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# THE SCOPE AND PACE OF THE RISE OF CHINA

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# THE SCOPE AND PACE OF THE RISE OF CHINA

Kaarle Lagerstam

**The rise of China is widely accepted as a fact. However, there are a lot of different opinions about the scope and pace of the rise. According to this study, many of the basic statistics on the topic are outdated, mistakenly wrong or manipulated for some purpose. According to the most recent and most reliable scientific estimates, China will rise to the status of an economic superpower and to the level of the USA between the years 2017 and 2020, if the size of the economy is measured using the PPP index. Even if we use nominal GDP, the economy of China will be larger than that of the USA somewhere between the years 2027 and 2032. China has large defence forces, but its current capability to fight a modern war against the USA is very limited due to outdated equipment and mediocre training. In conclusion, the economic rise of China is typically underestimated, while its current military power is often overestimated. However, China's potential to develop a modern military force is not well understood.**

It has been very typical to call China a superpower, but what does it mean to be a superpower? Perhaps China should not be called a superpower until its power status is comparable to that of the United States today. And what is power? Power can be seen as an ability to influence the decisions of other actors. Power consists of resources and the willingness to use those resources to serve the actor's aims. For example, the European Union has a great deal of economic resources but neither the political will nor the ambition to use them like the USA or China.<sup>1</sup> The EU's power is therefore limited due to the lack of willingness to exert it.

There are different kinds of power, usually called 'hard power' and 'soft power'. Hard power consists of economic and military power. Soft power is making others want what you want through the means of culture, values and reputation. The reputation of an actor is important in international poli-

tics, because it tells us how the country has usually acted. During the Cold War, for example, the Soviet Union had a different reputation than the United States.<sup>2</sup>

Most political realists consider hard power more important in international politics. Some realists, however, believe that soft power has at least some importance, although it is difficult to measure its effectiveness. Soft power can increase or decrease rapidly. For example, the election of president Obama has increased American soft power, because now nations are more willing to cooperate with the USA. In the following chapters, I will study the hard power of China today and 15–20 years from now.

## Studies That Regard the Rise of China as Slow

The rise of China is widely accepted as a fact. However, there are a lot of dif-

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<sup>1</sup> Josef Joffe, "The Default Power," *Foreign Affairs* 88, no. 5 (September/October 2009): 25.

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<sup>2</sup> Joseph Nye, *Soft Power: The Means to Success in World Politics*, (New York: PublicAffairs, 2004), 3-6.

ferent opinions about the speed and scope of the rise. In international politics the speed and scope of the rise are important, because countries seldom modify their policies due to predictions or estimates according to which a country may become more powerful in 40 or 50 years. The rise of a new superpower during the next 10–20 years will probably have a greater effect on the calculations.

According to Josef Joffe, there will be no decline of US power in the foreseeable future. Joffe points out that several US administrations in the past have thought that the country's power was declining. For example, Presidents Kennedy, Nixon and Carter all were under the impression that other rising powers were replacing the USA as the leading power. Many scholars, like Paul Kennedy, agreed. In 1987, Kennedy wrote about the decline of the USA and the rise of Japanese power in his famous book "The Rise and Fall of the Great Powers". The book was a great success, but it only had a short term impact because of the stagnation of the Japanese economy and the strength of the US power and economy. According to Joffe, the same phenomenon is happening again. Politicians and scholars are overestimating the potential of the rising powers.<sup>3</sup>

Moreover, Joffe considers the US position exceptionally strong. For example, the economy of China is far behind as shown by the gross domestic production (GDP) per capita of China, which is currently only 2,900 dollars. At the same time, the US GDP per capita is 47,000 dollars<sup>4</sup>. Joffe admits that the situation looks quite different if we compare these countries using Purchasing Power Parity (PPP). In this case, the economy of China is about 60 percent

of that of the USA. Using linear predictions based on the current growth rate, one may go as far as to conclude that the economy of China will achieve the size of the US economy as early as 2015. Joffe, however, considers this wrong because the GDP (PPP) does not take into account that nations have to buy high technology products and raw materials using their own currency.<sup>5</sup> Furthermore, in 2008 Fareed Zakaria wrote that according to most predictions using nominal GDP, the US economy would be about twice the size of the Chinese economy in 2025.<sup>6</sup> Thus, according to these scholars, China is a rising power but still far behind the USA. Moreover, Minxin Pei does not believe in the rapid rise of China because:

- The current rise of China is politically and economically fragile.
- Asian capitalism is not more dynamic than the Western version.
- The Asians will not be capable of the same kinds of innovations as the USA in the foreseeable future.
- The best universities are in Western countries.
- China cannot become a regional hegemony because Russia, Japan and India are all against it.
- The West continues to be strong, because the US defence budget is still massive.
- Asians are likely to be rather poor even in the future.<sup>7</sup>

<sup>5</sup> Joffe, "The Default Power," 27.

<sup>6</sup> Fareed Zakaria, "The Future of American Power - How America Can Survive the Rise of the Rest," *Foreign Affairs* 87, no. 3 (May/June 2009): 5.

<sup>7</sup> Minxin Pei, "Think Again: Asia's Rise", *Foreign Policy*, July/August 2009: 33-36.

<sup>3</sup> Joffe, "The Default Power," 21-22.

<sup>4</sup> *Ibid.*, 25.

