

SPECIFIC ASPECTS OF THE GLOBAL BUBBLE OF PUBLIC DEBT

Ph.D. Luchian Ivan ²⁰

Ph.D. Student Tepordei Aurelia ²¹

Abstract:

Debts are a basic practice and a solution for any functional economy. Governments are lending money to finance projects such as roads, hospitals, schools and to fulfill promises on reducing taxes. The ratio of general public debt to GDP has increased in most states over the last 10 years. The governments of several states take advantage of the low level of the interest rate and collect the debts that inevitably become overwhelming. Under conditions of exaggeration, it becomes a factor of destabilizing financial situation within both the country and international financial market. Currently, we can talk about the formation of a financial bubble based on increasing government debt. Based on this, the existence and evolution of public debt bubble requires the correction of financial policies in developing countries in relation to systemic risk management in domestic financial market and in formulation and promotion of national debt management policy.

Keywords: *financial bubble, global debt, public debt, Gross Domestic Product*

JEL classification: *E61, E62, H62, H63*

Introduction

The notion of public debt in different bibliographic sources is treated differently. However, in the context of the given paper, by the public debt (also known as government debt, national debt and sovereign debt (*Government...*, n.d.)) means the totality of internal and external financial obligations of state, at a certain time, coming from loans contracted directly or guaranteed by the Government, through the Ministry of Finance.

In another approach, the public debt constitutes the amount of existing obligations of state towards natural and legal persons, other states, international institutions and other subjects of international law. (*Государственный...*, n.d.)

Governments constitute debt by issuing government bonds and bills. Some countries borrow directly from a supranational financial organization (e.g. the International Monetary Fund. The World Bank) or international financial institutions (e.g. the European Investment Bank). (*Government...*, n.d.)

Government debt appears in two forms: internal debt and external debt.

Under conditions of rapid and unfunded growth, public debt can turn into financial bubble.

The financial bubble is a business area, which is seen as having unlimited growth potential at a given time and attracting huge funds, but which is at risk of exploding at any time, and people running out of money. (Boga. 2009)

Government debt bubble represents a massive increase in the volume of government debt without noticing the real increase in possibilities of its repayment. It may appear, in particular, on government securities market.

²⁰ Associate Professor, International Institute of Management IMI-NOVA, 9, Hristo Botev street, MD2043, Chisinau, Republic of Moldova, luchian_ivan@mail.ru

²¹ International Institute of Management IMI-NOVA, 9, Hristo Botev street, MD2043, Chisinau, Republic of Moldova, atepordei@mail.ru

Under conditions of financial globalization, sovereign debt bubbles in some countries can become contagious bubbles - bubbles, which are formed on markets of one country and move on markets of other countries. (Fetiniuc, Luchian, Gherbovet, 2014)

In addition, the concentration of loan capital in certain countries is remarkable, which inevitably leads to the manifestation of dislocation effect. This is the excessive use of possibility of attracting financing by some countries, while other countries are limited in access to such funding.

Description of the problem

The global amount of public debt in 2019 was USD 70 trillion, with the upward trend as shown in Figures 1 and 2.

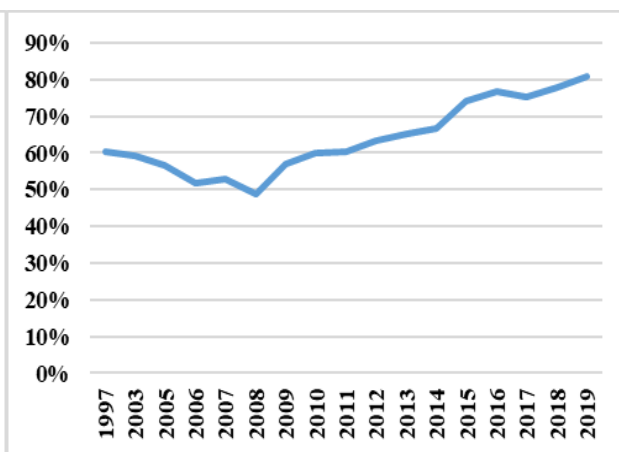
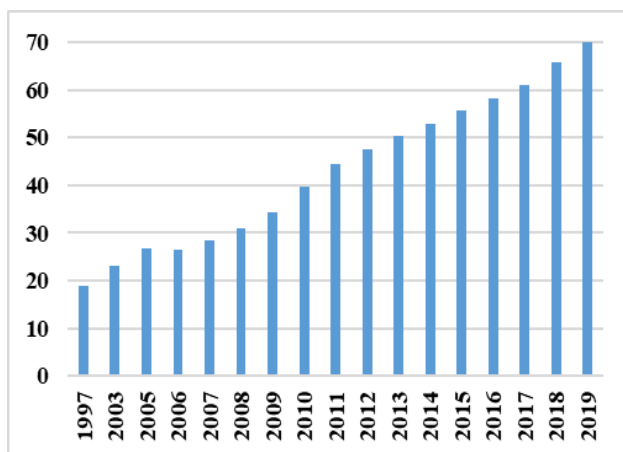


