

# War and Capitalism

Fanny Coulomb, Jacques Fontanel

#### ▶ To cite this version:

Fanny Coulomb, Jacques Fontanel. War and Capitalism. Kostas Gouliamos; Christos Kassimeris. The marketing of war in the age of neo-militarism, 59, Routledge, pp.173-188, 2012, Routledge Advances in Sociology, 978-0-415-88513-3. 10.4324/9780203130742. hal-02043794

# HAL Id: hal-02043794 https://hal.univ-grenoble-alpes.fr/hal-02043794

Submitted on 21 Feb 2019

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers. L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

## WAR and Capitalism

## **Fanny Coulomb and Jacques Fontanel**

War and Capitalism in The Marketing of War in the Age of the Neo-Militarism, Edited by K. Gouliamos and C. Kassimeris, Routlege Advances in Sociology, New York, London, 2011.

#### **Abstract**

There are two main opposite conceptions of the evolution of capitalism: a liberal perspective that considers world economic liberalization as a factor of peace, and the Marxist theory, which accuse capitalism of imperialism and of economic crisis. No model of capitalism can be definitely peaceful, with the permanence of militarism, the power of the military sector at the service of particular interests and the State apparatus' misuse. Some theorists consider that war is necessary for the capitalism stability. Capitalism's resistance to wars and economic crises shows the adaptability of this system, which is basically neither warlike nor peaceful, when scarcity is not generalized. However, with the shortage of natural resources, there is a new potential obstacle to the capitalist peace and to the sustainable development.

Jacques Fontanel, Professor, University of Grenoble, vice-Président Université Pierre Mendes France de Grenoble was Director of CREPPEM (Centre of Economic Research of Public Policy in Market Economy). He has published a lot of articles on war and peace, armament and disarmament, international economy, economic globalization and the international actors (theorists, financial markets, international firms, States, NGO and Economic International Institutions). Lastly, he published: *Economie Politique de la Sécurité internationale* (Paris, L'Harmattan, 2010) and "War, peace and security" with Manas Chatterji (United Kingdom, Emerald, 2008).

Fanny Coulomb, Maître de Conférences, University of Grenoble, member of CREPPEM (Centre of Economic Research of Public Policy in Market Economy), Institut d'Etudes Politiques de Grenoble, published on war and peace, armament and disarmament, armament industries and international economy. She was editor of "Peace and Defence Economics" on War and Peace Economic Thought (2008). She is a specialist of History of Economic Thought, with her main book: Coulomb Fanny. *Economic theories of peace and war*, London, New York, Routledge, 2004.

## War and capitalism

## Fanny Coulomb and Jacques Fontanel

The issue of the link between war and capitalism raises both the question of the causes of the war and of its necessity in this economic system. Two major and opposite conceptions of the evolution of capitalism have dominated the debate throughout the history of economic thought. In a liberal perspective, capitalism would evolve towards world economic liberalization, ensuring the economic prosperity of all countries participating in international trade. According to the Marxists, capitalism leads to imperialism and economic crisis<sup>1</sup>. The implications for international relations are therefore opposed. While the liberal school defends the thesis of lasting peace through free trade, Marxist theoreticians predict major international conflicts between and inside capitalist countries, which could lead to their end. Both perspectives imply an overall analysis of the relationship between war and capitalism, which does not constantly specify the determinants of the States foreign policy. The economic role of the public authorities can be more or less important, which has an impact on foreign policy, as well as the greater or lesser influence of certain lobbies on government.

The theme of war in a capitalist economy has been mainly discussed in terms of its economic impact. Since the origins of liberal economic analysis, with the Classical school, the cost of the war has been denounced<sup>2</sup>. One of the most often mentioned issue is that of the debt burden that will support the country when peace returns, if borrowing, which seems inevitable, finances war<sup>3</sup>. Beyond the question of public spending and induced debt, liberal economists have analyzed wars as costly and counter-productive, because of the loss of human capital, of destruction, of trade disruption and of the increase in unproductive military personnel. This liberal view was contradicted by some analyses highlighting the possible positive short-term effect of militarism. John Maynard Keynes himself had presented the unproductive military spending as a possible instrument of economic growth<sup>4</sup>. War preparedness may temporarily stimulate the economic activity, but other public spending would be more socially useful, with positive longer-term economic effects, such as public works. Recently, the estimation of Joseph Stiglitz and Linda Bilmes, published in a *Times* article "The three trillion dollar war" (2008, February 27<sup>th</sup>), on the true cost of the Iraq war presents this conflict as a long-term burden for the US economy. The "military Keynesianism" is not interesting in terms of "opportunity costs". However, during the Second World War, Keynes wrote that the ban on military spending imposed on Germany would accelerate its economic and industrial

<sup>&</sup>lt;sup>1</sup> Fanny Coulomb and Renaud Bellais. «War and Peace Issues in the History of Economic Thought: Introduction » *Defence and Peace Economics*, 19, 5 (2008).

<sup>&</sup>lt;sup>2</sup> Fanny Coulomb. *Economic theories of peace and war*, London, New York, Routledge, 2004.

<sup>&</sup>lt;sup>3</sup> Arthur C. Pigou. *The political economy of war*, London, Macmillan, 1921.

<sup>&</sup>lt;sup>4</sup> John Maynard Keynes. "Will Rearmament Cure Unemployment?" *The Listener*, 1/6/1939, in: D. Moggridge, ed., *The Collected Writings of John Maynard Keynes*, 21, 1982 (originally published in 1939).

development<sup>5</sup>. He proposed to restrict this advantage by requiring the country to participate in joint operations of peacekeeping<sup>6</sup>.

Beyond the Keynesian analysis, several economists have analyzed, during the interwar period, the link between war and long economic cycles, following the work of Nikolai Kondratiev. They lead to various conclusions, particularly concerning the direction of causality between the two phenomena). These studies remain highly contingent and are particularly suited to explaining the crisis of the 1930s. Across countries and over time, the economic long-term consequences of wars may differ. If both countries had suffered terribly during the war, the US economy knew a decisive economic development after the Civil War, when Germany was subjected to a deep recession after the First World War.