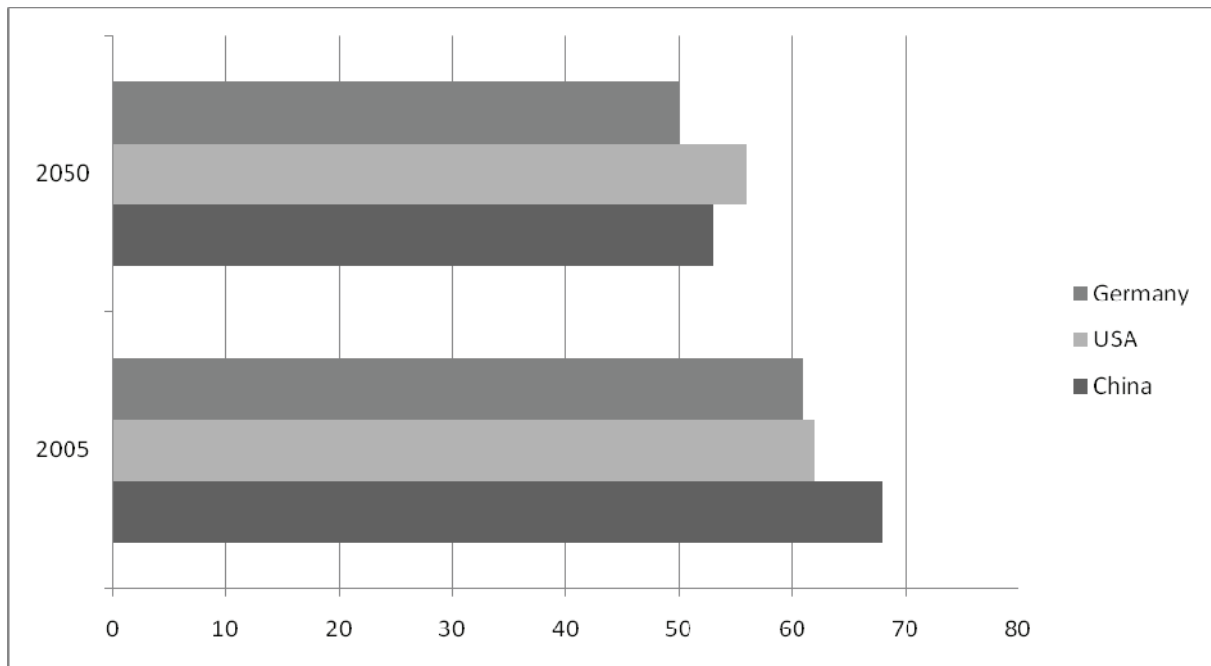


Table 1: Working age population (%)<sup>8</sup>

Minxin Pei is probably right in that the rise of China is in many ways fragile. However, Asian capitalism does not need to be more dynamic than the Western version, because the number of people living in Asia makes the difference. It is also true that citizens of China are not as innovative as Americans. However, China is rapidly improving its capability to innovate. The best universities are still to be found in Western countries, but the lack of top universities did not stop the rise of Japan, for example, after World War II. It may also be true that the West is militarily strong, but so was the Soviet Union right before it collapsed. It is a fact that Asians are still likely to be poor in the future, but this also means low wages which increase competitiveness.

Some authors emphasize that the internal situation in China may slow down or even stop the rise. Every year

<sup>8</sup> UN Department of Economic and Social Affairs, "World Population Prospects - The 2004 Revision", Table VVV 10, [[http://www.un.org/esa/population/publications/WPP2004/2004\\_Highlights\\_finalrevised.pdf](http://www.un.org/esa/population/publications/WPP2004/2004_Highlights_finalrevised.pdf)] / accessed Jan 30 2010].

there are about 70,000 different incidents of civil unrest in China. In 2009, for example, several hundred people were killed during riots in Xinjiang province. On the other hand, the Chinese are a very patriotic nation, and minorities are rather small because 92 percent of the citizens are Han Chinese.

Some scholars believe that China will get old before it gets rich. It has been estimated that there will be about 300 million retired people in China in 2050. A large number of retired people will inevitably slow the growth rate of the economy.<sup>9</sup> However, the situation is rather similar to that in Western countries. Furthermore, the Chinese labour force will consist of almost 800 million workers in the year 2050.

What about the predictions made by the US government? The United States publishes at least two official predictions about the long term development of the global political, military and economic situation. The National Intelligence Council has its famous Global Trends study, and the US Armed Forces have a new and less well-known publication called the Joint

<sup>9</sup> Joffe, "The Default Power," 29.

Operational Environment (JOE). Both publications have a time horizon of around 15 years from the present. The most recent *Global Trends (2025)* discusses broadly the rise of Asia and the relative decline of the West. The decline is considered rather slow.<sup>10</sup>

Perhaps one of the most important statistics in *Global Trends* is a timetable that shows when the GDPs of China and India will surpass those of the currently rich nations. In this table, China will outdo Germany in 2010, Japan in 2015 and the USA in 2036. The same timetable can be found in a former *Global Trends* study from 2004, "Mapping the Global Future"<sup>11</sup>. The source of this information is the well-known Goldman Sachs study about the development of the BRIC countries (Brazil, Russia, India, and China), published in 2003.<sup>12</sup> The source does not, however, provide these figures. In the Goldman Sachs study, China is estimated to economically surpass Germany in 2007, Japan in 2016 and the USA around

2040<sup>13</sup>. It is strange that one of the world's most famous analyses of global trends includes statistics that are already five years old. Moreover, Goldman Sachs published a new version of the study in 2007. The updated version estimates that the GDP of China will be larger than that of the US in 2027.

The long term trend analysis of the US Armed Forces, *Joint Operational Environment (JOE)*, was published in 2008. According to the analysis, the USA's position as the sole superpower will come to its end in the long run. The rise of China is regarded as the most important change that has taken place after the end of the Cold War. However, the rise of China is predicted to be a rather slow process. According to the *Joint Operational Environment*, the GDP of China will surpass the US GDP in about 2050.<sup>14</sup>

Some predictions imply that the decline of US power is inevitable due to the large debt that limits the country's freedom of action. However, according to Joffe, the US debt to China is not particularly harmful. In fact, there is a kind of interdependency that forces these two countries to work together. The USA cannot pressure China to re-value its currency. On the other hand, China cannot harm the US economy by getting rid of dollar debt without harming itself. About 60 percent of the currency reserves of China are in dollars.

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<sup>10</sup> National Intelligence Council, *Global Trends 2025: A Transformed World*, (Washington DC: National Intelligence Council, November 2008) 7. According the study, the GDPs of China and India will be smaller than GDPs of Japan and, of course, the USA in 2025.

<sup>11</sup> National Intelligence Council, *Global Trends 2020: Mapping the Global Future*, (Washington DC: National Intelligence Council, December 2004) 32. It is interesting to note that according to the *Global Trends 2015*, the GDP of China was predicted to be only 20 percent smaller than the GDP of the US in 2015. The source of this information was the long term growth model of the Central Intelligence Agency. This prediction from year 2000 has been very accurate.