Figure 1 – Dynamics of global government debt (USD trillion)

Figure 2 - Evolution of global government debt to global GDP ratio (%)

Sources: (Luchian, Tepordei, 2019), (Srivastava, 2019), (GDP..., n.d.)

During the period of 1997-2019 the total sovereign debt increased from USD 19 trillion to USD 70 trillion, i.e. to 3.7 times, the average annual growth rate being USD 3.1 trillion.

At the same time, the global government debt to global Gross Domestic Product (GDP) ratio increased from 60.5% to 80.8%.

In the specialized literature, we find different views on the sustainability of the indebtedness policy of the states from the point of view of the share of national debt in GDP, recommending that this should not exceed the threshold of 60%. (Luchian, Tepordei, 2016)

It is also remarkable that the government debt has an increasing tendency, being part of a larger global debt (Figures 3 and 4).

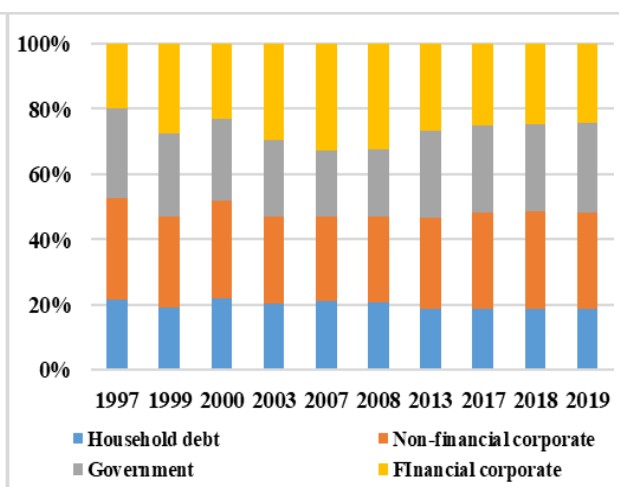
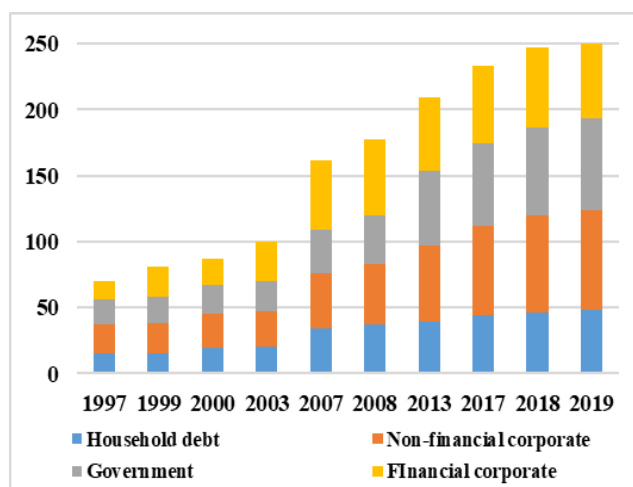


Figure 3 - Dynamics of global debt (USD trillion)

Figure 4 - Dynamics of structural changes in global debt (%)

Sources: (Luchian, Tepordei, 2019), (Srivastava, 2019), (Durdin, 2019)

During the analysed period the amount of global debt increased from USD 70 trillion to USD 255 trillion, i.e. to 3.6 times and the share of global government debt has fluctuated, increasing from 17.3% in 2007 to 27.5% in 2019.

