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THESIS

**IMPLICATIONS OF GERMANY'S
DECLINING DEFENSE SPENDING**

by

Jürgen Merrath

June 2000

Thesis Advisor:
Second Reader:

Robert E. Looney
Donald Abenheim

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**IMPLICATIONS OF GERMANY'S
DECLINING DEFENSE SPENDING**

Jürgen Merrath
Major, German Air Force
M.B.A., University of the German Armed Forces Munich, 1987

Submitted in partial fulfillment of the
requirements for the degree of

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Author:



Jürgen Merrath

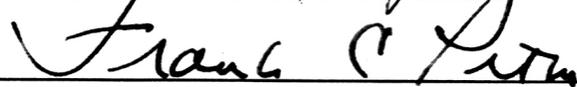
Approved by:



Robert E. Looney, Thesis Advisor



Donald Abenheim, Second Reader



Frank C. Petho, Chairman
Department of National Security Affairs

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ABSTRACT

With its reunification on 3 October 1990, Germany regained its full sovereignty and stands now in a position of greater global responsibility. Faced with dramatically increased demands on and expectations for Germany's armed forces, it must answer the question of how much it is willing to invest for safety and stability in Europe and for protection of peace in the world. In determining the level of commitment behind Germany's foreign and security policy, defense spending is an important indicator.

This thesis demonstrates that Germany's defense expenditure seems to be inconsistent with its foreign and security policy objectives, and its professed willingness to bear new responsibilities. While substantiating this judgment with facts about Germany's declining defense spending, it examines the reasons for and effects of Germany's shrinking defense budget and suggests solutions for coping with challenges and problems arising from this phenomenon. The thesis recommends a further downsizing of the Bundeswehr, improving military cooperation, and the establishing of convergence criteria for defense within the framework of a European Defense Budget. Finally, the thesis forecasts that if Germany does not reverse the trend of declining defense spending it will probably decrease its political significance in Europe and in the world.

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EXECUTIVE SUMMARY

The improved geo-strategic security situation since the end of the Cold War, the costs of the German reunification process, and changed priorities within the new Federal Government have caused – and will probably continue to cause – a severe decrease in defense spending. This has resulted over the last decade in a considerable peace dividend. However, the assumed positive impacts to economic growth and national well-being have not been apparent. The tight defense budgets have caused a shrinking of the Bundeswehr, dwindling investment, and a fragmented defense industry. Germany’s armed forces must be restructured and modernized if they are to meet the new challenges of the 21st century. With the basic assumption of fixed or even shrinking defense budgets, this can only be achieved by a further downsizing of the military personnel strength.

In addition, to address the deficiencies in European defense capabilities, it is not enough to just focus on each state modernizing its armed forces on a national basis. Military cooperation must be improved and common European capabilities developed if the Europeans want to spend their defense budgets more efficiently. Convergence criteria for defense would support this process. These criteria could contribute to avoiding a harmful burden-sharing debate, and to helping Europe in its efforts to pursue the European Security and Defense Identity (ESDI) as well as NATO’s Defense Capabilities Initiative (DCI). Germany should attempt to pass a part of its security and defense burden onto the European Union (EU); and the EU must learn not only to literally spend money for “butter”, but they must invest in “guns” as well. For the reliability of European security

and defense policy a common European Defense Budget should be established in the long term.

Furthermore, Germany will probably diminish its international importance if the current trend of a declining defense budget cannot be changed. It could lose its political significance in Europe and in the world. Germany would only be able to fulfill its alliance-political role in a very limited fashion. It would risk its credibility as a reliable partner in the Alliance and, in addition, the internal acceptance and attractiveness of its armed forces. Thus, in order to avoid these negative effects and stay commensurate with its foreign and security policy objectives, Germany should try to target its defense expenditure towards 2 percent of the Gross Domestic Product (GDP).

I. INTRODUCTION

A. THE RELEVANCE OF THE TOPIC

The end of the Cold War and the disintegration of the Warsaw Pact and the Soviet Union have created new tasks of policy and strategy for the Federal Republic of Germany. With its reunification on 3 October 1990, Germany regained its full sovereignty and stands now, whether it wants to or not, in a position of global responsibility.¹

By virtue of its political and economic strength, it has a key role to play in the development of European structures and is called upon to make a contribution to the resolution of future problems throughout the world. It also has a central role in deepening and broadening European integration, consolidating the transatlantic partnership, developing the Euro-Atlantic institutions and strengthening the United Nations. Germany thus has an opportunity to become one of the determining factors and a creative force for peace and progress, both in Europe and in the international community.²

German foreign and security policy is guided by its central interest to preserve “freedom, security and welfare of the citizens of Germany and the territorial integrity of the German state.”³ “Germany’s defence policy is based on a capability to conduct national defence, and to defend its allies as a form of extended national defence.”⁴ Germany also supports the North Atlantic Alliance’s (NATO) extended range of tasks, which provides for the employment of armed forces in international crisis management operations. In conformity with the Charter of the United Nations (UN) and with the consent of the German

¹ See Kelleher, Catherine and Fisher, Cathleen, *Germany*. In: Murray, Douglas J. and Viotti, Paul R. (eds.), *The Defense Policies of Nations – A Comparative Study*, 3rd edition, Baltimore and London, 1994, pp. 168-172.

² Federal Ministry of Defense, *White Paper 1994*, Bonn, 1994, p. 24.

³ *Ibid.*, p.40.

⁴ *Ibid.*, p.41.

Bundestag, German armed forces – the Bundeswehr – will participate alongside allies and partners in international peacekeeping missions and in other multilateral military actions⁵ within the framework of NATO, the Organization for Security and Cooperation in Europe (OSCE), and the Western European Union (WEU), respectively. For a Bundeswehr that was designed in the 1950's to participate in the defense of Europe, especially on the German theater of war, these are dramatically new missions. Germany seems to have learned the lessons of history and, thus, will continue to pursue a policy of active integration and broad international cooperation.

Germany is now willing to assume greater responsibility, particularly where the UN efforts to preserve world peace are concerned. The Federal Government therefore aspires to obtain a permanent seat on the United Nations Security Council as part of a general reform of the world body.⁶

However, for assuming new international responsibility, for maintaining the international capacity to act, for demonstrating reliability, and for gaining influence, it is not sufficient just to require a role for peace, freedom and human rights. One must also be ready to provide the means necessary to enforce such policy. Faced with dramatically increased demands on, and expectations for, Germany's armed forces from the international community,⁷ Germany must answer the question of how much it is willing to

⁵ The exact and more detailed description about these missions is known as the "Petersberg tasks". According to the June 1992 Petersberg Declaration of the WEU's Council of Ministers: "military units of WEU members, acting under the authority of WEU, could be employed for: humanitarian and rescue tasks; peacekeeping tasks; tasks of combat forces in crisis management, including peacemaking." Western European Union, Council of Ministers, "Petersberg Declaration," paragraph 4 of Part II, *On Strengthening WEU's Operational Role*, Bonn, 19 June 1992.

⁶ Federal Ministry of Defense, *German Security Policy and The Bundeswehr*, Bonn, 1997, p. 6.

⁷ "In the coming years, the United States and our allies will look to Germany as a leader in the Alliance, as a leader in European security and as a leader in Allied military capabilities." Speech of the US Secretary of Defense, William Cohen, at the 37th Bundeswehr Commanders' Conference in Hamburg on 1 December 1999.

invest for safety and stability in Europe and for protection of peace in the world. In determining the level of commitment behind Germany's foreign and security policy, defense spending is an important indicator. This thesis focuses on Germany's defense spending and analyzes political, economic, and military aspects. It examines, among other aspects, the reasons for and effects of Germany's declining defense spending within the last decade, and suggests solutions to cope with challenges and problems arising from this phenomenon.

In addition, the thesis does not exclusively deal with the German situation; it provides basic information about defense expenditure as well. The thesis helps by systematizing a general discussion about defense expenditures. In general, there are five reasons for analyzing the aspects of defense expenditures that are discussed in this thesis. First, comparisons of countries' defense spending are problematic, since there is no generally accepted definition about the items that should be included in defense expenditures. Second, military, economic, and political aspects may be important factors for determining the defense budget. Third, the impact of the so-called peace dividend is highly controversial. Fourth, a state's defense spending is often used as an indicator of its defense effort. Finally, defense spending, in and of itself, is an important component of a state's foreign and security policy.

B. HYPOTHESIS AND RESEARCH QUESTIONS

The Federal Republic of Germany states that “German security policy is determined by the holistic combination of two basic functions: protection against risks and threats, and the active shaping of stability and peace.”⁸ In addition, today,

Germany has greater international responsibility, especially as far as security in and for Europe is concerned. Much is expected of Germany because of its central role, its potential and its history.⁹

The thesis implies that, on the one hand, Germany announces its preparedness to protect against risks and threats, to be willing to shape stability and peace, and to assume its greater responsibility. On the other hand, Germany’s defense spending seems to be inconsistent with its foreign and security policy objectives, and its professed willingness to bear new responsibilities. While substantiating this judgment with a review of the facts about Germany’s declining level of defense spending, the following questions arise, which will be gradually answered chapter-by-chapter:

- How can defense spending be best defined?
- What are the indications of a declining level of defense spending in Germany?
- What are the determinants of defense spending in Germany and have they changed over time?
- What are the impacts of the so-called peace dividend that Germany has gained since the end of the Cold War on economic growth and national well-being?

⁸ Federal Ministry of Defense, *White Paper 1994*, Bonn, 1994, p. 41.

⁹ *Ibid.*, p. 40.

- What are the military-economic effects of the declining defense spending in Germany in the last decade, and what consequences do they have on the performance of Germany's armed forces?
- What are the challenges and major problems for Germany's armed forces in the 21st century?
- Can the Bundeswehr meet future challenges despite decreasing defense expenditures, and what are the prospects and solutions to solve potential problems deriving from the decline in military spending?

C. METHODOLOGY AND DATA COLLECTION

The thesis is a single case study about Germany's defense expenditures. Cross-country comparisons with other NATO Allies are used only where they contribute to a better assessment of Germany's situation. Standard academic literature helps explore the research questions through economic theories, critical analysis, and general surveys about defense spending. Public documents and speeches of prominent German politicians, such as the Federal Chancellor, Gerhard Schröder, or the Federal Minister of Defense, Rudolf Scharping, are evaluated for substantiating the hypothesis. Data and figures to demonstrate the phenomenon of the declining defense spending are mainly derived from generally recognized research institutions, such as the International Institutes of Strategic Studies (IISS) or the Stockholm International Peace Research Institute (SIPRI), from Germany's Federal Statistics Office, and the German Federal Ministry of Defense itself, along with its subordinated institutions, such as the Bundeswehr University in Munich or the Air Force

Material Office. Evaluations, comments and proposals offered in press reports are analyzed as well and presented in the thesis.

D. THE ORGANIZATION OF THE THESIS

The introduction, Chapter I, explores the relevance of the topic, presents the hypothesis and research questions, the methodology and data collection, and the organization of the thesis. Chapter II discusses the definition and components of defense spending and offers three different approaches: (a) the domestic approach, (b) the NATO definition, and (c) a broad concept about defense spending. Chapter III then presents an overview of the declining level of defense spending in Germany. It provides data about nominal defense spending, defense spending versus the total federal budget, defense spending as a percent of Gross Domestic Product (GDP), and concludes with a brief comparison of its most important NATO Allies. Chapter IV examines potential determinants of defense spending. It considers military, economic, and political aspects in a historical sequence. The thesis argues that, at the moment, Germany's defense spending is not only substantially influenced by the improved geo-strategic security situation, but also by budgetary constraints and changed priorities of the "red-green" government. Chapter V investigates the impact of the peace dividend on economic growth and national well-being. It comes to the conclusion that the German reunification process seems to have offset the assumed positive effects to economic growth and national well-being, despite a peace dividend of about DM 350 billion since 1991. Chapter VI deals with the shrinking total strength of Germany's armed forces, dwindling investments (capital

expenditures) in the Bundeswehr, and the fragmented German defense industry due to declining defense spending. Chapter VII describes the challenges and major problems that Germany's armed forces must cope with. It discusses the adaptation of the Bundeswehr to the changed roles and missions, the necessary modernization of the military forces, the strengthening of the European Security and Defense Identity (ESDI), and the ensuring of fair burden-sharing within NATO. In Chapter VIII, the thesis proposes a solution that suggests how Germany could meet the challenges of a 21st century force and try to solve its problems despite a declining level of defense spending, and how disputes about burden-sharing could be avoided. It recommends a further downsizing of the Bundeswehr, improving military cooperation, especially between the European NATO Allies, and the establishing of convergence criteria within the framework of a common European Defense Budget. Chapter IX summarizes the main findings and concludes that Germany's defense spending appears not to be commensurate with its foreign and security policy goals. It suggests that as long as minimum defense capacities for NATO or EU members are not determined, Germany should try to target its defense expenditure towards 2 percent of the GDP. Otherwise, the thesis forecasts that if Germany does not reverse the trend of the declining defense spending, it will probably decrease its political significance in Europe and in the world.

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II. DEFINITIONS OF DEFENSE SPENDING

Certain matters of definition must be clarified before one can profoundly discuss about defense expenditures. Assessing defense spending is problematic, since there is no unique and general accepted definition of what comprises defense allocations. There are different concepts of defense spending available.¹⁰ Each country uses more or less its own criteria for defining its defense spending. Furthermore, there are also significant differences in the procedures for gathering and estimating military expenditures. For example, the UN and the International Monetary Fund (IMF) use a different definition about defense expenditure as NATO and rely exclusively on voluntary reporting by member governments.¹¹ Non-governmental independent research institutes, such as the International Institute of Strategic Studies (IISS) or the Stockholm International Peace Research Institute (SIPRI) again have varying concepts. Whereas SIPRI, as a matter of policy, relies entirely on publicly available information, IISS also uses some confidential government information.¹² However, both organizations use, at least for the NATO countries, the NATO definition by assessing defense expenditures. Governmental agencies, such as the United States Arms Control and Disarmament Agency (ACDA) or

¹⁰ See Happe, Nancy and Wakemann-Linn, John, *Military Expenditure and Arms Trade: Alternative Data sources*, Peace Economics, Peace Science and Public Policy, Vol. 1, No. 1, 1994, pp. 3-23. For a discussion of which methodology of defining military expenditures is most appropriate see also: Kapstein, Ethan, *Military Expenditures in the Developing World: Assessing the Data*, Peace Economics, Peace Science and Public Policy, Vol. 1, No. 1, 1993, pp. 7-13.

¹¹ Happe, Nancy and Wakemann-Linn, John, *Military Expenditure and Arms Trade: Alternative Data sources*, Peace Economics, Peace Science and Public Policy, Vol. 1, No. 1, 1994, p. 5.

¹² Ibid.

the Central Intelligence Agency (CIA), again use their own methodology for defining and gathering data about defense spending.¹³

This chapter provides three different approaches: (a) the Budget of the Federal Ministry of Defense, (b) the NATO approach, and (c) a broad concept of defense spending. Whereas the German defense budget is more suitable for domestic analysis, the NATO definition fits better for international comparisons. The broad concept of defense spending again provides additional important aspects that should be considered in a general discussion about defense spending. However, many of these supplementary aspects in the broad definition are highly political and extremely difficult to quantify. Therefore, due to the fact that they are not tangible enough, the broad concept of defense expenditure is irrelevant for the research in this thesis.

A. THE BUDGET OF THE FEDERAL MINISTRY OF DEFENSE

In Germany, the defense policy is solely the responsibility of the federal authorities. Therefore, defense expenditures are paid almost entirely out of the federal budget. The Budget of the Federal Ministry of Defense includes operating expenditures (personnel, operations and maintenance) and military investments (procurement, research and development, infrastructure). Focusing exclusively on the Budget of the Federal Ministry of Defense leads to a narrow concept of defense spending. For domestic analysis, the thesis concentrates mainly on this narrow concept. However, in some cases it is not

¹³ Kapstein, Ethan, *Military Expenditures in the Developing World: Assessing the Data*, Peace Economics, Peace Science and Public Policy, Vol. 1, No. 1, 1993, pp. 7-13.

sufficient to focus just on this narrow concept. In international comparisons especially, the domestic definition of the defense budget shows only part of the truth. Many figures that are typically considered as defense expenditures in other countries are not contained in the Budget of the Federal Ministry of Defense. The guidelines of the basic law, the special German budget system, bureaucratic barriers, parliamentary necessities, or politic-ideological reasons are the cause for this. For example, pensions for former military personnel have never been included in the German defense-budget definition. In addition, UN missions have not always been solely financed out of the Budget of the Federal Ministry of Defense; occasionally, they have been financed from the Foreign Ministry or other budget plans. In 1999, the German Government decided to finance the Kosovo mission of the German Armed Forces not out of the defense budget, but out of a special budget plan (General Financial Administration), thereby making an additional DM 2 billion available.¹⁴ Hence, it is sensible to look very carefully at the components of defense budgets from different countries, before comparisons are made.

B. DEFENSE SPENDING ACCORDING TO THE NATO DEFINITION

To standardize the discussion of defense spending, a more common definition of defense spending must be found. Consequently, NATO has its own criteria for identifying

¹⁴ This was sharply criticised by the Federal Audit Office (Bundesrechnungshof). Die Welt, 3 November 1999, *Rechnungshof rügt Scharpings Sparversuche*. Available [Online]: <<http://www.dfg-vk.de/bundeswehr/etat098.htm>> [15 November 1999].

and defining defense expenditures.¹⁵ NATO uses a broader concept to make data from the member countries comparable. In the NATO definition, civilian-type expenditures of the defense ministry are excluded and military-type expenditures of other ministries, such as expenditures for police and paramilitary forces if they are trained and equipped for military operations, are included. Furthermore, grant military assistance is included in the expenditures of the donor country and purchases of military equipment for credit are included at the time the debt is incurred, and not at the time of payment.¹⁶

According to the NATO concept, Germany must add about 20 items from other sections of the federal budget.¹⁷ In general, the Budget of the Federal Ministry of Defense is about 20-25 percent less than the total defense expenditure according to the NATO definition (see Table 1). The most important item is the pension funding for former service personnel, which is not contained in the Budget of the Federal Minister of Defense. Military retirement pensions, and the civilian retirement pensions amount to more than DM 10 billion annually.¹⁸ Peacekeeping missions are also not always included in the Budget of the Federal Ministry of Defense. Other items considered by the NATO definition are the NATO civilian budget, the WEU budget, the OSCE budget, and military

¹⁵ For the detailed NATO definition and explanation, and why the NATO definition differs significantly from national definitions see NATO Handbook 1998, *Common-funded Resources: NATO Budgets and Financial Management*. Available [Online]: <<http://www.nato.int/docu/handbook/1998/vi154.htm>> [10 December 1999].

¹⁶ This abridged version of the NATO definition is drawn from the United States Arms Control and Disarmament Agency (ACDA), *World Military Expenditures and Arms Transfers 1996*, Washington, D.C., p. 186.

¹⁷ Federal Ministry of Defense (message, 14 February 2000).

¹⁸ Military retirement pension (in billion DM): 1997: 9.3; 1998: 9.3; 1999: 9.7; 2000: 9.7; Civilian retirement pension (in billion DM): 1997: 1.2; 1998: 1.4; 1999: 1.3; 2000: 1.5. Figures are from the Federal Ministry of Defense (message, 14 February 2000).

aid to NATO Allies.¹⁹ Furthermore, the budgets of the Defense Commissioner of the German Bundestag, the military jurisdiction, and military family housing are not included in the Budget of the Federal Ministry of Defense, but are covered by the NATO definition.

	1996		1997		1998		1999		2000	
	Billion DM	%								
Budget of the Federal Ministry of Defense	47.2	80.4	46.2	80.2	46.7	80.4	47.0	78.7	45.3	76.0
Additional Items according to NATO Criteria	11.5	19.6	11.4	19.8	11.4	19.6	12.7	21.3	14.3	24.0
Defense Spending according to NATO Criteria	58.7	100	57.6	100	58.1	100	59.7	100	59.6	100

Table 1. German Defense Spending According to NATO Criteria (1996 - 2000).

Note: Figures in 2000 are estimated.

Source: Federal Ministry of Defense (message, 9 February 2000).

C. DEFENSE SPENDING IN A BROAD CONCEPT

Defense spending is often used as a measure of the burden imposed on the people and the national economy by defense policy. The most commonly used method to measure defense burden in an internationally comparative way is to take the ratio of defense expenditure to the Gross Domestic Product (GDP). However, simple comparisons of different countries' proportion of defense spending to their GDP cannot satisfactorily

¹⁹ Maneval, Helmut, *Defence Spending in West Germany*, Defence and Peace Economics, Vol. 5, Harword, 1994, p. 224.

answer the question about the real defense burden. It is well known and worth considering that the German defense budget, in particular, does not reflect several important but less clearly identified burdens. Germany has always tried to demonstrate this situation. It has made great efforts to point out the necessity of considering additional aspects when comparing a country's real defense burden and contribution to security and defense issues. One special feature is the Federal government's argument that the financial support for West Berlin should have been included in the defense expenditures.²⁰ Another factor is the presence of around 400,000 NATO Allies during the period of the Cold War, and about 100,000 today, which were and still are stationed in Germany. Military sites and buildings, as well as housing and other substantial subsidies have been provided in large amounts to the NATO Allies. The land and tax exemptions provided for allied forces, and partly host-nation support do not enter the Budget of the Federal Ministry of Defense, and are also not covered by the NATO definition.²¹ Furthermore, the above-average environmental burdens on the population, resulting from the still relatively high concentration of armed forces in Germany (e.g., maneuvers, military flying, and environmental damage) correspond to additional expenditures but are not included in the defense spending figures.²² Another significant difference between Germany and, for example, the United

²⁰ The West Berlin argument was used especially before Germany's reunification. In the meantime, the financial support for West Berlin decreased from DM 17.3 billion in 1989 to about DM 150 million in 1999. Ibid., p.225. Figure for 1999 is from the Federal Ministry of Defense (message, 18 October 1999, latest update: July 1999).

²¹ The value of the provided land was estimated at DM 40 billion and the yearly benefit for allied troops amounted to DM 2.5 billion DM (figures are from 1985). Fritz-Aßmus, Dieter and Zimmermann, Klaus, *West German demand for defence spending*. In: Hartley, Keith and Sandler, Todd (eds.), *The economics of defence spending: an international survey*, London and New York, 1990, pp. 126-127.

²² However, today, the environmental burden no longer is nearly what it was during the Cold War.

States and the United Kingdom is Germany's conscript forces; whereas, the other two employ expensive all-volunteer forces. The opportunity costs of the conscripts are not considered in comparisons with the defense burdens of different countries.²³ There are no budget adjustments for the lower pay levels permitted by a conscript force. Taking all these aspects into account, this would represent an even broader concept of defense expenditure than the domestic definition or the NATO approach.

The German Chancellor, Gerhard Schröder, favors this broad concept and criticizes the superficial comparisons of defense budgets within NATO.²⁴ From his point of view, the defense budget should not be the main criterion of a country's security and defense precautions. The German Federal Minister of Defense also argues that Germany's concept of security is comprehensive and "comprises political, diplomatic, economic, social, cultural and, of course, military aspects."²⁵ The security and defense-related costs corresponding to this understanding of peace, freedom, security and stability can neither be found completely in the national defense budget, nor are they satisfactorily covered by the NATO definition. In the case of Germany, the German Chancellor recalls the high finance expenditures in connection with the disbanding of the East German military (NVA), the withdrawal of Russian troops, and the building of apartments for Russian

²³ Estimates about the opportunity costs of the conscripts in Germany range between less than DM 1 billion up to DM 8-9 billion per annum. Schnell, Jürgen and Straub, Gabriel, *Studien zur Zukunft der Bundeswehr: Teilstudie H – Zur ökonomischen Effizienz der Wehrpflicht am Beispiel der Bundeswehr*, Universität der Bundeswehr München, Neubiberg, 21 February 2000.