This study will not mainly focus on the issue of the wars' economic spin-offs in a capitalist system<sup>7</sup>. The question is to know what causes war in a liberal market economy. Hegel presented the violence as a necessary step in the process of societies' transforming. Revolutions and wars are often necessary steps in this process of social change. The German economist List has also theorized the importance of patriotism and the economic utility of war in certain circumstances, to enhance national strength on the world scene. This idea finds its continuation in many works, especially in the ones of the Historical School. Karl Marx mentioned the «cosmopolitanism» of the liberal school, which was according to his especially harmful to the proletariat's interest, as it permitted to extend the outlets on the world market, therefore delaying the worsening of the internal contradictions of capitalism. However, the economic nationalism hasn't disappeared with the development of capitalism and the spread of liberalism hasn't allowed avoiding major wars and economic crises. Like the mercantilists<sup>8</sup>, the theorists of the German historical school advocate for State economic intervention and for public support for the promotion of the national power. In this regard, they also often insist on the virtues of the war for the promotion of the national interest<sup>9</sup>.

The analyses of the link between war and capitalism are very different, depending on the chosen theoretical angle. Our study will therefore present and criticize the main theoretical arguments in the different economic thought movements, before trying to present some general conclusions. First we question the liberal idea of the capitalist peace, before we examine the possible role of war in the capitalist dynamics.

\_

<sup>&</sup>lt;sup>5</sup> John Maynard Keynes. "Inter-Departemental Committee on Reparation and Economic Security" in: D. Moggridge, ed., *The Collected Writings of John Maynard Keynes*, Volume 26, 1982.

<sup>&</sup>lt;sup>6</sup> Fanny Coulomb and Renaud Bellais. « The Fight of a Citizen Economist for Peace and Prosperity: Keynes and the Issues of International Security » *Defence and Peace Economics*, 19,5 (2008).

<sup>&</sup>lt;sup>7</sup> Jacques Fontanel and Fanny Coulomb. « The Genesis of Economic Thought Concerning War and Peace », *Defence and Peace Economics*, 19; 5 (2008).

<sup>&</sup>lt;sup>8</sup> Jacques Fontanel, Jean-Paul Hébert and Ivan Samson. « The Birth of the Political Economy or the Economy in the Heart of Politics: Mercantilism » *Defence and Peace Economics*, 19; 5 (2008).

<sup>&</sup>lt;sup>9</sup> Edmund Silberner (1957), La guerre et la paix dans les doctrines économiques (Paris, Ed. Sirey) 139-150.

#### I – The peaceful nature of capitalism, a questionable assumption

The idea of a democratic peace is now little disputed. But democracy is not a guarantee of peace, nor the worldwide spread of free trade<sup>10</sup>. The traditional arguments of liberals on these issues deserve to be reviewed in light of a more heterodox analysis, which foundations are among the pioneer works of the "institutionalist" economic thought.

### **I.1.** No model of capitalism can be definitely peaceful

• The problems with the theory of the peace through free trade

For the proponents of liberalism, the economic globalization opens unprecedented opportunities of unlimited growth. The minimal State economic intervention guarantees a sustainable prosperity, the free trade requiring and favouring peace, without preventing the growth of the national power over other countries, thanks to economic competition<sup>11</sup>. Such ideas, born in the 18<sup>th</sup> century with the rise of industrialization, are still relevant. Francis Fukuyama has echoed the Kantian idea according to which humanity progresses inexorably towards the pacification of international relations<sup>12</sup> with the concept of the end of history. Observing the changes of the last 1980s and the spread of democracy and liberalism, he though considered that in the future, war would become less likely. Moreover, contemporary models have extended the liberal tradition linking the development of trade and peace among peoples. Models have been developed to prove this link, such as the one of John, R. Oneal and Bruce M. Russett<sup>13</sup>.

A new orthodoxy has even developed around the interpretation of war as a result of anticapitalist civilizations. The solution to the conflict is presumed to be neo-liberal globalization <sup>14</sup>. The democratic peace theory considers multilateral organizations as essential to contain and curb non-capitalist systems, regarded as preventing the economic development. One variant of this theory is the idea of the diffusion of democracy through a contagion effect, the process being initiated by the action of a hegemonic American power. For this analysis, U.S. military power encourages the spread of democratic model (including direct intervention in the country) and the stability of existing democracies <sup>15</sup>. This theory does not follow the anti-militarist tradition of liberal orthodoxy. It has been supported by models developed by the economic geography, using measures of spatial distance and "clustering" to explain the propensity of countries to increase democratization with the spread of democracy in neighbouring countries as well as pressure from international organizations (sending "signals" encouraging the opponents to the autocratic system: this particularly justifies the use of international sanctions). Models are notably aimed to show the influence of international environment on the process of democratization of a country.

\_

<sup>&</sup>lt;sup>10</sup> Thibaut Richard. « Démocratie, économie de marché et paix », in Jacques Fontanel, ed., *Economie politique de la sécurité internationale*, Paris, L'Harmattan, La Librairie des Universités.

<sup>&</sup>lt;sup>11</sup> It was the idea of Adam Smith. Fanny Coulomb. "Adam Smith, a defence economist", *Defence and Peace Economics*, 9; 3 (1998) 299-316.

<sup>&</sup>lt;sup>12</sup> Francis Fukuyama. *The end of history and the last man* (London, Penguin, 1993).

<sup>&</sup>lt;sup>13</sup> John R. Oneal and Bruce M. Russett. "The Classical liberals were right: democracy, interdependence and conflict", 1950-1985, *International Studies Quarterly*, 41 (1997) 267-294. For Katherine Barbieri and Rafael Reuveny, modern globalization is a factor of peace ("Economic globalization and civil war", *The Journal of Politics*, 67; 4, 2005) 1228-1247).

<sup>&</sup>lt;sup>14</sup> Fanny Coulomb and Paul Dunne. "Peace, War and international security: Economic Theories" in Jacques Fontanel and Manas Chatterji, eds, *War, peace and security*, United Kingdom, Emerald Group, 2008.

<sup>&</sup>lt;sup>15</sup>Kristian S. Gleditsch and Michael D. Ward « Diffusion and the International Context of Democratization », (*International Organization* 60, Fall, 2006), 911-933.

However, the idea of the « pax democratica », according to which the democratic systems are inherently peaceful and do not make war between them, remains to be confirmed by historical experience. The Cold War has resulted in strategic interdependence between the Western democracies, which have prevented any conflict between them. Moreover, many international organizations have been implemented to limit international tensions related to economic problems: GATT/ WTO, IMF, World Bank and regional agreements. But we can recall the example frequently cited against the idea of peace through free trade: that of the first World War, which occurred despite a process of economic globalization under way since the second half of the nineteenth century, which multiplied trade and financial interdependencies between all countries, including the colonies<sup>16</sup>.

