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Chapter 8

Effects for Developing Countries of the East-West Disarmament Process

Jacques Fontanel

The disarmament procedures entered into voluntarily or involuntarily by NATO and the Warsaw Pact are bound to have important consequences for developing countries¹. Many efforts are being made, even if the results still remain extremely disappointing and at all events not sufficiently decisive to ensure, even in the short term, a situation favourable to the emergence of a society at peace². A number of questions have been raised:

- (a) Does this progressive disarmament process stem from the considered desires of the States concerned or is it the result of a particularly alarming economic situation liable directly to challenge the very conditions of international security³? In fact, public opinion in most States is favourable to disarmament procedures. In a situation of economic crisis, discontent grows and it becomes even more difficult to run a heavily militarized economy. The present situation over disarmament, which finds its expression more in the political

¹ There is some ambiguity over the concept of developing countries, despite the existence within the United Nations of a political consensus for empirical decision on countries that may be so designated. It should be recalled that the third world is not a homogeneous entity and that it has many embodiments. However, as regards the study to be undertaken here, this economic heterogeneity does not precisely correspond to the varied political conditions of the security of each State, even if the petroleum-producing and exporting countries retain a special status that greatly complicates their analysis. See Jacques Fontanel, *L'armement et la santé dans les pays du tiers-monde* (Grenoble, Etudes et Travaux, Cahiers de la Faculté des Sciences Economiques de Grenoble, 1990).

² Brief summaries of all these negotiations are to be found in the publications of the United Nations Department for Disarmament Affairs (*Disarmament, Disarmament Newsletter, Yearbook of the United Nations*) and of the United Nations Institute for Disarmament Research (*Conventional Disarmament in Europe* by André Brie, Andrezej Karkoszka, Manfred Müller and Helga Schirmeister, UNIDIR, Geneva, 1988) and research papers such as *A legal approach to verification in disarmament or arms limitations* by Serge Sur, September 1988, etc. *La revue ARES, Défense et Sécurité* also makes an annual review of developments in these negotiations, see Jean-François Guilhaudis and Jacques Fontanel, "La vérification du désarmement", *Course aux armements et Désarmement* (Grenoble), Vol. XI, No. 1, December 1989.

³ On this matter, it would be of interest to go back to models of the arms race. See Jean Christian Lambelet and Urs Luterbacher, "Conflict, Arms Races and War: a synthetic approach" in *Peace, Defence and Economic Analysis. Proceedings of a Conference held in Stockholm jointly by the International Economic Association and the Stockholm International Research Institute*, Christian Schmidt and Frank Blackaby, eds. (London, Macmillan Press, 1987); Dagobert Brito and Michael Intriligator, "Arms Races and the Outbreak of War: Application of Principal-Agent Relationships and Asymmetric Information", *ibid.*

than in the military or the strategic context, is highly exceptional and cannot really be interpreted on the basis of historical examples. It appears to be extremely original, as was the uninterrupted period of the arms race that has lasted for more than half a century. It may even be said that it is a novel situation for the Great Powers, one that is liable significantly to modify the whole of their foreign policy. It has been said that United States foreign policy will lose the sextant by which the ship of State has been navigated since 1945, and that the dividends of peace will not be fully embodied in the money that will be freed, but will also include the categories of thought that will ultimately flourish⁴. In that context, there are three different interpretations of disarmament:

- (i) First, it may be concerned with the reduction of excess armaments, and consequently it turns out to be necessary, at some point or other, to define the concept of excessive stocks of weapons. It is likely that, under those conditions, economic factors will not be the tools best suited to be reliable indicators. On the one hand, having regard to the international agreements in force and to the technological features of the materials, some types of carriers, such as nuclear missiles, are decidedly more effective than conventional armaments, at a relatively low cost having regard to the strategic, military and political advantages that they confer. On the other hand, the balance of power is often expressed in terms of thresholds and a scaling down of military expenditure does not necessarily result in the previous balance of power being maintained. At the present time the principal expression of disarmament is in the destruction of existing stocks (that is to say 4 per cent of all nuclear forces), but also in the foreseeable and practically unilateral limitation of military expenditure. Destroying missiles is a costly business and the saving of a billion dollars on the budget of the Pentagon immediately leads to the disappearance of 38,000 jobs⁵. In other words, disarmament taking the form of the destruction of military materials then appears as a cost and the possible transfers of resources should initially serve to offset the costs inherent in this collective decision;
- (ii) Next, disarmament can be imposed by disastrous national economic conditions. Governments are beginning to ponder the economic effectiveness of the arms race and, particularly, the adverse long-term effects that it may have on the amount of the resources available to maintain adequate military forces⁶. In other words, if the effect of today's armament on the national economy is to produce recession that may be a hindrance for tomorrow's armament and, consequently, for tomorrow's defence. The dynamics of military expenditure progressively saps the economic foundations of the Great Powers, above all when the international political and social climate is an obstacle to economic use of the possible effects of domination through the power

⁴ *US News and World Report*, 14 May 1990.

⁵ Jacques Decornoy, "Sortir du Bourbier Militaire, rebâtir une économie civile", *Le Monde Diplomatique*, July 1990.

⁶ Louis Pilandon, "Quantitative and Causal Analysis of Military Expenditures", in *The Economics of Military Expenditures. Military Expenditures, Economic Growth and Fluctuations*. Proceedings of a Conference held by the International Economic Association in Paris, Christian Schmidt, ed. (London, Macmillan, 1987).

developed by the balance of power of national armed forces. It has been stated that national security can no longer be analysed in purely military terms; economic security must also be taken into account⁷. Furthermore, public opinion is less and less willing to put up with the restrictions on private and public non-military consumption brought about by the military effort. This is probably the prevailing situation as we enter the 1990s. Under these conditions, it is less a matter of seeking disarmament for disarmament's sake than of finding new resources capable of promoting the struggle against an economic crisis that is deemed intolerable. Strategic tensions between the Great Powers then tend to decrease, to the advantage of an international "climate" conducive to economic development. The countries responsible for the arms race, having previously extolled the merits of military investment for their development, begin to ponder the existence of an economic dead end with which their military and strategic power is threatened in the fairly short term. Each State, while keeping generally to its positions, seeks to obtain a reduction of the military effort of the other, not so much so as to acquire a strategic advantage but rather to be in a position effectively to combat the discontent of its own population or to be able to further new economic conquests liable ultimately to strengthen the country's strategic power;

(iii) Lastly, disarmament presupposes a real process of the reduction of opposing forces, without reference to massive stocks of weapons, but with the idea of establishing a lasting peace able to overcome the ideological, political and religious differences that sometimes lead to situations of armed crises. This is the situation that is the most favourable to true disarmament. However, the question that remains unanswered is knowing whether the conditions for peace have really been established or whether it may not rather be a historical stage of breathlessness in the arms race after several decades of uninterrupted effort.

At the present time States remain extremely distrustful in general. It does indeed appear that the second interpretation may be the correct one. However, a disarmament procedure is capable of giving rise to new situations of mutual confidence, which prompt a real awareness of the need to maintain the effort to reduce military expenditure so as to perpetuate this essential "breathing space" in the interests of international civilian consumption. The reduction of military expenditure, if negotiated, does raise problems of international comparisons and comparisons in time that are difficult to resolve, but for which it has already been possible to find some interesting solutions⁸.

(a) Is not this disarmament the premise for an economic rapprochement between West and East capable of further reducing the scale of economic flows between North and South? When

⁷ Charles William Maynes, "America without the cold war", *Foreign Policy*, Spring, 1990.

