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## THE EFFECT OF GLOBAL ECONOMIC IMBALANCES ON THE MILITARY STRATEGY OF THE UNITED STATES AND CHINA

*The current account deficit of the U.S. has increased considerably since the beginning of the century and China has made a major contribution to this deficit due to its export-driven growth process. The deficit is unsustainable in the medium and long run and the Chinese economy is beginning to change its pattern. As a consequence, the military strategy of the United States will undergo major changes that will affect the balance of power with China*

*United States, China, financial crisis, global disequilibrium, defense budget, Asia-Pacific, military strategy*

## THE EFFECT OF GLOBAL ECONOMIC IMBALANCES ON THE MILITARY STRATEGY OF THE UNITED STATES AND CHINA

### 1. Introduction.

On 31 May 2013, the Spanish government approved the “New National Security Strategy: a shared project”, which is the key document governing policy in this area over the coming years. Of the many aspects covered in the aforementioned document, we are going to focus on the strategic stance of the United States over the next few years. According to Mario Laborie Iglesias:<sup>1</sup>

“The National Security Strategy determines changing trends in what is considered a multipolar world. Shifts in the balance of power between States, transformations in the Arab world, greater interdependence or the adoption of a new strategic stance by the United States are just some of these trends.”

Our paper will analyse changing trends in National Security and, more specifically, the adoption of a new strategic stance by the United States. Any decisions in this respect will be taken in Washington, but we need to anticipate their decisions as far as possible so that the appropriate course of action can be taken. In our paper, we will demonstrate how certain factors are going to condition and guide some of the changes in the U.S.’s strategic stance.

It is a cliché, but nonetheless true that the military power of a country depends on the level of its economy. There are exceptions, such as the case of North Korea, which, pursuant to government decision, allocates an exorbitantly high percentage of its Gross Domestic Product to military spending. In general, however, there tends to be a positive correlation between GDP and military spending.<sup>2</sup> An analysis of potential GDP growth over the coming years should therefore provide a good indication of trends in military spending and the strategic orientations of a country like the United States. Such an analysis could yield highly unreliable results, however, given that similar forecasts have proven to be inaccurate in light of the events of recent years, but it is

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<sup>1</sup> Laborie Iglesias, M. (2013) “La Estrategia de Seguridad Nacional” *Documento de Análisis* no. 34, IEEE. Page 2.

<sup>2</sup> The Stockholm International Peace Research Institute (SIPRI) provides detailed information on military spending as a percentage of GDP by year and country.

still a starting point for our analysis.

In our paper, we will analyse the balance of power between the United States and China. With the disappearance of the USSR, the bipolar power balance has been replaced by a situation in which the dominance of the United States is indisputable, but not hegemonic, as it is implicitly contested by a number of powers, including China, which is worth a special mention on account of its demographic and economic weight.

The relative stagnation of Japan's economy, Russia's decline in power since the collapse of the Soviet Union and India's limited presence have led analysts to study the balance of power between China and the U.S. From the perspective that concerns us here, any changes in the power balance will give rise to changes in U.S. strategy.

When studying these changes, instead of looking at GDP forecasts for China and the United States, we are going to start with what is a highly topical subject in international economic literature today: what have been termed global imbalances. We will show how a detailed study of the aforementioned is of particular relevance to the matter at hand because it enables us to anticipate trends in some of the macroeconomic variables of the two countries and their effects on military spending and its composition.

In the second part of the article we will review the strategy of the two armies and key figures on the armed forces in both countries in order to demonstrate the remarkable difference between the two - even today - and how they are the product of two different models with different strengths and weaknesses. In the third part, we will explain what global imbalances are and why they occur, look at relevant data and trends since the start of the century, and forecasts by experts in the subject. We will then analyse the relationship between the Chinese economy and that of the United States as a result of these imbalances, and assess why they are not sustainable. In the final section we will study the main changes we can expect to see in the Chinese economy over the next few years and how these will influence global imbalances and, therefore, the military power of the two countries in the medium term. In doing so, we will demonstrate how the power gap between the U.S. and Chinese military is going to shrink, and how this will influence U.S. military strategy, as we are already beginning to see. Finally, we will present our conclusions and lines of analysis that are worth exploring in the future.

## **2. The Armed Forces in China and the United States.**

In order to assess whether military spending projections for the two countries are consistent with their defence strategies and macroeconomic forecasts, we must first analyse the current situation from these two perspectives. In this section, we will

provide a general overview of the geostrategic relationship between the two powers, taking a closer look at some of the recent developments, before analysing the current situation with regard to military spending; not just in absolute terms, but also in relative ones, which will give us an indication of the type of military structure in each of the countries in terms of expenditure. By studying the evolution of the aforementioned over time, we can draw conclusions as to the relevant quantitative and qualitative aspects, because any changes thereto, in accordance with the explanations we will provide in points 3 and 4, will entail major changes to the two powers' overall strategies.

Since 2011, the Obama Administration has taken important steps and sent clear signals that the Asia-Pacific region is now the major strategic focus of the US<sup>3</sup>. The main aim of the work is to restore the balance in economic relations, in so far as U.S. economic recovery depends on its capacity to export to the region, given that it is now the world's largest consumer market. At the same time, the USA is also working on ways to provide security to the region by strengthening alliances with traditional allies, such as Japan, South Korea and Australia, and new emerging powers, mainly India. This policy is arousing the suspicions of China<sup>4</sup>, which is involved in relatively significant territorial disputes with many of these countries. It must be borne in mind that the areas of common strategic interest to the two powers are basically the East and South China Seas that surround the coasts of the U.S.'s three main allies in the region: the Philippines, Taiwan and Japan.

Apart from the historical dispute over Taiwan, in the East China Sea there are territorial disputes between Japan and China over ownership of a number of uninhabitable islands that are equidistant from the coast of China and that of Okinawa. According to a report to Congress (Lawrence 2013: 22), the U.S. is only interested in complying with the Treaty of Mutual Cooperation and Security, which includes all territories under Japanese administration.

In the South China Sea, the pressure stems from claims by different countries in waters where there are allegedly petrol and gas reserves, as well as large fishing grounds. However, beyond what would constitute a regional dispute, the USA's primary concern is that this area is currently the main global trade route. It is, to use the jargon of Washington, a global commons, as well as one of the Navy's main maritime routes.

