

RESEARCH PAPER No. 103

(2006)

MACROECONOMIC ESPIONAGE:

INCENTIVES AND DISINCENTIVES

Ioannis L. Konstantopoulos

RESEARCH INSTITUTE FOR EUROPEAN AND AMERICAN STUDIES (RIEAS) # 1, Kalavryton Street, Ano-Kalamaki, Athens, 17456, Greece RIEAS <u>URL:http://www.rieas.gr</u>

RIEAS MISSION STATEMENT

Objective

The objective of the Research Institute for European and American Studies (RIEAS) is to promote the understanding of international affairs. Special attention is devoted to transatlantic relations, intelligence studies and terrorism, European integration, international security, Balkan and Mediterranean studies, Russian foreign policy as well as policy making on national and international markets.

Activities

The Research Institute for European and American Studies seeks to achieve this objective through research, by publishing its research papers on international politics and intelligence studies, organizing seminars, as well as providing analyses via its web site. The Institute maintains a library and documentation center. RIEAS is an institute with an international focus. Young analysts, journalists, military personnel as well as academicians are frequently invited to give lectures and to take part in seminars. RIEAS maintains regular contact with other major research institutes throughout Europe and the United States and, together with similar institutes in Western Europe, Middle East, Russia and Southeast Asia.

Status

The Research Institute for European and American Studies is a non-profit research institute established under Greek law. RIEAS's budget is generated by membership subscriptions, donations from individuals and foundations, as well as from various research projects. The Institute is autonomous organization. Its activities and views are independent of any public or private bodies, and the Institute is not allied to any political party, denominational group or ideological movement.

John M. Nomikos Director

RESEARCH INSTITUTE FOR EUROPEAN AND AMERICAN STUDIES (RIEAS)

Postal Address:

1, Kalavryton Street Ano-Kalamaki Athens, 17456, Greece.

Tel/Fax: + 30 210 9911214

E-mail: rieas@otenet.gr

Administrative Board

John M. Nomikos, Director Ioannis Michaletos, Analyst Andrew Liaropoulos, Analyst Alkis Kornilios, Information Officer Anna Mavriki, Secretariat Support

International Advisors

Stivachtis Yannis, Virginia Polytechnic Institute and State University Evangelos Venetis, University of Leiden Konstantinos Filis, Center for Eurasia Studies Chris Kuehl, Armada Corporate Intelligence Review Charles Rault, International Security Analyst Andre Gerolymatos, Hellenic Studies, Simon Fraser University Shlomo Shpiro, Bar Illan University Makis Kalpogiannakis, Business Development Manager, Intracom Dimitris Lidarikiotis, Director, Spacephone SA Erich Marquardt, Power and Interest News Report

Research Associates

Hamilton Bean, Intelligence Studies Konstantopoulos Ioannis, Intelligence Studies Paddy Mck Doherty, Central Asia Studies Zacharias Michas, Independent Strategic Analyst Nadim Hasbani, Lebanon-Syria and North Africa Studies Florian Taux, East Asia Studies Bjorn Fagersten, European Intelligence Studies Christian Kaunert, European Union Politics Aya Burweila, Middle East, Islamic Studies Maria Alvanou, Terrorism Studies

RESEARCH INSTITUTE FOR EUROPEAN AND AMERICAN STUDIES

(RIEAS)

RESEARCH PAPER No. 103

(2006)

MACROECONOMIC ESPIONAGE:

INCENTIVES AND DISINCENTIVES

Ioannis L. Konstantopoulos¹

(RIEAS Research Associate and PhD Candidate in the Department of International and European Studies, Panteion University of Social and Political Sciences, Athens, Greece)

Table of Contents

1.	Introduction	1
2.	Definitions	3
3.	From Biblical Times to World War II	6
4.	Cold War and Beyond	9
	4.1 Soviet Union – Russia	9
	4.2 Japan	14
	4.3 France	17
	4.4 U.S.A.	20
5.	Macroeconomic Espionage: Incentives and Disincentives	27
	5.1 Incentives	27
	5.2 Disincentives	29
6.	Conclusions	31

Abstract:

¹ Ioannis L. Konstantopoulos is a PhD Candidate in the Department of International and European Studies, Panteion University of Social and Political Sciences, Athens, Greece. He received "Heraclitus" Scholarship from the E.U. in order to fulfil his PhD which is entitled "Economic Espionage and International Relations" and his main goal is to bridge the gap between Intelligence Studies and International Relations Theory by examining the case study of economic espionage. I would like to thank Dr. Andrew Liaropoulos for his insightful comments.

The goal of this essay is to define and analyze the timeless phenomenon of macroeconomic espionage, by focusing on its historical background as well as a state's incentives and disincentives for engaging in it. In order to fulfill this goal we use the case study of the U.S.A. as a "victim" because it is the main target of macroeconomic espionage by both its closest allies and its opponents. With the scope of having a holistic approach we analyze the intelligence policies of key countries like the former Soviet Union/Russia, Japan, France and U.S.A. Our main argument is that macroeconomic espionage was, is, and will be a structural component of the international system of nation-states and that is fully proved by the intelligence policies of the examined countries.

1. Introduction

After the end of the Cold War, nation-states, the main actors in the current constellation of international system, are trying to adapt their defense and foreign policy in general and their security policy in particular, to the challenges of the new post-Cold War era. Their intelligence services are redefining their role, as well as, both the old and new challenges which they have to deal with. One of these challenges is their involvement in macroeconomic espionage.

The goals of this paper are: first, to define macroeconomic espionage; second, to present the historical as well as the current background of this state action; and third to access the incentives and disincentives of states when they are called to decide their engagement in it. The main question which we try to answer is:

What are the reasons for which states engage in macroeconomic espionage?

We will try to answer this question by examining and analyzing the case study of the U.S.A. (United States of America) for three reasons. Firstly, this country not only maintained its importance in international affairs after the end of the Cold War, but is the only hyper-power in the post-Cold War era. Secondly, and most importantly, the U.S.A. is the main target of economic espionage in general and macroeconomic espionage in particular, both of their closest allies and their opponents/competitors. The U.S. not only succeeded in developing by far the largest economy in the world and not losing its place as a pioneer in technological developments, but it has also increased the gap between her and other competitors. Thirdly, in the U.S.A. a great debate is taking place, in the

political, academic and intelligence domains, concerning its engagement in economic espionage. The main argument of this essay is that macroeconomic espionage was, is and, will be a main tool of governments in order to make economic decisions, despite some disincentives which this activity comprises.

In order to fulfill our goals, we will delve in the specialized bibliography of the intelligence discipline – and especially in the histories of the intelligence services of the U.S.A., U.S.S.R. (Union of Soviet Socialist Republics)/Russia, Japan and France– which is a sub-field of International Relations. The study of intelligence from an academic point of view started in 1949 with the publication of Sherman Kent's classic book *Strategic Intelligence for American Foreign Policy*.² In 1974 the revelation of the "Ultra Secret" gave a great stimulus to intelligence studies.³ In the mid-1980s Sir Alexander Cadogan, permanent secretary at the British Foreign Office (1938-1945) described intelligence as "the missing dimension of international affairs".⁴ However, according to Professor Martin Alexander "much still remains to be explored and weighed by scholars of international relations and the history of armed conflict".⁵ One of the neglected issues in intelligence literature is that of economic espionage (especially between allies) which can be characterized as "the missing dimension

² Kent Sherman, <u>Strategic Intelligence for American World Policy</u> (Princeton, NJ: Princeton University Press, 1949). For the academic study of Intelligence see: Frey G. Michael and Hochstein Miles, "Epistemic Communities: Intelligence Studies and International Relations", <u>Intelligence and National Security</u>, July 1993, Hindley Meredith, "Teaching Intelligence Project", <u>Intelligence and National Security</u>, Vol. 15, No. 1, Spring 2000, Scott Len, Jackson Peter, "The Study of Intelligence in Theory and Practice, <u>Intelligence and National Security</u>, Vol. 19, No. 2, Summer 2004, Goodman S. Michael, "Studying and Teaching About Intelligence: The Approach in the United Kingdom, <u>Studies in Intelligence</u>, Vol. 50, No. 2, 2006.

³ Alexander S. Martin, <u>Introduction: Knowing Your Friend's</u>, <u>Assessing Your Allies – Perspectives on</u> <u>Intra-Alliance Intelligence</u>, in Alexander S. Martin (ed.), <u>Knowing Your Friends: Intelligence Inside</u> <u>Alliances and Coalitions from 1914 to the Cold War</u> (London, Portland: Frank Cass, 1998), p. 1.

⁴ Andrew Christopher, Dilks David (eds), <u>The Missing Dimension: Governments and Intelligence</u> <u>Communities in the Twentieth Century</u> (Urbana, IL: University of Illinois Press, 1984).

