Introduction to Defence and Security Economics

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National Defense and Defense Economy in Terms of Public Economy

Abstract

This chapter outlines fundamental tendencies of the Defense Department to its excessive consumption. Author of the chapter attempts to answer the question how to effectively reduce and prevent these tendencies. He mentions that economic theory explains the reasons for these tendencies. At the same time, theory provides procedures eliminating these problems. The author implements the acquired piece of knowledge under the Czech Defense Department conditions. He draws the conclusion that so far, the Defense Department has failed in implementing these procedures. This has resulted in a situation when the efficiency conditions have not been fulfilled sufficiently and the factors increasing efficiency could not have brought expected outcomes.

Key Words

Armed Forces, Efficiency Conditions, Defense Department, Efficiency, Efficiency Factors, Non-Profit Sector, Public Sector, Public Goods, Requirements, Social Requirements, Government Failure.

1.1 National Defense and the Theory of Needs

The theory of needs distinguishes two essential types of needs – production and final ones.¹ Production needs are connected with production of goods that serve for consumption in a process of further production of material goods and services. Provided that public sector "feels" certain production needs, theoretic as well as experimental analyses proved that there is no economic reason to satisfy these needs by the public sector itself. Their satisfaction is the privilege of profitmaking sector (Figure 1). Every human in the position of a consumer feels final needs. One can feel final needs as a society member or as an individual defined by his (her) genetic uniqueness. In the first case we speak of social needs, in the latter one of individual ones (see Table 1). Social needs (e.g. protection of territorial integrity of a country, protection of citizens and their property, organized arrangement of its society etc.) are characterized by their intensity, which reflects social events that impact upon its individual members. These then immediately require satisfaction of these needs, eventually promise of their future satisfaction. Individual needs (e.g. needs of food, clothing, housing, transportation, health etc.) are much more linked to the existence of an individual than to the society itself, although society can also influence these needs.

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¹ STRECKOVÁ, Y. *Veřejná ekonomie pro školu i praxi*. Praha: Business Books, Computer Press, 1998. 18 p.

Figure 1: Theory of Needs

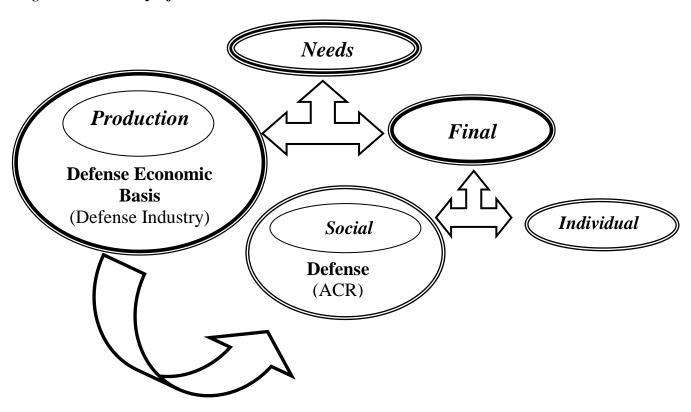


Table 1: Fundamental Characteristics of Production and Final Needs

Type of Needs		Fundamental Characteristics	Definition Features		
			Source	Intensity	Duration
Production Needs		Felt by every individual - producer. Goods intended for consumption in a process of further goods production satisfy them.	Profit Making		-
Final Needs		Do not serve for production of further goods. Felt by every individual as final consumers.	-		
Social		Felt by human as members of a society.	Existence of a society.	Fluctuating (from zero up to maximum intensity).	Short-term
	Individual	Felt by human as a genetic species; they are indigenous.	Existence of an individual.	Intense, permanent.	Long-term

Protection of territorial integrity of a nation is a social need. It is the Defense Departme, which is responsible for satisfaction of this need; the Army of the Czech Republic represents the national implementer.

Social needs are characterized mainly by the fact that citizens feel them very intensively however, only in the case of a threat impeding territorial integrity of a state, lives, property or rights of its citizens. Intensity of the feeling to necessarily satisfy this need decreases as this threat dies out. Such a decrease of the interest of citizens in this need has its economic dependencies. This fact causes difficulties in subsequent allocation of funds to defense.

1.2 National Defense and the Theory of Goods

Specificity of the need of national territory integrity is augmented by the nature of the goods that satisfies it. The need of national territory integrity is satisfied through production of the goods that is generally known as national defense. Theory of goods defines three basic criteria (see Table 2), based on which goods can be classified.

