P-ISSN: 2204-1990; E-ISSN: 1323-6903 DOI: 10.47750/cibg.2021.27.03.003

# Public Debt Increase Challenge Under COVID-19 Pandemic Economic Crisis in the Caucasian Countries

## CHARAIA VAKHTANG<sup>1</sup>, PAPAVA VLADIMER<sup>2</sup>

Business and Technology University, Georgia, Tbilisi State University, Georgia Email: vakhocharaia@gmail.com \*Corresponding Author

**Abstract:** Paper provides an analysis of public debt problem in the Caucasusian countries of Armenia, Azerbaijan, Georgia, Iran, Russia and Turkey during the economic crisis under the COVID-19 pandemic. It also discussed some closely related issues, sauch as inflation, economic growth, employment, international rankings and etc. The paper analysis the different realities and perspectives of current and future developments of COVID-19 pandemic on selected countries economy. While recognizing that public debt increase was unavoidable during the global pandemic challenge, paper concludes that its effectiveness is hugely depended on when global economy can finally overcome the fact of being a hostage of COVID-19.

Keywords: COVID-19, Economic Crisis, Public Debt, Economic Growth, Caucasian Countries

#### **INTRODUCTION**

According to the latest updates only few exceptional countries in the world managed to have a positive economic growth rate, while around 200 economies faced a negative GDP growth results in 2020.

Active monetary, fiscal, and financial sector policies all over the world prevented worse consequences and further economic recession perspective. However, still states with developing or transitional economies will be the ones suffering the most (Frankel, 2020).

In general, economic crisis under the COVID-19 pandemic will be impossible to overcome until world medicine defeats the pandemic. It means that economy remains hostage to medicine (Papava, 2020a).

The COVID-19 pandemic and the global economic crisis caused by it (e.g. Baldwin & di Mauro, eds. 2020) presented the world with numerous severe problems. Due to the great importance of the impact of the coronavirus on the economy, the term "coronomics" was coined (de Alwis, 2020). Based on this, the economic crisis caused by the COVID-19 pandemic will be briefly called the coronomic crisis (Papava, 2020a).

For overcoming economic challenges immediately, different national governments as one, took bold economic steps not only to save the economy, but also to save the lives of their own citizens, with nearly \$12 trillion in fiscal actions and about \$7.5 trillion in monetary actions (Georgieva, 2020). Though, the global coronomic crisis has not only caused the global recession, healthcare challenges all over the world, but also lead to the unprecedented overall debt height (IMF, 2020a), which is not now, but for sure, will be the hard issue of post-pandemic era, especially for developing countries.

This paper analyse relative scientific literature, followed by the global pandemic economic reality, deriving from global to local economies and concentrate on six countries – Armenia, Azerbaijan, Georgia, Iran, Russia and Turkey, which belong to the Caucasus region (Ismailov & Papava, 2006, 2008). Challenges and opportunities faced by the given countries quite different, but are similar in public debt increase aspect caused by COVID-19, which will be the main part of the paper analysis. At the end of the paper specific conclusions are made.

#### LITERATURE REVIEW

The COVID-19 pandemic has triggered a global economic crisis hardy ever seen before, because of its scale and nature so different from the standard economic crisis world has ever faced before, with Krugman (2021) believing that weird times are calling for weird economic thinking.

Even though different complications in the contemporary system of international economic relations revealed themselves a rather long time ago (Aptsiauri, 2020) the COVID-19 pandemic turned the entire world upside down (Charaia & Lashkhi, 2020). Along other unplanned challenges coronomic crisis brought is significant increase of the public debt (government's domestic and external debts combined) all over the world, with no exceptions for rich, emerging and/or poor economies (Papava & Charaia, 2021), which is especially important, since even before pandemic the world was already reaching the public debt level last time seen at the end of World War II (Abbas et all, 2019).

Coronomic crisis once again has brought the light to the issue of public debt expediency. However, from far different perspective as it was seen even with the most recent global economic crisis of 2008-2009 (Dalio,

Copyright © The Author(S) 2021. Published By *Society Of Business And Management*. This Is An Open Access Article Distributed Under The CC BY License. (Http://Creativecommons.Org/Licenses/By/4.0/)

2020). While everyone agrees on public debt instrument to be activated, based on its necessity and affordability, yet there is no clear answer on: who's going to pay for it, even in case of economically such a strong country as United States is (Sachs, 2021).

What should be a limit for public debt, which countries/economies and how much should they borrow, from local or international sources, does it matter the loan's interest rate amount while solving essential short and medium ran unprecedented challenges and etc. There are no clear and proved answers to all of those questions, especially if considering different afterward threats potentially possible to be caused by global economic order change, exchange rate instability, global commodity price change, banking sector instability and etc.