⁸ Hans Christian Cars and Jacques Fontanel, "Military Expenditure Comparisons", *Peace, Defence and Economic Analysis*. Proceedings of a Conference held in Stockholm jointly by the International Economic Association and the Stockholm International Research Institute, Christian Schmidt and Frank Blackaby, eds. (London, Macmillan Press, 1987); Jacques Fontanel, Les Comparaisons des dépenses militaires dans les pays de l'OCDE, *ARES, Défense et Sécurité*, Vol. XI, No. 1, 1989 (Collection "Course aux armements et désarmement", eds. Guilhaudis and Fontanel).

we analyse the speed with which the monetary unity of Germany, followed by economic and political unity are being carried out, we may note that the poles of exchange and development that have been dominant since 1945 are on the way to being displaced principally in favour of the countries of the East, which appear to be more dynamic and richer in high-quality human resources than the countries of the South. Under these conditions, this process of disarmament heralding new economic exchanges is modifying the map of countries that constitute risks in favour of the European socialist countries. There is undeniably a considerable risk that countries of the third world will be supplanted even should disarmament measures have positive effects in the main on the whole of the world economy. Conversely, the developing countries have to set about acting and attracting capital unless they wish to be the ones who are overlooked at the end of the twentieth century. There is a risk that aid to third world countries will be diverted to the countries of the East that offer better prospects of development;

- (b) What are the specific economic costs of this disarmament and what will be the reactions of enterprises concerned with military activities, especially in their search for new outlets? The conversion of arms industries to other economic activities may have obvious positive effects on the wellbeing of the populations of countries, but may also exhibit some undesirable effects that ought not to be overlooked in the short term⁹. When faced with the strengthening of international competition, converted industries may seek, in particular, new outlets that presuppose competition with products exported or sold locally by developing countries. Under these conditions, unless the poorest countries take real measures to protect themselves, the result may be that their national companies lose their competitiveness and this may lead either to economic collapse or, at best, to the establishment of foreign industries and a drastic reduction in the amount of freedom that the State has in the management of the economy;
- (c) Will this disarmament be effected in the context of assistance to the countries of the third world or will it be confined to a regular reduction of military expenditure, the expected economic benefits of which over a period of more than one year will be re-invested in the country itself, without international transfer? The United States appear to be interested mainly in limitation of the deficiency of public revenue, restoration of national savings and a reduction of interest rates¹⁰. The social problems facing the Soviet Union are sufficiently serious to limit its ambitions to the restoration of its economy. France and the United Kingdom have not yet decided to make a significant disarmament effort. These countries together account for more than two thirds of world military expenditure. In other words, at least in the short term, it appears unlikely that transfers to developing countries will be able to develop even given the existence of a potential disarmament situation;
- (d) Will this disarmament affect the poorest countries, which are generally heavily penalized by the problems of international debt and famine? On first analysis it is clear that reduction of the national armament effort is bound to have positive effects, especially when

⁹ Wally Struys, *Défense et économie. Mythes et réalités* (Bruxelles, Centre d'Etudes de Défense), No. 26, May 1989.

¹⁰ Charles Schultz, "Use the peace dividend to increase saving", *Challenge*, March-April 1990; Lawrence R. Klein, "The economics of turning swords into plowshares", *Challenge*, March-April 1990.

armaments are imported, other things being equal. However, a reduction of military outlay is capable of eliminating all concern for national defence and of leading to a gradual resurgence of regional wars, owing to the weakness of the opposing forces. It should be recalled, moreover, that some States have sought to use their armaments industry to favour policies of import substitution, growth through exports and industrializing industries¹¹. In that context, the manner of coping with the existence of technical and manpower resources rendered obsolete by a new decision and a new international situation, even if heavy investment has already been committed in this sector, will be revealing of the intentions of the developing countries and even perhaps, more broadly, of the real potentialities of lasting disarmament. Lastly, a disarmament procedure almost invariably involves the opening of economic frontiers. This situation produces results that are the subject of great controversy between those who commend the impetus generated by the liberalization of trade and those who fear the rapid expansion of new effects of domination that are favourable to the developed countries and are responsible for the continuous bogging down of the economies of third world countries.

The impact of a disarmament procedure on the economy of third world countries is a question that needs to be apprehended at two levels:

- (a) Reduction of the military effort permits the development of new economic activities and is favourable to international exchanges. Third world countries will benefit from this context conducive to international economic growth;
- (b) Third world countries will also be led to disarm, which should make it easier to use currency for civilian purposes, to reduce unproductive expenditure and to promote redeployment of military activities that are not very profitable (when they are profitable at all) and are in any case economically highly risky.

International Economic Growth Brought about by the Disarmament Process as an Instrument for the Development of Third World Countries

Disarmament is a procedure that very rapidly improves the international economic situation even if it is capable of producing some problems over economic conditions and some regional problems. This general proposition is confirmed by recent history, especially in the interpretation of the events that followed the last world war, the Korean war and the Vietnamese war. The first question is to determine whether the current disarmament of the United States and the Soviet Union is capable of creating new opportunities for growth. Most economists consider that countries that disarm will reap the benefits of new growth potential. The second question is to

¹¹ Jacques Fontanel and José Drummond-Saraiva, *Les industries d'armement comme vecteurs du développement économique des pays du tiers-monde* (Paris, *Etudes Polemologiques*, No. 40, 1986).

know whether all developing countries can effectively benefit from this economic upsurge, having regard to the inter-dependence of national economies.

Current Disarmament and World Growth

It is of interest to analyse the nature of disarmament, since that nature may modify the expected economic impact. Moreover it is of interest to give prominence to the foreseeable economic activity of the Great Powers, principally the United States and the USSR, in order to understand the economic consequences of a reduction of their economic defence effort on third world countries.

1. *The economic forms of disarmament*

Current disarmament is taking two forms: on the one hand, negotiations on the (highly) partial destruction of existing stocks of weapons and, on the other hand, a generalized trend towards restricting the economic defence effort that finds its expression in a reduction in the national ratios between military expenditure and the Gross Domestic Product. From the economic standpoint the two forms of disarmament have different consequences:

- (a) The first form implies additional costs at the outset for the elimination of excess stocks, followed by a decline in expenditure on the handling and possibly the monitoring of particularly hazardous equipment;
- (b) The second form of disarmament leads of necessity, other things being equal, to a reduction of military might, but it may be effected in the short term without necessarily implying any process of reduction of the opposing forces, particularly by strict control of possible wastage, restriction on commitments to carry out research and development, the introduction of conscription at a lower cost than an army of regular soldiers and strategic options that have the effect of favouring more cost-effective weapons, in particular nuclear weapons¹².

We may give consideration to the existing conditions of the relationship between economic growth and disarmament and principally to the driving force behind current developments. In other words, is disarmament a consequence of the economic crisis or vice versa; is it impossible to find a solution to the economic crisis other than through a procedure of disarmament? It is probably impossible to give a peremptory answer to this question. Nevertheless, at least for the countries of eastern Europe, it does really appear that the priority given to the military sector has had rather adverse effects on the economies of those countries, although it is difficult to calculate the effective cost, having regard to the existence of planned prices that are, to say the least, only a limited reflection of economic "reality".

¹² Jacques Fontanel, "Le coût du nucléaire militaire dans le monde", *Le désarmement pour le développement*, Fontanel and Guilhaudis, eds. (Grenoble, ARES, Collection *Désarmement et course aux armements*, 1986).

Economists have no doubt in their own minds that a reduction of military expenditure tends to have a positive effect in the long term on the economy of a country, obviously provided that there are no potential armed conflicts. With the new strategies of dissuasion it is quite difficult to know how useful defence forces actually are since, given that history never repeats itself in exactly the same way, it is impossible to determine with certainty what actual contribution the defence effort of a country makes to the decision of another country not to stir up a conflict from which it could derive politico-economic advantages. It is therefore more of interest to raise the question of disarmament in the context of hypotheses on excessive levels of armaments and on the status quo of the opposing forces, it being understood that no decisive strategic modifications are to be expected, at least in the short term, from the Great Powers, even if the treatment of military R&D is capable in the longer term of bringing about a new balance of power. Disarmament ought not to be thought of exclusively as a transfer of resources to the benefit of the civilian economy; it must also be analysed in a dynamic context of the reduction of opposing forces and of the maintenance of balances that are essentially of a precarious nature when once the major strategic and economic variables become the subject of appreciable modification.