Methodology and data sources

In order to conduct the research on global public debt problem, information from international financial institutions (IMF, BIS, IIF, World Bank, OECD), official information sources, public institutions' reports, as well as opinions, results of analysis carried out by experts were studied. The study was completed by formulating the conclusions related to this financial phenomenon.

Results obtained

Global public debt has a relatively high level of concentration. The research shows three groups of countries, which have an important impact on the growth of global government debt (Figures 5 and 6).

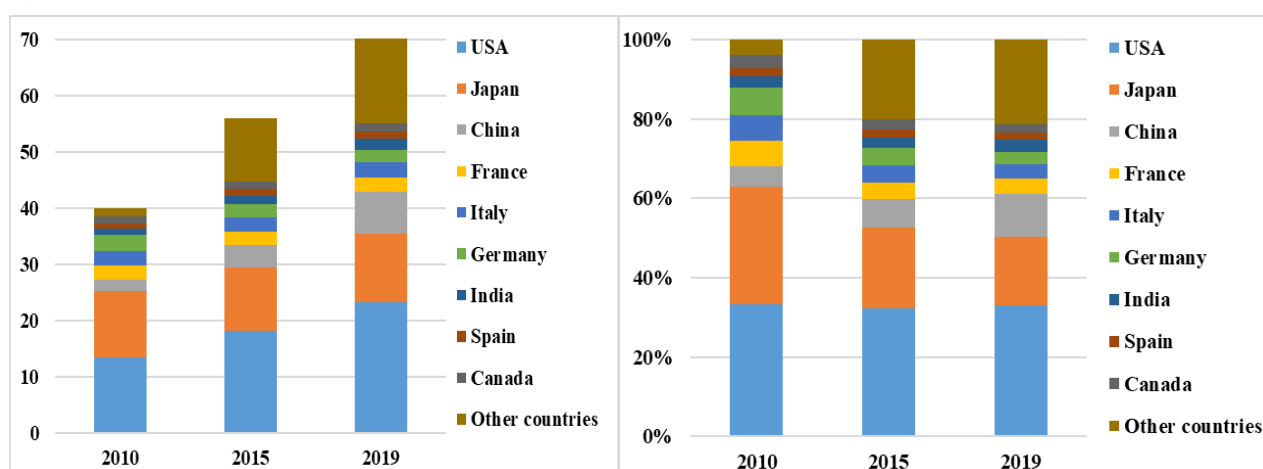


Figure 5 - Dynamics of global debt in the divisions on the constituent countries (USD trillion)

Figure 6 - Dynamics of structural changes in global debt in the divisions on the constituent countries (%)

Sources: www.statista.com, countryeconomy.com/national-debt

The first group with major influence consists of three countries: USA, Japan and China, whose total national debt (based on previous data) constituted USD 42.8 trillion, increasing with respect to 2015 with USD 9.3 trillion as compared to 2015 and with USD 15.5 trillion compared to 2010.

It is remarkable that the national debt of this group of countries in 2019 constituted 61.2% of the global amount of government debt. However, this share had a tendency to decrease, increasing by 1.4 p.p. compared to 2015 and falling by 6.9 p.p. compared to 2010.

According to some forecasts, global government debt will increase due to these countries with USD 2.9 trillion in 2020 and USD 15.2 trillion in 2024.

The second group with significant influence meets France, Italy and Germany with a volume of government debt of USD 7.4 trillion, increasing by USD 0.2 trillion compared to 2015, but decreasing by USD 0.5 trillion as compared to 2010.

The weight of this group in the total volume constituted 10.6%, which decreased as of 2015 by 2.3 p.p. and 9.2 p.p. compared to 2010.

Due to Germany's debt reduction policy, the government debt of this group of countries will change insignificantly.

The third group consists of Spain, India and Canada, whose total government debt is USD 4.8 trillion, increasing by USD 0.8 trillion compared to 2015 and USD 1.5 trillion as compared to 2010.

The share of this group of countries in the global volume of debt in 2019 constituted 6.9%, which decreased by 0.4 p.p. compared to 2015 and with 1.4 p.p. compared to 2010.

In 2020, due to these countries, global sovereign debt is projected to grow by USD 0.3 trillion and in 2024 - by USD 1.5 trillion.

In the period 2001-2019, the discrepancy between emerging market and developing economies and advanced economies in the ratio between government debt and GDP increased (Figure 7).