According to the experts opinion developed countries can afford higher volumes of public debt, given the low interest rates available on the market (Blanchard, 2019) and trust devoted to them for their stability and higher sovereign rankings.

Moreover, according to the followers of the Modern Monetary Theory, the growth of public debt does not contain threats at all (e.g. Keaveny, 2020); however, this theory has many questions yet to answer and the most important one is what to do against the undesirable growth of inflation, caused by the increased money supply (Rajan, 2020), as well as what if the debt pyramid will fall down.

Newman (2013) believes higher public debt limits economic activity opportunities and hinders the position of "great nation" even for such a global leader as United States. While Hager (2016) is even going deeper and concentrating on such issues, as: Who are the dominant owners of public debt? Is the debt largely concentrated in the hands of few, or not? Does the debt ownership provides any influence on local government's policymaking and etc. At the same time, the problem of debt has never been the sole purview of closed economic circles, which widens the area for public debt issue analysis (Barreyre, Delalande, 2020).

#### **International experience**

The fiscal expenditure caused by the COVID-19 pandemic worldwide has surpassed USD 1 trillion and the overall world public debt to GDP reached new historic maximum of estimated 98% in 2020, compared with 84% for the same date based on projections in the October 2019 Fiscal Monitor (IMF, 2021a) going even higher in 2021 up to 99.5% to support those virus-hit economies (Lee, 2021).

Considering uniqueness of the given coronomic case, it appeared that global financial institutions where more than ready to put their bold actions. With no banking crisis at alland IMF's readiness to ability to finance any country in need out of its 190 member states, with reserves equal to USD 1 trillion (Georgieva, 2020), it appeared that only 1/10<sup>th</sup> of this sum was needed by the market (IMF, 2020b). Moreover, underling that this was the only option which it had and which will support global and in particular local economies for faster recovery. Should be underlined that mass global financial support programs and necessity to borrow on the other hand, lead to the unprecedented number of countries with the public debt to GDP ratio other 100% in both, developed and developing economies (table 1). Fortunately none of the Caucasus countries appear on the given list.

Country	Ratio of Public Debt to GDP	Country	Ratio of Public Debt to GDP	Country	Ratio of Public Debt to GDP
Japan	264	Bahrain	131	France	119
Sudan	250	Portugal	130	Belgium	117
Greece	201	Bhutan	126	Canada	115
Eritrea	173	Barbados	125	Antigua	113
Italy	158	Mozambique	124	Cyprus	112
Cabo Verde	138	Spain	121	UK	112
USA	134	Aruba	120	Suriname	108
Singapore	132	Zambia	120	Angola	108
Belize	132	Maldives	119	Brazil	103

Table 1: List of Countries with Ratio of the Public Debt to GDP over 100%, 2021 forecast
--

Source: IMF, Report for Selected Countries and Subjects: October 2020, https://www.imf.org/en/Publications/WEO/weo-database/2020/October.

Paradoxically, as much it is understandable why IMF supported and why local economies asked for the debt, it is also logical that the rapid increase of external debt of such a scale could put at least developing states under greater fiscal pressure in the upcoming years, especially considering the global investment decrease and thus, positive financial benefits which could help countries to improve their economic performance (Charaia et all, 2020). Due to the substantial worsening of the debt to tax revenues ratio, servicing of those increased public debts will be significantly more difficult (IMF, 2020c).

Because of the global scale challenge of unprecedented public debt levels all over the world, G20 already considers creations of debt restructuring scheme for most vulnerable countries (Spence & Leipziger, 2020).

However, that should not be a reason of increasing public debt by any country for sure and the number of overdebted countries should be brought down in natural way.

Based on 2021 January update, IMF considers that a large part of the debts taken will ensure that countries will have economic growth in 2021 and next years, with even higher optimistic view than it had from the October 2020 perspective (table 2) (IMF, 2021b), based on hopefulness getting from multiple vaccine approvals and launch of the vaccination process in many countries already. Statements of earlier-than-expected effective COVID-19 vaccines have boosted market sentiment and paved the way for the global economic recovery, even lifting risk asset prices higher (IMF, 2021c).

Years	World	Economic	Economic	Growth	in	Economic	Gr	owth	in
	Growth		Developed	States		Transitional	and	Develop	ping
						States			
2020	-3.5		-4.9			-2.4			
2021	5.5		4.3			3.1			
2022	4.2		3.1			5.0			

 Table 2: Economic Growth in the World in 2020-2022

Source: IMF, World Economic Outlook Update Growth Projections, https://www.imf.org/-/media/Images/IMF/Publications/WEO/2021/January/English/weoupdate-jan21-eng.ashx.

Note worse messages are also shared by the Economist Intelligence Union, which predicts that priority groups vaccinated in rich economies by end-March, global economic prospects will be brightened already in 2021. However, it also says that it will be not before late 2023 when the whole world will be able to go through the vaccination, with most middle-income countries, including China and India by late 2022 and the poorest nations, mainly African ones only by late 2023 (The Economist Intelligence Union, 2021).