In furtherance of our argument we shall therefore hypothesize that the present procedures of disarmament are taking place in the context of a struggle against excessive levels of armaments, but that the major strategic equilibria will be maintained with a considerable likelihood of success at least until the end of the 20th century. However, it is relatively difficult to accept this latter proposition having regard to the considerable changes that have arisen during this past year, particularly with the impending unification of Germany and the degeneration of the Warsaw Pact. Nevertheless, the strategic military forces of the countries of the East were and remain completely dominated by the Soviet Union and consequently the hypothesis retains an adequate degree of realism, for the present.

2. *The economic activity of the great powers in the present context of disarmament*

As far as Lawrence Klein and Charles Schultze are concerned, a procedure of disarmament will necessarily have a positive effect on the American economy¹³. The production of civilian capital goods is extremely useful when it replaces military output, because the former gives rise to new earnings flows, whereas the latter is used to destroy or to be destroyed without any economic return. Thus, the usefulness of a motorway will extend far beyond the expenditure period and will be conducive to the expression of other uses. As regards military equipment, the first condition is not always, and the second hardly ever ensured. All conversion from the civilian to the military leads, *a priori*, to an indisputable economic gain (sic), even if some problems of economic or regional conditions may occasionally admit of a little doubt. The reduction of military expenditure ought not however to lead to a restriction on overall demand and the government ought to engage simultaneously in a policy of compensatory public expenditure or reduction of the budgetary deficit.

¹³ Charles Schultze, "Use the peace dividend to increase saving", *Challenge*, March-April 1990; Lawrence R. Klein, "The economics of turning swords into plowshares", *Challenge*, March-April 1990.

For the United States, Klein recommends progressive reduction of the public deficit, the effect of which would be firstly to reduce the rate of interest, then to limit the cost of debt servicing, and ultimately to improve export positions. There would in effect be a renovation of heavily indebted economies that would receive a true subsidy from the reduction of interest rates and would then be in a position once again to become importers of American products. In the short term some major American enterprises would experience a considerable reduction in their public orders, in particular McDonnell Douglas, General Dynamics, General Electric, Tenneco and Raytheon, which together have more than US \$130 billion worth of Pentagon contracts. In the medium term, lower interest rates will lead to more investment and that situation will be favourable both to international trade and to reduction of the public deficit. It is noteworthy that a change in interest rates would be bound to have important effects on foreign exchange markets¹⁴. Lastly, military expenditure exerts undeniable inflationary tensions, because the economy provides salaries without a flow of goods being produced in exchange.

Under these conditions, the reduction of defence expenditure furthers the competitiveness and productivity of American enterprises¹⁵, the more so because the technological spin-offs of the military sector are regarded as inefficient and costly. The LINK model posed the question of what the economic impact of a 3 per cent reduction in military expenditure combined with a more flexible monetary policy would be. The main reply was that there would be an appreciable reduction in interest rates, of the order of 2 per cent. Charles Schultze of the Brookings Institution is putting forward a plan for a progressive reduction of military expenditure of the order of 50 billion dollars over five years (falling from 287 to 237 billion dollars between 1989 and 1994); the "economies" thus made would be set off and one-fifth would be used for federal civilian expenditure on high-priority programmes, and the remainder to reduce the public deficit. A few years ago when the United States caught a cold the western countries went down with bronchitis. At the present time Europe is progressively becoming the economic centre of the world and its regular process of integration should lead to important positive effects for the whole of the world economy. The Government of the United States no longer plays the dominant economic role that has been its since the last world war and the effects that the developing countries may expect from a reduction in the military expenditure of the United States are only indirect effects, mainly through the channel of the progressive reduction of interest rates. It should be added that a procedure of disarmament by the United States has global (and certainly non-structural) significance only if its allies do not increase their own military effort in the framework of an agreement to share the burden of defence¹⁶. Furthermore, a changing

¹⁴ Christian Schmidt, *Revue d'Economie Politique*, 1987.

¹⁵ This idea had already been developed by Seymour Melman in *The Permanent War Economy* (New York, Simon & Schuster, 1974).

¹⁶ Todd Sandler, "NATO burden-sharing: rules or reality?", *Peace, Defence and Economic Analysis*. Proceedings of a Conference held in Stockholm jointly by the International Economic Association and the Stockholm International Research Institute, Christian Schmidt and Frank Blackaby, eds. (London, Macmillan Press, 1987).

economic situation is sometimes the source or the cause of new potentialities for conflict and rearmament¹⁷.

Two fundamental problems are currently being raised in the countries of the East, namely the restructuring of their economy and the reduction of military expenditure. The USSR for long carried out a process of "paradoxical militarism"¹⁸, under which the strategic emphasis was laid on the ostentatious aspects of force, the politico-strategic purpose of which was often realized even at the expense of the real effectiveness of the armed forces. At present the Soviet Union desires a disarmament procedure because the economic impact of military expenditure is too heavy for a stricken economy. Mr. Mikhail Gorbachev clearly expressed this willingness when he stated that "development and international relations have been distorted by the arms race and militarization of the way of thinking"¹⁹. This is an essential point of the new Soviet strategy. Klein considers that a 5 per cent reduction in military expenditure in Poland is associated with a 3 per cent expansion in expenditure for civilian consumption. Allowing for the fact that the armament markets were highly controlled by quotas, there is here a new opening for international trade which should strengthen relations of interdependence and solidarity. However, there are no known econometric or quantitative studies to demonstrate the economic interest of a disarmament procedure in the countries of eastern Europe. Reconversions scarcely seem to pose problems in the short term in the context of a planned economy, even though the urgency of the action that needs to be taken to stimulate the economy makes most modifications both tricky and necessary. Moreover, conversions should raise fewer problems than in western countries because many military enterprises already work in the civilian sector. In the opinion of Cooper²⁰, half the electric steel, a quarter of railway equipment and more than a fifth of consumer goods are already being produced by the military sector, which points to good prospects for reconversion in a country in which private consumption still remains limited and open to good development prospects.

Logically, the flow of international capital to the countries of the East ought not to come from the United States, but rather from France, Germany and Japan. The United States will be led initially to deal with its internal economic problems, especially the ill-considered lowering of the rate of national saving. There are few economic studies on the impact of disarmament on

¹⁷ Bruce Russett, "Economic change as a cause of international conflict", *Peace, Defence and Economic Analysis*, Proceedings of a Conference held in Stockholm jointly by the International Economic Association and the Stockholm International Research Institute, Christian Schmidt and Frank Blackaby, eds. (London, Macmillan Press, 1987).

¹⁸ Jacques Sapir, "URSS. La conversion de l'industrie militaire vers le secteur civil", *Informations et Commentaires*, No. 68 (July-September 1989).

¹⁹ Cited in the article by Jacques Decornoy, *op. cit.*, p. 16.

²⁰ J. Cooper, "The scales of output of civilian products by enterprises of the Soviet defence industry", *SITS Paper*, No. 3 (CREES, University of Birmingham, 1988).

the economies of France²¹ and the United Kingdom²², and they do not relate to the current situation. It is the actual proof that, despite some statements to the contrary, the two Governments do not really wish to commit themselves to the path of disarmament. Moreover, it does not appear that Germany or Japan have decided to reduce their armament effort, at least in the short term²³. However, the debates are becoming increasingly contradictory and it is probable that these two countries will in the end follow the disarmament trend to which the two Great Powers have given impetus.

Will the World Growth Instigated by Disarmament also Affect the Developing Countries?

The impact of the disarmament of the Great Powers on the economy of third world countries is a question that is in general not much debated. The prevailing idea is that the improvement in the economic situation of the rich countries is bound, in the long term, to have only positive consequences for the developing countries. That analysis is probably not very satisfactory in fact, because it omits the emergence of new balances of forces capable, at least in the medium term, of substantially modifying the relative economic development conditions of the countries of the whole world.