<sup>12</sup> National Intelligence Council, *Global Trends 2025: A Transformed World*, 6. Actually, the nominal GDP of China was larger than that of Germany already in 2007.

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<sup>13</sup> Dominic Wilson and Roopa Purushothaman, "Dreaming with BRICs," *Global Economics Paper* no.99, November 2003, 5, 19.

<sup>14</sup> J.N. Mattis, *Joint Operating Environment 2008* (Norfolk, United States Joint Forces Command, 2008) 24, [<http://www.jfcom.mil/newslink/storyarchive/2008/JOE2008.pdf> / accessed Jan 21, 2010]. The table does not show clearly when the economy of China will surpass that of the USA. However, if we use a linear prediction like the JOE, it is possible to assume that China will be the largest economy around the year 2050.

If China tries to exchange them to some other currency, the value of the dollar diminishes, and the value of China's foreign currency reserves diminishes.<sup>15</sup> John Keynes describes the interdependency as follows: "If you owe 1,000 pounds to your bank, you are at the mercy of your bank. If you owe one million pounds to the bank, the bank is at your mercy."<sup>16</sup> The interdependency of China and the USA has been described as "Monetary Mutual Assured Destruction", M-MAD.<sup>17</sup> However, according to Paul Volker, an economic adviser to President Obama, the debt decreases the USA's global freedom of action considerably.<sup>18</sup>

Barry Eichengreen thinks that the dollar will remain the most important reserve currency. However, he predicts that the importance of the renminbi of China and the euro will grow by the year 2020. For example, the renminbi may become of central importance in Southeast-Asia. Of course, this kind of prediction is possible only if the renminbi becomes an exchangeable currency. Today foreigners can use renminbi only in China or in cross-border trade.<sup>19</sup>

Most of the studies mentioned above give the impression that the rise of the superpower China is still a remote idea. There are, however, curious mistakes in several studies, or they only give a partial picture of what is really happening. Scholars who rely on these studies and statistics have a limited

possibility to understand the whole scope of the rise of China.

### Studies That Regard the Rise of China as Rapid

Several high ranking economic studies believe that the rise of the China will happen rather soon. For example, the chief of the Goldman Sachs research institute, Jim O'Neill, predicts that the GDP of China will be larger than that of the USA in 2027.<sup>20</sup> An earlier prediction made in 2003 by Goldman Sachs estimated that China could be the largest economy in 2040. However, the development in China has been faster than has been predicted. The size of the Chinese economy rose from a nominal GDP of 1.3 trillion in 2001 to 4.3 trillion in 2008.<sup>21</sup> Furthermore, the economic crisis in 2008–2009 was beneficial to China, because the growth of its economy has since then become increasingly focused on home markets. Goldman Sachs estimates that the dollar's central position will continue until the end of this decade. In 2020 other currencies will rise to equal position.<sup>22</sup>

<sup>15</sup> Joffe, "The Default Power," 33.

<sup>16</sup> Barry Eichengreen, "The Dollar Dilemma," *Foreign Affairs* 88, no. 5 (September/October 2009): 60.

<sup>17</sup> Joffe, "The Default Power," 33.

<sup>18</sup> James Tyson and Michael McKee, "Volker Says China's Rise Highlights Relative U.S. Decline," Bloomberg online, September 29, 2009, [http://www.bloomberg.com/apps/news? accessed March 13, 2010].

<sup>19</sup> Eichengreen, "The Dollar Dilemma," 67.

<sup>20</sup> Jim O'Neill, "China New Role in the World," [http://www2.goldmansachs.com/gsam/pdfs/USI/education/oneill/china\_new\_role.html /accessed Jan 20, 2010].

<sup>21</sup> "China will be the world's biggest economy by 2027," London Evening Star Online, no. 17, 2009 [http://www.thisislondon.co.uk/standard-business/article-23770626-china-will-be-the-worlds-biggest-economy-by-2027.do /accessed Jan 20, 2010].

<sup>22</sup> Kim Jae-kyoung, "China to Overtake US by 2027," Korea Times Online, [http://www.koreatimes.co.kr/www/news/nation/2009/12/288\_54391.html /accessed Jan 20, 2010].