⁵ Alexander S. Martin, op. cit., p. 1.

of the missing dimension". Martin Alexander puts it eloquently: "Economic and industrial intelligence and spying upon friends really does remain another "missing dimension to the missing dimension"".⁶

2. DEFINITIONS

In order to define macroeconomic espionage we should firstly define the broader phenomenon, economic espionage. In the specialized literature of economic espionage we observe a definitional confusion between economic espionage and industrial espionage, because this subject is under-researched and under-theorized and because different academic fields which deal with it (for example sociology, criminology, law) use different terminology, as each focuses on a separate aspect of the phenomenon. A characteristic of this confusion can be found in the "Espionage Encyclopedia" of Richard Bennett. Bennett does not include an entry for *economic espionage*, but he deals with this term in the entry *economic intelligence*. Moreover, he refers to economic intelligence, commercial intelligence, industrial intelligence, economic espionage and corporate espionage, without defining them and distinguishing one from another, while he does not even mention the distinction between macroeconomic and microeconomic espionage.⁷

According to Samuel D. Porteous, security analyst of the Canadian Security Intelligence Service, the term "economic espionage" refers to "clandestine or illicit attempts by foreign interests to assist their economic interests by acquiring economic intelligence which could be used to sabotage or otherwise interfere with the economic security of another country".⁸ By the term economic intelligence, Porteous means "policy or commercially-relevant economic information, including technological data, financial, commercial, and government information, the acquisition of which by foreign interests could, either directly or indirectly, assist the relative productivity or competitive position of the economy of the collecting organization's country".⁹ Philip Zelikow, Professor at the University of Virginia¹⁰, gives his definition of economic intelligence as "information about how those outside of the United States develop, produce, or manage their material goods, services and resources.¹¹

Randall M. Fort, currently Assistant Secretary of State for Intelligence and Research, defines economic espionage as the acquisition by secret means of information concerning the economy, trade and/or intellectual property by a secret agency/service which uses secret sources and methods.¹² For Hedieh Nasheri, Associate Professor of Justice Studies at Kent State University, economic espionage is defined "as one nation collecting economic data about another nation".¹³ With the term "economic data" he means "such information as national gross domestic product and inflation rate figures, which may be obtained from published sources, or more privileged information such as budgetary allocations for defense and national research and development expenditures, which are usually acquired through illicit means".¹⁴

What differentiates geopolitical espionage from economic espionage is that the goal of the former is the early warning for the capabilities and intentions of an opponent state to conduct warfare, while economic espionage deals with the collection of economic and technological intelligence. However, there are two factors that make the distinction between traditional/geopolitical espionage and

⁶ Alexander S. Martin, op. cit., p. 7.

⁷ Bennett M. Richard, <u>Espionage: An Encyclopedia of Spies and Secrets</u> (Virgin Books Ltd, 2002), p. 83.

⁸ Porteous Samuel, "Economic/Commercial Interests and the World's Intelligence Services: A Canadian Perspective", <u>International Journal of Intelligence and Counterintelligence</u>, Vol. 8, No. 3, 1995, p. 297.

⁹ Ibid.

¹⁰ Philip Zelikow was former Associate Professor of Public Policy at John J. Kennedy School of Government, Harvard University, where he was co-director of Harvard's Intelligence and Policy Program.

¹¹ Zelikow Philip, "American Economic Intelligence: Past Practice and Future Principles", in Jeffreys-Jones Rhodri, Andrew Christopher (eds.), <u>Eternal Vigilance? 50 Years of the CIA</u> (Frank Cass & Co. Ltd, 1997, p. 164).

 ¹² Fort Randall M., "Economic Espionage", in Godson R., May E., Schmitt G., <u>U.S. Intelligence at the Crossroads</u> (1995), p. 181.
 ¹³ Nasheri Hedieh, <u>Economic Espionage and Industrial Spying</u>, (Cambridge University Press, 2005),

¹⁵ Nasheri Hedieh, <u>Economic Espionage and Industrial Spying</u>, (Cambridge University Press, 2005), p. 16. This book is the only academic book published and although it examines economic espionage from a criminological point of view and not from an international relations or strategic studies/intelligence approach, it is extremely valuable because it covers the whole phenomenon. ¹⁴ Ibid, p. 17.

economic espionage difficult. First, some materials and high-tech equipment are necessary for a state's defense industry as well as for its civilian industry. Secondly, it is common ground that the political and military strategy of a state –and especially of great powers – always has an economic parameter.¹⁵

Another important difference is that between economic intelligence-espionage and business intelligence-espionage – the latter refers to the collection and analysis of information from a company, usually multinational, against another company. If those companies collect information by using clandestine means, the accepted term is industrial espionage. While industrial espionage is conducted by an entity of private sector, economic espionage is conducted by the government of a state by using its secret agencies. According to the FBI (Federal Bureau of Investigation), economic intelligence-espionage refers to the case where the secret services of a state collect economic intelligence, while industrial espionage has to do with the collection of economic information by private companies.¹⁶ Economic espionage has three distinct dimensions:

The first, which is the topic of our interest in this article, coined as macroeconomic espionage, refers to the use of secret agencies on behalf of a state's government in order to obtain intelligence concerning the world economic developments and activities with the ulterior purpose the advancement of its strategic interests.¹⁷ In its basic form, macroeconomic espionage assists the political leadership of a state to conduct its internal and external economic policy with the optimum results. In 1949, Sherman Kent, the father of U.S. intelligence analytical domain, who had full knowledge of the value of macroeconomic espionage, asserted that intelligence services should track the current world economic developments as well as foreign economic doctrines and theories. Moreover, they should watch the supplying part of the armed forces, the development of new crops and methods of agriculture, changes in farm machinery, land use, fertilizers, and reclamation projects. Also they should pay close attention to the development of new utilities and the extensions of those already established, as well as to changes in the techniques and implements of distribution, new transport routes and changes in the inventory of the units of transportation. But, most importantly, in the atomic age, they must follow new discoveries as far as natural resources are concerned, especially those used in order to build nuclear weapons.¹⁸

According to the second dimension, called microeconomic espionage (or microeconomic intelligence, commercial intelligence), the government of a state via its secret agencies is involved in the collection of intelligence in order to assist a company (usually a multinational), creating by that way a collaboration between government and company whose goal is to prevail over one's opponents in the international economic arena.¹⁹

The third dimension of economic espionage is economic counterintelligence. Randall M. Fort defines this term as "the identification and neutralization of foreign intelligence services spying on the U.S. citizens or companies and stealing information and/or technology for use within their own countries".²⁰ Thompson Strong expresses the view that "the objective of the counter-C.E. [Competitive Espionage] operation is to make the C.E. investment ineffective or possibly too great in cost, at least perceptually".²¹ Samuel Porteous characterizes counterintelligence as not only a very important function of the secret services, but also the less controversial. According to his definition of the term, "a nation's counter-intelligence service simply seeks to advise government about and report on the activities of

¹⁵ See Kennedy Paul, <u>The Rise and Fall of the Great Powers: Economic Change and Military Conflict</u> from 1500 to 2000 (London: Hyman, 1988), Knorr Klaus, <u>Power & Wealth: The Political Economy of</u> <u>International Power</u> (Basic Books, Inc., Publishers, 1973), Earle Edward Mead, "Adam Smith, Alexander Hamilton, Friedrich List: The Economic Foundations of Military Power" in Paret Peter (ed.) <u>Makers of Modern Strategy: From Machiavelli to the Nuclear Age</u> (Princeton University Press, 1994).

¹⁶ Michael K., Business "Counterintelligence and the Role of the U.S. Intelligence Community", <u>International Journal of Intelligence and Counterintelligence</u>, Vol. 7, No. 4 (1995), p. 417.

¹⁷ Johnson K. Loch, <u>Secret Agencies: U.S. Intelligence in a Hostile World</u> (Yale University Press, 1996), p. 148.

¹⁸ Kent Sherman, op. cit., p. 34-5.

¹⁹ Johnson K. Loch, (1996), p. 147-8.

²⁰ Fort Randall M., op. cit., p. 182.

²¹ Strong J. Thompson, "Tilting with Machiavelli: Fighting Competitive Espionage in the 1990s", <u>International Journal of Intelligence and Counterintelligence</u>, Vol. 7, No. 2 (1995), p. 170. Strong makes the usual definitional mistake. He uses the term competitive espionage instead of economic espionage and he identifies competitive espionage with economic espionage and industrial espionage, although he distinguishes their difference.

foreign intelligence services or their surrogates engaging in clandestine activities directed against their state's economic and commercial interests."22

After having defined "macroeconomic espionage", the central term of our study and having put it in the wider context of economic espionage, in the next section we analyze its historical and current background.

3. FROM BIBLICAL TIMES TO WORLD WAR II

If we delve into history we can find a lot of examples of macroeconomic espionage and we can verify the great importance of economic and technological intelligence through the ages. As the Children of Israel ramble over Sinai, Moses instructed his spies to "spy out the land". This early attempt of espionage is really instructive and it incorporates a case of macroeconomic espionage. The spies not only gave a concrete description of the city and its defense ("the cities are walled and very great") and the power of its inhabitants ("be strong"), but also offered useful economic intelligence by verifying that Canaan was a land of "milk and honey" and by giving details about the quality of the land.²³ The collection of macroeconomic intelligence was not unknown in Ancient Greece. According to Professor Andrew Gerolymatos, in 416 B.C. the Athenians sent a delegation in Eugesta in order to find out the economic capacities of the town so as to finance a joint offensive military operation. According to Thucydides, the citizens of Eugesta deceived the delegation's members by forging their real resources and Athenians misperceived their economic situation. The deceit was successful as the members of the delegation with their return to Athens supported vigorously the Athenian invasion against Sicily.24

At 6^{th} century A.C. Justinian in order to avoid the taxes in gold imposed by Persia in the cases where Byzantium imported silk from China, and not to strengthen the economy of its opponent, reached an agreement with Ethiopians according to which the latter were going to buy the silk and transport it to Byzantium by a route bypassing Persia. Unfortunately his plan failed because the Persians, being more closed to the transport centers of India, succeeded in buying first the silk, so Justinian had no alternative than to order a group of monks which had a perfect knowledge of the Far East, to steal silkworms from China. According to Professor H. Papasotiriou, "this was one of the greatest successes of "economic espionage" in history, by which Byzantium became independent of silk imports".25

During World War I in the U.S. an agency was established, headed by John Foster Dulles, whose task was to collect and analyze economic information. President Wilson during his preparation for the Peace Conference of Versailles, turned to a private company called "Inquiry" which collected economic intelligence.²⁶ Germany, however, ignored the importance of economic intelligence, as the leaders of their intelligence services admitted. In 1930s Germany didn't commit the same mistake. According to Walter Laqueur "German economic intelligence functioned well during the war, but not their scientific intelligence. The main problem was that Hitler had no interest in the subject".²

The U.S. has a long history in collecting macroeconomic intelligence. Its operations date back to the end of 1776 when the first U.S. intelligence agency called "Committee of Secret Correspondence of the Continental Congress" sent William Carmichael to Europe, disguised as a merchant, in order to collect intelligence concerning economic issues for which the new U.S. government gave great interest. In November 1776, Carmichael sent a reassuring letter from Amsterdam, reporting that: "You have

²² Porteous Samuel, "Economic and Commercial Interests and Intelligence Services", in Potter Evan H. (ed.), Economic Intelligence & National Security (Carleton University Press, 1998), p. 105-6.

