
EFFECTS OF THE GLOBAL ECONOMIC CRISIS AND THE COVID-19 PANDEMIC ON SOVEREIGN DEBT MANAGEMENT IN HEAVILY INDEBTED COUNTRIES

Velichka Nikolova¹

¹University of National and World Economy – Sofia, Bulgaria

E-mail: *¹vnikolova@unwe.bg*

Abstract: This article presents an analysis of the sovereign debt in some heavily indebted countries worldwide, including Venezuela, Sudan, Japan and Greece. Its main objective is to track and compare the initial effects of the global financial and economic crisis (2008) and the COVID-19 pandemic on sovereign debt levels in those countries. This is why it starts with a classification of the theoretical concepts addressing the relationship between economic crises and changes in the levels of sovereign debt. It then defines the main drivers for the sharp increase of the sovereign debt in these countries and describes the dynamics of the revenues, expenditures and balances of their budgets.

Keywords: sovereign debt, heavily indebted countries, COVID-19.

This article shall be **cited** as follows: **Nikolova, V.** (2021). Effects of the Global Economic Crisis and the Covid-19 Pandemic on Sovereign Debt Management in Heavily Indebted Countries. *Economic Archive*, (3), pp. 31-45.

URL: www2.uni-svishtov.bg/NSArhiv

JEL: E60, E62, H12, H60, H63.

* * *

Introduction

The outbreak and global expansion of crises of various origins is a serious challenge to the fiscal policy, which directly affects the levels and management of sovereign debt. The scale of their effects depend on the characteristics of the crisis (economic, financial, environmental, healthcare, etc.) and its duration. The study focuses on the four most heavily indebted

countries in the world for 2020 in terms of their government debt-to-GDP ratios, viz. Venezuela, Sudan, Japan and Greece.

The subject of this study is the sovereign debt of the four most heavily indebted countries in the world for 2020 in terms of government debt-to-GDP ratio. **The object of the study** is to determine the initial effects of global crises on the national budget revenues, the government spending, the balance of the national budget and the sovereign debt of heavily indebted countries. **The main objective** is to compare the initial effects of the global financial and economic crisis of 2008 and the COVID-19 pandemic on government debt levels in the four countries and to define the main debt growth factors.

I. Literature Review

In order to address the initial effects of a crisis, any country or group of countries has to take certain of measures to mitigate the resulting internal or external shocks. When there are certain difficulties for most of the key sectors in the economy to operate normally combined with a decline in government budget revenues and an increase of the level of government spending, fiscal policy becomes extremely important. In such cases the sovereign debt can be used as an additional tool to mitigate the shocks. This raises the question about the degree to which economic crises can affect the level of sovereign debt and its overall management.

This section presents an overview of scientific publications which address the vulnerabilities and risks that emerge during crises and raise the levels of government debts. Therefore, we should consider the effects of growing indebtedness on businesses as well as the challenges of different debt policies.

The impact of crises (caused by military conflicts, natural disasters and financial system failures) on the number of creditors and the size of sovereign debt in general was studied by Horn et al. (2020). The analysis covers a period of nearly 200 years and shows that economic crises stimulate the inter-governmental financial flows and increase the number of financial bailouts as well as facilitates the international cooperation, which contributes to increased lending. In addition, Nikolova (2018) points out that crises may deepen unless the governments mitigate the associated technological, economic and environmental risks by borrowed the necessary financial resources or are unable to do so. The International Monetary Fund (2011) focuses on the sudden increase of the demand for borrowed resources during crises and a number of government debt management flaws which should not be underestimated and could be avoided through certain control mechanisms. In this regard, guidelines

have been outlined to address the future challenges of sovereign debt management. These include mitigating the effects of shocks by highlighting the benefits of a well-structured debt portfolio, building and maintaining a system for managing the risks involved in managing the government debt and the state budget.

Economic crises can serve as a good starting point to determine, analyse and rectify the errors and omissions in the existing economic policies and strategies. Reinhart & Rogoff (2013) put an emphasis on the main lessons that may be learned from past crises and point out that the ever-growing sovereign debt seriously hinders the rapid recovery of the national economies. One of the important lessons addresses the consequences of increasing the sovereign debt and the size of the associated risks. They focus on the fact that the structure of the debt portfolio (including the relative share of domestic and external debt) can pose significant threats to the economic stability. In this regard, arguments are put forward in support of a larger share of domestic debt denominated in national currency at the expense of external debt.

The impact of the external shock caused by the outbreak of the COVID-19 pandemic on the levels of sovereign debt and especially the sovereign debts of the euro area countries with high levels of government debt, most of which was incurred due to the global financial and economic crisis of 2008 is addressed in a study by Burriel et al. (2020). The focus is on the application of dynamic stochastic general equilibrium (DSGE) models to study the effects of heavy indebtedness. The main conclusions once again reveal that the effects of the COVID-19 crisis would be much worse for the heavily indebted countries. These effects are directly related to declining consumption and investment levels as well as limited access to household and business borrowing. Attention is also paid to the possibility of applying distortionary taxation to finance the debt service costs. Burriel et al. (2020) also remind that high indebtedness, particularly in some euro area countries, can become a serious threat to the stability of the monetary union and point out that asymmetric shocks may be especially difficult to mitigate due to the lack of sufficient preparedness.