1. The fundamental question of the passing on of economic growth and development

Economists traditionally ponder the interdependence of States and the international spreading of economic growth. In the view of classical and liberal authors the least well-off countries are absorbed by the richest countries and therefore benefit from their development. Socialist, Marxist and mercantilist authors find this analysis inadequate because it fails to have regard to the balance of power. Two questions must then be raised in the context of disarmament liable to lead to accelerated development in the industrialized countries:

- (a) Will the Great Powers lose the advantages of their effects of domination which also find expression in the economic order? It is probably not yet the time to ask this question because, despite the willingness to disarm, the disparities that exist between the forces of third world States and those of the industrialized countries are so great that nothing would appear to have to change in the immediate future;
- (b) Is the strengthening of the economies of the developed countries conducive to development in the least well-off countries? This question invites several replies. In the liberal view the opening up of trade gives the less well-endowed countries the best advantages; on the understanding that there is competition between producers, there

²¹ Jacques Aben, "Désarmement, activité et emploi", *Défense Nationale*, May 1981.

²² Keith Hartley, "Reducing defence expenditure: a public choice analysis and a case study of the UK", *Peace, Defence and Economic Analysis*. Proceedings of a Conference held in Stockholm jointly by the International Economic Association and the Stockholm International Research Institute, Christian Schmidt and Frank Blackaby, eds. (London, Macmillan Press, 1987).

²³ Jun Nishihawa, "Note on the impact of military expenditure on the Japanese economy", *The Economics of Military Expenditures. Military Expenditures, Economic Growth and Fluctuations*, Christian Schmidt, ed. for the International Economic Association (Paris, Macmillan, 1987).

are not really any effects of domination, at least in the economic order; a reduction of military expenditure reduces international tension and limits the existence of the captive markets developed through conflict. The theory of underdevelopment as a product of development opposes this thesis and considers that the economic situation of third world countries is likely to deteriorate if, for example, the converted enterprises enter into competition with national products or if they no longer purchase the raw materials that were the greater part of the export resources of the developing countries. We shall not here consider in any depth this fundamental debate, which would merit lengthy consideration on its own. We shall merely consider that a reduction of military expenditure in the developed countries will have nothing but positive effects for the countries of the third world provided that this disarmament procedure is not accompanied by serious reforms affecting international economic organization, which is rather too favourable to the major economic powers.

"Basically, the economy of these countries has been made totally dependent on the developed countries. Consequently, the western countries must make restitution and most international organizations are calling for the establishment of a New International Economic Order. In any case, we may reject two myths, that of the important part played by colonial outlets for western industries, and that of western development based on raw materials coming from the third world, even if there was an epoch when these relations could have favourable effects for the countries of the north at the expense of the countries of the south. Colonization is both undoubtedly responsible for the underdevelopment of many regions of the world (the phenomena of cultural integration, political inequality and economic exploitation) and a scapegoat invoked to explain all mistakes in the management of the national economies of third world countries."²⁴

The economy has become an occasion for and an effective means of making war. Insecurity is not maintained merely by the arms race, but is also dependent on social and international inequalities and domination. The contemporary world of the coexistence of two economic systems that are by nature antagonistic presupposes the existence of a continual conflict, ranging from armed peace to the threat of nuclear war, and taking in local wars, economic retaliatory measures and, more generally, indirect strategies of dissuasion. Economics is one weapon, but it is difficult over a lengthy period to create the conditions of national security without a strong economy capable of bearing the strategic costs and of deploying them. The countries of the third world are greatly disadvantaged by their weak capacity for economic and military defence. Military men are obliged to take into account the balance that must be maintained between defence expenditure, which is often impoverishing, and ultimately the maintenance of national security. A choice has therefore to be made between security today and tomorrow. Economic and military power confers certain advantages on those that have it, particularly in the field of commercial negotiations. The contemporary economy is a battlefield and a process of disarmament may lead to a progressive change in the world geography of the satisfaction of needs.

²⁴ Jacques Fontanel, "Aspects économiques de la militarisation et de la démilitarisation dans l'hémisphère sud", *Colloque "Géostratégie dans l'hémisphère sud"* (Ile de la Réunion, June 1990; forthcoming).

"Under the Charter of the United Nations, demilitarization implies respect for the sovereign equality of its member States, prohibition of the threat or use of force against the territorial integrity of any State, recognition of the inviolability of frontiers, renunciation of any action against independence and national unity, non-intervention in the internal affairs of other States and refraining from giving assistance to terrorism. These principles could be respected by systematic exchanges of military information, the publication of military expenditure, the withdrawal of troops from frontier zones, and the establishment of systems of rapid and direct communication between civilian and military authorities."²⁵

2. *The short-term economic interest of the western industrialized countries for the third world*

Historically, the western countries used their military strength in their political and economic conquest of the world. Colonization, a by-product of militarization, is often regarded as the essential reason for underdevelopment, because it led in particular to:

- (a) The extension of export crops at the expense of food crops;
- (b) Mining activities;
- (c) Worsening of the terms of exchange;
- (d) The construction of specialized communications routes turned towards the metropolitan country;
- (e) The destruction of local craft industries through the competition of manufactured products; and
- (f) The establishment of nonsensical national frontiers.

Despite the idea of disarmament, which had been in mind for some years, there is no question of the Great Powers lowering their guard and putting a stop to the modernization of weapon systems or of discontinuing all preparation for possible intervention in the countries of the third world. There is a balance of power that has not really been questioned, as is shown by the continuing relative equilibrium in the most underprivileged regions that are largely dependent on spheres of influence inherited from the antagonism of the two economic systems. At present the expression of power has been unusually transformed. It has become less militarized, at least in the daily life of dominated countries. On the economic level, however, the balance of power is maintained and we only have to note the disputes to which major international economic negotiations give rise to be assured that these relationships of conflict are of a lasting nature.

Within the context of present international economic structures, the rapprochement between East and West may lead the industrialized countries to become even less interested in third world countries. Thus, in view of the urgency of reforms in the countries of the East, we may wonder what motivation the western countries may have to continue to support assistance to heavily

²⁵ Jacques Fontanel, "Aspects économiques de la militarisation et de la démilitarisation dans l'hémisphère sud", *Colloque "Géostratégie dans l'hémisphère sud"* (Ile de la Réunion, June 1990; forthcoming).

indebted poor countries just when new, more exciting and probably more lucrative outlets are likely to develop in the socialist countries.

Both Klein and Leontieff consider that disarmament will benefit everybody by virtue of the reduction in interest rates that should stimulate world economic growth by increasing the incentive to invest. If the countries of the East are increasingly involved in international trade, all countries are then in a position to benefit from these new markets.

It is, however, likely that in the absence of any real international will to assist the poorest countries, their economic situation will scarcely be able to improve. Henceforth the attention of most western countries is turned towards the countries of the East and they do not wish to miss the major change in direction that could lead them to expand their markets and to stimulate their national economies. Under these conditions, and with the exception of a few special countries, it is difficult to conceive of major investment in regions whose economic potential is heavily burdened by debt or by a chronic low level of productivity.

Furthermore, we ought not to overlook the dangers of maldevelopment arising from aid coming from developed countries. The latter always seek to derive benefit from any kind of aid and, in so doing, they may lead States in a weak situation to follow policies that are more in line with the interests of the donor country than with their own interests. Furthermore, some forms of transfer may ultimately prove to be costly, at least in operating costs, and political constraints are rarely excluded from such a commitment by rich countries. The result is that although developing countries do of course have to seek assistance, they must also be able to refuse it when it is not obviously of ultimate benefit to the whole of the national community. Furthermore, "aid to developing countries may be devoted to prestige expenditure, to the enhancement of social inequalities, and to promoting the expansion of societies in which the rights of man are not necessarily respected. Transfers may also be the subject of sordid motives of self-interest that tend to accustom peoples to a type of consumption that makes them dependent on industrialized countries ..."²⁶ Disarmament is a stage on the road to development provided that it is the source of a reduction in inequality and in effects of domination, because it increases the level of satisfaction of human needs (the "entitlement"²⁷).

Analyses of the tensions, the conflicts and even the trade wars or economic wars that countries are led to undergo or to provoke scarcely figure at all in liberal ideas²⁸. The opening up of economic frontiers is not the panacea to generalized economic development, because there are undeniable effects of domination that may reduce or block the development potential of the weakest countries. In the absence of a real international organization laying down rules for

²⁶ Jacques Fontanel, "L'économie des armes", *La Découverte* (Paris, Collection Repères, 1984).

