

## A World Reshaped

Global change in the 20 years after the 9/11 attacks

Research Group of Profound Changes Unseen in Centuries, Chongyang Institute for Financial Studies, Renmin University of China (RDCY)

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中国人民大学重阳金融研究院(人大重阳)成立于2013年1月19日,是重阳投资向中国人民大学捐赠并设立教育基金运营的主要资助项目。

作为中国特色新型智库,人大重阳聘请了全球数十位前政要、银行家、知名学者为高级研究员,旨在关注现实、建言国家、服务人民。目前,人大重阳下设7个部门、运营管理4个中心(生态金融研究中心、全球治理研究中心、中美人文交流研究中心、中俄人文交流研究中心)。近年来,人大重阳在金融发展、全球治理、大国关系、宏观政策等研究领域在国内外均具有较高认可度。

### 中国人民大学全球治理研究中心

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自 2018 年以来,中国人民大学全球治理研究中心连续四年入围由美国宾州大学"智库研究项目"(TTSCP)推出的、国际公认度最高的《全球智库报告》的"亚洲大国智库 100 强"。



## A World Reshaped:

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### **Key Points**

- •Twenty years since the 9/11 attacks, the pattern of the world can be described as "the East is rising and the West is declining." In terms of GDP, the most important indicator of national strength, countries in the East represented by China have risen rapidly, and the advantages of the Western countries represented by the US have gradually shrunk. Many Western developed countries have been even left behind by China. Overall, the national strength of countries has changed almost radically in the past 20 years, if we take into account other indicators, including the development of science and technology as well as the total labor force
- Twenty years since the 9/11 attacks, the world has begun to move away from the real economy to the virtual economy, and industries in some countries have even become "hollow." Some countries and regions, led by the US, have seen a fast relocation of industries related to the real economy and increasing financialization of the economy. As large amounts of capital accumulate in the stock market, economy in these countries has grown with many bubbles. As a result, sectors in developed countries and some low- and middle-income economies now are suffering from high debts.
- •Twenty years since the 9/11 attacks, the world has experienced the upgrading process of digitalization and "cloudization." Society has been constantly developing in technology and digitalization over the past two decades. In terms of communication, two thirds of the world's population is already using mobile phones, and 60 percent of the world's population has access to the Internet, with the vast majority of them using social media. Cell phones have become the primary choice for people to access the Internet, and people are spending more and more time online every day.
- •Twenty years since the 9/11 attacks, the social structure of many countries has broken up into parts. Some societies, such as the one of the US, have begun to tear apart. During the past

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two decades, the US demographic structure has witnessed an important turn. Racial conflict in the country has intensified, while the employment situation has become more and more severe. In addition, the gap between rich and poor has become increasingly serious, and the problem of aging population has become a looming crisis. But the solution to these problems is usually palliative.

- •Twenty years since the 9/11 attacks, many social thoughts have retreated. Some thoughts which are seemingly new but actually hollow have been prevailing, which has generated destructive impacts on the international community. For developed countries, emerging economies only benefited a few after traditional real industries were transferred. As a result, populism and green-party thoughts gradually became mainstream. However, these thoughts have a profound influence. Some even appear to be progressive. But behind them are severe social realities.
- •The first 20 years of the 21st century are different from the past no large-scale war occurred. Wars occurred in the first 20 years of the 18th, 19th and 20th centuries, represented by the War of the Spanish Succession, Napoleonic Wars and World War I. But the pattern did not repeat itself the 21st century started with peace. Small-scale conflicts like the War in Afghanistan and the Iraq War did not expand.
- •9/11 attacks, the wars triggered and following impacts can be seen as a butterfly effect. Against the backdrop of the changing world pattern, 9/11 attacks are just the first fallen Domino, leading to drastic political, economic, social and cultural changes in the US and accelerating the changes of world pattern.
- •The development and popularity of technology means past hegemonism cannot easily win. Technology is no longer exclusive to developed countries, big financial magnates and companies, but can be reached by more people. More and more people have realized that how conventional means of the US and some developed countries threaten the public, and how they can also exploit technology to make plots and change things. There are good things and bad things, and the key lies in how to guide the application of technology.
- Since the 9/11 attack, a new world pattern has gradually taken shape, with "cold peace" as

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the keynote. A large-scale hot war is impossible, and a cold war seems unlikely either. The high cost of war, the irreversibility of globalization and the diversification of "battlefields" make hot war and cold war no longer inevitable for world development.

- •Both the US and China can coexist as "soft centers" of the world. Instead of saying that the US is in decline, it is better to say that the US is entering a process of relative sliding downward and gradual shrinkage of its hegemony. China's gradual catch-up has added to US' pressure and anxiety. This will be a slow and gradual process, and it is believed that China and the US can reasonably coexist over a long period of time. Therefore, it is not advisable to view the world pattern with a zero-sum game mentality.
- "Full data" is one of the current trends, as data has become the primary productive force. Meanwhile, "big finance" demonstrated that the position of finance is more and more important. Fundamentally speaking, the development of science and technology is the core of the competition between great powers. Since unilateral systems are inevitably challenged by pluralistic societies and the cost of society are rising, countries around the world can only win through cooperation.
- •The future of human society depends on how people look at the world. There is a growing consensus that the world should be evaluated as a whole system, not as a patchwork of countries and regions. How to develop the world after the 20th anniversary of the 9/11 attacks depends not only on how Western countries respond to challenges, but also on how Eastern countries correctly view the current situation and define the direction of development. The world system is not a one-man show for developed countries. Of course, we also need to clearly understand that the change of the world pattern is a long and slow process. Recognizing opportunities and risks, and recognizing challenges and hopes is an inevitable path for the steady development of human civilization.





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As the US has withdrawn from Afghanistan, the shadow of another empire receded in the camel bells in the heart of Eurasia. The War in Afghanistan started in 2001, the first year of the 21st century, and seems to have come to an end in 2021. What does this mean to the world?

The 9/11 attacks in 2001 not only triggered the Afghanistan War, but also opened the door to the history of the 21st century. The world is facing a period of major change: The deluge of US dollars, the world pattern of "the East is rising and the West is declining", the financial crisis, the Internet era, refugee crisis and COVID-19. And the development of the world's great changes always seems to start with the 9/11 incident that triggered the War in Afghanistan. It is like a butterfly that flaps its wings and sets off a "21st century storm".

The twin towers that were attacked in the 9/11 attacks were called the World Trade Center, which seemed to symbolize that the US-centric global economic and trade system shaped in the last century was broken from its center by airplanes of non-American forces. Then came the great game to defend and resist the central system of the US, and the transformation and upgrading of all industrial chains by money and science and technology. The story continues. As the protagonist of the "world", if it is a person, then in the past 20 years, he must have experienced an accident in which one of his bones was broken and every bone was replaced. The whole "person" also appears to have changed completely.

When we look at the current historic juncture, we need to figure out how the world has changed:



# Part 1. World phenomenology: in 20 years, the world has changed

The COVID-19 pandemic has changed the world, but the world was already undergoing unprecedented changes even before that. The pandemic has just acted as an accelerant of such changes. Phenomenological methods hold that any thinking is incomplete without finding the root of the problem, and phenomena must be clarified before finding that root. The 9/11 attacks were like a watershed. dividing the history of the world into different periods. The world pattern is moving toward "the East is rising and the West is declining", the global economy is moving from real to virtual, scientific and technological innovation is shifting to cloud, social structure is breaking up into pieces, and the trend of thought is appearing to move forward but actually

backward. Through one phenomenon after another in the past two decades, the world is taking on a completely different pattern.