²⁴ Speech of the Federal Chancellor, Gerhard Schröder, at the 37th Bundeswehr Commanders' Conference in Hamburg on 29 November 1999.

²⁵ Speech of the Federal Minister of Defense, Rudolf Scharping, at the NATO Defense College in Rome on 11 January 2000, *Euro-Atlantic Security and Regional Stability in the 21st Century*.

soldiers in their native country as an essential contribution to the stability and safety of Europe. Furthermore, he points to the admission of hundreds of thousands of refugees from Bosnia-Herzegovina and Kosovo into Germany, and stresses Germany's great contribution to the Balkan-stability pact.²⁶

However, if one discusses these additional burdens within the broad concept of defense spending, one must also consider the aspects that have given financial relief. For example, with the withdrawal of NATO Allies from German territory, a lot of real estate has been returned. Furthermore, the incorporation of the former East German military (NVA) has made many assets available for the reunified German armed forces. Thus, one could argue that real estate that has been returned by the NATO Allies or assets of the NVA must have resulted in great revenues for the Federal Ministry of Defense within the last decade. However, this has not been the case. Revenues from returned real estate, and revenues from arms and military land sales due to the disintegration of large parts of the NVA, have been directly funneled into the total federal budget; whereas, the defense budget has had to carry the financial burden, such as from the decontamination of military terrain or the demilitarization and scrapping of surplus weapon systems. Therefore, the withdrawal of NATO Allies and the incorporation of the former NVA have not resulted in additional revenues for the Federal Ministry of Defense.

²⁶ Speech of the Federal Chancellor, Gerhard Schröder, at the 37th Bundeswehr Commanders' Conference in Hamburg on 29 November 1999.

In sum, it is very difficult to assess the true costs or the real burden for security and defense. For the research in this thesis, the extremely broad definition of defense expenditures is too intangible, and thus irrelevant. Many aspects of this widened definition, such as the opportunity costs for conscription, are largely unquantifiable. However, for general discussions of defense spending, of course, these aspects are politically relevant and should be considered as well. This thesis exclusively focuses on the Budget of the Federal Ministry of Defense and the NATO definition. Both statistical series have their justification. While the narrow national budget concept is more suitable for domestic analysis, the NATO definition is more useful for international comparisons, especially with other NATO members. In general, this thesis will use the narrow domestic definition, as long as the NATO definition is not explicitly mentioned.

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III. THE DECLINING LEVEL OF DEFENSE SPENDING

A. NOMINAL DEFENSE SPENDING

Defense expenditure, in terms of the nominal Budget of the Federal Ministry of Defense, rose continually from DM 39.4 billion in 1980, to DM 48.9 billion in 1985, and to DM 53.2 billion in 1990 (see Figure 1). After the reunification of Germany, it reached its peak with DM 53.6 billion in 1991. Then, it fell steadily to DM 46.9 billion in 1998,

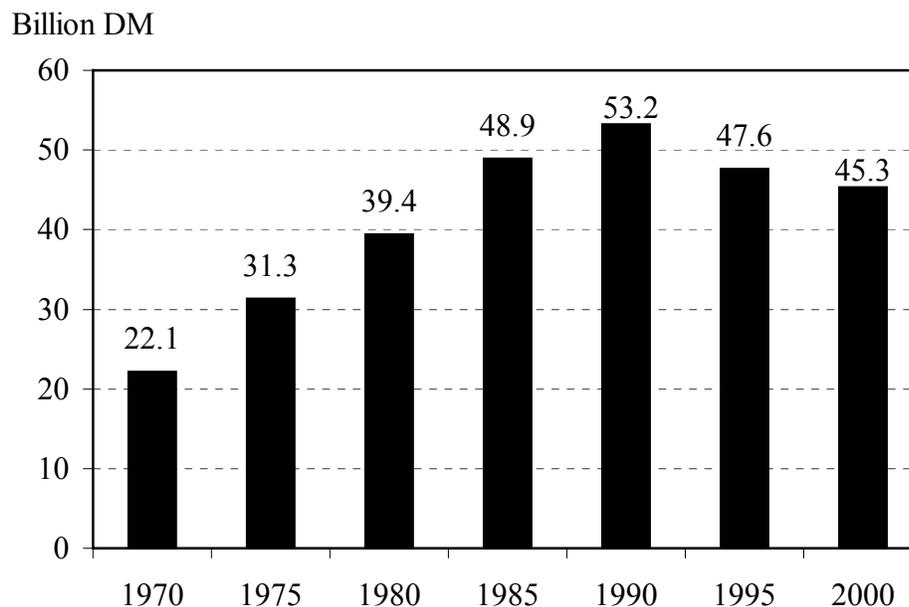


Figure 1. Nominal Defense Spending (1970 - 2000).

- Note:
- a) Figures are in billion DM (nominal).
 - b) Until 1990, the figures refer exclusively to West Germany and do not consider the former German Democratic Republic. The figures in 1995 and 2000 refer to the reunified Germany.
 - c) Figure in 2000 is estimated.

Source: Federal Ministry of Defense (message, 9 February 2000).

persisted at approximately the same amount in 1999, and will drop further to an estimated DM 45.3 billion this year.²⁷

Under the conservative-liberal government²⁸, which was in power from 1982 until they lost the election in the fall of 1998, it was planned that the defense budget would moderately increase to almost DM 50 billion in 2002 and 2003 (see Table 2). However, according to the latest 33rd Federal Finance Plan of the new “red-green” government²⁹, the defense budget will decrease by DM 3.5 billion in 2000. Furthermore, the medium-term financial plans require an additional cut in defense spending of DM 15.1 billion combining 2001 to 2003. Thus, if the 33rd Federal Finance Plan is realized, the defense

	Fiscal Years (Calendar Years)			
	2000	2001	2002	2003
Kohl Administration	48.8	49.1	49.5	49.5
Schröder Administration (33 rd Federal Finance Plan)	45.3	44.8	44.5	43.7
Difference	3.5	4.3	5.0	5.8

Table 2. Kohl Administration versus Schröder Administration – Future Year Defense Plans (2000 – 2003).

Note: Figures are in billion DM (nominal).

Sources: a) Figures of the Kohl administration are from IAP-Dienst, Sicherheitspolitik, No.2, February 1999, Bonn, p. 6.
 b) Figures of the Schröder administration are from the Federal Ministry of Defense (message, 9 February 2000).

²⁷ Figures are from the Federal Ministry of Defense (message, 18 October 1999, latest update: September 1999). In 1990, the DM 53.2 billion relate to West Germany and do not include the DM 5.4 billion spent for the armed forces of the former German Democratic Republic.

²⁸ Coalition between the Christian Democratic Union (CDU), its sister party the Christian Social Union (CSU), and the Free Democratic Party (FDP) or more commonly named the Liberal Party.

²⁹ Coalition between the Social Democratic Party (SPD) and the Alliance '90/Greens.

budget in the future will further decrease from DM 45.3 billion in 2000 to DM 43.7 billion in 2003.³⁰

B. DEFENSE SPENDING VERSUS THE TOTAL FEDERAL BUDGET

The declining level of defense spending is even more obvious in terms of the percentage of total federal spending allocated to defense (see Figure 2). In the 1960's, the

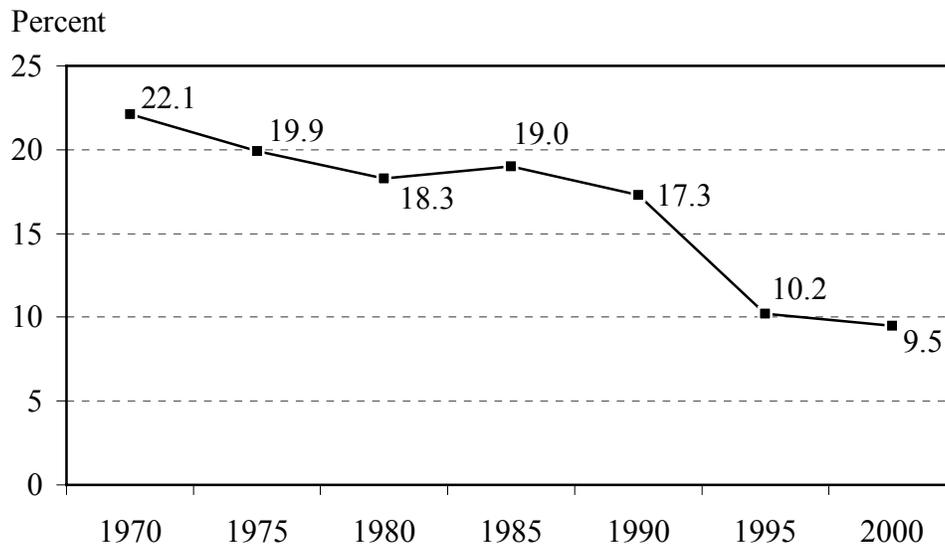


Figure 2. Defense Spending as Percent of the Total Federal Budget (1970 - 2000).

Note: a) Until 1990, the percentages refer exclusively to West Germany and do not consider the former German Democratic Republic. The percentages in 1995 and 2000 refer to the reunified Germany.

b) Percentage in 2000 is estimated.

Source: Federal Ministry of Defense (message, 9 February 2000).

³⁰ Figures are from the Federal Ministry of Defense (message, 18 October 1999, latest update: September 1999). The Federal Minister of Defense has accepted that the German armed forces must contribute to the consolidation of the federal budget about DM 3.5 billion in 2000; he refuses to accept any further cuts beyond that. Speech of the Federal Minister of Defense, Rudolf Scharping, at the Führungsakademie der Bundeswehr in Hamburg on 8 September 1999, *Grundlinien deutscher Sicherheitspolitik*.

defense-spending share of the total federal budget reached levels of up to 33 percent. In the 1970's and 1980's, the level was almost constant, varying between 18 and 22 percent. It sharply decreased from 17.3 percent in 1990 to 13.3 percent in 1991 and was less than 10 percent in 1999. By 2003, defense spending will probably consist of no more than 8.7 percent of the total federal budget.³¹

C. DEFENSE SPENDING AS PERCENT OF THE GROSS DOMESTIC PRODUCT (GDP)

The most commonly used method to measure defense burden is to take the ratio of defense expenditure to the Gross Domestic Product (GDP).³² This GDP ratio shows a similar decrease in defense expenditures as one can see in the discussion of defense spending versus the total federal budget. In 1986, when the Federal Ministry of Defense started to publish this ratio according to the domestic definition of defense spending, it was 2.6 percent. Since then, defense spending expressed as a percentage of GDP has decreased constantly (see Figure 3). The GDP ratio is now less than the half of what it was prior to the reunification. It is estimated that it will reach 1.16 percent this year.³³ If the 33rd Federal Finance Plan is realized, and with the assumption that the GDP will grow by

³¹ Figures are from the Federal Ministry of Defense (message, 18 October 1999, latest update: September 1999).

³² For a study on burden-sharing in NATO this would be also the best method compared with other approaches, such as derived from military expenditure versus national income, military expenditures versus government budgets, military personnel versus total population. Goertz, Gary and Diehl, Paul, *Measuring Military Allocations – A Comparison of Different Approaches*, Journal of Conflict Resolution, Vol. 30 No. 3, September 1986, pp. 553-581.

³³ Figures are from the Federal Ministry of Defense (message, 18 October 1999, latest update: September 1999).

roughly 2 percent from 2000 to 2003, this figure may further drop to about 1 percent by 2003.

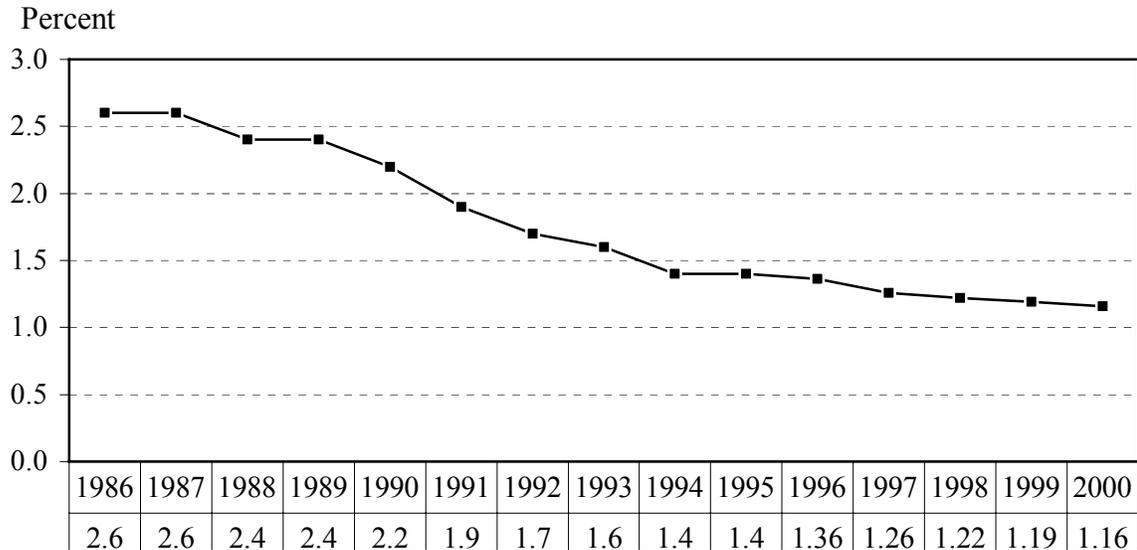


Figure 3. Defense Spending as Percent of the Gross Domestic Product (1986 - 2000).
 Note: a) Before 1990, the figures refer exclusively to West Germany and do not consider the former German Democratic Republic. Since 1991, the figures refer to the reunified Germany.
 b) Percent in 2000 is estimated.
 Source: Federal Ministry of Defense (message, 9 February 2000).

D. GERMANY'S DEFENSE SPENDING IN COMPARISON TO ITS NATO ALLIES

Comparing German defense spending with its four most important NATO Allies shows that France, the United Kingdom, Italy, and the United States all reduced their military spending considerably between 1985 and 1998 (see Table 3). However, while these NATO Allies decreased their defense spending between 7.8 and 27.7 percent, Germany reduced it by 35.5 percent during the same period.

	Defense Expenditure					
	Billion US \$		Difference in %	% of GDP		Difference in %
	1985	1998		1985	1998	
Germany	50.2	32.4	- 35.5	3.2	1.5	- 53.1
France	46.5	39.8	- 14.4	4.0	2.8	- 30.0
United Kingdom	45.4	36.6	- 19.4	5.2	2.8	- 46.2
Italy	24.5	22.6	- 7.8	2.3	2.0	- 13.0
United States	367.7	265.9	- 27.7	6.5	3.2	- 50.8

Table 3. NATO Comparison of Defense Expenditure (1985 - 1998).

- Note:
- a) Figures are inflation adjusted on the basis of 1997 prices.
 - b) Figures are NATO standardized data, which do not correspond to national defense budgets because of differences in definition.
 - c) The figure for Germany in 1985 does not include the defense expenditure of the former German Democratic Republic.

Source: The International Institute for Strategic Studies (IISS), *The Military Balance 1999/2000*, Oxford, 1999, p. 300.

Focusing on the GDP, and using the NATO definition of defense expenditures, Germany cut its security provision by more than 50 percent from 1985 to 1998. Until 1990, defense spending expressed as a percentage of GDP was consistently about 3 percent, and Germany always placed in the top third within NATO.³⁴ Whereas the NATO average was 2.3 percent in 1998, Germany's defense spending dropped to 1.5 percent of GDP, placing Germany in the bottom third within NATO (see Figure 4).

³⁴ Federal Ministry of Defense, *Bestandsaufnahme - Die Bundeswehr an der Schwelle zum 21. Jahrhundert*, Bonn, 1999, pp. 20-21.

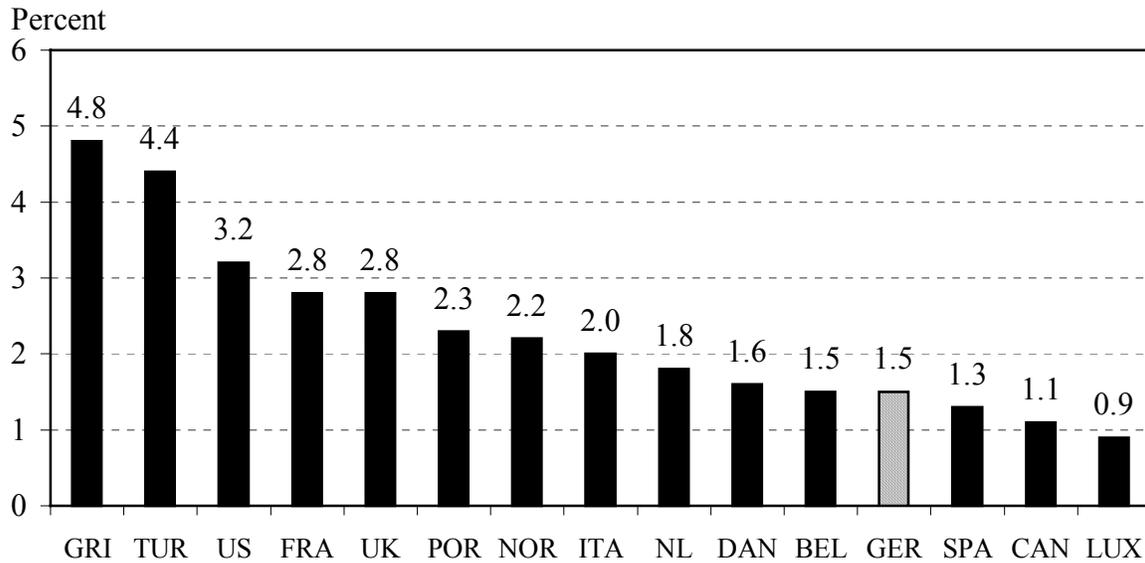


Figure 4. Defense Expenditure for NATO Allies as Percent of the Gross Domestic Product (1998).

Source: The International Institute for Strategic Studies (IISS), *The Military Balance 1999/2000*, Oxford, 1999, p. 300.

If the 33rd Federal Finance Plan is realized, Germany will likely drop to the 17th position within NATO.³⁵ In terms of GDP percentage, Germany spends on defense approximately half of what France and the United Kingdom spend.³⁶ Even without regard to France and the United Kingdom³⁷, Germany would have had to increase its defense budget by DM 5 billion annually over the last few years if it had wanted to keep pace with the security provisions of the other European NATO Allies.³⁸

³⁵ Speech of the Federal Minister of Defense, Rudolf Scharping, at the Führungsakademie der Bundeswehr in Hamburg on 8 September 1999, *Grundlinien deutscher Sicherheitspolitik*. It was assumed that only Luxemburg would remain below this level; Iceland was not considered in this comparison because of having no military forces.

³⁶ Ibid.

³⁷ France and the United Kingdom are nuclear powers and, therefore, a comparison is not really equivalent.

³⁸ Speech of the Federal Minister of Defense, Rudolf Scharping, at the Führungsakademie der Bundeswehr in Hamburg on 8 September 1999, *Grundlinien deutscher Sicherheitspolitik*.

Germany's sharp reduction in defense spending is even more noteworthy by the fact that it increased its territory by more than 40 percent and its population by about one-fourth during the same time period.³⁹ Typically, such a development would result in an increase in defense spending since a greater territory and higher population must be protected. However, as one can see in the following chapter, other aspects have totally offset this theoretical effect. In addition, Germany has not replaced the withdrawal of hundreds of thousands of NATO Allies, which were stationed in Germany before its reunification. Formerly, about 400,000 NATO Allies were stationed in Germany; fewer than 100,000 remain. The security that these forces "produced" has vanished, unreplaced by German military forces.

³⁹ With the reunification in 1990, the population grew from 63 to 79 million people and the territory increased from 249,000 to 357,000 square km.

IV. DETERMINANTS OF DEFENSE SPENDING

When tracing the trend of German defense spending, the question inevitably arises: What are the factors that determine Germany's defense expenditures? A useful differentiation of the explanatory variables of defense expenditures is their classification into (a) quantifiable political variables, such as a change in government, (b) economic factors, such as economic growth, and (c) military aspects, such as the perception of threat.⁴⁰ The following paragraphs examine these variables in a historical sequence and primarily use the results of multiple regression analyses. In addition, to complete the discussion of this limited quantification approach, another dimension must be included: the decision-making process within the governmental system.

A. DURING THE COLD WAR

The Cold War era from 1960 to 1989 was characterized by the phenomena of an arms race, suspicion towards potential opponents, and the permanent perception of threat. Therefore, it is not surprising that there was an earnest desire for security in all nations. Security has always been highly correlated with defense spending. In general, the more safety and security desired, the more that must be spent for defense.⁴¹ However, one-

⁴⁰ This classic differentiation can be found in Hartley, Keith, *The Economics of Defence Policy*, London, 1991. Maneval, Helmut, *Defence Spending in West Germany*, Defence and Peace Economics, Vol. 5, Harward, 1994, pp. 238-241. Fritz-Abmus, Dieter and Zimmermann, Klaus, *West German demand for defence spending*. In: Hartley, Keith and Sandler, Todd (eds.), *The economics of defence spending: an international survey*, London and New York, 1990, pp. 118-147.

⁴¹ From the economic national perspective, defense spending is an input or a cost of providing military security. Defense or security, the output, is a pure public good and, therefore, is regarded as an appropriate government activity in a market economy.

hundred percent security can never be reached, and the additional use of defense spending normally declines with each extra unit of defense expenditure according to the law of diminishing returns (see Figure 5). States' different perceptions of threat and differing desires for security result in varying levels of defense spending.⁴² Furthermore, it should not be neglected that there are non-military means of achieving security as well, and that a



Figure 5. Theoretical Relationship between Defense Spending and Security.
Note: The shape of the curve is only an example of how the relationship between defense expenditure and security could be.

⁴² This correlation between security and defense spending helps to explain why, for example, the European countries generally spend less money for defense than the United State: The Europeans have lived with vulnerability throughout history, but the Americans have never accepted vulnerability.

wide variation exists in the emphasis on and definition of security among states.⁴³ Today, Germany's definition of security is comprehensive,⁴⁴ but during the Cold War, security was largely defined in military terms. Furthermore, the perception of threat was extremely high in Germany during the Cold War. This is not surprising; in the event of a war between NATO and the Warsaw Pact, the main or central theater of war would have been German territory. Therefore, it is reasonable to assume that during the Cold War, defense spending in Germany was – as in the other NATO countries – mainly derived from the perceived threat of the Warsaw Pact.

In addition to this general statement that the perception of threat determines defense spending, there are more detailed surveys, which focus on many additional determinants for explaining defense expenditure.⁴⁵ Most of this research on the

⁴³ “The United States, for example, retains a largely military definition of security as well as the conventional understanding of economic security, namely that the economy is important only to the extent that it affects military capability. France, on the other hand, takes a broader view of security, but that view by and large reflects the concern of classical realists with the pursuit of power and plenty as the separable but reciprocally dependent elements of national security. And the Germans, of the major European states, have gone furthest in abandoning the military definition of security and embracing a definition that reflects the preoccupations of a civilian power.” Sperling, James and Kirchner, Emil, *Recasting the European Order – Security architectures and economic cooperation*, Manchester and New York, 1997, p. 15.

⁴⁴ “It [the concept of security] comprises political, diplomatic, economic, social, cultural and, of course, military aspects.” Speech of the Federal Minister of Defense, Rudolf Scharping, at the NATO Defense College in Rome on 11 January 2000, *Euro-Atlantic Security and Regional Stability in the 21st Century*.