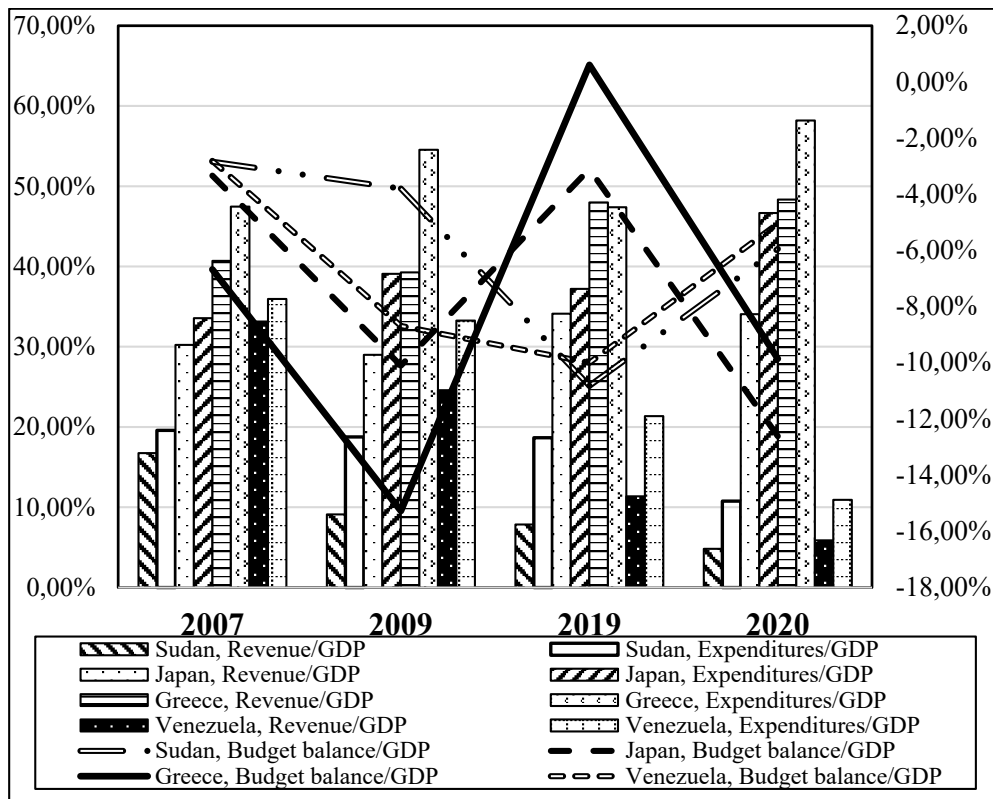
Koh et al. (2020) consider the rapid growth of government debt resulting from financial crises driven by external shocks such as adverse changes in the prices of important raw materials, rising interest rate levels, regional crises, natural disasters, and internal shocks caused by political turmoil. The authors also systematize some of the main weaknesses of heavily indebted countries. These include vulnerabilities stemming from the large share of their foreign currency-denominated debt and rapid changes of the exchange rates of their currencies, political uncertainty, weaknesses in public financial management and, in general, *inefficient* debt utilization. In times of crisis, financial freedom should not be underestimated, and in this regard Marikina (2016) points out that

it is the global crisis of 2008 that had a negative impact on the level of financial freedom. In addition, Nozharov (2019) draws attention to the importance of considering the so-called *hybrid* threats as potential external economic shocks, the analysis of which could help predict crises.

II. Dynamics of budget revenues, expenditures and balance

This section presents a comparative analysis of the initial effects of the global financial and economic crisis of 2008 with those of the COVID-19 crisis in terms of changes in budget revenues, expenditures and balance in the four countries. The results of the analysis will be used to draw conclusions regarding the short-term effects of the emerging crises on the macroeconomic indicators. To this end, we shall first compare and analyse the values of indicators "budget revenue to GDP", "budget expenditure to GDP" and "budget balance to GDP" for the period 2007-2009 and then the same indicators will be compared for 2019 and 2020. (*Figure 1*) based on empirical data from the macroeconomic statistics of the International Monetary Fund (International Monetary Fund, 2021c).

As a result of the global 2008 crisis, from 2009 to 2007, the indicator "government revenue to GDP" decreased most in Venezuela (with 8.55 percentage points) and Sudan (7.63 percentage points). The decrease of this indicator was less prominent for Greece (1.44 percentage points) and Japan (1.23 percentage points). The COVID-19 crisis on the government revenue to GDP ratio affected most negatively Venezuela and Sudan, as in 2020 Venezuela's indicator was about 5.48 percentage points lower compared to its level in 2019 and in Sudan it fell with 3.02 percentage points. An insignificant decrease of about 0.06 percentage points was reported for Japan. Only in Greece the ratio in 2020 was higher compared to 2019 (by 0.35 percentage points).



Note: The levels of “Budget revenue-to-GDP” and “Budget expenditures-to-GDP” are measured using the left-hand scale while the dynamics of “Budget balance-to-GDP” are on the right-hand scale.