## 1.1World pattern of "the East is rising and the West is declining"

By comparing the GDP of Asia with that of Europe and the US, we can clearly find the trend of "the East is rising and the West is declining". In 2001, Asia's GDP was \$8.9 trillion, less than that of Europe and the America. But in the 19 years from 2001 to 2019, Asia's GDP grew by 2.72 times, higher than Europe's 1.19 times and America's 1.11 times. As a result, Asia's GDP reached \$33.08 trillion in 2019, significantly higher than that of Europe and the America.



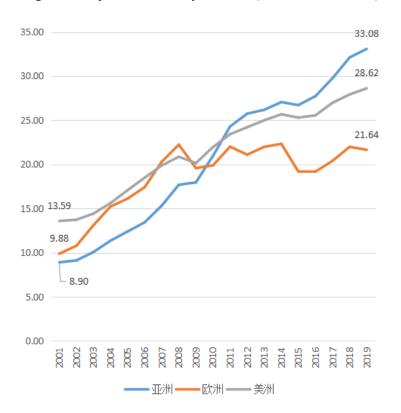


Figure 1: Comparison of GDP by continent (trillions of US dollars)

Source: Wind, United Nations Statistics Division

The leading indicator of national strength is GDP, but also includes indicators such as science and technology, labor force and the list goes on. For the specific representative countries of the East and the West -- China and the US, many of these indicators reflect the trend of "the East is rising and the West is declining".

Examining the trend of GDP over the past decades, it shows that the narrowing of the gap in economic power between China and the US has accelerated significantly in the past two decades. In

the two decades before 2001, China and the US had similar GDP growth pace, and China's GDP as a percentage of the US' GDP remained stable at 6-12 percent in general. From 2002 to 2020, China's GDP growth rate was much higher than that of the US, so the ratio of China's GDP to US GDP increased rapidly from 13.46 percent in 2002 to 70.46 percent in 2020. The rapid narrowing of the China-US economic power gap began almost at the same time as China's accession to the World Trade Organization and the 9/11 attacks.





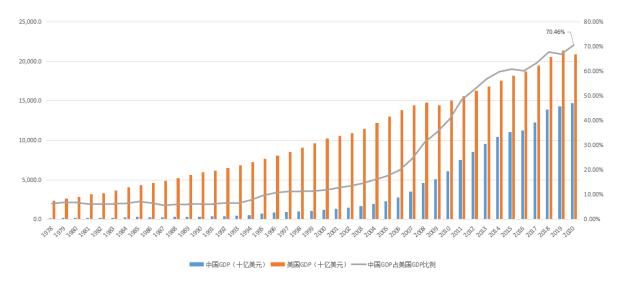


Figure 2: Comparison of China's and US' GDP

Sources: Wind, US Bureau of Economic Analysis, World Bank

National power also includes science and technology, and one of its reference indicators is the research and development spending as a share of GDP. For this indicator, the growth rate in the US from 2001 to 2018 was negligible, maintained at around 2.70 percent. China, on the other hand, experienced rapid growth over the same period, from 0.9 percent in 2001 to 2.19 percent in 2018. And the gap between China and the US narrowed from 1.69 percent in 2001 to 0.65 percent in 2018.

From 2001 to 2020, the accumulative growth rate of the total labor force in China and the US is close to each other at about 13 percent. However, due to the

absolute advantage of China's labor force population, which is much larger than that of the US, the gap between China and the US in labor force population has widened from 585 million in 2001 to 653 million in 2020.

Statistics above all reflects the trend of "the East is rising and the West is declining". But in terms of military spending as a percentage of GDP, the gap has widened. One of the reasons is that the US has been trying to control the situation of wars such as the one in Afghanistan under the banner of "safeguarding world peace" for a long time, so as to consolidate its own hegemony.



### 1.2 Global economy is moving from real to virtual

Why does this phenomenon of "the East is rising and the West is declining" occur? This is mainly because many economies in the world are being moving from the real economy.

To start with, there is a growing trend of economic financialization, led by the US. According to the statistics of the World Bank, the ratio of added value of the financial industry in GDP of the traditional financial powerhouses, the US and the UK, has significantly increased compared with 2001. This reflects the fact that over the past two decades, all economies have been moving from the real economy to the virtual economy. Idle financing affected the development of domestic real economy to varying degrees, and the financial leverage further rises. Influenced by financial opening-up and international market, China's financial industry has developed rapidly and deepened its financialization in recent years. Over the past two decades, Britain's financial sector has added 26 percent more value to its GDP in 2020 than it did in 2001, and the US added 39 percent compared with the year 2008. Since 9/11 attacks, the world's major economies have become more financialized. Excessive financialization of the economy has risks, and it has created the problem of capital idling.

A large amount of money has accumulated in the stock market. By January 2021, the Buffett Indicator, which is measured by dividing the collective value of a country's stock market by the nation's GDP, was 221 percent. That compares with 150 percent in 2000, before the dotcom bubble burst. The accumulated economic bubble, and the mass printing of US dollars which have circulated within the financial system, then the world economy has started to move away from real economy to the virtual economy.

Besides, another manifestation of the global economy moving away from real economy to the virtual economy is the swollen economy and soaring debt.

One is that the scale and ratio of the US debt have increased significantly since 2001. In 2001, the government debt of the US was \$6.8 trillion. By the middle of 2021, the government debt of the US has exceeded \$28 trillion, a substantial increase of more than 311.8 percent compared with 2001. The debt built up collapsed in 2008 during the financial crisis.





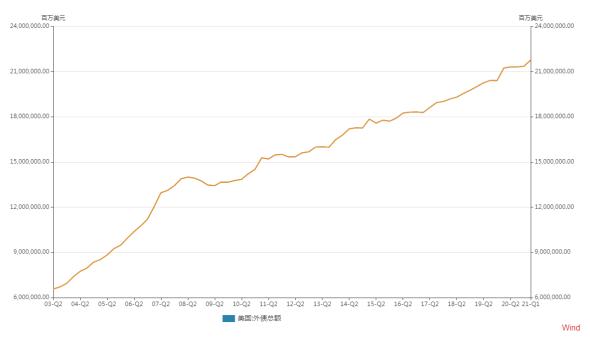


Figure 3: Changes in US government debt levels

Source: Wind

In terms of the debt ratio of the US federal government, it stood at 55 percent in 2001. And the debt level climbed, exceeding 100 percent for the first time in 20 years, and exceeding 110 percent of GDP in 2020, then rising to 133 percent of GDP in the first quarter of 2021. The accumulated debt of the US is like a

barrier lake hanging high, and the debt level keeps rising. The debt repayment ability of the US and the credibility of the US dollar are challenged. China, Japan and other countries have continuously reduced their holdings of US debt. Huge amount of debt poses risks to the US economy.

140% 133% 120% 100% 80% 55% 2005年 2021年Q1

Figure 4: Changes in the debt ratio of the US federal government

Source: US Bureau of Economic Analysis, Wind

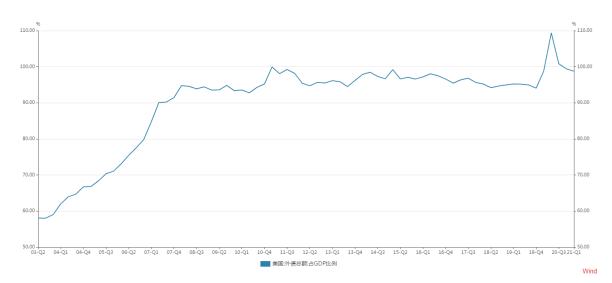


Figure 5: Changes in US debt levels from 2000 to 2020

Source: Wind

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The other is that the European sovereign debt crisis is still unresolved. The growth of European debt has different stages. During the period from 2001 to 2008, the overall scale of European debt was under control. In 2001, the overall debt ratio of Europe was 65.8 percent, but in 2009, during the European debt crisis, the debt ratio soared, and the government debt ratio of Greece and other peripheral countries exceeded 150 percent and the

deficit ratio exceeded 3 percent. Even the government debt ratio of core countries such as Germany and France has been close to 100 percent, and the deficit has been running for years. Since the COVID-19 pandemic in 2020, European debt has been rising rapidly again, and the government debt level in 2021 has even surpassed that during the European debt crisis.