²³ Laqueur Walter, <u>The Uses and Limits of Intelligence</u> (Transaction Publishers, 1993), p. 38, Neilson Keith & McKercher B.J.C. (eds.), Go Spy the Land: Military Intelligence in History, (Praeger Publishers, 1992), Introduction, p. ix.

²⁴ Gerolymatos Andrew, Espionage in Ancient Greece, (Cactus Editions, Athens, 2001, in Greek),

p. 30. ²⁵ Papasotiriou Haralampos, <u>Byzantine Grand Strategy</u>, 6th-11th century (Poiotita Publications, Athens 2000, In Greek), p. 103. See also "Economic and Industrial Espionage, http://plaza.powersurf.com/keddy/essays/page3espionage.htm

²⁶ Zelikow Philip, op. cit., p 165.

²⁷ Laqueur Walter, op. cit., p. 38-9. According to Laqueur scientific and technical intelligence involves "research and development of technical devices used in the intelligence process as well as the operation of technical systems used in collecting and processing information"... it also covers "the analysis of information as to what is happening in the scientific and technical arena in foreign countries", Ibid, p. 56-7.

been threatened that the Ukraine would supply Europe with tobacco. It must be long before that time can arrive. I have seen some of its tobacco here, and the best of it is worse than the worst of our ground leaf".²⁸

During World War II economic intelligence played a great role for the U.S. Agents of the OSS (Office of Strategic Services) and other analysts had the task to "find out not only about enemy military dispositions but also about tungsten and diamond smuggling, about the production of ball bearings, Swedish iron ore supplies to Germany, and other such topics." It was common ground that such topics consisted strategic issues of great importance for the conduct of war.²⁹ Also, during World War II, the newly established Board of Economic Warfare had the task to study the Japanese economy and analyze the role of critical commodities.³⁰ Taking into consideration this tradition, it is an oxymoron the fact that the U.S. ignored the scientific-technological intelligence because it misestimated that the U.S. power was so great and its technological knowledge so superior to their opponent's that they had nothing to learn from them. It is a classic case of underestimating the enemy's capabilities.³¹

4. COLD WAR AND BEYOND

During the Cold War the U.S.A. was the main target not only of its great opponent but also of its main closed allies. In this part of the paper we will examine the macroeconomic espionage policies of the former Soviet Union/Russia, of Japan and of France. In order to obtain a comprehensive view of the subject we will also delve into the U.S. policy.

4.1 SOVIET UNION - RUSSIA

A great part of the literature concerning the former Soviet Union refers to many cases of macroeconomic espionage. Since the 1920s the former Soviet Union was trying to obtain high-tech industrial technology from the U.S. and Western Europe via espionage.³² The value of foreign technology was firstly recognized as a target of Soviet intelligence agencies by Feliks Dzerzhinsky. head of the Cheka, forerunner of the KGB (Chrezuvychainaya Komissiya po Borbe s Kontrrevolutisnei I Sabottazhem - The Extraordinary Commission for the Struggle Against Counter-Revolution and Sabotage).³³ The two organizations engaged in the collection of U.S. technology were the famous KGB (Komitet Gosudarstvennoy Bezopasnosti / Committee for State Security) and GRU (Glavnoye Razvedyvatelnoye Upravleniye / Chief Intelligence Directorate of the General Staff, Ministry of Defense). They both implemented the orders of VPK (Military Industrial Commission), of GKNT (State Committee for Science and Technology), of the Ministry of Foreign Economic Relations and of the Politburo.³⁴ The coordination of the whole effort of collecting scientific and technological intelligence, as far as the defense sector is concerned, was the duty of the Military Industrial Commission (VPK) which was later upgraded by Gorbachev in State Commission for the Military-Industrial Complex. VPK was headed by the deputy prime minister and it included 5 intelligence agencies: GRU, Directorate T of FCD (First Chief Directorate - KGB), the GKNT, a secret unit of Academy of Sciences, and the State Committee for External Economic Relations (GKES).³⁵ One of the four directions (Lines) of KGB was "Line X – Directorate T" and dealt with the acquisition of American technology.36

²⁸ Zelikow Philip, op. cit., p 164.

²⁹ Ibid, p 165, Laqueur Walter, op. cit., p. 39.

³⁰ Zelikow Philip, op. cit., p 165.

³¹ Laqueur Walter, op. cit., p. 39.

³² Corson W.R., Crowley R.T., <u>The New KGB: Engine of Soviet Power</u> (Brighton: The Harvester Press Ltd., 1985), p 339-40.

³³Andrew Christopher and Mitrokhin Vasili, <u>The Mitrokhin Archive: The KGB in Europe and the West</u> (Allen Lane The Penguin Press, 1999), p. 723.

Bennett M. Richard, op., cit. p. 43.

³⁴ Metcalfe Shotwell Robyn, <u>The New Wizard War: How the Soviets Steal U.S. High Technology</u> – <u>And How We Give It Away</u> (Tempus Books of Microsoft Press, 1988), p. 109.

³⁵ Andrew Christopher, Gordievsky Oleg, <u>KGB: The Inside Story of its Foreign Operations Lenin to</u> <u>Gorbachev</u> (London: Hodder and Stoughton, 1991), p. 622.

³⁶ Metcalfe Shotwell Robyn, op. cit., p. 109. The KGB operations were organized in four directions (Lines): the first (Line PR) deals with the collection of political intelligence, the second (Line KR) with counterintelligence, the third (Line N) with the support of agents working illegally overseas and the fourth (Line X –Directorate T) with the acquisition of American technology.

It is common ground that macroeconomic espionage contributed in the rise of the relative economic power of the U.S.S.R. According to the former leader of the First Directorate of KGB, V.A. Kryuchkov, the use of the economic intelligence obtained by the KGB had a great influence in his country's industry.³⁷ The head of the Department of Scientific and Technological Intelligence of FCD Leonid Sergeevich Zaitsev was boasting in the early 1980s that the value of information obtained by the West via economic espionage more than covered the functional expenditures of KGB operations.³⁸ Kryuchkov, the head of FCD from 1974 until 1988, claimed that the scientific and technological intelligece were used for the benefit of our industries.³⁹

In the early 1970s, the Soviets negotiated favorable agreements to buy grains from the U.S. due to their interceptions of the communications between members of the U.S. economic and financial departments. Harry Rositzke, former CIA (Central Intelligence Agency) analyst, asserts that in 1972 the Soviets got the deal with the U.S. by eavesdropping the telephone calls between the members of the U.S. trade representatives in the U.S. Department of Agriculture.⁴⁰

In 1980 the operations of Directorate T in France were disclosed by a French agent called Vladimir Ippolitovitch Vetrov (codename Farewell) who had a high place in Directorate T. Vetrov's documents revealed to western intelligence services important information about the Soviet operations concerning the theft of scientific and technological intelligence. In July 1981 the French President Francois Mitterand personally informed President Ronald Reagan about Farewell's documents.⁴¹

In December 15, 1984, during a private meeting in the Soviet embassy in London, Gorbachev spoke in flattering terms of the effectiveness and the successes of FCD and the officers of Line X working overseas.⁴² For Gorbachev the acquisition of Western technology by using secret methods was crucial for the economic part of perestroika.

In 1985, a CIA report, concerning the practices used by the Soviets in order to acquire sophisticated technology, claims that the GRU and the KGB are involved in macroeconomic espionage operations and the former has exceptional results in acquiring hardware, especially connected with military technologies. According to the KGB's estimate for 1985, its effort resulted in the saving of an important amount of money in foreign currency. The report of 1986 estimated the benefit to 550 million rubles approximately, while the reports of 1988 and 1989 to 1 billion rubles. But, there was no reference to any cost.⁴³ Corson and Crowley estimate that the U.S.S.R. saved 12 billion dollars and earned 5 to 7 years in R&D (Research and Development).⁴⁴ The target of the Soviet intelligence services was the American technology, including high-performance microchips and supercomputers, and integrated circuits and mini-computers, in order to upgrade their weaponry. ⁴⁵ According to the efforts concerning the theft of Western scientific secrets on behalf of the Soviet secret services were escalated.⁴⁶

The goal of the U.S.S.R. was not to acquire western technology only for military reasons, but also in order to support their waning domestic economy.⁴⁷ In the short term and in the long term, the economic espionage operations allowed the U.S.S.R. to take part in the arms race. However, the reality is less impressive than statistics. Professor Andrew in estimating the effectiveness of Directorate T concludes that: "The most plentiful S&T (Scientific and Technical intelligence) in intelligence history

³⁷ Andrew Christopher, Gordievsky Oleg, op. cit., p. 52.

³⁸ Ibid, p. 622.

³⁹ Andrew Christopher, "KGB Foreign Intelligence from Brezhnev to the Coup", <u>Intelligence and National Security</u>, Vol. 8 (1993), p. 51. The documents sent to the Centre, containing scientific and technological intelligence, were 1.021 the first half of 1979 (835 in 1973, 829 in 1974, and 675 in 1975). Andrew Christopher and Mitrokhin Vasili, op. cit., p. 618.

⁴⁰ Fialka J. John, <u>War by Other Means: Economic Espionage in America (</u>W.W. Norton & Company, Inc., 1997), p. 119.

⁴¹ Andrew Christopher and Mitrokhin Vasili, op. cit., p. 619-20. According to Farewell, the KGB only in 1980 obtained 5456 technological samples.