Source: Author’s graph using data from the International Monetary Fund, 2021c.

Figure 1. Dynamics of the budget revenues, expenditures and balances of Venezuela, Sudan, Japan, and Greece

The initial effect of the global 2008 crisis in terms of government-to-GDP ratio was an increase in 2009 compared to 2007 of this indicator in Greece (7.08 percentage points) and Japan (5.54 percentage points). The situation in these two countries is similar with regard to the impact of the COVID-19 pandemic, with an even greater increase in the indicator under consideration than the increase after the global financial crisis of 2008. In 2020, compared to 2019, the government spending-to-GDP ratio increased by about 10.81 percentage points in Greece and by about 9.45 percentage points in Japan.

In response to the COVID-19 crisis, the countries are taking unprecedented fiscal measures in an attempt to mitigate the negative effects of the spread of the new virus by supporting key sectors of the economy, which leads to a rapid increase of government spending. For example, the net

government spending of Japan increased by 20.43% in 2020 compared to 2019 whereas in 2009 compared to 2007 the increase was only 6.92%. According to the discretionary fiscal measures announced in early 2020 (Cabinet Office, Government of Japan, 2020), the government of Japan initially allocated approximately 117.1 trillion yens (approximately 21% of GDP) for the implementation of the two phases of its plan to deal with the COVID-19 crisis. The main objective of the first phase is to contain the spread of the virus, to provide the necessary equipment and supplies to the healthcare facilities as well as to provide financial support to households and businesses in the private sector. Unlike other three countries subject to this analysis, where the fiscal measures implemented are rather short-term and aim to mitigate the initial negative effects of the crisis, Japan developed a plan for a *V-shaped recovery* of its economy in the very beginning of the COVID-19 pandemic. It focuses entirely on long-term measures, some of which include the development of strategies to counter adverse shocks in the economy.

The net government spending of Greece, like that of Japan, also increased in 2020 compared to 2019 by about 11.04%. The efforts of the Greek government at the beginning of the COVID-19 pandemic were mainly aimed at implementing predominantly short-term fiscal measures which aimed primarily to support healthcare and social security. However, in contrast to Japan, government spending in Greece increased much more (by 17.29%) in 2009 from 2007 in an attempt to deal with the initial negative effects of the global crisis of 2008.

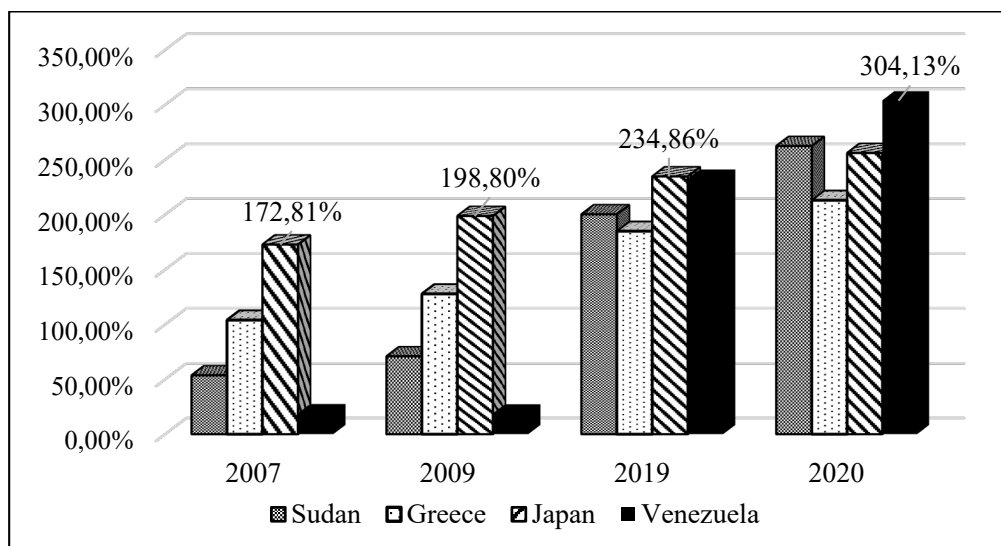
In contrast to Japan and Greece, the government spending to GDP ratios of Sudan and Venezuela decreased both as a result of the global crisis of 2008 and the COVID-19 pandemic. The most significant decrease of this ratio was reported for 2020 compared to 2019, as in Venezuela it was 10.43% and in Sudan - 7.9%. In comparison, in 2009 compared to 2007 the decrease was 0.83% in Sudan and 2.68% in Venezuela. Note that despite the relative decrease as a percentage of GDP, the net government spending increased 8 times in Venezuela and 1.5 times in Sudan in 2020 compared to 2019 due to the *drastic increase* of these countries' GDP caused by inflation booms.

The initial effects of the global 2008 crisis resulted in rising budget deficits of the countries included in this analysis. In 2009, compared to 2007, the most significant increase of the budget deficit-to-GDP ratio was reported for Greece (8.60%) followed by Japan (6.76%) and Venezuela (5.87%). Sudan's ratio increased by only 0.95%. The COVID-19 pandemic led to an even greater increase of the budget deficit in some of the countries compared to the effects of the global 2008 crisis. This is most obvious in Greece, where the ratio in 2020 increased by 10.46% compared to 2019 and Japan with an increase of 9.51%. In contrast, in Venezuela and Sudan the budget deficit-to-

GDP ratio decreased by 4.95% and 4.87% respectively, which is logical considering the skyrocketing inflation in these countries.