All of the aforementioned aspects have prompted the U.S. and its allies to reflect on whether they have sufficient operational capability in the area to counter the unstoppable geostrategic and geopolitical rise of China. These reflections have given rise to the Air-Sea Battle (ASB) concept, which has begun to be discussed in the specialised and academic media. As the link between a theoretical analysis and strategic plan is

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3 Clinton, H., "America's Pacific Century", *Foreign Policy*, November 2011. At [www.foreignpolicy.com/node/1002667](http://www.foreignpolicy.com/node/1002667)

4 Lawrence, S. (2013) "US-China Relations: Policy Issues", *CRS Report for Congress*, June 14, page 6

sometimes very tenuous, it is premature to say whether we are seeing a fundamental change in U.S. global strategy or simply an analysis of scenarios. In any event, the arms and logistics needs identified by these analyses far exceed the current capacity of the US forces deployed in the area.

The ASB concept is an update of the ALB (Air Land Battle) concept, which was developed for the Central European Theatre of Operations in the 1970s. In this case, the general objective is to counter anti-access/area denial (A2/AD)-type strategies, although it is plain to everyone that it encompasses the strategic and tactical thinking of the People's Liberation Army of China. The A2/AD strategy is defined by the Department of Defense (2013) as those actions and capabilities designed to prevent an opposing force from entering an operational area (anti-access), or limit an opposing force's freedom of action within an operational area (area denial). This entails a radical conceptual shift in the way forces deployed by the USA have been operating for the past fifty years. In general, they had at their disposal secure land bases and free access to territorial waters in conflict zones from which to acclimatise the deployed troops and prepare the targets safety. The A2/AD strategy would prevent a deployment of these characteristics, with the peculiarity that there are no secure bases in the Western Pacific Theatre of Operations and that the operation would have to be carried out jointly by the Navy and the Air force. Conceptually, the aim of ASB is to ensure that U.S. forces have freedom of action within the Western Pacific Theatre of Operations.<sup>5</sup>

The costs of actually adopting this strategy are impossible to assess at this point in time, among other reasons, because the forecasts of the Department of Defense are classified documents (2013). However, the paper by van Tol *et alia* (2010) details some of the operational requirements of this deployment, thus giving us an idea of the size of the budget that the federal government would need, in addition to improving the efficient use of navy and air force resources through greater coordination and the avoidance of duplication. Two types of actions, with very different time horizons and budgetary implications, would have to be undertaken. In the short term, the most immediate course of action would be to improve U.S. military facilities within the range of Chinese systems, and to build up all types of supplies at the Navy bases and units deployed in the area. The budgetary impact of such measures, while high, is acceptable even in the current climate, however the measures are not sufficient to counter A2/AD effectively. For this, new weapons systems would need to be developed, and the weapons are not expected to be available before the mid-2020s<sup>6</sup>. We are

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5 The conceptual basis of these analyses have also been contested in the USA. Amitai Etzioni draws the attention of the U.S. public to these preparations in "Who Authorized Preparations for War with China?". The objective of the work is to demonstrate that the Pentagon has begun preparations for this scenario without having had enough coverage in the media or the House and Senate.

6 Van Tol, J., et alia (2010) *AirSea Battle: A Point-of-Departure Operational Concept*, CSBA, <http://www.csbaonline.org/publications/2010/05/airsea-battle-concept/> page 114.

talking about unmanned bomber aircraft, low visibility air attacks with a longer range than the current ones, unmanned underwater vehicles, new air and underwater intelligence sensors, systems capable of planting underwater minefields from airborne platforms and new types of antisubmarine measures<sup>7</sup>. The development of such a project, which would ultimately enable the United States to attack targets in inland China, requires large-scale investment in the technological development of new weapons systems. Investments which, given the current macroeconomic climate, cannot be undertaken in the short or – foreseeable – long term unless substantial changes are made to the federal budget, given that the Department of Defense's budget has been reduced by 21% since 2010. Meanwhile, China's strategy is based on sophisticated but low cost weapons systems that enable it to maintain control over its territorial waters and act as a counterbalance to the North American bases that surround its main areas of interest to date: the East and South China Seas. The aim of the A2/AD strategy (*anti-access/anti-denial capabilities*) is to deter the United States from intervening in this area of influence due to the high human and material costs involved for the U.S., although not for China. With these strategic approaches, and given the current and – foreseeable - future situation of both countries' economies, China can afford to develop and deploy its deterrent capability in the aforementioned areas of territorial tension much faster than the USA.

In any event, a detailed analysis of their strategic capability in the Pacific and Indian Oceans is beyond the scope of this paper. What we do wish to assess, however, is the impact of macroeconomic scenarios on the power balance between the two countries, whether they can maintain the status quo, or whether, if it came to it, they would have the budget to implement the strategies we have just discussed. For this purpose, we need to quantify the strategic effort they are making from an economic perspective.

Let us begin by looking at trends in military spending as a percentage of GDP, which is a measure of a country's efforts in this field. According to figures from the Stockholm International Peace Research Institute, China's military spending as a percentage of GDP went from 1.8% in 1998 to 2.2% in 2002; was around 2.1% from 2003 to 2007 and approximately 2% between 2008 and 2012. On the other hand, U.S. military spending as a percentage of GDP increased from 3.1% in 1998 to 3.4% in 2002; from 3.7% in 2003 to 4% in 2007 and from 4.4% in 2008 to 4.7% in 2012. According to World Military Strength Comparison<sup>8</sup>, the U.S. military budget in 2012 was \$689 billion dollars, while China's budget was \$129 billion. The armies of both countries have approximately three million soldiers, although in the case of the United States, half of these are active officers, while the other half are reserve officers. China has 2.2 million active soldiers, while the remainder are reserve officers.

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7 Van Tol, J., et alia (2010) *AirSea Battle: A Point-of-Departure Operational Concept*, CSBA, <http://www.csbaonline.org/publications/2010/05/airsea-battle-concept/> page 83.