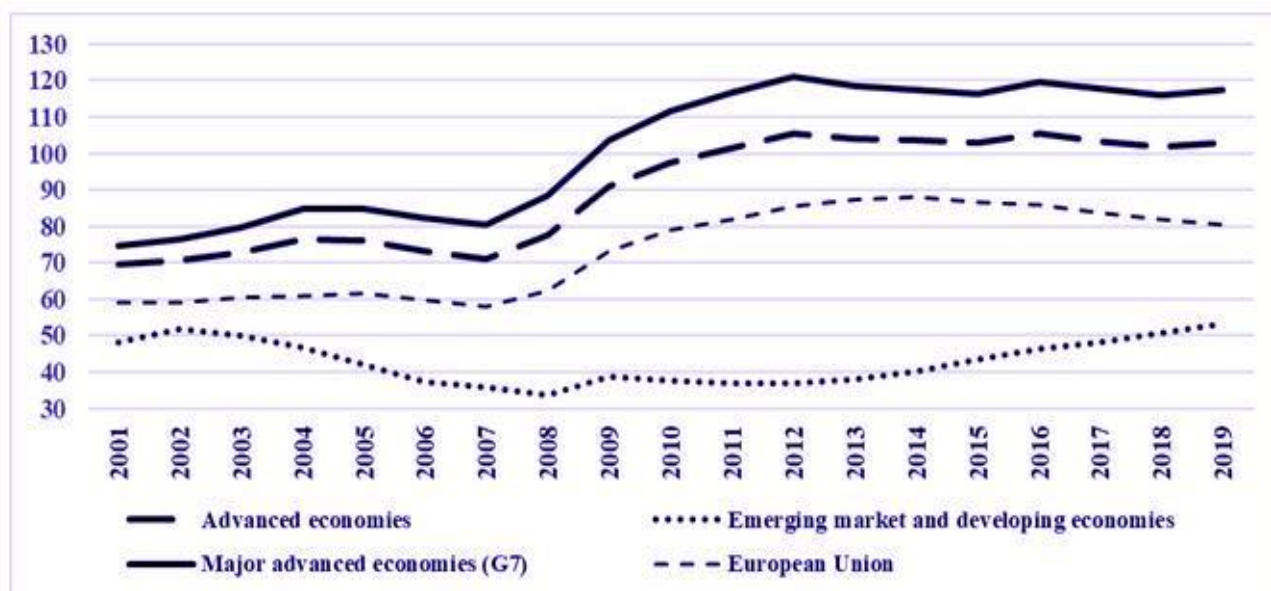


Figure 7 - Dynamics of public debt to GDP ratio in emerging market and developing economies and advanced economies

Source: (General..., n.d.)

During the mentioned period in emerging market and developing economies the weight of government debt in GDP ranged from 48.1% in 2001, 33.8% in 2008 to 53.3% in 2019.

In the advanced economies, the mentioned ratio is higher than emerging ones, constituting 69.6% in 2001, increasing to 105.6% in 2012 and reaching 103.1% in 2019.

But the highest level of government debt is registered in the major advanced economies (G7 countries), which in 2001 was 74.8%, the maximum level reached in 2012 - 121.0%, and in 2019 it was 117.3%.

An important aspect of the increase of government debt in the industrial developed countries constitutes its distribution by the categories of investors in which it is placed.

For example, the United States of America can be presented (Figure 8 and 9).

During 2001-2019, the national debt of this country increased from USD 5.8 trillion to USD 23.2 trillion, that is, by USD 17.4 trillion or 4.0 times.

Similarly, the ratio of national debt to U.S. GDP increased from 53.2% to 106.8%.

According to the information presented by Kimberly Amadeo (2020), the US national debt consists of two parts:

- Intragovernmental holdings – 26%;
- Debt held by the public – 74%.