Public debt caused by coronomic crisis will keep vulnerabilities eminent. Government's decision along with international financial organizations support made possible to balance in short and medium-term sustainability, however increased challenges for the long run, especially for those high-debt economies. To overcome those challenges governments will need to control their fiscal risks using different available instruments, including but not limited with – tax reforms, business climate improvement, belt tightening policies and etc.

Developed, emerging and developing economies all as one, in 2021 are projected to be on the safe side, suggesting a growth of national economies, including through lower public and business stimulus package needs and increased tax revenues, however with diverging recovery paths are predicted based on those country's economic structure.

In 2021 substantial disparity is expected between China, where effective combination of activities has enabled a strong recovery, and other countries. Oil exporters, such as Russia, Iran and Azerbaijan and tourism-based economies such as Georgia, within the group of other countries will face relatively difficult scenarios predicting the unhurried normalization of cross-border travel and the subdued outlook for oil prices (IMF, 2021d). However, there are two main aspect which theoretically could play both, on downside and upside of the global economic recovery, and those are Covid-19 and its Vaccination related challenges.

## The Growth of Public Debt during the Coronomic Crisis in Caucasus Countries

According to the preliminary data all six Caucasian countries have increased their public debt to GDP ratio during the pandemic 2020 year. Despite the fact of being an oil rich countries and thus less depended on public debt in previous years, Azerbaijan and Russia slightly increased their parameters during the coronomic crisis.

Unlike other Caucasus states Turkey and Azerbaijan until 2025 will not decrease, but in opposite will even increase their public debt dependence, while other countries will decrease them:

- From 41.7 percent to GDP in 2020 up to 50.4 percent to GDP for 2025 year for Turkey;
- While Azerbaijan will be pushed to increase its public debt from 20.1 percent in 2020 to 26.2 percent to GDP in 2025;
- On the contrary, Georgia, Armenia, Russia and Iran will be able to decrease their public debts at around 7 to 15 percent by 2025, according to the IMF forecast (Diagram 1).

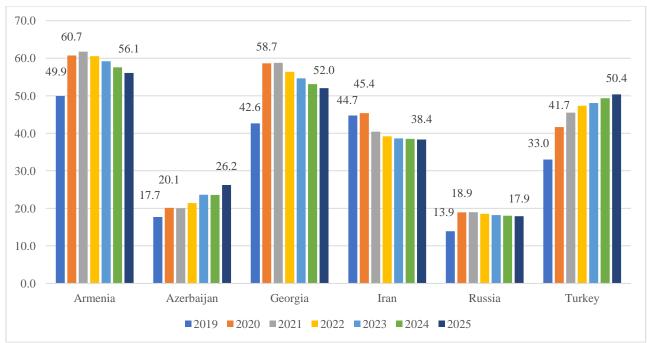


Diagram 1: General government gross debt as percent of GDP in Caucasian Countries

Source: World Economic Outlook Database, 2020, https://www.imf.org/en/Publications/WEO/weo-database/2020/October.

The numbers by which public debt is already or will be increased in the future in the given 6 countries does not automatically mean they will borrow corresponding amount of financial resources from local or international donors, but may be also lead by local GDP decrease, which was has happened in almost all countries all over the world with only several exceptions. For instance, there is no official data on Azerbaijan attracting new public debt because of COVID-19 related issues, while Georgia was forced to attract additional external debt since its economy faced numerous difficulties and challenges (Papava & Charaia, 2020).

The difference also may very if we consider the amount of attracted public debt from local and international sources, since the ability in both directions or at least in one of them, could be limited for particular countries because of different reasons, for instance in case of Iran on international arena. Should be mentioned that for Iran pandemic was not the only reason for recession, since it was its third in a row year with negative economic growth (WBG, 2020). However, forecast for all six Caucasian countries for the next five years starting from 2021 is positive (IMF, 2021e), with Georgia leading the table on economic growth average indicator (5.36 %), as well as being above the world average (4.06 %), despite the fact of decreasing Georgia's 2021 economic growth from 5 to 4.3 percent (IMF, 2020d). Georgia is followed by Armenia (4.5 %), Turkey (3.9 %), Russia (2.2 %), Azerbaijan (1.74 %) and Iran the last (1.7 %), but still positive economic growth (Diagram 2).