8 Global Firepower, with data from the CIA, SIPRI and other sources.

This data demonstrates that U.S. military spending accounts for a proportionally and increasingly larger percentage of GDP than that of China. However, it is important to clarify that while China's economy has been growing at a rate of almost 10% for the past twenty years and that of the USA at an average rate of 3%, the absolute weight of military spending in China has also grown considerably. Current figures on military expenditure show that the United States spends five times more than China. However, these figures should be analysed with caution, given that while the budget allocated to military items is very clear in the United States, this is not the case in China, where military expenditure may be disguised as civil expenditure. Nevertheless, even if this is taken into account, military spending by the United States is considerably higher and determines the balance of power between the two nations.

The data also shows that China has a larger number of active army officers than the United States, that is to say, it is more labour intensive. On the other hand, the U.S. army is more capital intensive, given that it spends considerably more on active-duty personnel, who are more costly. According to data from the *Office of Management and Budget* of the U.S. government, expenditure per member of the Armed Forces increased from \$50,000 in 1980 to \$350,000 in 2010. This reflects the level of technology and capital goods used by each soldier of the U.S. army. While China has achieved military might primarily – but not exclusively - through the number of soldiers in its army, the United States has done so by considerably improving its combat equipment. Data from the *World Military Strength Comparison* demonstrates, for example, that the U.S. air force is three times larger than that of China and it has six times more helicopters. While the two countries have the same number of tanks, the Chinese navy has more boats, although these are smaller and not as well equipped as their U.S. counterparts. In addition, Washington is putting a large number of unmanned aerial vehicles into operation, and has significantly more drones than China. Overall, the data indicates that the U.S. army is a far more powerful fighting force than that of China, as is to be expected of the world's greatest, but not most dominant, power.

However, some analyses suggest that increased military spending by the U.S. has actually proven less effective from a strategic perspective, contrary to what the large spending figures would suggest<sup>9</sup>. From 1998 to 2010, the overall defence budget grew by 108 percent in real terms, while the number of active-duty military personnel remained relatively flat. Yet over the same period, according to the analysis, the number of aircraft in the Air Force declined by almost 1,000 units, and the average age of its aircraft increased from 19.6 years to 24.4 years. The Navy reduced its fleet by almost 60 units. Harrison concludes that the U.S. military is smaller, older and more expensive than 15 years ago. This can be attributed to a rise in compensation costs of every description (including health care for military personnel who were in the Iraq and Afghanistan

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9 Harrison, T., "Defense Cuts Conundrum: Weighing the Hard Choices Ahead", 2013, <http://www.csbaonline.org/2013/09/29/defense-cuts-conundrum-weighing-the-hard-choices-ahead/>

campaigns).

Given the situation, the U.S.'s initial consideration of the ASB project came about because the gap in capital and innovation between the two armed forces had widened to such an extent that China saw it as a sufficient deterrent. The key question we are aiming to answer in our analysis is whether the U.S.A. is in a position to successfully take on this eminently economic challenge, bearing in mind that widening the "gap" would require that the U.S. invest significantly more in defence technology than China. And, as we have seen, this means that the military budget would have to be increased, not decreased as it has been in recent years. Therefore, the critical point is that *it would have to confront a country that is its main foreign creditor*. As we will demonstrate in the last part of this paper, the Chinese government currently has enough financial leeway to drastically alter the financing conditions of the U.S. Treasury and, therefore, the resources it can devote to significantly increasing this "gap".

### 3. Global Imbalances: meaning and implications for economic relations between the United States and China.

#### 3.1 Comparative data.

Firstly, to be able to compare the major changes that are occurring, we have prepared a table showing demographic and economic data on the United States and China from 2000 to 2012 (2008 in the case of the Current Account Balance).

Table 1. Population, GDP and Current Account Balance of the United States and China from 2000 to 2012(\*)

YR.	Population USA	Population China	GDP USA	GDP China	Current Account USA	Current Account China
2000	284	1,280	9.898	1.200	-416	20.5
2005	298	1,318	12.564	2.260	-745	132
2012	317	1,377	15.684	8.230	-677*	420*

Source: International Monetary Fund and the World Bank. Prepared by the authors.

Data on population is in millions of people, and data on GDP and Current Account Deficits or Surpluses is in billions of dollars. (\*) Data on the Current Account is from 2008, which was the last year for which comparable figures are available.

The first issue here is the narrowing of the gap between the GDP figures of the two countries during the period. While estimates differ, it is obvious that China will catch up with the United States if trends in GDP growth continue. After more than 20 years growing at rates of around 10% and higher – which implies that the figure doubles every 7-8 years - GDP growth in China was 9.6% in 2008, 9.2% in 2009, 10.4% in 2010 and 9.3% in 2011. It therefore appears that China has managed to escape unscathed from the effects of the financial crisis that erupted in the United States in September 2008 and spread to most of the world's developed economies. Like the other major emerging countries, namely Brazil, India and Russia, China has pulled the world economy up during these difficult years. In 2012, GDP growth was “only” 7.8%, which gave rise to a wide debate as to whether China was facing structural difficulties or whether this was merely a temporary slowdown. The debate is beyond the scope of academia, given the systemic importance that the Chinese economy has acquired. This has a significant bearing on our work, as we will demonstrate in part four.

Secondly, the table shows how the U.S. Current Account Deficit grew throughout the period and, more importantly, how China's Current Account Surplus increased alongside it. We will shortly explain the reasons for this and the outlook for what are known as Global Imbalances. The last piece of relevant information is that in 2000, Chinese holdings of U.S. treasuries were 97 billion dollars, while the figure had increased to 1.160 trillion by 2012. As we will explain later on, there is a connection between the two countries' Current Account Balances and Chinese investment in U.S. treasury securities, and this connection and its evolution will have a major influence on the military strategies of the two countries in the future.

### 3.2 What are Global Imbalances?

In economics, the most common way of measuring the financial position of a country as regards the rest of the world is using the balance of payments (BOP). This is an accounting record of all monetary transactions between a country and the rest of the world. If we have enough information, we can draw up the balance of payments for a set of countries, such as the European Union, for comparison with the rest of the world. Because it is an accounting tool, when all components of the BOP accounts are included they must sum to zero; therefore, the components must be analysed in detail. Although these can be subdivided in more detail if the necessary information is available, the basic components of the BOP are the Current Account, the Capital Account and the Financial Account.