⁴² Andrew Christopher, Gordievsky Oleg, op. cit., p. 621. Disclosed probably by Oleg Gordievsky, the double agent of Britain and U.S. who was present in that meeting.

⁴³ Garthoff L. Raymond, "The KGB Reports to Gorbachev", Intelligence and National Security,

Vol. 11, No. 2 (April 1996), p. 229.

⁴⁴ Corson W.R., Crowley R.T., op.cit., p. 11.

⁴⁵ Warner W.T., "International Technology Transfer and Economic Espionage", <u>International Journal</u> <u>of Intelligence and Counterintelligence</u>, Vol. 7, No. 2 1994, p. 147.

⁴⁶ Adams James, <u>The New Spies: Exploring the Frontiers of Espionage</u> (Pimlico, 1995), p. 129.

⁴⁷ Warner W.T., op. cit., p. 147.

has failed to prevent the growing gap between Soviet and Western technology, particularly outside the defense field."48

According to Andrew and Mitrokhin, the tactical victories of FCD against the U.S. –the main enemy – impressed Gorbachev, but failed to avoid strategic defeat.⁴⁹

In the long run, the macroeconomic espionage operations of U.S.S.R. failed to bridge the gap between the Soviet Union and the West and to prevent the former from collapse. The real economic and technological benefits of western technology, even of high economic value in billions of dollars, were radically curtailed because of the structural weaknesses of the Soviet economic system. The ideological blinkers of the Soviet system combined with economic rigidity and the resistance to innovation neutralized the benefits of macroeconomic espionage.

The end of the Cold War and the collapse of the Soviet Union did not finalize the operations of macroeconomic espionage committed by Russia, the successor of the U.S.S.R. New opportunities have arisen for Line X via the scientific exchanges between East and West, as well as the business joint ventures. In February of 1990, the then CIA Director, William Webster claimed that the KGB not only continued, but enlarged its economic espionage operations especially in the U.S., where there is an augmentation of the recruitment of persons possessing technological knowledge or having access to them.⁵⁰ The re-activation of Michael Smith, the British agent of Line X, in the early 1990s is one clear example of the continuing priority for the Russian leadership of the collection of scientific and technological intelligence.⁵¹

SVR (Sluzhba Vneshney Razvedki Rossii / Russian Foreign Intelligence Service), the successor of the KGB, looked for new roles in order to justify its presence as an organization, and to maintain its status in the Russian society, and it is sure that one such role is economic espionage in its three dimensions. From the spring of 1992 it was clear that the successors of KGB made a shift towards the collection and analysis of economic intelligence instead of military intelligence.⁵² The head of the Chief Intelligence Directorate of the Russian Army's General Staff-GRU declared in 1992 that economic espionage is one of the means which support military activities.⁵³ President Yeltsin had characteristically declared that the guarantee of access in other countries' markets is a responsibility not only of the Ministry of Finance and of the Ministry of Foreign Affairs, but also of the intelligence services (Foreign Intelligence).⁵⁴

According to Andrew and Gordievsky, the difficult economic situation of Russia increased the need of high-tech intelligence. The most pressing need is to instill the new technology acquired by macroeconomic espionage to the domains were the Russian industry cannot invest in R&D.⁵⁵ In his first press conference as head of the Russian secret services, Yevgeniy Primakov noted that the intelligence services "should provide favorable conditions for the development of the economy and of the scientific and technological progress of the country".⁵⁶ In April 1992 Robert Gates, the then DCI (Director of Central Intelligence), testified in a Congress Committee that Russian intelligence services under the leadership of Primakov continue the economic espionage operations.⁵⁷ Zagorin, a writer of Times, in an article noted that in 1992 a Belgian "journalist" was arrested and convicted because while he was authorized to cover the launching of satellites, he was committed – as he admitted – economic espionage on behalf of the SVR.⁵⁸

The collection of scientific and technological intelligence played a vital role in the decision of Russian government in 1993 to increase substantially its economic aid towards Cuba. In exchange the Russians maintained their SIGINT center in Lourdes, which has been upgraded in 1990.⁵⁹ In February of 1996, Boris Yeltsin during a conference with the members of his security council in Kremlin ordered the Russian intelligence services to focus their attention to the "technological re-armament", by

⁴⁸ Andrew Christopher, Gordievsky Oleg, op. cit., p. 623.

⁴⁹ Andrew Christopher and Mitrokhin Vasili, op. cit., p. 618.

⁵⁰ Andrew Christopher, Gordievsky Oleg, op. cit., p. 623.

⁵¹ Andrew Christopher and Mitrokhin Vasili, op. cit., p. 725.

⁵² Sherr James, "Cultures of Spying", <u>The National Interest</u>, Winter, 1994/95, p. 60.

⁵³ Ibid, p. 61.

⁵⁴ Ibid.

⁵⁵ Warner W.T., op. cit., p. 148.

⁵⁶ Richelson T. Jeffrey, <u>A Century of Spies: Intelligence in the Twentieth Century</u>, Oxford University Press, 1995), p. 428.

⁵⁷ Ibid.

⁵⁸ Warner W.T., op.cit., p. 148. See also: Zagorin Adam, "Still Spying After All These Years", <u>Time</u>, 29 June 1992, pp. 58-9.

⁵⁹ Ibid.

collecting new ideas from the West and implement them in Russia. He remarked characteristically: "It is better to have a pioneer technology, than a pioneer ideology".⁶⁰

At the same year with the nomination of Primakov as Foreign Minister and Vyacheslav Trubnikov as head of SVR, Yeltsin signed a new law concerning the status and the functions of the Russin intelligence service, which has been voted by Duma in December 1995. The deputy director of SVR described its goals as far as economic intelligence is concerned as the following: the estimation of foreign influence in Russian economy, the facilitation of integration in the interior of the former Soviet Union, the confrontation of foreign threats against the economic security of Russia, the provision of aid in Russian government in order to attract new foreign investments and the impediment of the moneylaundering of foreign and domestic criminal organizations.⁶¹ In June 1996, in a report in Moscow State Institution of International Relations, Primakov described Russian foreign policy and implied that SVR should give greater emphasis to economic espionage in order to heal the Russian economy.⁶²

For the Russian government, the success in the international market of weapon systems is crucial in order to solve its economic problems. U.S. and Western technology is a key asset for the Russian defense industry in order to compete successfully in the international economic arena.

In March 1999, Sunday Times revealed that according to an ex-agent of MI6, SVR succeeded in infiltrating into important economic centers of London. MI6 uncovered at least one agent of SVR who worked in London market, while another Russian agent arrested by the British agency revealed that in 1995 SVR had placed one of its agents in the offices of Barclays Bank in Moscow. The targets of SVR included Bakn of England, the European Bank for Reconstruction and Development (EBRD) and other institutions based in London. ⁶³

4.2. JAPAN

Japan has the most integrated and complex intelligence system in comparison with other U.S. allies. In the last four decades Japanese governments facilitated the creation of a decentralized national framework for collecting economic intelligence. Japan is the only country whose intelligence services were established with main goal the fulfilment of high levels of prosperity and the improvement of the standards of living of its citizens.⁶⁴ Taking into consideration the traditional tend of Japanese to seek and collect useful intelligence from abroad, improve them, and implement them in their domestic society, we reach the conclusion that this is not a new policy, but the establishment of the Japanese secret services according to its tradition.⁶⁵ The difference between the Japanese secret services and the services of other countries is that the espionage operations of Japan are based less on the formal secret services and more on a broad net of institutions of the Japanese society.⁶⁶

From the late 1950s the Japanese government established two main organizations with the duty to collect and analyze economic intelligence. Firstly, the Scientific Information Centre (SIC) with the mission to disseminate technological intelligence obtained from the West to the Japanese private sector. Secondly, the Ministry of International Trade and Industry (MITI) which is the backbone of the economic intelligence net of Japan. MITI charged the Japanese External Trade Organization (JETRO) with the collection of economic intelligence.⁶⁷ The fact that Japan has established in 1962 a special educational centre for economic espionage under the "innocent" title "Institute for Industrial Protection"- attended even by businessmen -, proves the importance that it gives to economic espionage.⁶⁸ From the early 1960s the majority of Japanese businesses had created their own

⁶⁰ Pringle W. Robert, "The Heritage and Future of Russian Intelligence", International Journal of Intelligence and Counterintelligence, Vol. 11, No. 2, Summer 1998.

Albini L. Joseph, Julie Anderson, "Whatever Happened to the KGB?", International Journal of Intelligence and Counterintelligence, Vol. 11, No. 1, Spring 1998, p. 46.

⁶² Ibid, p. 44-6.

⁶³ Waller J. Michael, "Iraq's Russian Arms Buyer Headed Germ Warfare Program: Russian Spies Unmasked in London Financial System", Russia Reform Monitor, No. 597, American Foreign Policy Council, Washington D.C., March 3, 1999, http://www.afpc.org/rrm/rrm597.htm

⁶⁴ Deacon Richard, Kempei Tai: A History of the Japanese Secret Service (Beaufort Books Inc., 1983), p. 254. ⁶⁵ Deacon Richard, op. cit, p. 254. See also Kennedy Paul, op. cit., p. 416-7. .

⁶⁶ Schweizer Peter, Friendly Spies: How America's Allies Are Using Economic Espionage To Steal Our Secrets, (New York: Atlantic Monthly Press, 1993), p. 73.

⁶⁷ Herring J.P., "The Government Role in Japanese Competitive Intelligence", <u>Competitive Intelligence</u> Review, Vol. 3 (1989), p. 14-5.