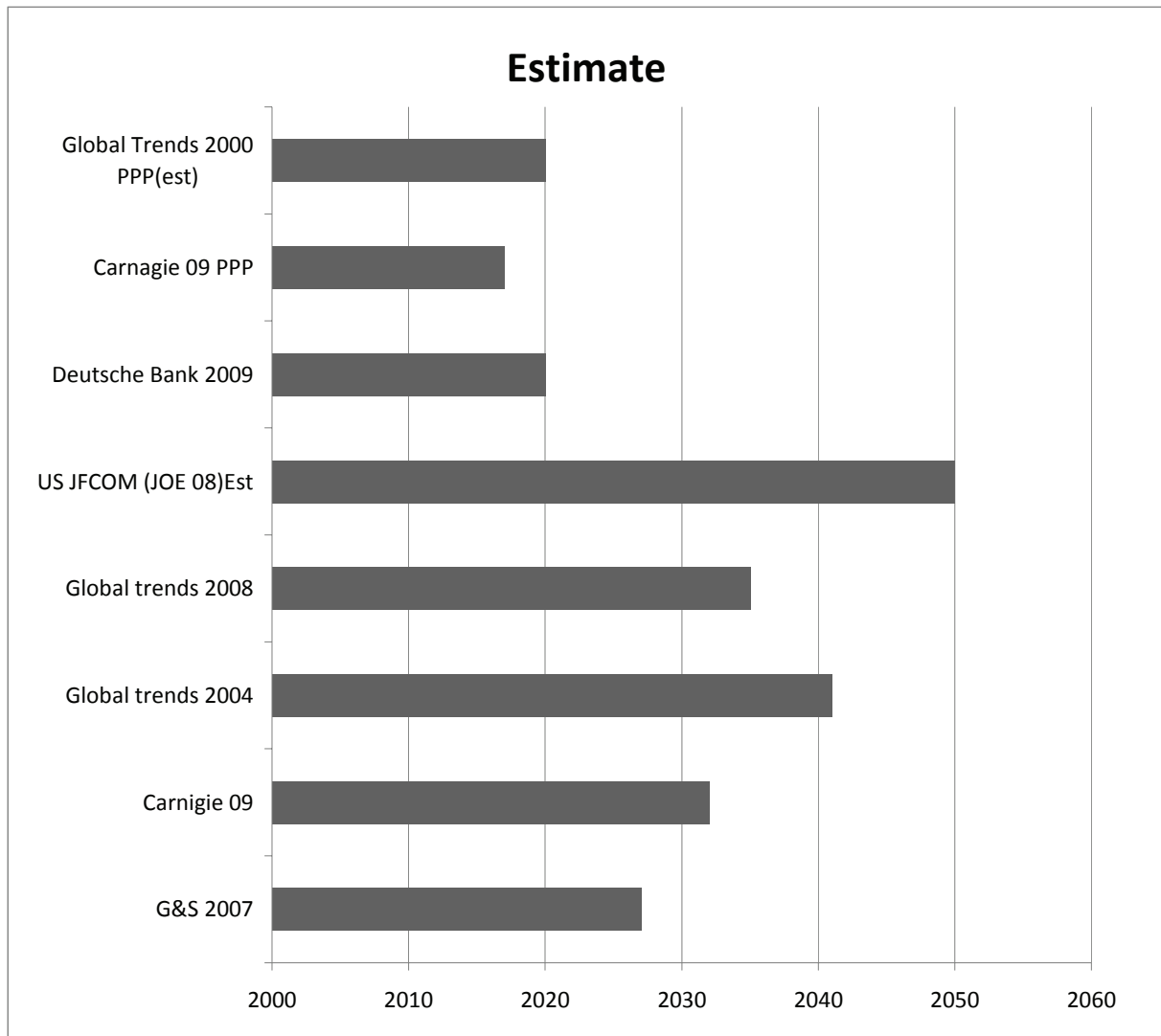


Table 2: Prediction about the year when the GDP of China will be larger than that of the USA

Nobel economist Robert Fogel's estimates are rather similar. He predicts that the GDP of China will be about 40 percent of the global GDP in 2040 and the US GDP will be 15 percent of the global GDP.<sup>23</sup> This means that the Chinese economy will be more than twice the size of the US economy in the 2030s. Furthermore, Deutsche Bank predicts that even the nominal GDP of

China will surpass that of the USA in the early 2020s.<sup>24</sup>

The Carnegie Endowment for International Peace estimates that the nominal GDP of China will be larger than that of the USA in 2032. However, the Endowment predicts the GDP measured using the PPP of China will be larger than that of the USA in 2017. The GDP (PPP) of China is predicted to be about 30 trillion dollars in 2025 and

<sup>23</sup> Robert Fogel, "\$123,000,000,000,000. China's estimated economy by the year 2040. Be warned." *Foreign Policy*, January/February 2010: 73.

<sup>24</sup> Chris Oliver, "China's GDP to overtake U.S. by early 2020s, says analyst: Mainland to become world's largest economy, says Deutsche Bank," Market Watch online, April 23, 2009, [<http://www.marketwatch.com/story/chinas-gdp-overtake-us-early> / accessed March 11, 2010].



almost 57 trillion in 2040. The US GDP (PPP) is estimated to be 19.5 trillion in 2025 and 30 trillion in 2040.<sup>25</sup> All these studies are made by well-known scientists supported by large research institutes. The studies take into account demographic changes, the slowing GDP growth of the developing China, changes in productivity, as well as several other factors. The Carnegie studies, published in 2009, also take into account the effects of the recession.

In the USA, China is typically regarded as an export country. However, the role of China as an importer and investor is usually underestimated. Moreover, the symbolic role of China or the country's importance in the domains of science and policy are not well understood.<sup>26</sup> China has tried to increase its funding on research and development. In 2001, China invested as much money on research and development as Germany. In 2010, however, China's resources for R&D will equal those of the whole European Union.<sup>27</sup>

In conclusion, according to the most recent and the most reliable scientific estimates, China will rise to the status of an economic superpower and to the level of the USA between the years 2017 and 2020, if the size of the economy is measured using the PPP index. Even if we use nominal GDP, the economy of China will be larger than that of the USA somewhere between the years 2027 and 2032.

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<sup>25</sup> Uri Dadush and Bennett Stancil, "The G20 in 2050," *International Economic Bulletin*, November 2009

[<http://www.carnegieendowment.org/publications/index.cfm?fa=view&id=24195> / accessed Jan 20, 2010].

<sup>26</sup> David M. Lampton, "The Faces of Chinese Power," *Foreign Affairs* 86, no. 1 (January/February 2009): 1-2.

<sup>27</sup> May-Britt Stumbaum, *Risky Business? The EU, China and Dual-use technology* (Paris: EUISS, 2009): 15.

## **Will China Soon Become a Military Threat to the US?**

European countries often regard the rise of China as likely to be a peaceful process. Historically, however, the rise of a new great power has many times led to conflict. According to the realist theory, the potential for a security dilemma is high in this kind of situation. In periods of unstable security, countries do not trust each other. The lack of trust can lead to an arms race that increases the level of threat. Historically and theoretically the possibility of a conflict or fierce competition is therefore relevant. One of the obvious signs of a security dilemma is that both China and the USA regard each other as possible threats and competitors.

Moreover, among the US military leadership China is considered to be the only possible peer competitor.<sup>28</sup> Since 2001, however, the US Armed Forces have been so concentrated on the War on Terror that the potential threat of China has not been a priority. This is why China believes that it can use the period between the years 2002 and 2022 for peaceful development because the USA has been and will continue to be so preoccupied with the Islamic extremist threat.

The US position as a military power is very strong. In 2008, the defence expenditures of the USA totalled 607 billion dollars, while those of the EU and China added up to 288 billion and 100–150 billion, respectively. The tonnage of the US Navy is larger than the tonnage of the next 17 largest navies together. Moreover, the ability of the USA to project power is by far the best in the world.<sup>29</sup>

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<sup>28</sup> Mattis, *Joint Operating Environment* 2008, 24.