The Current Account reflects the inflows and outflows of money generated by imports and exports of goods, services provided to agents of other countries (such as tourism), income to Spaniards from abroad and vice versa and current transfers, such

as those made by immigrants living in Spain to their home countries. The Capital Account reflects the inflows and outflows resulting from the movement of capital and money, such as the funds the country receives from the EU or which it pays to NATO for membership of the organisation. Finally, the Financial Account reflects foreign investments in our country and investment by Spaniards in other countries. All of the aforementioned accounts may have a positive or negative balance at the end of the year, but they must sum to zero. Therefore, some balances will have to be offset by others.

Barring exceptions, the most important accounts from a quantitative perspective are the balance of trade and the financial account, which contains investment flows. If the balance of trade is positive, the financial account should be negative and viceversa, assuming that the values of the other accounts are minor and can be omitted. The Spanish example is very clear: our trade deficit grew steadily from the year the Euro was introduced up to 2008, when it accounted for 10% of GDP. The only way we could buy more than we sold each year was by attracting foreign capital to the country, generally in the form of loans and investments. As a result, our financial account showed a surplus throughout this period, although this reflected our financing needs, the effects of which have not been very positive in hindsight.

When the financial crisis erupted, the opposite began to occur: we could no longer secure external funding to enable us to buy more than we sold and, as a result, imports began to fall. Today, our trade balance is close to equilibrium, and in some areas we have positive balances; meanwhile, the financial account surplus has also decreased considerably. One of the lessons we have learned from this crisis is that being overly dependent on external funding in order to maintain a high level of expenditure carries considerable risk, because if external funding is reduced or stopped, we have to reduce our expenditure accordingly and have practically no room for manoeuvre.

It is virtually impossible that the balance of trade and financial account are always in equilibrium. However, minor imbalances in relation to GDP pose no risk for the country because they can easily be reversed. The problem is when the imbalances are larger than the GDP of the country. From the point of view of international macroeconomics, and given that the economic interrelationship between countries is quite substantial, there is concern over what have been termed *Global Imbalances*. Although there is no consensus as to the definition and implications of a global imbalance, let us take the definition put forward by Bracke *et al* as a starting point:<sup>10</sup>

“External positions of systemically important economies that reflect distortions or entail risks for the global economy”.

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<sup>10</sup> Bracke et al (2008), “A Framework for Assessing Global Imbalances” *ECB Occasional Paper Series*, no. 78. Page 5.

If a country like Spain, which is not a systemically important economy, has a large trade and, therefore, financial account imbalance, it only affects Spain, but does not have significant effects on other countries with which Spain has trade relations. However, if this occurs in countries like the United States, China or Japan, it puts many other economies at risk, which is why they are known as *global* imbalances. In reality, the danger is not so much the imbalance, as what would happen if it had to be corrected quickly, without giving economies time to adapt and therefore having a disruptive effect.

Even before the outbreak of the crisis of 2008, the global imbalance that was of most concern was the U.S. trade deficit. It is a concern because it is a situation in which there is a “large” deficit (or a “large” debtor), which is the USA, and a group of countries with a “large” trade surplus (and, therefore, several “small and medium-sized” creditors). Such countries include the major producers of oil and/or gas (Saudi Arabia, the Middle East oil countries and Russia) and other countries which have gained increasing importance in the world economy and whose trade balances record surpluses year after year (mainly China, but also Japan). If we were to imagine that there was only one world trade balance, the counterparty to all the aforementioned surpluses would be the enormous deficit of the United States. In both cases, the figures have been increasing over the past two decades, but the crisis has reduced the magnitudes and changed some of the trends. To maintain the balance of payments, large capital flows are required, and these must remain stable over time. If there are sudden stops in the flows, the problems of the world economy would be exacerbated and could be comparable to what is happening on a smaller scale in the countries of southern Europe.

The asymmetric imbalance between the financial accounts of the creditor countries (basically, the oil producing countries and China and Japan) and the debtor country had increased considerably in the years preceding the crisis and has remained stable since the crisis, thus calling for a huge mobilisation of financial instruments of every description. Another reason why financial imbalances are now more dangerous than in previous years is because gross financial flows have increased several times more than net flows. Added to this, the forms of financing trade deficits are becoming increasingly more complex and sophisticated, the number of economic players involved in markets is rising, and both primary and secondary derivative and other types of markets are being used, many of which are very opaque and, hence, very difficult to control. Therefore, bearing in mind that all of these are interconnected, any problem affecting funding markets at the global level will greatly affect the sustainability of global imbalances.

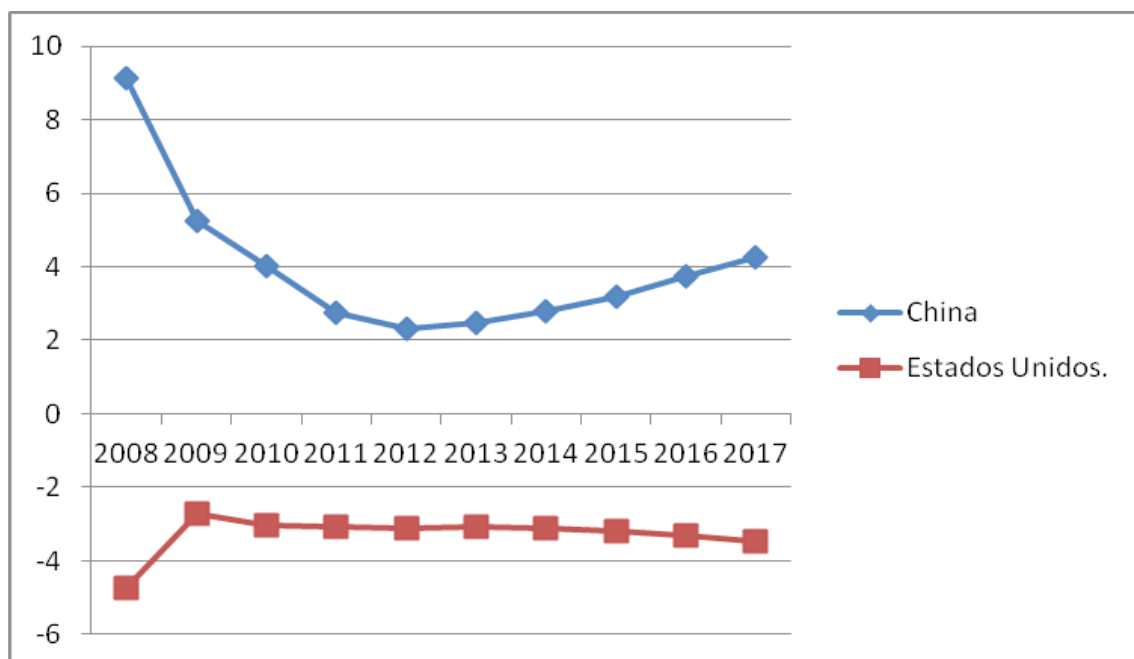
In order to assess the magnitude of the problem in the case of the United States and China, let us take a look at two graphs we have prepared based on the data we presented at the start of this section. The first shows the Current Account Balance as a percentage of GDP between 1995 and 2007. We have taken the Current Account