Figure 6: Development and change of EU debt level

Source: Wind

Third, the level of indebtedness of low- and middle-income countries has continued to rise. Rising indebtedness is not only unique in Europe and the US, but also in low- and middle-income countries. After 2001, most low- and middle-income countries have become the main bearers of the over issue of US

dollars. In just two decades, the longterm debt of low- and middle-income countries has increased rapidly by more than 200 percent, greatly aggravating the instability and potential risks of these countries' economic development.

The over issue of currency has led to



swollen economy, and there is a serious tendency for finance to decouple from real economy.

Since the 21st century, the US Federal Reserve's balance sheet has increased nearly 10 times, reaching a staggering \$7.7 trillion as of July 2021. The supply of US dollars was \$5 trillion in 2001 and \$15 trillion in 2019, more than tripled in 18 years. The speed of currency issuance far exceeds the US' GDP growth rate

over the same period. In the context of the epidemic, the US economy declined by 3.5 percent in 2020, but the country's annual M2 money supply soared to more than 20 trillion, almost completely out of the development level of GDP. Therefore, the US currency credit should have been established on the basis of real economy, but it has gradually transformed into a hedging tool that serves itself in the crisis, gradually decoupling with economic development.

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Figure 7: Growth and changes in US' M2 money supply

Source: US Federal Reserve, Wind

## 1.3 Technological innovation shifting to "digitalization and cloud"

Technological development may be the catalyst for the global economy to transform from real economy to virtual economy. Over the past more than 20 years, human being have experienced rapid digitization. According to the Digital 2021: Global Overview Report published in partnership between We Are Social and Hootsuite in January,



5.22 billion people use a mobile phone today, equating to 66.6 percent of the world's total population. Unique mobile users have grown by 1.8 percent (93 million) since January 2020, while the total number of mobile connections has increased by 72 million (0.9 percent) to reach a total of 8.02 billion at the start of 2021.

According to the report, 4.66 billion people around the world use the internet in January 2021, up by 316 million (7.3 percent) since this time last year. Global internet penetration now stands at 59.5 percent. There are now 4.20 billion social media users around the world, equivalent to more than 53 percent of the world's total population.

The report also points out that two major changes reflect that the soil is becoming deeper for global digitalization. On the one hand, the COVID-19 pandemic has accelerated the use of social media globally. The report shows that in January, the number of social media users had grown by 490 million over the past 12 months, delivering year-on-year growth of more than 13 percent. The report says that on average, more than 1.3 million new users joined social media every day during 2020, equating to roughly 15.5 new users every single second.

Meanwhile, global netizens are spending

more time on social media. The report quoted data from Global Web Index to point out that the daily average has increased by more than half an hour over the past 5 years. Besides, mobile phones have become people's primary choice to surf the internet. The report quoted data from App Annie to show that mobiles now account for a greater amount of people's time than live TV. For example, Android users around the world now spend more than 4 hours each day using their phones.

The number of netizens worldwide almost accounts for half of the world's population. They are spending more time online, and mobile internet users have become the mainstream. Based on the above-mentioned data, the world has experienced a process of digitalization over the past more than 20 years. Most things have become computable data. The basic logic of technology is undergoing a fundamental change.

## 1.4 Social structure has divided into parts

What accompanies the rapid development of science and technology is the change in the social structure of many countries worldwide, and there may soon be a fundamental change. For example, white people accounted for 68.9 percent of US population in 2001, while the percentage decreased to



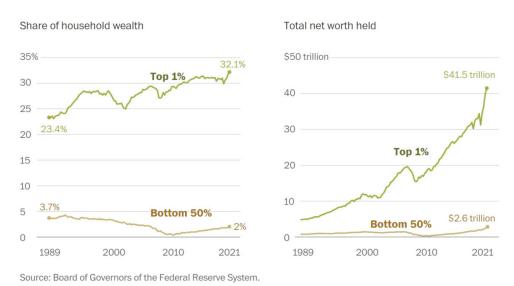
57.3 percent in 2020. Ethnic minorities have increased and ethnic conflicts have intensified in the US. The US has also faced more serious difficulties in employment, and this is not only because of economic problems, but also racial differences and aging crisis. The US social structure has divided into parts.

Developed countries in Europe and the US have entered a "post-modern society." The aging problem has intensified, products are no longer scarce for the society, and output does not need to increase significantly. This means that it is difficult for young people to find jobs or to upgrade their social class. The main social contradiction is transformed into the gap between the rich and poor.

Such a situation has led to many "NEETs" in the US. NEET is an acronym for "not

in education, employment, or training," referring to a person aged between 16 and 24 who is unemployed and not receiving an education or vocational trainings. The NEET rate reached 18.3 percent by the first quarter of 2021. In other words, nearly one-fifth of Americans between 16 and 24 still live on their parents, not to mention the gap between races. These people's families may be rich so that they do not need to work; or may be poor and they have given up on themselves. According to the Washington Post, the wealthiest 1 percent Americans held about 25 percent of the total combined wealth of all households in the US in 2001. While in 2021, the figure has increased to 32.1 percent. The bottom half, whose share never exceeded 5 percent, now holds just 2 percent of household wealth in the US.

Figure 8: Gap between the rich and poor is widening in the US



Source: Board of Governors of the Federal Reserve System



In the face of the worse employment situation under the epidemic, the US government has no choice but to create job opportunities by spending a large amount of money. The US Senate on August 10 passed the Bipartisan Infrastructure Investment and Jobs Act. The scale reduced from \$2.3 trillion early this year to 1.2 trillion, a 50 percent drop. Biden said April 2 that his new infrastructure package could create 19 million jobs, according to Business Insider.

But Forbes reported that Moody's Analytics actually estimated the proposal will only create about 2.7 million jobs, instead of 19 million. It looks good, but hard to realize. According to the figure of the US Bureau of Labor Statistics, the number of employed persons in the United States has increased by approximately 24 million, with an average annual growth of approximately 1.2 million from 1999 to 2019. It is difficult for the US to add nearly 1.7 times of employment opportunities by virtue of the shrunk infrastructure plan, especially given that the anticipation of Moody's Analytics was based on the prior one. The Moody's Analytics report also said 650,000 new jobs created by 2025, and only 100,000 by 2030.

Bragging about creating jobs cannot help unite such a divided US society.

1.5 The retrogression in the trend of thought

In the first two decades of the 21st century, the reshaping of countries' social structure has been accompanied by a changing trend of thoughts. Among them, the influence of Western social thoughts is the most extensive and farreaching. They seem to be complicated, but they are in fact all reflections of current politics, economy, culture and social psychology. Although the wheels of history are rolling forward, this does not mean all social thoughts will move toward progress.

In recent years, certain thought trends in the Western world are strongly irrational. Although they seem to be unconventional, they are hollow inside and are far more destructive to the international community rather than constructive. They have been popular because traditional thoughts can no longer effectively reflect the reality of technological and social development since the 20th century. After the transfer of traditional industries, the emerging industries have benefited only a small number of people, most people had to hypnotize in their own thoughts. Populism and the Green party's ideological trend are typical examples.

Former US president Donald Trump won people's hearts with the banner of right-



wing populism. His distinctive tendency of localism, nationalism and racism has not only pushed the US into a relatively isolated situation, but also instigated populism worldwide. Meanwhile, there is still a left-wing populist trend in the US, which criticizes the capitalist power groups in the name of egalitarianism.

