Journal of Economics, Finance and Management Studies

ISSN (print): 2644-0490, ISSN (online): 2644-0504

Volume 6 Issue 4 April 2023

Article DOI: 10.47191/jefms/v6-i4-01, Impact Factor: 7.144

Page No. 1392-1401

Global Public Debt Since 1995: Long-Term Trends, Current Phase, Medium-Term Outlook for Economic Growth

M.M. Kudinova

Department of International Capital Markets, Primakov National Research Institute of World Economy and International Relations

ABSTRACT:

Topic. The paper aims to identify long-term trends in global public debt (since 1995), provide its current overview (the magnitude of debt, concentration levels among participants and instruments, risk factors in the current phase of debt accumulation) and estimate its impact on global economic development over the medium term. This analysis has significant scientific and practical relevance due to the unprecedented character of factors affecting global level of indebtedness in the past few years (the Covid-19 pandemic since 2020 and the biggest military conflict in Europe since the Second World War since 2022).

Methods. The main sources for the research were reports, outlooks and data bases of national regulators and international organizations (International Monetary Fund, World Bank, Bank for International Settlements, Organization for Economic Co-operation and Development) concerning public debt, research in this field conducted by leading research centers and financial market participants.

Results. Two major periods in global debt development over time are shown: 1995 – 2007-08 with stable relative global public debt level, and since 2008 – rising levels of public debt. High levels of concentration in the global debt market and even in higher degree the government securities market are analyzed. These markets are characterized by the highly uneven distribution of debt among advanced and developing economies, state and local governments (central governments are main borrowers), instruments (predominantly global debt is issued through bonds nominated in domestic currencies with a straight fix rate). Risk factors in the current (since 2010) wave of global debt accumulation are described: 1. the magnitude of accumulated debt, its higher rate of growth and distribution among countries; 2. debt accumulation during a prolonged period of weak economic growth and investment activity in the 2010s; 3. the consequences of Covid pandemic and the military conflict in Ukraine. Economic repercussions of a high level of the country's indebtedness, including its threshold level, are shown. Many key participants of the global public debt market (especially advanced economies) are exposed beyond such threshold. Policy tools for reducing public debt are listed. Preliminary estimates of the medium-term impact of the global debt market conjuncture on global economic development are given. The existence of self-amplifying risks of global stagflation and public debt crisis is revealed.

Discussion. The impact of extraordinary factors affecting economic development in the world from 2020 on the global public debt market requires further research.

KEYWORDS: global public debt, government securities, debt accumulation, Covid-19 pandemic, Russia's special military operation in Ukraine, debt threshold, financial repression, ultra-accommodative monetary policy, inflation, stagflation

INTRODUCTION

In 2022, the global public debt in the world amounted to 92.3 trillion US dollars, or 96% of world GDP, which is close to the absolute maximum observed during the Second World War[1]. At the same time, government borrowings are characterized by high concentration levels: nine countries (among which there are only two developing economies: China and India) account for about

[1] In 1946, as the share of GDP developed-world public debt amounted to almost 150% (the next peak – about 100% – was observed during the 2008-2009 global financial crisis; 90% – after the First World War (see: A History of World Debt: How Public Debt Has Changed Since 1880. *Finance and Development*, March 2011. P.28.)). In 2021, public debt of the key participants (70% of the global debt market) reached around 150% (author's calculations based on the joint World Bank and IMF database 'The Quarterly Public Sector Debt Statistics' (QPSD))

79 trillion US dollars, or 85% of the global public debt market size, three countries (USA, China, Japan) – 59 trillion US dollars (64%), one country (USA) – 35.6 trillion US dollars, or around 39%[2].

GLOBAL PUBLIC DEBT MARKET OVERVIEW

Since 1995, **two major periods** in the development of global government debt can be observed.

The years before the 2008-2009 global financial crisis were marked by a relatively stable amount of public debt in the world (see *table 1*). In absolute terms the debt of the biggest borrowers[3] increased 1.85 times from 1995 to 2007, but as a share of world GDP it fluctuated around 60%.

Since 2008, consistent rising levels of public debt are observed. During this period, the debt of the main group of debtors increased 2.5 times (against the level of 2007), while in relative terms the debt skyrocketed from 60% to 96% of the world GDP.

