

The Dimensions of Power: A Comparative Analysis of the United States and China

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Abstract

Numerous analyses and predictions discuss upon the power relations in global economy, confirming the decline of American supremacy and its replacement by China, which is consistently growing. The decrease of American economy during the financial crisis started in 2007-2008 and the success of the countries with emerging economy –as China- created the idea that the power could transit from the United States to China. Moreover, various predictions based on recent evolutions; show that American economy was surpassed by the Chinese one. All of these seem to be the ‘ingredients’ of a much announced American decline against the unexpected growth of China. But what is the real meaning of this decline? Does it refer to the many valences of power or just specific issues? The purpose of this study is to draw a parallel between these two major economic powers -US and China- considering the multitude plans of power.

Key words: economic power, military power, American supremacy, China trade

J.E.L. classification: F50, N40, O50

1. Introduction

In international relations, different historical periods demonstrate the importance and role of the power phenomenon, giving examples of regional or international powers which have encountered growth, but also decline.

Etymologically, according to encyclopedias and dictionaries, power is defined as a feature and as a physical, moral and intellectual possibility of influencing a group of people, by means of authority and coercion or persuasion and voluntary acceptance. (Explanatory Dictionary of Romanian Language, 2009, p. 901) Thus, the concept of power is defined in a broad sphere of manifestation, not being given a precise aim or a framing of this phenomenon on in certain field of society. Because of this characteristic, the idea of power has numerous definitions and interpretations given by the approaches of specialists from different fields.

From a geopolitical point of view, power is the way in which society effectively guarantees its survival (Nivaldo, 2001, p. 24), this definition resembling that of a military perspective, which sees in power the ability to take military action to ensure the security of its own country and its allies, as well as to promote political interests. (Ancuț, 2009, p.1)

In the philosophical vision, power is considered a change in the inner state of a person or a group of people (Foucault, 2005), while from a sociological perspective the phenomenon of power is analyzed within social relations as the means of imposing one's will despite the oppositions encountered. (Zamfir *et al.*, 1998, p. 478)

From a politological perspective, Raymond Aron believes that power is defined as the ability of a nation to influence the will of individuals or other states (Trocan, 2003, p.1), while historian Robert Dahl considers it as an asymmetric connection between two actors, in which the first one exercises an influence upon the second one in order to do an action, action which normally would not have been done without the stimulus from the first one. (Stuparu, 2012, p. 93)

A synthesized definition of power is found at Gerard Kebabdjian, who sees in power the capacity of a political or economic actor to influence significantly the world economy, developing this ability on five levels: physical (through the existing natural resources), economical, military, political and cultural, among which the most important aspect is the economical one. (Kebabdjian, 1994, p. 297)

Considering all these, we can affirm that power plays a key role, both in social relations, as well in the international ones, the phenomenon highly being met in the structures of society. Therefore, power could be represented by a state, an economic, political or social entity, which uses its own moral, physical, military, cultural and/or technological methods in order to extend its influential sphere upon the behavior of other entities.

Although it was interdisciplinary analyzed, we can say that the phenomenon of power manifests itself most strongly in international relations, where economic power is predominant in terms of importance, being the decisive element for the development of other types of powers. The structures of power have suffered different mutations, during the historical evolutions of the economic and political conditions at the international level. Specific for the end of the 20th century and the beginning of the 21st century is the transition of power between different power structures, when the dynamics of the international economy and the process of reconfiguration led to the proclamation of various theories and concepts, from which the specialty literature retains the debates concerning concepts like multipolarity, bipolarity, unipolarity and nonpolarity.

2. Literature review

Theoretical literature referring the phenomenon of power has separately developed than the empirical one, which was mostly concerned about methods of power quantification. As a result of that, there was created a gap between empirical studies and theoretical research.