Balance, which is the Balance of Trade plus other transactions such as services, transfers and income, because it is more general and does not alter the data significantly. The second graph shows the data for the years 2008 to 2012 and a forecast up to 2017. We split the two periods in 2007 because, as we will see later on, the crisis of 2008 should, in theory, have caused a change in trends.

Estados Unidos = United States

Graph 1. Current Account Deficit or Surplus as a percentage of GDP (1995-2007).

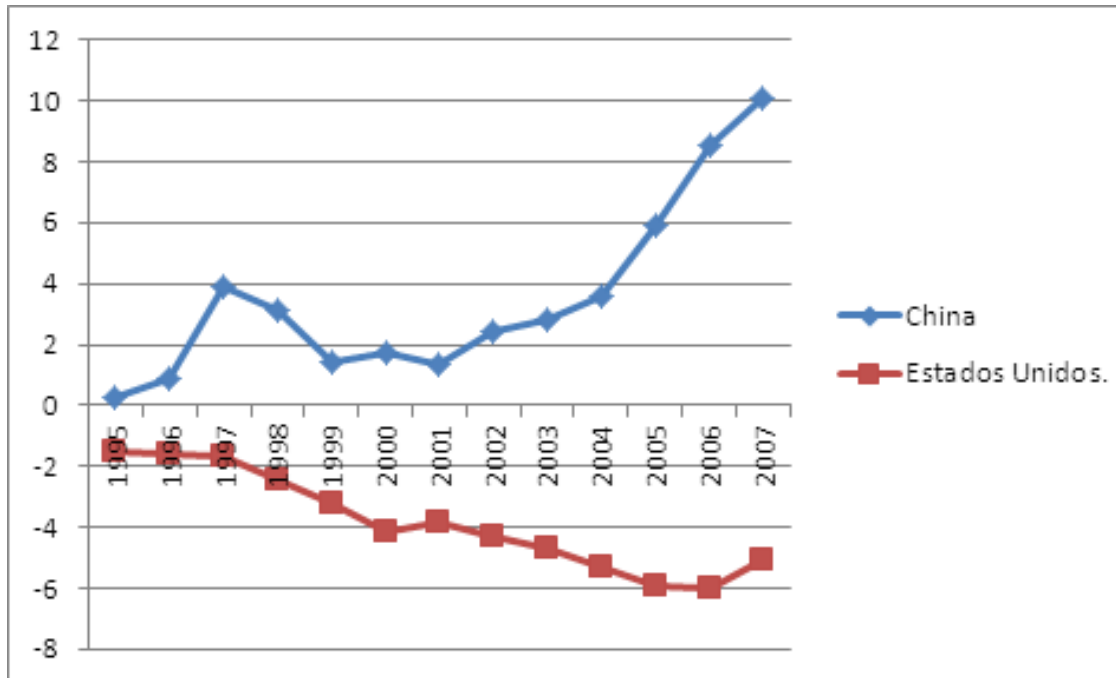
Source: IMF and own compilation.



Estados Unidos = United States

Graph 2. Current Account Deficit or Surplus as a percentage of GDP. Data for 2008-2012 and forecasts up to 2017

Source: International Monetary Fund and own compilation.



As can be seen in the first graph, the U.S. current account deficit increased considerably between 1995 and 2007, accounting for as much as 6% of GDP at one point. This means that during this period the United States needed more and more external funds in the form of loans and investments in order to cover the deficit. Had this not been the case, the United States - like Spain - would have had lower spending levels. Symmetrically, China's current account surplus grew even more, primarily because of the considerable difference between exports and imports. As a result, it had a large amount of money that had to be invested in other countries, which is why its financial account recorded a growing deficit during these years. As we will see later on, this symmetry means that there was complementarity between the two countries under study.

The financial crisis reduced China's surplus and the U.S.'s deficit because it is more difficult to sell goods abroad during crisis periods and, as a result, China exported less and the United States imported less. Consequently, the financing needs of the U.S. economy and the surplus cash in the Chinese economy have also decreased, thus reducing global imbalances. However, as forecasts by the International Monetary Fund suggest that the two are likely to increase, the financial account balance should be more positive in the United States (because of the greater need for external funding) and more negative in China (because of the resources available for foreign investment).

### 3.3 The effects of Global Imbalances.

The risks for the U.S. economy come from two different analyses. The first is the general analysis that stems from the intertemporal approach to the current account balance and its applications for the United States in particular.<sup>11</sup> This analysis indicates that current account deficits are caused by national savings being lower than investment, thus implying that funding comes into the country from abroad. However, this funding is provided on the understanding that the growth in productivity and production of the country receiving the funds will enable it to repay the debt, together with the applicable yield, in the not-too-distant future, by which time national savings will exceed investment. If the increase in productivity does not occur, or is insufficient, sooner or later foreign investors will cancel their positions and withdraw the funds in a way that may be very sudden (sudden stops) and with very negative consequences for the country's economy and, in the context of our study, the resources it is able to allocate to the armed forces. In the case of the United States, the data presented earlier indicates that the deficit is not greatly reduced but begins to accumulate in the form of public and private debt. We can therefore expect that the adjustment predicted by the intertemporal approach to the current account with regard to deficits will occur within a relatively short period of time.