Particularly sharp increases in borrowing happened in the 2007-2008 global financial crisis (20% increase in 2009 compared to the previous year) and in 2020 due to the Covid pandemic consequences (19% growth).

Table 1. Public debt of the biggest borrowers*, 1995-2021

Years	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	
Global GDP, trillion US dollars	30,9	31,6	31,5	31,4	32,6	33,7	33,4	34,7	38,9	43,9	47,5	51,5	58,1	
Public debt of 17 countries – major borrowers, trillion US dollars	17,8	18,2	18,2	18,6	19,2	19,8	19,6	21,1	24,1	27,6	28,8	29,0	32,9	
Public debt of 17 countries – major borrowers as the share of global GDP, %	58%	58%	58%	59%	59%	59%	59%	61%	62%	63%	61%	56%	57%	
Public debt growth, %		0,1%	1%	2%	-0,4%	-0,4%	-0,2%	4%	2%	2%	-4%	-7%	0,5%	
Years	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
Global GDP, trillion US dollars	63,7	60,4	66,2	73,5	75,2	77,3	79,5	75,2	76,4	81,3	86,3	87,6	84,7	96,1
Public debt of 17 countries – major borrowers, trillion US dollars	38,6	44,0	50,0	56,0	58,8	58,7	61,5	59,5	62,9	65,2	69,3	71,2	81,6	84,7
Public debt of 17 countries – major borrowers as the share of global GDP, %	61%	73%	76%	76%	78%	76%	77%	79%	82%	80%	80%	81%	96%	88%
Public debt growth, %	**7%**	**20%**	4%	1%	3%	-3%	2%	2%	4%	-3%	0,1%	1%	**19%**	-9%

* - Major borrowers include USA, China, Japan, UK, France, Italy, India, Germany, Canada, Brazil, Australia, South Korea, Mexico, Indonesia, Turkey, South Africa and Russia (in descending order of accumulated public debt), whose share on the global public debt market in 2022 exceeded 90%

Sources: 1) OECD Data General Government Debt;

2) The Quarterly Public Sector Debt Statistics (QPSD) by IMF and the World Bank

During the current period, **the debt of developing countries is growing faster than in advanced economies**: in 2007-2021, in the group of the biggest borrowers, the total debt of developing countries (as a percentage of their total GDP) increased by 72% (from

[2] Author's calculations based on the joint World Bank and IMF database 'The Quarterly Public Sector Debt Statistics' (QPSD) and OECD Data General Government Debt statistics

[3] USA, China, Japan, UK, France, Italy, India, Germany, Canada, Brazil, Australia, South Korea, Mexico, Indonesia, Turkey, South Africa and Russia

41% to 72% of GDP), in developed countries – by 59% (from 93% to 148% of GDP) (see *Table 2*). At the same time, **a strong gap in the levels of indebtedness** for these groups of countries remains in 2021 – 2.1 times (148% vs. 72%).

Table 2. Public debt of the biggest borrowers: developed versus developing countries*, 1995-2021

2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Public debt of the biggest borrowers – **developed countries**, trillion US dollars														
30,3	35,3	38,9	43,3	48,1	50,4	49,8	51,6	49,6	51,9	52,4	55,3	56,3	64,8	64,8
Public debt of the biggest borrowers – developed countries as a share of their GDP, %														
93	103	119	127	132	137	135	137	137	141	137	137	137	162	**148**
Public debt of the USA, trillion US dollars														
12,5	*15,0*	*16,7*	*18,8*	*20,3*	*21,4*	*22,8*	*23,7*	*24,9*	*26,0*	*26,5*	*28,3*	*29,1*	*33,8*	*29,2*
Public debt of the USA as a share of GDP, %														
86	*102*	*115*	*125*	*131*	*132*	*136*	*135*	*137*	*139*	*135*	*137*	*136*	*161*	*140*
Public debt of Japan, trillion US dollars														
7,9	*9,0*	*10,4*	*11,7*	*13,4*	*14,1*	*11,8*	*11,4*	*10,2*	*11,4*	*11,2*	*11,6*	*11,8*	*13,0*	*10,7*
Public debt of Japan as a share of GDP, %														
174	*178*	*199*	*204*	*218*	*227*	*230*	*234*	*233*	*231*	*230*	*234*	*233*	*257*	*217*
Public debt of the biggest borrowers – **developing countries**, trillion US dollars														
2,6	3,3	5,2	6,7	7,9	8,4	8,9	9,9	9,9	11,0	12,8	14,0	14,9	16,8	19,2
Public debt of the biggest borrowers – developing countries as a share of their GDP, %														
41	38	49	48	48	49	48	50	52	57	58	59	61	73	**68**
Public debt of China, trillion US dollars														
1,0	*1,2*	*1,8*	*2,1*	*2,6*	*2,9*	*3,5*	*4,2*	*4,6*	*5,4*	*6,4*	*7,5*	*8,1*	*9,8*	*12,7*
Public debt of China as a share of GDP, %														
29	*27*	*35*	*34*	*34*	*34*	*37*	*40*	*42*	*48*	*52*	*54*	*57*	*66*	*71*