Schweizer Peter, (1993), op. cit., p. 18.

intelligence units. A great part of the Japanese network consists of well-known multinationals like Mitsubishi, Hitachi and Matsushita which have at their disposal important resources and equipment. Also, a small part of the office of the Japanese Prime Minister is involved in the supervising of the net's operations.⁶⁹ Another important organization is the Japanese SIGINT (Signal Intelligence) organization called "Chobetsu", the equivalent of the American NSA (National Security Agency). The Japanese network of economic intelligence is supplemented by some think-tanks like Nomura Institute and Mitsubishi Research Institute.⁷⁰

The consultant and ex-CIA official John F. Quinn has characterized the efforts of the Japanese government in collecting economic intelligence as "of great scale, intensive and continuous".⁷¹ The macroeconomic espionage operations of Japan include the use of Japanese students of American universities in order to collect information concerning the scientific and technological research taking place in those institutions. Professor Johnson of University of California, Berkley, declared that the Japanese students of the University told him that officials of the Japanese consulate in San Francisco asked them to deliver them reports concerning research in biotechnology, since this University is one of the pioneers in this domain. In the fall of 1990 a researcher of the Massachusetts Institute of Technology (MIT) claimed that some Japanese students received orders from Tokyo to infiltrate to research teams of the university's laboratories.⁷² Also Japanese multinationals succeeded in obtaining access to CIA's top secret documents and even acquired top secret technological intelligence concerning the Strategic Defense Initiative (SDI).⁷³

In the late 1980s, Japan had at its disposal a high-level source in the U.S. State Department which supplied Tokyo with detailed intelligence concerning the U.S. negotiating positions, even before the rest of the U.S. agencies.⁷⁴ The former head of French Intelligence, Count de Marenches, referring to Japanese efforts commented that "Japanese are specialists in economic espionage".⁷⁵ Pierre Marion, the Director of French Intelligence Services from 1970 until 1981, commenting on the Japanese capabilities in economic espionage expressed the view that "Well, it is clear to me that Japan has always engaged in technological and industrial espionage", "I think MITI has offices in practically all the countries, including JETRO offices. And their responsibility is clearly an intelligence-gathering function". Admiral Pierre Lacoste who succeeded Marion in 1982, characterized the intelligencegathering by MITI as massive: "They are incredible in what they collect. Something like five hundred thousand messages are sent from MITI and JETRO offices around the world back to Tokyo every day. I understand that these messages are based on information collected both overtly and covertly".⁷⁶ According to the former DCI William Colby "In general terms, most countries develop intelligence services to meet their needs", and specializes that for Japan these needs are mostly economic.⁷⁷ U.S. Ambassador Michael Smith expressed the view that "I never assumed the Japanese devoted much of their intelligence assets to watching the Soviets. They have always been more interested in us and our technology."⁷⁸ According to Herring J.P., a former CIA intelligence officer, Japan became one of the biggest economic powers of the world by using foreign intelligence for peaceful purposes in order to fulfil its economic goals.⁷⁹ Dr Angel, a specialist in Japan and Professor of the University of South Carolina thinks that "JETRO is an economic and political intelligence service from beginning to end" and that the Japanese government receives "enormously valuable intelligence from corporate spying overseas".80

Tokyo is the world's capital as far as eavesdropping and espionage via technical means is concerned. NSA analysts were shocked when they decrypted and translated an intercepted message sent by the Washington offices of Mitsubishi to Tokyo. The message included the Daily Briefing delivered daily to the U.S. President and the members of the National Security Council (NSC).

⁶⁹ Ibid.

⁷⁰ Deacon Richard, op. cit., p. 260-1.

⁷¹ Evans J.C., "U.S. Business Competitiveness and the Intelligence Community", <u>International Journal</u> <u>of Intelligence and Counterintelligence</u>, Vol. 7, No. 3 (1995), p. 355.

⁷² Schweizer Peter, (1993), op. cit., p. 92.

⁷³ Ibid, p. 19.

⁷⁴ Porteous Samuel, (1998), op. cit., p. 109.

⁷⁵ Schweizer Peter, (1993), op.cit., p. 73.

⁷⁶ Ibid, p. 67, 72.

⁷⁷ Ibid, p. 71.

⁷⁸ Ibid, p. 72.

⁷⁹ Herring J.P., op. cit., p. 13. Jan P. Herring is currently President of Herring & Associates LLC, a management consultancy, specializing in intelligence matters.

⁸⁰ Schweizer Peter, (1993), op. cit., p. 81, 87.

4.3 FRANCE

One of the main players of macroeconomic espionage in the world espionage chess table is France which has at its disposal a well-organized intelligence service, characterized by experts as "one of the most aggressive collectors of economic intelligence in the world".⁸¹

In 1964 during the Kennedy Round of GATT's negotiations in Cannes, a French countess recruited by the French intelligence services infiltrated in the suite of the American Under-Secretary of State, George Ball and stole documents which included the last orders from Washington. According to Colonel Le Roy who was participated in the operation, the whole idea belonged to the French Prime Minister Valery Giscard d' Estaing.⁸²

In 1969, during the first formal visit of U.S. President Richard Nixon in Paris, agents of the French secret services managed to put a microphone in the lining of his aid's (H.R.Haldeman) jacket. As a result of this operation the French secret services eavesdropped the content of the private conversations of White House officials concerning issues of great importance for the French government.⁸³ Count de Marenches, the head of the French secret services during the Presidency of Pompidou, disclosed in his memoirs in 1992 that in 1971 French agents intercepted, in time, valuable information concerning the day as well as the level of the planned devaluation of dollar by Nixon. De Marenches passed this information to President Pompidou who as a former banker and as a politician, understood the laws of secrecy, and handled the issue with the Bank of France in a need-to-know basis. As a result, France obtained important profits from its speculation on the U.S. dollar.⁸⁴

In 1981 radical changes occurred in the French secret services because of the election at the Presidency of Francois Mitterand. The new President appointed Pierre Marion as the new head of the French secret services. Marion had a clear philosophy about the engagement of secret services in economic espionage. According to Marion economic espionage is a natural activity of the secret services and may be committed even against a close ally like the U.S.A. He believed that the alliance between the two countries were limited to the political and military domains, while in the economic and technological domains they were competitors and as a result macroeconomic espionage is justified and legitimized. ⁸⁵ Marion tried to improve the capabilities of SDECE (Service de Documentation Exterieure et de Contre-Espionage) in collecting and analyzing economic, financial, industrial and scientific intelligence. In order to emphasize this new effort the organization was renamed in 1982 to DGSE (Direction Generale de la Securite Exterieur/Directorate General of External Security, known as "La Piscine"). During the first meeting between the French President and Pierre Marion the former described the three priorities of the French secret services: one of them was the improvement of economic, technological and industrial intelligence.⁸⁶

In 1982 the DST (Direction de la Surveillance du Territoire/Directorate for Surveillance of the Territory) was established charged with counterintelligence and counterespionage, as well as the surveillance via electronic means. DST in cooperation with DGSE was committing economic espionage by using electronic means.⁸⁷ In 1982 U.S. President Reagan made a formal visit to Paris in order to discuss the bilateral relations of the two countries with President Francois Mitterand. The American delegation had rented two floors in a luxury hotel in Paris and every day U.S. secret service were checking minutely the suites in order to guarantee that there were no surveillance devices. But they did not discover something out of the ordinary. Unfortunately for them and the U.S. delegation, they were wrong, because agents of the DST were intercepting the conversations of the members of the

⁸¹ Schweizer Peter, "The Growth of Economic Espionage: America Is Target Number One", <u>Foreign</u> <u>Affairs</u>, Vol. 75, No.1 (Jan. / Feb. 1996), p. 11.

⁸² Schweizer Peter, (1993), op. cit., p. 96-7. After photocopying the documents in the hotel director's office, the countess returned them back to their place and left undetected. Also, before the intrusion, officers of the French secret services lubricated the door of the Under-Secretary's room.
⁸³ Ibid, p. 97-8.

⁸⁴ Chattergee Pratap, "Spying for Uncle \$am: Economic Intelligence", <u>Covert Action Quarterly</u>, Winter 1996, <u>http://www.mediafilter.org/caq55EconIntel.html</u>, Count de Marenches, Andelman A. David, <u>The Fourth World War: Diplomacy and Espionage in the Age of Terrorism</u> (William Morrow and Company, Inc, 1992), p. 114-115.

⁸⁵ Schweizer Peter, (1993), op. cit., p. 109.

⁸⁶ Ibid. The other two priorities were the improvement of intelligence concerning the Eastern Block and the exposure of Soviet spies working in France.

⁸⁷ Ibid, p. 115.

delegation by using a laser placed in the street outside the hotel, which recorded the vibrations made by the conversations, while a computer were "translating" them in words.⁸⁸

In the same year, the Indian government was negotiating with the U.S.A., the Soviet Union and France the purchase of a new fighter and had decided to spend \$2 billion for that. In the middle of 1981 the head of the station of French secret services in New Delhi recruited a political employee of the Indian Prime Minister's office in order to obtain intelligence concerning the political situation inside the Indian government. When the negotiations for the purchase were reaching the end, DGSE ordered the French military attaché in New Delhi to use the above mentioned source in order to find out the American offer. For one more time the source was credible and France earned the contract with the Indian government.⁸⁹

In the mid 1990s a shift was made in the French policy concerning economic espionage. The French Prime Minister Edouard Balladur, influenced by a new school of though, reached the conclusion that it was impossible for France to win the economic war which was under way, via economic espionage and decided to establish the Japanese way which gives emphasis in open sources.⁹⁰ In the same period the French Center of Foreign Trade established a new office in charge with economic intelligence with the code name R31. This agency will provide intelligence to a new group the "Commite pour la Competitiveness et la Securite Economique", established in April 1996 from the Prime Minister Balladur. This committee will search, analyze, process and distribute intelligence in order to protect the economic secrets of the French government, as well as to offer advices for the economic and trade strategies. Such centers can contribute to the better coordination between open and secret sources.⁹¹

Although in 1996 there was a decline in economic espionage (and macroeconomic espionage in particular) by France, the U.S. intelligence services are especially cautious. An official of the U.S. secret services comments that the question is when the French will return to their old habits.⁹²

