**ECONOMIC PUBLIC POLICY TOOLS AND**

**THEIR IMPACT ON NATIONAL SECURITY**

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**ABSTRACT**

This paper aims to elaborate on various economic public policy tools and provide a perspective on their insight as well as on their prospective impacts on national security issues. Both the hard power and the soft power of a nation are closely related to the strength of its economy. It can be claimed that sustainable prosperity is the perquisite of economic security. While economic power depends on many factors, a well-balanced trade is a critical factor since it is a compensation between domestic production and outsourcing. Although the optimum equilibrium between these two is established as a rational outcome of the free market forces, the government holds various economic public policy tools, which have prominent impact on shaping the economic reality. On the other hand, as a natural outcome of the free market economy, certain products need to be outsourced. During this study, a literature survey has been conducted through printed and online resources to examine sample policy cases of some countries for theeconomic dimension of national security. These policies, which are the subject of trade, manufacturing, science and technology, were selected from the beginning of the 20’th century until the present day.Based on our findings, it can be argued that the benchmark for a successful public policy for national security is to contribute to a diverse and sustainable supply chain, which shall be a part of a complementary ecosystem that integrates both domestic manufacturing and strategic international outsourcing.

**Key words:** National security, Economic security, Economic public policy, Economic public policy tools.

**INTRODUCTION**

A sustainable prosperity is the perquisite and the golden aim of all national governments, which are there to serve their citizens by constituting a system that generates continuous economic growth and a permanent progress in life standards, which should also be based on income equilibrium. However, as the resources are limited and all nations seek to provide improvement there is a permanent competition between countries. According to British political scientist Thomas Hobbes, who is also among the introducers of the liberal discourse, when everyone desires the same thing a conflict is unavoidable (Aubrey, 1949:317; Hobbes, 1651). Nonetheless, John Lock, another scientist who has also prominently contributed to the liberal discourse indicates that God has created everything for the human kind and that all resources have to be used with maximum efficiency. He merely emphasizes on the collaboration of people in utilizing those resources. Both perspectives though underlie the necessity for the existence of solid government structures, which should generate public policies that serve for the best interest of their citizens. The challenge lies in how to optimize those polices since there are many aspects and elements to be compromiseddepending on the ever-changing circumstances in the world. Within this broad context, it can be argued there are two main aspects that are correlated with each other;the natural rules of economy and the national security. Accordingly, the optimum combination of these two main concepts and further elaboration of their subelements will presumably be indicating to policies that require collaboration between countries with all their public and private entities while on the other hand considering security for their citizens for the foreseeable future. Therefore, it is a verycrucial task for the governments to define the optimum level of national security policies whichprotect the interest of the people on one hand while being very sensitive on not blocking the freedom of economic expansion and collaboration. Becausethis will impose a threat to prosperity.Nonetheless, it should not be forgotten that the supreme law of the society is the welfare of the people.

Within the same context the relation between economic strength and international competition dates back to very old times in the history. The German American economist Friedrich List (1789-1846), who has developed the “National System of Innovation”, argues that the powerof countries is directly related with their industrialization levels and their role in the economy (Faur, 2010). From the standpoint of political economy,Friedrich List and political scientist Robert Reich, as the defenders of economic nationalism, refuse the main principle of economic liberalism, which is the self-interest of individuals to influence the economic and social order. Nevertheless, according to political scientist David Levi Faur, nation’s imperatives in shaping their economic policy should not rely only on their national security issues but also on the welfare of their citizens (Faur, 1997). It can be argued from many aspects that economic nationalism, economic liberalism and economic socialism have their own flaws. Because the political and economic conditions are never ideal and are opt to change with time. Therefore, the economic policy making is a critical process which should take many parameters into consideration.

It turns out that from the national security standpoint the role of the government is to protect the physical well being and prosperity of its citizens both militarily and economically. It is also obvious that the ability of a nation to hold hard power and soft power depends on the strength of its economy. In the 2015,in the “Strategic Defense and Security Review” the national security strategy of United Kingdom for the next five years was revealed. Therein, the Prime Minister of UK made it clear that the national security of the country depends on its economic security and vice versa (HM Government, 2015:5). Also as a part of the 2017 National Security Strategy of the United States of America, The U.S. President Donald Trump introduced the principle that “economic security is national security”.