Empirical studies use statistical techniques, with differences in the process of selecting and calculating the indicators. The first studies on the phenomenon of economic power were focused on the analysis of the degree of scheduling the external loans under the influence of amortization, external debt, imports and government reserves (Charles Frank *et al*, 1971, pp. 327-344), and under the influence of capital inflows, exports, external debt and imports (Pierre Dhonte, 1975). At the same time, they have pursued the state's dependence on foreign borrowing assessed through the size of GDP, state reserves, exports, imports, external debt size and its reimbursement. (Earl Grinols *et al*, 1976, pp. 416-424)

Later on, a quantification of national power was wanted, by analyzing the influence of population, the military and economic capacities, the strategic objectives and the will of population (Ray S. Cline, 1977), as well as the ways of increasing economic power by means of human resources actions (Robert Barro, 1991, pp. 407-443). On the other hand, economic growth rates are negatively influenced by inflation and interest rates and the level of taxes (Robert Lensink *et al*, 2000, pp. 142-163), and investment attractiveness decreases through the negative action of political instability. (Robert Barro, 1999, pp. 119-137)

The empirical research over the past decades belong to specialized institutions and international organizations including: WIPO (World Intellectual Property Organization), The World Bank, World Economic Forum, INSEAD (The Business School for the World), UNDP (United Nations Development Programme), Cornell University, Heritage Foundation, Wall Street Journal, which analyze the evolution of states using composite indicators like: HDI (Human Development Index), GCI (Global Competitiveness Index), Corruption Perceptions Index, GII (Global Innovation Index), Index of Economic Freedom and WGBI (World Government Bond Index).

Theoretical literature has followed the historical evolution of the power structures. Before the two World Wars there have been different power tendencies, characterized by the ascension of some colonial or regional powers, the world economy having only some traces of a multipolar system. Instead, the end of the Second World War accurately marked the existence of a bipolar power structure that appeared relatively balanced between the United States and the Soviet Union and which was characterized by a conflict of power at the economic, technological, politic, military and ideological levels, which had in the middle the purpose of regaining the power status by the Western European countries, Japan and China. The disintegration of the Soviet Union from internal

causes led to the transition from a bipolar structure to a unipolar world, in which the United States assumed the prerogatives of the only international superpower. The American supremacy was seen from the perspective of domination in all the fundamental components of power, which the United States could use in order to promote its global interests and to unilateral decide upon the international problems. (Brzezinski, 2000, p.231)

It has been assumed (Huntington, 1999, pp. 35-36) that the unipolar system is characterized by the manifestation of power within a structure which is composed of a superpower (the United States) and several regional powers (Germany, France, Russia, China, Japan, India, Brazil, South Africa and Nigeria), their joint actions being necessary in order to solve international problems.

On the one hand, the American supremacy was considered to be a conjunctural and temporary situation, basing on the fact that the United States – Russian Federation binominal power will recover (Achcar, 2002, p. 14). On the other hand, the possibility of a tripolarized power between the United States, the European Union and Japan has been considered (Hirst *et al*, 2000), but only economically (the US-EU-Japan trade triad) and technologically, because the American supremacy remains present military and culturally. Another alternative would be for the United States, European Union and China to influence by their decisions the international balance of power, but their influence upon world economy would be facilitated or burden by a secondary group of power consisting of Russia, Japan and India. Visions on power structures in the world economy can continue in this direction by adding new poles or rotating power centers between them. Instead, there are also discussions about the idea of nonpolarity as a result of globalization, which has led to the division of power in numerous state and non-state power centers with certain dimensions and influences. (Haass, 2008, pp. 44-56)

A more complex vision designed to reconcile all these perspectives is that according to which, (Nye, 2012, pp. 14-15) economically, the structures of power are multipolar (the United States, European Union, BRICS countries and Japan), but military speaking the power is unipolar and given by the American military supremacy, and transnational policy being shared between non-state actors.