4.4 U.S.A.

The U.S. Intelligence Community -which owes its establishment as a bureaucratic mechanism to the surprise attack of Pearl Harbor in 1941- continued the tradition of collecting and analyzing macroeconomic intelligence during the first years of the Cold War. In 1945 Central Intelligence Group (CIG), the precursor of CIA coordinated the provision of economic intelligence in high-placed officials. CIG used U.S. diplomatic and military attachés in order to collect intelligence about minerals of high strategic importance.⁹³ When the CIA was established with the National Security Act of 1947, its role was limited, as the State Department was responsible for the collection and analysis of political, cultural and sociological intelligence, the armed services were responsible for military intelligence, and "economic, scientific, and technological intelligence" was given to "each agency in accordance with its respective needs". In 1951 the U.S. government, by an NSC direction, assigned to the CIA the task of collection, analysis and coordination of economic intelligence abroad.⁹⁴ Specifically, the CIA was responsible a) to guarantee that "the full economic knowledge and technical talent available in Government" was dedicated to national security issues; b) to evaluate the "pertinence, extent and quality of the foreign economic data available bearing on national security issues, and develop ways in which quality could be improved and gaps could be filled"; and c) to carry out "such foreign economic research and produce such foreign economic intelligence" in order to supplement the work of other government agencies.99

The analysis of the economic conditions of labor unions in Italy, France and other Western countries –during the Cold War era, but especially during the first years– was one of the highest priorities of the U.S. government. Moreover, U.S. intelligence services focused their attention to the

⁸⁸ Ibid, p. 98.

⁸⁹ Ibid, p. 111-2. Pierre Marion commented about this successful operation: "We had an informer inside the Indian chancellery which was making the decision. And we were able to get some intelligence about the proposals by the competitors".

⁹⁰ Fialka J. John, op. cit., p. 97-8.

⁹¹ Porteous Samuel, (1998), op. cit., p. 86.

⁹² Fialka J. John, op. cit., p. 100.

⁹³ Zelikow Philip, op. cit., p. 165.

⁹⁴ Ibid, p. 166.

⁹⁵ NSC Intelligence Directive No 15, "Coordination and Production of Foreign Economic Intelligence", 13 June 1951.

analysis of economic trends of U.S.S.R. and especially the closed surveillance of its armament program.⁹⁶

The responsibility for collecting and analyzing economic intelligence during the 1950s and 1960s was determined by the relations between the CIA and the State Department. During the Truman Presidency there was a closed cooperation between these two agencies. This was a period where a new emphasis was given to economic issues especially in the State Department, where a new team of famous economists was established under the guidance of Will Clayton and Paul Nitze.⁹⁷ In 1952 the DCI General Walter Bedell Smith, informed the NSC that a new Office of Research and Reports (ORR) was created within the CI and was fully operational.⁹⁸

As the economic capabilities of the CIA were developed, the State Department doubted about the abilities of CIA in the economic field. This bureaucratic quarrel ended with an agreement between the two organizations according to which the CIA was assigned the collection and analysis of economic, scientific, and technological intelligence for the Soviet Union, the Eastern Block and China, while the State Department the rest of the world.⁹⁹ The work of the CIA as far as the economic conditions of the Soviet coalition is concerned, resulted in the increase of its prestige as one of the intelligence main sources of the U.S. Administration.

In 1961 the Bureau of Intelligence and Research of the State Department confronted serious financial problems and was obliged to cut its budget concerning the economic analysis, in order to maintain its capabilities in political analysis. As a result, the CIA took charge of its responsibilities. Four years later CIA Director John McCone reached a new deal with Secretary of State Dean Rusk according to which the collection and analysis of economic intelligence all over the world was assigned to CIA. It was a great victory for the "Company". In the late 1960s a growing concern about economic and especially monetary problems emerged because the U.S.A. faced the increasing competition by Europe and Japan and Sterling was devaluated.¹⁰⁰ CIA replaced the ORR with a new entity, the Office of Economic Research. According to a 1971 report of the President's Foreign Intelligence Advisory Board (PFIAB), the State Department could not fulfill its duty as far as the collection of economic intelligence in the free world is concerned and as a result it proposed that the CIA should get more resources in order to accomplish the task.¹⁰¹

In the early 1970s, like in our post-Cold War era, economics suddenly came to the fore once more and was the first priority of U.S. foreign and international policy. Indeed, in 1974 the authoritative journal *Foreign Affairs* announced the advent of the "Year of Economics". The close surveillance of the developments in the economic, financial and monetary domain was deemed one of the five goals of great importance for the U.S. Intelligence Community during the fiscal year 1976. During the international oil crisis of 1970s, CIA became the most important producer of economic intelligence disseminated to U.S. policymakers. Also the "Company" continued to be a source of critical importance for the surveillance of the economic situation in the closed societies of the U.S.S.R. and China.¹⁰²

In two priority lists concerning intelligence collection published by the CIA in 1975 and 1986 respectively, the presence of macroeconomic targets was evident. It included the following: the surveillance of the OPEC (Organization of Petroleum Exporting Countries) strategies concerning their price policy, the size of the annual crop of the Soviet Union, the quality of its computers, the financing of the developing countries' debt, the lack of energy in the international level, the food supplying all over the world and the scientific and technological progress.¹⁰³ It is alleged that in the early 1980s U.S. intelligence services put "bagged software" in the computers of the World Bank and other international

⁹⁶ Johnson K. Loch, (1996), op. cit., p. 163.

⁹⁷ Among them were Edward Mason, Walt Rostow, Charles P. Kindleberger and John Kenneth Galbraith.

⁹⁸ Zelikow Philip, op. cit., p. 166. Smith declared proudly that "although accurate appraisal of an enemy's economic potential is a most important factor in estimating his military capabilities, this crucially important task had previously been scattered among twenty-four separate agencies of the Government"

⁹⁹ Ibid, p. 167.

¹⁰⁰ Ibid, p. 167-8.

¹⁰¹ Ibid, p. 168.

¹⁰² Especially China had a strategy of not publishing its economic and fiscal statistics during the 1950s and 1970s.

¹⁰³ Zelikow Philip, Ibid, p. 168.

financial institutions in order to provide to American policymakers an early warning as far as the crisis of Latin American banks is concerned.¹⁰⁴

One of the great criticisms for the U.S. intelligence Community in general and the CIA in particular came from their failure to predict the collapse of the former Soviet Union. The leader of those attacks towards the U.S. Intelligence Community was Senator Daniel Patrick Moynihan who even asked the abolishment of the CIA. The then DCI Robert Gates, in order to defend the agency ordered to declassify a series of documents proving that the agency reported with full details the collapse of the Soviet economy during the 1980s, without foreseeing its ultimate collapse. Gates' argument was that no government agency anticipated such a sudden collapse of communism in U.S.S.R. Another high-rank U.S. intelligence officer declared that for the CIA the forecast of the fall of the Soviet Union was not such an important mission, its key mission was the knowledge of its military capabilities and intentions, and it was met with success.¹⁰⁵

In the post-Cold War era a new debate erupted concerning U.S. foreign policy, between those who supported a loose foreign policy and those who deemed necessary that the U.S. should continue to have an active role and maintain as well as increase its power.¹⁰⁶ The proponents of the first view believe that the U.S. government should distribute the peace-dividend and cut the defense as well as the intelligence budget. The adherents of the second view claim that the newest and more dangerous threat for U.S. national security stems from the economic competition by other countries. For them economic power is extremely crucial for the maintenance of the U.S.'s hyperpower status.¹⁰⁷

In the post-Cold War period U.S. officials with a critical role in the planning of the U.S. foreign and intelligence policy noted the importance of economic intelligence and macroeconomic espionage in particular. Joseph S. Nye, head of the National Intelligence Council (NIC) in 1993-4 claimed that the role of intelligence services in NAFTA (North American Free Trade Agreement) is to facilitate the policymakers which are going to reach a decision to think further than their competitors.¹⁰⁸ In December 4, 1991 the then DCI Robert Gates noticed the importance of macroeconomic intelligence and admitted that the U.S. Intelligence Community makes estimations about the international trade and economy, with a special emphasis in foreign technological advances and in governments which are trying to steal American technology.¹⁰⁹ In February 1993, during the ratification of his nomination as DCI in Congress, R. James Woolsey declared that "the hottest current topic in intelligence issues … is the debate over so-called economic espionage".¹¹⁰ In 1991 Stansfield Turner, the former DCI, in his article in *Foreign Affairs*, after noting that the primary threat to U.S.'s national security is in the economic sphere, he added that the U.S. should redefine its national security and in this frame should give more emphasis in economic power and in economic intelligence. He concluded his article by posing the following question: if economic power is recognized as a vital component of U.S. national security, hand in hand with military power, then why U.S. government and intelligence should have hesitations as far economic and especially macroeconomic espionage is

¹⁰⁷ Sather Kyle, "The Role of the CIA In Economic Espionage",

http://www.faculty.lls.edu/~manheimk/ns/sather2.htm

¹⁰⁸ Johnson K. Loch, (1996), op. cit., p. 157.

¹⁰⁴ Porteous S., (1998), op. cit., p. 110.