It is also evidentthat an economic decline would cause violence, conflict and political turmoil. Those outcomes would certainly weaken national security. A strong economy, on the other hand, will ensure political and social stability and support stronger economic growth. This outcome will also make it possible for the governments to allocate more resources into the national defense budgets.

Obviously, the economic public policy tools are the features that governments hold to make the necessary adjustments to sustain economic strength by considering national security. However, there is a thin line between national security approach and business-oriented approach. Firstly, over spending the budget on the defense industry causes weakness on the other parts of the industrial or agricultural development. Secondly, if the government would intervene too much with businesses or the free market economic rules for national security reasons that would negatively affect the economy as well (Walters, 2017). However, each case is circumstantial and time based.Therefore, during the performance of their task of balancing economic activities with the national security measures, the national governments have to work their way throughvery complex equations with lots of variables. Nevertheless,they have to pick the right economic public policy tools. Because eventually the outcomes will impact the security and prosperity of the society.

**1. NATIONAL SECURITY AND ECONOMY**

It makes it easier to define the concept of national security and economy on separate basis. Then it should be possible to reveal the link between the two and eventually define the role of the government in generating the right polices that would consider the integration of theseconcepts.

In a broad sense the national security of a country can be defined as the provision of the security and the well being of its citizens in all aspects. It turns out that this is possible with a strong military and a strong economy. It can be argued that these two elements are directly linked to economic security. The main indicator of a strong economy iscertainly a sustainable growth and a well-balanced income distribution. These goals are possible with a productive and progressive economy. Historically, all has been achieved with the aid of science, technology and innovation. They are the necessary tools to improve the efficiency of the manufacturing and the service sectors. Therefore, the optimum economic model for a specific country depends very much on the domestic conditions, internal potential and the world conditions at that specific time. Neither a purely liberal economy with zero state intervention nor an economical model which relies on the state to call all the shots have been proved out as the right recipes for success. Therefore, the public policy tools, that the governments hold to enforce the right polices, are very critical, as they will be directly related with economic security.

Conceptually, the relation between economic security and national security is set on many criteria. From the pure military perspective, the need for funds to keep a modern and operational military is very explicit.Therefore, the role of funding and its constitution is very critical. Simply put, the financial and human capital is necessary to generate businesses. If there is business there will be profit and with profit, there will be jobs. Eventually, it is the individuals and businesses who pay taxes to support the military capability (Ronis, 2011).

Regarding the defense related policies in generalit is necessary to keep the optimum balance between domestically developed technologies andoutsourcing. The current military equipment’s are very sophisticated and there are huge numbers of elements involved, whichcannot be totally produced domestically due to many constraints. On the other hand, there are critical tools and technologies which need to be on less foreign dependency. So in the constitution of these policies economic factors and national security issues need to be considered simultaneously. From the perspective of the welfare of citizens the economic strength is again a critical parameter since beyond the military element it keeps the prosperity in the societyat high and conflictat low levels. Also from the international relations standpoint it can be argued that both the hard power and soft power of a nation relies very much on its economic power. From various respects it is obvious that national security can be related to national economy. Therefore, it turns out that the public policy tools, which have an impact on economy, will certainly have an effect on the national security as well.

In principle, the governments can assume two basic roles. The first one is being regularity in nature such as to generate polices which aim to encourage the private sector for the domestic manufacturing of certain strategic goods either for national security concerns or to diminish the trade balance accounts. Other policies within this line are the science, technology and innovation polices, trade tariffs, tax policies and investment incentives. As an example, the stimulus for the manufacturing industry has basic impacts such as decreasing unemployment, increasing growth and mobilizing the whole supply chain in the region. The sub tier supply chain is very crucial for the defense industrial base. Manufacturing has also an impact on the innovation and R&D capacity. Because the manufacturing industry has one major rolein the advancement of technology and design. The improvement in applied sciences, technology and design is a prerequisite for both the civil and the defense industry. Without an industrial base there will be lack of high tech design and manufacturing capabilities, which will have a profound negative effect on the military.