#### • The permanence of militarism

The idea of an intrinsic pacifism of democracies is also questionable, as recently evidenced by the popularity of the Gulf War or of the war in Afghanistan in the Western public opinion. The analysis of Thorstein Veblen, halfway between economics and sociology, deserves to be recalled on this issue. In a book published in 1915<sup>17</sup>, Veblen highlighted the tendency of modern capitalist societies, of an Anglo-Saxon type, to become more peaceful, because of the predominance of commercial interests over dynastic interests. On the contrary, the dynastic societies (as in Japan or Germany) remain characterized by specific mental habits inherited from the feudal era in which military conflicts and mercantilist policies are essential to the survival of these systems. In the long term, the dynastic model of society should normally disappear and be replaced by the modern one, but this analysis is not determinist. However, even in "modern societies", the warmongering tendencies embedded in the collective unconscious are likely to resurface at any time, eventually bringing to power pro-war leaders. Thorstein Veblen, who was concerned about the by no means insignificant probability of a global conflict, did not therefore consider the pacifism of the Anglo-Saxon capitalism definitive.

This analysis is important because it points out that economic rationality is not always decisive in the decision to go to war or not. The socio-cultural parameters must be taken into account. However, Veblen's typology does not necessarily explain the historical importance of the military sector in the United States, whose military expenditures now account for almost half of the world total. Galbraith<sup>18</sup> explained that the centrality of the military in the United States dates back to the origins of the American state set up by merchants, who applied a mercantilist policy on foreign markets (following the rules defined by Hamilton), despite their commitment to the liberal philosophy of Jefferson. The development of the military sector was also used to maintain their economic and political power on the domestic scene. Militarism would be almost as rooted in the country's culture than it was in Japan or Germany. The famous report on the utility of wars is still in the world collective memory<sup>19</sup>.

It seems therefore impossible to establish the inherent pacifism or militarism of the different models of capitalism, especially as they are subject to mutual influences. Thus the United States have undertaken a « geo-economic » offensive on the world markets, borrowing much from the Japanese model, notably in the field of economic intelligence. The U.S. authorities

<sup>-</sup>

<sup>&</sup>lt;sup>16</sup> Jacques Fontanel. *La globalisation en analyse. Géoéconomie et stratégie des acteurs* (Paris, L'Harmattan, Paris, 2005).

<sup>&</sup>lt;sup>17</sup> Thorstein Veblen. *Imperial Germany and the industrial revolution* (Augustus M. Kelley, New York. 1964. Originally published in1915).

John Kenneth Galbraith. *L'économie en perspective, une histoire critique* (Paris, Le Seuil, 1989). John Kenneth Galbraith. "Le pouvoir économique autonome, une vue économique" in Jacques Fontanel, ed., *Economistes de la paix*, Grenoble, Collection ECO+, Presses Universitaires de Grenoble.

<sup>&</sup>lt;sup>19</sup> John Kenneth Galbraith. Preface, « La paix indésirable ? Rapport sur l'utilité des guerres », Paris, Calmann Levy, 1984.

intervene to strengthen the national power on global markets, through the spread of the *soft* power<sup>20</sup> but also through the support of national firms, thanks to protectionism and subsidies.

## I.2. Militarism and war resulting from State apparatus' misuse

• War at the service of particular interests

The nineteenth century was that of industrialization and triumphant science, it being considered as liable to solve all fundamental problems of the Humanity. The positivism of Auguste Comte is based on the belief in the existence of scientific laws governing the universe, deductible from the empirical observation. Some economists even consider that knowledge of the true economic laws will enable mankind to settle in a permanent peace. Jean-Baptiste Say believed that the economists had a role to play, by discovering the true laws governing the economy (notably the Say's law) and by enlightening the public about its true interests, namely the spread of free trade and the end of militarism<sup>21</sup>. He emphasizes that, without the support of the public opinion, never governments could engage in military adventures. It is therefore necessary for the proper functioning of the society that its political system is sufficiently representative to spread the popular will. The issue of representativeness of the political system has remained central for the debate on militarism and wars in capitalist countries. The idea of an inherent pacifism of advanced capitalist countries' public opinions remains relevant. But as shown by Thorstein Veblen, this pacifism is not unlimited, as public opinions may be easily persuaded by the war party<sup>22</sup>.

Subtler than Jean-Baptiste Say's analysis on this issue was that of Adam Smith<sup>23</sup>, who had already risen the possibility that the State has an incentive to make war under the pressure of some classes or particular interests, notably those of merchants. The policies of colonial conquests were decided on their own benefit, with the pressure of particular interests, mainly from tradesmen. Wars can also serve the immediate interests of merchants, as they may be profitable in the short term. Adam Smith was against both the colonial trading system established by Great Britain, the protectionist privilege of landowners and slavery. He proposed the control of State's warmongering thanks to new methods of war's financing. If military operations were no more financed by borrowing but by a direct tax, their support among the population would be weakened.

#### • The power of the military sector in the capitalist system

However the diagnosis may be more radical if we take into account the fact that groups with an interest in war can manipulate public opinion to make it adhere to an aggressive foreign policy, yet detrimental to the public interest. One can even consider the possibility of manipulating public opinion by leaders with a stake in maintaining high defence budgets, even in war. This issue is still very much present in contemporary debates, like those born at the outbreak of Iraq. At this level, the interest of Veblen's historical and sociological analysis is in particular to show that it is the policy that ultimately directs the public opinion: it can be pushed into war if some politicians succeed in reviving the population's warlike tendencies. However, some leaders may have an interest in war, even in a democratic regime.

<sup>&</sup>lt;sup>20</sup> Fanny Coulomb and Jacques Fontanel. "Mondialisation, guerre économique et souveraineté nationale," in Pierre Berthaud and Gérard Kebabdjian *La question politique en économie internationale*, Paris, Collection Recherche, La Découverte.

<sup>&</sup>lt;sup>21</sup> Jean-Baptiste Say. *Traité d'économie politique*, Paris, 1803.

Fanny Coulomb, Hartley Keith and Michael Intriligator. « Pacifism in Economic Analysis: A Historical Perspective » *Defence and Peace Economics*, 19; 5 (2008).

