

Course:

DEFENSE AND SECURITY ECONOMICS

Distance Support Material

TOPIC 1

INTRODUCTION TO DEFENSE AND SECURITY ECONOMICS

BRNO

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Topic 1



Introduction into Defense and Security Economics

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LEARNING OUTPUTS

Students will know (knowledge):

- basic concepts of defense and security economics
- development phase of military economic thoughts

Students will be able to (Skills):

- demarcate the study subject and objects of defense and security economics
- explain the developmental benefits of each main represents of economic schools for development of military – economic thinking

Students will capable of (General competencies):

- argumentation of national defence and security economic research importance for nowadays acceptance and understanding of defence and security

INTRODUCTION TO NATIONAL DEFENSE ECONOMICS

KEY TERMS

National defense economy, defense economics, military-economic thoughts, security,

TIME NEEDED FOR CHAPTER STUDY

4 hours

INTRODUCTION TO NATIONAL DEFENSE ECONOMICS

Over centuries, nations strained to defend their national interests in the jungle of interests of other nations. Learning how to optimize defense efforts is a continuous process, which must be based on a balanced scientific approach reflecting all relevant historical as well as prospective aspects.

National defense represents one of the most important functions of any sovereign state. Therefore issues related to national defense have always attracted attention of many economists. Issues of trade-offs between civilian and military consumption, defense strategy selection based on resources available, solitaire or coalition approach to national defense, problems related to impacts of defense spending on national economy dynamics have been crucial and highly sensitive for any nation in all eras of the existence of human civilization.

Interactions between economics and defense

Does this small drawing of examples suggest any structure of interdependence between economics and defense or security beyond naive enumeration?

Economics figures in the security nexus at least at these four levels of interdependence:

- a) **Economic management** for effectiveness and efficiency in defense, including orchestration of policies deriving from all military and economic policy tools available to the modern State.
- b) **The national economy as a source of resource support** for security, and a target through which to weaken or to punish enemies. Military capability is only one of many defense instruments supported by economic strength. Other instruments include trade policies, aid programs, financial leverage, debt posture, immigration regulation and leverage, and other economic policy tools of all sorts.
- c) **Macro-effects of defense on national economies** and interactions among national economies within the international system, including the incidence of defense on economic growth, stability, and prosperity.
- d) **Economics as an explanation or a source of the security problems** of nations: Are the security threats which diverse nations or regions pose for one another based on economic factors? More specifically, are such threats ultimately based on quarrels over property and wealth, and how to acquire or produce it? Historically, American interests certainly included such factors as safety of US citizens and property at home or abroad, discrimination against US exports or financial interests, control over colonies and possessions, together with a generally stable world order, which fostered liberty and free commerce. This level of interdependence between economics and security is premised on the notion that, at bottom, international security concerns the economic incentives nations face to acquire wealth. Preferences, technology, and wealth distribution may be such as to make conquest, colonization, and property seizure most cost effective, or instead may encourage production, savings, investment, and trade. A systemic equilibrium configuration of nations would balance these various forces.

1 BASIC CONCEPTS

National Defense Economy

It is part of national economy, aimed to securing of external state security.

National Defense Economics

It is scientific discipline which examine economic aspects of defense securing

1.1 Fundamental Definitions of the Branch of Defense Economics

There is a consensus among defense economics experts in understanding **defense economy to be an individual branch of study**. According to economists of defense - as e.g. American experts Hitch and Mc Kean – **the problems of national defense are economic issues**. Ch. Hitch and R. McKean (1960) see the main objective of defense economists' efforts in assisting the decision-making bodies, their advisers and generally all concerned citizens by presenting how the economic analysis can be helpful when selecting the appropriate (efficient and economical) political procedures and actions. **The aspect of economic-efficient allocation and exploitation of resources¹ appears as one of the most important aspects of military problems**. Here it is necessary to mention that these problems have been described in the essay *The Theory of Games and Economical Behavior* published in the USA in the year 1944. Since the year 1965 the hitherto analysis of the system of the armed forces became an analysis of systems for the entire armed forces.

FOR MEMORIZE



The British economist G. Kennedy (1975) starts the first of his texts on the **defense economics** by a passage describing the **“application of economics in defense issues”**.² According to H. Kanter (1984) **the economics of defense is an “application of economical skills in all defense issues.”**³

American economist dealing with economics of national security L. Olvey (1984) from the West Point (USA), together with his colleagues have stated in their outstanding work solving problems of economics of national security that **“the essential part of research in the field of the economics of defense is just the application of fundamental economical terms in issues of national security.”**⁴

¹ HITCH, Ch. J., McKEAN, R.N. *The Economics of Defense in the Nuclear Age*. New York: 1960, cited according to publication 1986, p. V.