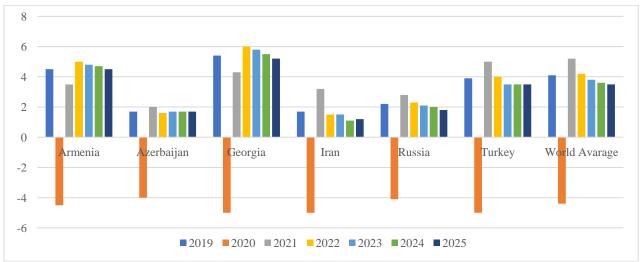


Diagram 2: Real GDP growth (Annual percent change) in Caucasian Countries

Source: IMF, Real GDP Growth Map, https://www.imf.org/external/datamapper/NGDP\_RPCH@WEO/OEMDC/ADVEC/WEOWORLD/GEO/IRN/T UR/RUS/ARM/AZE.

Also, while speaking about government's foreign debt sources, they may very base on sources, which could offer different interest rates, schedules for repayment, conditions on loan providing and etc. For instance:

- Georgia was the only country to get a COVID-19 Financial Assistance and Debt Service Relief from IMF with SDR 273.6 million or US\$ 375.60 million support (IMF, 2021f);
- While Armenia got quit significant amount of resources from the same source, but other program called Stand by Arrangement (SBA) with immediate 175 million USD access and 248 million under three year long program (IMF, 2020e).

However, IMF was not the only source of support neither for Georgia, nor for Armenia, as well as other countries which used other sources, including government banks, international financial institutions, donor countries and etc. to meet their urgent financial needs.

While speaking about the public debt amount it's also important to consider the exchange rates of national currencies, since they may have an important impact an overall public debt amount in local currency and thus debt service opportunity which could be crucial.

According to the official exchange rates of Caucasian countries to US Dollar, for the last one year (from February 12, 2020 to February 12, 2021), we can observe that the approach taken by different countries was more or less similar, thus giving a space to national currencies for more or less free floatation (however, it's never a totally free float) in Georgia, Armenia, Turkey and Russia, while Iran and Azerbaijan preferred to fix the exchange rate, thus having exactly the same rate as it was exactly one year before (Diagram 3).

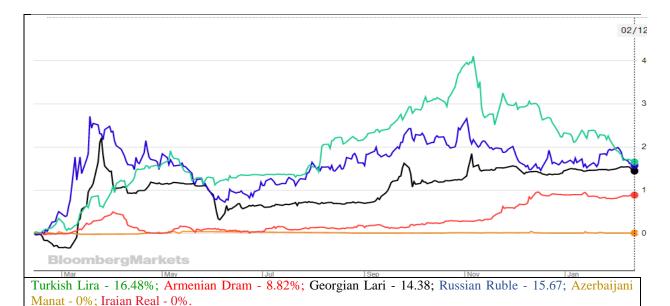


Diagram 3: Exchange rate in Caucasus Countries, February 12, 2020 - February 12, 2021 (percent)

Source: Bloomberg, Exchange rates, https://www.bloomberg.com/quote/USDGEL:CUR.

- As a result of different policies toward the exchange rate, different price has been paid by the countries, such as: - Armenia claimed it allowed exchange rate to adjust flexibly and no balance of payment or capital control
- measures have been adopted;The Central Bank of Azerbaijan with the participation of the State Oil Fund, has stabilized exchange rate at
- 1.7 AZN/US\$;
  National bank of Georgia has sold net USD 916 million foreign exchange in 2020 and USD 80 million in
- National bank of Georgia has sold net USD 916 million foreign exchange in 2020 and USD 80 million in the beginning of 2021 to prevent disorderly depreciation;
- The Central Bank of Iran declared to inject USD 2.5 billion in the foreign exchange market in March and July only;
- Central Bank of Russia started selling FX reserves from the National Welfare Fund;
- Central Bank of the Republic of Turkey announced that the overall limit of the bilateral swap agreement between Turkey and Qatar was increased from US \$5 billion to US \$15 billion equivalent (IMF, 2021g).

Considering oil price shock, international sanctions, COVID-19 pandemic, Armenia-Azerbaijani war and other important events (e.g. Kramer, (2021), 2020 year became especially hard for the Caucasus region, however with different stress level and different perspectives.

High inflation in Turkey and even higher in Iran, in contrast to 0.9 - 5.3 percent in Armenia, Azerbaijan, Russia and Georgia seems less problematic (Diagram 4), however also considering mass unemployment rise, pause of jobs in different economic areas for several month, as well as problems related to bank loans both for individuals or businesses and etc. caused a huge stress locally and globally. Because of different economic structures, different attitude was shown by inflation parameter in different Caucasian countries, including higher (Azerbaijan, Georgia) inflation than in previous year and also lower (Armenia, Iran, Russia and Turkey), but the fact is that prices increased in all 6 nations without exception (IMF, 2020f).