Table 2: Goods Typology

Goods Classification Criterion	Distinctive Criterion	Context	Goods Classification
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Economical	Meeting certain characteristics of consumption (rivalry and non-rivalry, excludability and inexcludability, divisibility and indivisibility)	mode of consumption (consumption	Purely public (national defense) Mixed Purely private
Institutional	Presence of market prices	Gives evidence of the way of goods distribution (public distribution and production, private production).	(national
Way of decisioning on production and consumption	Collective decisioning related to the issue of distribution equity, individual decision related to utility maximization.	way of decisioning on	•

For the needs of public economics, the most important criterion is the socalled economic criterion, when the goods typology is mainly based on the degree of consumption privatization for given goods. Based on rivalry/nonrivalry, excludability/inexcludability and consumption divisibility/indivisibility pairs, goods are classified as purely private, mixed and purely public ones. National defense represents purely public goods with non-rival consumption. Nature of these goods causes that, when provided, everybody benefits the same way even in a situation when certain individuals do not contribute to production of given goods. In this context, we also speak of zero marginal costs of additional unit of consumption, i.e. when production of given goods is once provided, consumption by additional consumers does not increase costs of this production. Another important feature is the fact that it is rather problematic to exclude anybody from consumption of these goods. A concurrence of these characteristics then results in a situation when individuals are unwilling to demonstrate their preferences, they are unwilling to contribute to production of these goods – they try to behave as free riders. They rely on benefiting from consumption of those individuals who are willing to pay. National defense is also non-market (institutional criterion) and public goods (criterion of the way of decisioning on goods production and consumption – Buchanan).

Specific institutions of public sector belonging to the Defense Department are producers of national defense. Private companies do not supply this service for if they did so, they would require certain price for this service (assuming that it would be demanded by public). However, nature of the "goods" of national defense enables that any citizen can benefit from defense services regardless of paying for them or not. This causes that citizens will not pay for production of these goods voluntarily. Private market cannot provide purely public goods because individuals cannot be excluded from their consumption. One of the main reasons why governments provide public goods instead of private sector is the free rider phenomenon. People believe that purely public goods can be consumed without paying for their production. That is why purely public goods and therefore also national defense are to be funded from tax revenues within a system of public budgets.

The nature of social needs, of consumption of purely public goods and the way of their production funding cause that citizens' interest in these issues (in national defense in our case) might fluctuate substantially, which can result in a weaker enforcement of useful value of the goods provided due to an extremely high degree of intermediation between the moment of payment and the relevant consumption phase. Public interest in national defense in a democratic society should be clearly demonstrated in statements of policy as well as in interests of political parties that subsequently act as executors of public choice deciding on the extent and efficiency of defense spending. The level of concern or unconcern for deeper analyses of economic bases in defense becomes one of the reasons for inclinations to inefficiency.

1.3 Public Sector Failure

Today's literature explains failures in public sector by failures of public governments and inefficiency tendencies in public sector (J. E. Stiglitz 1997, Y. Strecková 1998).

1.3.1 Government Failure and the Defense Department

J. E. Stiglitz in his book Economics of the Public Sector states: ".... We can identify four main reasons for systematic failures of governments seeking to achieve set targets: limited information available for governments; just partial control over private sector responses; limited government control of bureaucratic machinery and last but not least, limitations resulting from the nature of political processes." Under our conditions, all the four factors can influence development in the Defense Department.

Limited information available for the Government, eventually Cabinet members. This factor is perceived more generally. Governments or their members can never manage to have all information available, relevant to their decisioning. This reality forms a presumption for failed and allocation inefficient decisions. For instance, the process of reorganization and redislocation of the Czech Armed Forces can be indicated as a "never-ending story". It is unnecessary to specify all the losses and damages that have been generated in the course of this process. Theory also speaks of the so-called centralization losses. These come forward when a center determines certain level of consumption (e.g. when the Department level decides to calculate costs of military units – many events are non-recurring and each unit is unique in some sense). Any change, any decision implemented by a center refers to all components of given system; paradoxically, also those

² STIGLITZ, J. E. Ekonomie veřejného sektoru. Praha: Grada, 1997. 560 p.

that were not really affected by the original malfunction. This is caused by lack of information available for managers who cannot distinguish the relatively well functioning organizational components from the nonfunctional ones.

Limited control over private sector responses. Military public contracts belong to the most lucrative ones. In particular, purchasing new weapon systems, wheeled equipment, aircraft etc., eventually their modernization is linked to a relatively high risk connected with their final price. Decision-making authorities are unable to estimate how successful bidders will act after succeeding in a tender, if any "unforeseen circumstances" occurred during a contract implementation that force its price up compared to original estimations. Another possibility is defaulting delivery dates or infringement of required reliability and quality criteria agreed by a contract. These authorities have only very limited chances to prevent this sort of risk. Problems related to the L-159 purchase or T-72 modernization projects are great examples to support these statements.

Limited control over bureaucratic machinery. Under the term of bureaucratic machinery we understand mainly government officials and employees (indeed, bureaucracy exists not only at the central government level). The basic characteristic of management in the sphere of state administration is the principle of subsidiarity and superiority. It predominantly consists of line organizational structures characteristic by fast decisioning and relatively high operational suitability. However, this applies to small organizations only with single level of management. Structures of ministries and their subordinate components do not meet this requirement. These are multilevel management structures.

