	GDP growth
pcpi_pch	CPI inflation
bca_gdp	Current account balances

Figure 1: WEO GDP growth forecasts for one year and the subsequent 5 years.

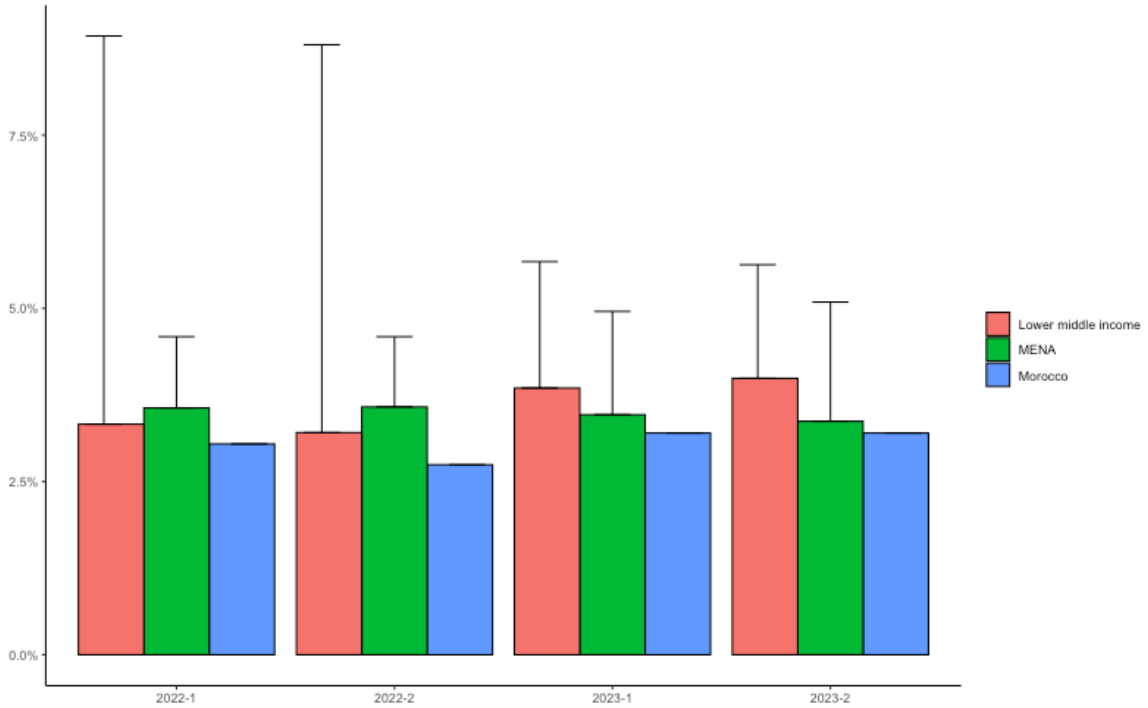
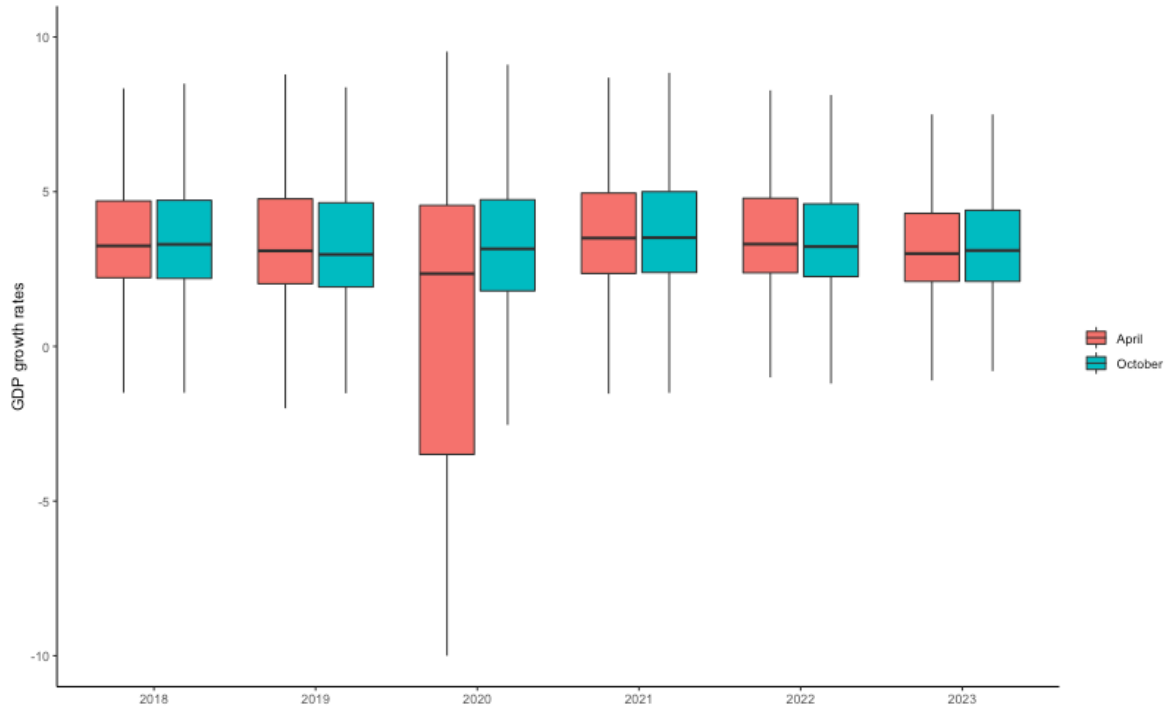