⁴⁵ Looney and Mehay have mentioned at least nine factors that account for defense spending patterns in the US: international events, changing administration, public opinion, congressional attitudes, domestic economic constraints, perceptions of the Soviet threat, arms control agreements, elections, inter-service relations. Looney, Robert and Mehay, Stephen, *United States defence expenditures: trends and analysis*. In: Hartley, Keith and Sandler, Todd (eds.), *The economics of defence spending: an international survey*, London and New York, 1990, pp. 101-116. Palmer has presented a model that outlines how intra-alliance political considerations may affect both the size of a state's contribution to the alliance and the political processes for the defense-allocation decisions. Palmer, Glenn, *Alliance Politics and Issue Areas: Determinants of Defense Spending*, *American Journal of Political Science*, Vol. 34, No.1, February 1990, pp. 190-211. Hewitt's public choice model has shown that military expenditures are influenced by the level of GDP, central government expenditures, other financial indicators, such as high external debt, by the form of government, and by geographical characteristics of countries, such as land area and border length. Hewitt, Daniel, *Military Expenditures Worldwide: Determinants and Trends, 1972-1988*, Washington, D.C., 1989.

determinants of defense expenditures is linked to the period of the Cold War, such as Maneval's research study, and Fritz-Aßmus's and Zimmermann's analysis of the explanatory variables of defense expenditures in West Germany. The following paragraphs are primarily based on these two research studies and discuss potential political, economic, and military determinants of Germany's defense spending during the Cold War.⁴⁶

Political variables, such as a change of coalition in the Federal Government, did not help to explain the volume of West German defense expenditures during the Cold War. In Germany, there are differences between the party's attitudes against and preferences for expenditures on military and nonmilitary goods. Furthermore, the parties have specific attitudes towards allies, international commitments, military strategy, disarmament organizations, or even the up-dating of weapons. The Social Democratic Party (SPD) seems to be more influenced traditionally by the working class, trade unions, environmental groups, and the peace movement.⁴⁷ The conservative parties (CDU/CSU) and the Liberal Party (FDP) rely relatively more on support from well-fixed voters and seem to be more influenced by the interests of the establishment.⁴⁸ Therefore, one could expect that a change in the composition of the government would have a noticeable impact

⁴⁶ Both research studies used the method of the multiple regression analysis. Maneval, Helmut, *Defence Spending in West Germany*, Defence and Peace Economics, Vol. 5, Harwood, 1994, pp. 221-246. Fritz-Aßmus, Dieter and Zimmermann, Klaus, *West German demand for defence spending*. In: Hartley, Keith and Sandler, Todd (eds.), *The economics of defence spending: an international survey*, London and New York, 1990, pp. 118-147.

⁴⁷ Dalton, Russell, *Politics in Germany*. In: Almond, Gabriel, Dalton, Russell, and Powell, Bingham (eds.), *European Politics Today*, New York, Reading, and others, pp. 234-235.

⁴⁸ *Ibid.*, pp. 232-235.

on the allocation of the financial resources between defense and non-defense expenditures. However, both research studies demonstrated that the periods of rising and falling defense expenditures have coincided with changing governments. “The expectations of major or even revolutionary changes in budgetary policies by the change-over from a center-right to a center-left coalition in 1969 turned out to be a ‘fiscal illusion’.”⁴⁹ Thus, it could be concluded that during the Cold War a broad consensus on defense policy existed among the governing parties.

Economic variables, such as the GDP and the deficit of the federal budget, contributed only slightly for an explanation of the volume of Germany’s defense expenditures.⁵⁰ It was hypothesized that there is, for example, a positive relation between economic growth and the growth of defense expenditures. Furthermore, it was assumed that fiscal constraints, caused by the instability accompanying growing budget deficits, increase the political readiness and economic necessity of reducing or redistributing defense spending funds. However, the statistical data of Maneval’s, as well as Fritz-Aßmus’s and Zimmermann’s multiple regression analysis, showed that, surprisingly, the coefficient for GDP was neither positive nor significant at a reasonable level. The insignificance of the GDP coefficient indicated that Germany’s GDP was not a significant determinant of its defense spending behavior during the investigated period from 1961 to 1987. Germany’s policies of internal compensation rather collided more and more with its

⁴⁹ Fritz-Aßmus, Dieter and Zimmermann, Klaus, *West German demand for defence spending*. In: Hartley, Keith and Sandler, Todd (eds.), *The economics of defence spending: an international survey*, London and New York, 1990, p. 130.

⁵⁰ *Ibid.*, and Maneval, Helmut, *Defence Spending in West Germany*, Defence and Peace Economics, Vol. 5, Harward, 1994, pp. 238-241.

defense expenditures. During the Cold War, national security was not to be relieved of the financial pressure even with expanding public budgets.

Maneval's as well as Fritz-Abmus's and Zimmermann's studies have shown that the most important influences on the demand for military expenditures are derived from the military factors themselves. The perception of threat on one side, and Germany's own capabilities in combination with the expected spillins of possible allies on the other, were the core explanatory variables for Germany's defense expenditures.⁵¹ Since in the event of a war between NATO and the Warsaw Pact, the theater of war would have been mainly German territory, this result is not surprising. It could be expected that there would be a positive relationship between the perception of threat and Germany's defense spending. The measurement of threat in these research studies was mainly expressed in terms of defense expenditures of the Soviet Union, as the Soviet Union bore the main burden within the former Warsaw Pact. The statistical data showed, indeed, that the perception of threat played the decisive role in explaining German defense expenditures. In other words, the more the defense expenditure of the Soviet Union increased, the more the defense expenditure of Germany increased as well. The counterpart to threat in the framework of the state's security position was the perceived spillin. For Germany the spillin variables were measured by the defense spending of its NATO Allies. In addition, changes of the military doctrine were incorporated in the statistical tests as well. The defense spending of France was selectively considered due to the special French-German relationship.

⁵¹ Ibid.

Maneval's as well as Fritz-Aßmus's and Zimmermann's analysis, found evidence that during the period when NATO was relying on the doctrine of Massive Retaliation, Germany reacted negatively to NATO members' defense increases. In other words, an increase of real NATO spending caused a slight cut in German defense expenditures, keeping the other factors constant. However, since 1974, shortly after the outset of the Flexible Response era in 1967, Germany has viewed the defense expenditures of its NATO Allies less as a substitute for its own defense spending, and has consequently reduced its free-rider position.⁵² Murdoch and Sandler, in their joint product model, also came to the conclusion that the doctrine of Flexible Response caused a major change in the NATO Allies' demand for defense spending, particularly as the European allies had to be prepared to meet any aggression on their own.⁵³ Consequently, Germany could no longer rely primarily on nuclear deterrence by the NATO members the USA, UK, or in special cases France, but had to increase defense expenditures for its non-nuclear, conventional arsenal. Furthermore, while during the pre-1974 era, Germany responded positively to defense increases of its closest European partner France, there was no longer any recognizable marching in step between France and Germany afterwards. Thus, it could be concluded that due to the expanding costs of the French nuclear forces and its overseas commitments, Germany was no longer willing to keep pace with its French ally.

⁵² Sandler found evidence that during most of the 1950's and into the 1960's, the European NATO countries were able to free-ride on the US nuclear deterrence capability. Since the early 1970's, however, it appeared that a decline in the role of nuclear deterrence and the implementation of the Flexible Response Doctrine as a viable defense strategy has shifted the burdens toward the European countries. Sandler, T., *Sharing burdens in NATO*, Challenge 31, 1988, pp. 29-35.

⁵³ Murdoch, J. and Sandler, T., *Complementarity, free riding, and the military expenditures of NATO allies*, Journal of Public Economics, Vol. 25, 1984, pp. 83-101.

B. IN THE POST-COLD WAR ERA

Research studies about the explanatory variables of Germany's defense expenditures, unfortunately, do not exist for the last decade. In order to make reliable case studies and regression analyses concerning the 1990's, all the necessary data are still not available. Hence, the following statements are more or less hypotheses, which are not scientifically proved. They deal – as in the discussion above – with the political, economic, and military variables, which are assumed to influence defense expenditures.

The change of the government in 1998 seems to have had an effect on the level of defense spending. Whereas during the Cold War no evidence was found that the composition of the German Government led to changes in the defense budget,⁵⁴ this political variable now seems to have a noticeable influence on defense spending. For the first time in Germany's history, the Greens⁵⁵ are a part of the German Federal Government. They built a coalition with the Social Democratic Party (SPD) and came to power in the fall of 1998, when the former center-right government, a coalition of the conservative parties (CDU/CSU) and the Liberal Party (FDP) lost its majority in the parliamentary elections. The Greens are influenced even more than the SPD by environmental groups and the peace movement.⁵⁶ Although fanciful opinions by the

⁵⁴ Maneval, Helmut, *Defence Spending in West Germany*, Defence and Peace Economics, Vol. 5, Harword, 1994, pp. 238-241. Fritz-Aßmus, Dieter and Zimmermann, Klaus, *West German demand for defence spending*. In: Hartley, Keith and Sandler, Todd (eds.), *The economics of defence spending: an international survey*, London and New York, 1990, pp. 118-147.

⁵⁵ After Germany's reunification, the Western Greens and the Eastern Greens/Alliance '90 united and renamed the party Alliance '90/Greens. For ease of reading, this thesis refers simply to the Greens.

⁵⁶ Dalton, Russell, *Politics in Germany*. In: Almond, Gabriel, Dalton, Russell, and Powell, Bingham (eds.), *European Politics Today*, New York, Reading, and others, pp. 235-236.

Greens of disbanding the German armed forces are steadily vanishing, since they are in governmental responsibility, they still demand further sharp cuts in defense spending.⁵⁷ Thus, it should not have been surprising that the new government would set a “red-green signal”⁵⁸ in defense spending. The latest cut in defense expenditures in the amount of DM 18.6 billion from 2000 to 2003 could be seen as such a red-green signal.

An economic variable seems to determine defense spending as well – the rising public deficit (see Table 4). While during the Cold War, national security was not to be relieved of the financial pressure even with expanding public budgets, it now seems to be the case. The GDP itself still does not appear to influence Germany’s defense spending – at least not directly. But the rising public deficit is partly dependent on economic growth and thus influenced by the GDP. Lower economic growth rates result in less tax income for the state, and increase the danger of a growing budget deficit. However, particularly in the case of Germany, the enduring costs of reunification have contributed to the dramatically increasing budget deficit.⁵⁹ Furthermore, the relatively high level of unemployment (see Table 4) has been a financial burden on the total federal budget as well. Moderate economic growth (see Table 4) has not helped to improve the situation. The rapidly increasing public debt has logically resulted in increasing net interest. In 1990,

⁵⁷ Handelsblatt, 7 September 1999, *Grüne kommen Scharping nicht entgegen*. Available [Online]: <<http://www.dfg-vk.de/bundeswehr/etat098.htm>> [15 November 1999].

⁵⁸ The ”IAP-Dienst” used this expression when elaborating on the phenomenon that under the new government, defense spending has been dropped under 10 percent of the total federal budget for the first time in 1999. IAP-Dienst, Sicherheitspolitik, No. 2, Bonn, February 1999, p. 6.

⁵⁹ A CIA report estimates the expenditures that are transferred from the previous federal states to the five new federal states at about 100 billion US\$ annually. CIA, *The World Factbook 1999*. Available [Online]: <<http://www.cia.gov/publications/factbook/ge.html>> [28 January 2000].

11.4 percent of the tax revenues were used for public interest; whereas, in 1999, 16 percent of the states' tax revenues were spent on public interest.⁶⁰ Thus, it is likely that the growing net interest has decreased Germany's defense spending as well. In addition, it can be assumed that the European Monetary Unity (EMU), established in January 1999, and the firm political intention of fulfilling the agreed convergence criteria for this, has aggravated the pressure on Germany's defense spending.⁶¹

	1991	1992	1993	1994	1995	1996	1997	1998	1999
Public Deficit (in billion DM)	1.166	1.333	1.497	1.643	1.974	2.081	2.198	2.256	2.345
Federal Net Interests (in billion DM)	39.6	43.8	45.8	53.1	49.7	50.9	53.4	56.2	81.5
Unemployment Rate (in percent)	7.3	8.5	9.8	10.6	10.4	11.5	12.7	12.3	11.7
Economic Growth Rate (in percent)	---	2.2	-1.1	2.3	1.7	0.8	1.5	2.2	1.4

Table 4. Potential Economic Variables for Influencing Defense Spending (1991 - 1999).

- Notes:
- a) The figures of the public deficit are in nominal terms. Public deficit is estimated in 1999.
 - b) The unemployment rate is expressed as percentage of the dependent civilian employed persons.
 - c) The economic growth rate is expressed as the change of the inflation adjusted GDP compared with the previous year.
 - d) Due to the problem of statistical data in the reunification year 1990, there is no economic growth rate for 1991 calculated.

Source: Federal Statistics Office (message, 21 February 2000).

⁶⁰ GLOBUS Infografik GmbH, 54th year, 7 June 1999, Table Ta-5623.

⁶¹ All EU member states who wish to take part in the single currency have to meet four convergence criteria – the so-called Maastricht criteria; among other things, a public debt of less than 60 percent of GDP. See McCormick, John, *Understanding the European Union – A Concise Introduction*, New York, 1999, p. 196. In January 1999, the Euro was launched, with 11 of the EU's 15 member states participating. Since 1996 Germany has been always very close to this 60-percent-debt-limit. In 2000, it is estimated that Germany's public debt will reach 61 percent of GDP and thus probably cross the debt-limit. GLOBUS Infografik GmbH, 54th year, 18 October 1999, Table Td-5891.

It can be assumed that the perception of threat is still an important military variable for explaining the decrease in Germany's defense budget. The confrontation of the two post-war alliances has ended. Any threat of large-scale aggression against Germany's existence is highly unlikely. The threat once posed to Germany has become not only hypothetical but improbable as well. The military threat is limited to residual concern over Russia's intentions in its former internal empire and the "near abroad".⁶² Using Russia's defense expenditure as a measure of threat shows that Russia's military spending in 1997 was less than one-tenth that of the Soviet Union in 1988.⁶³ Furthermore, "There is no doubt: the geo-strategic situation has improved substantially [for Germany] since the artificial division of Europe for decades was overcome and East-West confrontation ended."⁶⁴ For the first time in history, Germany is entirely surrounded by nations that are regarded as allies and/or friends. Thus, assuming that the perception of threat has considerably influenced the level of defense spending, Germany's decrease in defense expenditure after the Cold War era has been the consequent response to the changed security situation.

In addition, it can be assumed that – as during the Cold War – the adopted NATO strategies in the 1990's, which finally resulted in the April 1999 Alliance's Strategic

⁶² Sperling, James and Kirchner, Emil, *Recasting the European Order*, Manchester and New York, 1997, p. 8.

⁶³ Stockholm International Peace Research Institute (SIPRI), *Yearbook 1998*, Oxford, 1998, p. 6.

⁶⁴ Speech of the Federal Minister of Defense, Rudolf Scharping, at the NATO Defense College in Rome on 11 January 2000, *Euro-Atlantic Security and Regional Stability in the 21st Century*.

Concept,⁶⁵ and the defense spending behavior of other NATO Allies have affected Germany's defense spending as well. The elements of this updated strategic concept, such as the European Security and Defense Identity (ESDI), conflict prevention and crisis management, improved partnership, cooperation and dialogue, seem to display their own implication for the defense spending behavior of NATO members. However, scientifically proving these supposed effects of the new NATO strategy on defense spending, and quantifying these impacts in actual data has not yet been possible and should be a challenge for further research.

C. IN THE FUTURE

It is reasonable to assume that military, economic and political variables will continue to influence defense spending. The perception of threat and the desire for security will always considerably determine a country's effort for defense. However, at the moment, the economic and political variables seem to offset military aspects in Germany. The consequences of the reunification process, the high unemployment, and the moderate economic growth, have been a rapidly increasing federal debt with still high downside risks for the years to come, highlighting the need for a serious consolidation program for the federal budget. The Federal Minister of Defense has already admitted that

⁶⁵ At their Summit meeting in Washington on 23rd and 24th April 1999, NATO Heads of States and Government approved the Alliance's Strategic Concept. Press Release NAC-S99(65). Available [Online]: <<http://www.nato.int/docu/pr/1999/p99s065e.htm>> [10 March 2000]. It replaced the previous November 1991 Alliance's New Strategic Concept. Available [Online]: <<http://www.nato.int/docu/comm/49-95/c911107a.htm>> [5 February 2000].

the Bundeswehr must contribute to the consolidation of the federal budget.⁶⁶ Federal Chancellor Gerhard Schröder stressed again at the Bundeswehr Commanders' Conference in December 1999 that it is inevitable that the Ministry of Defense – like all the other ministries – must make a contribution to the overdue recovery of the state's financial situation.⁶⁷ He described the effects of such a contribution on the German armed forces as follows:

Indeed, in the foreseeable future, the continuing pressure to save money still means: The Bundeswehr cannot afford necessarily many desirables right now, in the immediate or in the near future.⁶⁸

Therefore, at present, it appears that the defense budget is mainly determined by the attempts of the Finance Minister to consolidate the federal budget, rather than by the demands of the Federal Minister of Defense to meet foreign and security policy objectives. Ideally, foreign and security policy objectives are established first, and then a force structure is designed to meet those objectives. At the moment, it seems that this ideal sequence is completely reversed. Economic constraints and budgetary ceilings dictate the acceptable force-structure options. As a consequence of this, the defense budget is the basis from which the personnel framework and the equipment for Germany's armed forces must be derived. Thus, Germany's defense spending is only partly determined by its security and foreign policies and the changed roles and missions of its military forces. However, by committing the defense expenditures, output-oriented necessities should

⁶⁶ Speech of the Federal Minister of Defense, Rudolf Scharping, at the Führungsakademie der Bundeswehr in Hamburg on 8 September 1999, *Grundlinien deutscher Sicherheitspolitik*.

⁶⁷ Speech of the Federal Chancellor, Gerhard Schröder, at the 37th Bundeswehr Commanders' Conference in Hamburg on 1 December 1999.

⁶⁸ *Ibid.*

dominate budgetary constraints and not vice versa. To achieve this, the Federal Minister of Defense formed a Commission on Common Security and the Future of the Bundeswehr in the spring of 1999. The Commission, headed by the former Federal President of Germany, Richard von Weizsäcker, consists of politicians, military experts, lobbyists from industry, and other important elements of German society. They are evaluating and assessing the missions, strength, conscription, training and equipment of the German armed forces. Based on the results of this commission, which will be presented in May 2000, it will then be determined how the new German armed forces should be designed.⁶⁹ Thus, there is hope that in the future, military aspects and output-oriented necessities will determine the defense budget more than they currently do. However, a prediction about the level of future defense spending still remains extremely uncertain. Considering all the varying impacts that military, political, and economic aspects could have, the outcome is difficult to forecast.

D. THE GOVERNMENTAL DECISION-MAKING PROCESS

“Governmental budgeting is problem-solving by way of a choice process.”⁷⁰ Neither military aspects, economic factors, quantifiable political variables, nor any high-ranking commission, will significantly determine the defense expenditures alone. Rather, they build the internal and external environment of a complex governmental decision-

⁶⁹ Speech of the Federal Minister of Defense, Rudolf Scharping, at the Führungsakademie der Bundeswehr in Hamburg on 8 September 1999, *Grundlinien deutscher Sicherheitspolitik*.

⁷⁰ Fritz-Aßmus, Dieter and Zimmermann, Klaus, *West German demand for defence spending*. In: Hartley, Keith and Sandler, Todd (eds.), *The economics of defence spending: an international survey*, London and New York, 1990, p. 127.

making process.⁷¹ This process must be examined more closely when discussing governmental budgeting and determining the level of defense spending. Research on public choice theory helps to understand the governmental decision-making and resource-allocation process.⁷²

The level of defense spending, which can be seen as an outcome of the governmental decision-making process, is determined not only by the quantifiable military, economic, and political variables, as discussed in the preceding paragraphs, but also by numerous different internal and external variables, such as a government's ideology, the timing of election cycles, and the politics of interest groups. Economic associations, the media, and the party system play a crucial role in Germany's decision-making process as well. Also, the political culture, institutions, and the bureaucracy must not be neglected in such an approach. Furthermore, expectations and demands of voters, public opinion,⁷³ and the realization of such expectations by politicians also influence the decision-making process. In addition, very little is known about the influence of alliances, international treaties and commitments, and states' grand strategies toward such trade-off

⁷¹ See Teichmann, U. *Eine Einführung in die demokratische und instrumentelle Wirtschaftspolitik*, München, 1993; and Eichenberg, Richard C., *The Expenditure and Revenue Effects of Defense Spending in the Federal Republic of Germany*, Policy Sciences 16, pp. 391-411.

⁷² Hewitt has used a simultaneous equation framework based on a public choice model to analyze the potential determinants for military expenditures. Hewitt, Daniel, *Military Expenditures Worldwide: Determinants and Trends, 1972-1988*, Washington, D.C., 1989.

⁷³ See Higgs, Robert and Kilduff, A., *Public Opinion: A Powerful Predictor of U.S. Defense Spending?*, Defence and Peace Economics, Vol. 4, Harword, 1993, pp. 227-238; Brauer, Jurgen, *Public Opinion: A Powerful Predictor of U.S. Defense Spending? A Comment*, Defence and Peace Economics, Vol. 5, Harword, 1994, pp. 247-253; Higgs, Robert, *Public Opinion: A Powerful Predictor of U.S. Defense Spending?*, Defence and Peace Economics, Vol. 5, Harword, 1994, pp. 255-258.

decisions.⁷⁴ Therefore, to complete a discussion about the determinants of defense spending, the aspects of foreign policy should be included in the governmental-decision making process as well. All these factors together eventually have an impact on governmental budgeting and, thus, on the level of defense spending.

⁷⁴ Concerning the topic how intra-alliance political considerations affect the level of defense spending see Palmer, Glenn, *Alliance Politics and Issue Areas: Determinants of Defense Spending*, American Journal of Political Science, Vol. 34, No.1, February 1990, pp. 190-211. About the general effect of alliance membership on the defense burden see Palmer, Glenn and Souchet, Andrew, *Security, Autonomy and Defense Burdens: The Effects of Alliance Membership in the 19th and 20th Centuries*, Defence and Peace Economics, Vol. 5, Harword, 1994, pp. 189-204.

V. THE PEACE DIVIDEND

In the discussions above defense spending was treated as the dependent variable, whereas, in this chapter it is the independent variable. Now the question is: What are the impacts of declining defense spending in Germany? In answering this, it is useful to distinguish between direct and indirect effects. The most well-known direct effect might be the so-called “peace dividend”. Almost no-one denies the qualitative existence of such a peace dividend since the end of the Cold War, although nobody can measure it exactly and determine its quantitative side. In addition, the effects of the peace dividend are highly disputed. Contemporary literature often romances this peace dividend and automatically assumes that with declining defense expenditures there will be a positive impact to national well-being and economic growth. However, recent studies show that this is a rash conclusion. The relationship between defense spending and national well-being or economic growth is a complex one and cannot be generalized. Before this issue is discussed in more detail, it will be useful to define and try to quantify Germany’s peace dividend. By doing this, only the monetary aspects of the peace dividend are considered in the following paragraphs.

A. QUANTIFICATION OF THE PEACE DIVIDEND

It is common practice to derive the peace dividend from a declining defense burden. Thus, the peace dividend is defined as the savings, which can be made by the defense budget, due to the changed security situation. Unfortunately, these savings do not appear obvious. They are hidden in many different forms in the total national budget and

are not easily enumerated. In general, the peace dividend can have three different effects on the overall national budget.⁷⁵ First, the peace dividend could keep the overall budget relatively constant, while redistributing the funds initially assigned for military purposes to different non-defense programs. Next, officials may also use the peace dividend to decrease the overall budget by reducing the fiscal deficit. Finally, they may also use the funds to decrease the overall budget by cutting taxes. Of course, the effect of the peace dividend can also be a combination of these three different alternatives.