* - for the list of the biggest debtors see *table 1*

Sources: 1) OECD Data General Government Debt;

2) The Quarterly Public Sector Debt Statistics (QPSD) by IMF and the World Bank

Central governments are main borrowers: over the past 25 years only around 20% of public debt has been acquired by local authorities. In 2021, local governments' share of the global public debt market accounted for 25%. Above average levels of regional and local debts were observed in China (56%), Canada (49%), Switzerland (37%), India (35%), Australia (33%), Germany and Norway (23% each)[4].

The current distribution of central governments' debt by instruments is presented in *Table 3*. **Predominantly** (87%) **borrowings are carried out through the issue of debt securities**.

Table 3. Central governments' global debt by instruments, 2022, 3rd quarter

Special Drawing Rights	0,4%
Currency and deposits	1,5%
Debt securities	86,8%
Loans	3,1%
Insurance, pensions, and standardized guarantee schemes	5,6%
Others	2,6%

Source: The Quarterly Public Sector Debt Statistics (QPSD) by IMF and the World Bank

This channel of borrowing is consistently **gaining more prominence** in comparison with placing loans (see *table 4*). On average for key market participants, in the total value of financial resources attracted through loans and debt securities the share of the latter increased from 83% in 2007 to 90% in 2021. For central governments this figure is even higher: 90-95% (see *Table 5*).

[4] Source: BIS Debt Securities Statistics

Global Public Debt Since 1995: Long-Term Trends, Current Phase, Medium-Term Outlook for Economic Growth

Over the past 20 years, the growth in borrowings through bond issues has been observed **mainly in developing countries**: during 2008-2021, the share of securities in the total value of funds raised through securities and loans, increased from 75% to more than 90% (see *Tables 4, 5*). In developed countries, this means of fundraising has been major for a long time.

Table 4. A share of debt securities in the total value of public debt raised through loans and debt securities, %

Years	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
Australia	66	63	71	74	74	76	73	76	78	81	82	82	82	82	82
Brazil	n/a	n/a	n/a	96	97	96	95	94	94	94	95	95	95	95	95
Canada	93	94	95	95	95	95	94	93	93	94	93	93	92	94	93
France	83	85	86	86	87	87	86	87	87	88	89	89	89	90	90
Germany	72	73	74	68	70	72	72	74	74	74	75	75	77	79	80
Indonesia	n/a	55	62	64	66	69	70	75	78	81	81	82	84	86	88
Italy	91	90	90	90	91	91	90	90	91	92	92	92	92	92	92
Japan	78	79	80	82	83	84	84	85	86	86	87	87	88	88	88
Russia	n/a	87	84	87	89	87	85	86	84	87	90	91	93	95	100
South Korea	n/a	n/a	n/a	n/a	n/a	90	89	87	85	85	85	85	86	87	87
Spain	83	82	84	82	82	76	79	81	84	85	87	88	89	89	88
Turkiye	n/a	85	86	87	85	87	85	86	85	83	82	81	84	86	83
UK	85	86	92	93	94	95	95	96	95	96	96	95	96	96	97
USA	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Average	**83**	**82**	**84**	**85**	**86**	**86**	**86**	**86**	**87**	**88**	**88**	**88**	**89**	**90**	**90**
Average for developed countries	83	84	86	86	86	87	86	87	87	88	89	89	89	90	90
Average for developing countries	n/a	**76**	77	84	84	85	84	85	85	86	87	87	89	**91**	**91**