Also presented is the debt structure in the section of US Treasury Securities holders in the situation from the second quarter of 2019:

- Foreign investors – USD 6.77 trillion USD, their investments increasing compared to 2001 with USD 5.57 trillion;
- Pensions – USD 2.60 trillion with respective growth of USD 1.54 trillion;
- Monetary authorities - USD 2.32 trillion (+ USD 1.77 trillion);

- Mutual funds - USD 2.11 trillion (+ USD 1.85 trillion);
- Individuals - USD 2.02 trillion (+ USD 1.61 trillion);
- Banks - USD 0.92 trillion (+ USD 0.05 trillion);
- State/Local government - USD 0.62 trillion (+ USD 0.28 trillion);

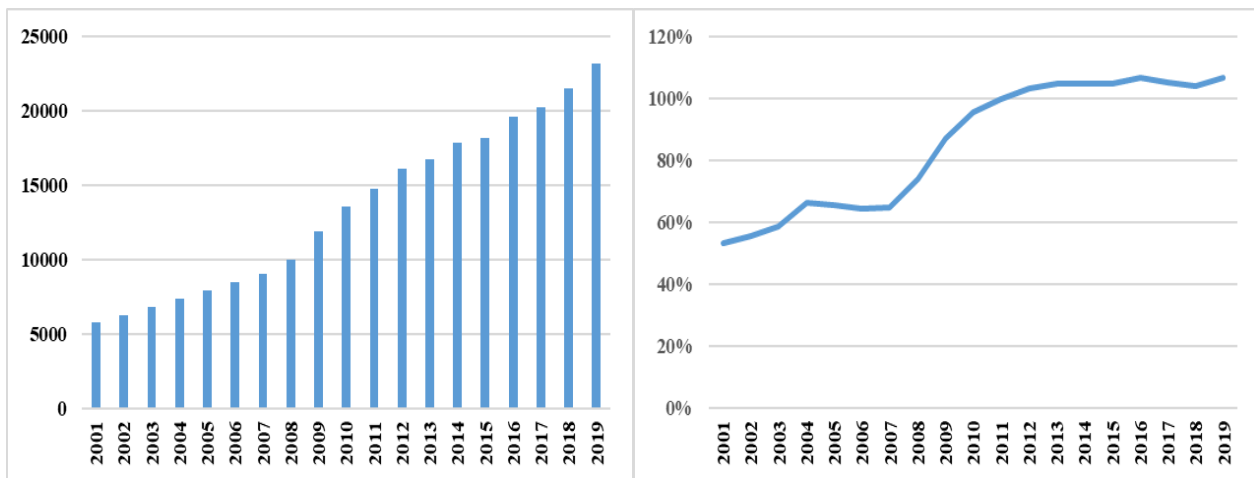


Figure 8 – Dynamics of national debt of USA (USD billion)

Figure 9 - Evolution of USA national debt to GDP ratio (%)

Sources: (*U.S. GDP...*, n.d.), (*Соединенные...*, n.d.), (*United States...*, n.d.), (*Public debt...*, n.d.)

- Insurance companies - USD 0.36 trillion (+ USD 0.24 trillion);
- Other - USD 0.29 trillion (+ USD 0.21 trillion).

The presented information denotes that foreign governments and investors have the largest share (29%) of US national debt, main holders being:

- Japan – USD 1.17 trillion;
- China – USD 1.11 trillion;
- United Kingdom – USD 334.1 billion;
- Brazil – USD 298.6 billion;
- Ireland – USD 286.6 billion;
- Luxembourg – USD 263.3 billion;
- Switzerland – USD 233.4 billion;
- Other – USD 3.1 trillion.

From the above, it appears that national debt is strongly integrated in US financial system, as well as in international system.

An important factor in increasing the US national debt is the significant increase in official currency reserves and the preservation of the important place of the US Dollar in them (Figures 10 and 11).

Official currency reserves expressed in US Dollars increased from USD 1.4 trillion in 2000 to USD 6.7 trillion in 2019, which is 4.9 times. However, their share in the total volume of official currency reserves has decreased, respectively, from 71.1% to 61.8%, that is, by 9.3 p.p.

This process has led to increased demand from many countries for high quality loan instruments, such as US Treasury Securities.

A growth factor of global public debt bubble has increased wealth of individuals (Table 1).

Thus, the number of people with wealth between USD 100 thousand and USD 1 million during the period 2011-2019 increased, respectively, from 369 million to 499 million. Their welfare grew from USD 100.6 trillion to USD 140.2 trillion, that is, with USD 39.6 trillion or 1.39 times.

The number of people with wealth greater than USD 1 million increased from 29.7 million to 47 million.

Their fortune increased from USD 89.1 trillion to USD 158.3 trillion, that is, with USD 69.2 trillion or 1.78 times.