<sup>29</sup> Joffe, "The Default Power," 26.

Americans are also confident that the US Armed Forces are so strong that nobody has the resources to develop a comparable capacity for several decades. Especially the wars in Iraq in 1991 and in 2003 showed that it is extremely difficult to fight a conventional war against the US military. On the other hand, these victories were at least partly based on the mistakes of the political and military leaders of Iraq, as well as on the outdated equipment and low morale of the Iraq soldiers. Furthermore, by using asymmetric means and tactics it is still possible to inflict large casualties on a superpower. This was shown in a military war game “Millennium Challenge” in 2002. The adversary was a Middle-Eastern state that had operationally clever leadership. Even with outdated equipment it was able to sink a large part of the US fleet even before the US troops had landed. This example shows that even rather weak states can fight successfully against the USA if they are professionally led.<sup>30</sup>

Estimates of the military power of China differ widely. Robert Kaplan stresses the importance of the dramatic military development of China and predicts that in 2015 China will have more warships than the United States.<sup>31</sup> May-Britt Stumbaum considers China a strong military power with high technology forces.<sup>32</sup>

The US DOD’s annual report to the Congress about the military power of China gives a comprehensive overview about the strengths and weaknesses of

the Chinese Armed Forces.<sup>33</sup> The estimates of the DOD report are quite similar to the information given by the Military Balance, a publication that is widely regarded as impartial. According to the DOD annual report, the defence expenditures of China are difficult to estimate due to the secrecy and low transparency of the Chinese budget. However, the US Department of Defence estimates that the military expenditures of China were between 105–150 billion dollars in 2008.<sup>34</sup> In table 3, I have chosen to employ a middle figure, 128 billion dollars.

In terms of quantitative figures, China seems to be a rather strong military power. The land forces of China consist of 1,250,000 active soldiers. This ranks with the leading military power, the USA, if reserve forces are included in the calculation. Furthermore, China has around 7,000 main battle tanks, almost as many as the USA. However, a quantitative analysis can be misleading. Only about 2,000 Chinese tanks can be considered modern. Even these tanks are outdated compared to the US M1 tank. The large artillery of China, about 7,400 pieces, is mostly old, towed light howitzers.

<sup>30</sup> Julian Borger, “Wake-up Call,” *The Guardian*, September 6, 2002 [http://www.guardian.co.uk/world/2002/sep/06/usa.iraq / accessed Feb 7, 2010].

<sup>31</sup> Robert Kaplan, “Center Stage for the Twenty-first Century: Power Plays in the Indian Ocean,” *Foreign Affairs* 88, no. 2 (March/April 2009): 2, 6.

<sup>32</sup> Stumbaum, *Risky Business*, 7, 10-11.

<sup>33</sup> Read for example: “Pentagon issues annual report on China’s military power,” China View Online, March 23 2009, [http://news.xinhuanet.com/english/2009-03/26/content\_11079173.htm / accessed Jan 21, 2010]. In China, the DOD report is seen as speculative and inaccurate.

<sup>34</sup> Annual Report to Congress: Military Power of the People’s Republic of China, 2009. (Washington, DC: Office of the Secretary of Defense, 2009), 31 [http://www.defence.gov/pubs/pdfs/China\_Military\_Power\_Report\_2009.pdf / accessed Jan 21, 2010]. The Department of Defense estimates China’s total military-related spending for 2008 to be between \$105 billion and \$150 billion, using 2007 prices and exchange rates.

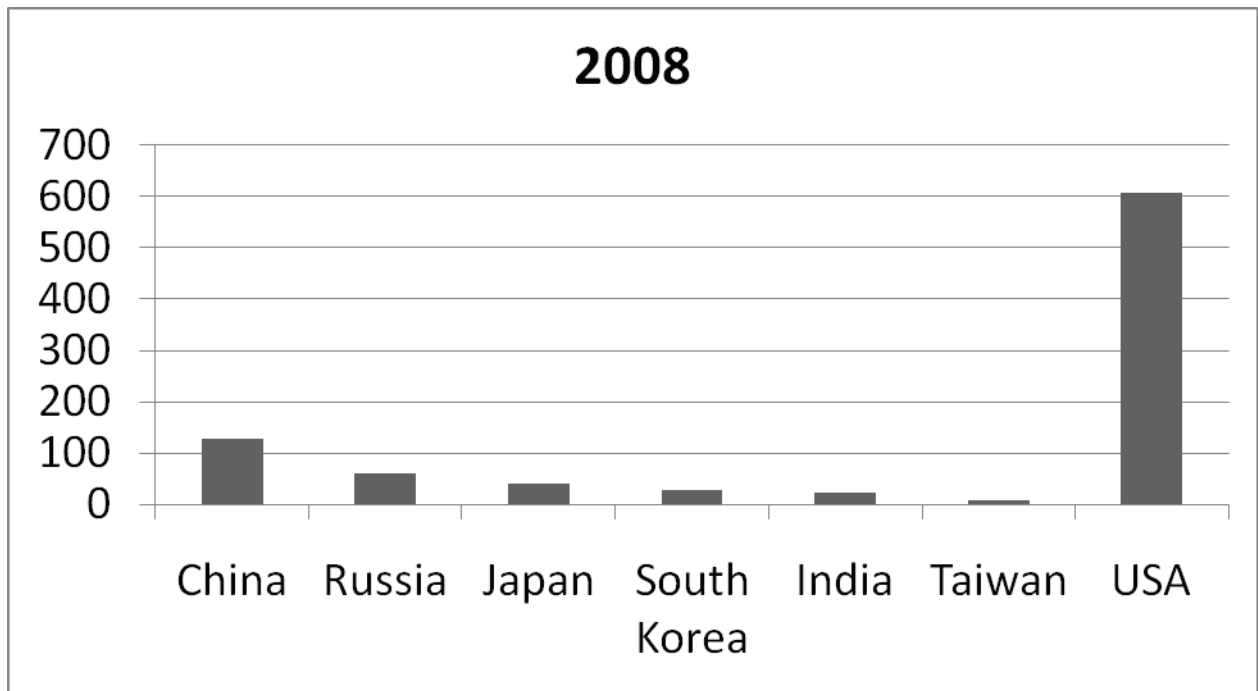


Table 3: Military expenditures (billions US\$)<sup>35</sup>

The Chinese Air Forces have several thousand combat airplanes. However, perhaps 500 of them could be considered modern and effective in a conflict against the USA. The USA has about 4,500 modern combat airplanes. The most effective part of the Chinese Navy is the submarine fleet. However, its most numerous submarines are Ming-class vessels that have basically the same design as German submarines at the end of World War II. The best submarines are Kilo-class vessels, a type that came in service in the Soviet Union in the early 1980s.<sup>36</sup>