The problem of control over executive machinery (bureacracy) rests mainly in the fact that bueracrats – as any other economic entities – maximize their

benefits under given external limitations. Theory of bureacracy defines the following maximizing goals:³

- Maximizing agency budget;
- Maximizing agency prestige;
- Preserving agency;
- Eliminating conflicts with groups that are in a position to influence social status of the agency;
- Preserving agency autonomy.

First, "efficieny" of any agency functioning depends on the extent to which the assigned missions correspond with the above-mentioned goals (i.e. to what extent the agency will identify itself with these assignments). Secondly, on public "visibility" of the goals achievement and last but not least, on how important it is to achieve the assigned goals for the authority, which is superior to the agency and which can influnce its social status. Increasing "the agency efficiency" from the position of a politician, who usually represents a superior authority, is often a difficult task for bureacracy takes advantage of having more information available than politicians do. It often happens that it is just the bureaucracy, which is able to speed up replacement of a politician – more frequently than oppositely.

A good example can be found in the publication "Hodnocení veřejných zakázek a veřejných projektů (Evaluation of Public Contracts and Projects)" by professor Ochrana: "... previous reforms and reorganizations of the Department proceeded by forming a working commission cosisting of personnel of the Department, the first effort of which was "designing boxes", i.e. organizational charts regardless of actual needs and scope of action of the Department. Still today, it is possible to prove that members of these commissions "designed" organizational charts mainly to implement their power ambitions. Such

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³ STIGLITZ, J. E. *Ekonomie veřejného sektoru*. Praha: Grada, 1997. 560 p.

a reorganization resulted in designing an organization, which was simply unable to function and therefore it was necessary to proceed with further reorganizations."⁴

Limitations resulting from the merit of political processes. In fact, democracy is a continuing process of public choice. These processes involve adopting of more or less successful decisions contributing to economic prosperity in society. Democracy also means alternating of government representation as a whole, eventually its individual members. Let us simply analyze periods of individual politicians in the office of the Czech Republic Minister of Defense. The question is whether the time they spent in thise office was long enough to ensure conceptual management of the Department (Table 3).

Also the type of electoral system can strengthen limitations resulting from the uncertainty of political processes. Majority electoral system opens more space to fulfill election promises, which can be substantially reflected in the effort of majority governments to implement their statements of policy.

Table 3: Defense Ministers of the Czech Republic in the Years 1992 - 2005

Defense Minister of the Czech Rep.						
	Term of Office					
Surname and First Name	Period in the Office	Dur	Duration			
	Torrow in the Orrice	Years	Months			
Antonín Baudyš	30.1.1992 - 21.9. 1994	2	8			
Vilém Holáň	22.9.1994 - 3.7.1996	1	10			
Miloslav Výborný	4.7.1996 - 2.1.1998	1	6			
Michal Lobkowicz	2.1.1998 - 17.7.1998	-	6			
Vladimír Vetchý	22.7.1998 - 4.5.2001	2	10			
Jaroslav Tvrdík	5.5.2001 - 8.6.2003	2	1			

⁴ OCHRANA, F. *Hodnocení veřejných zakázek a veřejných projektů*. Praha: ASPI Publishing, 2000. 195 p.

Miroslav Kostelka	9.6.2003 – 3.8.2004	1	2
Karel Kuhnl	4.8.2004 – to date	17 m	onths

Apportionment election system generally aims at forming coalition governments where none of the political parties involved is in majority. Coalition governments deplete their efforts in lengthy struggles seeking to achieve unity of their policies. These might end up with their internal crises and disintegration or with replacements of Cabinet members in better cases. Another limitation can be the budgetary process itself and the resulting volume of defense spending guaranteed by the government. The government ability to ensure a stable volume of funds for national defense is also uncertain. This statement can be supported citing the worlds of the former Chief of the General Staff of the Czech Republic LT GEN Jiří Šedivý: "It is uncertain whether the upcoming Government established after the Parliamentary Election says once again: Our plans have changed."⁵ The following experience can serve as a very inspiring example: "...the decision to professionalize the Belgian Armed Forces was made in 1992 and the last conscripts left the military in March 1995. From the very beginning of the project, politicians promised to maintain military spending at the level required by the Ministry of Defense till 1997. However, in the initial phase of the professionalization process, i.e. in the years 1994 through 1997, the Belgian defense budget "froze" at the level of approximately BEF 131 bn. The share of defense expenditures decreased from the level of GDP 1.7 % in 1994 to just 1.3 % in 2002."6

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⁵ GAZDIK, J. Sbohem armádo? Začínají se ptát Češi. Mladá fronta Dnes, 14. 10. 2003, p. C/6.

⁶ PERNICA, B. *Bez peněz se branců nevzdávej*. Hospodářské noviny, 21.11.2003, p.10.