Source: IMF Government Financial Statistics

Table 5. A share of debt securities in the total value of central governments' debt raised through loans and debt securities, %

Years	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
Australia	91	91	95	98	98	99	98	99	99	99	99	99	99	99	100
Brazil	n/a	n/a	n/a	98	99	99	99	99	99	100	100	100	100	99	99
Canada	100	99	99	99	99	99	99	99	99	100	99	99	99	99	100
France	96	97	98	98	98	96	96	96	96	97	97	97	97	97	97
Germany	94	93	94	83	85	87	87	88	89	89	88	89	90	90	90
Indonesia	n/a	55	62	64	66	70	70	75	78	81	81	82	84	86	88
Italy	95	95	96	96	95	95	95	95	95	95	95	95	96	95	95
Japan	92	92	93	93	94	94	94	94	95	95	95	95	95	96	91
Russia	n/a	87	91	94	96	95	96	97	97	98	99	99	99	100	100
South Korea	n/a	n/a	n/a	n/a	n/a	92	90	89	88	88	87	87	88	88	89
Spain	97	97	98	98	98	82	83	85	91	92	93	94	94	94	94
Turkiye	n/a	88	90	90	89	91	89	91	90	88	88	88	90	90	88
UK	87	88	93	94	95	96	96	97	96	97	97	96	97	97	98
USA	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Average	**95**	**90**	**92**	**93**	**93**	**93**	**92**	**93**	**94**	**94**	**94**	**94**	**95**	**95**	**95**
Average for developed countries	95	95	96	95	96	94	94	94	95	95	95	95	96	96	95
Average for developing countries	n/a	**77**	81	87	88	89	89	91	91	92	92	92	93	94	**94**

Source: IMF Government Financial Statistics

GLOBAL GOVERNMENT SECURITIES MARKET OVERVIEW

A closer look at the government securities' market – the main channel for public fundraising – shows even **more pronounced concentration levels** than those observed in the global public debt market. In 2021, its size exceeded 30 trillion US dollars, of which about 90% were bonds issued by only eight countries: USA, UK, Germany, Brazil, Spain, India, South Korea and Canada. Three countries accounted for almost ¾ of the market: USA (58%), UK (8%), Germany (5%)[5].

The trends on the global government securities' market parallel those of the public debt market in general. After the global financial crisis of 2008-2009, the growth rate of the central governments' debt securities markets increased. In 2009-2021, the global market expanded 3.5 times; in 2009, 2010, 2021, the annual growth amounted to 30%, 21%, and 16% respectively (see *Table 6*).

The majority of bonds (85%) are issued **in local currencies with a fixed interest rate**. At the same time, there is a gradual decrease in the share of fixed-rate securities (from 96% in 1995 to 85% in 2021), with a growing preference of inflation indexed (over this period, an increase from 1% to 10%) and, to a lesser extent, floating-rate bonds (up from 3% to 5%). The share of securities issued in foreign currencies does not exceed 1% of the total size of the market (see *Table 6).*

Table 6. Central governments' debt securities market, 1995-2021

Years	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**
Central governments' debt securities market size, including														
In trillion US dollars	**4,3**	**4,5**	**4,5**	**5,1**	**4,7**	**4,5**	**4,3**	**4,8**	**5,8**	**7,3**	**7,5**	**8,3**	**9,3**	**9,2**
Annual growth, %		4,1	1,4	11,7	-7,9	-3,2	-5,3	13,4	20,2	25,4	2,4	11,6	11,1	-0,3
1. Securities in domestic currency, floating rate														
In trillion US dollars	0,1	0,1	0,2	0,2	0,3	0,3	0,3	0,2	0,3	0,3	0,4	0,4	0,4	0,4
As a share of total market size	3%	2%	4%	5%	6%	6%	6%	4%	5%	5%	5%	4%	5%	4%
2. Securities in domestic currency, straight fix rate														
In trillion US dollars	4,1	4,3	4,3	4,6	4,2	4,0	3,7	4,3	5,1	6,2	6,3	7,0	7,7	7,7
As a share of total market size	96%	97%	94%	90%	89%	88%	87%	89%	88%	86%	85%	84%	83%	83%
3. Securities in domestic currency, inflation indexed														
In trillion US dollars	4,1	4,3	4,3	4,6	4,2	4,0	3,7	4,3	5,1	6,2	6,3	7,0	7,7	1,1
As a share of total market size	1%	1%	2%	4%	3%	4%	5%	6%	6%	8%	9%	11%	12%	12%
4. Securities in foreign currency														
In trillion US dollars	0,002	0,003	0,003	0,05	0,06	0,07	0,06	0,07	0,08	0,12	0,08	0,08	0,07	0,04
As a share of total market size	0,1%	0,1%	0,1%	1%	1%	2%	1%	2%	1%	2%	1%	1%	1%	0,4%
Years	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	
Central governments' debt securities market size, including														
In trillion US dollars	**12,0**	**14,6**	**16,4**	**18,6**	**19,9**	**20,3**	**20,4**	**21,0**	**22,8**	**23,7**	**25,2**	**27,8**	**32,3**	
Annual growth, %	**30,2**	**21,2**	12,6	13,0	7,1	2,0	0,7	2,7	8,7	4,2	6,2	10,2	**16,3**	
1. Securities in domestic currency, floating rate														
In trillion US dollars	0,5	0,6	0,7	0,6	0,6	0,7	0,8	0,9	1,0	1,2	1,3	~0	1,5	