<sup>&</sup>lt;sup>23</sup> Adam Smith. *An Inquiry into the Nature and Causes of the Wealth of Nations*. London, Methuen and Co., Ltd., 1776. London, Edwin Cannan, Fifth édition, 1904.

John Atkinson Hobson presented imperialism as an inevitable characteristic of capitalism, with a system that leads to overproduction, an unjust distribution of wealth, a system of under-consumption and the apparition of recurrent depressions. There is a war between imperialist states that want to develop their foreign markets and secure their supplies in raw materials. Patriotism is a new religion and public opinion is oriented by unscrupulous industrials<sup>24</sup>.

For Vilfredo Pareto, there is a true spoliation of the common people by the upper classes. It is his main argument against the parliamentary system. Military sector takes part to this spoliation, with the augmentations of the national debts and of taxes<sup>25</sup>. There are two major determinants of the military expenditure level: upper classes megalomania and the usefulness of the foreign threats for the social cohesion. The reduction of the economic intervention of State in the national economy is the main remedy to militarism. This analysis foreshadows the concept of military-industrial complex used by President Eisenhower in 1961, which study has been developed by JK Galbraith. According to him, as well as marketing and advertising shape the needs of consumers in order to serve the financial goals and interests of industrialists, the population has no democratic control over decisions concerning military. The external threat is exaggerated and used to strengthen the power of the military establishment<sup>26</sup>. The links between members of Congress and the armament firms are close, through campaign financing and local employment. Militarism and war therefore result from a failure of the American democracy<sup>27</sup>.

The military-industrial complex can be regarded as still very powerful in the United States. In fact, the restructuring of the U.S. defence industrial base did not meet the original expectations of American political leaders. While the goal of the administration seemed more the enlargement of the industrial base, with the integration of new entities and diversification into dual production, rather it is a strengthening of pure defence firms, which occurred through the process of concentration. These considerations raise doubts that the spread of capitalism in the world can guarantee international peace, even in the case of a wide spread of democratic political systems and liberal economic policies. Pressures for militarism, as part of a continuing State intervention that guarantees high public spending, remain difficult to control.

Historical experience definitely shows that it is impossible to make a diagnosis as to pacifism or militarism inherent to capitalism. The type of policy led by the government indeed directly affects the international relations, and thus the risk of war. Capitalism does not guarantee peace or war; it is the political system that is essential at this level, as it will bring out leaders who are more or less easily influenced by the "party of war".

### II – The war in the capitalist dynamic, danger and / or necessity?

In a Marxist or Keynesian perspective, the capitalism is peaceful as long as there are no major economic problems. But in case of major economic crisis, the situation can quickly escalate into an international conflict. For John Maynard Keynes, this is due to the risk of dictatorship. For Marxists, the explanation lies in the will of the "bourgeoisie" to safeguard its interests on the world market. Yet history has shown that the action of States and international organizations influenced the evolution of international relations, limiting the possibility of too

<sup>&</sup>lt;sup>24</sup> John Atkinson Hobson. *Imperialism. A Study*. London, George Allen & Unwin, 1961 (first édition in 1902).

<sup>&</sup>lt;sup>25</sup> Vilfredo Pareto (1897), *Cours d'économie politique*, Genève, Oeuvres Complètes, Tome 2, Droz. Originally published in 1896-1897.

<sup>&</sup>lt;sup>26</sup> John Kenneth Galbraith. "Le pouvoir économique autonome, une vue économique", in Jacques Fontanel, *Economistes de la paix*, Grenoble, Collection ECO+, Presses Universitaires de Grenoble, 1993.

<sup>&</sup>lt;sup>27</sup> Galbraith John Kenneth, *La science économique et l'intérêt général*, Paris, Editions Gallimard, Paris (Titre original: *Economics and the public purpose*, 1973) 132, 179, 193.

deterministic interpretations. But the question of whether capitalism creates the conditions for the crisis and therefore the war remains essential. It arises today with a new sharpness, while shortages of natural resources seem to aggravate the risk of future international tensions.

#### **II.1.** The potential role of war in the longevity of the capitalist system

• The limits of the idea of war as the gravedigger of capitalism

A major analysis of the link between war and capitalism has been provided by the Marxist current, which analyzes the international conflict as a consequence of the class war. In the capitalist mode of production, the internal contradictions related to overproduction and the tendency of the profit rate to fall are temporarily resolved by opening new outlets outside overseas, with trade or colonial development. The Russian pre-revolutionary analyses, such as those of Lenin<sup>28</sup>, explain that the capitalist countries at the stage of imperialism can only fight each other in the future, because of the competition for foreign markets. The wars are attempts to repartition external markets among the various imperialist powers, in a context of changing international economic hierarchy, due to disparities in the national economic growth rates. At stake is access to new markets for goods, but also protected spheres of investment capital, as well as new sources of raw materials. The international instability would then result more from the new capitalist powers than from the old colonial powers. The international instability is more the results of the actions of new capitalist economic powers than the will of old colonialist States. The armed confrontation between the major imperialist powers is inevitable in the future and it will mark the beginning of a social revolution.

This idea of a major inter-imperialist war as causing the end of capitalism may yet be challenged on several levels. The most obvious acknowledgment that of the survival of capitalism, in spite of the Great Depression of the 1930s and of two major World Wars, might suggest that capitalism has an unexpected resistance. The role of wars in capitalism's economic cycles is indeed a widely debated question. Thus, Nikolai Kondratiev<sup>29</sup> explained wars as resulting from phases of economic expansion in advanced capitalist countries, what creates a supplementary demand for raw materials and new markets, with increased international tensions. At the national level, this economic growth also exacerbates the internal economic contradictions in the capitalist system, creating the conditions for political instability. But this theory of long cycles, showing that capitalism has always overcome the major economic crises, went against the Leninist dogma, and Nikolai Kondratiev was put in jail and then sentenced to death.