²⁷ Amartya Sen, "Public action and the quality of life in developing countries", *Oxford Bulletin of Economics and Statistics* (November 1981); "Development: which way now?", *Economic Journal*, Vol. 93, December 1983.

²⁸ D.A. Baldwin, *Economic Statescraft* (Princeton University, 1985); Lachaux, Larcorne, Lamoureux and Labbe, *De l'arme économique* (Paris, Fondation pour les Etudes de Défense Nationale, Collection les Sept Epées, 1987).

protection, the complete liberalization of markets leads inescapably to a power struggle similar to that existing in enterprises and that may bankrupt countries.

Can the Present Disarmament be made General and does it Offer New Scope for Development to Third World Countries?

In the medium term the progressive disarmament of third world countries is probably one condition of the accelerated disarmament of the Great Powers. In fact, it is scarcely conceivable that it should be otherwise, unless one considers that the present disarmament is no more than the fruit of the economic crisis, it being understood that third world countries are the objects of permanent conflict between the United States, the USSR, France and the United Kingdom.

Is Disarmament Immediately Desirable in the Countries of the Third World?

In his last book, Robert Looney²⁹ considers that the effects of military expenditure are dependent on whether developing countries are producers or importers of arms. We shall therefore distinguish between the general effects of military expenditure and the specific effects of national armaments production, two economic variables that are also affected by national and international disarmament.

1. Military expenditure and economic growth of Third World countries

It is assumed in United Nations reports that the arms race reduces world growth potential and limits the scope for economic development through the squandering of scarce resources. Nevertheless, some economists have argued that in certain specific economic situations the armed forces could be a force for development through their capacity to develop new techniques, and their sense of order and discipline has been considered to be of use for the organization of social labour. Benoit³⁰ considers that military effort is conducive to industrial modernization, to improvement of the infrastructure, and to the training and information of people. He does not bring out any effect of competition between the civilian sector and the military sector, especially at the level of the hiring of key staff and the selection of modern technologies. However, most empirical studies do reveal the effect of sectoral substitution (the choice between civilian or military industrial activities), the effect of temporal substitution (the choice between the present and the future) and the effect of the squeezing out of investment exerted by military expenditure. Under these conditions, military expenditure does have an adverse effect on economic development, even if, as public expenditure, it may contribute to an upsurge of demand. Thus,

²⁹ Robert E. Looney, *Third-World Military Expenditure and Arms Production* (London, Macmillan Press, 1988; foreword by Robert L. West).

³⁰ Emile Benoit, "Growth and defense in developing countries", *Economic Development and Cultural Change*, No. 2 (January 1978).

it is likely that the increasing of military expenditure is made possible by the increased growth rate of the economy and not vice versa.

Augusto Varas³¹ considers that the impact of military expenditure on the growth of developing countries is not the same as its impact on developed countries because it initially affects material well-being rather than growth. Whereas a change in the relationship between military expenditure and material well-being may have only secondary effects in developed countries, the outcome is different in developing countries because the military effort seriously worsens a standard of living that is very low for the majority. As far as Varas is concerned there are no stable and significant correlations between military expenditure and economic growth. Kwabena Gyimah-Brempong³² considers that the military expenditure of African countries is prejudicial to their economic development potential because the possible positive effects that are expected are largely offset by the reduction in investment resulting from defence outlay. Ron and Dan Smith³³ consider that the militarization of developing economies is not favourable to their economic development in the long term, even if there may be some positive effects from it, in particular the mobilization of the surplus. The theory of the division of resources, represented in developed countries by the thought of Seymour Melman³⁴, argues that an economy in which large amounts of critical resources keep on being allocated to unproductive activities is one in which the capacity to produce efficiently is considerably reduced, either because the industry of the country ceases to be competitive, or through corruption of the behaviour of economic agents. Under these conditions, the end effect of disarmament is to improve the average national standard of living and to increase the world economic development potential.

It is fairly generally recognized that there is a relationship of substitution between investment and military expenditure³⁵. However, there are three factors that may invalidate it:

- Social acceptance of the financial outlay of defence;
- The structure of military expenditure (expenditure on personnel as a proportion of capital or infrastructure expenditure); and
- The level of economic growth (in a period of economic stagnation military expenditure is in more direct competition with investment).

If the population is prepared to accept the outlay on defence, in particular in a situation of heavy and identified international threats, it may also accept a reduction in its consumption. If

³¹ Augusto Varas, "Military spending and the development process", in *Disarmament*, Vol. IX, No. 3 (New York, Autumn 1986).

³² Kwabena Gyimah-Brempong, "Defense spending and economic growth in sub-Saharan Africa: an econometric investigation", *Journal of Peace Research*, No. 1 (1989).

³³ Ron Smith and Dan Smith, *The Economics of Militarism* (London, Pluto Press, 1983).

³⁴ Seymour Melman, *The Permanent War Economy* (New York, Simon & Schuster, 1974).

³⁵ Jacques Fontanel and Ron Smith, "Analyse économique des dépenses militaires", *Stratégie* (Fondation pour les Etudes de Défense Nationale, 1985).

the increase in military expenditure is currently leading to a reduction in global investment, that is because citizens still do not clearly apprehend an imminent threat of war. There is therefore a divergence between the needs expressed by economic agents and the attitude of States; moreover such divergence may be essentially due to the availability of different strategic information. In the short term, disarmament that finds its expression in a reduction of military expenditure may be offset by an increase in investment, even though in developing countries consumption is liable to be strongly boosted.

2. *Disarmament and arms-producing developing countries*

The arguments put forward to justify the establishment of national arms production are national security, strategico-economic independence and economic growth. The choice between imports and armaments production is a difficult one to make when there are established ideological constraints. It is possible to reduce armaments production in a disarmament situation, even though there is a threshold effect from which an enterprise becomes increasingly costly to the community. In other words, the conditions of generalized disarmament are such that enterprises may be led to produce rather unprofitable and extremely expensive goods, thus altering the conditions and even the relevance of production. Even when its immediate aims are relatively slight, disarmament is capable of having adverse effects on the productivity of arms manufacturers and of leading to a real cessation of local military activity on account of inadequate productivity. Under these conditions the international armaments market would be less saturated. It is now asserted that arms industries have weak industrializing effects, in particular because military technologies have relatively limited spin-offs for the civilian sectors and because the arms exports trade war is probably as costly for the community as it is lucrative for the numerous intermediaries³⁶.

Economies are still very heavily militarized³⁷. This militarization is defined as a situation in which war, the threat of war or preparation for war are a major collective concern, which implies a higher degree of legitimacy, considerable political influence in government decisions and a significant allocation of national resources. Many countries have based their industrialization on arms production, which is dangerous from the economic point of view, in particular when the international arms market becomes stagnant, and is a reducing factor on account of the politico-military constraints that inevitably emerge and that restrict the freedom of action of civilian and military governments regarding disarmament³⁸. However, a serious economic study could show that some exporting activities are a cause of impoverishment, in

³⁶ Christian Schmidt, "Industrie d'armement et endettement dans les pays en voie de développement: les exemples d'Israël, du Brésil, de l'Argentine et de la Corée du Sud", *Congrès International des économistes de la langue française*, May 1984.

³⁷ Jacques Fontanel, "Militarisation dans l'hémisphère sud", *op. cit.*

³⁸ Edward Kolodziej, "Whither modernisation and militarisation, implications for international security and arms control", *Peace, Defence and Economic Analysis*. Proceedings of a Conference held in Stockholm jointly by the International Economic Association and the Stockholm International Research Institute, Christian Schmidt and Frank Blackaby, eds. (London, Macmillan Press, 1987).

particular when the terms of payment become difficult or even impossible, and when the arms enterprise, which is heavily subsidized, is left to sell at a loss - to the community³⁹. The present situation of a vague wish for disarmament tends above all to restrict the degree of legitimacy as national governments are called into question and to lead very slowly to a reduction in military expenditure in relation to the national wealth generated annually.