One method of estimating the peace dividend is to use the average amount of defense spending expressed as a percentage of GDP for a basis. Until 1990, this percentage was consistently about 2.5 percent when using Germany's definition of defense spending.⁷⁶ In other words, Germany's price for maintaining peace during the Cold War was spending an average of 2.5 percent of GDP for defense. Currently, it seems to be sufficient to spend less than 2 percent of GDP as a security provision. Thus, the difference between the defense spending of the past (2.5 percent of GDP), which must be theoretically spent to maintain peace under *ceteris paribus* conditions, and the actual defense spending, can be seen as the peace dividend.⁷⁷ Under these assumptions, the peace

⁷⁵ Schiff, Jerald, Gupta, Sanjeev and Clements, Benedict, *Worldwide Military Spending, 1990-95*, Defence and Peace Economics, Vol. 9, Harword, 1998, p. 250.

⁷⁶ If the NATO definition were used, the percentage of GDP would be about 3 percent. However, then the "peace dividend" must be calculated not from the national defense budget, but from the defense expenditure according to the NATO definition.

⁷⁷ If East German defense spending were included, the peace dividend would be even higher. They spent, for example, between 4.5 and 4.9 percent of GDP (depending on the different definitions on defense spending) in 1988. Maneval, Helmut, *Defence Spending in West Germany*, Defence and Peace Economics, Vol. 5, Harword, 1994, p. 235.

dividend constantly increased during the 1990's (see Table 5).⁷⁸ It was about DM 20 billion in 1991, whereas, it increased to about DM 50 billion in 1999. The peace dividend derived from the GDP totals DM 330.6 billion over the last 9 years.

	1991	1992	1993	1994	1995	1996	1997	1998	1999
Gross Domestic Product (GDP)	2,938	3,155	3,236	3,372	3,394	3,523	3,586	3,667	3,872
Theoretical Defense Spending (2.5 percent of GDP)	73.5	78.9	80.9	84.3	84.9	88.1	89.7	91.7	96.8
Actual Defense Spending	53.6	52.8	49.6	47.2	47.6	47.2	46.3	46.9	47.0
Peace Dividend as Difference	19.9	26.1	31.3	37.1	37.3	40.9	43.4	44.8	49.8

Table 5. The Peace Dividend of the Reunified Germany Derived from the Gross Domestic Product (1991 - 1999).

Note: Figures are in billion DM (nominal).

Sources: a) GDP figures are from the Federal Statistics Office (message, 21 February 2000).

b) Figures about actual defense spending are from the Federal Ministry of Defense (message, 18 October 1999, latest update: July 1999).

Another method of estimating the peace dividend is to compare the share of the defense budget to the total national budget. During the Cold War, this share was roughly 20 percent, while now it has decreased to less than 10 percent. By using the difference between the theoretical defense spending (20 percent of the total federal budget) under *ceteris paribus* conditions and the actual defense spending, the peace dividend can again

⁷⁸ Due to the statistical problem in the reunification year 1990, when two national defense budgets and two German GDPs existed, a calculation of a peace dividend is out of the question.

be calculated. According to this method, the peace dividend was DM 26.8 billion in 1991, increasing to about DM 50 billion in 1999 (see Table 6), which is the same level calculated in the GDP-method above. The peace dividend derived from the total federal budget totals DM 374 billion over the last 9 years.

	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total Federal Budget (TFB)	402	427	457	471	465	451	445	457	486
Theoretical Defense Spending (20 percent of TFB)	80.4	85.4	91.4	94.2	93.0	90.2	89.0	91.4	97.2
Actual Defense Spending	53.6	52.8	49.6	47.2	47.6	47.2	46.3	46.9	47.0
Peace Dividend as Difference	26.8	32.6	41.8	47.0	45.4	43.0	42.7	44.5	50.2

Table 6. The Peace Dividend of the Reunified Germany Derived from the Total Federal Budget (1991 - 1999).

Note: Figures are in billion DM (nominal).

Sources: a) Figures about the total federal budget are from the Federal Statistics Office (message, 21 February 2000).
 b) Figures about actual defense spending are from the Federal Ministry of Defense (message, 18 October 1999, latest update: July 1999).

Both estimates support the statement of the Federal Minister of Defense Rudolf Scharping, who has argued, “The personnel and equipment of the Bundeswehr has been cut by half; and in this way, Germany has received a peace dividend clearly above DM 40 billion annually.”⁷⁹ However, it is coincidental that the results of the two estimates of the peace dividend are so similar. Disparate outcomes from these two methods would not have been surprising, since GDP and the overall national budget do not usually proceed in

the same direction or at the same pace. On the one hand, the more effort a government makes to reduce its deficit or to stop the tendency toward “bigger government”, the greater the difference will be in comparison to an increasing GDP. On the other hand, a decreasing GDP, such as due to a recession, does not necessarily result in a decreasing total national budget. The opposite might be true as well, if the government tries to fight against a recession by extensive Keynesian fiscal politics. Regardless of whether the German peace dividend has amounted to DM 374 billion or “only” 331 after its reunification, it remains a considerable sum, which should have tangible effects. Knowing the impact of past peace dividends might also help in estimating the current and future effects as well.

B. PEACE DIVIDEND AND ECONOMIC GROWTH

Research studies into the relationship between defense spending and economic growth are extremely controversial. Granger found evidence to the exogeneity of military spending, relative to economic growth.⁸⁰ Joerding found contrary evidence that military spending is not a strongly exogenous variable, relative to economic growth.⁸¹ Barro proved that government consumption spending – and thus the overwhelming part of defense spending – reduces economic growth, according to the assumption that

⁷⁹ Speech of the Federal Minister of Defense, Rudolf Scharping, at the Führungsakademie der Bundeswehr in Hamburg on 8 September 1999, *Grundlinien deutscher Sicherheitspolitik*.

⁸⁰ Granger, C.W.J., *Investigating Causal Relations by Econometric Models and Cross-Spectral Methods*, *Econometrica* 37, 1969, pp. 424-438.

⁸¹ Joerding, Wayne, *Economic Growth and Defense Spending: Granger Causality*, *Journal of Development Economics* 21, 1986, pp. 35-40.

consumption reduces saving and capital investment.⁸² Fredericksen and Looney, as well as Landau, presented empirical evidence that military expenditures can also have a positive effect on economic growth.⁸³ The only general conclusion that can be drawn from these controversial research studies is that – depending on the country or time period in question – defense spending may be positively or negatively related to economic performance; it may also be statically unrelated to the latter.

If an increase in defense spending actually reduces economic growth, then in the opposite case a reduction in defense expenditure should consequently result in faster economic growth. However, despite an almost constant decrease in Germany's defense spending over the last decade, an accompanying increase in economic growth is difficult to perceive (see Table 7). From the data it appears unlikely that there is a relationship between defense expenditures and economic growth at all. This reinforces the findings from the discussion about the determinants of defense spending during the Cold War, which found no significant relationship between defense spending and economic growth in the opposite case – defense expenditures as dependent variable and economic growth as independent variable. If there is such a relationship, then it must be a very weak one. However, to prove this hypothesis scientifically, it would be necessary to make, for example, a regression analysis. This goes beyond the purpose of this thesis and should be

⁸² Barro, Robert J., *Economic Growth in a Cross Section of Countries*, Quarterly Journal of Economics 106, May 1991, pp. 407-443.

⁸³ Fredericksen, P.C., and Looney, Robert, E., *Defense expenditures and economic growth in developing countries: Some further empirical evidence*, Journal of Economic Development 7, 1982, pp. 113-125. Landau, Daniel, *The Impact of Military Expenditures on Economic Growth in the Less Developed Countries*, Defence and Peace Economics, Vol. 5, Harword, 1994, pp. 205-220.

a challenge for further research. In addition, for such an analysis, more data on a consistent basis should be available to get reliable results. For the discussion here, it is quite sufficient to know that the influence of defense spending on economic growth is highly disputed.

	1991	1992	1993	1994	1995	1996	1997	1998	1999
Gross Domestic Product (GDP)	3,346	3,421	3,384	3,463	3,523	3,550	3,601	3,679	3,728
Defense Spending	60.9	59.5	54.8	51.4	49.9	48.8	47.7	48.1	48.9
Economic Growth in percentage	---	2.2	-1.1	2.3	1.7	0.8	1.5	2.2	1.4
Defense Growth in percentage	---	-2.3	-7.9	-6.2	-2.9	-2.2	-2.3	0.8	1.7

Table 7. Gross Domestic Product and Defense Spending in Real Terms (1991 - 1999).

- Notes:
- a) Figures of the Gross Domestic Product (GDP) and defense spending are in billion DM and inflation adjusted on the basis of 1995 prices.
 - b) Figures of defense spending are from the Federal Statistics Office and do slightly differ from the Budget of the Federal Ministry of Defense because of differences in definition.
 - c) The economic growth and the defense growth are expressed as the change of the GDP respectively defense spending with the previous year.
 - d) Due to the problem of statistical data in the reunification year 1990, there is no economic growth rate or defense growth rate for 1991 calculated.

Source: Federal Statistics Office (message, 21 February 2000).

The relevant trade-offs caused by the peace dividend are not necessarily between government spending for “guns” and government spending for “butter”. Rather, the trade-offs implied involve public consumption of “guns” as well as “butter” on the one hand, and private consumption on the other hand. Since it can be assumed that “less state” and “more private venture” leads to higher economic growth, it is interesting to know the trend

of government spending related to the GDP. In Germany, there is no single trend for public consumption as percent of GDP perceptible during the last decade (see Figure 6). The public consumption was characterized by an increase in the first half of the decade; whereas, it decreased in the second half. In 1995, the public-consumption share reached its peak at 50.6 percent.⁸⁴ However, defense spending continually shrank during this time. Therefore, it seems likely that the peace dividend had no significant impact on the public-consumption share, at least not in the first half of the 1990's.

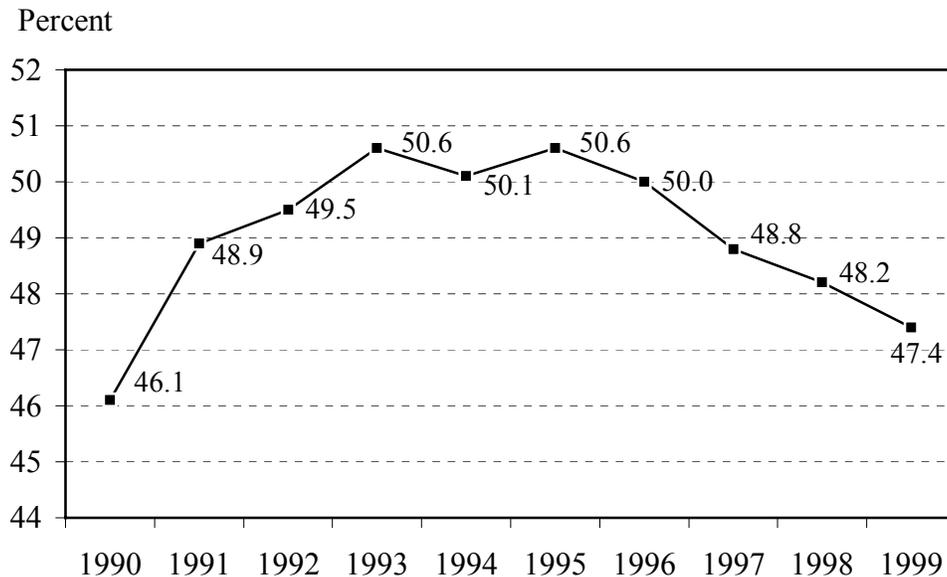


Figure 6. Public Consumption as Percent of the Gross Domestic Product (1990 - 1999).

- Notes:
- a) The figure in 1990 refers exclusively to West Germany and does not consider the former German Democratic Republic. Since 1991, the figures refer to the reunified Germany.
 - b) Figures in 1998 and 1999 are estimated.

Source: GLOBUS Infografik GmbH, 53rd year, 8 June 1998, Table Ta-4903.

⁸⁴ This high level was mainly a result of the huge financial-transfer spending for the economic rebuilding, conversion, and social security in the five new federal states after Germany's reunification.

C. PEACE DIVIDEND AND NATIONAL WELL-BEING

In general, there is no doubt that public spending has a nontrivial impact on the well-being of citizens. Since defense spending is a specific part of public spending, the question of concern is: How have people's lives actually been influenced – either positively or negatively – by changing defense-spending levels? Does a decline in defense spending improve the national well-being, due to the assumption of a zero-sum game and the typical guns versus butter discussions? To answer these questions, one must first define the conditions of national well-being and, secondly, investigate how defense expenditures influence the allocation of other types of public spending by the government.

The relevant consequences for national well-being can take various forms. They may include the citizens' economic affluence, the equity of national income distribution, the people's physical welfare, and the civil liberties and political freedoms customarily enjoyed by them. These examples of a broad definition of popular well-being are the primary concern for caring about a rising or falling defense burden. They are the ultimate dependent variables, whereas defense burden is treated as the independent variable. In this view, economic growth is closely connected to national well-being also. Most literature tends to assume that faster economic growth rates will necessarily translate into greater popular well-being. However, this expectation seems to be politically naïve and empirically unwarranted. There is, for example, substantial evidence supporting the proposition that faster economic growth tends to exacerbate rather than ameliorate income

inequity. Thus, not only is the impact of the peace dividend on economic growth disputed, but the effect of faster economic growth rates on national well-being is also controversial.

Another question is: How do defense expenditures influence the allocation of other types of federal spending? To find the appropriate answer, a comparison between the total federal budgets for 1991⁸⁵ and 1999 is useful (see Table 8 and Figure 7). By doing this, two phenomena emerge. First, there was an increase in the total federal budget by about 20 percent from DM 401.8 billion in 1991 to 485.7 in 1999. The assumption that a peace dividend of roughly DM 350 billion⁸⁶ might result in a decrease in the overall budget because of a shrinking net borrowing, or the opportunity of decreasing taxes, did not come true. In fact, the exact opposite happened. Due to a dramatically increasing federal deficit,

	Labor and Social Order	Defense	Net Interest	Transportation	Other Outlays	Total
Total Federal Budget 1991	91.9	53.6	44.8	35.2	176.3	401.8
Total Federal Budget 1999	172.4	47.0	85.9	48.0	132.4	485.7
Difference nominal	80.5	- 6.6	41.1	12.8	- 43.9	83.9
Difference in percentage	87.6	- 12.3	91.7	36.4	- 24.9	20.9

Table 8. The 1991 Total Federal Budget in Comparison with the 1999 Total Federal Budget.

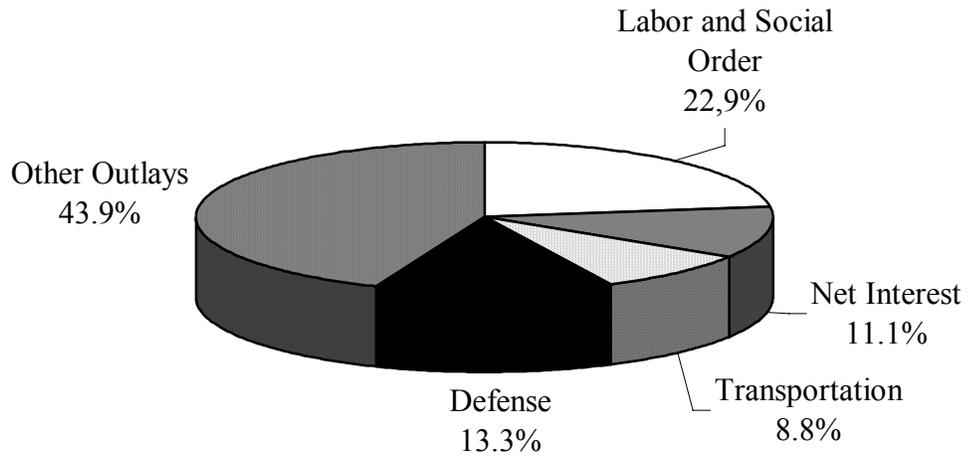
Note: Figures for the total federal budgets are in billion DM (nominal).

Source: Federal Statistics Office (message, 21 February 2000).

⁸⁵ The year 1991 is used because it was the first year in which a total federal budget for the reunified Germany exists.

⁸⁶ Rough average of the two different estimates (DM 331 billion according to the GDP method and DM 374 billion according to the total-national-budget method) performed in the first paragraph of Chapter V.

Federal Total Budget 1991:



Federal Total Budget 1999:

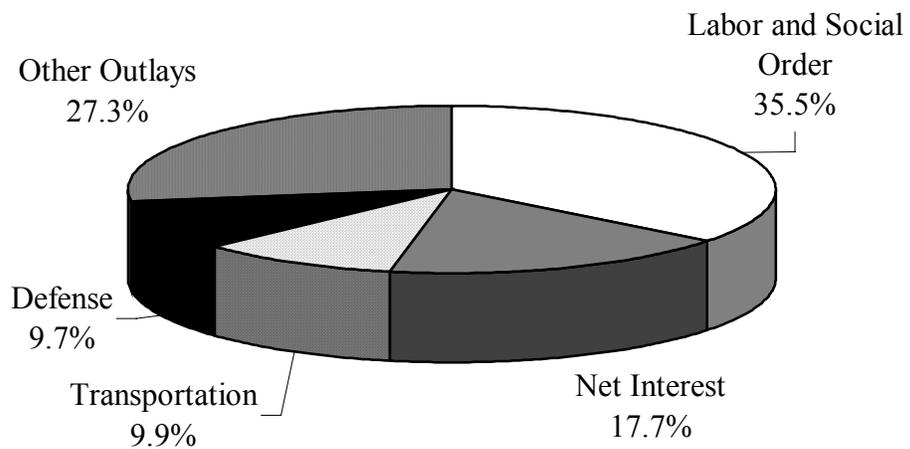


Figure 7. The 1991 Total Federal Budget in Comparison with the 1999 Total Federal Budget.

Source: Federal Statistics Office (message, 21 February 2000).

the net interest logically increased as well, thereby inflating the overall budget. The net interest in 1999 was almost twice that in 1991. In addition, the peace dividend did not lead to appreciable tax reductions during the time period concerned. In fact, the German government raised taxes during this time by introducing a surtax,⁸⁷ and by increasing the amount of the value-added tax (Umsatz-Mehrwertsteuer). The increased total federal budget, despite a considerable peace dividend from 1991 to 1999, signals that a common source or common process offset the assumed effects of the peace dividend. Knowing of the tremendous expenditures involving the five new federal states in order to catch up with the living standards of the old federal states, it appears likely that the costs of Germany's reunification process consumed the expected positive effects of the peace dividend.

Second, by comparing the two total federal budgets from 1991 and 1999, one can see that a redistribution process took place.⁸⁸ The share of defense spending dropped from 13.3 to 9.7 percent, whereas, the share of labor and social order increased from 22.9 to 35.5 percent. However, this does not necessarily imply an improved national well-being. It might just be the result of higher expenditures for unemployment. Furthermore, the reasons for the increased social welfare budget must not necessarily be due to decreasing defense spending. Other factors might be the source for such effects as well. For example,

⁸⁷ To facilitate the absorption of the former German Democratic Republic, the German government imposed an earmarked solidarity tax. In 1999, the revenues of this surtax amounted to about DM 22 billion. GLOBUS Infografik GmbH, 54th year, 7 June 1999, Table Ta-5621.

⁸⁸ The drop in other outlays was mainly the result of the fact that immediately after reunification, many expected expenditures for the five new federal states were assigned to the Budget of the General Financial Administration. The increase in the budget of transportation can be explained by the great need to catch up in this area for the five new federal states.

the reunification process was proceeding so quickly that there was not enough time to adjust all the laws concerning social security to the changed situation. Therefore, the entire social security safety net from the old federal states was more or less completely adopted for the five new federal states. As a result of this, the German government was forced by law to inflate the Budget of Labor and Social Order. Furthermore, decisions of the Federal Constitutional Court forced the politicians in charge to increase social spending for specific groups as well.⁸⁹

Empirical analyses investigating the relationship between defense allocations on the one hand, and allocations for health, housing, and welfare on the other hand support these findings. Eichenberg, for example, found few trade-offs between defense spending and social spending in his study of the West German case.⁹⁰ However, he found increases in the defense budget to be accompanied by increases in the payroll tax rate for social security. In other words, higher military expenditures did not come at the expense of lowered social expenditures. Consequently, a peace dividend might not necessarily lead to higher social expenditures. The major conclusion, derived from the above comparison of the total federal budget of 1991 and 1999 and Eichenberg's analyses, is that the classic zero-sum assumption typically used in butter-versus-guns discussions is unrealistic.

Germany's overall budget seems to expand or shrink according in part to the perceived need for various expenditures and in part to the anticipated size of revenues.

⁸⁹ Some decisions mainly concerned the subsistence level, leading finally to higher social benefits for people with less income and families with children.

⁹⁰ Eichenberg, Richard C., *The Expenditure and Revenue Effects of Defense Spending in the Federal Republic of Germany*, Policy Sciences 16, pp. 391-411.

There is no fixed total sum of money to be distributed between defense and non-defense categories. Instead, the very size of this aggregate sum is itself a key dependent variable to be analyzed. When dealing with the peace dividend, a simultaneous problem occurs.⁹¹ The extant literature often ignores the reciprocal causality that characterizes the different aspects of the peace dividend. It sees the budget process as a top-down matter, when in fact it is also simultaneously bottom-up. Therefore, it is a misrepresentation to assume that defense and non-defense spending are necessarily competitive. This view overlooks the possibility that the government's spending for both defense and non-defense purposes may be derivative of a common source or similar process. Instead of being competitive, they may be symptomatic of a general tendency for the public sector to expand and assume a larger share of the national product over time. The historical time series for Germany shows that defense and non-defense expenditures have increased or decreased simultaneously rather than rising or falling at each other's expense.⁹²

In sum, impacts of the peace dividend on German economic growth and national well-being are not obviously apparent and should be the challenge for further, more detailed research. In general, it seems that the reunification process has offset the assumed positive effects of the peace dividend.

⁹¹ Joerding, Wayne, *Economic Growth and Defense Spending: Granger Causality*. *Journal of Development Economics* 21, 1998, pp. 35-40.

⁹² Eichenberg, Richard C., *Do We Yet Know Who Pays for Defense?* In: Chan, Steve and Mintz, Alex (eds.), *Defense, Welfare and Growth: Perspectives and Evidence*, London: Routledge, 1992, pp. 231-241.

VI. THE MILITARY-ECONOMIC IMPACT OF THE DECLINING DEFENSE SPENDING

The discussion about the peace dividend in Chapter V has shown that the impact of declining defense spending on economic growth and national well-being is highly controversial. This chapter suggests that there are other impacts due to decreasing defense expenditures as well, which are more apparent. The research question remains the same as in the chapter before: What are the impacts of the declining defense spending in Germany? In Chapter V the main focus has been on economic growth and national well-being, whereas, this chapter concentrates on military-economic aspects. It argues that due to the declining defense spending, the total strength of Germany's military forces has decreased, the investment share has dropped dramatically, and the German defense industry has shrunk considerably over the last decade. It also forecasts that with the intended further cuts in the defense budget, this trend will likely continue.