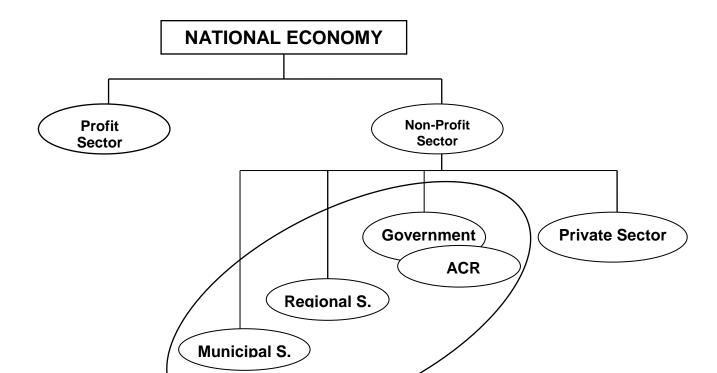
1.3.2 Tendencies of Public Sector to Inefficiency in Defense

Prof. Y. Strecková focused one chapter of her course book "Veřejná ekonomie pro školu i praxi" ("Public Economics for School and Practice") on the issue of economic efficiency in public sector. First, she specified fundamental reasons of public sector inclination towards inefficiency. For the Defense Department and the Czech Armed Forces represent an integral part of the Czech Republic public sector, we can expect that these reasons shall have their effect also here. Same as the entire public sector the Czech Armed Forces are a part of the so-called non-profit sector (Figure 2).

What are the roots of the Defense Department inclination towards inefficiency?

The category of "profit" is not the dominant goal. From our point of view, this fact is one of the fundamental reasons why individual components of the Defense Department incline towards inefficiency. These entities are mainly organizational components of the Government or allowance organizations.

Figure 2: Place of the Armed Forces in the Non-Profit Sector



These organizations are then fully or partially dependent on budgetary redistribution processes. Nature of this funding causes (a resultant of effects of certain specific factors in this case) that existence of these organizations does not depend on profit making. That is why spontaneous rationalization processes, leading to an optimized relation between inputs and outputs of certain activity are eliminated. The example bellow illustrates the main effects of this factor.

The military disposes of certain number of repair and maintenance units. Maintenance personnel are remunerated for their work by a wage per hour. If there is no work for them, there is no performance to pay them for. This results in unemployed capacities. A rationally thinking manager would ask the question why. The answer is simple – existence of these units is profit independent. They have a fixed budget. Remuneration of their personnel does not depend on their activities. Employment of capacities is not based on economic but uneconomic factors. It just depends of activity of management, which has no incentive to behave economically. Could any business operating in market sector behave like this? No, for unemployed capacities immediately show in decreasing profits.

Certainly, it is legitimate to argue that missions of these units do not consist in making profits but in accomplishing of set assignments and objectives. This argument cannot stand in a situation when the antimony of requirements and real capabilities increases and when tightness of public budgets is alerting. Also in the Defense Department it is necessary to measure outputs and inputs always when e.g. the share of consumption of labor can be prescriptively valued by means of wages.

It is impossible in public sector to determine efficiency by measuring inputs and outputs expressed in commensurable units. In market sector effects are expressed by profit ratio. In public sector, i.e. also in defense, this category in inapplicable and is replaced by the category of benefit. Outputs of public sector are not being sold at market prices. It generates the problem of how to express and measure their value. Therefore, the Defense Department has to find an answer to the following question: What benefits shall it provide and how to express it and measure? Public sector is forced to operate with measuring of goods production cost against the benefits resulting from these goods. The main problem is the ambiguity of the criterion, according to which particular allocation decisions are to be evaluated as successful or efficient. In case of market environment, this criterion is clearly defined and demonstrable. Costs and earnings of individual variants are predicable. Although these predictions bear certain risk levels, they can be captured and assessed ex post. In case of non-market environment, when deciding on selection of individual variants of budget spending the ex ante uncertainty is exactly the same but ex post information on prices of inputs and outputs is insufficient as well.

Y. Strecková highlights another reason of failures in achieving economic efficiency: ".... In market sector buyers force the level of utility themselves through deciding to buy or not to buy certain goods. In public sector, intensity of this influence is highly intermediate and therefore weak. There is a high degree of intermediation between the moment of payment and the moment of consumption." Defense as purely public goods satisfies one of many social needs—the need to protect territorial integrity of the nation. In terms of efficiency of

⁷ STRECKOVÁ, Y. Veřejná ekonomie pro školu i praxi. Praha: Business Books, Computer Press, 1998. 190 p.

spent resources, there is no real interest to increase this need. It represents a service evoked by negative effects of activities of humans living in society. Due to this reason we can expect rather minor social attention paid to defense connected with allocation of limited amounts of resources. Subsequently, this has to lead to increasing of internal quality and searching for intensification and rationalization solution. We can document this using the discrepancy showed by the public opinion poll ("Názory na obranu a vzájemné vztahy mezi ČR a NATO" - Attitudes to Defense and Relationships between the Czech Republic and NATO) conducted by Mr. Ján Mišovič within the scope of the Project "České veřejné mínění v evropských souvislostech" - Czech Public Opinion in European Context). (Table 4) Respondents clearly declared that: "National sovereignty must be defended." This was the answer of 87 % respondents. Majority also supported the following requirement: "Our Armed Forces have to achieve the level of western forces." Approximately 70 % of participants involved in the research agreed with this statement. In this context, the most interesting finding was that nearly 60 % supported the thesis that: "Defense costs excessively burden national budget."