Deger and Ball consider that national armament is a cause of under development, whereas Looney⁴⁰ is of the opinion that this relationship cannot really be sustained except for countries that are not arms producers. This latter idea preoccupies Nicole Ball, who also sees some advantages in national production of arms such as the saving on scarce foreign currency, the mastery of technology and the possible introduction of a policy of industrialization gaining ground through military investment that would not in any case have been made for civilian purposes. However, no third world country can support such a policy unless it already has a sufficiently strong and diversified industrial sector⁴¹. David Whynes⁴² even suggests that only large developing countries, in particular Brazil and perhaps Indonesia, in the area investigated can really derive sufficient multiplier effects from military outlay to limit the effects of eviction. José Drummond-Saraiva⁴³ considers scarcely plausible the hypothesis that the Brazilian economy could benefit from the impetus arising from military industrialization because the stimulation of economic activity, which is an interesting economic effect, appears to be overshadowed in the long term by the effects of substitution and eviction. Disarmament would tend to be positive for the Brazilian economy as a whole, even if Herrera-Lasso is of the opinion that the arms industry may be a powerful economic development vector for Brazil⁴⁴. However, these thoughts have still not been supplemented by an analysis of the relationship between the rapid development of the arms industry and the indebtedness of third world countries. Christian Schmidt concludes with the statement that the ultimate effect of arms programmes on the indebtedness of Brazil, Argentina, South Korea and Israel is more dependent on American geostrategic considerations than on purely economic considerations, and that although United States aid does help to lighten

³⁹ Ron Smith, Anthony Humm and Jacques Fontanel, "The economics of exporting arms", *Journal of Peace Research*, Vol. 2, No. 3 (1985); François Cheamais, *Compétitivité internationale et dépenses militaires* (Paris, CPE, Economica, 1990); Jacques Fontanel, *French arms industry* (Grenoble, Cahiers du CEDSI, No. 10, Université des Sciences Sociales, 1990).

⁴⁰ Sandet Deger, *Military Expenditure in Third World Countries: the Economic Effects* (London, Boston and Henley, Routledge & Kegan Paul, 1986); Nicole Ball, *Security and Economy in the Third World* (Princeton, Princeton University Press, 1988); Robert Looney, *Third-World Military Expenditure and Arms Production* (Hampshire and London, Macmillan Press, 1988); Jacques Fontanel, "The economic effects of military expenditure in third-world countries", *Journal of Peace Research* (due to be published in 1990).

⁴¹ Herbert Wulf, "Developing countries", *The Structure of the Defense Industry*, Nicole Ball and Milton Liebenberg, eds. (London, Croom Helm, 1983).

⁴² David Whynes, *The Economics of Third World Military Expenditure* (London, Macmillan, 1979).

⁴³ José Drummond-Saraiva, "L'industrie brésilienne d'armement" (draft economics thesis, Grenoble, for publication late 1990).

⁴⁴ Luis Herrera-Lasso, "Economic growth, military expenditure, the arms industry and arms transfer in Latin America", *The Economics of Military Expenditures: Military Expenditures, Economic Growth and Fluctuations*, Christian Schmidt, ed. (London, Macmillan, 1987).

the financial burden of national armament programmes, it also increases the United States debt, which has appreciable effects on the value of the dollar.⁴⁵

In the main the staff employed in the arms industries are young and well-trained; nevertheless their productivity is low. Those who support the idea that the military industries are the "key sector" of national industry consider that disarmament would be likely to lead to a serious rise in unemployment and a considerable drop in the earnings of workers. Nevertheless most present studies tend to reveal armament as a sector that generates little employment; in terms of opportunity costs, the military sector employs half the number of staff for the same expenditure in many cases. Consequently, the arms race has not been a remedy for the problems of employment, quite the opposite. Nor, however, is disarmament the panacea for this unemployment, since there is also a need to ensure redeployment of the employees of the military sector, and it is probably easier to transfer military personnel employed in offices to the civilian sector than in the case of highly specialized jobs.

The impact of military expenditure on growth is dependent on effective use of the productive capacity of national economies. In terms of opportunity costs, civilian investment is *a priori* more favourable to economic development than is military investment. However, this assessment must be qualified, on the one hand because all civilian investment (in particular investment that gives rise to demonstration effects or that arises from an error in assessment of the market) is not equally profitable and, on the other hand, because the military sector may, through its orders, maintain the level of output and of competitiveness of whole sectors of the economy (principally aeronautics, computers and ship building). Through their inertial effects on economic flows, military budgets maintain the activity of entire branches of industry, providing them with a measure of security and an additional growth potential through the rapid expansion of economies of scale and effects of domination.

Are the Anticipated Influences of Generalized Disarmament Highly Positive for Developing Countries?

Two main types of effects are likely to emerge, other things being equal, in a context of generalized disarmament: initially a limitation on the militarization of the economy, followed by some fairly positive effects of the transfer from military activities in favour of civilian production.

1. *The progressive demilitarization of economic life and national policy*

There are great differences in the situation in third world countries. However, we have since the early 1980s been witnessing a demilitarization of the central government that has been particularly apparent in Latin America. This demilitarization is capable of being brought about

⁴⁵ Christian Schmidt, "Industrie d'armement et endettement dans les pays en voie de développement: les exemples d'Israël, du Brésil, de l'Argentine et de la Corée du Sud". Congrès International des Economistes de Langue Française, Clermont-Ferrand, May 1984, reported in *Revue de Défense Nationale* (October 1984).

through reduction in the power of the military in civilian society, through the absence of military political organization or through the "civilianization" of the armed forces.

The results of Looney's econometric analysis⁴⁶ show that politico-bureaucratic influences are more important in the definition of military expenditure than are international rivalries. On the other hand, effects of substitution are less important in arms-producing countries than in countries that are exclusively importers of the arms needed for their defence. Lastly, military expenditure has played only a small part in the rapid development of the indebtedness of third world countries, particularly the countries of the southern hemisphere. In any case, according to Ball, they have not played the essential role that with hindsight, some individuals would have wished to have seen them play.

A recent econometric study⁴⁷ clearly bring out the dangers of the militarization of governmental organization. The aim of the study was to demonstrate certain variables explanatory of arms imports by geographic zones: national characteristics (land mass and population), the nature of the government (democracy or military dictatorship), the extent of militarization (in particular, military expenditure), economic conditions (level of wealth and significance of international trade) and international conflicts. Generally speaking, military characteristics logically dominate the explanation of arms imports, and the effects of inertia give prominence to a real market with customers and sellers. A disarmament effort would be likely ultimately to reduce this dangerous link, even if there is always the danger in the short term of an arms enterprise seeking to re-sell surpluses where the developed countries, held back by international agreements, would be led to abstain.

Disarmament brings us into the presence of a "civilianization" of modern societies, a retreat of the ideas of militarism, the hierarchy, discipline, nationalism, patriotism and xenophobia. Militarism emerges with the State system. The social position of the military is of importance. The army is often the symbol of national unity, even if the key factor is its central place in the military-industrial complex. The military hold power in the name of ability in the defence of the basic interests of the nation. That is why societies that have conscription appear less productive of militarism. Militarism arises from clashes of interest, as well as from belief in violence and force. Nevertheless, mentalities and behaviour are not decreed.

The function of the armed forces has sometimes been only one of internal repression. Chile and Argentina are cases in point. In the opinion of many specialists military expenditure is dependent on the influence of external and international conflicts, the amount of available national resources, the inertial effects of the State budget, bureaucratic pressures, the social influence of the military (corporate interests, personal gain, coups and military régimes), the part played by world powers and regional powers (colonialism or neocolonialism, direct intervention,

⁴⁶ Robert Looney, *Third-World Military Expenditure and Arms Production* (Hampshire and London, Macmillan Press, 1988).

⁴⁷ Frederic Pearson, "The correlates of arms importation", *Journal of Peace Research*, Vol. 26, No. 2 (1989).

military assistance, sales of arms) and the perception of national security⁴⁸. The army is not concerned solely with its military duties, but is also directly concerned with social life and with ideals. It may frequently happen that the military are more concerned with internal policy than with the defence of a country that is only slightly threatened. A disarmament procedure would inevitably tend to restrict that type of behaviour.