[5] Author's calculations based on BIS 'Debt Securities Statistics' database

As a share of total market size	4%	4%	4%	3%	3%	3%	4%	4%	5%	5%	5%	~0%	5%
2. Securities in domestic currency, straight fix rate													
In trillion US dollars	10,2	12,4	14,0	15,9	17,1	17,2	17,2	17,5	19,0	19,6	20,8	23,3	27,4
As a share of total market size	85%	85%	85%	85%	86%	85%	84%	84%	83%	83%	83%	84%	85%
3. Securities in domestic currency, inflation indexed													
In trillion US dollars	1,3	1,5	1,7	2,0	2,2	2,3	2,4	2,4	2,7	2,8	3,0	3,1	3,4
As a share of total market size	11%	10%	10%	11%	11%	12%	12%	12%	12%	12%	12%	11%	10%
4. Securities in foreign currency													
In trillion US dollars	0,04	0,04	0,04	0,05	0,04	0,05	0,1	0,1	0,1	0,1	0,1	0,1	0,1
As a share of total market size	0,3%	0,3%	0,3%	0,3%	0,2%	0,2%	0,3%	0,3%	0,3%	0,4%	0,4%	0,4%	0,3%

Source: BIS Debt Securities Statistics

THE ANALYSIS OF THE CURRENT PERIOD IN GLOBAL PUBLIC DEBT DEVELOPMENT

Empirical data indicate the onset of **a new wave of global public debt accumulation since 2010**.

Since 1970s, three such waves have been observed, each terminating with a full-blown financial crisis:

1. 1970s – early 1980s – the growth of government borrowing in Latin America and low-income countries, primarily of Black Africa, followed by a series of financial crises in the early 1980s.
2. 1990s – early 2000s – the growth of private debt in Southeast Asia and public debt in Europe and Central Asia, followed by full-scale crises in these regions in 1997-2001.
3. 2000s – the build-up of debt in the private sector in Europe and Central Asia (including advances economies), which ended in the 2008-09 global financial crisis.

The current wave of public debt growth in the world is characterized by several **risk factors which may aggravate** such accumulation (deepen the severity of the next global financial crisis, lengthen the recovery period, etc.).

Firstly, it's the magnitude of accumulated debt, its higher and more consistent rate of growth and distribution among countries compared to the previous four decades (see empirical analysis above).

For the first time since the Second World War, in 2020 global public debt exceeded world GDP[6].

The number of countries with extreme levels of public debt (above 70-80% of GDP) is at a steep incline (see *Table 7*). Now among these countries are all major advanced economies.

Table 7. Countries with extreme public debt level

	Public debt / GDP ratio, %				
	>70 – 80	>80 - 100	>100 - 150	>150 - 200	>200
The number of countries, end of 2017	13	14	12	2	1
The number of countries, end of 2022 (prognosis)	20	19	25	5	4

Sources: author's estimates, IMF databases

Secondly, at the current wave, debt accumulation takes place against the backdrop of the prolonged period of weak economic growth[7] and investment activity in the 2010s.