Table 4: Attitude to National Defense (in %)

	1992 yes/no	1993 yes/no	1996 yes/no	1997 yes/no	1999 yes/no	2001 yes/no	2002 yes/no
National sovereignty must be defended	86/10	89/7	87/7	85/10	87/8	81/13	87/9
Great powers determine role of small nations	59/35	58/33	62/30	65/28	62/32	68/25	61/30
We would not be able to defend ourselves, if necessary	62/29	65/26	67/22	69/22	63/28	67/22	62/34
Defense costs unreasonably	54/41	55/38	52/40	51/41	44/51	59/34	57/37

burden the							
Budget							
Our Armed							
Forces must							
achieve the level	-	-	-	57/31	72/18	48/39	70/21
of western							
nations							

Note: Remainder to 100 % for each pair of data represents the answer "don't know", random statistical discrepancy ranges in the interval of $\pm 3 \%$. The table shows coupled answers "surely yeas, rather yeas" and "rather no, surely no".

Source: České veřejné mínění v evropských souvislostech – Czech Public Opinion in European Context (www.czechopinion.soc.cas.cz)

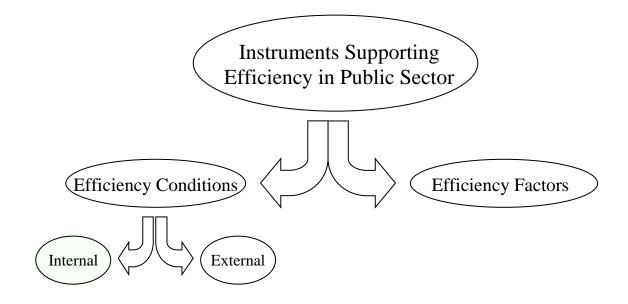
All reasons mentioned above can give rise to inefficient behavior, either on the central or local level of management in certain sphere of public sector. It explicitly reveals itself as a lower intensity of accenting continuously increasing of benefits and decreasing of costs. This finally results in particularly weak innovative activities when searching for alternatives in the process of satisfying social or individual needs. Is there any real chance to reduce or eliminate effects of these undesirable factors? Is it possible to fight against the inefficiency tendencies? We think so.

1.4 Instruments Supporting Public Sector Efficiency

- Y. Strecková states that to achieve efficiency it is necessary to meet efficiency conditions in given area as well as implement adequate efficiency factors (See Figure 3).
- Y. Strecková divides efficiency supporting tools into several groups according to the intensity level of public sector influence on their structured and contents. She states that this intensity level is lowest for external efficiency

conditions and highest for efficiency factors. This means that utilization of efficiency factors is mainly influenced by an organization itself or management of a particular segment of public sector while external efficiency conditions can by influenced by the organization or segment management just minimally.

Figure 3: Definition of Instruments Supporting Efficiency in Public Sector



Source: Y. Strecková - Veřejná ekonomie pro školu i praxi, 1998; adapted

External efficiency conditions in public sector are:8

- Political arrangement of the society.
- Functioning market sector.

Internal efficiency conditions in public sector are: ⁹

• Ability to clearly and expressively formulate the mission and objectives of an organization or segment of public sector.

⁸ STRECKOVÁ, Y. Veřejná ekonomie pro školu i praxi. Praha: Business Books, Computer Press, 1998, 192 p.

⁹ Ibid.

- Competitive environment inside the public sector.
- Benefit and output based public sector funding,
- Public control.

Efficiency conditions form the essential framework enabling to achieve assigned objectives. At the same time, efficiency conditions help to consider whether given segment, department or organization in public sector has established preconditions for its efficient functioning. Provided that public sector complies with the above-mentioned conditions, we can expect that it will be subsequently possible to make use of the system of efficiency factors as well. These factors include:¹⁰

- Science and technology factor
- All-activities covering know-how.
- Application of all forms of division of labor.
- Personnel qualification.
- Personnel initiative.
- Management system.

Efficiency factors, adapted from their private sector forms to public sector conditions, can be used to increase efficiency of a segment or directly an organization of public sector. Nevertheless, application of these factors explicitly depends on management at all levels of the organization as well as segment of public sector.

