

## POLITICAL ECONOMY THEORIES IN THE CONTEXT OF DEFENCE INDUSTRY

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### ANNOTATION

Due to the increasing expenditures in the defence sector on the world wide scale there might be a need for states to reassess the impact of national defence industries on national economies, security, defence and foreign politics. Existing different theoretical approaches could be used to develop a research design for that particular case. This article reconsiders the importance of political economy theories in this context and investigates the methodical side of their practical applicability and finally revisits the results of similar analysis. Research reveals a phenomenal linkage of new political economy approaches to “grand” theories, concludes that proper methodology does not guaranty the reliability of research results, outlines the fact that numerous studies that focused on defining the impact of the military spending and developing own defence industry to local and state economies, do not provide a clear evidence that military spending is likely to have a negative economic effect on the state.

**Keywords:** political economy, defence industry, military spending, defence.

### INTRODUCTION

**Object of the analysis.** Increasing defence expenditures bring back a discussion weather the national defence industry is necessary to sustain economic welfare of a country, boosts innovations and enhances own military sector.

**Investigation problem.** The use of political economy theories in that case could facilitate further research steps and guide scientists that will look for a precise answer to this issue.

The **aim** of this manuscript is to review political economy theories that can be used in defining defence industry as such, and consider practical applicability options of different methodological approaches in the context of defence industry.

To reach this aim, following **objectives** were designed:

1. Describe political economy phenomena and define its evolution;
2. Evaluate traditions of political economy and define their practical significance;
3. Assess methods used in actual analysis of defence industry and define the main findings.

**Research methods.** While writing this article, the comparative literature analysis method was used. The famous scientists such as R. Abdelal, C., Adam, S. Dercon, G. Agostino, J. P. Dunne, L. Pieroni, M. Blyth, G. Browning, A. Kilmister, J. P. Dunne, E. Skons, D. Braddon, A. Gilpin, A. Goldstein, R. Jacson, G. Sorensen, S. Jevons, R. O. Keohane, C. W. Mitchell, I. D. Salavrakos, A. Sen and R. M. Smith were cited and referenced. All used literature is referenced.

This article is structured into two big parts. The first part is devoted to the analysis of political economy subject itself and its approaches towards empirical research. The second part is designed to reveal possible application options of different theoretical political economy approaches in the context of defence industry.

## **POLITICAL ECONOMY, THEORY DEVELOPMENTS, MAIN CHARACTERISTICS AND POSSIBLE METHODS OF INVESTIGATION**

The term political economy came into widespread use in the XVIII century and gave rise to the tradition that was described by Marx as “classical political economy”, beginning with the physiocrats and Smith (Browning, Kilmister, 2006, p. 1) and continuing with Anderson, J. S. Mill, D. Peacock, H. Westergaard, C. Leslie, J. Garnier, L. Walras. Political economy as a separate subject within social science framework still has to gain more sovereignty from political science or economics regardless of its interdisciplinary status and diverse views from different scholars. In the field of economics, the term “political economy” can be defined by the debate about the importance of economics for individual, society and state, and which raises such questions as: “Are the interests of the individual above those of the society or vice versa?” (Salavrakos, 2012, p. 78). In the political science, the term “political economy” can be defined as a debate about the importance of economics for the state, “To what extent does the economic power influence the military power? To what extent can bilateral trade minimize the conflict across states?” (Salavrakos, 2012, p. 85). Some scholars argue that political economy is a more comprehensive discipline and that international relations should consequently be seen as a subfield of political economy (Jacson, Sorensen, 2013). A different perspective only reinforces ongoing fundamental discourse, keeping in mind that the subject dynamically gravitates towards a more independent sphere.

As it was pointed out in 1970, international economics and international politics were in “a case of mutual neglect” (Jacson, Sorensen 2013, p. 161). This sharp distinction between politics and economics from the beginning of 1970 s was increasingly questioned. This happened due to the tectonic fractures in artificially constructed environment (collapse of Bretton Woods’s system, creation of OPEC), in the interstate and global levels of political and economic domains. This outlines a change in understanding that political measures were implemented to change the rules of the game for the economic marketplace (Jacson, Sorensen, 2013; Sen, 1977). There are continuous developments in the field of political economy theory, regardless of the fact that political economy as a separate field of science still has to pave the way through different dimensions and face diverse challenges. It is absolutely clear that international politics or economics in separate cannot fully explain ongoing trends at global scale, though the importance for political economy will be growing for a foreseeable future.