A. SHRINKING TOTAL STRENGTH

The German armed forces have had a peacetime strength of about 500,000 personnel since 1975. On 3 October 1990, the day of Germany's reunification, the total strength of the Bundeswehr reached its peak of almost 580,000 personnel due to the temporary incorporation of the former East German military (NVA).⁹³ Following the "Two plus Four" Treaty, which was signed on 12 September 1990, Germany committed

⁹³ Federal Ministry of Defense, *Bestandsaufnahme* - Die Bundeswehr an der Schwelle zum 21. Jahrhundert, Bonn, 1999, p. 118.

itself under international law to reducing the overall strength of its armed forces to 370,000 by the end of 1994.⁹⁴ However, mainly because of budgetary constraints, Germany decreased its armed forces in 1995 to 340,000, and by the end of 1998 to 330,000.⁹⁵ In 1999, the total strength remained at almost 330,000. Due to the lack of money in the defense budget, the Federal Ministry of Defense is now planning to further

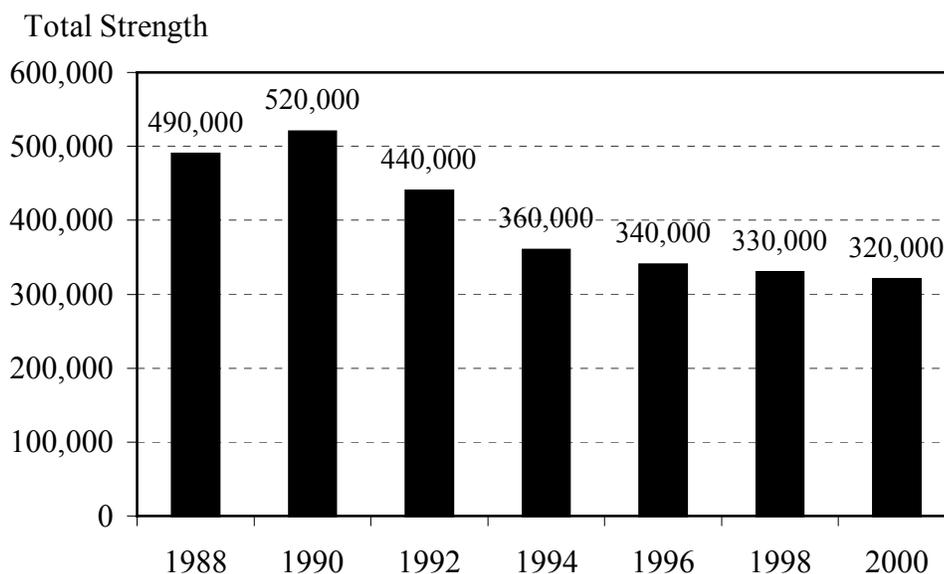


Figure 8. Total Military Strength of the German Armed Forces (1988 - 2000).
 Notes: a) Figures are roughly rounded average figures for the concerned years.
 b) The figure in 1988 refers exclusively to the Bundeswehr. Since 1990, the military personnel of the former German Democratic Republic (NVA), which was temporarily incorporated into the Bundeswehr, have been included as well.
 Source: Federal Ministry of Defense (message, 9 December 1999).

⁹⁴ Federal Ministry of Defense, *German Security Policy and The Bundeswehr*, Bonn, 1997, p. 21. The strength of 370,000 is mentioned in the “Concluding Act of the Negotiations on Personnel Strength of Conventional Armed Forces in Europe” (CFE 1a), July 1992, as well. Federal Ministry of Defense, *White Paper 1994*, Bonn, 1994, p. 73.

⁹⁵ Federal Ministry of Defense, *Bestandsaufnahme - Die Bundeswehr an der Schwelle zum 21. Jahrhundert*, Bonn, 1999, pp. 118-119.

reduce the Bundeswehr to 321,000 this year.⁹⁶ In addition, the 33rd Federal Finance Plan will make further cuts necessary, if other ways of saving money cannot be found in the defense budget. A simplified mathematical calculation shows that the defense budget will allocate money for no more than 240,000 military personnel by 2003.⁹⁷

A reduction in personnel strength does not necessarily cause a security and defense problem. Such problems will arise only if the German armed force is less functional after personnel downsizing and cannot fulfill the domestic and international missions and tasks with which it is charged, or if unilateral cuts in personnel strength provoke a major burden-sharing debate within NATO. However, in 1996, an analysis of the calculated minimum strength of Germany's armed forces concluded that a total strength of about 240,000 would still be sufficient to meet Germany's security and defense goals.⁹⁸ The research mainly focused on remaining threats and risks for Europe and considered system-analytical aspects including a fair burden-sharing between the European NATO Allies. It was exclusively based on a decrease in personnel strength by land forces, and it suggested a reduction of the Army to 136,000 as a peacetime minimum strength, with the ability to increase this strength to 341,000 in an emergency.⁹⁹ In addition, it was mentioned that

⁹⁶ Berliner Zeitung, 28 August 1999, *Bundeswehr beruft weniger Wehrpflichtige ein*. Available [Online]: <<http://www.dfg-vk.de/bundeswehr/etat098.htm>> [15 November 1999].

⁹⁷ Assumptions: 1. The initial situation includes personnel costs to the amount of DM 23.2 billion for a strength of 321,000 military personnel in 2000. 2. Uncategorized savings in the amount of DM 3.9 billion are subtracted from the personnel costs so that DM 19.8 billion are available for personnel in 2003. 3. The inflationary tendency of the personnel costs since 1991 is taken into consideration (4 percent). Figures – but not the calculation – are from the Federal Ministry of Defense (message, 18 October 1999, latest update: September 1999).

⁹⁸ Huber, R.K. and Davis, K. Paul, *Systemanalytische Überlegungen zur Lastenteilung und zum Streitkräfteumfang der atlantischen Allianz*, Universität der Bundeswehr München, Neubiberg, 1996, p. 73.

⁹⁹ The current strength of the Army is about 230,000, Air Force 77,000, Navy 27,000.

this minimum peacetime strength could be reduced further by two-thirds and the mobilization strength by one-third, if the NATO Allies would adequately modernize their forces. Assuming that the Air Force and Navy can contribute to personnel reductions as well, the proposed total strength for Germany could remain under 240,000 without any specific modernization. In addition, it can be assumed that since 1996, when the research was done, the security and geo-strategic situation has improved further for Germany with the enlargement of NATO. Poland, the Czech Republic, and Hungary have increased NATO's military capability at least in terms of personnel strength, and have thus eased the defense burdens of the other NATO Allies, particularly the European members since they can now decrease their own military personnel strength. Therefore, the argument that Germany needs strong personnel strength for the very unlikely case of territorial defense has steadily weakened.

In the wake of declining total strength, a discussion about Germany's conscription policy has arisen. One easy way to reduce personnel strength is to shorten the period of conscription. This happened twice within the last decade. In 1990, the period of conscription was reduced from 15 to 12 months, and in 1996 from 12 to 10 months. However, as the armed forces continue to decrease, the less fair the conscription system appears.¹⁰⁰ With a total strength of about 240,000 it would still be possible to have

¹⁰⁰ Today, only about 30 percent of the potential cohort will be drafted. About 40 percent are conscientious objectors and the remaining 30 percent are either exempted from conscription due to different reasons, or just have the "luck" not to be drafted. *Neue Züricher Zeitung*, 7 January 2000, *Und ewig schrumpft die Bundeswehr*. Available [Online]: <[http://archiv.nzz.ch/books/nzzheute/0/\\$62VLK\\$T.htm](http://archiv.nzz.ch/books/nzzheute/0/$62VLK$T.htm)> [7 January 2000].

conscription,¹⁰¹ but a further shortening of the period of conscription will be inevitable in order to avoid an increasing unfairness in the conscription system. However, this causes another dilemma: the shorter the period of conscription the less efficient the armed forces are.¹⁰² The ratio of time spent training the conscripts to the service time remaining would rapidly deteriorate. Therefore, Germany's declining defense budgets have not only resulted in shorter periods of conscription, but they have also reduced the efficiency of the armed forces. This drives the armed forces increasingly towards a volunteer force, despite the predominant intention of politicians and the prevailing wish of the military leaders to maintain conscription.

B. DWINDLING INVESTMENT

The tight defense budgets of the 1990's have left little for military investment.¹⁰³ Prior to 1990, the investment level was always above 30 percent. In 1991, it dropped to 26.9 percent, and in 1994, it decreased to its lowest level, 21.1 percent (see Figure 9).¹⁰⁴ Since then, a moderately increasing investment level of 23.7 percent in 1998 and about 25 percent currently has been achieved due to the restructuring of the Armaments Organization, and to severe economizing and rationalization measures, such as the

¹⁰¹ Hofmann, Hans, *Quo Vadis Bundeswehr? Determinanten für eine Bundeswehrstruktur im Jahre 2000⁺ aus der Sicht eines Staatsbürgers und Steuerzahlers*, Universität der Bundeswehr München, Neubiberg, 1996, p. 232.

¹⁰² Schnell, Jürgen and Straub, Gabriel, *Studien zur Zukunft der Bundeswehr: Teilstudie H – Zur ökonomischen Effizienz der Wehrpflicht am Beispiel der Bundeswehr*, Universität der Bundeswehr München, Neubiberg, 21 February 2000.

¹⁰³ The term military investment is used for capital expenditures; these include all types of purchases, at home and abroad, as well as construction contracts for military facilities and infrastructure.

¹⁰⁴ Figures are from the Federal Ministry of Defense (message, 18 October 1999, latest update: September 1999).

introduction of a cost and performance responsibility system in Germany's armed forces.¹⁰⁵ However, with the intended cuts in defense spending of the 33rd Federal Finance Plan, the level of investment will likely decrease to less than 20 percent if cuts in other fields are avoided.¹⁰⁶ The Federal Minister of Defense has already admitted that the intended cuts in the defense budget would mainly hit investment.¹⁰⁷ As a result of decreasing investment levels, the greatest share of the investment budget – procurement – suffered the most. It declined from DM 10.8 billion in 1990 to DM 6.5 billion in 1997 – a decrease of about 40 percent.

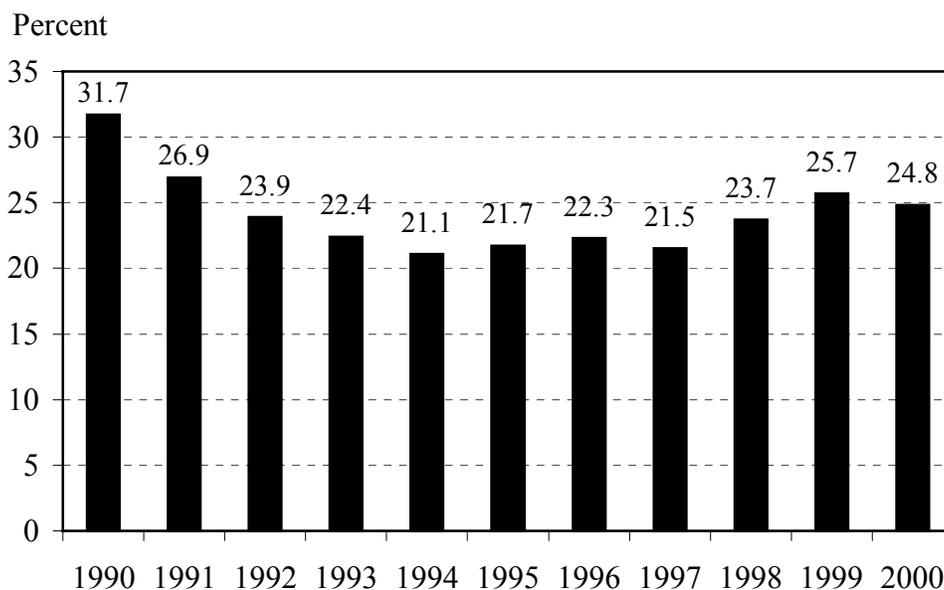


Figure 9. Level of Military Investment (1990 -2000).

Note: Level of military investment is expressed as percent of the Budget of the Federal Ministry of Defense.

Source: Federal Ministry of Defense (message, 9 February 2000).

¹⁰⁵ IAP-Dienst, Sicherheitspolitik, No. 2, February 1999, Bonn, p. 6.

¹⁰⁶ Die Welt, 3 November 1999, *Rudolf Scharpings gefährliches Spiel*. Available [Online]: <<http://www.dfg-vk.de/bundeswehr/etat098.htm>> [15 November 1999].

¹⁰⁷ Speech of the Federal Minister of Defense, Rudolf Scharping, at the Führungsakademie der Bundeswehr in Hamburg on 8 September 1999, *Grundlinien deutscher Sicherheitspolitik*.

Along with procurement, research and development (R&D) is a key determinant of the modernization of armed forces, and it has always been about 5 percent of Germany's defense budget. In 1990, R&D reached its spending peak with about DM 3.3 billion, and then dropped proportionately with the defense budget to DM 2.4 billion in 1998. With a planned R&D budget of DM 2.3 billion, the 5-percent level will still be maintained in 2003.¹⁰⁸ However, in contrast to the United States, France, or the United Kingdom, where R&D makes up more than 10 percent of the defense budget, the German contribution for R&D is less than half (see Table 9). As a result of dwindling investment and poor R&D

	Defense Spending	Research and Development (R&D)		Procurement	
	Billion US \$	Billion US \$	%	Billion US \$	%
Germany	23.8	1.26	5.3	3.71	15.6
France	28.4	3.15	11.1	5.24	18.5
United Kingdom	33.3	3.91	11.7	8.26	24.8
Italy	16.6	0.30	1.8	1.91	11.5
United States	252.4	35.3	14.0	47.05	18.6

Table 9. Defense Spending, Research and Development, and Procurement of NATO Allies (1999).

Note: Figures are inflation adjusted on the basis of 1997 prices.

Source: The International Institute for Strategic Studies (IISS), *The Military Balance 1999/2000*, Oxford, 1998, p. 37.

¹⁰⁸ Figures are from the Federal Ministry of Defense (message, 18 October 1999, latest update: September 1999).

effort, Germany cannot keep pace with the technological developments of other NATO Allies, especially not with the “revolution in military affairs” innovations of the United States.¹⁰⁹ Thus, Germany’s ability to operate effectively with its NATO Allies is increasingly in danger.¹¹⁰

Furthermore, the dwindling investment share causes a vicious circle. It is generally known that there is a strong relationship between operational expenditures and investment. Neglecting capital expenditures often causes automatically higher operations expenditures. In Germany, “military equipment is in incredibly bad condition and most of its weapon systems are older than the personnel who operate them.”¹¹¹ A typical example of such a weapon system is the Transall C-160, which was put into service in 1968. Germany would have almost no air transport capacity if it did not have the Transall C-160. Therefore, it is extremely important to keep this weapon system operational, regardless of servicing costs. For economic considerations, the Transall should have been put out of operation years ago. Initially it was planned to have a life expectancy of about 5,000 flight hours, with the last plane to be out of service by 1985. Now, the current service life has been adjusted to 17,900 flight hours, and it is planned to keep the C-160 in service until 2010. As a consequence of its age, the maintenance hours have increased and servicing costs have

¹⁰⁹ Laird, Robbin F. and Mey, Holger H., *The Revolution in Military Affairs: Allied Perspectives*, Washington, D.C., 1999, pp. 71-89. See also Gompert, David C., Kugler, Richard L., and Libicki, Martin C., *Mind the Gap – Promoting a Transatlantic Revolution in Military Affairs*, Washington, D.C., 1999.

¹¹⁰ See speech of the Federal Minister of Defense, Rudolf Scharping, at the Führungsakademie der Bundeswehr in Hamburg on 8 September 1999, *Grundlinien deutscher Sicherheitspolitik*.

¹¹¹ Bernhard Gertz, chairman of the German Bundeswehrverband. *Hamburger Abendblatt*, 3 November 1999, *Waffen älter als Soldaten*. Available [Online]: <<http://www.dfg-vk.de/bundeswehr/etat098.htm>> [5 February 2000].

escalated continually. While the maintenance costs for Germany's Transalls were roughly DM 100 million in the early 1980's, they increased to about DM 200 million in the mid 1990's, and have already reached DM 344 million in 1999.¹¹² Increasing prices contributed only slightly to this result, and even prolonging service intervals couldn't stop this trend. Comparable effects have been noticed as well in other weapon systems, such as vehicles, tanks, and ships. As less money is invested in new weapon systems, more money must be spent for operational expenditures. However, as more money is used for operational expenditures, less money becomes available for investment. This situation – a vicious circle – has occurred in Germany's armed forces.

C. FRAGMENTED DEFENSE INDUSTRY

The declining procurement budgets have forced the German defense industry to lay off 180,000 workers since 1990. Out of an original 280,000 jobs, less than 100,000 remain.¹¹³ Germany's defense industry shrank 48 percent from 1987 to 1995; whereas, France declined by only 11 percent, and the United Kingdom 28 percent.¹¹⁴ Armaments production expressed as a percentage of GDP shrank to about 0.3 percent, mainly because of the decreasing defense budgets.¹¹⁵ The German defense industry is deeply dependent on exports in order to stay reasonably competitive. However, the armaments export market

¹¹² Figures to the example of the Transall C-160 are from the Air Force Material Office (message, 12 January 2000).

¹¹³ *Wirtschaftswoche*, No. 47, 18 November 1999, *Rüstung: Rhetorische Fragen*, p. 27.

¹¹⁴ Laird, Robbin F. and Mey, Holger H., *The Revolution in Military Affairs: Allied Perspectives*, Washington, D.C., 1999, p. 80.

¹¹⁵ *Wirtschaftswoche*, No. 47, 18 November 1999, *Rüstung: Rhetorische Fragen*, p. 27.

cannot overcome consolidation and is shrinking also.¹¹⁶ The armaments export share of total exports is just 0.14 percent in Germany.¹¹⁷ The relatively restrictive export policy for armament goods aggravates the awkward situation of the defense industry. Even arms transfers to NATO Allies, such as the intended sale of 1,000 German tanks to Turkey, do not go undisputed within the German government.¹¹⁸ Therefore, more and more of Germany's defense firms are on the brink of bankruptcy, and many of them will disappear in the near future. Both the workers' councils of the defense industry and the Federal Association of German Industries fear the loss of an additional 20,000 jobs if the intended cuts in the defense budget, according to the 33rd Federal Finance Plan, take place.¹¹⁹ DaimlerChrysler Aerospace (DASA) has already announced plans to dismiss an additional 880 employees due to a lack of demand for military goods.¹²⁰ And the chief executive of the "Vereinigung Wehrtechnisches Gerät" laments that "the German armaments and ammunition industry is closing its doors."¹²¹

¹¹⁶ Germany is ranked 7th in military exports with a value of \$834 million in 1998. The greatest exporters of military goods are the United States with \$26.5 billion, France with \$9.8 billion and United Kingdom with \$8.9. The International Institute for Strategic Studies (IISS). Available [Online]: <<http://www.isn.ethz.ch/iiss/mbsum/101099/trl.htm>> [15 November 1999].

¹¹⁷ *Wirtschaftswoche*, No. 47, 18 November 1999, *Rüstung: Rhetorische Fragen*, p. 27.

¹¹⁸ The coalition contract and a governmental guideline about arms exports commit the governmental parties, the Social Democrats (SPD) and the Greens, to taking into account the human rights situations before exports of military goods are considered. Whereas the Greens are strictly against the possible German sale of 1,000 tanks to Turkey (decision of the party conference of the Greens on 16 March 2000), the SPD, in general, is in favor of this deal. *Handelsblatt*, 17 March 2000, *Grüner Parteitag mit heißen Debatten über Atom, Panzer, und Personal*. Available [Online]: <<http://www.handelsblatt.de>> [18 March 2000].

¹¹⁹ *FOCUS*, No. 42, 18 October 1999, *Bald Demos der Rüstungsarbeiter?*, p.33. *Wirtschaftswoche*, No. 47, 18 November 1999, *Rüstung: Rhetorische Fragen*, p. 27.

¹²⁰ *Wirtschaftswoche*, No. 47, 18 November 1999, *Rüstung: Rhetorische Fragen*, p. 27.

¹²¹ *Hamburger Abendblatt*, 3 November 1999, *Waffen älter als Soldaten*. Available [Online]: <<http://www.dfg-vk.de/bundeswehr/etat098.htm>> [5 February 2000].

However, the most significant aspect deriving from the declining defense budget is not higher unemployment in the defense industry itself. The loss of jobs in the defense industry is indeed regrettable, but, it is the logical consequence of a free market economy when demand shrinks and defense expenditures are used mainly for security reasons and not to foster Keynesian fiscal policies. What really merits concern is “the loss of key technological capabilities of the German defense industry,” such as infrared or high-frequency technology, and the danger that the German defense industry is forced to sell its high technology at a lower price than its fair value because of its weakened negotiating position.¹²² This alarming development causes foreseeable negative effects for civil production as well. And finally, it impedes Germany by shaping European security policy, increasing the risk that Germany will be reduced to the position as a junior partner.¹²³

¹²² This is the conclusion of a confidential paper done in the German Federal Ministry of Defense dated on 9 December 1999. Die Welt, 27 December 1999, Verteidigungsministerium warnt vor Sparkurs. Available [Online]: <<http://www.dfg-vk.de/bundeswehr/etat098.htm>> [4 February 2000].

¹²³ Hamburger Abendblatt, 3 November 1999, *Waffen älter als Soldaten*. Available [Online]: <<http://www.dfg-vk.de/bundeswehr/etat098.htm>> [5 February 2000].

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VII. CHALLENGES AND MAJOR PROBLEMS

A. ADAPTING THE GERMAN ARMED FORCES

Today, the German armed forces are faced with a broad, varied, and graduated range of tasks. New risks and threats have been added to the traditional image of war. In the future, the Bundeswehr must be able to participate in all types of missions – collective and territorial defense, cooperation with new partners, conflict prevention and crisis management, peacekeeping missions including the use of combat forces for peacemaking, rescue and evacuation missions, as well as humanitarian relief operations. “Vital characteristics of the military forces needed for the accomplishment of these tasks include rapid availability, mobility, sustainability and survivability, flexibility and operational effectiveness, but also augmentation capability.”¹²⁴ The changes in the political and strategic environment have necessitated a differentiation of force structure, which focuses on availability as a central element of task-oriented categorization. Therefore, Germany has in accordance with NATO requirements¹²⁵ established three categories of forces:¹²⁶

1. The mobilization-dependent Main Defense Forces (MDF): available within the time-frame provided for military preparations. They continue to be the backbone of national and Alliance defense and are designated – as the situation

¹²⁴ Federal Ministry of Defense, Armed Forces Staff VI 2, presentation in October 1999, *Future Capabilities of German Armed Forces*.

¹²⁵ The differentiation of force structures is laid down and described in the Alliance’s New Strategic Concept (November 1991). Available [Online]: <<http://www.nato.int/docu/comm/49-95/c911107a.htm>> [5 February 2000].

¹²⁶ See Federal Ministry of Defense, *White Paper 1994*, Bonn, 1994, p. 55; and Federal Ministry of Defense, Armed Forces Staff VI 2, presentation in October 1999, *Future Capabilities of German Armed Forces*.

requires – to reinforce the forces employed for collective defense with the aim of supporting the Alliance and/or for national defense within the Alliance.

2. The Crisis Reaction Forces (CRF): partly available and operationally ready at short notice, and partly after a short period of preparation. They are designated to take part in conflict prevention and crisis management operations at Alliance or multilateral level and to relieve and reinforce forces deployed in such operations. Furthermore, they are earmarked to be employed in the context of Alliance defense outside Germany and constitute the active component of national defense designed to protect the mobilization and deployment of the Main Defense Forces.
3. The Basic Military Organization: permanently available to assume tasks within command authorities and facilities. These forces are designated to be employed in national and multinational planning, to prepare and support operations, to safeguard operation and training, as well as to support the personnel and material augmentation capability, and to assume territorial tasks.

The restructuring of the German armed forces is still in progress and it demands, besides the adaptation of the forces' structure,¹²⁷ new equipment and material. Basically, the armed forces were equipped in the past only for territorial and Alliance defense in

¹²⁷ The latest decision is, for example, to increase the CRF of the Army by one-third (from 37,000 to 50,000) to improve their sustainability for operations abroad. Speech of the Federal Minister of Defense, Rudolf Scharping, at the 37th Bundeswehr Commanders' Conference in Hamburg on 1 December 1999.