² KENNEDY, G. *The Economics of Defense*. London: 1975. p. 17.

³ KANTER, H. Defense Economics 1776 to 1983 in *Armed Forces and Society*, 10. No. 3, Spring 1984, p. 427.

⁴ OLVEY, L. D., Golden, J. R., Kelly, R.C. *The Economics of National Security*. New York: 1984. pp. 8–9.

The British author **K. Hartley** (1991) involves all the aspects of economy of defense and processes of disarmament and peace into the economy of defense (economics of defense). **The economics of defense applies economic theory to the sector of defense in a broad sense.**⁵

In the scientific task "Concept of the Branch of Study and Proposal of the Postgraduate Study **National Defense Economy**" (1994) a team of authors from the Military College of the Land Forces in Vyškov stated that **"as a branch of study, defense economics describes military-economical relations and contexts of the process of economic provision of defense in all its main phases and spheres – in conditions of market economy – especially in the area of production, allocation and utilization of economic resources supporting military needs in the peace time, in the process of economic mobilization, deployment of war economy and also the provision of the needs of defense by means of combat operations."**⁶

Professor W. Stankiewicz, an outstanding Polish economist dealing with defense economics, from the National Defense Academy in Warsaw discusses (1994) that **"the subject of research work within the economics of defense is defense economy in its various types accordant with that part of national economy which satisfies the needs of national defense system both in the peace time and in the time of jeopardy or war."**⁷

In the introductory chapter of the publication entitled "Handbook of Defense Economics" from the year 1995 the American professor T. Sandler and the British professor K. Hartley (1995) define the branch of defense economics as follows: **"Defense economics inquiries into issues of allocation of resources, distribution of revenues, economic growth and stabilization applied to national security.** It also includes a study of impacts of defense expenditures - both from domestic and external perspective – on macroeconomic parameters, e.g. employment rate, produce and growth. The branch of defense economics also has its microeconomic dimension, which is implied in the analyses of industrial basis, program of cooperation, offset, evaluation of military contracts and military acquisition. Defense economics applies theoretic economic instruments in the study of defense and related issues including disarmament and peace."⁸

The Slovak economist **L. Lašček** from the Military Academy in Liptovský Mikuláš (Slovak Rep.), who deals with defense economics, defines this discipline in the following way: **"National defense economics is a branch of science focused on economic provision for the national defense needs."**⁹

⁵ HARTLEY, K. The Economics of Defense Policy. London: 1991, pp. 8-9.

⁶ *Concept of the Branch of Study and Proposal of Postgraduate Study of National Defense Economics*. Vyškov: VVŠ PV, 1994, pp.14-15.

⁷ STANKIEWICZ, W. *Ekonomika obrony. "Defense Economics"* Warszaw :1994, p. 19.

⁸ *Handbook of Dfense Economics*. New York: 1995, pp. 3- 4.

⁹ LAŠČEK, L. *Ekonomické zabezpečenie obrany štátu. In: Spoločnosť, armáda, osobnosť*. Trenčín: SamO 1/99.

V. Šefčík (1999) from the College of Karel Engliš (from the Military College of Ground Forces in Vyškov at that time understands **the branch of defense economics as a system of patterns, processes and relationships generated by economic and political decisions on exploitation and distribution of resources available in national economy for economic provision of needs of the nation in crisis situations and for provision of its military security in the peace time, in the time of a jeopardy and in the time of an armed conflict.**¹⁰

The Czech economist M. Krč (2001) from the National Defense University (then from the Military Academy in Brno, Czech Rep.) defines in his publication (2001) "Brief History of Defense Economics"¹¹ **the discipline of defense economics as a branch of science seeking for economic regularities that influence national security.** Its subject is that sphere of the national economy, which satisfies the needs of a national defense system with respect to potential stages of a crisis and jeopardy of national security including an armed conflict. It covers all the aspects of the security economics and of the process of disarmament and peace.

¹⁰ ŠEFČÍK, V. *Ekonomika a obrana státu. "Economy and State Defense"*. Praha: 1999, p. 12.

¹¹ KRČ, M. *Nástin dějin ekonomiky obrany. "Brief History of Defence Economics"*. Praha: 2001, p. 191.