The study of political economy is composed of theoretical traditions that are in parallel to those of international relations in a more generic way (Abdelal, 2009). R. Gilpin’s (1987) study established a specific way of learning political economy as a field of three rival approaches: realism (mercantilism), liberalism, and Marxism (Gilpin, 1987). Most of textbooks continue to use this approach as a template to this day (Blyth, 2009):

*Mercantilists* took the approach that economic activity should be subordinated to the primary goal of building a strong state. Mercantilists see the international economy as an arena of conflict between opposing national interests, rather than an area of cooperation and mutual gain. States have to be worried about the relative economic gain because the material wealth accumulated by one state can serve as a basis for military–political power which can be used

against other states (Jacson, Sorensen, 2013). Mercantilists see an economic strength and military-political power as complementary (Jacson, Sorensen, 2013).

- *Economic liberals* reject theories and policies that subordinate economics to politics.

Adam Smith, the father of economic liberalism, believed that markets tend to expand spontaneously for the satisfaction of human needs (on the condition that governments do not interfere). Economic liberals' core ideas include the rational individual actor, a belief in progress and an assumption of mutual gain from free exchange (Jacson, Sorensen, 2013).

- Karl Marx saw the economy as a site of human exploitation and class inequality. Marxists put economics first and politics second. For Marxists, the capitalist economy is based on two antagonistic social classes: one class, the bourgeoisie, owns the means of production; the other class, the proletariat, owns only labour power which it must sell to the bourgeoisie (Jacson, Sorensen, 2013). Marxists claim that the ruling classes of capitalists (and their allies) ultimately control and determine what "their" states do (Jacson, Sorensen, 2013).

- Robert Cox (*neo-Marxist*) proposes the concept of historical structures (material, capabilities, ideas, and institutions) while defining how the forces interact. Non-territorial power is becoming more important for states (they compete for markets and opportunities. Transnational corporations are of increasing importance) (Jacson, Sorensen, 2013). Another major neo-Marxist Immanuel Wallerstein concept ties economics and politics together: a world system is characterized by a certain economic and a certain political structure with the one depending on the other. He introduces two basic varieties of world systems: "world-empires" and "world-economies". Strong states can enforce unequal exchange on weak ones. (Jacson, Sorensen, 2013).

It is important to note that "<...> neoclassical micro-theories might yield important insights, but they cannot replace insights derived from the classical macro-theories. We need a variety of different theories in order to understand the complex interplay between economics and politics" (Jacson, Sorensen 2013, p. 205). *Richmond Mayo Smith* said: "Not only do writers fail to agree on practical economic questions, such as free trade and protection, mono- or bi- mutualism, direct or indirect taxation, but they quarrel over the fundamental principles which are to be taken as the basis for the solution of these problems" (Smith, 1886, p. 81).

Unlike political science, economics has long employed a rather sharply defined and widely accepted conceptual framework within which it analysed behaviour and produced empirical and theoretical propositions. The political economist has simply extended this framework to include *political behaviour*. Until recently, this framework of analysis was applied almost solely to market situations enabling mutually profitable exchanges for participants on both sides of the market. This basic conception has now been extended to include non- market processes or situations, especially those centred about government (Mitchell, 1968). *Basic model* directs attention to actor's characteristics and the nature of the interactions. Political economists reduce the relevant characteristics of each actor (whether voter, party or government) to an irreducible number of highly explicit axiomatic properties (Mitchell, 1968). *Political interaction* is ignoring actual interaction patterns (behaviourists) while economists make each individual's behaviour a function of others' behaviour. Attention is devoted to interactive political processes as competition, bargaining, conflict,

coalition building and maintenance (Mitchell, 1968). The formulation of *deductive models* has achieved a greater sophistication in economics than in any other social science; likewise, the testing of these models has achieved impressive results (Mitchell, 1968).

Under conditions of oligopoly, or “monopolistic competition”, the situation can be treated as a *variable-sum game*, played repeatedly over an indefinite period of time, with a small number of players. It is a “multiple-exit” situation, and arbitrary assumptions are required to reach unique solutions to it (Keohane, 1984).

Different authors introduced different types of methodology that could be used for further investigation of particular activity within the field of political economy. Despite different approaches, researcher should consider Keohane idea which reveals that “even with extensive longitudinal data, it is typically difficult to find suitable instruments <...> when researching the link from institutions to economic outcomes” (Adam, Dercon, 2009).

Political economy refers to the combined and interacting effects of economic and political structures or processes. The term originated in the 17<sup>th</sup> and 18<sup>th</sup> centuries, was broadened in the 19<sup>th</sup> century to refer to the manifold ways in which economic structures and market processes were influenced by political power. By analysing different political economy theories developed by different scholars, importance of neoclassical micro-theories that might yield important insights was discovered, at the same time outlining that they cannot replace insights derived from the classical macro-theories (mercantilism, liberalism, and Marxism). Variety of research methodologies suggests the “right” way to examine features of actions based on selected theory. Despite the optimism set by theories researcher should be very careful by selecting the right one suitable for a particular case.