III. A comparative analysis of the sovereign debt of certain heavily indebted countries

According to the International Monetary Fund (2021a), in 2020, one of the four countries with the highest government debt-to-GDP ratio is Venezuela (304.13%), which is categorized as a middle-income country, another one - Sudan (262.52%) - is a low-income economy, and the other two - Japan (256.22%) and Greece (213.10%) - are categorized as advanced economies (*Figure 2*). This group is very heterogeneous as the four countries differ both in the degree of their economic development and in the way they managed their sovereign debt (in terms of its structure and the reasons that led to its accumulation over time).

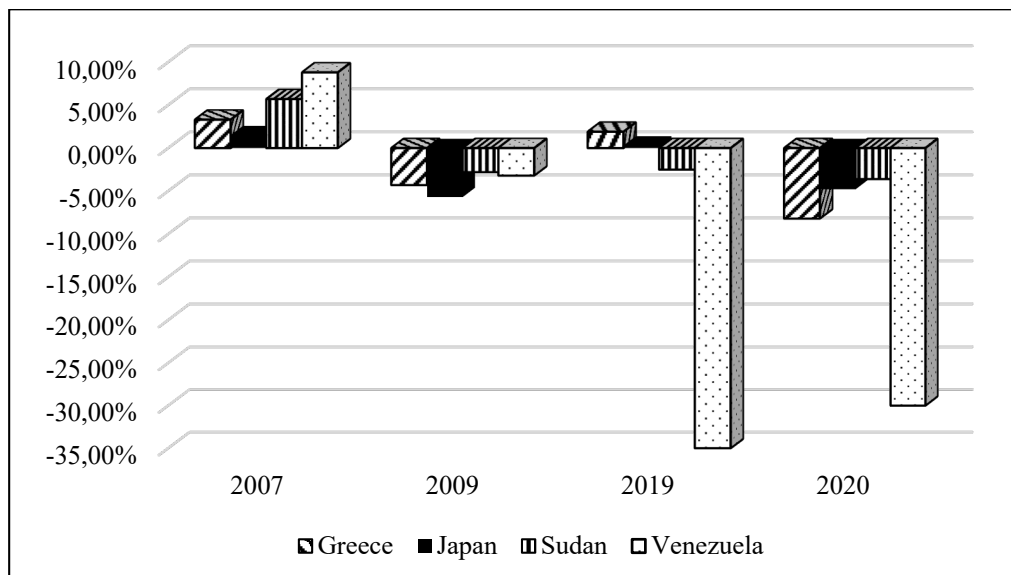


Source: Author's graph based on data from the International Monetary Fund, 2021c.

Figure 2. Dynamics of the government debt-to-GDP ratios of Venezuela, Sudan, Japan, and Greece

The initial effect of the global 2008 crisis is a significant increase in the government debt-to-GDP ratio in three of the countries. In 2009 compared to 2007 the indicator increased by about 25.89% in Japan, 23.84% in Greece and 17.3% in Sudan. Only in Venezuela the ratio declined by about 0.16%. It should

be noted that the global 2008 crisis had a rather negative effect on the growth rate of the real GDP of all four countries, where the positive growth in 2007 was reversed to negative growth in 2009 (*Figure 3*). This negative effect was strongest in Japan, where the real GDP growth rate was -5.7%, followed by Greece (-4.3%), Venezuela (-3.2%) and Sudan (-2.8%) (International Monetary Fund, 2021c).



Source: Author's graph based on data from the International Monetary Fund, 2021c.

Figure 3. Real GDP growth of Venezuela, Sudan, Japan, and Greece

As a result of the COVID-19 crisis, an increase in the government debt-to-GDP ratio was reported in all four countries in 2020 compared to 2019, with a most noticeable increase in Venezuela (71.34%) and Sudan (62.17%). Greece's ratio increased by 28.2% and Japan's - by about 21.36%. It should be noted that the initial impact of the COVID-19 crisis led to a much larger increase in the government debt-to-GDP ratios of these countries than the increase caused by the global 2008 crisis. When considering the government debt-to-GDP ratio, it is also important to take into account the changes in the actual size of both the government debt and the GDP. The countries with the largest increase of this ratio as a result of the COVID-19 crisis (Sudan and Venezuela) reported the strongest nominal increase of their government debt as well. The government of Venezuela increased 22.45 times and that of Sudan increased 3.34 times in 2020 compared to 2019. The GDP of these countries also rose, but at a lower rate than the increase of their government debts (17.19

times in Venezuela and 2.55 times in Sudan). In Greece and Japan there is also an increase in the amount of debt in 2020 compared to 2019, as in Greece the increase was 4.2%, and in Japan it was 4.78%. In contrast to Venezuela and Sudan, the initial effects of the COVID-19 crisis led to a decline in GDP in Greece (by 9.59%) and Japan (by 3.95%) in 2020 compared to 2019.