Essentially, what the populist politicians do is to speak up for the people of their country who have been abandoned by globalization. But these politicians use the weaknesses of human nature to incite extreme emotions, leading to nothing but a vent for domestic contradictions. Neither the right-wing nor the left-wing has been able to reverse the severe realities of the current US economic inequality, the crisis of party politics' representativeness and the crisis of social identity.

On the other hand, Green party in the West has become an active force on the international political stage. The Green party is mainly formed by young people, and they advocate green politics and giving high priority to ecology. In fact, environment protection is only a guise of the Green party's ideological trend. By focusing on environment, its real attention is to attract young voters who yearn for job and money, and expand its force. After Western developed countries entered the post-modern society, it is difficult for young people to find a job or raise their social class. The concept of environmental protection can be used as a weapon to attack the power of capital, catering to part of young people's demands. However, the Green party has also failed to touch the fundamental issue of generational inequality in the postindustrial era.



# Part 2: Dynamics of change: The power to change the world

The first two decades of the 21st century are very special, as proven by phenomena of politics, economics, technology, society, and thoughts. Looking at the essence through the phenomenon of change, we need to study how these phenomena emerged, which parts of the world's functioning these phenomena have changed, and what has stimulated the emergence of these phenomena. The 9/11 attacks are like an introduction to the 21st century. Riding the wind of science and technology, they started to change the world.

## 2.1 How did the first two decades define the entire century?

Looking back at history, the first two decades of the 18th, 19th, and 20th centuries all saw major wars. Before these wars, conflicts already erupted. And the outcomes of the wars defined the entire century. The year 2021 saw the withdrawal of US troops from Afghanistan. The war in Afghanistan ended up with relatively small casualties. This may mean that the 21st century will

be a century when the main focus is on peace and development instead of war.

The War of Spanish Succession broke out at the beginning of the 18th century (1701-1714). Before the 18th century, France, the dominant power on the European continent, and Great Britain, the world's ruler of the sea, were in increasingly fierce competition for colonies. And such a conflict was flared up through the War of the Spanish Succession. When the War ended, Russia had already grown and become a major European power, which established a pattern of checks and balances between European countries in the 18th century.

The Napoleonic Wars broke out at the beginning of the 19th century (1803-1815). The unsolved conflict between Britain and France during the 18th century erupted again as a series of major conflicts in the 19th century. As Britain won the Wars, it became "the empire on which the sun never sets," while the 19th century was eventually defined as Britain's "imperial century."



World War I broke out at the beginning of the 20th century (1914-1918). In the early 20th century, various empires, including the British Empire and the German Empire, coexisted in the world. Against the backdrop of the uneven economic development of the imperialist countries, World War I broke out as a world-class imperialist war aimed at redividing the world and fighting for global hegemony.

As a result of the WWI, imperialist countries started to decline. They continued to be weakened after World War II (WWII), which laid the foundation for the main theme of peace and development in the post-WWII era. These two global wars destroyed the imperialist colonial system, led to the emergence of many independent nations, and brought developing countries onto the world stage.

In the 21st century, where peace and development are the main themes, the Pentagon and the World Trade Center symbolized the US' hegemony in military, finance, and trade. However, Washington's dominance in these areas was challenged by the 9/11 attacks. The US wars in Afghanistan and Iraq under the banner of counter-terrorism became the largest ones in the first two decades of the 21st century. Both wars have ended without expanding in scale, while the number of casualties was significantly lower than that in wars in the past three centuries.

This is, first, because of the high cost of wars. US military spending as a share of GDP has seen an increase of 1.8 percentage points in the first decade of the 21st century, from 3.12% in 2001 to 4.92% in 2010. In addition, the concept of a community of shared future for mankind, which emphasizes peace and development, is a major theme of the 21st century. This means that, unlike the previous three centuries, there probably won't be any large-scale war in the 21st century under the theme of peace and development.



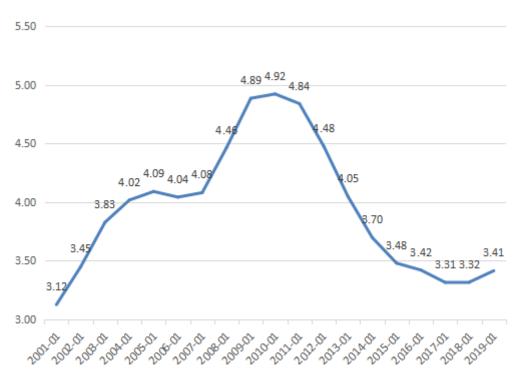


Figure 9: US Military Expenditure (% of GDP)

Source: Wind, World Bank

## 2.2 Technology Empowerment: "A slow start with a fast development" & "Machines replace humans"

Unlike the past three centuries, the 21st century is a new era of technological empowerment. For example, the belief that "everything is computable" is gradually fastening the development of artificial intelligence. Machines are quietly and unnoticeably replacing humans.

According to a report entitled "Robotics Outlook 2030: How Intelligence and Mobility Will Shape the Future" (hereinafter referred to as the Outlook) released in June by Boston Consulting

Group (BCG), the global robotics market is expected to climb from about \$25 billion in 2021 to between \$160 billion and \$260 billion by 2030, with the market share of professional services robots reaching \$170 billion and industrial and logistics robot sales topping off at around \$80 billion.

Within the next decade, robots will increasingly replace humans to work in industries that don't require much skill and pay little. This process will become faster due to shortage of manual labor and wages in low-paying countries grow. The Outlook notes that semiautonomous mobile machines will increasingly manage tasks in pre-mapped



environments. By 2030, it is estimated that Level 3 self-driving cars will account for about 8% of new vehicle sales.

At Level 3 autonomous driving standard, vehicles can temporarily drive themselves on relatively unobstructed roads and in clear weather conditions. They can also alert the driver to take over if they encounter a situation they cannot handle. Level 3 mobile robots will be able to navigate effectively and autonomously in predefined settings, such as warehouses, signaling, or stopping when human help is needed.

Level 4 self-navigation is fully autonomous with a backup system that does not require human involvement. BCG expects Level 4 capabilities to be perfected around 2030. And when that day comes, we will see robots working in most of the work scenarios that need human services. This includes room service robots in hotels, nursing robots in hospitals, and delivery robots.

At the same time, we need to be aware that robot companies in Asia, including China, currently only have a little portion in the market. In addition, they will be in fierce competition with US and European manufacturers in the future.

The Outlook notes that the number of robot manufacturing workers has been growing rapidly in China, Japan, and South Korea since 2017. It attributes this to the fact that large Asian retailers are beginning to modernize and upgrade their warehouses, which requires a large number of robotic equipment. However, the majority of these sales will be in automated guided vehicles and conventional robots, rather than in the faster-growing professional services sector.

As a result, the future will see a "tough battle" for robot innovation and development between Asia and Europe in the field of professional service robots, which have a broader market demand and play a major role in the process of "Machines replace humans."

Of course, every country in the 21st century should pay attention to the research and development of science and technology. However, technology empowerment comes also from the change of the world political and economic landscape.

## 2.3 9/11 attacks – the Butterfly that changed the history

It is said that the flap of a butterfly's wing in Brazil can cause a tornado in Texas a few weeks later. The change in the world landscape today may have come from the butterfly on September 11, 2001, when two commercial airliners crashed into the twin towers of the World Trade



Center in New York, The shock the 9/11 attacks caused has directly overturned the development track of the world.

A terrorist force in the name of defying US military presence has turned the "top global finance center" into a living hell in a devastatingly extreme manner. The disaster resulted in an irreparable loss of international financial talents: among the nearly 3,000 people who died, 230 of them were executives at major US financial institutions and 130 were stockbrokers. The tragedy was caused by a world system empowered by finance and technology, and by a group of people left behind by modern society.