[6] In the first quarter of 2021, government debts in the world approached 90 trillion US dollars, or 106% of global GDP. In 2021, despite the continued growth in public borrowings (92.3 trillion US dollars at the end of the year), its relative level decreased to 96% of global GDP due to the sharp economic recovery in 2021 after a steep decline in 2020 caused by the onset of the Covid-19 pandemic

[7] Global GDP growth decreased from 4.49% in 2010 to 2.56% in 2019. In 2020, the decline was 3.3% with a rebound of +13.5% in 2021 (the World Bank data)

Thirdly, two extraordinary factors lately have dealt a heavy blow to public finances: the global coronavirus pandemic (since 2020) and the outbreak of the largest armed conflict in Europe since World War II (in 2022).

The destructive effects of the Covid-19 pandemic for the global economy in general[8] and public finances in particular, include the following.

1. A sharp increase in government borrowing (by 19% in 2020 for the key debtors (see *Table 1*)).
2. A group of problems arising from the scale[9] and width of measures taken by governments all over the world to help their economies, great haste in the provision of financial resources: an increased risk of inefficient allocation of financial resources and bankruptcies; reduced transparency in granting loans and making investments; the weakening of regulatory standards and financial discipline, which were tightened across-the-board after the 2008-09 global financial crisis, etc.
3. A significant expansion of central banks' balance sheets (primarily for developed countries) due to the launch of multi-trillion asset purchase programs (quantitative easing)[10] with ensuing negative consequences of such expansion: inflationary risks; distortion of the yield curve and asset pricing in financial markets, including the formation of financial bubbles (settlement of money in the financial sector instead of the real sector and households); growth of debt and credit risks; undermining of market discipline; risks of political interference in monetary policies.

The start of **Russia's special military operation in Ukraine** in 2022 led to the global energy shock, disruption of global production and financial chains, increased tension in financial sectors.

ECONOMIC CONSEQUENCES OF HIGH PUBLIC DEBT

After the end of the previous wave of debt accumulation in the world resulting in the 2008-09 global financial crisis, a significant volume of research studying the influence of a country's public debt on its economic development[11], appeared.

One of the highlights of these studies is the identification of **the public debt threshold** (**90% of GDP** in [Reinhart, Rogoff], **75-100%** in average according to different research papers). Exposure beyond such a threshold impacts negatively on the country's economic growth and aggravates as debt continues to grow. For developing countries, in addition, it also leads to **higher inflation**, which is also observed when exceeding **the threshold of external public debt – 60% of the country's GDP**[12].

The mechanism connecting economic growth rates in the country and the level of its public debt is as follows.

An increase in government borrowing leads to tougher competition between state-owned and private companies for financial resources in capital markets, which causes an increase in interest rates and thus in production costs in the private sector with the consequent suppression of innovation, lower profits, slowed potential for economic growth.

The crowding out of private investments is intensified if public debt continues to build up, with a corresponding increase in interest rates and the default risk. In addition, with the growth of interest payments on the national debt, government spending on scientific research, infrastructure and educational projects is reduced, that is, the crowding out of public investments and a further reduction in the pace of economic development occurs.

The difficulties in servicing public debt can lead to an increase in the tax burden, painful cuts in budget expenditures, higher inflation and have other negative economic repercussions.

In table 8 current public debt levels of the biggest borrowers are shown.

---

[8] Since the 1970s, only twice the global GDP growth rate was negative: in 2009 – -1.3% and in 2020 – -3.3% (the World Bank data)

[9] In the first two months of the pandemic alone, governments around the world spent 10 trillion US dollars to alleviate the effects of Covid-19. This sum is three times the amount of government support during the 2008-09 global financial crisis (Cassim Z., Handjiski B., Schubert J., Zouaoui Y. 'The $10 Trillion Rescue: How Governments Can Deliver Impact'. McKinsey & Company, June 2020. P.2.)