Another argument against the idea of an inter-imperialist war as causing the end of the capitalist system is that of a possible agreement between the major capitalist interests, limiting international disputes. This idea is as old as the concept of financial capital expressed by Rudolf Hilferding in 1910, who described the growing power of large firms and of foreign investment, with an increased state control and militarism, notably to secure raw materials supply and expand spheres of influence in undeveloped areas with the colonial policy. Despite the increasing militarization of capitalism, Rudolf Hilferding<sup>30</sup> believed that wars could be avoided, thanks to the resistance of the proletariat and the capitalist middle class. In addition, longer-term development of firm size and internationalization of their activities will lead to an agreement between the most powerful capitalist interests, beyond national borders. In a Die *Neue Zeit* article on April 30, 1915, Karl Kautsky adopted this idea with his theory of "ultra-imperialism". According to this theory, the process of capital export can be a stabilizing factor of capitalism, if the imperialist powers reach an agreement and form a sort of big world trust,

8

<sup>&</sup>lt;sup>28</sup> Valdimir O. Lénine. *L'impérialisme, stade suprême du capitalisme*, Paris, Editions Sociales, 1971.

<sup>&</sup>lt;sup>29</sup> Nikolai, D. Kondratiev. The long waves in economic life, *The Review of Economic Statistics*, 17 (1935), 105-

<sup>&</sup>lt;sup>30</sup> Rudolf Hilferding. *Finance Capital*, London, Routledge and Kegan Paul, 1981.

with an exploitation of the world organized by an internationally united financial capital<sup>31</sup>. Lenin strongly challenged this view and considered its author as an ex-Marxist.<sup>32</sup>

This prediction of an agreement between major powers, despite their desire to secure supplies of raw materials, to expand foreign markets and to influence international standards, seems to have been borne out by the facts after the Second World War. The several international institutions such as IMF, WTO or regional agreements, reduce the possibility of open conflict between capitalist powers, without preventing peripheral conflicts devices to extend the zones of influence<sup>33</sup>.

#### • *The war necessary for the stability of capitalism?*

The Marxist theory of under-consumption has been one of the vantage points of the analysis of militarism, especially in the United States after the Second World War. For Paul Baran and Paul Sweezy<sup>34</sup>, military expenditures are used to absorb the economic surplus created by monopoly capitalism. The arms race is so consistent with the logic of capitalism, which seeks, by unproductive expenditure, to maintain a balance between production and effective demand. The surplus can be absorbed through the consumption of capitalists or civil public spending, but military expenditures are more effective. In fact, they are consistent with the logic of capitalism, as they do not give income to those whose productivity is low, while stimulating the collective values. Disarmament is not compatible with capitalism, which is constantly developing international tensions that lead to an increase in armed conflict or wasteful military spending<sup>35</sup>.

This Marxist perspective of militarism as a stabilizing factor of the capitalist system has been widely reported and provoked intense debate within the Marxist current, some theorists challenging this under-consumption analysis of militarism, on the idea that raising the organic composition of capital in the military production was a factor of decline in the global profit rate. Beyond this Marxist debate, other arguments can feed the analysis of militarism's role on the long-term survival of the capitalist system.

If the great theorist of economic cycles, Josef Schumpeter, has categorically rejected the idea of significant economic benefits of militarism or war, including the emergence of major innovations, other more recent analysis has however highlighted the importance of the military sector in the development of new technologies. According to Schumpeter, wars, territorial conquests and conflicts on raw materials have little impact on economic change: only technical progress is truly decisive. The success of capitalism is due to the actions of firm managers and to innovation, not to state intervention.

In contrast to the Schumpeterian view is the argument that the military may be more likely than the private sector to develop major innovations, because of too diffuse gains for the firms conducting research and of the slowness of innovation's emergence, which often lasts several decades. The increase in military orders in wartime speeds the achievement of technological

9

Henri Weber, ed., *Kautsky, Luxemburg, Pannekæk, Socialisme, la voie occidentale* (Paris, Presses Universitaires de France, 1983) 74. Karl Kautsky. *Et maintenant?* (Neue Zeit, 2, 1910). This publication is cited by Lenin. Vladimir O. Lénine. *L'impérialisme, stade suprême du capitalisme* (Paris, Editions Sociales, 1971) 166)

<sup>&</sup>lt;sup>32</sup> Vladimir O. Lénine. *L'impérialisme, stade suprême du capitalisme* (Paris, Editions Sociales, 1971, first édition in 1916) 166.

<sup>&</sup>lt;sup>33</sup> Jacques Fontanel. *Economie politique de la sécurité internationale* (Paris, La Librairie des Humanités, L'Harmattan, 2010).

<sup>&</sup>lt;sup>34</sup> Paul Baran et Paul Sweezy (1966), *Le capitalisme monopoliste* (Paris, Maspéro, 1968).

<sup>&</sup>lt;sup>35</sup> Jacques Fontanel. *Les dépenses militaires et le désarmement* (Paris, Publisud, 1995).

maturity, necessary for innovation to lead to productivity gains<sup>36</sup>. This argument raises the question of the long-term impact of the defence effort's decrease and of the increasing privatization of military research and development. Today much of the production for the military relies on dual technologies, more and more products being used by armed forces being also marketed for civil use. There is now an interaction between military research and civilian research. The large budget of military research and development in the United States has thus been interpreted as helping the private sector to develop advanced technologies in telecommunications and micro technologies. The military sector not being subject to WTO rules, public funding allocated to military projects is a mean to support US industries.

In conclusion, it appears that war is not necessarily a threat to the survival of capitalism. First, history has shown that capitalism has survived several major wars in the past, even there were not as many safeguards as today to limit conflicts between major powers. Moreover, some arguments can be made to assume that military spending has stabilizing or regenerative economic effect, in the capitalist progress<sup>37</sup>.

### II.2. Obstacles to economic growth and risk of war: capitalism questioned

• War as a consequence of the economic model's exhaustion?

The influence of the military sector in the capitalist world is still very high today. The question may be raised whether a substantial reduction of state intervention, taxation and public expenditure, that is to say more liberalism, would decrease war incentives, by decreasing the economic power of the military sector, notably in employment and technologies. The issue of the capitalism's future has greatly worried its supporters during major past crises, especially in the interwar period.

