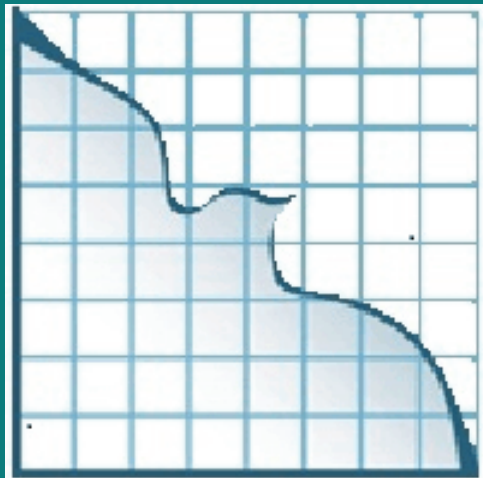


# THE ECONOMICS OF PEACE AND SECURITY JOURNAL

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## On peace and development economics

**Shikha Silwal**

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### Abstract

Peace and economic development are inextricably linked, yet there is little synergy between researching and teaching the two. The development literature largely assumes peace, even if amidst weak institutions, while the peace economics literature largely assumes the absence of development. This essay presents examples of how integrating the two could help the profession understand better the economics of being poor. Since scholarship flows into what we teach, challenges and opportunities in teaching the economics of war and peace are also discussed.

Nobel Laureates in economics such as Amartya Sen, Theodore Schultz, and Angus Deaton all have argued that a person's wellbeing hardly is captured by income alone. From consumption to happiness to freedom, it is one's subjective wellbeing that affects the types of investments one makes. This subjective wellbeing determines one's quality of life and contributes to one's overall welfare. The circumstances one finds oneself in matter more in determining wellbeing than does one's income. And what better captures the circumstances than the prevalence of war or peace? The freedom exercised to pursue goals—to consume, and to invest in health and education—all are shaped by whether one can reap the benefits of one's actions which, in turn, is dependent on the state of war or peace. Empirical evidence supports the claim that health, education, and people's psychological states are adversely affected by war.<sup>1</sup>

Amartya Sen's broad understanding of human welfare and his particular blending in of ethics and morality into the study of economics stem from his own experience of Hindu-Muslim violence leading to the partition of India into India and Pakistan in 1947. Having witnessed the death of a Muslim man who was a victim of Hindu-Muslim riot, Sen observes how freedom is fundamental to human dignity and welfare. Freedom, he argues, is both a means and end of development. Freedom, such as freedom to satisfy one's basic needs and freedom to pursue one's goals, is both instrumental and intrinsic to development. It is instrumental in that it can lead to the fulfillment of other goals (higher income, for example) and intrinsic in that freedom is valuable in and of itself. He also argues that instrumental and intrinsic views of freedom shape policies, which then help determine the overall wellbeing of citizens.<sup>2</sup>

Sen's analysis of freedom and development incorporates the relation between war and development indirectly; other

work does so directly. In an article published in 2008 ("Violence, Identity, and Poverty"), he rejects the prevalence in conflict studies of treating subjects as if they had but a singular identity. He points out several ways in which identity is complex, as it intersects with gender, class, religion, etc. In laying out his critique of empirical analyses of war and peace, Sen introduces nuances of morality, ethics, and development into the study of war and peace. Although it remains a challenge to cultivate those ideas into testable hypotheses, his is a prominent example of how the two fields of peace and development studies could fuse to further our understanding of war, peace, poverty, and development.