[10] In 2020, quantitative easing programs implemented by USA, the European Union (EU), Japan and the UK alone, reached about 6 trillion US dollars (USA – 2.3 trillion US dollars, EU – 1.47 trillion euros, Japan – more than 110 trillion yen (about 1 trillion US dollars), UK – 745 billion pounds), which is comparable to the international reserves of all developing countries (about 8 trillion US dollars) (*Sources*: Monetary Policy Report Submitted to the USA Congress on June 12, 2020, Pursuant to Section 2B of the Federal Reserve Act; The ECB's Monetary Policy Response to the COVID-19 Crisis. The European Parliament's Committee on Economic and Monetary Affairs, Briefing, Updated June 18, 2021; Monetary Policy Releases 2020-2021. Bank of Japan, January 21, 2020 to December 28, 2021; Monetary Policy Report. The Bank of England, Monetary Policy Committee, November 2021. 56p.; IMF Data Access to Macroeconomic & Financial Data: Data Template on International Reserves and Foreign Currency Liquidity)

[11] In 2010 a research paper 'Growth in a Time of Debt' by Harvard scholars Carmen Reinhart and Kenneth Rogoff became the first influential study in the field (see *References*); for an overview of research on this topic see Veronique de Rugy and Jack Salmon 'Debt and Growth: A Decade of Studies'

[12] See [Reinhart, Rogoff], [de Rugy, Salmon]

Table 8. Public debt of the biggest borrowers*, 2020-2021

Advanced countries	Public debt as a share of GDP		Developing countries	Public debt as a share of GDP	
	2020	**2021**		**2020**	**2021**
Japan	**257**	**217**	Brazil	**126**	**92**
UK	**154**	**159**	India	**90**	**89**
USA	**161**	**155**	South Africa	**77**	**78**
Italy	**184**	**146**	China	66	72
Canada	**142**	**134**	Mexico	69	46
France	**146**	**122**	Turkiye	43	44
Australia	**97**	**91**	Indonesia	37	41
Germany	**79**	65	Russia	19	17
South Korea	59	45			
Debt threshold	**75-100%**				

* - see *table 1*

Sources: 1) OECD Data General Government Debt;

2) The Quarterly Public Sector Debt Statistics (QPSD) by IMF and the World Bank

Many key participants of the global economy (especially advanced economies) **are exposed beyond** (and far beyond! in the case of several developed countries) **the acceptable threshold**.

Such high levels of government debt in the world were last observed during the Second World War. However, war debts are less perilous compared to debts accumulated in peacetime, because, firstly, with the end of the war, the public debt decreases due to the cessation of military spending, and secondly, the high growth rates of post-war economic development (the return of financial, labour, material resources in the civilian sector of the economy) ease the repayment of debts. Government debts acquired in peaceful times can exist for an extended period of time.

POLICY TOOLS FOR REDUCING PUBLIC DEBT

Several ways to solve the problem of high government debt can be listed:

1. economic growth.
2. budget cuts.
3. privatization of state-owned property.
4. growth of the tax burden, primarily excess-profits taxation.
5. default or debt restructuring.
6. hyperinflation (for debts denominated in local currency).
7. a smooth increase in inflation often coupled with a policy of financial repression (for debts denominated in local currency).

After the First World War and the 1929-33 Great Depression, **defaults, voluntary and forced debt restructurings** were the main mechanism for reducing public debt.

After the Second World War, many developed and subsequently developing countries resorted to a more subtle mechanism for reducing the level of public debt – **financial repression** (1945-1980). In these decades, real interest rates in the world were much lower than in the pre-war period with freer capital markets and during financial liberalization starting in the 1980s. In developed countries, real interest rates were often negative. Financial repression policy was also accompanied by higher inflation rates[13].

PRELIMINARY ESTIMATES OF THE MEDIUM-TERM IMPACT OF THE GLOBAL PUBLIC DEBT MARKET CONJUNCTURE ON GLOBAL ECONOMIC DEVELOPMENT

The unprecedented amount of financial assistance provided to economies by governments in 2020-21, led to a sharp increase in global GDP (by 13.5% in 2021 – the highest increase since the late 1970s[14]). At the same time for the first time since the 1970s, the global economy faced **high inflationary risks**. By April 2022, the inflation rate in the world reached an average of 7.8% (the

[13] In depth see [Reinhart, Sbrancia]

[14] The World Bank, GDP Database

highest mark since 2008) and was above the target level in all developed countries and in almost 90% of developing countries that set thresholds for this indicator[15].

Concerns about rising prices led to phasing out of aggressive monetary policies launched by countries during the pandemic – in the majority of developed and emerging economies[16] – with a corresponding increase in interest rates, including on government bonds. For example, the U.S. Federal Funds Rate, which at the beginning of 2022 was 0.08%, increased to 4.58% by March 2023. The forecast of interest rate levels in developed countries until December 2023 prepared by the Bank for International Settlements, assumes their further growth[17], with a corresponding drop in the global GDP caused by tightening financial conditions, by 1.5% – 3% by 2025, depending on a rate-growth scenario – according to the existing trend or their sharper increase observed in the early 2000s[18].