Joseph Aloïs Schumpeter was so pessimistic because, according to him, the disinterest of the "bourgeoisie" for foreign policy and the rise of the State will gradually weaken the spirit of capitalism and reduce public support to the democratic regime, paving the way for a coming into power by charismatic military leaders. But the most likely scenario is that of a gradual transformation from capitalism to socialism, because of growing state interventionism. And yet wars are periods favouring this rise of the state in the economy, with a ratchet effect that make that when peace returns, the State does not fully disengage. In this analysis, wars may be both the consequence and the cause of the disappearance of the spirit of capitalism in industrialized countries

In contrast to this perspective are the defenders of interventionism, according to whom capitalism can only survive by limiting the market excesses with social policies and regulations that avoid a major economic crisis liable to weaken the system. Thus, John Maynard Keynes advocated the development of intervention to overcome the Great Depression of the 1930s and he refuted the idea that economic liberalism is synonymous with international peace. In a *New Stateman and Nation* article on July 7, 1933, while recognizing that economic internationalism has during the nineteenth century worked in favour of a greater enrichment of the world, of the dissemination of economic progress and has allowed a foreign economic policy coherent with the national economic interests, Keynes believes that

-

<sup>&</sup>lt;sup>36</sup> V.W. Ruttan. *Is war necessary for economic growth? Military procurement and technology development* (New York, Oxford University Press, 2006).

<sup>&</sup>lt;sup>37</sup> Jacques Fontanel. *L'économie des armes* (Paris, La Découverte, 1984).

the liberal model is no more suited for his time<sup>38</sup>. Moreover, the idea that liberalism guarantees international peace is false. John Maynard Keynes criticizes some of the consequences of economic liberalism, as capital outflows that impede the economic policy's efficiency, or as the separation between ownership and management within the company. He accuses the search for international specialization and worldwide capital spread to be responsible for aggressive policies to protect domestic interests, so as to get new markets and to develop economic imperialism. He is sceptical about the usefulness of the foreign capital inflows on national economic structures and about the close dependence of the national economy on fluctuating foreign economic policies. Thus, international economic interdependencies should be limited.

In the context of contemporary globalization, the idea has resurfaced of the necessity to reform then world capitalist system. In the United States, increasing twin deficits may require in the future a rethinking of the economic model. This one has been since the abandonment of fixed exchange rates and the financial liberalization in the 1980s, characterized by easy credit and household indebtedness, giving rise to financial crises. This situation leads to many other related problems, as the risk of uncontrolled inflation or the dependence on foreign capital. And yet, the role of military spending in the growing indebtedness of the United States is not negligible. But militarism and foreign operations also serve to maintain American economic power<sup>39</sup>. Beyond the question of oil supply and aid for research and development thanks to the defence budget, it is the role of the United States as unchallenged global superpower is at stake today: confidence in United States' leadership determines both their attractiveness for foreign investors and thus the inflow of capital necessary for continued growth, and the relative stability of the dollar. It also determines the effectiveness of *soft power*, that is to say, diplomatic influence, useful to influence international rules and trade agreements<sup>40</sup>.

The French theory of regulation developed by Michel Aglietta<sup>41</sup> and Robert Boyer<sup>42</sup> in the 1970s focuses on the central role of institutions and politics in the functioning of a regime of accumulation. In this perspective, the question that arises is whether global capitalism is in the downward phase of a long cycle and if the policy of the dominant power would prevent any reversal, because it impedes an effective reform of international institutions and the emerging of new modes of economic organization<sup>43</sup>. A world war could ultimately result from the economic crisis caused by the exhaustion of the capitalist mode of regulation, due to the gradual worsening of international tensions. The current economic crisis also raises many questions about the sustainability of huge structural imbalances (indebtedness in the North, trade surpluses in the emergent countries) and of an excessive and increasingly vulnerable global finance<sup>44</sup>.

• The shortage of natural resources, ultimate obstacle of the capitalist peace?

<sup>&</sup>lt;sup>38</sup>D. Moggridge, ed., *The Collected Writings of John Maynard Keynes* (London: Macmillan, and New York: Cambridge University Press, for the Royal Economic Society, Vol. XXI, 1982) 237.

<sup>&</sup>lt;sup>39</sup> Jacques Fontanel. La globalisation en analyse. Géoéconomie et stratégie des acteurs (Paris. Collection Librairie des Humanités, L'Harmattan. 2005).

<sup>&</sup>lt;sup>40</sup> Jacques Fontanel and Fanny Coulomb « La puissance des Etats et la globalisation », in Jacques Fontanel (ed.), *Economie politique de la sécurité internationale* (Paris, La Librairie des Humanités, L'Harmattan, 2010).

<sup>&</sup>lt;sup>41</sup> Michel Aglietta. Régulation et crises du capitalisme (Paris, Calmann-Lévy, 1976).

<sup>&</sup>lt;sup>42</sup> Robert Boyer. *Théorie de la régulation, une analyse critique* (Paris, La Découverte, 1986).

<sup>&</sup>lt;sup>43</sup> H. Patomäki. "The long downward wave of the world economy and the future of global conflict" *Globalizations*, 2,1 (2005) 61-78.

<sup>&</sup>lt;sup>44</sup> James Galbraith. « Les implications politiques et sécuritaires de la crise financière », in Jacques Fontanel, ed., *Economie politique de la sécurité internationale*, (Paris, La Librairie des Humanités, L'Harmattan, 2010).

The end of the Cold War brought civil conflicts to the forefront of geopolitical concerns. Excessive population growth has often been considered as a risk factor in some areas, in a very Malthusian perspective. Environmental concerns have thus become central to the U.S. administration after the Cold War, in that resource shortages are seen as sources of conflict in areas such as Rwanda, Haiti, and Chiapas<sup>45</sup>.

Yet, economists have had, hitherto, little attention to environmental issues. Liberal theory has since its origin glorified industrial production and productivity growth, considering that wars motivated by strategies of predation belonged to the past. However, Thomas Robert Malthus' theory in the late eighteenth century is an exception. Admittedly, this is, according to him, only in the early stages of human evolution that the war helps to control the population growth. But in modern times, war and insecurity remain favoured by over-population and population control is a prerequisite for peace. This theory contradicts the optimism of all idealists who see humanity as inexorably progressing towards peace and economic prosperity. For Thomas Malthus, progress is not desirable at all costs and free trade is not the panacea for world peace, though he remains in favour of market economy and private property. But he considers essential that the poorer part of the population has access to economic welfare, because it helps to remove the reasons and the means for the war, and to reject the most warprone politicians. Thomas Malthus therefore considers that the offensive policies often find their origin and support in economic hardship and poverty or pauperism. Convinced that the economic growth will be hampered by the limitation of food resources, Thomas Malthus states that nothing can prevent the depletion of soils, and therefore the inevitable progress of the economy towards a stationary state. His pessimism contrasted not only with the utopian analysis of Godwin, but also with the optimistic forecasts of Jean-Baptiste Say, on the unlimited economic growth potential of capitalism.