In some other cases, government may even get directly involved in the process of manufacturing in the form of public- private partnership (P3) models or government enterprises.The State Economic Institutions (KIT) in Turkey, such as the Turkish Coal Works (TKI) or Mechanical and Chemical Industry Corporation (MKEK),are some examples to government owned enterprises. The P3’s are beneficial partnerships between government and private sectors since they consolidate the advantages from both sides. This model is growing in the United States in various sectorsrelated with transportation, education and information & communication technology.

As a matter of fact, the manufacturing, innovation, trade,education, energy, and defense policies are very closely intertwined with each other. The sustainability of those polices are important. Because, to achieve permanent progress the industry should be linked to formal institutions of science and education as well as to the accumulated knowledge of science and arts. Since the knowledge accumulation should be regarded at least as important as financial capital the policies related to training and education system plays an important role from the standpoint of human capital. Together with the innovation and R&D capabilitiesthey are very critical for the long-term preservation of economic security of a nation. It is obvious that well educated workforce is an important feature of both economic and national security. Industrialization, innovation, education and training were also mentioned as the major ingredients for sustainable economic growth by economic scientist Friedrich List in his interpretationof the “National System of Innovation” which is a part of its conceptual work the “National System of Political Economy” (1841). List also accentuates that every nation has its own characteristics and considering this fact through the selection of the rightpublic policy tools makes it possible to utilize the most outstanding features to create more efficient outcomes (Freeman, 1995). Especially in the second half of the 19’Th century and within the 20’Th century many innovations had a great impact on economic growth. The outcomes relied on the science & technology developments at the R&D labs, universities and the manufacturing establishments.

Based on the close intertwining relationship, it would be correct to say that the public policy tools, which serve to improve the innovation ecosystem, are also enhancing national security. Some examples for these policy tools are the laws and regulations for the establishments of R&D labs, science-technology parks and patent offices, or laws and regulationsfor handling technology transfer issues between university and the industries. Other examples are taxincentives or capitalsupportsfor the investments in the pre-determined industrial sectors which are regarded as strategic for economic growth or grants for start ups and scienceand technology based projects. The tariffs and quotas are other instruments which are related with trade but also have an impact on the indigenous innovation ecosystem to a certain extend.These policy tools are proved to have generated positive results on economic growth in many nations such as Germany, United Kingdom, Russia, South Korea, Japan, United States and China. However, each countrydiffersin the waythey used these tools, the economic models they have pursued or the degree of state involvement they have experienced. Nevertheless, the common ground for all successful countries is that they have developed their own peculiar innovation system.

National debt is one major issue that leaves a burden to future generations and thus imposes a threat to national security. Within that regard, any policy, which aims to improve the trade balance, can be regarded as a solution towards a national security issue.The same public policy tools which aim to support innovation and manufacturing would also serve to decrease national debt.

The base line is that, in the policy making process the cost –benefits analysis from an economic perspective will have to have the national security parameter as a part of the equation. Vice versa the nation’s economy can be regarded as the subsystem of a broad national security strategy. It thus turns out that the economic element of national powerrequires special attention. In a broad sense, the main issues related with the economic security can be viewed as the role of debt (trade balance), the role of government involvement, industrial capability, energy security, science & technology development, and human capital (Ronis, 2011). Therefore, the public policy tools dealing with those issues will have a direct impact on economy and the national security at the same time.

**2. SOME COUNTRY CASES**

After the great depression in the United States in 1929 the New Deal polices came into effect. They were executed by the Roosevelt administration after President took office in 1933 and lasted for eight consecutive years. These polices consisted of various programs that in principle entitled the government to be directly involved in restructuring the economy. At that time the economic situation in America was not very good at all. The unemployment rates in some U.S. cities were at staggering levels. For instance,in Toledo, Ohio the unemployment rate was eighty percentand in Lowell, Massachusetts it had reached the level of almost ninety percent. In his inauguration speech, President Franklin Roosevelt mentioned about waging a war against the emergency as if being invaded by a foreign foe (History, 2009). This statement is noteworthy to emphasize about how the government at that time has perceived the economic depression as a national security threat to the American people.

