Eurasia Review
A JOURNAL OF ANALYSIS AND NEWS

On Economic Growth in the G20 Countries in 2022, Adjusted for the Catch-Up Effect – Analysis

https://www.eurasiareview.com/04082022-on-economic-growth-in-g20-countries-in-2022-adjusted-for-catch-up-effect-analysis/

By Vladimer Papava

August 4, 2022

The COVID-19 pandemic and especially the Russian war in Ukraine and the economic sanctions imposed by the West against Russia have significantly affected the economic growth in many countries of the world. Of particular interest is economic growth in the 19 G20 countries (with the exception of the EU which is not a country): as it is known, these countries account for 80 percent of the world's GDP, 75 percent of international trade and 60 percent of the world's population.

Referring to the publication of the International Monetary Fund (IMF) on the projected indicators of economic growth in 2022 (IMF, 2022), India and Saudi Arabia are considered to be the leaders of economic growth among the G20 countries which are projected to reach 7.4 percent and 7.6 percent, respectively, in 2022 (Chikermane, 2022) (see table).

GDP GROWTH AND GDP PER CAPITA OF G20 MEMBER COUNTRIES

Country	**GDP growth (IMF projections, calendar 2022)**	**GDP per capita (PPP based) in 2021 (WB source)**	**GDP growth (Adjusted)**
Saudi Arabia	7.6	$49,551.3	5.4
India	7.4	$7,333.5	0.8
Indonesia	5.3	$12,904.3	1.0
Argentina	4.0	$23,627.4	1.4
Turkey	4.0	$30,472.4	1.8
Australia	3.8	$55,807.4	3.1
Canada	3.4	$52,085.0	2.6
China	3.3	$19,338.2	0.9
UK	3.2	$49,675.3	2.3
Italy	3.0	$45,936.0	2.0
Mexico	2.4	$20,036.5	0.7
France	2.3	$50,728.7	1.7
South Korea	2.3	$46,918.5	1.6
South Africa	2.3	$14,420.2	0.5
US	2.3	$69,287.5	2.3
Brazil	1.7	$16,056.0	0.4
Japan	1.7	$42,940.4	1.1
Germany	1.2	$57,927.6	1.0
Russia	-6.0	$32,803.4	-2.8

It turns out that Saudi Arabia and India will be the most successful countries of the G20 in 2022. Can we be sure of the validity of this conclusion?

For the sake of fairness, we emphasize that while noting the high rate of economic growth in India, at the same time the existence of the so-called “advantage of a lower base” is indicated (Chikermane, 2022). In a strictly scientific sense, when comparing economic growth in different countries, it is necessary to take into account the so-called “catch-up effect” when, due to diminishing returns on capital, with ceritas paribas, it is easier to achieve higher economic growth rates in countries with a relatively low economic level of development than in countries with more developed economies (Mankiw, 2004, pp. 546-547).

In order to eliminate the "catch-up effect," a special method has been developed based on comparing the level of economic development of different countries in terms of the GDP per capita (PPP based) (Papava, 2012, 2016, 2018).

Since the projected economic growth rate is taken for 2022, the GDP per capita is used for the base year 2021 (WB, 2022a) (see table).

The table shows that the highest GDP per capita in 2021 was in the US. To understand how much more difficult it is to achieve 1 percent economic growth in the US in 2022 than in other countries of the G20, you need to divide the per capita GDP of the US by the same indicators of other countries. These intermediate indicators are very important for adjusting economic growth, excluding the influence of the "catch-up effect." In particular, if the projected values of economic growth for 2022 for each country are divided by the corresponding indicated intermediate values, then we will obtain adjusted indicators of economic growth that exclude the "catch-up effect."

After excluding the "catch-up effect," India is not at all in the leading position among the G20 countries in terms of adjusted economic growth (see table). On the contrary, India's adjusted economic growth rate in 2022 will be only 0.8 percent and it will be in the lagging group of countries with an adjusted economic growth rate of less than 1 percent. This group, along with India, includes China (0.9 percent), Mexico (0.7 percent), South Africa (0.5 percent) and Brazil (0.4 percent).

Saudi Arabia (with 5.4 percent) will be the leading country in adjusted economic growth in 2022. This is understandable given that during the modern "Oil War" (Bugriy, 2022), Saudi Arabia is on an accelerated path to growth in 2022, driven by higher oil prices (WB, 2022b).

In second place among the G20 countries in adjusted economic growth in 2022 is Australia with 3.1 percent (other countries have less than a 3.0 percent adjusted economic growth). Although the stringent lockdowns in China due to the COVID-19 pandemic, as well as the Russia's war in Ukraine, have negatively affected the Australian economy, higher commodity prices have boosted Australia's terms of trade and strong global demand for grains under the conditions of the "food war" (Frum, 2022) contributes to the growth of its exports from Australia (OECD, 2022).