Next, it is important to note that the countries with the highest levels of sovereign debt to GDP in the world in 2020 differ both in terms of their government debt structure and the reasons that led to its accumulation over time. With the exception of 2020, in all other years from 2000 to 2020, Japan had the highest government debt-to-GDP ratio of the four countries. In 2020, this trend discontinued as Venezuela and Sudan reported higher ratios than that of Japan. A distinctive feature of the structure of Japan's government debt is that the most of it is owed to domestic creditors (*eg. the central bank, commercial banks, insurance and pension funds, households*). In 2019, the relative share of Japanese government bonds and treasury bills held by foreign entities in the country's total government debt was 12.8% (Ministry of Finance, Japan, 2020) and in 2020 it was just under 20% (Bank of Japan, 2021).

The benefit of having debt held mainly by domestic creditors is related to the fact that the economy is less vulnerable to external shocks, adverse exchange rate fluctuations, and unfavourable external loan terms. In this regard, Labonte & Makinen (2008) draw attention to the concept of “*owing the debt to ourselves*”, i.e. that an internally held national debt would not impose a burden on future generations when its owners are taxpayers. In other words, an internally held government debt is not a burden on the society because the financial flows are held within the same economy rather than transferred abroad. However, it should be noted that the questions whether the current or future generations should bear the burden of national debt and in whether the internal or external debt should be predominant in a country's debt portfolio remain debatable in the scientific literature. In this situation, it is important to analyse in greater detail a number of debt management determinants to be able to draw conclusions about debt sustainability. Nikolova (2020) focuses on debt sustainability by justifying the inclusion of indicators of the debt maturity structure and interest payments in a cluster analysis.

The consequences of the global 2008 crisis pose a serious challenge to public debt management in Greece and in particular to its sustainability. The initial effect of the financial crisis was a sharp increase in the government debt-to-GDP ratio and consequently the country faced serious difficulties in repaying its debt. This was followed by a series of bailout loans extended under the condition that the country takes the necessary measures to improve fiscal discipline. The country took several measures for fiscal consolidation and thus was able to gradually reduce its government spending-to-GDP ratio from

54.54% in 2009 to 47.37% immediately before the COVID-19 crisis. This reduction was mainly due to modifications of its government spending policy, including reduction of pensions and salaries in the public sector as well as the subsequent cuts of Easter and Christmas bonuses (European Commission, 2010). This conclusion is confirmed by the results of a study conducted by Nenkova & Angelov (2020), which show that Greece has an inherently counter-cyclical fiscal position and has followed a predominantly restrictive fiscal policy pursued in the period 2005-2018. Despite the actions taken by the Greek government to overcome the negative consequences of the global 2008 crisis, Velichkov (2015) concludes that the economic downturn of EU-13 cannot be reversed because the applied discretionary fiscal policy is not flexible enough in terms of its automatic budget stabilizers.

Unlike Japan, the structure of Greece's government debt is dominated by external debt and thus the country is inevitably vulnerable to the transmission of external shocks arising from processes occurring in international capital markets. In 2009, its external debt-to-GDP ratio was 95.33% while in 2020 it was approximately 1.8 times higher while its internal debt-to-GDP varied from 32.49% in 2009 to 40.4% in 2020.¹ In the analysis of Greece's debt profile, the International Monetary Fund (2020) assumes that in case of prolonged COVID-19 pandemic, its government debt-to-GDP ratio will remain above 200% until 2026 mainly due to additional fiscal measures to deal with the crisis, implementation of reforms in the pension system, the adopted policy regarding public sector wages and unforeseen losses in the implementation of the *Hercules* project. This project is essentially a state-guaranteed securitization scheme aiming to help banks deal with non-performing loans (European Commission, 2021). Zahariev et al. (2020) draw attention to the fact that a serious challenge to servicing the sovereign debt of Greece will be the change in the policy of the European Central Bank and the maintenance of a positive interest rate.

Like in Greece, the structure of Sudan's public debt is dominated by foreign debt. A distinctive feature of the dynamics of the sovereign debt-to-GDP ratio in Sudan is that immediately before the onset of the global 2008 crisis there was a steady downward trend of this ratio with its level in 2000 being about 2.6 times higher than in 2007. The gradual reduction of government debt is the result of a series of initiatives (*among which the Heavily Indebted Poor Countries Initiative plays an important role*) for implementation of debt-related policies in African countries. In contrast, just before the COVID-19 pandemic, there was a sharp rise of Sudan's debt levels. The main reasons for

¹ Author's calculations based on macroeconomic statistics of The Bank of Greece, 2021; International Monetary Fund, 2021c and Eurostat.

this negative trend include rapid fluctuations of currency exchange rates (particularly fluctuations of the rate of exchange of the US dollar to other currencies), as well as the outstanding penalty interest payments (Central Bank of Sudan, 2018). As we already noted, the structure of Sudan's public debt differs from that of Japan in terms of its share of external debt. In 2019 and 2020, Sudan's internal debt-to-GDP ratio fluctuated between 8 and 10.3% (International Monetary Fund, 2021b).