2 CONTRIBUTION AND USEFULNESS OF DEFENSE AND SECURITY ECONOMICS FOR UNDERSTANDING NATIONAL ECONOMY AND SOCIETAL DEVELOPMENT

Defense economics is the study of resource allocation, income distribution, economic growth, and stabilization applied to defense-related topics. As such, **defense economics involves an investigation of the impact of defense expenditures, both domestically and internationally, on macroeconomic variables such as employment, output, and growth.** It also has a **microeconomic dimension** involving analysis of the defense industrial base, collaborative programs, offsets, the pricing and profitability of military contracts, and the regulation of contractors.

2.1 ON THE NATURE OF DEFENSE ECONOMICS

Defense economics draws from a variety of economic subfields. In particular, **public economics** is important, because the provision of defense (security) can be viewed as a public good, whose benefits are non-rival and non-excludable within a nation and among allies. Another market failure, germane to defense economics, is that of an externality, which arises when the action of one agent influences the well-being of another and no means of compensation exists. For defense economics, the arming of one nation may yield positive (on allies) or negative (on adversaries) externalities on another nation. However, measuring the "output" of defense spending is fraught with difficulties and the problem is often ignored, or assumed away, or presented in generalizations such as security, protection, and deterrence.

Industrial organization is another branch of economics that figures crucially in the study of the defense industrial base, procurement, defense R&D, and industrial policies such as collaboration, licensed production and offsets. Other relevant subfields **include labor economics, international economics, public choice, economic growth, and macroeconomics.** Public choice is particularly appropriate to defense economics, because it focuses on nonmarket decision-making. By modelling the behavior of voters, political parties, governments, bureaucracies, and other interest groups, it provides a framework for analyzing the "military-industrial complex".

Defense economics **encompasses aspects and topics from peace science and conflict studies**. Thus, the economics of disarmament and conversion are relevant topics. There is no ideological presumption in defense economics; that is, defense economists are not inclined towards military expenditures and armed conflict. They are, instead, concerned with understanding the processes and dynamics of arms expenditures, conflict and its resolution, and any economic aspects associated with the defense sector. Defense economics has a strong policy orientation; analysis is often undertaken to make policy recommendations regarding publicly financed defense outlays. And, in the last resort, economists cannot ignore the opportunities **for applying economic theory and empirical techniques** to a sector which is a major user of scarce resources and which has the potential to protect or destroy civilization.

In recent years, the scope of defense economics has expanded to consider a broader range of security matters that include nonmilitary issues such as the protection of the environment from transnational pollution (e.g., ozone shield depletion, global warming, acid rain). We have taken a narrower and more traditional view of defense economics so as to preserve the field's well-defined identity.

2.2 IMPORTANCES OF DEFENSE ECONOMICS TODAY

Even though the Cold War has ended and the superpower confrontation has declined greatly, defense economics is still of great importance. In fact, the events of the late 1980s and early 1990s may have increased the need and importance of defense economics, especially in regards to resource allocation and the application of economics methods to security-related issues.

First, the downsizing of military budgets in the first half of the 1990s highlights a host of economic challenges. Falling budgets and rising equipment costs will force nations to seek efficiency improvements in the acquisition of weapons and the provision of armed forces. Nations will be more willing to buy available equipment off-the-shelf from overseas suppliers rather than paying the price of supporting a national defense industrial base. Within the armed forces, there will be pressures to substitute, say, equipment for manpower, reserves for regulars, women for men, and civilians for military personnel (e.g., via contractorizing activities traditionally undertaken "inhouse" by the military, such as catering, repair, and maintenance). Unit costs may also be higher on new weapon systems when scale economies are present unless an arms producer is able to resort to foreign sales, which may imply other kinds of risks and costs to the supplier nation. Faced with procurement cuts, defense firms have merged to take advantage of economies of scale and economies of scope. In so doing, national defense industries have become more concentrated and less competitive. This downsizing trend may have bottomed out. In 1994, the Clinton administration gave an emergency allocation to the military to meet readiness requirements. Some nowadays evidence shows that the arms trade may be on the rise again.

Second, the breakup of the Soviet Union and Eastern Europe has unleashed ethnic conflicts that have erupted into civil war once central power was diminished. In addition, the breakup of the Soviet Union has raised the risk of nuclear weapons getting into the hands of terrorists and the proliferation of nuclear-weapon nations.