The second element is linked to the commercial and financial relationship between China and the United States. The current account surpluses of the former are in one way or another controlled by the government of Beijing, which directs investment flows. A favourite form of investment in this context is U.S. treasury securities. For example, in mid-2012 there were almost 1.2 billion dollars in bonds in the hands of China and it was the second largest holder of U.S. debt after the Federal Reserve. Because bonds are used to finance the U.S. budget deficit, they are the basis of one of the country's main weaknesses. Despite agreements between President Obama and the Congress and Senate to reduce the deficit, the figures are still very high, so the Department of the Treasury has to continue placing large amounts of bonds in international markets. It is obvious that the Chinese government invests in bonds because they represent a good trade-off between yield and risk, but it is also true that this could jeopardise federal funding and spending, including military spending, which, as we shall see, accounts for a substantial part of the budget. This is the second risk of the current account deficit for macroeconomic variables and, hence, military potential in the medium and long term.

It can therefore be said that the U.S. current account deficit and China's current account surplus - which are closely linked - are a cause of instability in the world economic and geostrategic arena. Whether this instability remains latent or manifests itself will depend on a number of factors that we will now analyse.

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11 For example: Reisen (1997), Edwards(2004) and Obstfeld and Rogoff (2005), among others.

## 4. The future of the Chinese economy and its effect on military spending in China and the United States and the balance of power.

### 4.1 Change of the growth model.

There is general consensus among experts that China needs to change its economic model and find a solution that addresses the country's many imbalances, such as investment as a percentage of aggregate demand, which is too high; low private consumption; a services sector that is still in its infancy and financial repression, etc. Since China's economy took off in the mid-1980s, economic growth has been based on the mass transfer of workers from rural to urban industries, low wages and, consequently, production costs, and an accumulation of factors concerning capital and labour that would be defined in economics as "extensive growth". Increased production at low costs and prices has led to a massive increase in exports, which in turn has given rise to a current account surplus, to the extent that entire regions now depend on foreign sales. Experts summarise the foregoing by stating that China's economic growth is based on exports<sup>12</sup>, and this is consistent with what Chinese experts and leaders believe. For example, Li Jian from the Chinese Academy of International Trade and Economic Cooperation, the Commerce Ministry's think tank, has stated that:

"China will remain the most powerful engine of global growth for the next couple of decades, but it will no longer be just processing imported raw materials and components for re-export"<sup>13</sup>

And at a much more important level, Chinese Premier, Li Keqiang, has said that:

"China can only sustain economic growth by transforming its growth model"<sup>14</sup>

In the same interview, Li Keqiang said that the general plan was to restructure the economy, starting with its weak financial system, so that growth would be driven less by exports and more by private consumption, even though this would mean slower growth rates.

Given the confidence that the Chinese authorities have in the diagnosis, we can

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<sup>12</sup> A good analysis of the past and, most especially, future challenges facing China's economy can be found in Dorrucci, Pula and Santabárbara (2013)

<sup>13</sup> Interview for Reuters (11 September 2013) by Kevin Yao and Alan Wheatley.

<sup>14</sup> Statements made in Dalian on 11 September 2013 and picked up by Reuters.

expect that they will make every effort to achieve their goals. We will now analyse the implications of moving from export-driven economic growth to growth fuelled by private consumption and we will also assess the effects this is likely to have on economic relations between China and the United States and their military spending levels.

Currently, two factors determine private consumption in China: firstly, wages, which are quite low and, secondly, the level of savings, which is higher than in many other countries. As a result, private consumption per capita is very low, as is aggregate private consumption as a percentage of GDP.

Although production in China has grown significantly, productivity in a good share of industries continues to be quite low. It is precisely for this reason that China has focused on producing goods where the main advantage is low production costs, thus enabling it to sell the products at very low prices. Generally speaking, worker productivity determines wages, which is why salaries are low in China. Therefore, if wages are to increase, productivity will have to be increased, and this will involve improving workers' skills so that the country can produce goods that compete both on price and quality. If China can achieve the latter, sales prices will be higher and, therefore, so will wages.

Up to now, China has produced low value-added goods, which sell at very low prices. The country has to try to ensure that part of its industrial structure is engaged in the production of value-added goods, or at least intermediate goods, so that wages can be paid accordingly. This change is attainable for Chinese businesses, as evidenced by the increasing number of companies that produce high value-added products (Lenovo and Huawei are good examples), as well as the growing importance that China is attaching to secondary and higher education to improve workers' skills. In the aerospace sector - a field that is closely related to the military industry - China is demonstrating that it is capable of developing technology as well as any other country, with its space programme being its flagship project.

#### **4.2 The effects on China's armed forces.**

China's public sector plays a very important role in the economy, although sometimes a relatively inefficient one, and there is therefore room for improvement. This could be achieved by focusing efforts on two main aspects: infrastructure and dual-use technology. Infrastructure in China is still poor and an area where there is obvious room for improvement. Increased public spending in this area would boost aggregate productivity and enable non-specialised, low-wage jobs to be combined with skilled ones with higher salaries.

However, the most important sector here is the second one (dual-use technology). As we highlighted earlier on, the Chinese army is generally technologically underdeveloped

and more emphasis tends to be placed on the number of soldiers and units than on weaponry and support systems. At the same time, technology universities in China are on the increase and attracting a large part of the country's best trained youth. The circumstances are therefore right for the Chinese military budget, which has increased considerably without a corresponding increase in its contribution to GDP, to be redirected towards military projects in areas that require intensive use of cutting-edge technology: communications systems, conventional and non-conventional weapons, logistics and organisation, and training systems and programmes. In all these areas, China has plenty of room for improvement that can be leveraged.

This would entail the Chinese army recruiting a large number of engineers and middle-level technicians or, alternatively, hiring private or semi-private companies with the staff to undertake all these processes. Bearing in mind the type and quality of products we are talking about, the wages and other remuneration of workers would be significantly higher and this would affect large portions of the population. In addition, the technological know-how obtained through military research would be transferred – as has always been the case - to civil activity, thus giving rise to an overall increase in the technology component of goods and services in general. And the greater the technology component, the higher the value added to goods and services and the higher the salaries. Furthermore, the companies engaged in these types of projects would be capable of placing value-added goods and services on the market for civil use, thanks to the knowledge obtained while researching solutions to military problems.