What is common for Sudan and Venezuela, and what is particularly significant both in the run-up to the COVID-19 crisis and in the first year of its onset, is that the sharp increase of their government debt is due to extreme adverse changes in the price levels. This is the reason why the debt growth rates in Sudan and Venezuela differ from those in Japan and Greece. A specific feature of the countries with the highest government debt-to-GDP ratios in 2020 (Venezuela and Sudan) is that the onset of COVID-19 crisis and the subsequent efforts of these countries to deal with it by implementing a number of discretionary fiscal measures were combined with measures against the extremely high levels of inflation in 2020, which ranged from three-digit numbers in Sudan to four-digit numbers in Venezuela. The inflation rate in Sudan increased from 57% at the end of December 2019 to 269.3% at the end of December 2020 (Central Bank of Sudan, 2021), i.e. the inflation rate in Sudan has grown nearly 5 times in 2020 compared to 2019. The reasons for this boom of inflation in Sudan are too complex and involve many factors that have to be taken into account. On the one hand, they include the need to finance the growing budget deficit, which immediately before the COVID-19 pandemic, in particular the last five years, ranged from 3.9% of GDP in 2015 to 10.8% of GDP in 2019. The Central Bank of Sudan plays a key role in financing the budget deficit, which leads to the so-called *monetization* of the deficit and the sharp rise of the inflation rate in the country. On the other hand, the analysis of the inflation rate has to take into account some determinants related to the change of the country's geographical borders, as well as its internal stability. The secession of South Sudan in 2011 had an adverse effect on the oil production, with the result that Sudan suffered significant losses related to oil production. The level of inflation was pushed up further by the high levels of fuel subsidies, the rising prices of the diesel, gasoline, food, and electricity, the devaluation of the national currency as well as the measures imposed to deal with COVID-19, which in the middle of 2020 led to a drastic shortage of some goods on the domestic market, as well as the measures to deal with refugee flows (International Monetary Fund, 2021b).

Following the case of Sudan, to analyse the reasons for the sharp increase of the government debt of Venezuela in 2019 compared to 2020 we must take into account the adverse changes in the price levels. Unlike Sudan,

however, Venezuela is experiencing a galloping inflation, which is gradually evolving into hyperinflation. This process is particularly noticeable after 2012. At the end of 2014 the inflation rate was 68.5%, followed by three consecutive years (2015, 2016, 2017), in which the inflation rate reached three-digit levels, and in 2018 the inflation rate was 130,060.2% (Banco Central De Venezuela, 2021). In 2019 and 2020, the inflation rate reached four-digit values. In Venezuela, the COVID-19 crisis is combined with the need for urgent government action to address accumulated problems that could lead to serious macroeconomic imbalances. The drivers of high inflation and rising levels of sovereign debt-to-GDP are inextricably linked to the growing political instability, *monetary* financing of the budget deficit, declining employment rates, plummeting oil prices and subsequent economic sanctions on oil trade. (Abuelafia & Saboin, 2020). All these negative factors are complemented by prospects for a growing humanitarian crisis, international isolation and increasing emigration moods of the population.

Conclusion

The article presents an analysis of the four most heavily indebted countries in the world in 2020. The initial effects of the global financial and economic crisis of 2008 and the COVID-19 pandemic on the levels of their budget revenues-to-GDP, government spending-to-GDP, budget balance-to-GDP and government debt-to-GDP are determined and compared in order to define the similarities and the differences that exist between the surveyed countries in terms of the reasons that led to the increase in their indebtedness.

The general conclusion is that the initial impact of the COVID-19 crisis has led to a much larger increase in the government debt-to-GDP ratio than the initial effects of the global financial and economic crisis of 2008. In three of the four analysed countries (Greece, Sudan and Venezuela) the economic recession in 2020 was greater than in 2009. The consequences of the global 2008 crisis represent the most serious challenge for the management of Greece's government debt and in particular its sustainability. In Sudan and Venezuela, the measures to address the initial negative effects of the COVID-19 pandemic are combined with measures against the extremely high inflation rates in 2020. The similarities between the two countries are due to the fact that the drivers of the high inflation rates and the rising levels of the sovereign debt-to-GDP ratio are inextricably linked to the presence of internal instability, *monetary* financing of the budget deficit, low employment rates, adverse changes in exchange rates and oil trade. In comparative terms, Japan differs from the other heavily indebted countries because the structure of its sovereign

debt is dominated by internal debt over the external one, which makes the country less vulnerable to the transmission of adverse external shocks.