However, we consider that the evolution of power structures is on the historical bipolarity-unipolarity-multipolarity line and the beginning of the 21st century presents different models of the power structures, in which states and groups of countries rotate among themselves, hoping to design a system of world economy. Power is divided into fields according to the analyzed dimension, namely economic, financial, social, technological and military, which demonstrates the multipolar character of the international environment. Recent evolutions are the result of the power manifestation of two of the world's biggest economies, the United States and China.

3. Methodology

Table no. 1 Variables grouped by components of power

Power components	Indicator
The economic dimension of power	GDP (current trillion US\$) - PPP
	GDP per capita (US\$) - PPP
	External trade (trillion US\$)
	Exports (BoP, trillion US\$)
	External balance (billion US\$)
	FDI net outflows (billion US\$)
	FDI net inflows (billion US\$)
Socio-political aspects	Population growth (annual %)
	Labor force, total (million people)
	Unemployment, total (% of total labor force)
	Age dependency ratio (% of working-age population)
	Net migration (million people)
The military dimension	Military expenditure (billion US\$)
	Arms exports (billion US\$)
	Arms trade balance (billion US\$)
The technological component	Scientific and technical journal articles
	High-technology exports (current billion US\$)
	Patent applications, total

Source: author`s processing.

This study analyzes the way in which the two major world economies, the United States and China, relate to the phenomenon of power. Numerous analyses and predictions compare the two economies and compete with each other either in presenting the American supremacy or its decline and its replacement by the Chinese domination. Mostly, these analyses and predictions take into consideration only their economical dimension, without taking into account all the valences of power.

This study aims to extend the comparison between the United States and China on multiple levels of power. Therefore, we will use the indicators extracted from the World Bank's statistical base and grouped in 4 classes, meant to reflect the dimensions of power, namely economic, socio-political, military and technological. First three groups of indicators are from 2017, while technological component includes indicators from 2016. For each indicator, a binary system has been developed, in which number 1 reflects a high power level and 0 reflects a low power level, following that a score for each group of indicators and then a total score will be calculated. This method is used to facilitate a comparison between the United States and China and also to present more precisely the position of each country among power elements.

4. Analysis and findings

Analysis of the power economic size highlights a better positioning of the United States economy than the Chinese one, as the US obtained 4 scores of 1 out of a total of seven indicators compared to China which obtained 3 scores. Thus, although China had in 2017 a superior GDP than the US one of about 4 trillion US\$ and an economic growth rate of about 7%, compared to the US 2.27% increase, the GDP per capita indicates that US is better positioned than China.

Table no.2 The economic dimension of power for United States and China

	The United States		China	
	Value	Score	Value	Score
GDP (current trillion US\$) - PPP	19.39	0	23.30	1
GDP per capita (US\$) - PPP	59531.66	1	16806.74	0
External trade (trillion US\$)	5.23	1	4.64	0
Exports (BoP, trillion US\$)	2.33	0	2.42	1
External balance (billion US\$)	-568.44	0	210.73	1
FDI net outflows (billion US\$)	379.22	1	101.91	0
FDI net inflows (billion US\$)	354.83	1	168.22	0
TOTAL	4		3	

Source: The World Bank, World Development Indicators, last update 18th October 2018.

From a commercial point of view, US trade volume reached 5.23 trillion US\$, compared with 4.64 trillion US\$ recorded by China. Although these numbers reveal a better trading position for the United States, according to World Bank's data, US exports reached 2.33 trillion US\$ in 2017, being inferior to China with one trillion US\$. At the same time, the higher level of US imports attracts a trade deficit of about 568 billion US\$, while China enjoys a trade surplus of approximately 210 billion US\$. In other words, from a commercial perspective, Chinese superiority is demonstrated by the high number of exports and by the existence of the trade surplus, while the United States can boast only with a larger number of total trades.

But the United States' investment environment is more favorable than China's, both in terms of investment attractiveness as well in foreign direct investment made abroad. In other words, the United States makes three times more investments abroad than China and has twice as good investment attractiveness than China. (The US FDI attracted volume is double than that of the Chinese one.)