Central Europe. However, in recent years, the top priority has become enabling the German armed forces to accomplish tasks within the scope of joint crisis management within the Alliance and in the context of peace missions for UN, NATO, OSCE, or WEU/EU. Germany must not only provide “forces in stand by”, today, it must provide “forces in operation” as well. To an increasing extent, this has been taken into account in the material planning process within the last few years, but it has yet to be realized holistically by forming an integrated whole. As far as modernization and the development of adequate core capabilities in the Crisis Reaction Forces are concerned, serious deficiencies are still apparent. In particular, the capability of deploying force contingents and their equipment over long distances is insufficient.¹²⁸ For this purpose, appropriate land, air and sea transport capabilities are needed. In addition, Germany’s armed forces must provide adequate logistic and medical support for units employed in crisis management operations and international peacekeeping missions to enhance their sustainability and operability.¹²⁹ Furthermore, the Bundeswehr must have the appropriate equipment and personal gear to operate in climatic and geographic conditions that prevail outside of the Central European region.¹³⁰ To ensure this, acquisition of required equipment will take place step-by-step and concentrate foremost on the development of adequate core capabilities in the Crisis Reaction Forces. Due to limited funds for military investments, the priority treatment of the Crisis Reaction Forces inevitably means that the

¹²⁸ Federal Ministry of Defense, Armed Forces Staff VI 1, presentation: *Defence Planning and Force Structure of the German Armed Forces*, January 1999.

¹²⁹ Ibid.

¹³⁰ Ibid.

Main Defense Forces must suffer cuts.¹³¹ However, in order to have well-balanced armed forces, it is necessary that, in the medium and long term, the Crisis Reaction Forces and the Main Defense Forces be kept at basically the same technical level. Therefore, the modernization of the Main Defense Forces must be undertaken in the near future as well, in order to ensure that the Crisis Reaction Forces and the Main Defense Forces remain efficient and maintain their interlocking capabilities.

Today, the mission spectrum of the armed forces is becoming more and more multifunctional. The use of military power quite often proves to be the last resort to separate opposing parties and to limit or end violent conflicts, as well as to support the implementation of agreements. This spectrum of new tasks supplements the original function of Germany's armed forces. The conduct of operations, as in Bosnia or Kosovo for example, calls for multinational cooperation in terms of credible crisis and conflict management as well as credible defense capabilities. The demand for interoperability, compatibility, and an adequate implementation must become a living reality within the Alliance. NATO Secretary General, Lord Robertson, warns and stresses,

Imbalances are growing within the Alliance, between those countries that are investing more quickly in new technologies and capabilities, and those that are proceeding at a slower pace.... This is increasingly posing challenges to interoperability.¹³²

¹³¹ Federal Ministry of Defense, Armed Forces Staff VI 2, presentation in October 1999, *Future Capabilities of German Armed Forces*.

¹³² Speech of the NATO Secretary General, Lord Robertson, at the Defense Week Conference in Brussels on 31 January 2000, *Rebalancing NATO for a Strong Future*. Available [Online]: <<http://www.nato.int/docu/speech/2000/s000131a.htm>> [10 March 2000].

The deficiencies in the German armed forces related to interoperability are well-known and the Federal Ministry of Defense admits, “especially in the field of command and control assets and intelligence and reconnaissance, on which operational and national command and control is based on, the equipment no longer meets the requirements.”¹³³ Thus, if Germany’s armed forces want to remain interoperable, they must especially improve their command, control, communication and information systems (C3I). NATO Secretary General, Lord Robertson, describes C3I as “the core of any operation, let alone combined and joint operations,” and points out,

Having effective forces in the modern security environment also means structuring and equipping our forces for modern operations. The days of planning for massive armoured clashes in the Fulda Gap are behind us. Today, we need forces that can move fast, adjust quickly to changing requirements, hit hard, and then stay in theatre for as long as it takes to get the job done. This means that NATO’s military forces must be mobile, flexible, effective at engagement, and sustainable in theatre.¹³⁴

Lord Robertson’s concluding remark, “and when I say ‘NATO’s forces’, I mean the forces of all the Allies,”¹³⁵ can be seen as an obvious hint to all Europeans in general, and to Germany in particular, that they must make the necessary investments to adapting their forces appropriately.

¹³³ Federal Ministry of Defense, Armed Forces Staff VI 2, presentation in October 1999, *Future Capabilities of German Armed Forces*. See also the speech of the Federal Minister of Defense, Rudolf Scharping, at the 37th Bundeswehr Commanders’ Conference in Hamburg on 1 December 1999.

¹³⁴ Speech of the NATO Secretary General, Lord Robertson, at the Defense Week Conference in Brussels on 31 January 2000, *Rebalancing NATO for a Strong Future*. Available [Online]: <<http://www.nato.int/docu/speech/2000/s000131a.htm>> [10 March 2000].

¹³⁵ Ibid.

In sum, the Bundeswehr requires a conceptual reorientation in order to meet its future tasks and missions and to be effective in considerably changed circumstances.¹³⁶ “The suitability of the armed forces for operations must be further developed on a broad basis in order to be able to carry out different tasks within the Alliance and in other multinational forms of co-operation depending on the type and intensity, duration and location of the tasks and the time available for military preparations.”¹³⁷ The challenge for the German armed forces is not only to remain interoperable, which means finally “Alliance-capable”, but also to improve its capabilities for multinational cooperation in joint tasks and missions.

B. STRENGTHENING THE EUROPEAN SECURITY AND DEFENSE IDENTITY (ESDI)

“European integration began as an economic project, but, from its very beginning NATO provided the security umbrella that allowed it to take root.”¹³⁸ Since the end of the Cold War, there has been a growing realization in Europe that the European integration process can no longer exclude security and defense. The 1992 Treaty on European Union – commonly referred to as the Maastricht Treaty – states that one of the goals of the European Union (EU) should be “to assert its identity on the international scene, in particular through the implementation of a common foreign and security policy [CFSP]

¹³⁶ Federal Ministry of Defense, Armed Forces Staff VI 2, presentation in October 1999, *Future Capabilities of German Armed Forces*.

¹³⁷ Ibid.

¹³⁸ Speech of Lord Robertson at the Frank Roberts Memorial Lecture in London on 2 February 2000, *The Expanding Europe and its Relevance for both the British and the Germans*. Available [Online]: <<http://www.nato.int/docu/speech/2000/s000202a.htm>> [10 March 2000].

including the eventual framing of a common defence policy.”¹³⁹ After the Maastricht Treaty, the concept of building a European Security and Defense Identity (ESDI) won a wide and substantial consensus. The Alliance welcomed this development: “We give our full support to the development of a European Security and Defense Identity which, as called for in the Maastricht Treaty, ... might in time lead to a common defense compatible with that of the Atlantic Alliance.”¹⁴⁰ A major aim of Germany’s security policy is to support the emergence of an ESDI.

On the basis of values and interests, the lessons of history and the transformed security situation, German security policy is geared to attaining the intensification of European integration by expanding the European Union with a Common Foreign and Security Policy and a European defence identity.¹⁴¹

The ESDI is designed to enable European allies to assume greater responsibility for their common security and defense, and to enable a more coherent contribution to be made by the European allies to the security of the Alliance as a whole. It does not mean duplication of allied command structures, assets or capabilities, but the ability of Europe to meet the minimum operational requirements for conducting, for example, UN-led operations with or without use of NATO assets and capabilities. Therefore, the concept of Combined Joint Task Forces (CJTF) – which provides the Europeans with separable but not separate military capabilities from NATO assets – has been developed as a central aspect of the

¹³⁹ European Union, Maastricht Treaty (Treaty on European Union), 1992, Article B. In addition, Article J.4(1) committed member states to defining and implementing a common policy that “shall include all questions related to the security of the Union, including the eventual framing of a common defence policy, which might in time lead to a common defence.”

¹⁴⁰ North Atlantic Council declaration, 11 January 1994, par. 4. Press Communiqué M-1 (94) 3. Available [Online]: <<http://www.nato.int/docu/pr/1994/p94-009.htm>> [10 March 2000].

¹⁴¹ Federal Ministry of Defense, *White Paper 1994*, Bonn, 1994, pp. 42-43.

ESDI.¹⁴² The Federal Minister of Defense knows that the aim of the ESDI – strengthening the European pillar of the Alliance while reinforcing the transatlantic link – is still not achieved, and he recalls,

Decades of unflinching support from the United States for German and European security were key to overcoming the division of Germany and the continent. The time has now come for the European allies to relieve the United States of some of the burden and engage in a partnership of equals, thus striking a new balance in the sharing of commitments and responsibilities for our common security.¹⁴³

However, within the last two years, considerable steps towards an ESDI have been taken.¹⁴⁴ The members of the EU established the function of a High Representative on Common Foreign and Security Policy (CFSP); they have completed the WEU audit of military assets and capabilities;¹⁴⁵ they reached an agreement to integrate the WEU into the EU by the end of 2000; and they are in the process of creating a political and security council, to provide political guidance on security issues.¹⁴⁶ At the European Summit in

¹⁴² The decision to devise CJTF was made at the NATO summit in Brussels on 10-11 January 1994. For a discussion about the CJTF concept see Yost, David, *NATO Transformed*, Washington, D.C., p. 67.

¹⁴³ Comment of the Federal Minister of Defense, Rudolf Scharping. *International Herald Tribune*, 9 November 1999, *One Germany in a Unifying Europe Alongside America*. Available [Online]: <<http://www.iht.com/IHT/TODAY/TUE/ED/edrud.htm>> [11 November 1999].

¹⁴⁴ The key events were: The Initiative of Prime Minister Blair in Pörtschach in October 1998, the French-British declaration in St. Malo in December 1998, the German-French Summit in Toulouse in May 1999, the European Summit in Cologne in June 1999, the plan for activities of President Chirac concerning the European defense in July 1999, and the last European Summit in Helsinki in December 1999.

¹⁴⁵ See Western European Union, Council of Ministers, *Audit of Assets and Capabilities for European Crisis Management Operations - Recommendations for Strengthening European Capabilities for Crisis Management Operations*, Luxembourg, 23 November 1999. Available [Online]: <<http://www.weu.int/eng/min/99luxembourg/recommendations.htm>> [10 January 2000].

¹⁴⁶ Speech of the NATO Secretary General, Lord Robertson, at the Defense Week Conference in Brussels on 31 January 2000, *Rebalancing NATO for a Strong Future*. Available [Online]: <<http://www.nato.int/docu/speech/2000/s000131a.htm>> [10 March 2000]. See also the speech of WEU Secretary General and High Representative of the EU for CFSP Javier Solana before the plenary of the European Parliament on 1 March 2000. Available [Online]: <<http://www.weu.int/eng/speeches/S000301b.htm>> [10 March 2000].

Cologne in June 1999, the leaders of 15 European countries decided to make the EU a military power for the first time in its history, with command headquarters, staff and forces of its own for peacekeeping and peacemaking missions in future crises, such as those in Kosovo or Bosnia. The European leaders declared:

The Union must have the capacity for autonomous action, backed up by credible military forces, the means to decide to use them, and a readiness to do so, in order to respond to international crises without prejudice to actions by NATO.¹⁴⁷

One of the most impressive military goals of the EU was set by the European Summit in Helsinki in December 1999. The European leaders desire to have, in three years' time, the capability of deploying a European force of about 60,000 trained rapid reaction troops, available within 60 days of the order, and able to be sustained in theatre for at least a year.¹⁴⁸ To achieve this, the already existing Eurocorps – a multinational force in which France, Germany, Spain, Belgium, and Luxembourg are participants – should be developed into this new European crisis reaction force. The European force should ensure that the EU is capable of preparing and conducting measures across the full range of conflict prevention and crisis management defined in the Amsterdam Treaty of the EU, the so-called Petersberg tasks.¹⁴⁹ To make such a European fighting force

¹⁴⁷The New York Times, 4 June 1999, *European Union Vows to Become Military Power*. Available [Online]: <<http://www.nytimes.com/library/world/europe/060499eu-military.html>> [10 December 1999].

¹⁴⁸ Speech of the Federal Minister of Defense, Rudolf Scharping, at the NATO Defense College in Rome on 11 January 2000, *Euro-Atlantic Security and Regional Stability in the 21st Century*.

¹⁴⁹ With the incorporation of the so-called Petersberg tasks in the 1997 Treaty of Amsterdam, which supplemented and amended the 1992 Maastricht Treaty, specific security issues were identified for the first time as falling within the remit of the EU. Regarding the Maastricht and Amsterdam Treaties see Nugent, Neil, *The Government and Politics of the European Union*, 4th edition, Durham 1999, p. 59-98 and Hix, Simon, *The Political System of the European Union*, New York, 1999, pp. 284-285 and 344-345.

sustainable and capable of performing its mission for a year, at least 200,000 troops must be available.¹⁵⁰ Furthermore, new satellite-based navigation and guidance systems, fighter planes and transport aircraft will be needed to deploy such forces within 60 days.¹⁵¹

At the NATO Summit in Washington in April 1999, the states of the EU also obligated themselves to developing their military means and capabilities, especially for conflict prevention and crisis management. The Alliance expressly welcomed the development of the ESDI again and stated in the NATO Alliance's Strategic Concept, "In order to enhance peace and stability in Europe and more widely, the European Allies are strengthening their capacity for action, including by increasing their military capabilities."¹⁵² Especially in fields such as strategic reconnaissance, strategic transportation, and C3I, great deficiencies by the Europeans are recognized.¹⁵³ The former Chairman of the NATO Military Committee, Klaus Naumann, stresses that the Europeans are far behind the United States' technological capabilities, and that the United States spends three times more in R&D than the Europeans. He estimates the technological lead of the United States at about five years, and sees the gap between the United States and

¹⁵⁰ Die Welt, 29 February 2000, *EU erwägt Verdoppelung ihrer Verteidigungsausgaben*. Available [Online]: <<http://www.welt.de/daten/2000/02/29/0229eu154488.htm>> [29 February 2000].

¹⁵¹ Statement of a French defense official, who also suggested setting spending targets for its European partners. The New York Times, 13 December 1999, *Military Posture of Europe to Turn More Independent*. Available [Online]: <<http://www.nytimes.com/library/world/europe/121399europe-military.html>> [13 December 1999].

¹⁵² The Alliance's Strategic Concept, April 1999, par. 18. Press Release NAC-S99(65). Available [Online]: <<http://www.nato.int/docu/pr/1999/p99s065e.htm>> [10 March 2000].

¹⁵³ Speech of the Federal Minister of Defense, Rudolf Scharping, at the Führungsakademie der Bundeswehr in Hamburg on 8 September 1999, *Grundlinien deutscher Sicherheitspolitik*.

Europe still growing. Therefore, he demands that the Europeans must overcome this weakness instead of complaining about the United States always being in the lead.¹⁵⁴

The Defense Capabilities Initiative (DCI), approved at the NATO Summit in Washington,¹⁵⁵ shows the necessary path for European action. The purpose of the DCI is to correct shortfalls in 58 identified areas of NATO's military capabilities that need improvement, and to address future challenges for NATO in a way that ensures a more balanced Alliance.¹⁵⁶ With a special focus on interoperability, NATO's DCI has concentrated on the deployability and mobility of Alliance forces, on their sustainability and logistics, their survivability and effective engagement capability, and on command and control and information systems.¹⁵⁷ To ensure the effectiveness of future multinational operations across the full spectrum of Alliance missions, all NATO members promised to improve their defense capabilities at the NATO Summit in Washington, even as the war against Serbia was bringing to light the European allies' lamentable deficiencies in numerous military areas. The Federal Minister of Defense is optimistic about NATO's DCI and convinced that it will strengthen the ESDI.

¹⁵⁴ Loyal, *Das deutsche Wehrmagazin*, No.3, September 1999, p.6.

¹⁵⁵ Washington Summit Communiqué, *An Alliance for the 21st Century*, issued by the Heads of State and Government, Washington, D.C. on 24 April 1999, par. 11. Available [Online]: <<http://www.nato.int/docu/pr/1999/p99s064e.htm>> [10 March 2000]. And NATO Press Release NAC-S(99)69, *Defence Capabilities Initiative*. Available [Online]: <<http://www.nato.int/docu/pr/1999/p99s069e.htm>> [10 March 2000].

¹⁵⁶ Speech of the NATO Secretary General, Lord Robertson, at the Defense Week Conference in Brussels on 31 January 2000, *Rebalancing NATO for a Strong Future*. Available [Online]: <<http://www.nato.int/docu/speech/2000/s000131a.htm>> [10 March 2000].

¹⁵⁷ NATO Press Release NAC-S(99)69, *Defence Capabilities Initiative*. Available [Online]: <<http://www.nato.int/docu/pr/1999/p99s069e.htm>> [10 March 2000].

It will accelerate the transformation from Alliance forces geared to territorial defense to Alliance forces capable of conducting missions that range from humanitarian support to crisis response operations and collective defense. DCI will particularly promote greater interoperability between the forces of the Allies and will also improve interoperability between partner forces and those of the Alliance. Finally, it will also narrow the substantial technology gap that exists between the United States and Europe.¹⁵⁸

However, the improvement of defense capabilities has remained just an intention, and not reality, especially for the Europeans.¹⁵⁹ Referring to the war against Serbia, the US Defense Secretary, William Cohen, highlighted some of the most striking European defense deficiencies:

A great alliance cannot have only one member, the United States, conducting virtually two-third of all support sorties and half of all combat missions. A great alliance cannot have only one or a few countries with precision-guided munitions that can operate in all weather. A great alliance cannot have its pilots communicating over unsecure lines open to its adversaries. A great alliance cannot afford extended delays in deploying its forces to potential flash points.¹⁶⁰

The European defense deficiencies are characteristic for the German armed forces as well.¹⁶¹ For example, Germany could only contribute 14 ECR-Tornados to the 900 fighter planes in total at the Kosovo mission, due to the fact that only these 14 fighter planes were

¹⁵⁸ Speech of the Federal Minister of Defense, Rudolf Scharping, at the NATO Defense College in Rome on 11 January 2000, *Euro-Atlantic Security and Regional Stability in the 21st Century*.

¹⁵⁹ For detailed information about the military deficiencies of the Europeans see Western European Union, Council of Ministers, *Audit of Assets and Capabilities for European Crisis Management Operations - Recommendations for Strengthening European Capabilities for Crisis Management Operations*, Luxembourg, 23 November 1999. Available [Online]: <<http://www.weu.int/eng/min/99luxembourg/recommendations.htm>> [10 January 2000].

¹⁶⁰ Speech of the US Secretary of Defense, William Cohen, at the 37th Bundeswehr Commanders' Conference in Hamburg on 1 December 1999.

¹⁶¹ Allgemeine Schweizerische Militärzeitung (ASMZ), No. 1, January 2000, *Wird Deutschland zum Problemfall der NATO*, p. 24. Die Welt, 1 December 1999, *Nato übt Druck auf die Bundeswehr aus - Prüfberichte für Verteidigungsminister fallen negativ aus*. Available [Online]: <<http://www.welt.de/daten/1999/12/01/1201eu140483.htx>> [1 December 1999].

adequately equipped with modern high-speed anti-radar missiles (HARM).¹⁶² Thus, Germany along with the other European NATO Allies, is challenged to spend the resources necessary to acquire the assets that would diminish dependence on American capabilities.

In sum, the challenge for the German armed forces is to become more “Europe-capable”, helping to diminish the technology gap between Europe and the United States, and supporting NATO’s DCI, thus contributing to achieving the ESDI.

C. INCREASING THE INVESTMENT LEVEL

Restructuring and modernizing, interoperability and multinationality, as well as increasing European military capabilities are dependent upon investment (capital expenditures). However, the continuing decrease in the investment level has caused concern as to how suitable equipment with modern weaponry could be assured in the long term. It was found by the Force Structure Commission in 1972 that armed forces with suitable equipment and modern weaponry could best be achieved with an investment level of at least 30 percent.¹⁶³ In 1993, as the sharp decline in investments was bringing to light its negative impact on the combat readiness of the Bundeswehr, the Federal Minister of Defense established an Operating Expenditure Limitation Working Group.¹⁶⁴ This

¹⁶² Allgemeine Schweizerische Militärzeitung (ASMZ), No. 1, January 2000, *Wird Deutschland zum Problemfall der NATO*, p. 24.

¹⁶³ Force Structure Commission, *Die Wehrstruktur in der Bundesrepublik – Analyse und Optionen, Bonn 1972*. The United Kingdom pays attention to keep 40 percent. *Die Zeit*, 9 September 1999, *Druck von allen Seiten*. Available [Online]: <<http://www.dfg-vk.de/bundeswehr/etat098.htm>> [15 November 1999].

¹⁶⁴ Federal Ministry of Defense, *White Paper 1994*, Bonn, 1994, p. 97.

working group backed up the finding of the Force Structure Commission and urged for increasing capital expenditures, in order to have an efficiently functioning Bundeswehr. Therefore, it was intended that the share of investment again be increased to 30 percent. With the assumption that the ceiling of the defense budget would be about DM 50 billion in 2004, it was originally planned to achieve the 30-percent investment level by that time.¹⁶⁵ Now, with the intended spending cuts in the defense budget of about DM 18.6 billion over the next four years, the defense budget will only be DM 43.7 billion in 2003.¹⁶⁶ Therefore, the aim of achieving an adequate investment level must be postponed yet again, due to the fact that the forced savings will predominantly hit investments.¹⁶⁷ The Federal Minister of Defense has lamented an investment gap of DM 20 billion caused by insufficient investment during previous years,¹⁶⁸ and he is pushing for an additional DM 30 to 40 billion over the next ten years.¹⁶⁹ Due to the missing investment his assessment about the current situation and the future of the Bundeswehr is very negative:

The German armed forces have not been adequately financed in years. They cannot fulfill their previous missions and cannot develop the required capabilities necessary in the future.¹⁷⁰

¹⁶⁵ Federal Ministry of Defense, Armed Forces Staff VI 1, presentation: *Defence Planning and Force Structure of the German Armed Forces*, January 1999.

¹⁶⁶ This is under the assumption that the Commission on Common Security and the Future of the Bundeswehr cannot change the trend of declining defense spending.

¹⁶⁷ Speech of the Federal Minister of Defense, Rudolf Scharping, at the Führungsakademie der Bundeswehr in Hamburg on 8 September 1999, *Grundlinien deutscher Sicherheitspolitik*.

¹⁶⁸ Ibid. Other sources estimate the investment gap in the Bundeswehr by about DM 60 billion since 1990. Neue Züricher Zeitung, 18 March 2000, *Europas Sparsamkeit bei der Verteidigung – Grosse sicherheitspolitische Ambitionen bei geringer Effizienz*. Available [Online]: <[http://archiv.nzz.ch/books/nzzheute/0/\\$62VLRJ\\$T.html](http://archiv.nzz.ch/books/nzzheute/0/$62VLRJ$T.html)> [18 March 2000].

¹⁶⁹ Badische Zeitung, 7 October 1999, *Scharping will partout nicht sparen*. Available [Online]: <http://www.badische-zeitung.de/nachrichten/mantel/politik/1999/p100/_5.htm> [15 November 1999].

¹⁷⁰ Speech of the Federal Minister of Defense, Rudolf Scharping, at the Führungsakademie der Bundeswehr in Hamburg on 8 September 1999, *Grundlinien deutscher Sicherheitspolitik*.

Without increasing military investment, tremendous amounts of money are wasted to keep outdated equipment and weapon systems operational. “The expenditures for maintenance and operation of military equipment that has crossed a certain age limit are increasing and in part no longer justifiable economically.”¹⁷¹ Much more money than in the past must be spent for investment in order to break the pre-existing vicious circle between military investment and operational expenditure in Germany’s armed forces. In addition, it is common knowledge that outdated equipment usually consumes more energy than newer equipment. Thus, demands to reduce operational expenditures in the Bundeswehr are difficult to meet as long as military investment is not increased. Furthermore, expensive labor cannot be replaced by cheaper capital without investment. New weapon systems often need less manpower to operate than older ones. Professional, modern office equipment with computers could substitute a large number of office workers. However, due to the decreasing defense expenditures, money for such economic investments is not available. Thus, many procedures in the German armed forces are inefficient and exacerbate the awkward financial situation. Due to the pre-existing investment gap, only a significant push in investment can improve this serious situation and make Germany’s armed forces more efficient.