Third, since these trouble spots can create conflict externalities for neighboring states, the role of peacekeeping forces and their financial support have grown in importance.

Fourth, the Gulf War of 1991 points to a source of conflict in the future - that is, wars fought over disputed and/or scarce resources, such as common oil pools.

Fifth, recent defense treaties raise a host of allocative concerns as the elimination of weapons creates expenditures on their disposals, environmental cleanup, verification, and the development of alternative classes of weapons. Peace as well as confrontation has their costs. Recent reallocations of resources have had regional and national impacts on employment and output.

Sixth, nonconventional conflict in the form of terrorism and insurrections presents exigencies that have allocative and distributional concerns.

Seventh, nowadays global cuts in defense budgets reopen old question “How much is enough for national defense?.

Eighth, daybreak of new revolution in military affairs have probably started yet, new risk new military challenges and new accessible technology result in new type weapons, weapon systems. The skyrocketing prices of new weapons decrease area for decision-making process and strongly influence allocation limited resources.

3 DEVELOPMENT OF MILITARY- ECONOMIC THINKING

It is very useful to know how economic thoughts about defense and military were developed and spreaded out across countries.

3.1 Before paradigmatic phase

Epics of Gilgamesh (Gilgamesh is a demigod of superhuman strength who built the city walls of Uruk to defend his people from external threats).

Code of Hammurabi (is a well-preserved Babylonian law code, dating back to about 1772 BC, one part is devoted military services).

Sun Tzu - The Art of War (It presents a philosophy of war for managing conflicts and winning battles. It is accepted as a masterpiece on strategy).

Xenophon of Athens – Anabasis (was a Greek historian, soldier, mercenary, philosopher and a contemporary and admirer of Socrates. Xenophon accompanied the Ten Thousand, a large army of Greek mercenaries hired by Cyrus the Younger, who intended to seize the throne of Persia from his brother, Artaxerxes II).

3.2 Middle Ages

Big theme is building forts and its conquering

3.3 Mercantilism

War is on the same level as the foreign trade. Phrase – money is nervus of war

3.4 Classical economic school

Adam Smith (defense as public common good)

David Ricardo (tax versus credits)

Jean Babtist Say (value of human live lost, soldier non-productive, destroying power)

Thoms Malthus (population law – War is revision of population)

3.5 Neoclassical economic school

A.C. Pigou – Political Economy of war

F. W. Hirst - Arm races before 1. World war

3.5 Modern economic school

John Maynard Keynes

- How to pay the war
- Political Economy of war

Problem of additional taxes. Study of financing war by credits. Stimulation demand by way of military expenditure (Military Keynesianism).

3.6 Time after II. World war

Ch. Hitch, R. McKean - Economic of Defense in the Nuclear War

G. Kennedy - The Economics of Defense

3.7 Time after end of cold war

T. Sandler, K. Hartley - The Economics of Defence

CHAPTER SUMMARY

Defense economics is the study of resource allocation, income distribution, economic growth, and stabilization applied to defense-related topics. As such, defense economics involves an investigation of the impact of defense expenditures, both domestically and internationally, on macroeconomic variables such as employment, output, and growth. It also has a microeconomic dimension involving analysis of the defense industrial base, collaborative programs, offsets, the pricing and profitability of military contracts, and the regulation of contractors.

The provision of defense is still an important activity that requires huge resource allocations to meet a variety of contingencies and uncertainties. Economic aspects of the defense sector continue to be important and to require study. **Interest continues to grow in the economics field for applying economic methods to defense issues.**

TASKS FOR SELFSTUDY



1. Try to explain terms defense economy and defense economics. Are these terms synonyms or do they have different meaning?
2. What are the main branches of national defense economics? Describe them and define the object their study.
3. Describe a phase of military-economic thinking development and choose some representatives of military-economic thinking and talk over their share on military-economic thinking development.
4. How can we understand a defense from economic point of view? What type of good is defense? What type of need is accommodated (satisfied) by defense? What can we see as the main problem of economic securing of defense?
5. Think about defense importance for a society, state, business, citizens and so on. How can the defense be beneficial to our national economy? What are the costs of defense ensuring?
6. Try to explain, when and why does defense became economic problem? Show some examples, which support your statement and opinion.
7. How “big” is defense sector in your country (Employment, Budget, Defense of military expenditures /absolutely or relatively as a share of GDP/ and suchlike).

REFERENCES



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ADDITIONAL STUDY RESOURCES



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