Numerous empirical studies uncover the effects of war on economic development and vice versa. Thanks to survey and administrative data, such as the Demography and Health Survey and Living Standard Measurement Survey, studies have examined macro and micro-level effects of war on long-term economic development, education, and labor market outcomes of children forcefully conscripted or indirectly exposed to violence, and on physical and mental health.<sup>3</sup>

Despite advances, more is needed to bridge the two fields. Topics such as human migration and the role and quality of institutions that have received considerable attention in the development literature have not fully crossed over to war and peace studies. Migration studies, for instance, long have analyzed push and pull factors contributing to the movement of people in space and time. One such push factor is war. More recently, spillover effects of migration on political and cultural outcomes in the migrant's country of origin have been examined. Similarly, an understanding of the importance of institutions for economic development, and vice versa, has been developed.<sup>4</sup>

In the conflict and peace literature, the role of the diaspora in precipitating violence in the country of origin is well-

recognized. The studies, however, do not fully exploit theories of migration and international migration patterns. Neither do migration studies bring in diasporas as possible confounding factors in the migration decisions. Institutions, on the other hand, have received little-to-no attention in conflict studies. One of the deepest legacies of war is the effect it has on institutions. Nevertheless, how institutions shape wars and how wars in turn affect institutions remain largely unexplored. Indeed, our understanding of the functioning of courts, rule of law, and transitional justice in the context of developing countries is at its infancy. A World Bank initiative to strengthen institutions and help make them more effective and accountable suggests promising future in this area. In the next section, I highlight some of the ways in which research on these topics could cross over to help us grasp the development and conflict nexus more fully.<sup>5</sup>

### International migration and remittances

Developing economies, cursed by exploitable natural resources and crippled by weak institutions, are vulnerable to upsurges in war. Arguably, one of the ignored exploitable resources is their abundance of unskilled labor whose migration contributes to income increases (through remittances) and political change in the countries of origin. While geographical spillover of democracy and political changes brought out by international migration is prevalent in migration studies, they have three key limitations: First, most of the studies assume migration is voluntary; second, the presence of war or of any internal conflict is seen as a push factor without full consideration of the role of the diaspora in the destination country; and third, the migrant's origin and destination countries are treated as two different sets of countries without allowing the unobservable characteristics of the two to be correlated with one another.<sup>6</sup>

One of the largest and most rapid involuntary migrations in human history resulted from the partition of India into India and Pakistan in 1947. One study estimated that within four years after the partition approximately 14.5 million people migrated into India, Pakistan, and would-be Bangladesh. The estimate actually calculates an approximate outflow of 17.9 million people, with the remaining 3.4 million people unaccounted for and presumed to have perished.<sup>7</sup>

Naturally, this rapid and large-scale migration played a significant role in shaping the economic and political landscape of the subcontinent. On average, Hindus and Sikhs migrating from Pakistan to India left their banking and finance sector jobs to settle in India's urban centers. Conversely, Muslims fleeing India for Pakistan tended to be less educated and settled in Pakistan's agriculture sector. Consequent to this demographic shift, literacy rates increased in India and decreased in

**The essay illustrates research and teaching needs to help integrate the study of economic development with the economics of conflict, war, and peace. For instance, while the topics of migration and associated income remittances to the country of origin now are commonplace in studies of economic development, they frequently overlook involuntary migration factors during violent conflict.**

Pakistan. The violence that ensued during this period created a deep divide between the two countries that continues to this day.<sup>8</sup>

This example of a large-scale and rapid migration and its contribution to shaping the geography, economy, and polity of countries or subregions is not unique. Most conflicts result in rapid and large outflows of people. For 2015, the Migration Policy Institute estimates some 244 million international migrants. About 18 million emigrated from fragile states in 2000 alone. Perhaps surprisingly, migrants from a fragile state predominantly migrate to another fragile state. Despite this, there they are likely to earn higher income than in their country of origin. Researchers are only beginning to understand the long-term effects of such forced migration. This is an example where migration studies could better account for push factors such as war and partition and conflict studies could consider migration models to understand individual-level decisions in the context of forced migration and to gauge the long-term effects of such events.<sup>9</sup>

A migration decision is based, in part, on proximity (an estimation of the cost of migration) and cultural similarity. Proximity often is measured by distance. However, distance is a relative concept. Falling fuel prices or improved infrastructure can distort the absolute sense of distance between any two locations. For example, the physical distance from India to the United States is constant at any point in time. However, their relative distance has decreased so considerably over the years that it might well be the case that their relative distance is shorter than that between India and other countries in the region. Significant advances in internet-based telecommunications have reduced the cost of communication between migrants and their families back home. The better the network, the lower the calling rates, and the more accessible the internet, the smaller is the relative distance between any two countries. Hence, distance should reflect the state of telecommunication and overall connectivity between countries.