¹⁰⁵ Laqueur Walter, op. cit., viii-xix. See also "At Cold War's End: U.S. Intelligence on the Soviet Union and Eastern Europe, 1989-1991", <u>History Staff, Center for the Study of Intelligence</u>, Central Intelligence Agency, 1999, <u>http://www.odci.gov/csi/books/19335/art-1.html</u>

¹⁰⁶ For this debate see: Arvanitopoulos Konstantinos, <u>American Foreign Policy after the Cold War</u> (Poiotita Publications, Athens 2001, in Greek), Art Robert, "Geopolitics Updated: The Strategy of Selective Engagement", <u>International Security</u>, Vol. 23, No. 3, Winter 1998/1999, p. 84-8, Art Robert, <u>A Grand Strategy for America</u> (Cornell University Press, 2004). For a critical analysis of Wilsonism see Papasotiriou Charalambos, "Realism vs. Liberal Idealism: The Yugoslav Case", Occasional Paper, *Institute of International Relations*, Athens, Panteion University, 1994. For the Jacksonian tradition see: Walter Russell Mead, "The Jacksonian Tradition and American Foreign Policy", <u>The National Interest</u>, No. 58, Winter 1999/2000. For a Realist approach see: Kissinger Henry, <u>Does America Need a Foreign Policy</u>? (New York: Simon & Schuster, 1994) and Mearsheimer J. John, <u>The Tragedy of Great Power Politics</u> (New York: W.W. Norton, 2001).

¹⁰⁹ Galvan N. Robert, "The Role of American Intelligence in The Global Economy: Business and Industrial Spying I", <u>International Journal of Intelligence and Counterintelligence</u>, Vol. 8, No. 3 (1995), p. 354.

p. 354. ¹¹⁰ Kober Stanley, "WHY SPY? The Uses and Misuses of Intelligence", <u>Policy Analysis</u>, No. 265, December 1996, <u>http://www.cato.org/pubs/pas/pa-265.html</u>

concerned?¹¹¹ One year later Senator David Boren in an article in the same journal analyzed the role of U.S. Intelligence Community in macroeconomic espionage and claimed the view that U.S. government, via its intelligence agencies, should carefully observe the negotiating strategies of its competitors in international economic issues. He concluded by drawing a parallel between the acquisition of intelligence about U.S. opponent's military strategy and about their plans in the international economic arena.¹¹² In 1994 President Clinton signed a presidential statement describing his expectations from U.S. intelligence with regard to economic intelligence:

"In order to adequately forecast dangers to democracy and to U.S. *economic well-being*, the intelligence community must track political, economic, social and military developments in those parts of the world where U.S. interests are most heavily engaged and where overt collection of information from open sources is inadequate."¹¹³

Except this declaratory U.S. policy, an augmenting activity of U.S. government and its secret services concerning macroeconomic intelligence is observed. The Clinton's Presidency gave a great emphasis in international economy and the U.S. place in it and especially in its competitiveness vis-à-vis its main competitors, Japan, the European Union, and China. For this reason he founded in the White House a National Economic Council (NEC) in order to give to economic issues the same importance that gives the National Security Council (NSC) in national security issues.¹¹⁴

In June 1995 according to Los Angeles Times U.S. President ordered the CIA to have as its first priority the economic espionage against America's economic competitors.¹¹⁵ In January 26 1995 the French Minister of Finance, Charles Pasqua, invited the U.S. Ambassador Pamela Harriman in his office and informed her that some officials of her embassy are engaged in macroeconomic espionage and should quit the country.¹¹⁶ Also according to Wall Street Journal, some governments –including that of France and of U.K. – protested to the U.S. for the size of their diplomatic missions, but did nothing further in order not to jeopardize their relations with the U.S.¹¹⁷ In February 1995, the French publicly accused the American intelligence services that they tried to bribe French government officials in order to obtain detailed intelligence about its negotiating positions in GATT negotiations about audio-visual portion.¹¹⁸

In October 15 1995, according to New York Times, the U.S. intelligence agencies helped their government officials in their negotiations with Japan concerning the import of cars by eavesdropping on Japanese officials' conversations. The U.S. trade representative Mickey Kantor and its staff benefited from the daily briefing from the CIA which contained intelligence collected by CIA station in Tokyo as well as NSA. The agreement was a clear victory for the U.S.¹¹⁹

However, the U.S. Intelligence Community failed to foresee the collapse of the Mexican peso and the subsequent financial crisis – the first financial crisis of the twenty-first century¹²⁰ – of 1995-6.

¹¹⁸ Porteous S., (1998), op. cit., p. 110.

¹¹¹ Turner Stansfield, "Intelligence for a New World Order", <u>Foreign Affairs</u>, Vol. 70, No. 4 (Fall 1991), p. 151-2.

¹¹² Boren L. David, "The Intelligence Community: How Crucial?", <u>Foreign Affairs</u>, Vol. 71, (Summer 1992), p. 57-8.

¹¹³ Porteous Samuel., (1998), op. cit., p. 80-81.

¹¹⁴ Kober Stanley, (1996). The fact that in 1992 President Clinton invited Lloyd Bentsen, Secretary of the Treasury to attend his everyday brief by CIA officials indicates the importance the former posed to economic issues.

¹¹⁵ Kober Stanley, "The CIA as Economic Spy: The Misuse of U.S. Intelligence after the Cold War", <u>Policy Analysis</u>, No. 185, December 1992, <u>http://www.cato.org/pubs/pas/pa-185.html</u>

¹¹⁶ When the meeting leaked to the French press, U.S. officials protested that Pasqua used the scandal in order to bolster up the campaign for the Presidential elections of Edouard Balladur. Although both governments acted quickly in order to close the issue, for a period of time there was tension in their relationship. Kober Stanley, (1992).

¹¹⁷ Kamm Thomas, Greenberger Robert, "France in Apparent Espionage Spat, Asks Five Americans to Leave Country", <u>Wall Street Journal</u>, February 23, 1995, p. A10.

¹¹⁹ Fialka J. John, op. cit., p. 113. When Ichiro Fujisaki, the political director of the Japanese Embassy in Washington read the article, he contacted U.S. high-level officials of the State Department and warned them that if the article is true it would be a blow to mutual friendship and trust between U.S.A. and Japan. U.S. trade representatives declared that Japanese commit macroeconomic espionage against U.S. trade delegations at least for the last 15 years and claim that the Japanese reaction to this incident is simple hypocrisy. Clyde V. Prestowitz, Jr. former trade negotiator characterized the whole issue as a theatre called diplomacy and said that Fujisaki was not shocked but he simply lied. Ibid.

¹²⁰ According to the managing director of the International Monetary Fund (IMF) Michael Camdessus.

During this crisis President Clinton lacked the critical intelligence in order to make his optimal decisions because intelligence "had been inadequately shared and coordinated throughout the government", exactly what happened in 1941 in Pearl Harbor. According to the historian Ernest May, "Neither the Treasury nor the Federal Reserve had a comfortable relationship with the intelligence community".¹²¹ Christopher Andrew has written that the current limitations of economic intelligence on the behalf of the U.S. Intelligence Community were emerged by this crisis, although the Senate Intelligence Committee characterized the CIA performance with the comment "We were frankly impressed by their [CIA assessments] quality". He concluded with the comment that "no-one inside or outside the intelligence community had yet come to terms with the new era of massive financial transfers across national boundaries". 12

5. MACROECONOMIC ESPIONAGE: INCENTIVES AND DISINCENTIVES

Decision-makers decide to assign to their intelligence services the collection and analysis of macroeconomic intelligence for some specific reasons. Also, they might abstain from this activity for some other clear reasons. In this part of the paper we will explore and analyze the dilemmas that a policymaker is facing regarding the practice of macroeconomic espionage.

5.1 INCENTIVES

Policymakers order their intelligence agencies to commit macroeconomic espionage for the following reasons:

1. In order to achieve the most effective observance of international economic and technological developments in the world. According to Randall M. Fort there is a historical, traditional and legitimized role for the intelligence community: the support of the governmental policy as far as economic issues is concerned. He asserts that the U.S. Intelligence Community provides the suitable help to governmental officials in order to configure its economic policy. Also, it observes the world technological trends which can influence/effect the U.S. national security.¹²³ Loch Johnson supports the view that the U.S. intelligence services contribute to the effective participation of the U.S. in international economic conference and that they play the same role with the Arms Control Staff which is at the disposal of the DCI. Also, their aim is to provide special intelligence concerning concrete countries (e.g. the estimation of the effectiveness of sanctions against Iraq).¹²⁴ In some cases macroeconomic analyses of the U.S. intelligence services are the basis of U.S. diplomatic initiatives. Also they are used in order to estimate the effectiveness of the U.S. policy towards specific countries – in order to decide if they will decrease or even cut the economic aid or if economic sanctions should be imposed or when the existing sanctions should be finalized.¹²⁵ According to another commentator, macroeconomic espionage covers the special needs of the policymakers so they can keep pace with the latest developments in the economic and technological fields.¹²⁶ Representative Dave McCurdy asserts that economic intelligence is important for country risk assessment as far as a specific country is concerned, and for the analyses of their military capabilities. Furthermore, it contributes to the avoidance of another -technological - Pearl Harbor in which the basic competitors of the U.S. will accomplish a sudden progress in their economic practices and policies.¹²⁷

¹²¹ Johnson K. Loch, (1996), op. cit., p. 166, Johnson K. Loch, <u>Bombs, Bugs, Drugs and Thugs:</u> Intelligence and America's Quest for Security (New York University Press, 2000), p. 48.

¹²² Andrew Christopher, "Conclusion: An Agenda for Future Research", in Jeffreys-Jones Rhodri and Andrew Christopher, Eternal Vigilance? 50 years of the CIA (FrankCass & Company Ltd., 1997),

p. 228. See also Johnson K. Loch, (1996), op. cit., p. 164-6.
 ¹²³ Fort Randall M., op. cit., p. 182. Specifically, the following are of great concern: the analysis of bilateral or multilateral negotiations, the recognition of economic trends and the understanding of the intentions of economic competitors, the unification of a large quantity of interspersed data in order to present a holistic picture of the economic and political factors which influence international stability, and the assistance to the policymakers to better understand the "rules of the economic game". ¹²⁴ Johnson K. Loch, (1996), op. cit., p. 162.

¹²⁵ DeConcini Dennis, "The Role of U.S. Intelligence in Promoting Economic Interests", Journal of International Affairs, Vol. 48, No. 1 (Summer 1994), p. 41.

Galvan N. Robert, op. cit., p. 355.