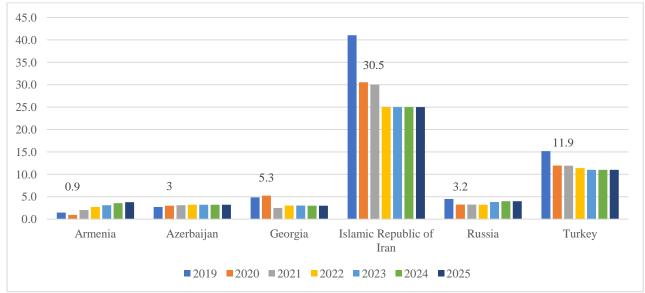


Diagram 4: Inflation, average consumer prices in Caucasian Countries (%)

Source: IMF, Report for Selected Countries and Subjects: October 2020, https://www.imf.org/en/Publications/WEO/weo-database/2020/October.

Challenges in supply chains, increase of price for some strategic products including sugar, wheat, sunflower oil and etc. as well as shortages of different products including medical equipment and not only at some stages of pandemic, as a result shocks from both supply and demand side, resulted in global inflation, however as statistics say less than in 2019 globally, decreasing from 3.51% to 3.18% in 2020 (Statista, 2021).

Despite the fact of pandemic reality and other challenges on the top, which made a huge influence on global economy and investment environment all over the world, Caucasus countries are showing much of stability on sovereign ranking at large maintaining their positions (Table 3), while Fitch has downgraded a record number of 33 sovereign ratings due to the coronavirus (CNBC, 2020).

Country	Beginning of 2020	Latest update
Armenia	BB-	B+
Azerbaijan	BB+	BB+
Georgia	BB	BB-
Iran	-	-
Russia	BBB	BBB
Turkey	BB-	BB-

Table 3: Fitch Ranking for Caucasus Countries

Source: Fitch Ranking 2020, Fitch Ranking 2021, https://www.fitchratings.com/topics/outlooks.

The possibilities of servicing and paying back the external debt are directly connected to the end of the coronomic crisis which is dependent on the success of medicine against global pandemic. In this regard, the creation of several vaccines against the coronavirus is promising (Gallagher, 2020a, 2020b). However, the problem of the mass availability of these vaccines must still be resolved (Mazzucato, Torreele, 2020), not only for the rich, but also poor countries as well as the readiness of the population to agree on vaccination (Papava, 2020b). However, "the end" is quit ambiguous, with More than 85 poor countries will not be able to vaccinate

its population before 2023 (EIU, 2021). Moreover, the forecasts about the economic situation in the postpandemic period are not very hope-inspiring (Roubini, 2020). In such a situation, the level of ambiguity is rather high which makes using the external debt rationally and purposefully for implementing anti-crisis measures adopted by the government a higher priority, especially when there is a clear need to such loans with acceptable interest rates.

## CONCLUSION

Active monetary, fiscal, and financial sector policies all over the world in 2020 prevented worse consequences and further economic recession perspective. However, still states with developing or transitional economies will be the ones suffering the most.

In general, economic crisis under the COVID-19 pandemic will be impossible to overcome until world medicine defeats the pandemic.

The COVID-19 pandemic has triggered a global economic crisis hardy ever seen before, because of its scale and nature different from the standard economic crisis world has ever faced before.

Coronomic crisis brought is significant increase of the public debt (government's domestic and external debts combined) all over the world, with no exceptions for rich, emerging and/or poor economies.

Considering uniqueness of the given coronomic case, it appeared that global financial institutions where more than ready to put their bold actions. However, no banking or financial crisis happened as it usually happened before.

Mass global financial support programs and necessity to borrow on the other hand, lead to the unprecedented number of around 30 countries with the public debt to GDP ratio other 100% in both, developed and developing economies. No Caucasian country on this list.

Rapid increase of public debt of such a scale could put especially developing states under greater fiscal pressure in the upcoming years. Due to the substantial worsening of the debt to tax revenues ratio, servicing of those increased public debts will be significantly more difficult to manage.

Because of the global scale challenge of unprecedented public debt levels all over the world, G20 already considers creations of debt restructuring scheme for most vulnerable countries. However, that should not be a reason of increasing public debt by any country for sure and the number of over-debted countries should be brought down in natural way.

Public debt caused by coronomic crisis will keep vulnerabilities eminent. Government's decision along with international financial organizations support made possible to balance in short and medium-term sustainability, however increased challenges for the long run, especially for those high-debt economies. To overcome those challenges governments will need to control their fiscal risks using different available instruments, including but not limited with – tax reforms, business climate improvement, belt tightening policies and etc.

In 2021 substantial disparity is expected between different countries, including oil exporters, tourism-based, foreign debt depended or other category of countries. However, there are two main aspect which theoretically could play both, on downside and upside of the global economic recovery, and those are Covid-19 and its Vaccination related challenges.

According to the preliminary data all six Caucasian countries have increased their public debt to GDP ratio during the pandemic 2020 year. Despite the fact of being an oil rich countries and thus less depended on public debt in previous years, Azerbaijan and Russia slightly increased their parameters during the coronomic crisis. However, the further growth or decrease rate of all countries are different.