Failures of the Defense Department over the last ten years were caused by government failures on one hand and by general reasons causing public sector malfunctions on the other hand. We can raise a presumption that development in

 $^{^{10}}$ STRECKOVÁ, Y. Veřejná ekonomie pro školu i praxi. Praha: Computer Press, 1998. 196 p.

the Defense Department was influenced by the fact that the above-mentioned efficiency conditions and factors were underestimated and therefore were insufficiently implemented and applied in this Department. Let us try to very simply confirm this hypothesis and at the same time to answer the following question: "To what extent conditions and factors have been applied and implemented?"

The following examples represent only few elements of the relatively complicated military system. However, some of them are of crucial importance.

1.4.1 Impact of External Efficiency Conditions on the Department of Defense

Positive influence of **political arrangement of the society** on the Defense Department efficiency can be achieved only if this society will be democratic. We can state that from the November 1989 the Department of Defense went through a number of positive changes connected with pluralistic nature of the society – civilian Department management, greater openness, public control of the military etc. Have these changes really positively influenced the Department and have these been fully utilized?

Civilian management – the Defense Minister is a civilian but the question is whether all the former ministers were competent for this appointment? Civilian and military component of the Department of Defense – did these two components really mutually cooperate and communicate?

Greater openness – the Defense Department is connected with national defense and security, therefore it is impossible to provide all information.

Public control over the military – professional (abandonment of the "Inspector General" project: Why?) and laic – is it acceptable in the Defense Department or not?

Market sector has started to function in our country but its establishment and development was connected with a number of negative lessons that could

result in a lower willingness to make use of it as a mirror of performance and efficiency. There are many functions and appointments which scope of employment is the same both for market and public sector (accountants, buildings maintenance, catering services, medical care etc.).

Has anybody tried to ask the question: "Is labor productivity of these conforming activities in the Defense Department the same, lower or higher than in market sector. For instance, how many accountants are required for wages accounting in private sector and how many accountants are required to manage the same activity in the Defense Department? Has anybody tried to calculate what economic impacts will result from the decision to transfer some of the activities previously performed by the military to private contractors (repairs, cleaning, laundering and supporting agricultural activities)? Is the system of dual-entry accounting fully utilized? Are the data that can be gained from this system really analyzed?

Evident from the above-mentioned external efficiency conditions, the Defense Department can in no way influence their quality. This is unambiguously true when developing a pluralistic system. The Department should be able to make use of the potential hidden in market sector. It means to learn to utilize its natural pressure on performance and economy. External efficiency conditions are fulfilled but their effectiveness has been weakened by the fact that both the market sector and emerging democracy have passed through early stages of their development.

1.4.2 Impact of Internal Efficiency Conditions on the Defense Department

The condition of the ability to explicitly formulate the mission and objectives of the Defense Department has not been fully fulfilled yet. But is belongs to the essential prerequisites. Provided that an organization is unable to define its mission and objectives meeting this mission and if it is unable to assign

particular activities to these targets, it has no right to exist and consume public funds. This requirement is of particular importance in public sector, which manages funds collected from private entities that are usually able to use and allocate resources in a better way. Therefore, it is a commitment of public sector entities (including the Defense Department) to use these resources at least in the same or better way. Under conditions of the Amred Forces, we often faced situations of missing political concept – absenting political targets. ¹¹ Then it was unclear what the Government, Department of Defense and the Armed Forces seek to achieve. This situation became critical at the beginning of the year 2001 when the so-called "Council of Generals" was established trying to solve problems in this area. More than likely, this deficiency has not been fully solved yet. Warning statements of a group of experts represented by I. Gabal and A. Raška confirm this: "..... if the Government does not finally tell the Armed Forces, what the Czech national interests are, generals cannot make the decision how many soldiers, tanks and airplanes are necessary for national defense and any attempts to reform the Armed Forces will be hazardously similar to a costly and dangerous game loosing the reasons why the Czech Republic needs its Armed Forces."12

Competitive environment inside the Defense Department. Here we cannot speak of a "standard" competition but of a competition in relation to gaining and using resources for individual activities. R. Kunc dealing with this issue stated: "Certain level of autonomy of subordinate components along with their autonomous economic management can establish competitive environment within the Defense Department. It increases focus on implementation of set objectives and — if supported with motivation factors — leads to generally increasing

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¹¹ KRČ, M. *Problematika obrany z ekonomického hlediska (Několik poznámek)*. Vojenské rozhledy, No. 2, 2002, p. 54-57.