Furthermore, if migrants select destination countries based on cultural similarity, then cultural factors such as religion and language enter empirical analysis as unobservable factors unless explicitly accounted for. Yet, in research practice, the origin and destination countries tend to be treated as two

unrelated observations.

Migration and conflict studies, therefore, could co-evolve by addressing each others' limitations. Well-established migration studies might be revisited with a better understanding of forced migration and the nonrandom selection of destination countries. Likewise, reassessing conflict studies to better incorporate the tools and theories of migration studies may help us understand a human phenomenon that plays a key role in development and peace.

Another important aspect of increased international migration concerns the flow of remittances. Worldwide remittance flows totaled USD582 billion in 2015, with USD432 billion to low- or middle-income countries. Remittances dwarf official development assistance, which was slightly over USD100 billion in 2015. For some recipient countries, such as Nepal and Liberia, remittances are over 30 percent of GDP. Remittances to Tajikistan, Kyrgyzstan, Haiti, Moldova, and Samoa accounted for more than 20 percent of GDP. India and China, top remittance recipient countries in terms of the absolute dollar amount, each received over USD65 billion in 2015. Studies have shown that remittances contribute to improved health and education, while also enabling political change. The nature and role of remittances, therefore, are key policy topics in developing countries, the proper management of which will be a concern to both development and peace scholars.<sup>10</sup>

### Teaching the economics of war and peace

According to a survey, in 2007 only thirteen percent of thirty-eight undergraduate economic development syllabi from top U.S. colleges covered the topic of war and peace. Prominent Economic Development textbooks hardly mention war and peace, relegating the topics to footnotes in a few chapters. Hence, war and peace are often overlooked as key topics in the teaching of economic development. Despite certain challenges, classes aimed at economic development can creatively incorporate the topics of conflict, war, and peace. As my own teaching experience lies at the undergraduate level at a liberal arts institution, I limit my comments to teaching economic development and the economics of war and peace at liberal arts colleges.<sup>11</sup>

Very few economics faculty teach an introductory course on the economics of war and peace. For those of us who teach such a course regularly, there is a growing need to adopt a common set of course objectives and teaching tools so that there is a clear understanding of what the course aims to accomplish. One big challenge is lack of consensus as to what the core of such a course is. Other important questions loom large. For example, what basic concepts and tools should

undergraduate students acquire as learning outcomes in such a course?

Not only should there be a common set of readings, but we also need a common approach to teaching it. Should the course follow the topical approach of Anderton and Carter's *Principles of Conflict Economics* (2009), a key resource in teaching the economics of war and peace, or should the course be more literature based? And who, exactly, is the primary audience of students for such a course? If the goal is to cast the net widely, then the course needs to be pitched to a general audience, presumably at a relatively nontechnical level so as to appeal to a broader range of students. Whether students major in economics or not, all are (or will be) economic consumers and producers in their day-to-day lives. A course that engages a wide audience could help non-majors appreciate the utility of economics in addressing complex real world problems, including those of development and peace. One disadvantage of a general course, however, is that it cannot fully employ economic tools and methods. Following Anderton and Carter's textbook, an upper-level course can be imagined to revisit some of the tools covered in intermediate-level microeconomics and apply them to the study of war and peace. Ideally, however, we would have a sequence of courses on economics of war and peace to address these concerns.

One can imagine an introductory course that is friendly enough for a general audience. The course could cover concepts typically seen in a Principles of Microeconomics class and apply them to the study of war and peace. It would give students a general sense of how economists study this topic and engage them in policy discussions. At a minimum, the course should introduce students to the history of economic thought and some key scholars of the subfield. Subsequently, an intermediate-level course then employs intermediate-level microeconomics and econometrics, both to model economies with war and peace and to understand the empirical findings on the topics.