## **PRACTICAL ANALYSIS OF DEFENCE INDUSTRY AND DEFENCE EXPENDITURE**

Recent dynamics have led to renewed debate whether the increase of the military expenditure enhances or deteriorates economic growth and welfare. While this has been a central issue of the political economy debate during the 1980 s and 1990 s, it was the one that did not achieve a clear empirical consensus among scholars, reflecting to a large degree the heterogeneity in the approaches used and differences in the sample of countries and the time periods covered (Agostino et al., 2010). So what different theories say about defence industry value?

*Keynesian approach* saw a proactive state using military spending as one aspect to increase output, through multiplier effects in the presence of ineffective aggregate demand. Military spending can lead to increased capacity utilization, increased profits and hence increased investment and growth. More radical Keynesian perspectives have focused on the way in which high military spending can lead to industrial inefficiencies and to the development of a powerful interest group that benefit from defence spending (Agostino et al., 2010).

The *Marxist approach* sees the role of military spending in capitalist development as important though contradictory. This approach has provided a theory in which military spending is both important in it and as an integral component of the theoretical analysis, the under-consumptionist approach that was developed from Baran and Sweezy. They see military expenditure as important in

overcoming realization crises, allowing the absorption of surplus without increasing wages and so maintaining profits (Agostino et al., 2010).

There is considerable amount of theorists that considered and argue on military research and development (*R&D*) impact. In fact, there is no consensus among economists on how economic growth is generated on the role of technology. Two distinct approaches describing how the inputs of *R&D* lead to the output of technology can be identified: the dominant *neoclassical* paradigm's *growth theory*; approach that links with the earlier classical economists concern on economic development and structural change. The neoclassical growth models follow from the Solow-Swann model of the 1950 s, which attempted to provide a systematic theory of the role of factor accumulation in growth but failed to explain why there had been an observed growth in living standards (Dune, Braddon, 2008). Freeman and Louca argue that, unlike Schumpeter's analysis, there is no bunching or clustering of innovations, but basic innovations are interrelated, with new technology systems developing within countries that reflect their interlinkages, science, politics, institutions, cultures and patterns of consumption. The focus of this approach is the technological driver of economic development and moving on from the general theory of the long waves to argue that national factors play a crucial role, as do institutional characteristics of education, public support for innovation, defence technology schemes, history, culture, language and institutional interaction (Dune, Braddon, 2008).

Following the *ad hoc* approach of Benoit's original study, which found a positive effect of military spending on growth in developing countries, an impressive literature has been built up using *econometric analyses* of single-equation reduced form models and simultaneous equation models, which model both direct and indirect effects. In addition, *macroeconometric models* have been used to simulate the likely impact of changes in military spending at country and international level. Overall, the empirical results tend to show an insignificant or a negative impact of military spending on economic growth in developing countries and a clearer negative impact in developed economies, where, it can be argued, military expenditure occurs at the expense of investment rather than consumption (Dune, Braddon, 2008). Many of the earlier cross-section analyses have found sample selection to be important and this led to calls for more case studies.

*Time series analyses* of individual economies and groups of economies have improved understanding, but also produced a variety of results (Dune, Braddon, 2008). *Empirical analyses* have identified a number of channels by which military spending can influence the economy, and they can have both positive and negative effects. An important underlying consideration is military *R&D* effects on the civil economy. It can take skilled labour away from civil production but, on the other hand, train workers, particularly in developing economies where the military may provide valuable skills; take the best capital equipment from civil industry to produce a high-technology enclave; on the other hand, positive stimulate externalities of the development of the military sector on the civil sector; lead to damaging wars but may maintain peace and lead to economic benefits from more prosperous allies. Indeed, wars may spur technological development, stimulate demand in a stagnant economy and lead to growth, but may create bottlenecks in a constrained economy (Dune, Braddon, 2008).

Whether the net effects are positive or negative is an empirical question and is likely to differ across countries. Analysis based on *demand-side model* influence found a negative effect, while almost every *supply-side model* either found a small positive defence impact or no impact at all (Dune, Braddon, 2008). *Exogenous growth model* study of 28 countries and the *endogenous growth model* study of Africa suggest a negative effect of military spending on growth. To put these results in context, Steve Chan's surveys of the military spending growth literature, found a lack of consistency in the results, while Rati Ram reviewed 29 studies, concluding little evidence of a positive effect of defence outlays on growth, but that it was also difficult to say the evidence supported a negative effect. Covering 54 studies, J. Paul Dunne concluded that military spending had at best no effect on growth and was likely to have a negative effect, with certainly no evidence of positive effects and Ron Smith argued the large literature did not indicate any robust empirical regularity, positive or negative, but suggested there probably is a small negative effect in the long run, but one that requires considerably more sophistication to find. Dunne and Mehmet Uye summarized the results of 103 studies, finding for developing countries that almost 39% of the cross country studies and 35% of the case studies find a negative effect of military spending on growth, with only around 20% finding positive for both types of studies. Keith Hartley and Todd Sandler pointed out, if we distinguish between the *supply side models* and those which have a *demand side*, there is more consistency in the results. Models allowing for a demand side and hence the possibility of crowding out investment tend to find negative effects, unless there is some reallocation to other forms of government spending, while those with only a supply side find positive, or positive but insignificant, effects. This does seem strong evidence against there being a positive impact of military spending on the economy. This suggests that cuts in military spending are unlikely to have the negative economic effects that are often heralded in the media (Agostino et al., 2010).