¹² GAZDIK, J. Sbohem, armádo? Začínají se ptát Češi. Mladá fronta Dnes, 14.10.2003, p. C/6.

efficiency of the organization."¹³ Defense Department has applied this condition only to that extent, which has established competition only at the input to public sector (private bidders competing for public contracts in defense. However, their practice has showed negative results and sometimes had devastating impacts on the Czech Armed Forces as a whole. The system of public procurement shall contribute to higher efficiency both in allocation and implementation. Nevertheless, other factors often play more important role, e.g. preservation of certain industry know-how, employment. This subsequently adapts the process and scope of public contract (as for instance in the project of L-159 subsonic fighters). The problem is that nobody considers the lessons learned from the past even in today's practice and therefore the same failures can repeat even in the future.¹⁴

This competitive environment produces the required effect only when another condition – **benefit and performance based funding** is met as well. A promising approach can be the implementation of management system introduced in various forms to several NATO nations. It is the so-called Planning, Programming and Budgeting System where financial flows depend on assigned objectives and missions instead of requirements of individual Arms and Services. It is based on measuring costs and benefits of various allocation variants fulfilling the objectives based on political specifications. In our perspective, functioning of this system has been impaired by the already mentioned absence of clearly specified outline of defense policy as well as certain discrepancies between the program and budget phase of the system.

The last efficiency condition is *public control in the Defense Department*. Public control can be implemented as a professional or laic one. Professional

¹³ KUNC, R. Resort MO ČR se znaky byrokratické organizace. In: Ekonomika, logistika a ekologie v armádě – Sborník 2. mezinárodní konference. 2001. p.58.

¹⁴ RYCHETSKÝ, J. *Vojenské zakázky jsou v křížové palbě*. Report of the ČTK from the 25 November 2003.

control is conducted by bodies capable to assess whether the examined reality does or does not correspond with the required state. Laic control does not posses these competencies but has the privilege to give notice, ask questions and require explanations of realities that can – from laic point of view – seem far to be legitimate or optimal. Generally speaking, public control in defense has substantially improved and developed over the recent years. An important element in the Armed Forces control implemented by the Parliament either through the National Budget, legislation or its bodies (Defense and Security Committee of the House of Representatives etc.). Parliament through its initiatives achieved that the Defense Department introduced dual-entry accounting, which contributes to higher transparency in defense funding (although, as mentioned above, this potential has not been fully utilized yet) or enabled study of civilian students at military colleges. Specifics of the Defense Department do (probably legitimately) not allow the public to know everything. It is interesting that in case of control of the Defense Department management of public funds by the Supreme Audit Office (SAO), most of the audit reports are not available for broad public. Out of nine audits over the years 1998 - 2001, only one was published in the SAO Press Release. The remaining eight reports containing "restricted" information were provided only to bodies specified in the Art. 30, Par. 1 of the Act No. 166/1993 Coll. So, the public has no information available to learn whether the Defense Department manages public funds appropriately. It is another example why the intensity of the pressure on benefit maximization is lower in public sector than in private sector. Consumers and at the same time payers of taxes, from which public goods are financed, often cannot access information about management of these funds.

Efficiency conditions can help to create an environment contributing to overcome the handicap inherent to public sector. However, certain particularities in defense can impede complete application of some of them.

1.4.3 Applicability of Efficiency Factors in Defense

Science and Technology Factor. We can state that in the Defense Department technology factors were preferred rather than scientific ones. Another issue is availability of computer technology – hardware and software – at individual military units. Certainly, the technology factor is of special importance in the Czech Armed Forces but underestimating or absence of the science factor became heavily evident e.g. in failing to make use of the knowledge of management theory when projecting control and information systems or when developing defense research.

Underestimation of understanding of the structure of all activities implied duplications or even triplications in control structures (e.g. Structure of the Ministry of Defense and the General Staff). From the point of view of economic management, it is strange if a control element does not have accurate information about global financial flows on certain controlled territory where competencies of several independent entities (e.g. Military Domains) converge. Another problem is disrupting of mutually interconnected activities and their assigning to several control elements.

Awareness of all forms of division of labor, which subsequently leads to appropriate specialization. This factor is broadly applied in the Armed Forces however, there is maybe one exception proving the rule. A good example is the establishment, development and subsequent liquidation of the environmental protection system in the Czech Armed Forces. Generally, these systems are fully functioning abroad. In our case, the conclusion was that the function of military ecologist is redundant and that other military specialists can manage his assignments. This area showed a reversed development — from a reasonable specialization towards integration.

Similarly as the public sector generally, the Defense Department efficiency depends also on another factor - *personnel qualification*. The recently terminated

substantial delays in the needed reform of the military educational system can be mentioned as one of many painful lessons. We have to stress that the ongoing Reform of the Armed Forces does not support the level of this factor. Resources spent on education and training are wasted when graduates from military colleges or personnel, who completed their education in a distance form in order to meet new qualification criteria, have to leave the military.

Initiative of personnel in public sector is a product of their moral maturity rather than a corresponding financial remuneration. Tendencies in remuneration for work in public sector are not always motivating for personnel initiative although the Defense Department has established better conditions in this area compared to other segments of public sector. Employees in public sector must be initiative in searching for the optimum way of providing public service. In our conditions, also commanders should be initiative in searching for new ways of streamlining military training, they should think consider potential ways leading to the best possible utilization of existing capacities, of the best utilization of available funds. However, are they motivated to do so? The existing management and economic system does not motivate them. On the contrary, it forces them to spend all planned expenditures without any remainders. As to the motivation of commanders, the Defense Department is far to reach the optimum state.