In the USA, there is a lot of discussion about the role of the Chinese aircraft carriers. However, according to the US DOD, China will not have an operational aircraft carrier and associ-

ated ships before 2015. Even India will have three aircraft carriers in 2015.<sup>37</sup>

The strategic nuclear weapons of China are mostly outdated missiles that use liquid fuel and are vulnerable because they are in fixed silos. According to the latest estimates, China has, at the most, 20 modern intercontinental missiles that use solid propellant.<sup>38</sup> Moreover, China's presumed ability to use cyber-attacks and anti-satellite weapons effectively is not based on hard facts. China has conducted one launch of an anti-satellite weapon, and it has stolen electronic information from US sources. These actions aimed to steal data have been misleadingly labelled as cyber-attacks.

The true capability of a country's armed forces is typically dependant on its equipment, and on the moral and training of its soldiers. The level of training in the Chinese forces is rather low compared to that of the USA. There are some very well trained units that are typically shown to visitors, but the bulk of the forces is not adequately

<sup>35</sup> Annual Report to Congress: Military Power of the People's Republic of China, 35.

<sup>36</sup> Annual Report to Congress: Military Power of the People's Republic of China, 30, 60, 62, 64, 66. Estimates are based on my own expertise. As a research director of the Finnish Army, I led a large research project called "Army 2030".

<sup>37</sup> Ibid., 40.

<sup>38</sup> Ibid., 66.

trained for modern warfare.<sup>39</sup> In conclusion, China has large defence forces, but its current capability to fight a modern war against the USA is very limited.

### **The Future of the Chinese Military Power**

The US Intelligence Community estimates that it will take at least a decade for China to produce a modern force capable of defeating a moderate-size adversary. China will not be able to project and sustain small military units far beyond its borders before 2015, and will not be able to project and sustain large forces in combat operations far away until well into the following decade. China continues to face deficiencies in inter-service cooperation. Recognizing these shortcomings, China's leaders stress asymmetric strategies to leverage China's advantages while exploiting the perceived vulnerabilities of potential opponents.<sup>40</sup>

The Joint Forces Command (JFCOM) makes predictions about the possibility of China becoming a military superpower in the future. If the GDP of China is directly translated into military power, in the 2030s, China will (in theory) have the capacity to afford military forces equal or superior to the current US capabilities. However, according to the JFCOM, one must temper such calculations by using per capita measures. The JFCOM considers that it is certainly possible that by the 2030s China will be able to modernize its military to reach a level of approximately one quarter of the current US

capabilities without any significant impact on its economy.<sup>41</sup>

The JFCOM stresses that there are some important historical excursions to keep in mind. Throughout the Cold War, the United States sustained military spending levels, as a percentage of the GDP, at about twice the current levels, or roughly 8 percent of the GDP, without damaging the economy. If China increased its spending to a level comparable to that of the United States during several decades of the Cold War (8 percent of the GDP), and if the US defence spending remained steady at 4 percent of the GDP, China would spend an amount equal to roughly half of America's outlays for defence.<sup>42</sup> This kind of prediction is understandable only if the study considers that the GDP of China will be about 25 percent of the GDP of the United States in 2030. This is not a relevant prediction. If we use the most recent estimate made by the Carnegie Endowment for International Peace as a basis for the same calculation, we will come to a different conclusion.<sup>43</sup>

The logic of the JOE is somewhat flawed. It assumes that a low gross domestic product per capita forces countries to limit the resources that they use for military expenditures. However, during the period from 1951 to 1970, the United States allocated about 9.7 percent of its gross national product to defence. During the same period, the US economy was growing rapidly. The gross domestic product per capita was

<sup>39</sup> Author's several interviews of senior US, Australian and Korean officers at the US War College, winter 2010.

<sup>40</sup> Annual Report to Congress: Military Power of the People's Republic of China, 20.

<sup>41</sup> Mattis, Joint Operating Environment 2008, 28.

<sup>42</sup> Mattis, Joint Operating Environment 2008, 28.

<sup>43</sup> Uri Dadush and Bennett Stancil, "The G20 in 2050," *International Economic Bulletin*, November 2009 [http://www.carnegieendowment.org/publications/index.cfm?fa=view&id=24195 / accessed Jan 20, 2010].

about 10,000 dollars in 1951 and about 20,000 dollars in the early 1970s.<sup>44</sup> According to the International Monetary Fund (IMF), the gross domestic product of China (measured by purchase power index) is almost 10,000 dollars in 2010 and will be about 15,000 dollars already in 2014.<sup>45</sup> As a conclusion, the prediction of the JOE (2008) is not relevant due to the relatively high per capita income in China. Additionally, the Soviet Union was able to use a large amount of money for defence for 60 years despite the poverty of the citizens.

Furthermore, the analysis of the data for the years 1996–2008 indicates that China's officially disclosed defence budget grew at an average of 12.9 percent (per annum) in real terms over the period, while the GDP grew at 9.6 percent. Using these new resources the Chinese defence forces (The People's Liberation Army, PLA) is pursuing comprehensive transformation from a mass army designed for protracted wars of attrition on its territory to one capable of fighting and winning short-duration, high-intensity conflicts against high-tech adversaries along its periphery. It is obvious that the pace and scope of China's military transformation have increased in recent years, fuelled by the acquisition of advanced Russian weapons, by the continuous high rates of investment in domestic defence, by the science and technology industries, and by the organizational and doctrinal reforms of the armed forces.<sup>46</sup>

According to Harold Brown, the use of the PPP is useful when we are

comparing the standard of living in different countries. However, in terms of global economic power, the nominal GDP that is measured by using real currency rates used in import and export is more important.<sup>47</sup> On the other hand, the development of the Chinese armed forces is mostly carried out by using Chinese labour, engineers and factories, because the Western arms embargo has forced the Chinese to develop their own comprehensive military industry. Even arms importation from Russia is diminishing due to the advancement of the Chinese defence industry.