The difference also may very if we consider the amount of attracted public debt from local and international sources, since the ability in both directions or at least in one of them, could be limited for particular countries because of different reasons, for instance in case of Iran on international arena.

Forecast for all six Caucasian countries for the next five years starting from 2021 is positive, with Georgia the leader.

According to the official exchange rates of Caucasian countries to US Dollar, for the last year, it can be observed that the approach taken by different countries was more or less similar, thus giving a space to national currencies for more or less free floatation (however, it's never a totally free float) or currency fixing.

Inflation indicator in Caucasian countries very, but with relatively stable inflation rate in next five years in majority of them, while Iran and Turkey inflations depended on other factors, rather than pandemic.

Despite the fact of pandemic reality and other challenges on the top, which made a huge influence on global economy and investment environment all over the world, Caucasian countries are showing much of stability on sovereign ranking at large maintaining their positions.

The possibilities of servicing and paying back the external debt are directly connected to the end of the coronomic crisis which is dependent on the success of medicine against global pandemic, including in Caucasian countries.

## REFERENCES

- 1. Abbas, S., Pienkowski, A., & Rogoff K. (2019) *Sovereign Debt: A Guide for Economists and Practitioners:* Oxfors. Oxford University Press.
- Aptsiauri, D. (2020) Current Trends in the Development of Modern International Economic Relations and Post-Virus Pandemic Crisis (Covid-19) Challenges. GFSIS Expert Opinion, No. 139. Tbilisi, Georgian Foundation for Strategic and International Studies. Available at https://www.gfsis.org/files/library/opinionpapers/139-expert-opinion-eng.pdf.
- 3. Baldwin, R., & di Mauro, B., eds. (2020) *Mitigating the COVID Economic Crisis: Act Fast and Do Whatever It Takes*: London, CEPR Press. Available at https://voxeu.org/content/mitigating-covid-economic-crisis-act-fast-and-do-whatever-it-takes.
- 4. Barreyre, N., & Delalande, N., eds. (2020) A World of Public Debts: A Political History: R3s0, Palgrave Macmillan.
- 5. Blanchard, O. (2019) *Public Debt and Low Interest Rates*. NBER Working Paper 25621. Cambridge, MA, National Bureau of Economic Research. Available at https://www.nber.org/system/files/working\_papers/w25621/w25621.pdf.
- 6. Bloomberg. (2021) Exchange rates list. Available at https://www.bloomberg.com/quote/USDGEL:CUR.
- Charaia, V., Chochia, A. & Lashkhi, M. (2020) The impact of fdi on Economic development: The Case of Georgia. *TalTech Journal of European Studies*, 10(2), pp.96-116. https://content.sciendo.com/view/journals/bjes/10/2/article-p96.xml
- Charaia, V., & Lashkhi, M. (2020) Georgia and China: The Economic Ties that Could One Day Bind. A Sea Change? China's Role in the Black Sea. Washington, DC, Middle East Institute. Available at https://mei.edu/sites/default/files/2020-11/A%20Sea%20Change%3F-
- China%27s%20Role%20in%20the%20Black%20Sea.pdf.
- 9. Dalio, R. (2018) Big Debt Crises: Austin, Bridgewater.
- 10. de Alwis, A. (2020) Coronomics Plan Your Eggs and the Basket! *Daily FT*, February 25. Available at http://www.ft.lk/columns/Coronomics-%E2%80%93-Plan-your-eggs-and-thebasket-/4-695109.
- 11. Frankel, J. (2020) The Pandemic Pain of Emerging Markets. *Project Syndicate*, July 31. Available at https://www.project-syndicate.org/commentary/covid19-will-hit-emerging-and-developing-economies-hardest-by-jeffrey-frankel-2020-

 $07?a\_la=english\&a\_d=5f240c4df2873622d0eb736b\&a\_m=\&a\_a=click\&a\_s=\&a\_p=\% 2Farchive\&a\_li=covid19-will-hit-emerging-and-developing-economies-hardest-by-jeffrey-frankel-2020-07\&a\_pa=archive-results\&a\_ps=\&a\_ms=\&a\_r=\&barrier=accesspaylog.$ 