However, the fact of an increase in the military expenditure of two hostile States often has the result that international security is merely maintained or even worsened, and under these conditions a negotiated reduction of military expenditure could be envisaged, other things being equal. On the hypothesis of a lasting peace, military expenditure inevitably has an adverse effect on world economic development; it often happens that the effects of domination engendered by military strength or by some forms of militarization of the economy have positive effects on the dominant national economies. The reduction of effects of domination may be a positive element for developing countries.

2. *Three models that reach the conclusion that a disarmament procedure has positive effects for economic growth*

*A reduction of military expenditure has been simulated by three models of the world economy⁴⁹.

- (a) The world model of Leontief and Duchin⁵⁰ arrives at the conclusion that the transfer of resources to poor countries promotes their economic development and that, in that sense, disarmament is desirable for development. A measure of disarmament would have a positive effect for all the regions of the world and the transfers of resources would appreciably increase per capita consumption and GDP in the arid countries of Africa, and in the countries of Asia and tropical Africa with low incomes. Spectacular as these results may appear to be for the underdeveloped countries with low populations, they are nevertheless not very significant. Thus, a reduction of military expenditure by 1.2 per cent annually between 1980 and the year 2000 would further economic growth as follows: 1 per cent for Japan, 0 per cent for the OPEC countries, 1.5 per cent for North America, 3 per cent for Europe, 10 per cent for the countries of Asia with a planned economy, and 20 per cent for the countries of Asia with low revenues and for tropical Africa over a period of 20 years. The figures are not very significant. They give a very overall impression of the economic impact of disarmament. Unlike the hypothesis of a reduction in the demand for raw materials

⁴⁸ Jan Tinbergen, "World peace policy", *Peace, Defence and Economic Analysis*. Proceedings of a Conference held in Stockholm jointly by the International Economic Association and the Stockholm International Research Institute, Christian Schmidt and Frank Blackaby, eds. (London, Macmillan Press, 1987).

⁴⁹ Jacques Fontanel, "Désarmement et pays en voie de développement", *Désarmement, développement, emploi, informations et commentaires*, No. 68 (Revue trimestrielle, Lyon, juillet-septembre 1989).

⁵⁰ Leontief and Duchin, "Worldwide implications of hypothetical changes in military spending" (Report for the United Nations, New York, 1980); Leontief and Duchin, *Military Spending: Facts and Figures, Worldwide Implications and Future Outlook* (Oxford University Press, 1983).

following a reduction in military expenditure, the model of Leontief and Duchin demonstrates that the new growth engendered by this disarmament does not threaten the economy of the countries that produce raw materials, which are generally third world countries;

Table 8.1
Evolution of the Demand for Raw Materials
Assuming either Disarmament or Continuation of the Arms Race

Resource	Continuation of arms race	Disarmament
Oil	3.9	1.0
Nickel	3.1	2.2
Copper	-0.3	2.4
Zinc	-0.3	2.7
Bauxite	-1.1	3.0
Tin	-1.8	3.2
Iron	-3.9	3.4
Coal	-5.5	4.0
Natural gas	-6.5	3.4

- (b) A simulation based on the UNITAD world model⁵¹ tests one scenario in which there is no distribution of incomes resulting from a disarmament procedure, and another that suggests a policy founded on the satisfaction of basic needs, on the hypothesis that the credits freed are used to promote small-scale and highly productive economic activities in developing countries. Two cases are analysed: (1) disarmament makes it possible to realize the objective of public assistance to development in the amount of 0.7 per cent of the GNP, and (2) one third of world military is transferred to development programmes for developing countries (either by direct aid from developed countries corresponding to an additional expression of solidarity of the order of one third of their savings on military expenditure, or by transfer of internal allocations of military resources to productive civilian activities). Whereas the creation of jobs seems modest for the developed countries, the outcome is different for the developing countries. In the short term, the reduction of military expenditure depresses demand and is conducive to job losses, until the point is reached at which the consequences of the growth of the developing countries find expression in an increase in demand in the

⁵¹ J. Royer, *Long-Term Employment Impact of Disarmament Policies* (ILO, December 1985).

direction of the more developed areas. If the improvement in assistance is combined with policies angled on basic needs, the result is a considerable additional annual growth and considerable job creation. These effects are even greater if steps are taken to ease restrictions on markets and on currency. However, these gains may easily be swept away by the terms of exchange or by increases in the rate of interest and the debt payments with which the developing countries are burdened. Lastly, disarmament alone is incapable of resolving all the problems of the developing countries. In particular, even in the most satisfactory hypothesis, the real consumption per inhabitant of Africa south of the Sahara will continue to decline owing to population growth and the weakness of agricultural production. It is scarcely possible to improve the well-being of the vast majority of the population of the African continent without substantial improvements in agricultural productivity. The main efforts have to be made by the developing countries themselves. (See Table 8.2);

- (c) According to the LINK model²², reductions of military expenditure of the order of 10 per cent accompanied by an increase in aid (0.7 per cent of the GNP) would lead to a growth of 1.7 per cent in the GNP of the developing countries and of 0.2 per cent in the developed countries on the maximum hypothesis that transfer would apply essentially to capital goods. Were the aid to be squandered, the growth would remain the same, whereas the growth of the developed countries would decrease by 0.3 per cent. The developing countries have to use at least 60 per cent of their aid resources for the developed countries not to experience a reduction in their growth in relation to growth on the basic hypothesis. In another scenario of the LINK model, the United States, the USSR and Japan are the main donors of \$53 billion down to 1993 on the basis of their disarmament and in favour of the development of third world countries. In that case, the growth part of the world economy world countries. In that case, the growth path of the world economy increases from 0.9 to 1.7 per cent per year, but the developed countries experience an annual decrease of the order of 0.2 per cent relative to the normal trend, whereas the developing countries receive an additional impetus ranging from 10 per cent for the countries of Africa south of the Sahara to 2 per cent for the petroleum-exporting countries of the Middle East²³.

However, disarmament cannot be restricted to quantitative choices on the limitation of military expenditure. In effect, it must not be forgotten that national governments always have to defend the interests of the peoples that they represent in an international environment considered to be hostile. Disarmament calls for a series of decisions on political priorities, the international economic order, the nature of development, and the rate and direction of the technological progress that can be developed in a less militarized society, on the management of the natural environment and on the reallocation and distribution of economic resources.

²² The model cited by Robin Luckham in "Disarmament and development in all its aspects with a view to drawing appropriate conclusions". (Draft prepared for the United Nations Department of Disarmament Affairs, January 1986).

²³ Lawrence Klein, "Disarmament and development", *Science, War and Peace*, Jean-Jacques Salomon, ed. (Paris, Economica, 1990).

Table 8.2
Simulations of the Effects of Disarmament

Hypotheses, annual percentage	Average growth rate (1990-2000)			
	Developed countries		Developing countries	
Disarmament hypotheses	Without redistribution of incomes	Basic needs	Without assistance	Basic needs
Disarmament with public assistance, 0.7% of GNP	3.3	3.6	7.7	8.9
Disarmament: 1/3 of military expenditure	3.5	3.7	8.6	9.4
	Job creation (millions)			
Public assistance, 0.7% of GNP	2	8	19	127
Disarmament: 1/3 of military expenditure	7	10	73	169

3. *National studies of reconversion with or without transfers*

The analyses that have been made of reconversion of the military activities of third world countries are usually presented in accordance with the two hypotheses of the presence or absence of resource transfer from the developed countries in a disarmament situation.