Once US Treasury Securities are considered safest in the world, they are included in the list of investment objects of these individuals.

An important contribution in the formation of the global bubble of government debt is brought by Japan (Figures 12 and 13).

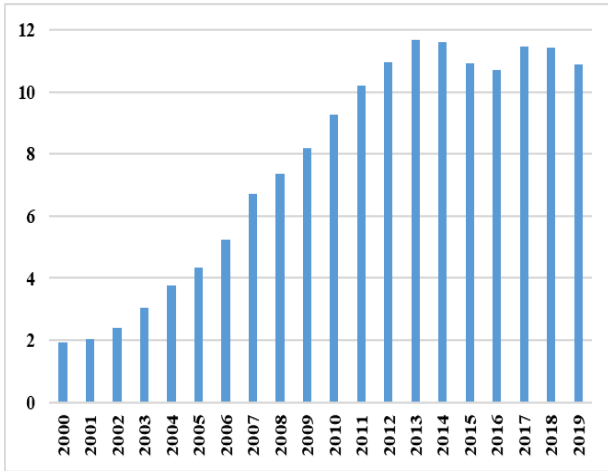


Figure 10 – Dynamics of global currency reserves (USD trillion)

Sources: (*Charting...*, n.d.), (*Development...*, n.d.)

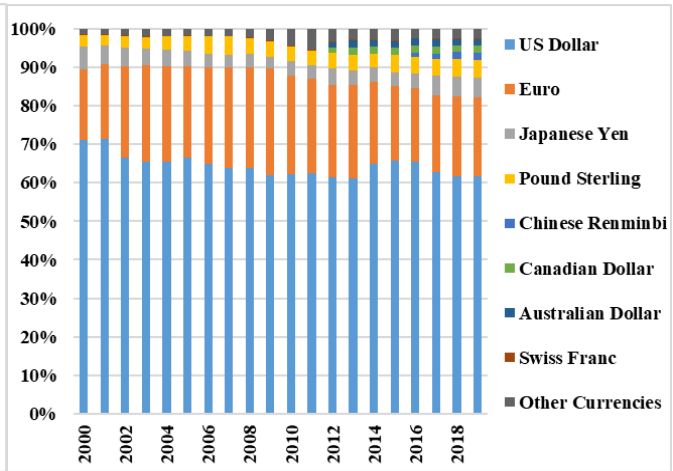


Figure 11 - The structure of world's currency reserves (%)

Sources: (*Reserve...*, n.d.), (Watson, 2019)

Table 1

Global wealth pyramid evolution

Wealth Range	2011		2019	
	Number of adults (million)	Total wealth (trillion)	Number of adults (million)	Total wealth (trillion)
>\$1000000	29.7	89.1	47.0	158.3
\$100000 - \$1000000	369.0	100.6	499.0	140.2
\$10000 - \$100000	1066.0	33.5	1661.0	55.7
<\$10000	3054.0	7.6	2883.0	6.3
Total	4518.7	230.8	5090.0	360.5

Sources: (Ruccio, 2011), (Johnson, 2019)

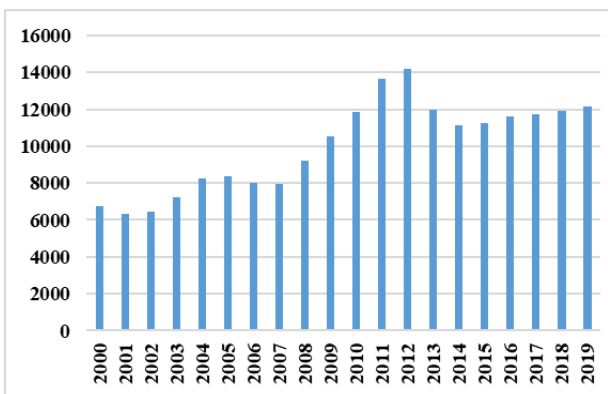


Figure 12 – Dynamics of national debt of Japan (USD million)