- Gallagher, J. (2020a) COVID Vaccine: First 'Milestone' Vaccine Offers 90% Protection. BBC, November 10. Available at https://www.bbc.com/news/health-54873105?fbclid=IwAR0aCzNMjEYLeSWDl1gI-Lr4y-3KvvfdoM2Xb\_UM2S4NtV46IFB-BetEXtI.
- 13. Gallagher, J. (2020b) Moderna: Covid Vaccine Shows Nearly 95% Protection. *BBC*, November 16. Available at https://www.bbc.com/news/health-54902908.
- 14. Georgieva, K. (2020) Message From the Managing Director. In: *A Year Like no Other. IMF Annual Report*. Washington, DC, International Monetary Fund. Available at https://www.imf.org/external/pubs/ft/ar/2020/eng/.
- 15. Hager S. (2016) *Public Debt, Inequality, and Power: The Making of a Modern Debt State*: Oakland, University of California Press.
- 16. IMF. (2020a) *Global Financial Stability Report, Bridge to Recovery*. Washington, DC, International Monetary Fund, October. Available at https://www.imf.org/-/media/Files/Publications/GFSR/2020/October/English/text.ashx.
- 17. IMF. (2020b) *Global Policy Agenda, Catalyzing a Resilient Recovery*. Washington, DC, International Monetary Fund. Available at https://www.imf.org/-/media/Files/Publications/PP/2020/English/PPEA2020047.ashx.
- IMF. (2020c) World Economic Outlook. A Long and Difficult Ascent. Washington, DC, International Monetary Fund, October. Available at https://www.imf.org/-/media/Files/Publications/WEO/2020/October/English/text.ashx.
- IMF. (2020d) IMF Staff Concludes Virtual Review Mission to Georgia. Washington, DC, International Monetary Fund, https://www.imf.org/en/News/Articles/2020/11/10/pr20336-georgia-imf-staff-concludesvirtual-review-mission
- IMF. (2020e) IMF Executive Board Concludes Second Review Under Armenia's Stand-By Arrangement and Augments Access to Address the Impact of COVID-19, Washington DC, International Monetary Fund, May 18. Available at https://www.imf.org/en/News/Articles/2020/05/18/pr20219-armenia-imf-execboardconcludes-2ndrev-under-sba-augments-access-address-impact-covid19.

- IMF. (2020f) World Economic Outlook Database, Report for Selected Countries and Subjects: October 2020, Washington, DC, International Monetary Fund. Available at https://www.imf.org/en/Publications/WEO/weo-database/2020/October.
- 22. IMF. (2021a) *Fiscal Monitor Update*. Washington, DC, International Monetary Fund. Available at https://www.imf.org/en/Publications/FM/Issues/2021/01/20/fiscal-monitor-update-january-2021.
- 23. IMF. (2021b) World Economic Outlook Update, Growth Projections. Washington, DC, International Monetary Fund, January. Available at https://www.imf.org/-/media/Images/IMF/Publications/WEO/2021/January/English/weoupdate-jan21-eng.ashx.
- 24. IMF. (2021c) *Global Financial Stability Update*. Washington, DC, International Monetary Fund, January. Available at https://www.imf.org/en/Publications/GFSR/Issues/2021/01/27/global-financial-stability-report-january-2021-update.
- 25. IMF. (2021d) World Economic Outlook, Policy Support and Vaccines Expected to Lift Activity, Washington, DC, International Monetary Fund, January. Available at https://www.imf.org/en/Publications/WEO/Issues/2021/01/26/2021-world-economic-outlook-update.
- 26. IMF. (2021e) Real GDP Growth Map. Washington, DC, International Monetary Fund, https://www.imf.org/external/datamapper/NGDP\_RPCH@WEO/OEMDC/ADVEC/WEOWORLD/GEO/I RN/TUR/RUS/ARM/AZE
- 27. IMF. (2021f) COVID-19 Financial Assistance and Debt Service Relief. Washington DC, International Monetary Funds, January. Available at https://www.imf.org/en/Topics/imf-and-covid19/COVID-Lending-Tracker#ftn.
- 28. IMF. (2021g) *Policy Responses to Covid-19*, Washington, DC, International Monetary Fund. Available at https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19#G.
- WBG. (2020) Weathering the Triple-Shock, *Iran Economic Monitor*. Washington DC. Available at http://documents1.worldbank.org/curated/en/287811608721990695/pdf/Iran-Economic-Monitor-Weathering-the-Triple-Shock.pdf.
- 30. Ismailov, E., & Papava, V. (2006) *The Central Caucasus: Essays on Geopolitical Economy:* Stockholm, CA&CC Press.
- 31. Ismailov, E., & Papava, V. (2008). A New Concept for the Caucasus. *Southeast European and Black Sea Studies*, 8(3), 283-298.
- 32. Keaveny, P. (2020) Modern Monetary Theory: The Rise of Economists Who Say Huge Government Debt Is Not a Problem. *The Conversation*, July 7. Available at https://theconversation.com/modern-monetary-theory-the-rise-of-economists-who-say-huge-government-debt-is-not-a-problem-141495.
- 33. Kramer, A. (2021) Armenia and Azerbaijan: What Sparked War and Will Peace Prevail? *The New York Times*, January 29. Available at https://www.nytimes.com/article/armenian-azerbaijan-conflict.html.
- 34. Krugman, P. (2021) Pandemic Economics: Stay Weird. *The New York Times*, February 16. Available at https://static.nytimes.com/email-content/PK\_sample.html.
- 35. Lee, A. (2021) Global public debt to rise 'modestly' after US\$14 trillion spent to tackle coronavirus economic damage, IMF says. *China Macro Economy*, Jan 28. Available at https://www.scmp.com/economy/global-economy/article/3119649/global-public-debt-rise-modestly-after-us14-trillion-spent.
- 36. Lee, Y. (2020) *Fitch has downgraded a record number of sovereign ratings due to the coronavirus. It's not done yet*, CNBC. Available at https://www.cnbc.com/2020/07/03/fitch-downgraded-record-number-of-sovereign-ratings-due-to-coronavirus.html.
- 37. Newman F. (2013) Freedom from National Debt: Minneapolis, Two Harbors Press.
- 38. Papava, V. (2020a) Coronomic Crisis: When The Economy Is a Hostage to Medicine. Eurasia Review, March 29. Available at https://www.researchgate.net/publication/340264785\_Coronomic\_Crisis\_When\_The\_Economy\_Is\_A\_Host age\_To\_Medicine.
- Papava, V. (2020b) Is the Vaccine a Panacea? *Eurasia Review*, September 30. Available at https://www.eurasiareview.com/30092020-is-the-vaccine-a-panacea-oped/?fbclid=IwAR0A1A6aQRGpC-6SfhcjjtneRU34HGm920joNgHsnZMIO4raEsLWO815Jrs.
- Papava, V., & Charaia, V. (2020) The Coronomic Crisis and Some Challenges for the Georgian Economy. GFSIS Expert Opinion, No. 132. Tbilisi, Georgian Foundation for Strategic and International Studies. Available at http://papava.info/publications/Papava\_Charaia\_Coronomic-Crisis-and-Some-Challenges-forthe-Georgian-Economy.pdf.
- Papava, V., & Charaia, V. (2021) The Problem of the Growth of Georgia's Public Debt during the Economic Crisis under the COVID-19 Pandemic, GFSIS Expert Opinion, No. 152. Tbilisi, Georgian Foundation for Strategic and International Studies. Available at https://www.gfsis.org/files/library/opinionpapers/152-expert-opinion-eng.pdf.