In modern world of confrontational globalization (Papava, 2022), it is very difficult to predict economic growth. The most obvious example is the US which, according to the IMF projected growth in July 2022, will reach 2.3 percent in 2022 (IMF, 2022), although there is likely to be a recession in the US in 2022 (Barro, 2022). Consequently, the IMF will also have to update its economic growth projections in 2022. This requires new calculations of adjusted economic growth rates to update the results in the table (see above).

In conclusion, it must be emphasized that, in any case, when the rates of economic growth of different countries are compared, it is necessary to exclude the “catch-up effect” from these compared values.

References

Barro, Robert J., 2022. “Yes, the US Economy Is Likely in Recession.” *Project Syndicate*, August 1, https://www.project-syndicate.org/commentary/two-consecutive-quarters-negative-us-growth-predict-recession-since-1948-by-robert-j-barro-2022-07?utm_source=Project+Syndicate+Newsletter&utm_campaign=f3d7e12c19-covid_newsletter_08_03_2022&utm_medium=email&utm_term=0_73bad5b7d8-f3d7e12c19-93567601&mc_cid=f3d7e12c19&mc_eid=e9fb6cbcc0.

Bugriy, Maksym, 2022. “The Oil War: Facing EU Embargo, Russia Targeted Ukraine’s Supplies.” *Eurasia Review*, May 20, https://www.eurasiareview.com/20052022-the-oil-war-facing-eu-embargo-russia-targeted-ukraines-supplies-analysis/.

Chikermane, Gautam, 2022. “Economics, Geopolitics, and the Impact on G20.” *Eurasia Review*, July 31, https://www.eurasiareview.com/31072022-economics-geopolitics-and-the-impact-on-g20-analysis/.

Frum, David, 2022. “The Food War.” *The Atlantic*, March 8, https://www.theatlantic.com/ideas/archive/2022/03/rising-food-prices-ukraine-russia-war/626967/.

IMF, 2022. “Gloomy and More Uncertain.” *World Economic Outlook*, July, https://www.imf.org/en/Publications/WEO/Issues/2022/07/26/world-economic-outlook-update-july-2022.

Mankiw, N. Gregory, 2004. *Principles of Economics*. Mason: Thomson South-Western.

OECD, 2022. "Australia Economic Snapshot." *OECD*, June, https://www.oecd.org/economy/australia-economic-snapshot/.

Papava, Vladimer 2012. "Economic Growth in the Central Caucaso-Asian Countries Adjusted for the Catch-Up Effect." *Central Asia and The Caucasus*, Vo. 13, No. 4, pp. 120-128.

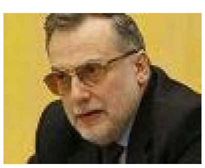
Papava, Vladimer 2016. "The Problem of the Catch-Up Effect and Post-Crises Economic Growth in the World Leading Countries." *Bulletin of the Georgian National Academy of Sciences*, Vol. 10, No. 4, pp. 97-104, http://science.org.ge/bnas/vol-10-4.html.

Papava, Vladimer 2018. "Catching Up and Catch-Up Effect: Economic Growth in Post-Communist Europe (Lessons from the European Union and the Eastern Partnership States)." *European Journal of Economic Studies*, Vol. 7, No. 2, pp. 109-125, https://ejes.cherkasgu.press/journals_n/1537557942.pdf.

Papava, Vladimer 2022. "Pandemic, War and Economic Sanctions: From Turbulent to Confrontational Globalization." *Eurasia Review*, May 23, https://www.eurasiareview.com/23052022-pandemic-war-and-economic-sanctions-from-turbulent-to-confrontational-globalization-oped/?fbclid=IwAR1zLFJs1kUFJWgp6qRXRWhLOy2OWnWjwIVUjMwjphnjqs0OKoUQSi12Z4I.

WB, 2022a. "GDP per capita, PPP (Current International $)." *The World Bank*, August, https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD.

WB, 2022b. "Saudi Arabia's Economic Update — April 2022." *The World Bank*, April 14, https://www.worldbank.org/en/country/saudiarabia/publication/economic-update-april-2022.



Vladimer Papava is a former Minister of Economy of the Republic of Georgia and the author of *Necroeconomics*, a study of post-Communist economic problems. Vladimer Papava is a Professor of Economics of the Ivane Javakhishvili Tbilisi State University, Academician of the Georgian National Academy of Sciences, and a former Rector of the Ivane Javakhishvili Tbilisi State University.