As I stated before, the defence expenditures of China should be estimated mostly using the GDP (PPP), but one should not forget that China must still buy some dual use technology and raw materials abroad to produce weapon systems. The Military Balance of 2008 estimated that 83 percent of the defence expenditures of China should be counted using the PPP index<sup>48</sup>. Even this estimate might underestimate the size of the defence expenditures in China because the Military Balance includes research and development (R&D) in the market price section. In practice, this is not valid because most of the research and development is done using Chinese labour and, of course, employing Chinese engineers is many times cheaper than employing Western engineers.

In table 4, I have estimated the military expenditures of China and the USA in 2030. The table also shows the predictions of the Joint Operational Environment (JOE) from 2008. In this

<sup>44</sup> Dollars in year 2005.

<sup>45</sup> International Monetary Fund, "World Economic Outlook Database, October 2009," [<http://www.imf.org/external/pubs/ft/weo/2009/02/weodata/weorept.aspx? / accessed Jan 30, 2010>].

<sup>46</sup> Annual Report to Congress: Military Power of the People's Republic of China, I.

<sup>47</sup> Harold Brown, "Chinese Ghosts," *Foreign Affairs* 87, no. 2 (March/April 2008): 1. Brown estimates that the economy of China will be perhaps one third of the size of the US economy in 2020.

<sup>48</sup> International Institute for Strategic Studies, *Military Balance 2008*, (London: Routledge, 2008), 369.

table, I also refer to the most recent prediction made by the Carnegie Endowment for International Peace to estimate the size of the US and Chinese economies in 2030. Along the lines of the Military Balance, I have also assumed that 17 percent of the Chinese defence budget is in market price. The

table is, of course, only a crude estimate of one possible future scenario. However, it shows considerable differences from the JOE prediction. If both the USA and China use 4 percent of their GDPs on defence, the Chinese defence budget will be much larger. This is quite the contrary to the JOE prediction.

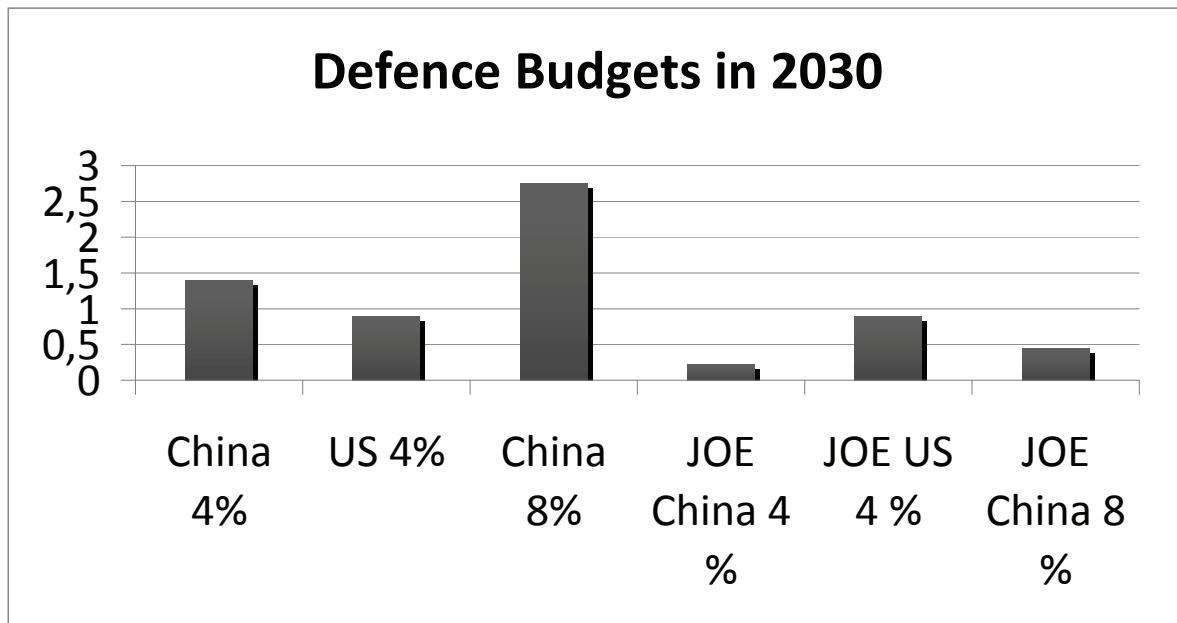


Table 4: Estimates of the defence budgets of the USA and China in 2030 (trillions of US\$)

The estimates of the quality of the armament industry of China also vary. Some experts consider that China is mainly at the level of Western countries. Others, however, think that China is still behind in several areas, including its aircraft industry.<sup>49</sup> Nevertheless, there is no single factor that could stop China from becoming a true military power in 15 or 20 years, if provided with adequate funding.

Furthermore, the pressure to lower military expenditures in the USA is growing. The military budget is already predicted to be only about 3.5 percent of the GDP in 2015.<sup>50</sup> However, the pressure to further decrease military

expenditures is imminent because of the growth of social security and health care.

Table 5 clearly shows the challenges of continuing the current military spending. According to the United States Government Accountability Office (GAO), spending on Social Security, Medicare and Medicaid, as well as the interest on the federal debt will account for an ever-growing share of the economy. As table 5 indicates, there will be little room for non-mandatory spending assuming revenues remain constant at 20.2 percent of the GDP. Non-mandatory spending refers to national defence, homeland security, investment in highways and mass transit, alternative energy sources, as well as

<sup>49</sup> Stumbaum, *Risky Business*, 29.

<sup>50</sup> The Economist, February 6<sup>th</sup> 2009, 34.