The 9/11 attacks were only the first domino to fall under the dynamics of change. Since then, all aspects of US politics, economy, and society have begun to change, and the fortune of the US has started to decline. The then US President George W. Bush made counter-terrorism the primary goal of national security and diplomatic strategy and launched the wars in Afghanistan and Iraq successively. In the past two decades, terrorist activities around the world have not abated. Instead, it has intensified periodically. The US relations with Muslim countries, and with even non-Western civilizations, have deteriorated as a whole. In addition, Washington has been burdened with heavy debts and fiscal deficits for its

war on terror. The global community has greatly lost its confidence in the US.

The impact of the 9/11 attacks on the US economy has formed an impulse wave to sweep the world through mechanisms, including the exchange market, stock market, and commodity market. This has indirectly laid the groundwork for the world economic crisis. However, in the same year of the 9/11 attacks, China officially joined the WTO and started the journey of economic rise. During the decade of rational interaction between China and the US from 2001 to 2010, the two countries even cooperated effectively on various international affairs such as trade and the North Korean nuclear issue. As the US had no time for the East, China won a strategic opportunity period for peaceful development.

The 9/11 attacks were caused by the unfair international political and economic order. The post-9/11 era has seen the wax and wane of the national strength between China and the US, which has established the foundation of the pattern for today's world.

### 2.4 Can currency save the "empire"?

The pattern of the world to a large extent may still be defined by traditional forces. For example, under the US dollar hegemony, once the US' economy encounters problem, it will resort to



printing dollar notes, and the whole world will become the victim. Is this approach sustainable? Can an "empire" be saved?

Since 9/11 attacks in 2001, regardless of in response to financial crisis or coronavirus pandemic, the US' approach is to print money. If conventional monetary policy does not work, Washington will adopt a non-standard monetary policy. The US will cut the interest rate to zero, initiate round after round loose monetary policy, or even engage in some twisty practices.

In response to COVID-19, the Federal Reserve immediately activated the money printing machine. But the US has to bear the consequence. Reuters reported that in the 12 months through June, the CPI jumped 5.4 percent, and the so-called core CPI surged 4.5 percent on a yearon-year basis. The US is seeing the largest increase of inflation in 40 years. The prices of global commodity priced in US dollars continues to surge, with the price commodities like copper rallying at an astonishing pace. This is because due to the beggar-thy-neighbor monetary policy, the US is exporting inflation to the rest of the world. Yet when US' economy is slightly better, it tends to end the loose monetary policy, piling pressure on global capital outflows and leading to exchangerate devaluation. Many countries have suffered from losses from the markets of stocks, debts and foreign exchange.

Can the US' loose monetary policy rescue the US? Judging from the US' global share, the answer is no. The US' share of GDP across the world has been on a downward trend. The US' share in global GDP dropped from 32.4 percent in 2001 to 24.8 percent in 2020.

In the US, the gap between the rich and the poor is wide. Whose pocket has the money been to? Since 2001, the gap between the rich and the poor has been rapidly widened for two decades. Against the backdrop of loose monetary policy, the poor live precariously, which the rich fill their pockets. According to a report by Washington-based Americans for Tax Fairness (ATF), between March 18 to September 15, the total net worth of the US' billionaires rose from \$2.95 trillion to 3.8 trillion. That works out to gain \$4.7 billion a day. The losses in stock market suffered by the rich were promptly reversed in the following six months. ATF also said in its report in January that the collective wealth of all US billionaires increased \$1.1 trillion, a nearly 40 percent lead. And 46 billionaires had newly been minted since the beginning of the pandemic. The report also said, at \$4.1 trillion, the total wealth of America's 660 billionaires is two-thirds higher than the \$2.4 trillion in total wealth held by the bottom half of the population, 165 million Americans.

The gap between the rich and the poor in



the US is becoming increasingly severe, and its Gini coefficient has remained high for a long time, showing a trend of rapid increase in recent years. The US' Gini index climbed to 0.485 in 2018, indicating the US income inequality at the highest level in 50 years. The top 10 percent

richest people in the US possess almost 70 percent of the country's total wealth. Half of Americans have barely raised their incomes in the past 20 years. In the context of epidemic, it is projected that the US' Gini index will continue to rise.



Figure 10: changes of US' Gini index

Source: World Bank

The US' negative interest rate traps continue to impact the world and US dollar credit risk has soared. From the perspective of monetary policy, although the US adopts zero interest rate policy, given the high inflation, the actual interest rate is negative. The sluggish economic growth and deflation in Europe and Japan have triggered the European Central

Bank and Japan to adopt negative interest rate policies in recent years, in a bid to urge capitals to flow into markets and the real economy. But the actual effect is limited. The unconventional monetary policy with the negative interest rates has heavily reduced the real demand for US treasuries from foreign countries and markets. As a result,



the Federal Reserve has to purchase a great deal of debt issued by the US Department of the Treasury. In the long term, the US' actual negative interest rate policy not only cannot effectively address the problem of insufficient demand, but will also bring greater potential

risks to the US economy. In short, the Federal Reserve's attempt to rescue the market by the loose monetary policy is tantamount to drinking poison to quench thirst. Based on historical data, printing money cannot save the empire.

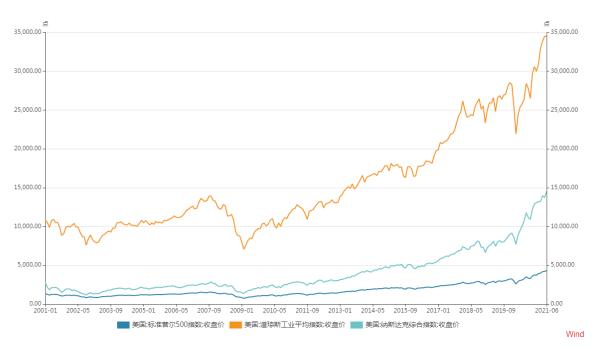


Figure 11: Changes of US stock index

Source: Wind

The US dollars cannot save the US by shifting its cost by virtue of hegemony. To some extent, the US managed to keep inflation in a rational range before the COVID-19 pandemic by exploiting its financial and economic hegemony. Washington has gone through challenges such as the 9/11 attacks and financial crisis for the past two decades. With core CPI basically controlled at 2.5 percent,

the US' domestic economic situation was relatively stable. But the essence of US macroeconomic stability is to shift crises and costs to emerging economies and developing countries by virtue of its hegemony. Take the 2008 financial crisis as an example. The US launched three rounds of quantitative easing, injecting large amounts of liquidity at home and the country used excess capital to buy



core assets in emerging countries. When its economy improved, the US tightened its monetary policy and promoted US dollar to appreciate. This resulted in global capital flowing to the US and resulted in rising exchange rate of US dollar, leading to a sharp depreciation of the currencies of emerging economies.

The US has repeated this pattern in the context of the pandemic. Take the currency trends of the two emerging economies of Turkey and Brazil as examples. Their exchange rates were relatively stable before the financial crisis and the Federal Reserve's interest rate hike. With the change of the US' monetary policy, the exchange rates of the two countries sharply reduced and their economies deteriorated. Turkey even suffered huge loss in markets of stock, bonds, and foreign exchange. When an increasing number of countries realize the essence of US dollar hegemony, they begin to shun or even sell US treasuries, and raise interest rates in advance to avoid being reaped by the US dollar. During the pandemic, the US is shifting inflation through its monetary policy, in an attempt to further reap the world. But such an intention will be increasingly difficult to realize.