References

- Marikina, M. (2016). Protsesite na globalizatsiya za novovŭznikvashtite pazari i perspektivite za rastezh. *Ikonomicheski i sotsialni alternativi*, (1), pp. 5-12.
- Nikolova, I. (2018). Globalnite ikonomicheski riskove: mit ili realnost? *Godishnik „Ikonomika i biznes“*, departament „Ikonomika“, pp. 68-74.
- Abuelafia, E., & Saboin, J. (2020). A look to the future for Venezuela. *Inter-American Development Bank*, Discussion paper № IDB-DP-798, doi: 10.18235/0002621
- Bank of Japan. (2021). *Basic figures: Flow of funds for the fourth quarter of 2020 (preliminary report)*. Retrieved 7 June, 2021 from <https://www.boj.or.jp/en/statistics/sj/sjexp.pdf>
- Banco Central De Venezuela. (2021). Retrieved 7 June, 2021 from <http://www.bcv.org.ve/estadisticas/consumidor>
- Burriel, P., Checherita-Westphal, C., Jacquinot, P., Schön, M. & Stähler, N. (2020). Economic consequences of high public debt: evidence from three large scale DSGE models. *European Central Bank*, Working Paper Series № 2450. 1-30, doi:10.2866/509669
- Cabinet Office, Government of Japan. (2020). *Emergency economic measures to cope with the novel coronavirus (COVID-19): Thoroughly secure people's lives and move toward economic revitalization*, Retrieved 7 June, 2021 from https://www5.cao.go.jp/keizai1/keizaitaisaku/2020/20200420_economic_measures_all.pdf
- Central Bank of Sudan. (2018). *58th Annual report 2018*. Retrieved 7 June, 2021 from <https://cbos.gov.sd/sites/default/files/CBOS%20-%2058th%20Annual%20Report%202018.pdf>
- Central Bank of Sudan (2021). *The Economic Review*, (1), Retrieved 7 June, 2021 from <https://cbos.gov.sd/sites/default/files/%D8%A7%D9%84%D8%B9%D8%AF%D8%AF%20-01.pdf>
- European Commission. (2010). The economic adjustment programme for Greece. *European Economy*, Occasional Papers 61, doi:10.2765/46750
- European Commission. (2021). *State aid: Commission approves prolongation of market conform asset protection scheme for banks in Greece*, Retrieved 7 June, 2021 from https://ec.europa.eu/commission/presscorner/api/files/document/print/en/ip_21_1661/IP_21_1661_EN.pdf

- Eurostat database. (2021). Retrieved 7 June, 2021 from <https://ec.europa.eu/eurostat>
- Horn, S., Reinhart, C., & Trebesch, C. (2020). Coping with disasters: two centuries of international official lending. *National Bureau of Economic Research*, Working paper 27343, 1-66, doi:10.3386/w27343
- International Monetary Fund. (2011). Managing sovereign debt and debt markets through a crisis – practical insights and policy lessons. *Policy papers*, (031), 1-44, doi:<https://doi.org/10.5089/9781498338943.007>
- International Monetary Fund. (2020). *Greece: Second post-program monitoring discussions – press release; staff report; staff statement; and statement by the executive director for Greece*. IMF Staff Country Reports, (308), doi:<https://doi.org/10.5089/9781513562551.002>
- International Monetary Fund. (2021a). *Fiscal Monitor: A fair shot*. Washington, doi:<https://doi.org/10.5089/9781513571553.089>
- International Monetary Fund. (2021b). *Sudan: First review under the staff-monitored program – press release: staff report: and statement by the executive director for Sudan*. IMF Country Report № 21/82, Retrieved 7 June, 2021 from <https://www.imf.org/-/media/Files/Publications/CR/2021/English/1SDNEA2021002.ashx>
- International Monetary Fund. (2021c). *World Economic Outlook (April 2021)*. Retrieved 7 June, 2021 from <https://www.imf.org/external/datamapper/datasets/WEO>
- Koh, W., Kose, M., Nagle, P., Ohnsorge, F., & Sugawara N. (2020). Debt and financial crises. *World Bank Group*, Policy Research Working Paper 9116, 1-55. Retrieved 7 June, 2021 from <http://documents1.worldbank.org/curated/en/560291579701550183/pdf/Debt-and-Financial-Crises.pdf>
- Labonte, M. & Makinen, G. (2008). The national debt: who bears its burden? *Congressional Research Service*. RL 30520 Retrieved 7 June, 2021 from <https://www.hsdl.org/?view&did=715715>
- Ministry of Finance, Japan. (2020). *Debt management report 2020*. Retrieved 7 June, 2021 from https://www.mof.go.jp/english/jgbs/publication/debt_management_report/2020/index.html
- Nenkova, P., & Angelov, A. (2020). Assessment of the fiscal stances of the Balkan States. *Economic Archive*, (4), 14-34, Retrieved 7 June, 2021 from <https://www2.uni-svishtov.bg/NSArhiv/title.asp?lang=en&title=1570>
- Nikolova, V. (2020). Debt sustainability of EU member states: a cluster analysis. *Economic Archive*, (1), 44-56. Retrieved 7 June, 2021 from <https://www2.uni-svishtov.bg/NSArhiv/title.asp?title=1476>

- Nozharov, S. (2019). Hybrid threats as an exogenous economic shock. *Economic Archive*, (4), 21-29, Retrieved 7 June, 2021 from <https://www2.uni-svishtov.bg/NSArhiv/title.asp?title=1452>
- Reinhart, C., & Rogoff, K. (2013). Financial and sovereign debt crises: some lessons learned and those forgotten. *International Monetary Fund Working papers*, (266), 1-20, doi: <https://doi.org/10.5089/9781475552874.001>
- The Bank of Greece. (2021). Retrieved 7 June, 2021 from <https://www.bankofgreece.gr/en/homepage>
- Velichkov, N. (2015). Fiscal rules versus fiscal discretions. *Economic Alternatives*, (3), 39-45, Retrieved 7 June, 2021 from https://www.unwe.bg/uploads/Alternatives/3_3_2015.pdf
- Zahariev, A., Zveryakov, M., Prodanov, S., Zaharieva, G., Angelov, P., Zarkova, S., & Petrova, M. (2020). Debt management evaluation through support vector machines: on the example of Italy and Greece. *Entrepreneurship and sustainability issues*, 7 (3), 2382-2393, doi: [https://doi.org/10.9770/jesi.2020.7.3\(61\)](https://doi.org/10.9770/jesi.2020.7.3(61))