Figure 2: Average GDP growth projections released in April and October WEO reports.



References

Artis, Michael J. (1996). **?**How Accurate are the Imf's Short-Term Forecasts? Another Examination of the World Economic Outlook**?** Washington D.C. (**backrefpage** 2).

Beaudry, Paul **and** Tim Willems (2022). **?**On the Macroeconomic Consequences of Over-Optimism**?** **in***Am. Econ. J. Macroecon.*: 14.1, **pages** 38–59. DOI: 10.1257/mac.20190332. URL: https://www.aeaweb.org/articles?id=10.1257/mac.20190332 (**backrefpage** 2).

Carrière-Swallow, Yan **and** José Marzluf (2023). **?**Macrofinancial Causes of Optimism in Growth Forecasts**?** **in***IMF Econ. Rev.*: 71.2, **pages** 509–537. ISSN: 2041-417X. DOI: 10.1057/s41308-022-00187-3. URL: https://doi.org/10.1057/s41308-022-00187-3 (**backrefpage** 2).

Dreher, Axel, Silvia Marchesi **and** James Raymond Vreeland (**october** 2008). **?**The Political Economy of IMF Forecasts**?** **in***Public Choice*: 137.1/2, **pages** 145–171. ISSN: 00485829, 15737101. URL: http://www.jstor.org/stable/40270856 (**backrefpage** 2).

Heinisch, Katja **and** Axel Lindner (**february** 2019). **?**For how long do IMF forecasts of world economic growth stay up-to-date?**?** **in***Appl. Econ. Lett.*: 26.3, **pages** 255–260. ISSN: 1350-4851. DOI: 10.1080/13504851.2018.1459035. URL: https://doi.org/10.1080/13504851.2018.1459035 (**backrefpage** 2).

Ho, Giang **and** Paolo Mauro (2016). **?**Growth—Now and Forever?**?** **in***IMF Econ. Rev.*: 64.3, **pages** 526–547. ISSN: 2041-417X. DOI: 10.1057/imfer.2016.12. URL: https://doi.org/10.1057/imfer.2016.12 (**backrefpage** 2).

Jakaitiene, Audrone **and** Stephane Dees (**march** 2012). **?**Forecasting the World Economy in the Short Term**?** **in***World Econ.*: 35.3, **pages** 331–350. ISSN: 0378-5920. DOI: https://doi.org/10.1111/j.1467-9701.2011.01433.x. URL: https://doi.org/10.1111/j.1467-9701.2011.01433.x (**backrefpage** 2).

Timmermann, Allan (**october** 2007). **?**An Evaluation of the World Economic Outlook Forecasts**?** **in***IMF Staff Pap.*: 54.1, **pages** 1–33. ISSN: 10207635, 15645150. URL: http://www.jstor.org/stable/30036001 (**backrefpage** 2).

Wickham, Hadley (**september** 2014). **?**Tidy Data**?** **in***J. Stat. Softw.*: 59.10 SE - Articles, **pages** 1–23. DOI: 10.18637/jss.v059.i10. URL: https://www.jstatsoft.org/index.php/jss/article/view/v059i10 (**backrefpage** 1).