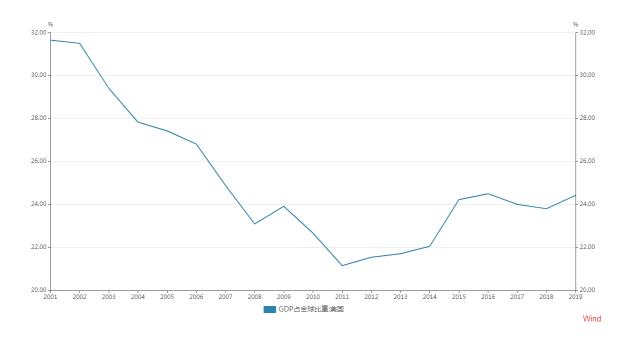


Figure 12: Share of US'GDP to the world's total

Source: World Bank



## 2.5 Decline and rise: Who is strengthened by technology?

The US' strength in terms of finance and technology has helped it benefit from the rest of the world for years. But since the beginning of the 21s century, who is exactly empowered by technology? Super power, the public, large-scale enterprises or terrorists? The seemingly powerful US, the world's strongest country, is still second to none in regard of technology and military. But the truth is that after the 9/11 attacks, the US waged a war in Afghanistan. According to Washington Post, the US spent over \$2.26 trillion, sent around 800,000 service members to serve in Afghanistan since October 2001. More than 2,000 US military members died in Afghanistan as of August and about 20,000 US service members were wounded in the war effort. But in the end, the US military retreated in a desperate manner and left a pile of mess; perhaps it has not really ended yet. It turns out that the technology of the US military has armed terrorists, but inflicted suffering on the Afghan people. This makes you wonder what technology is for.

Looking back over the past 20 years, technology has spread to every corner of the world from developed countries and large-scale multinational companies. Since the 21st century, especially in the aftermath of the 9/11 attacks, the

development of science and technology has entered into a fast track. Initially, technological advancement promptly helped big businesses and capitalists, resulting in a group of giants in the US, led by Amazon and Google etc., as well as some large companies such as Alibaba and Tencent which established a monopoly in their respective fields. However, with the gradual development of mobile technology and blockchain technology, it has been increasingly evident that the technology has benefited the public, such as the high popularity of mobile payment and e-commerce in China. The US' retail investors' activities on Reddit and Robinhood which have shaken up Wall Street are another example. As a result, it is seen that the stock price of GameStop and AMC Entertainment an incredible surge. It all depends on the power of technology.

The practical use of technology determines whether it benefits people or harms the society. To give a simple example, in China, the "cashless" brought about by e-payment, the world-leading pace of 5G technology, and the rapid development of new energy technology are all positive effects of the rational application of science and technology on the society and even the whole world. By contrast, even though the US' development of science and technology leads the world, and the country has also created many inventions that benefit

### A World Reshaped: Global change in the 20 years after the 9/11 attacks



the world, but the US has also caused chaos and disorder by using technology. For example, the US has spread fake information via Facebook and Twitter. two social media platforms with very high popularity, which even affect the result of the presidential election. When Trump just took office, he appealed US tech companies to relocate back to the US. It boasted that Foxconn. an electronics manufacturer of the Taiwan island, planned \$10 billion factory in Wisconsin, which would create 13,000 new jobs. However, Reuters in April 2021 reported that Foxconn will reduce its planned investment to \$672 million

and cut the number of new jobs to 1,454. Furthermore, in his presidency, Trump tended to use Twitter to govern. What was once a technology tool that reached the masses has become an approach to tear America apart. Such an instrument may indirectly lead to the US Capitol riots on January 6.

It can be concluded that the popularity of technology can bring the public convenience and benefits, but chaos and disasters as well. It depends on how countries as well as their leaders guide the application of technology.



# Part 3. Anthropology of civilization: How history tells the future

How will the objective power change and upgrade affect mankind itself? Anthropology studies the development and evolution of human beings. In this sense, the development and evolution of human civilization since 9/11 attacks should be evaluated from the perspective of "civilization anthropology". The history of human civilization always seems to spiral upward in a certain cycle. "Rise and fall" or "united, divided, united" may to some extent describe the current world pattern. Therefore, when we look back at history and re-examine the world system, we may have a glimpse of the future.

### 3.1 Cold peace

Since the 9/11 attacks, a new world pattern has gradually taken shape. A large-scale hot war cannot be fought, but it is extremely difficult for any country, including the US, to launch a cold war.

There are many reasons why a hot war could not be fought and a cold war could not be formed, mainly in three aspects. First, the cost of armed conflicts mentioned above is too high. This includes not only money cost and life cost, but also domestic social cost and international reputation cost. Since 2001, the US has launched and participated in at least nine wars, large and small. Has the reputation of the US improved? People who have the ability to think will have a hard time saying yes. At the end of the day, a hot war is something almost no country wants or can afford.

The second reason is the irreversibility of globalization. The dispute between the US and China is different from the dispute between the US and the Soviet Union. The interdependence of finance, trade, and industrial chains between the US and the Soviet Union in the past cannot be mentioned by the same breath as the interdependence of finance, trade, and industrial chains between the US and China today. The Cold War that began more than half a century ago could be started because the US could relatively completely block the Soviet Union from the outside world politically, economically and militarily. The US has been engaged

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in a so-called trade war against China for more than four years. The trade in goods between the US and China has been rising every year except for a decline in 2019.

Third, in a sense, the wrestling between superpowers no longer needs to rely solely on military weapons or economic blockades to launch "wars", but has become a multi-"battlefield" and allround "war". For example, cyber warfare, financial warfare, technological warfare, and public opinion warfare. All these "battlefields" must rely on the strength of the development of science and technology.

Therefore, although the US still maintains its No. 1 position in the field of science and technology, the gradual narrowing of gap with China, the No. 2, has made the US anxious, and it has begun to play hardball in these battlefields more frequently. If these battlefields existed before, now they have replaced the hot and cold wars as the new "main battlefields" and taken center stage in history.

In addition, from the domestic perspective of Europe and the US, social movements have also become another weapon in peacetime. Peaceful voices, protesters, and even looters and terrorists can use technology such as social media platforms to organize comprehensive

activities and even terrorist and criminal acts.

Therefore, under the background of economic and technological development in the 21st century, it is difficult to have a large-scale war, and the conditions for launching a cold war are not available at present. Moreover, on the real "battlefield" with science and technology as the core, seemingly peaceful countries in the world are still engaged in games and confrontations. Thus, a "cold peace" is emerging.

#### 3.2 Soft Center

The emergence of "cold peace" also marked the change of the international status of the US. Many believe that the decline of the US began when it became mired in the war on terror in Afghanistan and Iraq. How to define and measure the "decline" of the US is a controversial topic, and hard indicators with different caliber can hardly be regarded as direct evidence of the absolute decline of the US.

However, in the general perception of people, the US is indeed no longer as prosperous as before. In fact, the "decline" that the US has experienced over the past two decades is more precisely the rise of emerging countries represented by China relative to the US. In 2001, China accounted for less



than 4 percent of world GDP, while the corresponding US share was 31.4 percent. In 2020, China's economic scale account for 17% of the world's GDP, while the corresponding ratio of the US dropped to 24%. China's share of US GDP rose from 12.7 percent in 2001 to 70 percent in 2020. Just from the perspective of comprehensive national strength, China today, like the US, can be regarded as the "soft center" of the world.

Rather than saying that the US is declining, it is better to say that the US has entered a period of relative fall in power and a gradual contraction of hegemony. With China's catching-up, this process is undoubtedly slow and gradual, but there is indeed some landmark progress.

At present, the deepest anxiety of the US stems from the fact that China is gaining momentum in scientific and technological innovation, and the US is facing a bottleneck. Science and technology are the primary productive forces. A country with constant scientific and technological innovation is capable of leading human civilization forward. In terms of technology, the US used to be far beyond China's reach, but today China is getting closer to the US with real progress. According to the Science and Technology Indicators 2021 report by Japan's Ministry of Education, Culture, Sports, Science and Technology, from

2017 to 2019, China overtook the US for the first time in many key indicators, including public sector R&D expenditure, number of researchers in both public and private sectors, number of papers published in top journals and number of cited papers.