*Cross-country correlation analyses* quickly gave way to a variety of econometric models, reflecting different theoretical perspectives. Keynesian, neoclassical and structuralist models provided a variety of specifications for different samples of countries. The diversity of results led to arguments for case studies of individual countries and relatively homogeneous groups of countries (Agostino et al., 2010).

In some other studies, it was observed that also *historical case studies* to analyses the interplay between economic and political factors, at both the domestic and the international levels were used (Goldstein, 2002). To interpret the results of any empirical study it is necessary to have a theory, even though this may not of itself be verifiable. For research on the economic effects of military spending this is complicated by the fact that much of economic theory does not have an explicit role for military spending as a distinctive economic activity (Agostino et al., 2010).

Moving beyond a theoretical understanding towards an empirical analysis it becomes obvious, that there is a need to be more specific about the questions to be addressed and the way in which they are to be analysed. There are choices to be made many of which will be conditioned on the *theoretical perspective adopted and the data availability*. The theory needs to be operationalized, identifying the concrete concepts to be used in the empirical analysis guided by the theory. The *type of empirical analysis* has to be decided (qualitative, quantitative, historical, institutional or some

combination of these). The *time period* has to be chosen, *restricted by available data* and the sample of countries has to be chosen. If individual country case studies are undertaken they provide the opportunity for more detailed study. It is also possible that military spending may have a different effect at different times, providing a boost to industrialization but in the end providing a drag on further development (Agostino et al., 2010). Results of research will be sensitive to the measurement and definition of the variables, the type of data and the estimation method used.

Current dynamics of defence industry led to renewed debate over whether the increase of the military expenditure enhances or deteriorates economic growth and welfare. This has been a central issue of the political economic debate during the 1980 s and 1990 s, and it is not strange that this topic did not achieve a clear empirical consensus among scholars, reflecting to a large degree the heterogeneity in the approaches used and differences in the sample of countries covered and the time periods covered. It becomes obvious that there is a need to be more specific about the questions to be addressed and the way in which they are to be analysed. The theory needs to be operationalized, identifying the concrete concepts to be used in the empirical analysis guided by the theory. The type of empirical analysis has to be decided, the time period has to be chosen, restricted by available data and the sample of countries.

## OUTCOMES AND CONCLUSIONS

In the context of current analysis of different political economy theories, different approaches on methodology, analytical side, linkage with defence industry, defence spending and possible insights about investigation possibilities the following conclusions were found:

- Political economy that originated in the XVII–XVIII<sup>th</sup> century and currently is adopting different theoretical approaches in most cases is still relying on “grand” theories such as realism (mercantilism), liberalism, and Marxism. The existing variety of research methodologies and tools suggests the “correct” way to examine features of situation based on selected theory.
- Researches should be aware that even a proper methodology does not guaranty the reliability of research results due to the complexity of political economy subject itself and its interdependency to both political and economic science features.
- There are different scholars explaining trends and proposing different theoretical approaches to analyse defence sector and its connections (influence) with state. Current dynamics of defence industry led to renewed debates over whether the increase of the military expenditure enhances or deteriorates economic growth and welfare of the state.
- There have been numerous studies done in defining military expenditure (also research and development programs in the military sector) impact on local and state economies. Regardless of different methodologies used (econometric analyses, macro econometric models, time series models, demand side model, supply side model, cross-country correlation analyses and historical case study) there was no strong evidence that military expenditure is likely to have the negative economic effects on states.

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Researches should be aware that even a proper methodology does not guaranty the reliability of research results due to the complexity of political economy subject itself and its interdependency to both political and economic science features.

There are different scholars explaining trends and proposing different theoretical approaches to analyse defence sector and its connections (influence) with state. Current dynamics of defence industry led to renewed debates over whether the increase of the military expenditure enhances or deteriorates economic growth and welfare of the state.

There have been numerous studies done in defining military expenditure (also research and development programs in the military sector) impact on local and state economies. Regardless of different methodologies used (econometric analyses, macro econometric models, time series models, demand side

model, supply side model, cross-country correlation analyses and historical case study) there was no strong evidence that military expenditure is likely to have the negative economic effects on states.

**Keywords:** political economy, defence industry, military expenditure, defence.