The Malthusian view was echoed in the early 1970s by the Club of Rome report "Limits to Growth". One of the best-known contemporary representatives of the neo-Malthusian theory on conflicts is Thomas F. Homer-Dixon<sup>46</sup>. He considers that the population pressure is causing a shortage of natural resources, which can cause civil conflicts, because of the related social tensions that exacerbate the religious, ethnic or social divisions. This idea that global growth is not sustainable is challenged by those who believe that humanity can adapt to a scarcity of resources, thanks to technological progress <sup>47</sup>. The idea of restricting the pace of global economic growth to reduce the depletion of natural resources is ruled out by international institutions such as IMF, World Bank and OECD. Thus, the concept of sustainable development emerged in the 1990s is far from the ideas of the Club of Rome in the 1970s<sup>48</sup>. The logic of economic and financial globalization encourages a constant search for productivity gains, to increase production volumes and generate industrial innovations to create new markets. The idea of a decrease in Northern countries' economic growth to offset the demand for natural resources related to the accelerated growth of emerging countries is rarely taken up, despite the growing trend towards environmental scarcity and induced

\_

<sup>&</sup>lt;sup>45</sup> Timothy E. Wirth. "Sustainable development and national security", address given by the Under Secretary for Global Affairs before the National Press Club in Washington, D.C. on July 12, *U.S. Department of State Dispatch*, 7/25/94, 5.30 (1994).

<sup>&</sup>lt;sup>46</sup> T.F. Homer-Dixon "On the threshold: environmental changes as causes of acute conflict", *International Security* 16.2. (1991); T.F. Homer-Dixon "Environmental scarcities and violent conflict: evidence from cases", *International Security* 19.1 (1995).

<sup>&</sup>lt;sup>47</sup> Niels, P. Gleditsch and Henrik Urdal. "Ecoviolence? Links between population growth, environmental scarcity and violent conflict in Thomas Homer-Dixon's work", *Journal of International Affairs*, 56, 1 (2002).

<sup>&</sup>lt;sup>48</sup> Joy Paton. "What's left of sustainable development?", Journal of Australian Political Economy, 62 (2009).

conflicts in developing countries<sup>49</sup>. Economic and energy scarcities are strategic stakes that are strong effects on the wars probability<sup>50</sup>.

Wars and crises have punctuated the history of capitalism since its origins. Even if international agreements and institutions have limited the risk of war in the contemporary period, this risk cannot be regarded as definitively ruled out, especially in times of economic crisis and disruption of the hierarchy of powers. History has shown that economic interdependence is not a guarantee of world peace. War or threat of war forces to reassess the current economic model and shows the need to adopt new standards or even a new mode of production, so as capitalism can once again overcome its internal contradictions.

#### Conclusion

The absence of major conflict between capitalist countries since the end of World War II reinforced the idea that wars were gradually become obsolete with the development of capitalism, mainly because of the proliferation of international institutions intended to resolve trade disputes peacefully, to avoid major economic crises and to increase economic and financial interdependencies between major powers. But the wars have not disappeared with the spread of capitalism around the world and their occurrence in the future should be more frequent, given the growing tensions over natural resources and changes in the hierarchy of economic powers, Southern countries being now providers of capital for old capitalist countries whose deficits and debts have become a serious obstacle to "western" economic growth.

To reduce the risk of war in the future would involve a thorough reform of the capitalist mode of production, including more controls and regulations, to prevent financial crises or overexploitation of natural resources. The rise of interventionism would not condemn capitalism, nor has it done in the 1930s. Capitalism is not in fact equivalent to liberalism; it can adapt to state control. Capitalism's resistance to wars and economic crises shows the adaptability of this system, which is basically neither warlike nor peaceful, when scarcity is not generalized. This is not the role of the State in the capitalist system that is essential at this level, but rather the nature of the political system and the more or less submission to warprone lobbies.

#### **Bibliography**

Aglietta Michel. Régulation et crises du capitalisme, Paris, Calmann-Lévy, 1976.

Baran, Paul and Paul Sweezy. *Le capitalisme monopoliste*, Maspéro, Paris, 1968 (first edition "*Monopoly Capital*" in 1966).

Barbieri K. and R. Reuveny. "Economic globalization and civil war", *The Journal of Politics*, 67; 4 (2005), 1228-1247.

Boyer Robert. *Théorie de la régulation, une analyse critique*, Paris, La Découverte, 1986. Coulomb Fanny. "Adam Smith, a defence economist", *Defence and Peace Economics*, 9; 3

(1998): 299-316.

Coulomb Fanny. Economic theories of peace and war, London, New York, Routledge, 2004.

Coulomb, Fanny and Jacques Fontanel. "Mondialisation, guerre économique et souveraineté nationale." in *La question politique en économie internationale*, ed. Pierre Berthaud and Gérard Kebabdjian, Paris, Collection Recherche, La Découverte. 2006.

Coulomb Fanny and Renaud Bellais. War and Peace Issues in the History of Economic Thought: Introduction, *Defence and Peace Economics*, 19; 5 (2008):317-320.

<sup>49</sup> Rafael Reveuny. « Economic growth, environmental scarcity, and conflict », *Global Environmental Politics*, 2;1 (2002).

Jacques Fontanel. (2010), Le concept élargi de la sécurité économique, in Jacques Fontanel, ed., *Economie politique de la sécurité internationale* (Paris, La Librairie des Humanités, L'Harmattan, 2010).

Coulomb Fanny and Renaud Bellais. The Fight of a Citizen Economist for Peace and Prosperity: Keynes and the Issues of International Security, *Defence and Peace Economics*, 19: 5 (2008): 361-372.

Coulomb Fanny and Paul Dunne. Peace, War and international security: Economic Theories, in War, peace and security, ed. Jacques Fontanel and Manas Chatterji, Preface of Walter Isard, United Kingdom, Emerald Group. 2009.

Coulomb Fanny, Keith Hartley and Michael Intriligator. Pacifism in Economic Analysis: A Historical Perspective, *Defence and Peace Economics*, 19, 5 (2008): 373-386.

Fontanel Jacques. L'économie des armes, Paris, La Découverte, 1984.