Velichka Nikolova, PhD is an Assistant Professor in the Department of Economics of the University of National and World Economy in Sofia, Bulgaria. **Research interests:** sovereign debt, economic growth, fiscal policy.
ORCID ID: 0000-0002-2920-4061

ISSN 0323-9004

Economic Archive

Svishtov, Year LXXIV, Issue 3 - 2021

An Outline of the Fault Line in the European Union

**Organizational and Economic Characteristics
of Compensations for Temporary Loss
of Capacity to Work**

**Effects of the Global Economic Crisis
and the Covid-19 Pandemic on Sovereign Debt
Management in Heavily Indebted Countries**

**The Impact of Global Trends and Covid-19
on International New Ventures**

**Economic Growth in the Eurozone
and on the Balkans: A Cointegration Analysis**

D. A. TSENOV ACADEMY OF ECONOMICS
SVISHTOV



EDITORIAL BOARD:

Prof. Andrey Zahariev, PhD – Editor-in-chief
Prof. Yordan Vasilev, PhD – Deputy Editor
Prof. Stoyan Prodanov, PhD
Assoc. Prof. Iskra Panteleeva, PhD
Assoc. Prof. Plamen Yordanov, PhD
Assoc. Prof. Svetoslav Iliychevski, PhD
Assoc. Prof. Plamen Petkov, PhD
Assoc. Prof. Anatoliy Asenov, PhD
Assoc. Prof. Todor Krastevich, PhD

INTERNATIONAL BOARD:

Prof. Mihail A. Eskindarov, DSc (Econ) – Financial University under the Government of the Russian Federation, Moscow (Russia).
Prof. Grigore Belostechnik, DSc (Econ) – Moldovan Academy of Economic Studies, Chisinau (Moldova).
Prof. Mihail Zveryakov, DSc (Econ) – Odessa State Economic University, Odessa (Ukraine).
Prof. Andrey Krisovatiy, DSc (Econ) – Ternopil National Economic University, Ternopil (Ukraine).
Prof. Yon Kukuy, DSc (Econ) – Valahia University, Targovishte (Romania).
Prof. Ken O'Neil, PhD – University of Ulster (Ireland)
Prof. Richard Thorpe, PhD – Leeds University (Great Britain)
Prof. Olena Nepochatenko, DSc (Econ) – Uman National University of Horticulture, Uman (Ukraine)
Prof. Dmytro Lukianenko, DSc (Econ) – Kyiv National Economic University named after Vadym Hetman, Kyiv (Ukraine)
Assoc. Prof. Maria Cristina Stefan, PhD – Valahia University of Targoviste (Romania)
Assoc. Prof. Anisoara Duica, PhD – Valahia University of Targoviste (Romania)
Assoc. Prof. Vladinir Klimuk, PhD – Baranovichi State University, Branovic (Belarus)

Support Team

Rositsa Prodanova, PhD – Technical Secretary
Anka Taneva – Bulgarian Copy Editor
Ventsislav Dikov – Senior Lecturer in English – Translation from/into English
Petar Todorov, PhD – Senior Lecturer in English – Translation from/into English

Editorial address:

2, Emanuil Chakarov street, Svishtov 5250
Prof. Andrey Zahariev, PhD – Editor-in-Chief
☎ (+359) 889 882 298
Rositsa Prodanova, PhD – technical secretary
☎ (+359) 631 66 309, e-mail: nsarhiv@uni-svishtov.bg
Blagovesta Borisova – computer graphic design
☎ (+359) 882 552 516, e-mail: b.borisova@uni-svishtov.bg

In 2021, the journal will be printed using a financial grant from the Scientific Research Fund – Agreement № KP-06-PP2-0045 from Bulgarska Nauchna Periodika – 2021 competition.

© Academic Publishing House “Tsenov” – Svishtov
© D. A. Tsenov Academy of Economics – Svishtov

ECONOMIC ARCHIVE

YEAR LXXIV, BOOK 3 – 2021

CONTENTS

Atanas Damyanov

An Outline of the Fault Line in the European Union /3

Plamen P. Yordanov, Margarita I. Nikolova, Zhaneta E. Angelova

Organizational and Economic Characteristics of Compensations for
Temporary Loss of Capacity to Work /14

Velichka Nikolova

Effects of the Global Economic Crisis and the Covid-19 Pandemic on
Sovereign Debt Management in Heavily Indebted Countries /31

Margarita Mihaylova

The Impact of Global Trends and Covid-19 on International
New Ventures /46

Milena M. Kovachevich

Economic Growth in the Eurozone and on the Balkans: A Cointegration
Analysis /58