Management system represents the most important factor of efficiency improvements also in public sector. This is caused mainly by the fact that exploitation of this factor directly influences the way and intensity of utilization of all preceding efficiency factors. Exploitation of this factor also represents lowest additional costs. So far, the Defense Department has not managed to utilize all potentialities of this factor. This reality primarily shows in the still insufficiently developed economic management of the Department at all its management levels.

Potential of all factors described above is substantially influenced by the fact that the management system as the dominant efficiency-increasing factor has not been accordingly and fully utilized.

Conclusion

After considering the state of fulfillment of external and internal efficiency conditions in the Defense Department, we can argue that fundamental rules have been established but have not become fully functional. **Environment established in the Armed Forces and the entire Defense Department creates no real preconditions to practically tendencies of the Department to inefficiency**. Subsequently, we can deduce that this fact substantially impaxts utilization of all efficiency factors.

Further realities impeding elimination of the Defense Department tendency to inefficiency include the problem of the **role of an economically thinking commander**. His/her difficult position is influenced a least by two aspects:

- He/she must fight against the contempt for economic thinking, have strong
 will to come over the contempt for his/her showed by his/her colleagues
 who want nothing else but a sufficient funds in their budgets.
- He/she must incentive scheme that motivates his/her colleagues to think in the relation cost-benefit and to make them partners in achieving common goals.¹⁵

The today's **level of autonomy** of a military unit commander in managing financial assets is rather **limited**. Real economic behavior needs certain space, which is not the case of the Czech military.¹⁶

¹⁵ STRECKOVÁ, Y. Teorie veřejného sektoru. Brno: Masarykova universita, 1997. 200 p.

¹⁶ TŮMA, S. Velitel – manager v AČR neplatí? In. Ekonomika, logistika a ekologie v armádě – Sborník 2.mezinárodní konference. 2001. p. 103.

The Defense Department is also afflicted by the **disease of formalism**. On one hand, departmental guidelines and directives speak of economy and efficiency but on the other hand, we cannot operate with these terms for we are still enabling to accurately express real *costs of certain purpose*, *activity*, *program*.¹⁷

The Defense Department tends to its inefficient behavior for many reasons. This chapter defines essential aspects of these tendencies. The main reasons include:

- Nature of needs and goods that the Defense Department satisfies and produces.
- Government failures.
- Absence of profit as a rating category.
- The fact that consumers cannot directly confront their consumption benefits with costs of production of the goods consumed (in our case, except of the case of a real armed conflict, there is no possibility to adequately confront these variables).

Internal and external efficiency conditions significantly influence the level of the Defense department efficiency. These conditions have not been fulfilled in all aspects and therefore, over the examined period the Defense Department substantially tended to its inefficient functioning. Application of efficiency factors could not improve the situation for these factors were not applied optimally due to insufficiently established conditions.

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¹⁷ KUNC, S. Náklady v resortu MO ČR.. In: Ekonomika, logistika a ekologie v armádě – Sborník 2.mezinárodní konference. 2001. p. 63.

REFERENCES

- 1. GAZDIK, J.: Sbohem, armádo? Začínají se ptát Češi. Mladá fronta Dnes, 14.10.2003, p. C/6.
- 2. KRČ, M.: *Problematika obrany z ekonomického hlediska (Několik poznámek)*. Vojenské rozhledy, No. 2, 2002, p. 54-57.
- 3. KUNC, R.: Resort MO ČR se znaky byrokratické organizace. In: Ekonomika, logistika a ekologie v armádě Sborník 2.mezinárodní konference. 2001. p. 58.
- 4. KUNC, S.: Náklady v resortu MO ČR. In: Ekonomika, logistika a ekologie v armádě Sborník 2.mezinárodní konference. 2001. p. 63.
- 5. OCHRANA, F.: *Hodnocení veřejných zakázek a veřejných projektů*. Praha: ASPI Publishing, 2000. 195 p.
- 7. PERNICA, B.: Bez peněz se branců nevzdávej. Hospodářské noviny, 21.11.2003, p.10.
- 8. RYCHETSKÝ, J.: *Vojenské zakázky jsou v křížové palbě*. Report of the ČTK from the 25 November 2003.
- 9. STIGLITZ, J. E.: *Ekonomie veřejného sektoru. Praha*: Grada, 1997. 560 p.
- 10. STRECKOVÁ, Y.: *Teorie veřejného sektoru*. Brno: Masarykova universita, 1997. 200 p.
- 11. STRECKOVÁ, Y.: *Veřejná ekonomie pro školu i praxi*. Praha: Business Books, Computer Press, 1998. 214 p.
- 12. TŮMA, S.: Velitel manager v AČR neplatí? In: Ekonomika, logistika a ekologie v armádě Sborník 2.mezinárodní konference. 2001. p. 103.