Thanks to China's booming national strength, all walks of life in China are expected to achieve higher achievements driven by the trend of the times. However, in the face of changes not seen in a century, looking at international relations in the new era just from the perspective of zero-sum game, it is easy to fall into the trap of narrow-minded thinking. Each country can find new missions and make new contributions to human civilization based on its own endowments. That includes, of course, the US.

#### 3.3 Full data

With the acceleration of global digitization, mankind is ushering in an era of "full data". The US and China are at the forefront of this era. In an era of constant digitization, the leading position of emerging digital technologies in some countries has given the advantage of huge profits, global market share and the ability to set standards. New data-based services, such as artificial intelligence, next-generation 5G networks and the Internet of Things, and quantum computing, have opened the way for new



growth engines that will transform the entire industry and increase productivity. There is also a growing awareness that this trend towards an increasingly digital and networked world has only been accelerated by the COVID-19 pandemic. Even without COVID-19, this trend will not change. The trend is simply more immediate and felt more concretely under the pandemic. Data elements have become the primary productive force.

According to the current domestic public opinion, there is still controversy over the judgment that "data elements have become the primary productive force". Some think of data as "oil", others as "catalyst" -- in short, a passive or auxiliary factor of production. However, it should be noted that data is highly fluid and can be "dualized" (under the conditions permitted by law), which is fundamentally different from "oil". In addition, data has become the major element of social operation, governance and production development, and in terms of volume, it cannot be summarized as "catalyst". For example, according to the forecast of the International Data Corporation (IDC), China's "data circle" (that is, the collection of data created, collected or copied each year) will reach 48.6 zettabytes (ZB) in 2025, accounting for 27.8 percent of the global total and ranking first in the world. This volume of data has directly constituted the basic soil for the operation and governance

of the entire society and the daily environment of people's lives-people have been wrapped in "digitalization". Therefore, no matter China or other countries, the development of the digital era will be inseparable from the new rational international order based on digital technology. At present, the world needs a common framework to prevent countries and regions from forming "isolated digital islands" and thus falling into fragmented and ineffective digital internal competition.

Looking back, from the perspective of resource driven, the tragedy of 9/11 attacks actually tore the fig leaf of the increasingly divided world in the era driven by oil resource. When global differences are exposed, the path of recession in some countries becomes particularly clear. Looking ahead, cooperation is the only way to bridge the growing digital divide among countries and prevent the data-resource-driven era from repeating the mistakes of 9/11 attacks. Therefore, countries around the world need to calmly sit down, seek common ground while shelving differences, and jointly build a consensus framework for the era of data as the first factor of production. For example, the issue of transnational intellectual property protection in the digital age, national security and the free flow of data, crossborder cybercrime, supervision of the ownership and control of monopolistic



digital commodity companies, digital tax issues, etc. Countries working together to create a fair digital international competition environment will be the most important cornerstone of the future development of human civilization.

### 3.4 Big finance

A fair international environment has gradually begun to be reflected in the financial field. From 2001 to 2020, the US dollar's status as the world's reserve currency was at stake. In 2001, the dollar

reached a peak of 72.7%, but after the 9/11 terrorist attacks on the US in 2001, international capital outflow and the accelerated development of emerging economies led to a decline in the dollar's share of foreign exchange reserves. After the outbreak of the US subprime mortgage crisis in 2007, the share of US dollar foreign exchange reserves fell to 62.9%, further fell to 60.7% at the end of 2019, and rapidly fell to 58.9% in 2020. It can be seen that the share of the US dollar as a reserve currency has dropped by 13.8% since 2001.

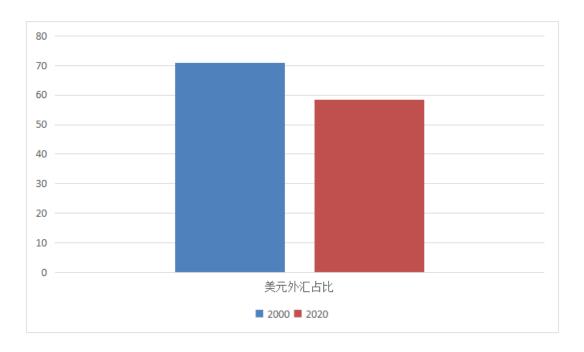


Figure 13: Changes in the US dollar as a share of foreign exchange reserves

Source: Wind



Today, China is the world's second largest economy, the world's largest trading country, and the world's largest manufacturing country. Since China's accession to the WTO in 2001, China's economy has developed rapidly, and its global GDP share showed a rapid upward trend from 2002 to 2015. After 2015, it gradually slowed down but still steadily increased. In 2020, China's GDP accounted for 16.3% of the world's total.

second only to the US, which accounted for 24.4%. According to the Data of the World Bank, China's contribution to the world economy surpassed that of the US and the European Union in 2006 and became the largest in the world. The internationalization of the RMB should follow the path of a major country. China has developed from an economic power to a financial power.

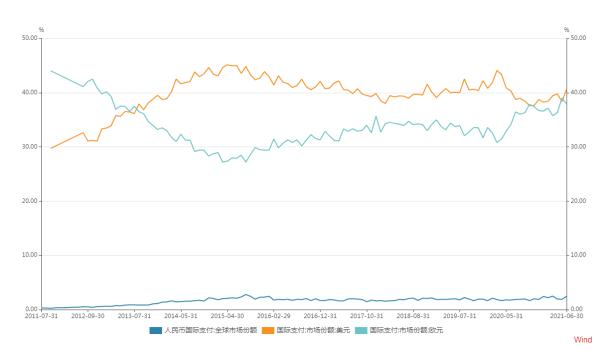


Chart 14: International payment share of RMB, USD and Euro

Source: Wind

In terms of currency payment, according to SWIFT data, euro accounted for more than 37.8% of payments in October 2020, surpassing US dollar for the first time to become the world's largest payment currency. RMB was officially added into the SDR currency basket on December 1, 2015, accounting for more than 10%

of the total, which plays an important role in the stability of world currency. In 2020, China's GDP accounts for 18.3% of the world's GDP and its trade accounts for 14.7% of the world's total. As the world's largest trading country and second largest economy, it is imperative for the RMB to enhance its status.

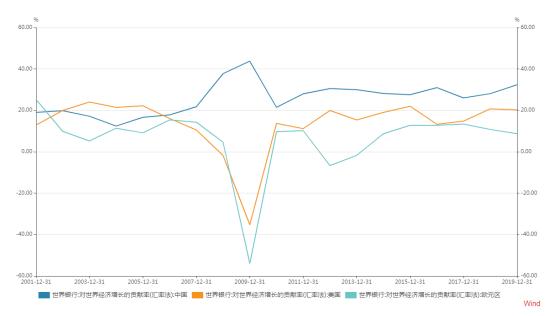


Chart 15: Share of contribution of China, US and eurozone to world economic growth

Source: World Bank, Wind

Can countries create a digital currency trading network to avoid dollar-centric monopoly exploitation by taking advantage of the security and speed of digital currency transactions? Will the RCEP regional trade agreement, for

example, add fuel to the development of digital currency trading networks? How will digital currency cooperate with the real economy and use its advantages to reduce costs and improve efficiency for the traditional economy?