In the following years the Roosevelt Administration has applied number of revolutionary public polices which were both regularity in nature and had the government directly involved as a participating player. The government took these measures between 1933 and 1941. One example to this period is“The Industrial Recovery Act” which gave right to workers for unionization and the President the authority to regulate wages and prices for the industry. Another example is “The Glass Steagall Act” which separated Wall Street from Main Street and brought protection to savings at the commercial banks. Among all, there is one case which is an example to the economic public policy tools which government has used to battle the depressed economy with direct involvement, rather than taking regulative measures. It is the Tennessee Valley Authority Act, which enabled the Federal Government to build dams at the Tennessee River. This was done by the Tennessee Valley Authority (TVA) which was created as a fully government owned corporation.From the governing perspective the aimwas to consolidate the power of various government agencies under one single authority so to enable the planning of regional economic development from a broader perspectiveand to act more swiftly during the course of decision making and execution. The economic target was to build dams and hydroelectric power plants to provide cheap electricity to the poor region to spur industrial development and to control flooding.

Firstly, this case of TAV is a public policy example for directgovernment intervention to the economy at times of emergency. Also from the perspective of how economic public policy relates to national security it is the perception that great depression has been received as a national security threat.

Coming back to the present day American policies they also take the maxim of “economic security is the national security” as the guiding principle. The polices such as the corporate tax cuts aim to spur investments and innovation to help both the economy and national security. Also the incentives encourage domestic and foreign companies to make investments on American soil while new tariffs aim to discourage some of the imports for some strategically important products and boost domestic production as well as urge the previously re-shored manufacturing facilities to move back home. These public policy tools that the current US administration is pursuing are regularity in nature but they aim to get the twofer there by strengthening the economy and supporting the domestic manufacturing of some goods for the sake of decreasing foreign dependency. Because a thriving manufacturing industry and a solid defense industry base is crucial for national security. Nevertheless,the trade and manufacturing polices that enforce the “Buy American Act” not aimto cut outsourcing completely. They aim to optimize the trade and foreign account balance, whichboth have widened up gradually since the 1980’s and have reached pretty large figures as of the present days. The renegotiating of the trade deals with China, Europe, other countries at South East Asia and the new NAFTA deal are part of these efforts to mend the issue in a favorable way.

China is another country example which has used the economic public policy tools to transfer its economy from imitation based form into innovation based status from late 1970’th through the present day. In 1979 The Chinese Government has announced the “Opening Up” economic policy to engage with the global markets. This policy included inviting foreign companies to make investment on its soil. After 1980’s China has transformed some of the manufacturing functions from state owned enterprises to private companies, which also meant transformation from importbased towardsexport based economy. During this transformation phase China has acquired technologies and marketing skills from more developed countries and after some point it has started to add its own innovations on the top of the existing technologies to improve them even more.The backbone of this policy was the imitation based manufacturing, which depended on importing and learning technologies from other nations.Basically, the adoption of technologies was done through the imitation of the innovation of others (Yu, Y, Yu, J, Pan, X., Stough, R. 2016). The incremental improvements then were made and the advantage of low labor cost was utilized.

From the beginning till the mid 1990’s China has implemented various big financial support programs and incentives to support the improvement of homegrown technologies. At the same time, it has focused on the education and trainingsystem in order to increase the capacity of its technical and skilled labor force. Though the success was marginal and external support was still needed to integrate technology into the growing manufacturing industry. Then, after 2000’s China has started to put more weight on its research and development (R&D) activities. In the period of 2014-2015 China was spending 2 percent of its GDP to R&D, which was equal to approximately $200 million each year (Yu, Yu, Pan, Stough, 2016). In parallel to that, China has changed its whole innovation ecosystem by introducing incubation centers, science and technology parks and by running programs to support new start ups and also by giving incentives to new investments in the field of technology.

It follows out that the ultimate goal of China’s “Opening up” policy since the 1970’shas been to become a self-innovating and self-sufficient economy.Accordingly, all the economic public policy tools in the field of manufacturing, technology transfer, science and technology development, education and training were altogether used in transforming the economy from imitation manufacturing based status into a knowledge driven and self innovationbased form. The ultimate aim has been to maintain economic strength. It can therefore be deduced that China has also followed the principle of economic security is national security.