Multinationalty and interoperability can only be achieved with modern and well-equipped armed forces. The challenge is to adequately invest in the necessary restructuring and modernizing of the Bundeswehr so that they meet the new mission requirements.

¹⁷¹ Speech of the Chief of Federal Armed Forces Staff, Hans Peter von Kirchbach, at the 37th Bundeswehr Commanders’ Conference in Hamburg on 29 November 1999.

D. ENSURING FAIR BURDEN-SHARING

The problems of fair burden-sharing have been discussed in NATO from the very beginning of its existence,¹⁷² and “it became accepted practice to evaluate defense spending on a comparative basis by shares of the gross national product.”¹⁷³ However, to this day, the Alliance has not succeeded in finding consensual solutions, for example, by setting binding standards with regard to defense budgets. Although the missing agreements on fair burden-sharing have caused internal problems within NATO since its founding,¹⁷⁴ the existence of NATO was never seriously threatened.

But now, after the threat from the Warsaw Pact has disappeared, finding a fair solution to the economic problem of burden-sharing may become more important. Both the extension of NATO and the eventual adoption of a common European security and defense policy demand that rules for fair burden-sharing are agreed upon NATO and the European Union.¹⁷⁵

The stability of NATO will increasingly depend upon whether the member states feel that the military burden for common tasks of the alliance is fairly shared or not.¹⁷⁶ Discussions within the United States, especially before the US Senate’s vote on NATO expansion in April 1998, have shown that the question of fair burden-sharing involves

¹⁷² “In October 1950, the Council Deputies set up a working group ... to assess each country’s capacity to devote economic resources to defence purposes, and to give a general view on an equitable distribution of the defence burden.” Ismay, Lord, *NATO The First Five Years 1949-1954*, 1954, p. 40. See also: Olson, M. and Zeckhauser, R., *An Economic Theory of Alliances*, Review of Economics and Statistics, Vol. 48, No. 3, 1966, pp. 266-279.

¹⁷³ Maier, Charles, *Finance and Defense: Implications of Military Integration 1950-1952*. In: Heller, Francis and Gillingham, John (eds.), *NATO: The Founding of the Atlantic Alliance and the Integration of Europe*, New York, 1992, p. 336.

¹⁷⁴ See Abelshauser, Werner, *The Causes and Consequences of the 1956 West German Rearmament Crisis*. In: Heller, Francis and Gillingham, John (eds.), *NATO: The Founding of the Atlantic Alliance and the Integration of Europe*, New York, 1992, p. 311-334.

¹⁷⁵ Maneval, H. and Weber, H., *Burden Sharing for Alliance Stability*. In: Huber, R.K. and Avenhaus, R. (eds.), *Models for Security Policy in the Post-Cold War Era*, Baden-Baden, 1996, p. 199.

¹⁷⁶ *Ibid.*, pp 191-200.

potentially explosive issues. Throughout the history of NATO, there have been arguments that the United States has paid more than its fair share of NATO defense costs.¹⁷⁷ For example, the United States has spent a higher percentage of its GDP on defense than most of the other Allies (see Table 3). Today, the Americans contribute about one-third of NATO's peacetime strength and carry almost two-thirds of the defense spending within NATO.¹⁷⁸ The indirect subsidizing of wealthy economic competitors in NATO Europe through the United States military posture raises the danger of greater disputes and conflicts within NATO. Unilateral reductions in military personnel strength and "burden-shedding"¹⁷⁹ could make the situation even worse and undermine the unity of NATO. Due to its intended cuts in defense spending, Germany runs the risk of provoking a harmful burden-sharing debate within NATO. Therefore, it is important that Germany convince the NATO Allies that it will still ensure an adequate contribution to peace and security within the Alliance. However, at the moment, this does not seem the case. "Not a single ally of the Alliance sanctions the negative trend in Germany's defense budget"¹⁸⁰ and US Secretary of Defense, William Cohen, has warned,

Defense budgets will always be a function of national priorities. ... But defense budgets must also be a function of the international challenges we face, and the capabilities we need, as an Alliance. And at a time when even new allies are urged to spend no less than two percent of their Gross Domestic Product on defense, the current trend in this nation – which has

¹⁷⁷ Yost, David, *NATO Transformed*, Washington, D.C., p. 67.

¹⁷⁸ Schnell, Jürgen, *Kompendium: Wichtige militärökonomische Kennzahlen im internationalen Vergleich*, Universität der Bundeswehr München, Neubiberg, 8 March 1999.

¹⁷⁹ Burden-shedding means mainly the discussion about who should be entitled to make military budget cuts and for what purposes.

¹⁸⁰ Statement of Hans Rühle, former head of the Minister's Planning Staff within the German Federal Ministry of Defense, in an interview. *Neue Züricher Zeitung*, 7 January 2000, *Und ewig schrumpft die Bundeswehr*. Available [Online]: <[http://archiv.nzz.ch/books/nzzheute/0/\\$62VLK\\$T.html](http://archiv.nzz.ch/books/nzzheute/0/$62VLK$T.html)> [7 January 2000].

already placed Germany in the bottom third of NATO defense spenders – sends exactly the opposite message.¹⁸¹

Cohen's statement implies that Germany must increase its current defense budget by about one-third from 1.5 percent of its GDP to roughly 2 percent. The planned defense budget of 2003, when the share of Germany's defense budget will probably drop to about 1.3 percent,¹⁸² must increase even more, by roughly half, according to his words. In particular, this means that instead of decreasing its defense budget to DM 43.7 billion by 2003, Germany should increase it to DM 60-70 billion for "devoting the resources and making the investments necessary to field a 21st century force."¹⁸³ Otherwise, Cohen argued, "The disparity of alliance capabilities, if not corrected, could threaten the unity NATO."¹⁸⁴

In sum, Germany is undoubtedly one of the leading powers in NATO. It should avoid anything that could provoke a harmful burden-sharing debate within NATO. However, its intended further cuts in defense spending are likely to foster major conflicts within the Alliance about fair burden-sharing. As long as it remains common practice to evaluate a fair defense burden mainly on a comparative basis by shares of the GDP, Germany will be unable to avoid the reproach of performing burden-shedding, unless it increases its defense budget.

¹⁸¹ Speech of the Secretary of Defense, William Cohen, at the 37th Bundeswehr Commanders' Conference in Hamburg on 1 December 1999.

¹⁸² This figure will be reached under the assumption that the 33rd Federal Finance Plan is carried out and the GDP will grow from 2000 to 2003 by about 2 percent, with the defense expenditure according to NATO criteria being about 25 percent higher than the national defense budget.

¹⁸³ Speech of the Secretary of Defense William Cohen at the 37th Bundeswehr Commanders' Conference in Hamburg on 1 December 1999.

¹⁸⁴ Ibid.

VIII. PROSPECTS AND SOLUTIONS

The following general statement should be considered as a basis for the discussion in this chapter. First, the financial resources available will be treated as a constant factor. It is assumed that the budgetary constraints for the German armed forces will not change in the coming years and that the 33rd Federal Finance Plan will be carried out. Second, with a fixed defense budget as the determinant or independent variable, other factors, such as military strength or investment, become dependent variables. Third, the dependent variables will only be discussed in regard to this basis, but with relational consequences. By doing this, three major steps appear to be necessary in order to cope with the major challenges and problems for the German armed forces. First, the total personnel strength must be further decreased in order to increase the investment level. Second, military cooperation – in the sense of pooling, specialization and avoidance of a duplication of capabilities – must be improved in order to spend money for defense more efficiently. Third, convergence criteria and a European Defense Budget should be established to avoid a harmful burden-sharing debate and to support the necessary military innovation.

A. DOWNSIZING THE GERMAN ARMED FORCES

The German armed forces require a sharp cut in their personnel strength in order to regain harmony between their missions and the means available. Given the present budgetary constraint, the total personnel strength is in direct contradiction to achieving an intended investment level of 30 percent. If the total personnel strength of the German armed forces remains above 300,000, the investment level will likely drop to below 20

percent in the near future – far too little to modernize the armed forces.¹⁸⁵ In their recent defense-policy concept, *Security 2010 – The Future of the Bundeswehr*, the conservative parties (CDU/CSU) concluded that a German armed force with a total strength of 300,000 requires much more money than that allocated in the 33rd Federal Finance Plan.¹⁸⁶ Hans Rühle, a former head of the Minister’s Planning Staff within the German Federal Ministry of Defense, explains that even a reduction of the peacetime strength to about 280,000 would not help the Bundeswehr to finance the necessary investments for adequate interoperability in the Alliance.¹⁸⁷ Therefore, personnel costs, which presently consume 52 percent of the defense budget,¹⁸⁸ must be reduced substantially to provide sufficient money for the urgent restructuring and modernization of the Bundeswehr. A simplified mathematical calculation using the figures in the 33rd Federal Finance Plan shows that a reduction of personnel strength to about 240,000 is required.¹⁸⁹ Other investigations, which additionally consider alternate structures for the armed forces, have concluded that to achieve an investment level of 30 percent, the peacetime strength of Germany’s armed

¹⁸⁵ Die Welt, 3 November 1999, *Rudolf Scharpings gefährliches Spiel*. Available [Online]: <<http://www.dfg-vk.de/bundeswehr/etat098.htm>> [15 November 1999].

¹⁸⁶ To maintain an armed force with 300,000 personnel strength it is necessary to increase the defense budget to about DM 50 billion by 2003 and to about DM 54 billion within the next 10 years. In addition, an investment push of about DM 2 billion is necessary to increase the rationalization efforts and to start a technology offensive. Working group defense policy of the CDU/CSU-group in the Bundestag, Berlin, 22 February 2000.

¹⁸⁷ Neue Züricher Zeitung, 7 January 2000, *Und ewig schrumpft die Bundeswehr*. Available [Online]: <[http://archiv.nzz.ch/books/nzzheute/0/\\$62VLK\\$.html](http://archiv.nzz.ch/books/nzzheute/0/$62VLK$.html)> [7 January 2000].

¹⁸⁸ Figure is from the Federal Ministry of Defense (message, 18 October 1999, latest update: September 1999).

¹⁸⁹ Assumptions: 1. The initial situation includes personnel costs to the amount of DM 23.2 billion for a strength of 321,000 military personnel in 2000. 2. The uncategorized savings in the amount of DM 3.9 billion are subtracted from the personnel costs so that DM 19.8 billion are available for personnel in 2003. 3. The inflationary tendency of the personnel costs since 1991 is taken into consideration (4 percent). Figures – but not the calculation – are from the Federal Ministry of Defense (message, 18 October 1999, latest update: September 1999).

forces would have to be decreased to about 265,000 for a conscription force, or to 200,000 for a volunteer force.¹⁹⁰ Research at the University of the Federal Armed Forces in Munich, based on military-economic aspects, also supports this calculation, concluding that the peacetime-strength of the German armed forces must be reduced by one-third, from originally 340,000 to about 230,000.¹⁹¹ Political suggestions, which are more ideologically biased, have proposed a decrease in Germany's armed forces to at least 300,000, or even to 150,000-200,000 (see Table 10). However, in order to meet remaining military threats and risks, and for ensuring a fair burden-sharing between the European NATO Allies, the total strength of Germany's armed forces should not drop below 240,000.¹⁹² Only if the armed forces were extensively modernized, further cuts could be conceivable.

Although conscription could still be maintained with this minimum strength of 240,000, there is a risk that with such a decrease, the supporters of a volunteer force would gain primacy, due to the problem of ensuring fairness in the conscription system.

¹⁹⁰ Die Welt, 3 November 1999, *Rudolf Scharpings gefährliches Spiel*. Available [Online]: <<http://www.dfg-vk.de/bundeswehr/etat098.htm>> [15 November 1999]. For detailed research on the costs of alternative structures for the German armed forces see Schnell, Jürgen and Straub, Gabriel, *Studien zur Zukunft der Bundeswehr: Teilstudie K – Vereinfachende Übersicht über wesentliche Konsequenzen alternativer Bundeswehrstrukturen (Synopsis)*, Universität der Bundeswehr München, Neubiberg, 6 March 2000.

¹⁹¹ Berliner Zeitung, 2 September 1999, *Bundeswehr muss ein Drittel kleiner werden*. Available [Online]: <<http://www.dfg-vk.de/bundeswehr/etat098.htm>> [15 November 1999].

¹⁹² This 240,000-model is based on the work: Huber, R.K. and Davis, K. Paul, *Systemanalytische Überlegungen zur Lastenteilung und zum Streitkräfteumfang der atlantischen Allianz*, Universität der Bundeswehr München, Neubiberg, 1996.

The personnel structure of the 240,000-model would consist of 30,200 regular officers and non-commissioned officers, 120,800 temporary-career volunteers and 89,000 conscripts. It would save about DM 4.7 billion annually compared with the current personnel structure model for a strength of 340,000. Hofmann, Hans, *Quo Vadis Bundeswehr? Determinanten für eine Bundeswehrstruktur im Jahre 2000⁺ aus der Sicht eines Staatsbürgers und Steuerzahlers*, Universität der Bundeswehr München, Neubiberg, 1996, p. 232.

	Personnel Strength		Period of Conscription	Defense Budget (in billion DM)
	Peacetime	Mobilization		
Social Democratic Party (SPD)	250,000	450,000-500,000	9 months (average)	43.7 (in 2003)
The Greens	150,000-200,000	No data available	No conscription	Less than 40.0
Christian Democratic/Social Parties (CDU/CSU)	300,000	600,000	9 months	50 (in 2003), 54 (within 10 years), 2 % of GDP (in the long term)
Liberal Party (FDP)	260,000	No data available	5 months	No data available

Table 10. Proposals of Political Parties in Germany about the Future of the Bundeswehr.

Note: Social Democratic Party (SPD) and the Greens have built a coalition and are the governing parties since fall 1998.

- Sources:
- a) Proposal of the Social Democratic Party (SPD). Concept of the Member of Parliament, Volker Kröning: *Die neue Bundeswehr: Planung unter restriktiven Bedingungen*, 2 August 1999.¹⁹³
 - b) Proposal of the Greens. Handelsblatt, 7 September 1999, *Grüne kommen Scharping nicht entgegen*. Available [Online]: <<http://www.dfg-vk.de/bundeswehr/etat098.htm>> [15 November 1999].
 - c) Proposal of Christian Democratic/Social Parties (CDU/CSU). Working group defense policy of the CDU/CSU-group in the Bundestag. *Security 2010 – The Future of the Bundeswehr*, Berlin, 22 February 2000.
 - d) Proposal of the Liberal Party (FDP). Berliner Zeitung, 28 August 1999, *Bundeswehr beruft weniger Wehrpflichtige ein*. Available [Online]: <<http://www.dfg-vk.de/bundeswehr/etat098.htm>> [15 November 1999].

¹⁹³ For a comment and evaluation concerning this proposal see Schnell, Jürgen and Straub, Gabriel, *Studien zur Zukunft der Bundeswehr: Teilstudie B – Untersuchung des Konzepts „Die neue Bundeswehr: Planung unter restriktiven Bedingungen“ des MdB Volker Kröning*, Universität der Bundeswehr München, Neubiberg, 16 December 1999.

Therefore, the only way to maintain conscription is by shortening the period of conscription from 10 months to about 6 months.¹⁹⁴ As a result of this, the German armed forces would definitely decrease in efficiency.¹⁹⁵ Only if conscription were abolished could this efficiency problem be avoided. However, it is neither the predominant intention of politicians, nor the prevailing wish of military leaders, nor the suggestion of this thesis to convert the German armed forces into a volunteer force. There are many good reasons to keep conscription in Germany.¹⁹⁶ But possibly detrimental effects on the efficiency of the armed forces must be accepted, and may be the price that must be paid in order to “save” conscription.

For coping with future military and security related challenges, quality aspects of armed forces are more important than quantity aspects. Therefore, a reduction in personnel strength does not necessarily worsen the performance of Germany’s armed forces.

A large-scale aggression against NATO is a very unlikely scenario. In any case, in the future, it is more important to have an appropriate strength of high quality, at the correct place and time, than to have a large strength, which is time-consuming to mobilize, arrive too late.¹⁹⁷

The recent crises in the Balkans have shown that Germany – like all the other European powers – did not have too little manpower, in general, but rather too few specialists, in particular. Only about 2 percent of the 2 million military personnel in Europe have been

¹⁹⁴ Neue Züricher Zeitung, 7 January 2000, *Und ewig schrumpft die Bundeswehr*. Available [Online]: <[http://archiv.nzz.ch/books/nzzheute/0/\\$62VLK\\$T.html](http://archiv.nzz.ch/books/nzzheute/0/$62VLK$T.html)> [7 January 2000].

¹⁹⁵ Schnell, Jürgen and Straub, Gabriel, *Studien zur Zukunft der Bundeswehr: Teilstudie H – Zur ökonomischen Effizienz der Wehrpflicht am Beispiel der Bundeswehr*, Universität der Bundeswehr München, Neubiberg, 21 February 2000.

¹⁹⁶ Federal Ministry of Defense, *German Security Policy and The Bundeswehr*, Bonn, 1997, p. 6.

¹⁹⁷ Speech of the Chief of Federal Armed Forces Staff, Hans Peter von Kirchbach, at the 37th Bundeswehr Commanders’ Conference in Hamburg on 29 November 1999.

suitably equipped and trained for such a mission.¹⁹⁸ Thus, it is crucial for Germany's armed forces, if they want to meet the challenges of a 21st century force, to focus more on improved diversity and specialized quality than on pure quantity aspects, such as personnel strength. This requires not only excellent military training, but calls for the restructuring of the force composition itself, along with the acquisition of modern equipment as well.

In sum, the price for increasing the investment level will be a substantial reduction of the German armed forces. According to the current budgetary constraints and the 33rd Federal Finance Plan, a total strength of about 240,000 seems to be a feasible solution. By simultaneously improving the quality of Germany's armed forces, the loss in quantity can be mitigated. Retaining a personnel strength above 240,000 – for whatever military or political reasons – will either prevent the necessary modernization of the armed forces by the defense-budget ceiling, or will require an increased defense budget for a functioning armed force that can fulfill the domestic and international missions with which it is charged.

¹⁹⁸ “On paper, Europe has 2 million men and women under arms – more than the United States. But despite those 2 million soldiers, it was a struggle to come up with 40,000 troops to deploy as peacekeepers in the Balkans.” Speech of the NATO Secretary General, Lord Robertson, at the Defense Week Conference in Brussels on 31 January 2000, *Rebalancing NATO for a Strong Future*. Available [Online]: <<http://www.nato.int/docu/speech/2000/s000131a.htm>> [10 March 2000]. See also: Die Welt, 29 February 2000, *EU erwägt Verdoppelung ihrer Verteidigungsausgaben*. Available [Online]: <<http://www.welt.de/daten/2000/02/29/0229eu154488.htm>> [29 February 2000].

B. IMPROVING MILITARY COOPERATION

“Today, no state can guarantee security, peace and stability for itself alone. Cooperation with allies and partners has become a guiding principle of international security policy.”¹⁹⁹ Cooperation is not only an important aspect of modern security policy; it is a significant aspect in economic terms as well, helping to ease the defense burden for each nation-state. Against the background of budget constraints, the joint use of resources in the sense of pooling, specialization, and the avoidance of a duplication of capabilities is becoming increasingly important for all allied partners. The European nations, especially, should strengthen their endorsement of collaborative arms projects, pool their capabilities, focus on specialization, and try to avoid duplication if they want to strengthen the ESDI and keep pace with the United States.

Procurement and R&D are worthwhile fields for improved military cooperation. The chief virtues of cooperation in procurement and R&D are that it allows two or more states to share the development and other fixed costs of a system rather than each having to fund a complete program. Thus, against the background of tightened defense budgets, it is difficult to understand why the Europeans, for example, have developed three combat aircrafts of the 3rd generation (Eurofighter, JAS-39 Gripen, and Rafale) in competition with each other instead of concentrating on one program. In the future, national self-sufficiency in procurement will make less sense than in the past. The rescinding of Article

¹⁹⁹ Speech of the Federal Minister of Defense, Rudolf Scharping, at the NATO Defense College in Rome on 11 January 2000, *Euro-Atlantic Security and Regional Stability in the 21st Century*.

223 of the Treaty of Rome²⁰⁰, which permits the protection of national arms industries, could help to save multiple-spent money for defense.²⁰¹ But at this time, even in Germany, there is not enough support at the political level to achieve this goal.²⁰² European governments still desire their freedom to control defense exports and place contracts with national suppliers. A joint armament procurement institution would probably make sense for the Europeans in the long term. By unifying the purchase of defense equipment in one agency, the Europeans would enhance the efficiency of their defense industries, and in all likelihood make their products ultimately more competitive in the world market. However, in regard to the newly formed European procurement agency, Organisme conjoint de coopération en matière d'armement (OCCAR), too many problems at the working level still impede success in this field. An OCCAR that is able to function more effectively would certainly help to overcome political obstacles and foster greater military cooperation.

Since a common European procurement and R&D have not been effectively achieved, Germany should at least try to avoid a situation in which its own defense industry loses important key technological capabilities, forcing Germany into a position as a junior partner. In order to do this, it is not necessary to misuse the defense budget on a

²⁰⁰ The signing of the Treaty of Rome in March 1957 created the European Economic Community (EEC), which came into force in January 1958. The Treaty of Rome committed the 6 European founding states – France, Germany, Italy, and the Benelux countries – to the creation of a common market and the harmonization of their economic policies.

²⁰¹ Concerning the implementation of and the current discussion about Article 223 see Taylor Trevor, *Arms procurement*. In: Howorth, Joylon and Menon, Anand (eds.), *The European Union and National Defence*, London and New York, 1997.

²⁰² Laird, Robbin F. and Mey, Holger H., *The Revolution in Military Affairs: Allied Perspectives*, Washington, D.C., 1999, p. 80.

large scale as an instrument of Keynesian fiscal policy. It would be especially helpful to increase R&D by about DM 1 billion, so that Germany's R&D effort can at least partly keep pace with the R&D efforts of its most important NATO Allies (see Table 9). Only if Germany is able to offer high technology to its allied partners will it be accepted as an equal partner; then it can expect to receive military improvements in return as well. Thus, for Germany, the strengthening of R&D efforts is a prerequisite for improved military cooperation within NATO and Europe.

At the moment, the supply side seems to be taking the more effective steps at cooperation. Faced with decreasing defense spending throughout Europe, the European defense industry is trying to improve this threatening situation through improved cooperation and mergers.²⁰³ The merging of the German DaimlerChrysler Aerospace (DASA) with the French Aérospetiale Matra and the Spain Casa to the European Aeronautic, Defense and Space Company (EADS), along with the takeover of General Electric by British Aerospace, or the takeover of Celsius by Saab in Scandinavia, are impressive examples of the consolidation and rationalization process in Europe's defense industry.²⁰⁴ European politicians should support this process so that a more effective defense industry in Europe is able to provide more favorable prices for armaments.²⁰⁵

²⁰³ *Wirtschaftswoche*, No. 47, 18 November 1999, *Rüstung: Rhetorische Fragen*, pp. 26-28; *Die Welt*, 18 November 1999, *Europas Rüstungsindustrie wächst zusammen*. Available [Online]: <<http://www.welt.de/daten/1999/11/11/1118wi138508.htm>> [18 November 1999]; *Neue Züricher Zeitung*, 18 March 2000, *Europas Sparsamkeit bei der Verteidigung – Grosse sicherheitspolitische Ambitionen bei geringer Effizienz*. Available [Online]: <[http://archiv.nzz.ch/books/nzzheute/0/\\$62VLRJ\\$T.html](http://archiv.nzz.ch/books/nzzheute/0/$62VLRJ$T.html)> [18 March 2000].