- 42. Rajan, R. (2020) How Much Debt Is Too Much? *Project Syndicate*, November 30. Available at https://www.project-syndicate.org/commentary/borrowing-and-spending-limits-in-ultra-low-interest-rate-environment-by-raghuram-rajan-2020-11.
- 43. Report for Selected Countries and Subjects. (2020), Washington, DC, International Monetary Fund, October. Available at https://www.imf.org/en/Publications/WEO/weo-database/2020/October.
- 44. Roubini, N. (2020) The Coming Greater Depression of the 2020s. *Project Syndicate*, April 28. Available at https://www.project-syndicate.org/commentary/greater-depression-covid19-headwinds-by-nouriel-roubini-2020-04?utm\_source=Project%20Syndicate%20Newsletter&utm\_campaign=04e46c38d3-sunday\_newsletter\_12\_20\_2020&utm\_medium=email&utm\_term=0\_73bad5b7d8-04e46c38d3-93567601&mc\_cid=04e46c38d3&mc\_eid=e9fb6cbcc0&barrier=accesspaylog.
- 45. Spence, M., & Leipziger D. (2020) The Pandemic Public-Debt Dilemma. Project Syndicate, December 8, https://www.project-syndicate.org/commentary/pandemic-spending-debt-dilemma-by-michael-spence-anddanny-leipziger-2020-12?utm\_source=Project%20Syndicate%20Newsletter&utm\_campaign=4f0dca62b8sunday\_newsletter\_12\_13\_2020&utm\_medium=email&utm\_term=0\_73bad5b7d8-4f0dca62b8-93567601&mc\_cid=4f0dca62b8&mc\_eid=e9fb6cbcc0&barrier=accesspaylog
- **46.** Statista. (2021) *Global inflation rate from 2015 to 2025 (compared to previous year)*. Available at https://www.statista.com/statistics/256598/global-inflation-rate-compared-to-previous-year/.
- 47. Sachs, J. (2021) Biden is right to spend big for Covid-19 relief. But who's going to pay for it? *CNN*, February 16. Available at https://edition.cnn.com/2021/02/16/opinions/biden-covid-relief-who-will-pay-sachs/index.html.
- 48. The Economist Intelligence Union. (2021) More than 85 poor countries will not have widespread access to coronavirus vaccines before 2023. Available at https://www.eiu.com/n/85-poor-countries-will-not-have-access-to-coronavirus-vaccines/?fbclid=IwAR0E6Xa-DKrFNkWlP0h\_eFgpPwi9cr4LzdFTs-wXhoS7O2UfKlhhyMOrlUc.