**3.THE CASEOF TURKEY**

Turkey has been classified as an emerging economy.In order to get a view on the case of Turkey it is worthwhile to look at individual items that make up the economic part of national security and then elaborate further on some of the public policy tools which are currently under effect and their expected implications.

The first item is the human capital and in relation with that it is the training and education system. Based on the data from Turkish Statistical Data Institution (TUIK), as of November2017, 23 percent of the generation between the ages of 15 and 24 is neither employed nor attending any educational institution. Among the same age category 2 percent cannot read or write at all (DünyaGazetesi, 2018). In essence, the literacy in Turkey in general for the population age 6 plus is 96.74 percent (Haber İzlenim, 2018). However, the rate of tertiary education of the nation stands at 20 percent according toOECD based figures for 2017.In OECD guidelines, a nation’s adult education level is defined as the percentage of population between the ages of 25 and 64 who have finished some type of tertiary education in the form of a two/four degree or vocational program. This number in Turkey is still low in comparison to other developing and developed countries. The OECD average is 36.9 percent while Canada is holding the first place with 56.7 percent (OECD, 2017). Education is a very critical issue. As it also set forward by Friedrich List in his definition of national innovations system, trained and educated human capital is the backbone of the economic strength.Because the economy is primarily based on humans with productivity. It is obvious that improved productivity can only be achieved through an educated and trained workforce. Therefore, a primary, secondary, high school and university education system should be fortified which aim to educate people who are equipped with the right skills as well as moral-ethic values besides the broad vision and ability to innovate.It follows out that the public policy tools that aim to increase the capacity both in quality and quantity have direct impact on economic security and within the same scope to national security.

The second important issue which is important from both economic and national security perspective is the national debt and the negative trade balance. Despite the government debt of Turkey is at reasonably low levels with 30 percent of GDP as compared to other countries, the total external debtof the nation as of the third quarter of 2018 is $ 450 billion. [(](https://tradingeconomics.com/turkey/external-debt)Trading Economics, 2019). The source of this debt is mainly linked to the negative trade balance of the nation which has been happening mostly because of the country’s dependency of energy yielding natural resources (oil, natural gas, etc.) on foreign accounts and also the insufficient production levels ofhigh value added goods(semi finished and finished) as well as high technology products.

In this context, the science, technology and innovation polices are important from two aspects; firstly, it can increase the value added domestic production and contribute positively to the negative trade balance. Secondly, it shall serve to expand the industrial base. In the recent years, Turkey has continuously invested into its innovation and technology ecosystem and supported research and development activities for the improvement of homegrown technologies. The support has mainlybeen in form of grant supports to academicians, private companies and researches or as incentives for companies doing R&D work at techno parksand R&D centers, as well as to the private companies who have invested in technology baseddomestic manufacturing.

The outcome for the defense industry has shown a steady positive improvement. The total sales of the defense and aeronautics sector increased from $1.85 billion in 2006 to $5.9 billion in 2016 (Presidency of the Republic of Turkey. Presidency of Defense Industries [SSB], 2016a). Also the portion of domestic production within the defense industry increased from 20 percent in 2002 to 65 percent in 2016 (SSB, 2016b).

However, the percentage of high technology exports in the whole manufacturing exports, which is an indicator defined by OECD to help classifying countries with their capacities to develop technology, has been in the vicinity of two in average between 1996 and 2018. During the same period the portion of low technology products within the exports of manufactured goodswent down from 50 to 30 percent, while there has been a rise from 18 to 25 percent and from 17 to 36 percent in low-medium technology products and in medium-high technology products, respectively (Konak, 2018). According to OECD Directorate for Science, Technology and Industry Economic Analysis and Statistics Division ISIC Rev. 3 Technology Intensity Definition, the manufacturing industries are categorized based on R&D intensities. Within this scope, the high technology industries are designated as aircraft and spacecraft, pharmaceuticals, office - accounting and computing machinery, radio, TV and communication equipment, medical, precision and optical instruments (OECD, 2011).