²⁰⁴ *Ibid.*

²⁰⁵ The risk of monopolized prices seems to be very low as long as the European defense industry is in worldwide competition, particularly with the United States.

Furthermore, homogenous European regulations for armament exports would especially make the German defense industry more competitive, which is deeply dependent on exports.²⁰⁶ In the wake of increasing exports, the prices for armaments would decrease, helping ease the strain on the German defense budget.

Military cooperation on the demand side seems to be most successful in the areas of pooling and specializations. One approach is the development of new common capabilities. At the moment, considerable efforts are apparent on this path. The Europeans intend to acquire a common satellite-based reconnaissance system.²⁰⁷ The German proposal is to develop a system to which several countries contribute with national components, but which can be commonly used. A similar idea is emerging with the Future Transport Aircraft (FTA). In this case, a common European procurement is intended, along with a common European Air Transport Command.²⁰⁸ Such approaches can be quite successful, as demonstrated by the common procurement and operation by 14 allies of the AWACS (airborne early warning and operation) aircraft.

Another area in which duplication between European armed forces could be eliminated and additional resources made available is in the development of common

²⁰⁶ However, the German Federal Government did exactly the opposite by passing new, tightened export criteria for arms exports, which consider especially the human right situation. Therefore, it is not surprising that, for example, the newly formed EADS will not have its company headquarters in Germany. Handelsblatt, 19 January 2000, *Menschenrechte werden bei Exportentscheidung berücksichtigt. Kabinett verabschiedet Rüstungsexport-Kriterien*. Available [Online]: <<http://www.handelsblatt.de>> [20 January 2000].

²⁰⁷ Speech of the Deputy Chief of Federal Armed Forces Staff at the Report Verlag on 25 November 1999, *Streitkräfte in Europa, Herausforderungen und Perspektiven*.

²⁰⁸ Bundeswehr aktuell, 25 October 1999, *Ein europäisches Flugzeug für ein europäisches Lufttransportkommando*, pp. 1-3.

support and logistic services. An example of this is the common logistic battalion, which supports four Nordic countries providing troops to IFOR/SFOR. The agreement by the Netherlands and Belgian navies to develop common headquarters and support services for their fleets is also a positive step towards the elimination of expensive duplication in Europe.²⁰⁹ Similar models are conceivable – for example, the development of a common European flight refueling service or a common helicopter support service. The Eurofighter, already ordered by five countries, could serve as a test-case. In the naval environment, a European mine counter-measure service could be created or aircraft carrier capability could be pooled. The land forces could establish common communications, transport and medical services.²¹⁰

However, as long as developments on a national basis are preferred – for whatever reasons – then the focus should at least be on specialization. Since Adam Smith it has been common knowledge that division of labor results in improved efficiency, and that best serves the national interest when each individual performs at their optimum. Applying this to Europe, it means two things. First, the great task of improving Europe’s defense capabilities must be shared between the nations. Second, each nation should focus on those tasks and missions that it can do best. In doing this, the goal must be to concentrate on capabilities in specific fields and then make the assets available to other allies. They, in turn, could guarantee the common use of their particular capabilities. Access to the

²⁰⁹ Garden, T., *New Security Structures for Europe*. Available [Online]: <<http://tgarden.demon.co.uk/writings/pugwash.html>> [10 November 1999].

²¹⁰ Ibid.

common-use assets could be ensured by simple arrangements. An example of this could be that Germany would provide minesweeping boats while the Netherlands would provide frigates. France could contribute with helicopters, whereas Italy could provide aircraft carriers. While this idea may seem futuristic or naïve, it would be a worthwhile opportunity for the Europeans to unburden their defense budgets considerably. NATO Secretary General, Lord Robertson, has also stressed that improving military capabilities “is not purely an issue of finding new money of defence,”²¹¹ explaining that,

It is about getting a good return on investment – literally ‘getting more bang for the buck’. Today, the European Allies spend about 60 % of what the United States spends on defence, but nobody would suggest that the European have 60 % of the capability. We need to improve that return on investment, through innovative management techniques, identification of priorities, and courageous decisions.²¹²

Since the European Foreign and Defense Ministers are already contemplating the creation of common European Force Elements,²¹³ courageous decisions seem to be emerging, and approaches to new common capabilities or common support and logistic services should not prove too difficult politically. Implementing a few sensible measures of closer integration of particular capabilities could help to alleviate the problem of declining defense spending. Improved armament cooperation, pooling, and specialization in military roles and missions would provide more effective forces at no greater cost to the

²¹¹ Speech of the NATO Secretary General, Lord Robertson, at the Defense Week Conference in Brussels on 31 January 2000, *Rebalancing NATO for a Strong Future*. Available [Online]: <<http://www.nato.int/docu/speech/2000/s000131a.htm>> [10 March 2000].

²¹² Ibid.

²¹³ The military goal to build-up such common European Force Elements was set at the European Summit in Cologne in June 1999, specified at the last European Summit in Helsinki in December 1999, and discussed in more detail at the meeting of the European defense ministers in Sintra in February 2000. Die Welt, 29 February 2000, *EU erwägt Verdoppelung ihrer Verteidigungsausgaben*. Available [Online]: <<http://www.welt.de/daten/2000/02/29/0229eu154488.htm>> [29 February 2000].

Europeans. It might lead to a true European defense capability that would make for an equal partnership with the United States within NATO. It would improve multinationality and interoperability, enhance the ESDI and NATO's DCI, and consolidate the Alliance by bringing the NATO members closer together. However, before this state of military cooperation can be reached, of course, numerous other aspects, such as the legal situation, constitutional considerations, varying national interests, and further political issues, must be considered. Therefore, military cooperation – as described in the previous paragraphs – partly remains an ambitious goal, which can only be achieved in the long term.

C. ESTABLISHING CONVERGENCE CRITERIA AND A EUROPEAN DEFENSE BUDGET

Without defined rules on what the NATO members must contribute to the Alliance, major conflicts are preprogrammed, which could endanger the existence of NATO. Therefore, to avoid future burden-sharing debates and “free-rider-positions” within NATO it would be useful to define convergence criteria for NATO members. Many scholars suggest that, for example, the percentage of GDP spent on defense could serve as a guiding principle. Such convergence criteria would have the advantage that “new” NATO members and candidates for NATO membership would know what the price for NATO membership would be, and “old” NATO members would know to what extent the Alliance would tolerate “burden-shedding”.

However, instead of stressing “input” measures, such as the percentage of GDP spent on defense, it would be better to focus on “output” measures. The calculation would

be more complex, but it is worth the effort. Input measures do not guarantee that the tight funds for the armed forces will be effectively and efficiently spent. What use would it be to the Alliance if allies doubled their spending on personnel, pensions, or administration without a subsequent strengthening of the capabilities of NATO? By using input measures alone, this increased expenditure would nominally result in improved performance, regardless of whether the money was spent effectively. In addition, there would be a great incentive to shift contributions from other fields, such as the border guard or police, to the defense budget. Output measures that focus on useful capabilities are better criteria by which to measure the performance of NATO Allies. The contributions of the NATO Allies, such as personnel strength, aircrafts, ships, tanks, etc., could be scored with points. Depending on the population or economic strength, each ally would have to reach a specific score. If the determined score was not reached, the ally would have to pay a “fine” into a common defense budget. Due to the fact that NATO Allies would rather spend their money on themselves than give it away, such a criteria system would make burden-shedding less attractive and would encourage more sensible defense spending. With particular incentives, expressed by high scores, deficiencies in matters like mobility, logistics, and C3I could be specifically addressed. Performance criteria for battle-readiness could be supplemented by a rolling system of peer review that would draw on NATO’s DCI. This would then create continued political pressure for strengthening defense capabilities.

Convergence criteria, in the sense of defense capabilities criteria, would also help the German Federal Minister of Defense in his struggle to finance the armed forces

adequately. With such performance criteria, the international demands would be more precise and the Defense Minister would have more convincing arguments when competing with the other ministries for funds. Furthermore, in some cases, it might be easier to obtain money to serve an international ideal than to demand it for domestic reasons alone.

All the big European NATO Allies have already recognized the advantages of convergence criteria for defense.²¹⁴ In general, they intend to develop their defense capabilities and use their defense spending more wisely with this approach. The Italian Minister of Defense began the discussion to back his demands for more money by demands of the EU.²¹⁵ Great Britain views the idea as an opportunity to gain primacy against the other Europeans, thus taking the lead in European security and defense issues.²¹⁶ The French Minister of Defense, Alain Richard, considers the idea of convergence criteria for defense as a useful chance to strengthen the ESDI.²¹⁷ He suggests a combination between output and input measures and urges a considerable increase of the European defense budgets when he demands, “In the future, all European countries should spend 0.7 percent of its GDP for investment in military equipment.”²¹⁸ The Federal Minister of Defense, Rudolf Scharping, likes this suggestion, but does not say how

²¹⁴ The approach was initially launched by the United Kingdom and Italy at a bilateral Summit in July this year. In the meantime, France and Germany have supported it also. See The Economist. *The EU turns its attention from ploughshare to swords*. Available [Online]: <<http://www.economist.com/editorial/freeforall/current/eu1940.html>> [25 November 1999].

²¹⁵ Interview between Stephan De Spiegeleire, RAND National Defense Research Institute, and the author at the Naval Postgraduate School on 3 November 1999.

²¹⁶ Die Zeit, 9 September 1999, *Druck von allen Seiten – Die Briten wollen eigene Interessen durchsetzen*. Available [Online]: <<http://www.dfg-vk.de/bundeswehr/etat098.htm>> [15 November 1999].

²¹⁷ Die Welt, 29 February 2000, *EU erwägt Verdoppelung ihrer Verteidigungsausgaben*. Available [Online]: <<http://www.welt.de/daten/2000/02/29/0229eu154488.htm>> [29 February 2000].

²¹⁸ Ibid.

Germany intends to finance this idea.²¹⁹ At the moment, Germany spends about DM 11.3 billion for military investment, which is equivalent to 0.3 percent of Germany's GDP.²²⁰ Thus, spending 0.7 percent of GDP for military investment means more than doubling the current investment budget to roughly DM 25 billion. However, this goal does not seem feasible for Germany. Rather, Scharping fears that whatever possible convergence criteria for defense might be in the future, Germany will not be able to fulfill it. "If convergence criteria for the ESDI would exist – similar to them for the European Monetary Union – Germany would remain outside the door."²²¹

Therefore, Germany must take the opportunity to present its own ideas about convergence criteria for defense, and must clarify how it intends to contribute to the ESDI and NATO's DCI. In doing this, the first step should be to expressly declare its willingness to create new common capabilities or common support and logistic services in and for Europe, as much as constitutional constraints will currently allow. Germany could argue that common European force elements are more cost effective than national ones, and that they are ideal for improving interoperability and multinationality. Secondly, Germany should convince its counterparts that deficiencies in strategic transport, strategic reconnaissance and C3I should be redressed first, because these aspects worry Germany especially and are a tremendous challenge for its national defense budget. The last step should be to persuade the Europeans to finance all the common capabilities for European

²¹⁹ Ibid.

²²⁰ The GDP is estimated to reach about 3,950 billion DM in 2000 (Source: Federal Statistics Office, message, 12 February 2000).

²²¹ Speech of the Federal Minister of Defense, Rudolf Scharping, at the Führungsakademie der Bundeswehr in Hamburg on 8 September 1999, *Grundlinien deutscher Sicherheitspolitik*.

security and defense in common, or at least start to finance them successively. This could also include the financing of the build-up of the European crisis reaction force. The reason for this strategy is obvious – Germany has been lamenting that its financial contribution to the EU is far too high. With such an approach, however, it would indirectly recoup a large portion of its contribution from the EU.

In sum, in order to strengthen defense capabilities, increase military independence to act, attain an equal partnership with the United States, and achieve a real ESDI, it is not sufficient for the Europeans to stress just the willingness for such a policy; they must also be ready to provide the means necessary to make this goal feasible and link rhetoric and action together. The establishing of convergence criteria could be an important first step toward this goal. Also, in order to make the idea common European procurement, R&D, and force elements coherent, it would be necessary to develop a planning and budgetary system at the European level. The ultimate goal should be the creation of a European Defense Budget – a defense budget from which common European defense capabilities and efforts can be financed. As a result of this combination of convergence criteria for defense and the European Defense Budget, EU members would provide either defense capabilities or money as their contribution. Of course, there would be many difficulties in assessing the true worth of each contribution, but the process itself would also make the planning and audit at the European level more transparent and effective. If the Europeans want to overcome their weaknesses in security and defense issues, and if they want to avoid the criticism that the ESDI displays visibility without capability, they must learn not

only to literally spend money for “butter”, but they must invest in “guns” as well.²²² However, due to the current political obstacles within the EU, this must remain a long-term goal, which will require a tremendous effort and staying power to ever be achieved.

²²² The Federal Minister of Defense, Rudolf Scharping, has lamented, “In the European Union we have too much agrarian policy and too little foreign and security policy.” Speech of the Federal Minister of Defense, Rudolf Scharping, at the Führungsakademie der Bundeswehr in Hamburg on 8 September 1999, *Grundlinien deutscher Sicherheitspolitik*.

IX. CONCLUSION

The improved military environment due to the end of the Cold War, the costs of the reunification process, and changed priorities within the new Federal Government have caused a severe decrease in defense spending. This has resulted in a peace dividend of about DM 350 billion DM since 1991. However, the assumed positive impacts to economic growth and national well-being have not been apparent. The tight defense budgets have caused a shrinking of the total strength of the armed forces, dwindling investment, and a fragmented defense industry. Germany's armed forces are assets of security policy and must be restructured and modernized if they are to meet future challenges. With the basic assumption of fixed or even shrinking defense budgets, according to the 33rd Federal Finance Plan, this can only be achieved by a dramatic cut in personnel strength to about 240,000. Without decreasing operational expenditures, military investment cannot be raised to the intended 30 percent of the defense budget. In addition, to address the deficiencies in European defense capabilities, it is not enough to just focus on each state modernizing its armed forces on a national basis. Military cooperation must be improved and common European capabilities developed if the Europeans want to spend their defense budgets more efficiently. Convergence criteria would support this process. A harmful burden-sharing debate could be avoided with such criteria. Furthermore, Europe could be helped in its efforts to achieve the ESDI and NATO's DCI.

In today's interdependent and globalized world, the nation-state has clearly diminished in importance as the guarantor of security. Comprehensive preventive security has, to a considerable extent, become the responsibility of international organizations such as NATO, the United Nations, the OSCE and the European Union.²²³

Germany should use this momentum to pass a part of its security and defense burden onto the EU. For the reliability of European security and defense policy, a common European Defense Budget should be established in the future.

The principal goal of Germany's security policy pursued by the Federal Republic of Germany is to safeguard Germany's peace, freedom and independence. It is well-known that Germany's security concept is comprehensive and not exclusively focused on military aspects.

Under the present circumstances, it would be inappropriate to maintain a pure military understanding of peace and freedom, security and stability. Our [Germany's] concept of security is comprehensive. It comprises political, diplomatic, economic, social, cultural and, of course, military aspects. This is the only kind of concept on which modern security policy can be based.²²⁴

However, Germany claims that its "security policy is determined by the holistic combination of two basic functions: protection against risks and threats and the active shaping of stability and peace."²²⁵ In addition, the former Federal President, Roman Herzog, points out,

²²³ Speech of the Federal Minister of Defense, Rudolf Scharping, at the NATO Defense College in Rome on 11 January 2000, *Euro-Atlantic Security and Regional Stability in the 21st Century*.

²²⁴ Ibid.

²²⁵ Federal Ministry of Defense, *White Paper 1994*, Bonn, 1994, p. 41.

Human dignity, freedom and democracy are under constant threat and every day must be protected anew. What we want is peace in freedom, but peace belongs only to those who are able to defend themselves, who are resolved to do so and who – should need arise – also demonstrate this resolve.²²⁶

With decreasing defense spending, Germany has a difficult task in demonstrating this resolve and plausibly pursuing its foreign and security goals. Referring to the Kosovo crises, the Federal Minister of Defense, Rudolf Scharping, admits, “Parties who are unable to contribute to coping with crises, because of not having appropriate and suitable armed forces, have no chance to contribute to the political shaping and reconciliation of conflicts.”²²⁷ Germany does not appear to have an appropriate and suitable armed force that can fulfill the future missions and tasks with which it is charged, that can contribute effectively to peace and security especially in and for Europe, and that can adequately support NATO, UN, OSCE, and WEU/EU efforts. The criticism that Germany is increasing its international commitments, but does not provide the means necessary to discharge those commitments, is difficult to disprove in light of Germany’s trend of declining defense spending.²²⁸ Although the Federal Chancellor, Gerhard Schröder, suggests that “the Europe of the future must be able to defend its interests and values effectively worldwide,”²²⁹ it appears that Germany’s defense spending is not

²²⁶ Speech of the Federal President, Roman Herzog, to recruits on 31 May 1996. Federal Ministry of Defense, *German Security Policy and The Bundeswehr*, Bonn, 1997, p. back cover.

²²⁷ Speech of the Federal Minister of Defense, Rudolf Scharping, at the Führungsakademie der Bundeswehr in Hamburg on 8 September 1999, *Grundlinien deutscher Sicherheitspolitik*.

²²⁸ During the German EU-presidency in the first half of 1999, Germany assumed commitments that require DM 2 billion for military investments annually. Allgemeine Schweizerische Militärzeitung (ASMZ), No. 1, January 2000, *Wird Deutschland zum Problemfall der NATO*, p. 24.

²²⁹ The New York Times, 13 December 1999, Military Posture of Europe to Turn More Independent. Available [Online]: <<http://www.nytimes.com/library/world/europe/121399europe-military.html>> [13 December 1999].

commensurate with this goal and does not meet the responsibility of Germany to European politics, and even less so to world politics. Rhetoric and action are not linked together in Germany. With further declining defense expenditures, Germany can neither assume the position as a leader in the Alliance, as a leader in European security, nor as a leader in Allied military capabilities, as US Secretary of Defense, William Cohen, wished it could.²³⁰ As the third largest economic power in the world, with the largest population in Europe, the international community expects a greater German contribution in terms of defense spending for security and defense.²³¹

While minimum defense capacities for NATO or EU members are not determined, and performance convergence criteria for defense based on output measures are not available, it is still useful for Germany to orient its defense budget on the percentage of GDP. Since the founding of NATO it has become “accepted practice to evaluate defense spending on a comparative basis by shares of the gross national product.”²³² Thus, Germany should not neglect this aspect,²³³ especially, if it wants to contribute quantifiably to a fair burden-sharing. Instead of decreasing its defense expenditures it should try to

²³⁰ Speech of the US Secretary of Defense, William Cohen, at the 37th Bundeswehr Commanders’ Conference in Hamburg on 1 December 1999.

²³¹ Hans Rühle, the former head of the Minister’s Planning Staff within the German Federal Ministry of Defense, argued, “Not a single ally of the Alliance sanctions the negative trend in Germany’s defense budget.” *Neue Züricher Zeitung*, 7 January 2000, *Und ewig schrumpft die Bundeswehr*. Available [Online]: <[http://archiv.nzz.ch/books/nzzheute/0/\\$62VLK\\$T.html](http://archiv.nzz.ch/books/nzzheute/0/$62VLK$T.html)> [7 January 2000].

²³² Maier, Charles, *Finance and Defense: Implications of Military Integration 1950-1952*. In: Heller, Francis and Gillingham, John (eds.), *NATO: The Founding of the Atlantic Alliance and the Integration of Europe*, New York, 1992, p. 336.

²³³ The Federal Chancellor, Gerhard Schröder, favors a very broad concept of defense spending (see Chapter II, “Defense Spending in a Broad Concept”) and criticizes the superficial comparisons of defense budgets within NATO. Speech of the Federal Chancellor, Gerhard Schröder, at the 37th Bundeswehr Commanders’ Conference in Hamburg on 29 November 1999.

increase them. A defense-spending share of 2 percent of the GDP, which is certainly a very ambitious goal, could be seen as an appropriate contribution by Germany.²³⁴ Although this would imply that defense spending should be increased to about DM 80 billion according to the NATO definition, or about DM 65 billion in terms of the national defense budget,²³⁵ it would be a worthwhile effort because of the obvious advantages:

- It would avoid a further downsizing of, or drastic cuts in, the personnel strength and diminish the risk that the Bundeswehr cannot fulfill the domestic and international missions with which it is charged.
- It would help to avoid increasing unfairness in the conscription system and thus contribute to maintaining conscription.
- It could improve the attractiveness and the domestic acceptance of the Bundeswehr. As a result of this, the German armed forces could minimize the current problem with increasing numbers of conscientious objectors, and thus gain better-qualified personnel.
- It would allow allocating adequate money to military investments for adapting and modernizing the Bundeswehr to meet primary force structure objectives, to diminish its military deficiencies, and to cope with challenges of the 21st century.

²³⁴ Such a defense-spending ratio of about 2 percent of the GDP was indirectly demanded for Germany by the US Secretary of Defense, William Cohen, in his speech at the 37th Bundeswehr Commanders' Conference in Hamburg on 1 December 1999. It is also mentioned as long-term goal of a CDU/CSU suggestion. Working group defense policy of the CDU/CSU-group in the Bundestag. *Security 2010 – The Future of the Bundeswehr*, Berlin, 22 February 2000.

²³⁵ These figures are calculated under the assumption that the GDP will approximately remain at its current level of about DM 4,000 billion and that the NATO defense expenditures are about 20-25 percent higher than the Defense Budget of the Federal Ministry of Defense.

- It would strengthen the ESDI, accomplish NATO's DCI, and thus help close the still-growing technology gap between the United States and Europe. The German armed forces could improve their interoperability, thus remaining "NATO-capable", and providing the means to becoming more "Europe-capable".
- It would avoid a harmful burden-sharing debate within NATO provoked by Germany, and could avoid the embarrassing situation of having Germany fall to the 17th position within NATO in terms of the defense-spending share of GDP.
- It could avoid the loss of key technological capabilities of the German defense industry and the risk that Germany will be reduced to the position as a junior partner in terms of military cooperation.
- It would give the Bundeswehr a long-term perspective and security in the planning process.

However, if the current trend of a declining defense budget cannot be changed, Germany will probably diminish its international importance.²³⁶ It could lose its political significance in Europe and in the world. Furthermore, Germany would only be able to fulfill its alliance-political role in a very limited fashion. It would risk its credibility as a reliable partner in the Alliance and, in addition, the internal acceptance and attractiveness

²³⁶ This is the conclusion of a confidential paper done in the German Federal Ministry of Defense dated on 9 December 1999. Die Welt, 27 December 1999, *Verteidigungsministerium warnt vor Sparkurs*. Available [Online]: <<http://www.dfg-vk.de/bundeswehr/etat098.htm>> [4 February 2000]. See also Neue Züricher Zeitung, 7 January 2000, *Und ewig schrumpft die Bundeswehr*. Available [Online]: <[http://archiv.nzz.ch/books/nzzheute/0/\\$62VLK\\$T.html](http://archiv.nzz.ch/books/nzzheute/0/$62VLK$T.html)> [07 January 2000].

of its armed forces. An opportunity to change the currently ominous situation of an underfunded Bundeswehr, and to avoid this negative prediction of Germany's international role in security and defense issues, lies with the Commission on Common Security and the Future of the Bundeswehr.

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Naval Postgraduate School
411 Dyer Rd.
Monterey, California 93943

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Naval Postgraduate School
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Monterey, California 93943

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51531 Waldbröl
GERMANY

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85577 Neubiberg
GERMANY

9. Universität der Bundeswehr Hamburg..... 1
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22043 Hamburg
GERMANY