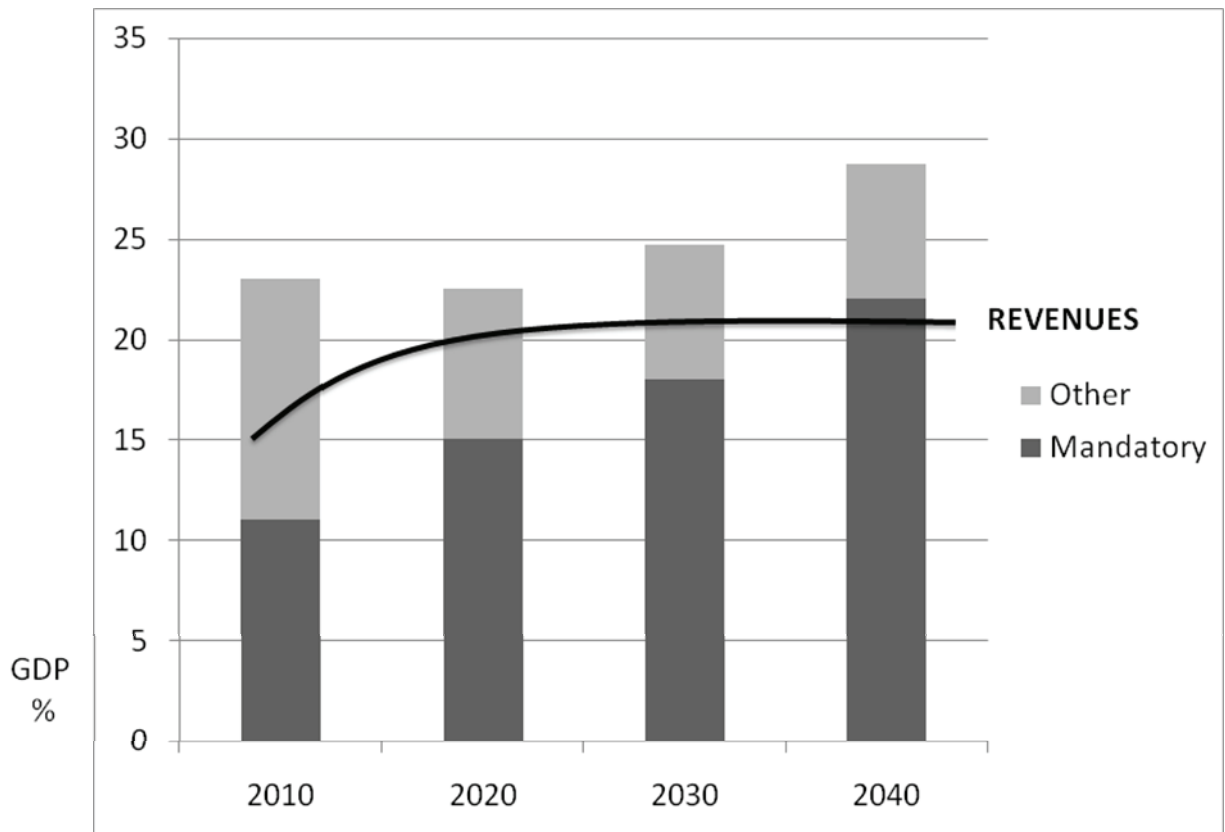


Table 5: Social Security and Medicare spending and the budget deficit.<sup>51</sup>

smaller entitlement programs such as Supplemental Security Income, Temporary Assistance for Needy Families, and farm price supports. In 2010, this non-mandatory spending was about 11 percent of the GDP. The GAO predicts that, by 2020, non-mandatory spending will be about 6,7 percent of the GDP. Even this figure may be too high, if the US government wants to limit its deficit. If comprehensive changes are not made, all revenues are spent on mandatory expenses in 2040.<sup>52</sup>

<sup>51</sup> The Federal Government's Long-Term Fiscal Outlook, January 2010 Update (Washington, DC: United States Government Accountability Office, January 2010), 4-6, [<http://www.gao.gov/new.items/d10468sp.pdf> /accessed March 7, 2010].

<sup>52</sup> Ibid.

### Reasons for Miscalculating Chinese Power

The Soviet Union was economically rather weak, but it competed with the United States in military power for decades. China, however, may turn out to be both an economic and a military competitor.<sup>53</sup> The rise of China is too often viewed exclusively from the military perspective.<sup>54</sup> This might be due to the importance of military power in the United States. After all, Americans have been fighting wars for the last 10 years. Furthermore, the current military power of China is usually overestimated.<sup>55</sup> According to this study, many of the basic statistics often referred to

<sup>53</sup> John Ikenberry, "The Rise of China and the Future of the West," *Foreign Affairs* 87, no. 1 (January/February 2008): 2.

<sup>54</sup> David M. Lampton, "The Faces of Chinese Power," *Foreign Affairs* 86, no. 1 (January/February 2009): 1-2.

<sup>55</sup> David M. Lampton, "The Faces of Chinese Power," *Foreign Affairs* 86, no. 1 (January/February 2009): 1-2.

are outdated, incorrect or manipulated for some purpose. In the USA, the economic rise of China is typically underestimated, while its current military power is often overestimated. However, China's potential to develop a modern force is underestimated. If these conclusions are correct, there must be good reasons behind these actions. The reasons for this may include:

- willingness to use statistics that support the author's arguments
- limited understanding of economics among some scholars
- preference to put all effort to the War on Terror, even if the rise of China is understood
- willingness to stress the current military power of China in order to increase the military budget of a service
- difficulties admitting that the relative decline of the USA may be imminent
- willingness to overlook the rapid rise of China because it might immediately reduce US soft power.

The power of a nation is at least partly based on an estimate of its current and future strength. China is a regional military power with very limited assets to project power. A qualitative study shows conclusively that the Chinese defence forces are weak if we compare them to the US defence forces. China's military equipment is mostly outdated at least by Western standards, and the level of Chinese training is mixed at its best.

Overestimating the strength of Chinese military power can be politically useful, because it makes it easier to increase US defence expenditures. On the other hand, China has great potential to become a global military power due to its vast resources and independent arms industry. However, China is not currently investing as much resources as it could in its military build-up. It seems that the leaders of China have the patience to wait until China is economically strong enough to withstand the burdens of a possible arms race.



## About the author

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