The start of the military conflict in Ukraine and a steep rise in world prices of energy and food products further strengthened inflationary and stagnation fears in the world.

Moreover, the global energy shock caused by this conflict leads to a sharp rise in production costs and to an economic slowdown in energy and food importing countries. The disruption and reorganization of global production chains, the tightening of credit conditions, the lower level of investment activity due to the growth of political risks will further contribute to the deterioration of the economic situation in the world. The World Bank forecast – 0.8% decline in global GDP in the next two years[19] and lower levels of GDP growth in the current decade compared to the 2010s[20].

In these conditions, **a probable outlook for the world economy** in the coming years includes **stagflation**[21]. Last time on a global scale it was observed in the 1970s after energy crises of 1973 and 1979, and the struggle with it required a sharp tightening of monetary policies and a rise in interest rates in most developed countries, which led to a global recession and a series of financial crises in developing countries.

Compared to the 1970s, the stagflationary outlook for the world economy is exacerbated by two factors that were absent 50 years ago – historically low interest rates in developed countries and historically high levels of global public and private debt.

Mountainous government debts peaking in relative terms in 2020[22] (see *Table 8*), greatly added to countries' financial vulnerability. In the context of high public debt and rising inflation, the main challenge for governments and their central banks is to find **the optimal balance between the requirements of monetary and fiscal policy**.

During the coronavirus pandemic, such balance was not required: given historically low levels of interest rates and inflation in key players in the global economy, developed countries' governments were able to sharply increase borrowings (including the launch of a new round of quantitative easing) and provide huge fiscal support to their economies – with the support of such policy by monetary authorities. Currently, due to a sharp surge in inflation, the goals of monetary and fiscal policy no longer coincide.

Battling inflation by monetary authorities with a corresponding tightening of financial conditions (without exception for state and local authorities) and a slowdown in economic growth, will lead to pressure on governments to increase support for economic agents. This can lead to further increases in public debt, its servicing, budget deficits and the cost of government borrowing.

Considering all aforementioned, international economic organizations are currently assessing (so far without inclusion in outlook reports) **the risk of a global debt crisis**[23]. Mutually reinforcing risks of global stagflation and aggravation of the situation on the global public debt market – the spot at which the world economy currently stands.

[15] Global Economic Prospects. Washington, DC: World Bank, June 2022. P.56.

[16] The exception is China where due to more stringent Covid restrictions, remains the necessity to maintain GDP growth

[17] Annual Economic Report. Bank for International Settlements, June 2022. P.8.

[18] Ibid. P.xii.

[19] Global Economic Prospects. Washington, DC: World Bank, June 2022. P.81.

[20] Ibid., p.53.

[21] International economic organizations (Bank for International Settlements, World Bank, OECD, etc.) in their current forecasts mention the possibility of stagflation scenario in the world economy

[22] In 2021, due to the rising inflation and a rebound in global GDP growth, there was a decrease in the relative level of public debt in most countries. However, a significant decrease is not to be expected

[23] See [Hayashi]

REFERENCES

1) 'A History of World Debt: How Public Debt Has Changed Since 1880'. *Finance and Development*, March 2011: 28.
2) Cassim Z., Handjiski B., Schubert J., Zouaoui Y. 'The $10 Trillion Rescue: How Governments Can Deliver Impact'. *McKinsey & Company*, June 2020.
3) De Rugy V., Salmon J. 'Debt and Growth: A Decade of Studies'. *Mercatus Center at George Mason University*, Policy Brief, April 2020. 12p.
4) Hayashi Y., Douglas J., Deng C. 'Ukraine War Deepens Debt Woes Across Developing World'. *The Wall Street Journal*, April 17, 2022.
5) Reinhart C., Rogoff K. 'Growth in a Time of Debt'. *American Economic Review: Papers & Proceedings*. No. 100, May 2010: 573-578.
6) Reinhart C., Belen Sbrancia M. 'The Liquidation of Government Debt'. *NBER* Working Paper 16893, March 2011. 66p.