Fontanel Jacques. Les dépenses militaires et le désarmement. Paris, Publisud, 1995.

Fontanel Jacques. La globalisation en analyse. Géoéconomie et stratégie des acteurs. Paris, L'Harmattan, 2005.

Fontanel Jacques and Manas Chatterji, *War, peace and security*, with a Preface of Walter Isard, United Kingdom, Emerald Group, 2008.

Fontanel Jacques and Fanny Coulomb. "The Genesis of Economic Thought Concerning War and Peace", *Defence and Peace Economics*, 19; 5 (2008): 321-330.

Fontanel Jacques, Jean-Paul Hébert and Ivan Samson. "The Birth of the Political Economy or the Economy in the Heart of Politics: Mercantilism", *Defence and Peace Economics*, 19; 5 (2008): 331-338.

Fontanel Jacques. *Economie politique de la sécurité internationale*, Paris. La Librairie des Humanités, L'Harmattan, 2010.

Fontanel Jacques. "Le concept élargi de la sécurité économique", in *Economie politique de la sécurité internationale*, ed. Jacques Fontanel, Paris, La Librairie des Humanités, L'Harmattan, 2010.

Fontanel Jacques and Fanny Coulomb. La puissance des Etats et la globalisation, in *Economie politique de la sécurité internationale*, ed. Jacques Fontanel, Paris, La Librairie des Humanités, L'Harmattan, 2010.

Fukuyama Francis. The end of history and the last man, London, Penguin, 1993.

Galbraith John Kenneth, Introduction to *La paix indésirable? Rapport sur l'utilité des guerres*, Paris, Calmann Levy, 1984.

Galbraith John Kenneth. *La science économique et l'intérêt général*, Paris, Editions Gallimard, 1974 (Original title : *Economics and the public purpose*, 1973)

Galbraith John Kenneth. *L'économie en perspective, une histoire critique*, Paris, Le Seuil (original title : *A history of economics*, London, Hamish Hamilton, 1987).

Galbraith, John Kenneth. "Le pouvoir économique autonome, une vue économique", in Jacques Fontanel *Economistes de la paix*, Grenoble, Collection ECO+, Presses Universitaires de Grenoble, 1993.

Galbraith, James. "Les implications politiques et sécuritaires de la crise financière", *Economie politique de la sécurité internationale*, ed. Jacques Fontanel, Paris, La Librairie des Humanités, L'Harmattan, 2010.

Gleditsch C.S. and M.D. Ward M.D. « Diffusion and the International Context of Democratization », *International Organization*. 60, Fall (2010): 911-933.

Gleditsch N.P. and H. Urdal H. "Ecoviolence? Links between population growth, environmental scarcity and violent conflict in Thomas Homer-Dixon's work", *Journal of International Affairs*, 56, 1 (2002): 283-302.

Hilferding Rudolf. *Finance Capital*. London, Routledge and Kegan Paul, 1981. Originally published by Bottomore, T. (ed.) 1910.

Homer-Dixon T.F. "On the threshold: environmental changes as causes of acute conflict", *International Security* 16.2 (1991): 76-116.

Homer-Dixon T.F. "Environmental scarcities and violent conflict: evidence from cases", *International Security* 19; 1 (1995): 5-40.

Keynes, J.M. "Will Rearmament Cure Unemployment?" in: D. Moggridge, ed., *The Collected Writings of John Maynard Keynes*, Volume 21, 1992. Originally published in *The Listener* (1 June 1939).

Keynes, J.M. "Inter-Departemental Committee on Reparation and Economic Security", in: D. Moggridge, ed., *The Collected Writings of John Maynard Keynes*, Volume 26 (1992). Originally published in Treasury Papers Series (2, 1942).

Kondratiev Nikolai D. "The long waves in economic life", *The Review of Economic Statistics* (17 Nov. 1935) 105-115.

Lénine Vladimir, O. *L'impérialisme, stade suprême du capitalisme*, Paris, Editions Sociales, 1971.

Moggridge, D., ed. *The Collected Writings of John Maynard Keynes*, London: Macmillan, and New York: Cambridge University Press, for the Royal Economic Society, Vol. XXI, 1982 Oneal John R. and Bruce M. Russett. "The Classical liberals were right: democracy, interdependence and conflict 1950-1985", *International Studies Quarterly*, 41 (1997) 267-294.

Pareto Vilfredo. *Cours d'économie politique*, Genève, Oeuvres Complètes, Tome 7, Droz. Originally published in 1896-1897.

Pareto Vilfredo. L'Etat actuel de l'Italie, dans Libre-échangisme, protectionnisme et socialisme, Genève, Librairie Droz, 1965.

Patomäki H. "The long downward wave of the world economy and the future of global conflict", *Globalizations*, 2; 1 (2005) 61-78.

Paton Joy. "What's left of sustainable development?" *Journal of Australian Political Economy*, 62, 2009.

Pigou A.C. The political economy of war, London, Macmillan, 1921.

Reveuny Rafael. « Economic growth, environmental scarcity, and conflict », *Global Environmental Politics*, 2; 1 (2002).

Richard Thibaut. Démocratie, économie de marché et paix, in Fontanel, J. (Ed.), *Economie politique de la sécurité internationale*, Paris, La Librairie des Universités, L'Harmattan, 2010.

Ruttan V.W. *Is war necessary for economic growth? Military procurement and technology development*, New York, Oxford University Press, 2006.

Say Jean-Baptiste *Traité d'économie politique*, Paris, Calmann Levy, 1972. First edition Silberner, E. *La guerre et la paix dans les doctrines économiques*, Paris, Ed. Sirey, 1957.

Smith Adam. *An Inquiry into the Nature and Causes of the Wealth of Nations*. London, 1776. London, Methuen and Co., Ltd., ed. Edwin Cannan, Fifth édition, 1904.

Veblen Thorstein. *Imperial Germany and the industrial revolution*, New York, Augustus M. Kelley, 1964 (originally published in 1915).

Weber Henri (ed.) "Kautsky, Luxemburg, Pannekæk, Socialisme, la voie occidentale", Paris, Presses Universitaires de France, Paris, 1983

Wirth Timothy E. "Sustainable development and national security", address given by the Under Secretary for Global Affairs before the National Press Club in Washington, D.C., on July 12, *U.S. Department of State Dispatch*, 7/25/94, 5; 30 (1994).