Thus, the Chinese government would be able to reduce the size of the armed forces (for example, the reserve or auxiliary troops) and instead allocate these resources, together with those obtained through economic growth, to strengthening these types of programmes. The implications, in military terms, are obvious: on the one hand, military technology that does not exist in other countries could be developed, although this cannot be guaranteed a priori. And, on the other, the current level of technology in the Chinese military would definitely be enhanced and rolled out to other areas, resulting in much more effective military units. The technology gap between the U.S. and Chinese militaries – the main means of altering the power balance between the two nations - would be reduced.

And the important thing at this point is that this is one of China's most viable options for increasing internal demand and the funds allocated to infrastructure. Although they produce a lot, China's largest public companies are not very efficient and are slow to introduce improvements in efficiency. However, it would be relatively easy to use public funds to incentivise the development and growth of a powerful economic sector engaged in the promotion of military technology that can later be put to civilian use. The economic resources are there on account of economic growth and the ease with which the size of the armed forces can be reduced. The people required to develop the military technology are also available and can very often be found working in jobs for which they are over qualified.

We must also bear in mind that the People's Liberation Army, together with the Communist Party, is one of the mainstays of present-day China and that its demands for technological innovation and improvement will therefore be catered to. It is no coincidence that one of the most important figures in China is the President of the Military Commission, a position traditionally held by the Chinese leader of the time. Consequently, the likelihood of this scenario becoming a reality is quite high. Bearing in mind the budgetary restrictions that will occur in the U.S. military, the overall balance of power between the two countries is going to change.

### **4.3 The reduction in savings and its implications for the trade surplus and financing capacity of the Chinese economy.**

The main reason for China's high level of savings is the virtual inexistence of a public health system and retirement pension scheme. The latter in particular has prompted Chinese workers to save as much as possible for their retirement, given that China's one-child policy means that children will not be able to support their parents in the future. In this regard, the Chinese government is implementing reforms in order to set up a public health system, although not of the dimensions of the European ones. It will then address the matter of retirement pensions. To a greater or lesser extent, these changes will reduce private savings while increasing private consumption, especially among the lower income groups of the population. As a result, the goods and services produced by Chinese companies will increasingly be targeted at the country's huge internal market instead of being exported. China's middle class is currently the world's second largest after the United States, and the aforementioned measures will cause it to grow even further. In particular, the number of people in the lower-middle class is expected to rise, thus boosting consumption.

While the individual consequences of the aforementioned measures are difficult to predict, the general ones are not: exports will drop and imports will rise because a large number of Chinese families with purchasing power will absorb part of the production of national companies – hence fewer exports - and they will also purchase more foreign goods. While the balance of trade will continue to have a surplus, the actual amount of the surplus will be smaller, and the same will occur with the current account surplus. At the same time, the financial account deficit (the money leaving the country to be invested abroad) will also decrease. As a result, China will have fewer funds to invest in U.S. treasury securities, among other things. At this point, it should be pointed out that this process is not the result of deliberate action on the part of the Chinese government, but a consequence its goals, which are to replace export-driven growth with growth fuelled by internal demand. It is an automatic and involuntary phenomenon, but one which will have serious implications for the financing of the U.S. economy and, more specifically, the federal budget.

Bearing in mind the weight of military spending in the federal budget, as demonstrated previously, we can expect to see a reduction in expenditure in this area, unless the U.S. government decides to drastically cut spending in other areas or increase taxes. It is unlikely that the U.S. budget deficit can be financed through alternative sources, at least not on the scale it has been up to now with Chinese funds. We should therefore expect to see a reduction in aggregate military spending in the U.S., which will also affect the change in the power balance between the two countries. All available data and trends suggest that the evident superiority of the U.S. military will be reduced.

Bear in mind that in the strategic scenario we spoke about in section two, adapting the technology required to roll out ASB in the Pacific would require, in these economic conditions, that the U.S. reduce its budget for the army and the other forces it has deployed around the globe in order to focus on this front. This would strengthen its position in the Pacific, but it would lose influence in the other scenarios. Another option would be to not undertake this project and maintain the current level of deployment in the area while strengthening ties with its traditional allies. This stance would become more and more delicate as China improves the effectiveness of its A2/AD systems and the U.S.'s traditional allies begin to doubt its capacity to maintain security in the areas of tension.

The second question we need to address is whether it is credible to assume that China would voluntarily use its holdings of U.S. treasury debt to weaken the U.S. economy and army. As demonstrated previously, China's holdings of U.S. treasury debt is very high and has grown to the extent that it is now the main source of foreign funding for the U.S. budget. Seeing as we have already analysed the involuntary effects of Chinese government policy, we will now focus on the voluntary effects.

Withdrawal of the funds China has invested in U.S. treasuries could be carried out by not reinvesting them. Bonds have different maturity dates, on expiry of which the Treasury returns the initial amount, together with the interest, and then issues new ones to cover its needs. Holders of bonds usually purchase new ones as the old ones mature. If they fail to do so, the U.S. Treasury may run short of funding, forcing it to reduce public spending, including military spending. On this point, it could be said that the decision to purchase new bonds or not is a "weapon" in the hands of China because, when you consider the volume of bonds issued, it would be very difficult for Washington to secure alternative sources of funding for similar amounts.

In some cases, the Chinese media has hinted at the need and appropriateness of using this as a means of exerting pressure when measures that are not to its liking are taken on the other side of the Pacific, particularly in support of Taiwan<sup>15</sup>; however, the official authorities of the Communist Party of China have not done so. In the United States, alarm signals have been sounded over the fact that the budget deficit and its

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15 An example would be the article published in the *People's Daily* in August 2011.

external financing have put the country at the mercy of China, together with the risks this entails.<sup>16</sup>

It is obvious that a dramatic withdrawal of funds by not purchasing new bonds would do a lot of harm to the United States, as much by the amount as by the method. The Treasury would have to find alternative lenders, almost certainly at higher interest rates and for smaller amounts, and the federal budget would have to be reduced without delay. The disadvantages of this are great, as the current activities financed with these budgets would be severely affected if the funds are reduced very suddenly. By way of example, the military fuel budget would be affected, therefore reducing its short-term operability.