Lastly, one can also conceive of courses that combine both development economics and peace economics. A hypothetical Peace and Prosperity course could capture literature-based teaching of development economics while having the theory grounded in peace economics. By analogy, in a course on Economics of Culture, one starts with cultural elements, such as identity and trust, that shape individual preferences. Those preferences, in turn, carry direct implications for the resulting institutions that shape an economy by creating specific sets of incentives to affect the functioning of markets. Likewise, a course that combines both development economics and peace economics could pin its roots in peace, the basis which carries ramifications for development. Recognizing these two fields as

inextricably linked opens doors to designing creative courses that could capture a more complete picture of developing countries.

### Concluding remarks

With the opening words of his Nobel Prize award lecture, Theodore Schultz noted that “most of the people in the world are poor, so if we knew the economics of being poor we would know much of the economics that really matters. Most of the world’s poor people earn their living from agriculture, so if we knew the economics of agriculture we would know much of the economics of being poor.” Not only are most people in the world poor but they are trapped in a vicious cycle of poverty and violence. So if we knew the economics of war and peace, perhaps we would know much more about the economics of being poor.<sup>12</sup>

This essay assumes that violent conflict is an inherent problem facing developing countries. It need not be so. The concept of violence or peace contained within geographical boundaries of countries is becoming less relevant. As people move across countries and continents to seek refuge, as violence against nationals of a country can be perpetrated in any country across the globe, and as instability in one part of the world reverberates to other countries, war and peace becomes a problem common to everyone. Notwithstanding the complexities imbedded in it, analyzing the economic roots of war and peace is a necessary step toward the understanding of economic development.

### Notes

1. Nobel Laureates: For the Laureates’ profiles, see [www.nobelprize.org/nobel\\_prizes/economic-sciences/](http://www.nobelprize.org/nobel_prizes/economic-sciences/). Empirical evidence: See, e.g., Hanushek and Woessmann (2008), Bundervoet, Verwimp, and Akresh (2009), Blattman and Annan (2010), Shemyakina (2011), Leon (2012), Singh and Shemyakina (2015), and Silwal (2016).
2. On Sen, see Sen (2001).
3. See, e.g., Miguel, Satyanath, and Sergenti (2004) on the relation between income shock and civil unrest, Miguel and Roland (2011) on the long-run effects of bombing Vietnam, and Brauer and Dunne (2012) for a detailed discussion of macroeconomic effects of violence and associated policy implications. Also see Blattman and Miguel (2010) for a review of the civil war literature.
4. Push and pull factors: See, e.g., Özden, Rapoport, and Schiff (2011) for an overview of data and the advancement in international migration and development research. Spillover effects: Grieco (1998), Spilimbergo (2009), Docquier and Rapoport (2012), LeSage and Ha (2012), Pfutze (2012), Mahmoud, *et al.* (2013), Chauvet and Mercier (2014), and Docquier, *et al.* (2016). Institutions: See, e.g., Guiso,

Sapienza, and Zingales (2006) for a study of the effects of culture on economic outcomes and Tabellini (2007) for a discussion of the relations among culture, institutions, and economic development.

5. Largely unexplored: Blattman and Miguel (2010). World Bank: For details, see its Law, Justice, and Development site <http://www.worldbank.org/en/topic/lawjusticeanddevelopment>.
6. Unskilled labor: Prichett (2006) refers to unskilled labor as the primary asset of the poor. Income and political change: Blattman and Miguel (2010). Limitations: LeSage and Ha (2012) is an exception.
7. Estimated: Khwaja, Milan, and Bharadwaj (2008).
8. See Dalrymple (2015) for a discussion of India’s partition on current Indo-Pakistani relations.
9. Migration Policy Institute: See [www.migrationpolicy.org/programs/data-hub/international-migration-statistics](http://www.migrationpolicy.org/programs/data-hub/international-migration-statistics) [accessed 20 December 2016]. Fragile states: Hoeffler (2013).
10. Remittance flows: See the Migration Policy Institute’s [www.migrationpolicy.org/programs/data-hub/international-migration-statistics](http://www.migrationpolicy.org/programs/data-hub/international-migration-statistics) [accessed 20 December 2016]. Health and education: For instance, Bansak, Chezum, and Giri (2015) analyze the effects of remittances on household expenditure on education in Nepal. Political changes: Spilimbergo (2009), Pfutze (2012), Mahmoud, *et al.* (2013), Chauvet and Mercier (2014), and Docquier, *et al.* (2016) study spillover effects of international migration on home-country institutions.
11. Survey: Blattman and Miguel (2010).
12. Quote: Schultz (1980). The lecture is also available at [https://www.nobelprize.org/nobel\\_prizes/economic-sciences/laureates/1979/schultz-lecture.html](https://www.nobelprize.org/nobel_prizes/economic-sciences/laureates/1979/schultz-lecture.html) [accessed 3 September 2017].