RMB's share as a global payments currency Live and delivered, MT 103 and MT 202 (Customer initiated and institutional payments) Messages exchanged on SWIFT. Based on value. October 2018 October 2020 1 USD 39.71% 1 EUR 2 EUR 34.24% 2 USD 37.64% 7.28% 3 GBP 6.92% 4 JPY 3.65% 4 JPY 3.59% 5 CAD 1.79% 1.74% 1.70% 1.66% 7 AUD 7 HKD 1.34% 8 HKD 1.35% 1.23% 9 CHF 9 SGD 1.04% 10 SGD 1.00% 10 THB 0.90% 11 THB 0.93% 11 CHF 0.78% 12 SEK 12 SEK 0.76% 13 NOK 0.72% 0.54% 14 PLN 14 PLN 0.53% 0.46% 0.43% 15 MYR 16 MYR 0.38% 17 ZAR 0.38% 17 ZAR 0.30% 18 NZD 0.29% 18 NZD 0.30% 19 MXN 0.27% 20 CLP 0.21% 20 CLP 0.22% SWIFT RMB Tracker Source: Watch Powered by SWIFT BI

Figure 16: The proportion of RMB in global payments

Source: SWIFT



The US dollar has become a weapon for reaping the world, and the credit of the credit currency has been severely challenged. With the global development of the digital economy, the rise of digital currency, taking Bitcoin as an example, it has been booming since its inception in 2009. As of August 2021, the market value has stabilized at US\$2 trillion, and its market value has even surpassed many sovereign currencies in the world. As central banks around the world accelerate the research and development of digital currencies, what impact and influence will digital currencies bring to traditional currencies? What role will digital currency play in the era of digital economy? How far can traditional currencies such as the US dollar go? Is the traditional economic model sustainable? Looking ahead, it is inevitable that the US dollar system will face challenges due to the impact of 9/11 attacks on the US and the world, and the fairness of the financial sector will be further improved in the future.

#### 3.5 Expensive society

In the context of technology empowerment and financial development, high costs are not only reflected in military warfare, but also in labor costs, medical and education costs, environmental protection costs and other fields. From 2002 to 2016, the average annual growth rate of hourly labor costs in China's manufacturing industry was 16.8%, which was much higher than the average annual growth rate of hourly labor productivity of 9.8%. The rise of labor costs will weaken the competitiveness of industries to a certain extent, and have a negative impact on foreign investment and foreign trade, especially for labor-intensive industries. As the improvement of labor productivity is not enough to make up for the decline of enterprise profits caused by higher labor costs, the risk of enterprise exit increases. The US faces a similar situation. The US wage and labor tax index increased 15.68 times from 2007 to 2020, reflecting rising labor prices and higher production costs.

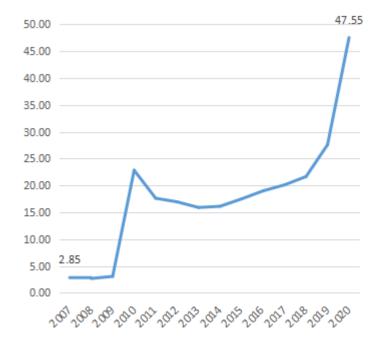


Figure 17: US Tax Revenue: Payroll and Labor taxes (100 million US dollar)

Source: Wind, IMF

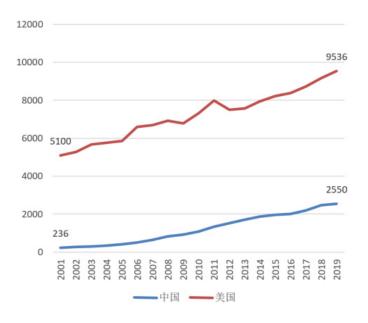
Spending on health and education is also significant. According to the World Bank, China's education spending increased by 9.79 times from 2001 to 2019, while the already high education spending of the US, a developed country, still increased by 87 percent during the same period. Similarly, between 2001 and 2018, China's per capita health spending increased 10.48 times, while the US's

per capita health spending increased 116 percent over the same period. In addition, regarding housing cost, the reasonable range of housing price to income ratio is 3 to 6. However, in the 21st century, the housing price to income ratio of dozens of countries around the world has been consistently greater than 10, which shows that housing cost is significantly higher than the reasonable range.



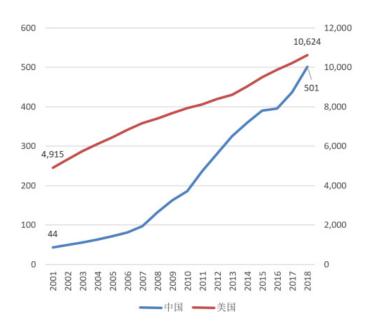


Figure 18: US and China spending on education (100 million US dollar)



Source: Wind, World Bank

Figure 19: China and US per capita spending on health (US\$)



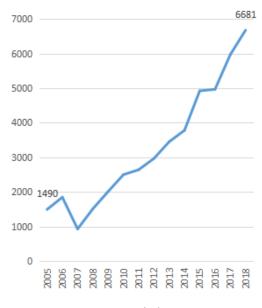
Source: Wind, World Bank



In the context of green development, environmental costs are also significant. In the Chinese mainland, government spending on environmental protection increased from 149 billion yuan in 2005 to 668.1 billion yuan in 2018, a rapid

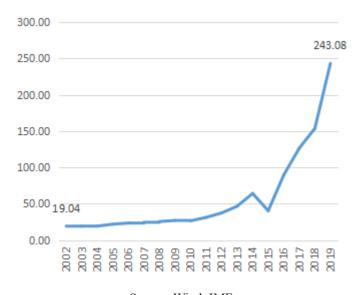
increase of 3.48 times in 13 years. The increase in this expenditure in Russia was even more significant, with a rapid increase of 11.77 times from 2002 to 2018.

Figure 20: General Government Expenditure: Environmental Protection (Chinese mainland, 100 million yuan)



Source: Wind, IMF

Figure 21: General Government Expenditure: Environmental Protection (Russia, trillion ruble)



Source: Wind, IMF



High production, living and environmental costs have labeled the 21st century a high-cost century, putting downward pressure on costs of all kinds, including

military spending, and making it difficult for countries to spend large amounts of money to support large-scale wars.

# **Conclusion**

The torrent of changes in the world has shown the way. It is believed that no country is willing to see a largescale war, and the factors that lead to another Cold War are not available. The future of human society depends on how people look at the world. There are many studies on the world system, and various kinds of thinking have emerged one after another, including Wallerstein's "Modern World System". There is a growing consensus that the world should be considered as a whole, rather than as a fragmented patchwork of nations and regions. How to develop the world after the 20th anniversary of the 9/11 attacks depends not only on how Western

countries respond to challenges, but also on how Eastern countries correctly view the current situation and determine the direction of development. The world system is not a one-man show by developed countries. At the same time, we need to be clearly aware that the change in the world pattern is a long and slow process, and the pace of history will neither stand still nor change rapidly. Every country and individual should not only identify development opportunities, but also calculate risks and difficulties. It is necessary to accurately see the problems and challenges of society, but also to look for the hope and future of mankind with optimism.



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王 文,中国人民大学重阳金融研究院执行院长、《百年变局》作者之一

#### 执笔团队:

王 文,中国人民大学重阳金融研究院执行院长、《百年变局》作者之一

贾晋京,中国人民大学重阳金融研究院助理院长、《百年变局》作者之一

刘玉书,中国人民大学重阳金融研究院宏观研究部主任、《百年变局》作者之一

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# 中国人民大学重阳金融研究院

Chongyang Institute for Financial Studies, Renmin University of China (RDCY)

网址: http://www.rdcy.org电话: 010-62516305公众微信号: rdcy2013新浪微博: @人大重阳

地址:北京市海淀区中关村大街59号文化大厦6层

Add: 6th Floor, Wenhua Building, No.59 Zhongguancun Street,

Haidian District, Beijing 100872 P.R.China







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