¹²⁷ McCurdy Dave, "Glasnost for the CIA", Foreign Affairs, Vol. 73, No. 1 (January/February 1994), p. 131. Representative McCurdy (D) from Oklahoma was for a decade the Chairman of the House Intelligence Committee.

2. The economic result of a cost-benefit analysis of macroeconomic espionage operations, is positive. Few well-organized operations can yield important economic benefits especially for states which counter financial/economic difficulties, while the operations' cost is minimal.¹²⁸ It is always cheaper to steal economic, scientific, and technological intelligence than to pay the whole expenses for R&D. The disclosure of the operation of the French secret services in 1971 concerning the speculation due to the dollar's devaluation is an example of this case. Moreover, this incentive is very important for the states of the former Eastern bloc which are trying to rebuild their economy and to adapt to the rules of the world capitalist economic system (open market system), as well as for the developing countries which are trying to keep up with the more developed ones.

3. Intelligence services have a structural advantage comparing with other governmental agencies. When they collect and analyze economic intelligence, secret services play a role which can not be undertaken by either Economic or Trade Ministries. They have access to special clandestine sources and methods which are unavailable to other governmental -as well as nongovernmental- agencies.¹²⁹

5.2 DISINCENTIVES

The disincentives which deter states from engaging in macroeconomic espionage are the following:

1. Macroeconomic espionage causes problems to the creation of an effective bilateral as well as multilateral diplomacy from the state-actor. More concretely, macroeconomic espionage alienates allies and creates problems to existing trade coalitions. As we have noticed in the previous section, a macroeconomic espionage operation created diplomatic problems between the U.S.A. and France. If we try to predict the international economic environment there is a great possibility that distinct economic blocks will be, if they have not already been, created - NAFTA (North American Free Trade Agreement), E.U. (European Union), China, Russia¹³⁰, and Japan. The argument is that new and strengthened alliances driven by economic interests will test the viability and durability of existent, traditional political and military alliances, like NATO (North Atlantic Treaty Organization), as well as some intelligence SIGINT agreements, like that between Canada, Great Britain, U.S.A. and Australia. A French global military review admitted the increasing link between economic and security interests with trade blocks. This review, which aims to influence the agenda of European security within the E.U., claims that security is defined less with territorial terms and more with economic/industrial terms. In this environment, the interests of France are hardly separated from those of the other E.U. members. This review calls for the development of common intelligence structures and the decrease of the dependency from U.S. intelligence.¹³¹ It is very difficult for the existing military and political alliances not to be weakened, if their member-states belong to another competing/rival economic block and to different intelligence-sharing networks.¹³²

2. Some analysts and politicians support the view that the role of intelligence services is not to study the international economy and to steal trade secrets, but to guarantee the U.S. national security. According to Stanley Cober, researcher of CATO Institute, the U.S. intelligence agencies should devote their sources and expertise in more important threats for the U.S. security, especially in countering terrorism.¹³³ Michael Herman expresses a similar opinion by saying that "the intelligence services were developed mainly in the area of national security and they must be limited to their task".134

3. According to some analysts the intelligence collected by macroeconomic

¹²⁸ Porteous D. Samuel, "Economic Espionage: Issues Arising from Increased Government Involvement with the Private Sector", Intelligence and National Security, Vol. 9, No. 4 (October 1994), p. 746, Porteous Samuel, (1998), p. 102-3. ¹²⁹ Zelikow Philip, op.cit., p. 174.

¹³⁰ Russia has overcome its economic problems and has become a key player as far as energy issues are concerned.

¹³¹ Porteous Samuel, (1998), p. 90. The formal position of British on this issue is the expected: "it is absurd to weaken the Anglo-U.S. intelligence link even at the risk of being accused by Britain's EU partners of being a Trojan horse". ¹³² Porteous Samuel, (1998), p. 89-90.

¹³³ Kober Stanley, (1996).

¹³⁴ Herman Michael, "Intelligence and Policy: A Comment", <u>Intelligence and National Security</u>, Vol. 6, No. 1, 1991, p. 238.

espionage is useless in tactical level because their personnel have not the available economic knowledge to exploit them.¹³⁵ Samuel Porteous expresses the counter-argument that during the Cold War U.S. intelligence services spent both money and time in order to acquire complex military technologies for which they had not specific knowledge and they succeeded in their mission. The same methods can be used in the case of the collection of macroeconomic intelligence without any difficulty.136

4. The intelligence services can not compete the quality of analysis of governmental and academic institutions which deal with the study of economic issues.¹³⁷ Lawrence Summers, official of the U.S. Treasury Department declared that he can not understand how the U.S. Intelligence Community can add something valuable to the reports concerning the economic situation of European countries, produced by specialized economic analysts of the U.S. government or Wall Street Journal's analysts. Moreover, international economic organizations like the International Monetary Fund (IMF) and the World Bank are collecting and analyzing information about international economic developments.¹³⁸ Bruce Berkowitz, a senior consultant of RAND, and Alan Goodman, President and Chief Executive Officer of the Institute of International Education, agree with Summers and claim that in our era a lot of governmental and private organizations collect and analyze economic information worldwide, for example Dow Jones, McGraw-Hill, Dun & Bradstreet.¹³⁹ As a result, policymakers have at their disposal a huge amount of economic information.

5. The collection of the majority of macroeconomic intelligence is done via open sources.¹⁴⁰ According to the "Commission on the Roles and Capabilities of the United States Intelligence Community" report approximately the 95% of the analysis of economic issues comes from open sources.¹⁴¹ Philip Zelikow thinks that all the agencies which collect and analyze economic intelligence/information should understand that the function of the world economy is based on open sources.¹⁴² The counterargument of the proponents of macroeconomic espionage is indeed very persuasive: even in the era of CNN and Internet secrets are, and for a long time will be, with us. Also, the comparative advantage of the intelligence services is their clandestine methods and sources and their special ways to disseminate intelligence to policymakers.¹⁴³ Professor Johnson maintains that open sources are not a panacea and make a reference to a CIA study according to which only the 1% of the information provided by Internet is important for intelligence services.¹⁴⁴

6. CONCLUSIONS

In spite of the above-mentioned disincentives, the study of the macroeconomic espionage policies of the former Soviet Union/Russia, France, Japan, and U.S.A. prove that states have not abandoned -- and possibly will not abandon in the future -- their traditional involvement in that secret activity, which tends to become a systemic characteristic of the international system of nations-states. The overarching motive in our opinion is deeper than the earning of money or the acquisition of a new technology. Taking into consideration that the development and constant improvement of economic and technological power consists a sine qua non for military power, the activity of macroeconomic espionage is directly connected with the balance of power between nations. Moreover, the concept of security includes more than a military dimension. According to Professor Ken Booth, "security should

¹³⁵ Porteous D. Samuel, "Economic Espionage II", <u>Commentary No. 46</u>, Canadian Security Intelligence Service, http://www.csis-scrs.gc.ca/eng/, 1994.

¹³⁶ Ibid.

¹³⁷ Chattergee Pratap, op. cit.

¹³⁸ Ibid.

¹³⁹ Berkowitz D. Bruce, Goodman E. Allan, <u>Best Truth: Intelligence in the Information Age</u> (Yale University Press, 2000), p. 109. Alan Goodman was Professor of International Affairs at Georgetown University's School of Foreign Service.

¹⁴⁰ Johnson K. Loch, "Spies", Foreign Policy (September/October 2000), p. 22.

For the role of open sources see: Steele David Robert, On Intelligence: Spies and Secrecy in an Open World (AFCEA International Press (AIP), 2000). ¹⁴¹ Johnson K. Loch, (2000), op. cit., p. 22.

¹⁴² Zelikow Philip, op. cit., p. 171.

¹⁴³ Porteous Samuel, (1998), op. cit., p. 81.

¹⁴⁴ Johnson K. Loch, (2000), op. cit., p. 24.

be a broader concept than merely military strategy".¹⁴⁵ Professor Barry Buzan distinguishes five dimensions of security: military, political, economic, societal, and environmental.¹⁴⁶ He maintains characteristically that, if we select the statist level of analysis, then economic security is part of the national security agenda. He defines economic security as the "access to the resources, finance and markets necessary to sustain acceptable levels of welfare and state power" and he equates security "with the economic conditions necessary for survival".¹⁴⁷ In a world characterized by rapid economic and technological advancement it is vital for the security of a state to conduct macroeconomic espionage in order not to fall behind economically and technologically, something which will affect negatively its power. In conclusion, we have to notice that more research is needed as far as the topic of economic espionage is concerned (for example the use of macroeconomic espionage in order to counter international terrorism).

 ¹⁴⁵ Booth Ken, "War, Security and Strategy: Towards a Doctrine For Stable Peace" in Booth Ken (ed.),
 <u>New Thinking About Strategy and International Security</u> (HarperCollins, 1991), p. 342.
 ¹⁴⁶ Buzan Barry, "Is International Security Possible?" in Booth Ken (ed.), <u>New Thinking About</u>

¹⁴⁰ Buzan Barry, "Is International Security Possible?" in Booth Ken (ed.), <u>New Thinking About</u> <u>Strategy and International Security</u> (HarperCollins, 1991), p. 34. Buzan's definitions of the rest dimensions of security are the following: Military security has to do with "the two-level interplay of the armed offensive and defensive capabilities of states, and states' perceptions of each other's intentions". Political security is "the organizational stability of states, systems of government, and the ideologies that give them legitimacy. Societal security refers to the "sustainability, within acceptable conditions for evolution, of traditional patterns of language, culture, and both religious and national identity and custom". Environmental security is concerned with "the maintenance of the planetary biosphere as the essential support system on which all other human enterprises depend". Ibid, p. 34-5.

¹⁴⁷ Buzan Barry, People, States & Fear: An Agenda for International Security Studies in the Post-Cold War Era (Harvester Wheatsheaf, 1991), p. 241.