- (a) In the absence of transfers, the effects of a reduction of military expenditure, unless offset by at least an equal expenditure on the maintenance of internal order or on the purchase of imported luxury goods, are positive for countries that do not have arms industries, even in the short term, because they are conducive to the more efficient use of scarce resources. For arms-producing countries a disarmament procedure may have distorting effects in the short term, in particular for the industries and regions directly affected by the activities of the arms industry. In the long term, the effects should be positive provided that the economic regression brought about by the reduction of internal arms purchases does not lead to irreversible effects, in particular as regards the conversion of activity. It is even likely that good management of the reduction of military expenditure would have positive effects in the long term on civilian research and development, on the real productivity of national economies, and on confidence in international exchange relations, which cannot be measured by econometric studies that have regard in general only to short-term developments in which the past (characterized by the arms race) recurs in the future. However, although many developing countries do devote a not insignificant proportion of their resources to

military purposes, the large sums tied up in armament should be concentrated in a small number of countries. Basically, disarmament appears to have favourable effects on the economy in third world countries, even if the arms-producing countries are in danger of encountering some short-term difficulties in conversion that will be largely offset by the reduction of imports relating to the outlay on military industries and by the matching increase in civilian public expenditure;

- (b) Disarmament accompanied by resource transfer in favour of third world countries will benefit economic development only provided that it is not sequestered by a particular social group that decides to devote it to unproductive uses (for example, exports of capital and imports of luxury goods). In other words, transfer is of significance only provided that it is expressed in highly productive activity. Because of the demonstration effects that it prompts, transfer may sometimes have an adverse effect through the inflationary tensions to which it gives rise. In addition, resource transfer may be the occasion of new markets for the developed countries and new dependence for the poor countries. Thus, James Lebovic²⁴ has been able to demonstrate the predominance of politico-military considerations in American foreign aid, both during the Carter presidency, despite its being heavily imbued with defence of the rights of man, and during the Reagan presidency, extensively influenced by the quest for the military power needed for American security. In that case transfer initially responds to politico-military considerations, and thereafter to the economic interests of the donor and only ultimately to the economic development needs of third world countries. Developing countries have, therefore, to avoid the overall effect of transfer being impoverishing. If the transfer is made in non-convertible currency, the recipient country must of necessity get its supplies in the donor country, which may take advantage of this fact to re-introduce unequal exchange flows. If the transfer is made in kind, it is not obvious that the product concerned satisfies the development needs of the recipient countries; for example, should the aid apply to a commodity that is in direct or indirect competition with the national industry of the poor country, the end result may be extremely adverse for the third world, the more so because every product bears the stamp of the culture and the dominant values of the society in which it was created.

Lastly, it is of interest to analyse the traditional opposition between military expenditure and expenditure on health; this opposition is not always justified because it is unusual for an increase in military expenditure to be reflected simultaneously in a reduction in the public outlay on

²⁴ James H. Lebovic, "National interests and United States foreign aid", *Journal of Peace Research*, Vol. 25, No. 2 (June 1988).

health. While the reports of Brandt, Palme and Thorsson⁵⁵ assert that military expenditure threatens economic growth and development and, consequently, tomorrow's security, they condemn the use of public funds in the military sector to the detriment of health and education. As also for the developed countries, economic studies on the negative relationship between health expenditure and military expenditure yield contradictory results. Thus, while Deger and Looney confirm this hypothesis, it is questioned by Kennedy, by Ames and Goff, by Hayes and by Verner⁵⁶. Basically, one may entertain doubts concerning the durability of a relationship that may in effect change in response to the actual economic setting in which choices are made by governments. Most analyses made in developing countries conclude that countries with low military expenditure are also restrained consumers when it comes to education and health (and vice versa), that military expenditure is at least as vulnerable as other forms of public expenditure to a reduction of the State budget, and that an increase in military expenditure has scarcely any consequences on outlay for health and education. In the most recent study by Harris, Kelly and Pronowo⁵⁷, the hypothesis that the larger is the proportion of public expenditure devoted to military expenditure, the lower is the proportion of expenditure on health and education is borne out in only 40 per cent of the instances listed in an examination of 50 countries. Furthermore, the vulnerability of military expenditure to a reduction of public expenditure is not as slight as there was the desire to say, despite the considerable inertial effects that exist in this type of activity, having regard to the place allocated to personnel costs. The analysis of Hicks and Kubisch⁵⁸ emphasizes that social expenditure is less vulnerable to a reduction of public expenditure in the developing countries than is expenditure on defence and administration and markedly less vulnerable than expenditure on the productive sectors and the infrastructure. This study was continued in a more detailed form by Harris, Kelly and Pronowo, whose main conclusion draws attention to the faster reduction of the military budget by comparison with public expenditure on health and education on the hypothesis of a reduction of public

⁵⁵ W. Brandt, "La folie orchestrée. La course aux armements et la famine dans le monde" (Paris, Economica, 1988 - French edition); Willy Brandt *et al.* (Independent Commission on International Development Issues), *North-South, a Programme for Survival* (New York, Pan, 1980); *The Relationship between Disarmament and Development* (United Nations publication produced under the direction of Inga Thorsson, Sales No. A 36 356; New York, 3 September 1981); Olof Palme, *Common Security: a Programme for Disarmament* (London, Pan Books Ltd., 1982 - the report of the Independent Commission on Disarmament and Security Issues, under the chairmanship of Olof Palme).

⁵⁶ Saadet Deger, "Human resources, government, education, expenditure and the military burden in less developed countries", *Journal of Developing Areas*, Vol. 20, No. 3, (1985); Robert Looney, "Austerity and military expenditures in developing countries: The case of Venezuela", *Socio-Economic Planning Sciences*, Vol. 20, No. 3, (1986); Gavin Kennedy, *The Military of the Third World* (London, Duckworth, 1974); Barry Ames and Ed. Goff, "Education and defense expenditure in Latin America 1948-1968", Liske, Loehr and McCament, eds., *Comparative Public Policy: Issues, Theories and Methods* (New York, John Wiley, 1975); Margaret Hayes, "Policy consequences of military participation in politics: an analysis of trade-offs in Brazilian federal expenditures", Liske, Loehr and McCament, eds., *Comparative Public Policy: Issues, Theories and Methods* (New York, John Wiley, 1975); Joel Verner, "Budgetary trade-offs between education and defense expenditure in Latin America: a research note", *Journal of Developing Areas*, Vol. 18, No. 3, (1983).

⁵⁷ Geoffrey Harris, Mark Kelly and Pranowo, "Trade-offs between defence and education health expenditures in developing countries", *Journal of Peace Research*, Vol. 25, No. 2, (1988).

⁵⁸ Norman Hicks and Ann Kubisch, *The Effects of Expenditure Reductions in Developing Countries* (Washington, World Bank, 1983); Hicks and Kubisch, "Cutting government expenditure in LDCs", *Finance and Development*, Vol. 21, No. 3, (1984).

expenditure. However, this analysis leads its authors to conclude that no real effects of substitution exist between social expenditure and military expenditure. This conclusion by Harris, Kelly and Pronowo is nevertheless somewhat too hasty, because it fails to take into account the redistribution of the social security expenditure borne by the various social categories. Social security expenditure actually turns out to be quite vulnerable to a reduction of State expenditure, which obviously tends to detract appreciably from the aim of the well-being of the population to the advantage of national defence. Basically, if health expenditure remains steady, the reimbursement of treatment is not guaranteed for all social categories; under these conditions, with equivalent expenditure, the availability of health services is heavily modified by virtue of the considerable contraction of the public health insurance system. There is at least an indirect relationship between military expenditure and social expenditure, if we include in the latter the allocation of treatment and the overall availability of medical equipment to the social strata of a country. A country-by-country study yields divergent results, which provides general confirmation of the absence of direct links between military expenditure, expenditure on health and expenditure on education.

As regards development, the facts should be treated with caution. Whereas it is undoubtedly the case at the global level that developing countries bear the burden of their armaments, suppression of the latter may have irreversible military, strategic and economic effects that undoubtedly worsen their poverty. It is therefore incorrect to state that disarmament invariably leads to an improvement in well-being; it may be the occasion of decline if it is accompanied by the maintenance of inequalities or by political, economic and military domination by another country.

It is still difficult to say whether the as yet quite weak process of disarmament entered into by the Great Powers will have positive effects for the countries of the third world. What can be asserted, on the other hand, is that in the absence of any real willingness on the part of the industrialized States to assist third world countries to find a way out of their economic stagnation, the conditions for a lasting peace will never be got together and the disarmament process will rapidly be doomed to failure.

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