From a socio-political perspective in 2017 the United States positioned better than China in three indicators of the five analyzed, namely the population growth rate, unemployment rate and net migration flow. Although unemployment rates are close to each other, yet relating them to the total population they show a higher level for the United States labor market. At the same time, the United States is a more attractive destination for immigrants, while China's socio-political conditions lead to abandoning the country rather than establishing there.

Table no. 3 The socio-political aspects of power for the United States and China

	The United States		China	
	Value	Score	Value	Score
Population growth (annual %)	0.71	1	0.6	0
Labor force, total (million people)	163.46	0	786.74	1
Unemployment, total (% of total labor force)	4.36	1	4.67	0
Age dependency ratio (% of working-age population)	52.3	0	39.5	1
Net migration (million people)	4.5	1	-1.62	0
TOTAL	3		2	

Source: The World Bank, World Development Indicators, last update 18th October 2018.

China's social advantages are related to the large number of inhabitants (1.38 billion people, compared to 325.72 million US residents), which ensures a high level of workforce, more than twice as many as the total US population and a low dependence of people under 15 and over 65, than those able to work.

Table no. 4 The military component of power for the United States and China

	The United States		China	
	Value	Score	Value	Score
Military expenditure (billion US\$)	609.75	1	228.23	0
Arms exports (billion US\$)	12.39	1	1.13	0
Arms trade balance (billion US\$)	11.84	1	0.01	0
TOTAL	3		0	

Source: The World Bank, World Development Indicators, last update 18th October 2018.

As far as the military component of power is concerned, the 2017 values shown in Table 4 clearly demonstrate American supremacy, given that the US military budget is more than twice as high as the Chinese one. This allows exceptional military development, an impressive amount of exports, and a high military trade surplus, being known all the US military investments and the acquisitions made by Nord Atlantic Alliance members from the US market.

On the other hand, from a technological perspective, there is a Chinese supremacy, considering the year 2016, when the number of scientific and technical articles, as well as the number of patents applications were superior to America. At the same time, the amount of Chinese technology exports is more than three times than that of the US.

Table no. 5 The technological component of power for the United States and China

	The United States		China	
	Value	Score	Value	Score
Scientific and technical journal articles	408985	0	426165	1
High-technology exports (current billion US\$)	153.2	0	496	1
Patent applications, total	605571	0	1338503	1
TOTAL	0		3	

Source: The World Bank, World Development Indicators, last update 18th October 2018.

5. Conclusions

In the dynamics of international relations, different historical moments demonstrate the role of the power phenomenon in the rise or fall of some regional or international powers. Today, the terminology and components of power are being debated, and the American supremacy or its replacement with a Chinese one is discussed.

This study wanted to provide a comparison model of the United States and China, two major world economies, from the perspective of four dimensions of power, namely economic, socio-political, military and technological. For this, World Bank indicators for 2016 and 2017 were used compared in a binary system.

From an economic, socio-political and military perspective, we can see a superior position for the United States, with advantages in: GDP per capita, FDI net inflows and outflows, external trade, annual population growth, unemployment, net migration, military expenditure and arms trade. On the other hand, China has advantages in age dependency ratio, labor force, GDP, exports,

external balance, high-technology exports, patent applications and scientific and technical journal articles.

In addition, out of the total of 18 indicators analyzed, the United States is better positioned in 10 of them, with a clear supremacy in terms of the military component of power. China, on the other hand, is better positioned in 8 indicators with supremacy of the technological dimension, given by high technology exports, patents applications and scientific and technical journal articles.

However, it is necessary to note that, despite the economic, socio-political and technological difficulties, the United States remains much more developed than China. Although China is behind them, preparing to replace them, American influence at the international level continues to be higher and to act on multiple levels. However, within the international system which is in a continuous competition and transformation, the gaps between the two could be substantially reduced under the conditions of strong propulsion of China, correlated with the inadvertence of the United States.

6. References

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