The fundamental question now is whether or not this is likely to happen. We believe it is not. China's current account surplus has to be invested (financial account deficit) in assets anywhere in the world that are both safe and profitable. Furthermore, given the magnitude of the surpluses, the value of the assets also has to be very high. Nowadays, it is hard to find assets worth billions of dollars that are a good balance between yield and risk, other than U.S. treasury securities. Therefore, China's choice is limited when it comes to diversifying its investments. It can of course do so, but the price it would have to pay is lower yield, greater risk and having to work with several borrowers instead of just one. All of this leads us to believe that it is unlikely to happen. The Chinese government may give orders to stop investing in treasury securities, but both countries will ultimately lose. Leon Panetta, Secretary of Defense, was also of this opinion when, in 2011, he made the following statement in a report to Congress:

“Attempting to use U.S. Treasury securities as a coercive tool would have limited effect and likely would do more harm to China than to the United States”

There is always the possibility that, in the event of an open conflict between the two countries, China could use its investment in U.S. debt as a weapon, even though this would also have adverse effects for the Asians. This is not the subject of our analysis, however. We are concerned with how global imbalances between China and the United States will affect the balance of power between the two countries in the near future. And, as we demonstrated earlier on, this is what is going to happen, if indeed it is not already happening. China does not need to use any kind of coercive tool or threaten to not buy any more U.S. securities, because this is what will inevitably happen. Washington has to worry about its deficit and reduce it. Otherwise it will not be able to fund it in the medium term. Therefore, whether it reduces expenditure in order to tackle the deficit or because it lacks funding, the prospect of reducing public and, hence, military spending in the United States is inevitable.

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<sup>16</sup> Hillary Clinton, in her campaign for the presidency in 2007, wrote a letter along these lines to Ben Bernanke, Chairman of the Federal Reserve, and to Henry Paulson, Secretary of the Treasury. In his campaign for the presidency in 2012, Mitt Romney made the same point.

## 5. Conclusions

In this article we have demonstrated that the balance of power between the United States and China is going to change, and, therefore, so too will U.S. military strategy. The change will come about as a result of a narrowing of the technology and economic gap between the two powers, which has largely been caused by the adjustment of global imbalances.

This implies that in the near future, funding the current account deficit of the U.S. will not be as cheap as it has been up to now. Higher interest rates will mean that an increasing amount of public and private resources will have to be allocated to its payment. Furthermore, China, the main lender, will have fewer funds available for lending or will be less willing to continue funding the U.S. deficit. The reduction in the funds available for lending is a result of the change in China's growth model. Indeed, in the near future, China will find itself constricted by the growth model it has been implementing up to now. The Chinese authorities are perfectly aware of this and have decided to make every effort to change the model so that they are less dependent on the export of cheap, low value-added goods to the rest of the world. Instead, they aim to stimulate internal demand for these same goods and others of a superior quality and added-value. In doing so, they will reduce their current account surplus and, therefore, the amount of funds available to finance other countries, particularly the United States.

The effects of this dual process on the Armed Forces of the two countries are clear. In the United States, the resources available for the military will either be cut or not increased by the amount needed to achieve the ambitious goals it has set for the Asia-Pacific region, at least not without neglecting the commitments it has in other parts of the world. As a result of a general improvement in the productivity of its economy, China will upgrade its military technology and possibly reduce the number of soldiers so that it is able to more easily achieve the strategic objectives we explained in part two. Therefore, the current balance of power will be tipped in favour of China.

Our analysis demonstrates, moreover, the importance of paying careful attention to the macroeconomic variables of the two countries so as to be able to see what changes they will make to their strategies. Studying trends in Gross Domestic Product in order to ascertain how these will affect the Military and its operational capability will not be enough; even more important than this is the detailed analysis of production components, funding options and needs, the state of public accounts and the indebtedness of private agents, as it is these that will tell us the resources available for the Armed Forces and the characteristics of the latter.

In more general terms, our paper demonstrates that by analysing macroeconomic variables separately, we can identify future trends and scenarios that are relevant to

our security, as defined by the National Security Strategy. The situation in Asia-Pacific affects us, but not directly. On the other hand, a similar type of analysis of the relevant variables in other, much closer and more dynamic regions, such as the southern Mediterranean and the Sahel would also prove very productive.

## Bibliography

- Bracke *et al* (2008), “A Framework for Assessing Global Imbalances” *ECB Occasional Paper Series*, no. 78.
- CLINTON, H., “America’s Pacific Century”, *Foreign Policy*, November.
- Department of Defense (2013) Air Sea Battle: Service Collaboration to Address Anti-Access & Area Denial Challenges, <http://www.defense.gov/pubs/ASB-ConceptImplementation-Summary-May-2013.pdf>
- DORRUCCI, Pula and Santa bárbara (2013): “China’s Economic Growth and Rebalancing”, *ECB Occasional Paper Series*, no. 142
- EDWARDS, S., (2004) “Financial openness, sudden stops and current account reversals”, *NBER Working Paper* 10277 <http://www.nber.org/papers/w10277>
- ETZIONI, A. (2013) “Who Authorized Preparations for War with China?” *Yale Journal*, 12 June.
- HARRISON, T., “Defense Cuts Conundrum: Weighing the Hard Choices Ahead”, 2013. <http://www.csbaonline.org/2013/09/29/defense-cuts-conundrum-weighing-the-hard-choices-ahead/>
- LAWRENCE, S. (2013) “US-China Relations: Policy Issues”, *CRS Report for Congress*, June 14, page 6
- LABORIE IGLESIAS, M. (2013) “La Estrategia de Seguridad Nacional” *Documento de Análisis* no. 34, IIEE.
- Obstfeld and Rogoff (2005) “Global current account imbalances and exchange rate adjustments”, *Brookings Papers on Economic Activity*, 1:2005, pp. 67-123.
- Office of Management and Budget. Department of Defense. 2012.
- REISEN, H., (1998), “**Sustainable and Excessive Current Account Deficits**,” *Empirica*, Springer, vol. 25(2), pp. 111-131, January.
- Reuters.(Agency)* Statements by Li Keqiang on 11 September in Dalian and interview with Li Jian on 11 September.
- VAN TOL, J., *et alia* (2010) *AirSea Battle: A Point-of-Departure Operational Concept*, CSBA, <http://www.csbaonline.org/publications/2010/05/airsea-battle-concept/>
- World Military Strength Comparison*, <http://www.globalfirepower.com/countries-comparison.asp>