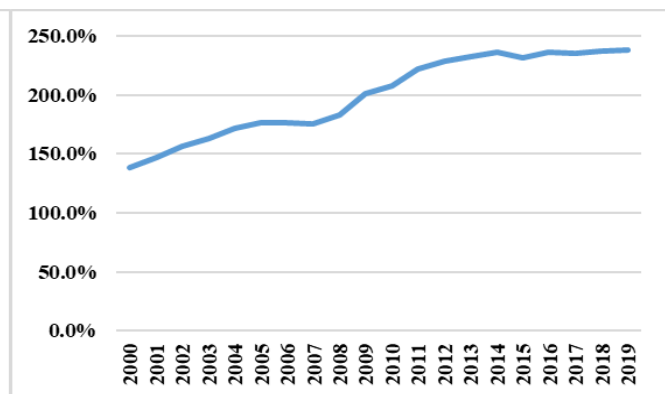


Figure 13 - Evolution of Japan national debt to GDP ratio (%)

Sources: (*Japan...*, n.d.), www.statista.com

During the years 2000-2019, Japan's national debt increased from USD 6.7 trillion to USD 12.1 trillion, i.e. USD 5.4 trillion or 1.8 times. Moreover, national debt from 2000 to 2019 in relation to GDP of this country increased by 99.8 p.p., from 137.9% to 237.7%.

During 2000-2019, China's national debt increased from USD 276.98 billion to USD 7518.4 billion or 27.1 times. At the same time, the ratio of national debt to GDP increased from 22.8% to 55.6%.

The dynamics of ratio of public debt to GDP of European Union has had the general tendency of growth. If in 2000 this indicator constituted 60.1%, in 2014 the maximum level of 86.5% was reached, after gradually decreasing to 85.9% in 2019. (*Government debt up...*, n.d.)

In this regard, EU countries can be divided into three groups (*General...*, n.d.):

- The first group consists of 4 countries with a high level of debt: Greece (176.6%), Italy (133.2%), Portugal (117.6%) and Belgium (101.0%).
- The second group comprises 9 countries with debt levels between 60% and 100%: Ireland (60.9%), Slovenia (67.1%), Hungary (67.5%), Croatia (71.1%), United Kingdom (85.6%), Cyprus (96.1%), Spain (96.4%), France (99.3%), Spain (96.4%).
- The third group can be considered as a zone of financial stability composed of 15 countries: starting with Estonia (8.2%) and ending with Finland (58.9%).

Apart from the above, it can be mentioned that in the world, besides the mentioned ones, there are other countries with a relatively high level of public debt to GDP ratio. As an example, can be presented: Sudan (207%), Eritrea (165.1%), Lebanon (155.1%), Cabo Verde (123.5%), Barbados (115.4%), Singapore (114.1%), Mozambique (108.8%), Bhutan (108.6%), Bahrain (101.7%), Jordan (94.6%), Jamaica (93.5%), Brazil (91.6%), Egypt (84.9%), Sri Lanka (83%). (*General...*, n.d.)

Conclusions

The aforementioned ones demonstrate the development of exaggerated increase process of government debt on a world scale, which can be considered as the formation and development of a financial bubble.

Given the fact that the recommended norm of sustainability has been exceeded globally, we can talk about constituting an important systemic instability factor in the global financial market.

In the short term, the formation of financial bubble from certain countries has the effect of dislocation, creating problems with the mobilization of loan capital to central authorities of developing countries. In the long-term perspective, it is possible to break this financial bubble, which will have the effect of triggering a new international financial crisis. As a result, the existence and evolution of global bubble of government debt requires the correction of financial policies in developing countries both in relation to the management of systemic risk on domestic financial market and in the formulation and promotion of national policy for government debt management.

Future Directions to Be Approached

The study of addressed topic in the paper is to be continued by results monitoring global public debt evolution.

Bibliography

BOGA, Bogdana (2009) Urmatoarea bula financiara va fi verde?, <http://www.ziare.com/economie/stiri-economice/urmatoarea-bula-financiara-va-fi-verde-887584>, [Accessed June 18th 2019]

Charting The Most Powerful Reserve Currencies in the World, <https://howmuch.net/articles/worlds-top-reserve-currencies-2019>, [Accessed January 21th 2019]

Development of global currency reserves from 1995 to 2018, <https://www.statista.com/statistics/247281/development-of-foreign-exchange-reserves-worldwide/>, [Accessed January 21th 2019]

DURDEN, Tyler (2019) *Global Debt To Hit All Time High \$255 Trillion, 330% Of World GDP*, <https://www.zerohedge.com/economics/global-debt-end-2019-record-high-255-trillion-330-global-gdp>, [Accessed January 9th 2019]