According to the technology classification Turkey emerges as a country whose exports depend on low, low-medium and medium-high technologies. Nonetheless, Turkey’s export potion of high technology products, which is around 2 percent for the past ten years, is very low compared to other OECD countries. Therefore, there seems to be a need for the re-assessment and enhancement of the current science, technology and innovation policies.

In essence, developing and adopting technology isa critical a factor since it is related with national security both from the perspective of economic security and national defense. Therefore, thedevelopment of alternative science, technology, education, training and industry based polices and the use of the right economic public policy tools in that direction, emerges as a vital issue for the future of Turkey.

**CONCLUSION**

The economic public policy tools, being the importantcomponentsof the economic potential, are in fact the reflection of the current global economic system and its principles to the national governmentpolices. However, so that this reflection does not affect the national economies in a negative way, the national values have to be prioritized during the constitution of the economic public polies.

This topic, which also emerged with Turkey as a country case in the recent years, is directly related with economic security as well as with the ability of a country to maintain its economic strength, especially at times when there are sudden fluctuations in the economy overall. However, in today’s world, while the trade wars became more effective than the military combats, having a consumption based economy, foreign dependency on certain inputs such as natural gas, oil, etc. and limited financial resources, causes more vulnerability to the global events. Within this context this situation can be regarded to create a national security issue.

It follows out that, it becomes necessary for Turkey to create alternative public polices, such as increasing agricultural production by utilizing more technology, that will decrease the dependency of the economy on tourism which is a very sensitive sector.In other words, by means of these alternative public polies, the right economic public policy tools have to be used in order to establish a stable system that will be able to withstand the negative impacts of the sharp changes in the world economic conditions. This is important from the standpoint of national economic security.

In essence, no country in the world has been able to establish such a flawless system that would yield continues economic security. For instance, the emerging countries or nations with small economies,which have dependency on foreign oil, natural gas or other natural resources, are trying to keep their economies secure by making sure that their strategic supply of these resources are secured. On the other hand, most of the time, the developed countries or countries with relatively bigger economies, use their global industrial power to sustain their economic security. Nevertheless, at times of economic crisis even they getinfluenced negatively. In that case, besides the harm to their own economies they also create a negative impacton the global economic scale. Then it becomes crucial to put the right economic public policy tools to work.

If we look at Turkey from the perspective of economic public policy tools and their impact on national security, it follows out that there are number of issues that need to be tackled. Agricultural production is below the potential and needs to be improved by making use of more advanced technologies. The tourism income of Turkey is on a continuously increasing trend, however, due its geographical location, the wars or conflicts in the surrounding areas, especially in the Middle East, pose vulnerability. In case of the manufacturing industry, foreign dependency on semi finished products and raw materials is still high. The same situation applies for the energy sector where Turkey is dependent on imports for natural gas and oil. However, regarding technology and its integration with the industry, there has been an ongoing effort in increasing the domestic portion in the manufacturing industry at various sectors by developing indigenous technologies.

This situation of foreign dependency in various sectors creates vulnerability for Turkey to the changes in the global economic conditions and hence makes it also difficult to maintain a sturdy national economic order. Therefore, generation and adoption of effective economic public polices becomes very critical. Within the same context, the tax system, for instance,is an important public policy instrument because the tax money is the most important source of the government budget. Therefore,the tax system has to be fair and should be based more on income, rather than on assets and services.

Nonetheless, further to the maintenance of economic security, industrial sectors have to stay competitive. This can be achieved by using modern technologies and having a low cost energy input.

Overall it follows out that, the policies, which are the subject of trade, manufacturing, education, training, tax, science and technology are directly related with national security. Because economic security is strongly correlated with national security. All country cases from the 20’Th century until the present day prove this argument to be true. In the same context, the generation of effective public polices and selecting the right economic public policy tools arevery critical in maintaining national security. Therefore, it can be argued that the benchmark for a successful economic public policy for national security is to maintain a strong, diverse and sustainable economy, which shall be a part of a complementary ecosystem that integrates both domestic and international resources in an optimum way.\*\*\*

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