FETINIUC, Valentina; LUCHIAN, Ivan; GHERBOVEȚ, Sergiu (2014) *Speculative bubbles and financial crises*, In: Journal of Financial and Monetary Economics, No 1/2014, România, București, p. 153-162

GDP (current US\$), https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?end=2018&start=1987&year_high_desc=true, [Accessed January 6th 2019]

General government gross debt, <https://www.imf.org>, [Accessed January 13th 2019]

Government debt, https://en.wikipedia.org/wiki/Government_debt, [Accessed January 10th 2019]

Government debt up to 85.5% of GDP in euro area, <https://ec.europa.eu/eurostat/documents/2995521/9984123/2-19072019-AP-EN.pdf/437bbb45-7db5-4841-b104-296a0dfc2f1c>, [Accessed January 25th 2019]

Japan National Debt, <https://countryeconomy.com/national-debt/japan>, [Accessed January 21th 2019]

JOHNSON, JAKE (2019) *Global Millionaires—Just 0.9% Of Population—Now Own Nearly Half Of World's \$361 Trillion In Wealth, Study Shows*, <https://www.Commondreams.Org/News/2019/10/22/Global-Millionaires-Just-09-Population-Now-Own-Nearly-Half-Worlds-361-Trillion>, [Accessed January 23th 2019]

KIMBERLY, AMADEO (2020) *WHO OWNS THE US NATIONAL DEBT?*, [ACCESSED JANUARY 12TH 2019]

LUCHIAN, Ivan; ȚEPORDEI, Aurelia (2016) *Abordările teoretice ale sustenabilității politicii fiscale*, In: Materialele Conferinței Internaționale Științifico-Practice “Creșterea economică în condițiile globalizării” ediția a XI-a, Institutul Național de Cercetări Economice, 13-14 octombrie 2016, Chișinău, Editura INCE, 2016, p. 119-12

LUCHIAN, Ivan, ȚEPORDEI, Aurelia (2019) *Bulele financiare ca elemente actuale ale procesului de globalizae*. In: Economic Growth in Conditions of Globalization: sustainable development models the 14th edition, National Institute of Economic Research, 10-11 October 2019, Chisinau, Volume II, p. 113-119

Public debt of the United States from 1990 to 2018 (in billion U.S. dollars)*, <https://www.statista.com/statistics/187867/public-debt-of-the-united-states-since-1990/>, [Accessed January 20th 2019]

Reserve currency, https://en.wikipedia.org/wiki/Reserve_currency, [Accessed January 21th 2019]

RUCCIO, David (2011) *The global wealth pyramid*, <https://rwer.wordpress.com/2011/10/28/the-global-wealth-pyramid/>, [Accessed January 23th 2019]

SRIVASTAVA, Spriha (2019) *Global debt surged to a record \$250 trillion in the first half of 2019, led by the US and China*, <https://www.cnn.com/2019/11/15/global-debt-surged-to-a-record-250-trillion-in-the-first-half-of-2019-led-by-the-us-and-china.html>, [Accessed January 6th 2019]

United States Gross Federal Debt to GDP. <https://tradingeconomics.com/united-states/government-debt-to-gdp>, [Accessed January 20th 2019]

U.S. GDP Rose By \$850 Billion In 2019 As U.S. National Debt Surged By \$1.2 Trillion. Debt-To-GDP Ratio Hit 108%, https://seekingalpha.com/article/4320560-u-s-gdp-rose-850-billion-in-2019-u-s-national-debt-surged-1_2-trillion-debt-to-gdp-ratio-hit, [Accessed January 20th 2019]

Watson Casey (2019), The world's most powerful reserve currencies, <https://www.finance101.com/the-worlds-most-powerful-reserve-currencies/>, [Accessed January 21th 2019]

Государственный долг, <https://foxford.ru/wiki/obschestvoznanie/gosudarstvennyy-dolg>, [Accessed June 12th 2019]

Соединенные Штаты Америки - Валовой государственный долг, % от ВВП,
<https://knoema.ru/atlas/Соединенные-Штаты-Америки/topics/Экономика/Финансовый-сектор-Государственные-финансы/Государственный-долг-percent-от-ВВП>, [Accessed January 20th 2019]

<https://www.statista.com>

<https://countryeconomy.com/national-debt>