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## The bargaining theory of war and peace

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### Abstract

The bargaining theory of war and peace has emerged as an important research framework in the social sciences for understanding why wars occur and why opportunities for peace sometimes fail. Close to a dozen distinct “rationalist” sources of war have been theoretically modeled in the bargaining literature, empirical studies of war and peace are increasingly drawing upon bargaining models for theoretical guidance, and “nonrationalist” sources of war based on insights from psychology and sociology can be incorporated into the theory. This article briefly surveys key elements and results of the bargaining theory of war and it emphasizes the untapped potential for the framework to serve as a theory of peace in both research and teaching.

This essay briefly introduces the work of Walter Isard, founder of both peace science and peace economics, and then elaborates more broadly on the bargaining theory of war and peace.

### Peace economics and the rationality of war

Walter Isard is considered by many, including myself, as the founder of peace *science*, a multidisciplinary approach to studying violent conflicts and how they can be managed or resolved nonviolently. Isard is also the founder of peace *economics*, which is also multidisciplinary but with a more focused study of violent conflict and peace using the tools and concepts of economics. According to Isard (1994, p. 9), peace economics

“... is generally concerned with: (1) resolution, management or reduction of conflict in the economic sphere ...; (2) the use of economic measures and policy to cope with and control conflicts ...; and (3) the impact of conflict on the economic behavior and welfare of firms, consumer organizations, government and society. Central to the field are: analyses of conflicts among nations, regions and other communities ...; measures to control (deescalate) arms races and achieve reduction in military expenditures and weaponry; and programs and policies to utilize resources thus released for more constructive purposes ... Behaving units are taken to engage in appropriate ... as well as productive activities, with war *often viewed as a rational, purposeful choice of decision makers*” (my emphasis).

The final sentence in Isard’s statement points to the principle that war can be a rational choice. This principle is

often misunderstood outside the peace economics community, and sometimes within. I have heard on occasion, even at peace economics conference sessions, an argument for the irrationality of war that goes as follows: Whatever outcome the combatants arrive at once the war is over, they could have arrived at that outcome without the war and thus without all of the costs of war. Hence war is irrational. In what follows, I claim that this argument has been theoretically refuted by the bargaining theory of war. More importantly, I argue that the bargaining theory of war can be fruitfully incorporated by peace economists (and others) into their teaching, thinking, and research about war and peace. Finally, I claim that although the bargaining theory is a theory of *war*, it is also and at the same time a theory of *peace*. That is, the bargaining theory framework can help us to understand why violent conflicts happen and why peace or nonviolent resolutions to conflicts transpire.

### The bargaining theory of war: Essential foundations

#### Overview

Formal models of the bargaining theory of war began to appear in earnest in the mid to late 1990s and into the 2000s following the work of Fearon (1995). Such models are top-down or macro-oriented in that they focus on the critical leaders of two or more sides who are bargaining over a disputed item (e.g., territory). The models are designed to identify conditions in which at least one side in the dispute finds it beneficial, net of costs, to initiate war. Such conditions for war identified by bargaining theory have come to be known as rationalist sources of war. It is important to note that the vast literature on conflict management procedures, negotiation principles, methods for getting to “yes,” and so on is distinct from the bargaining

theory of war literature even though the former involves much bargaining analysis. What the bargaining theory of war aims to identify are conditions in which no amount of scientific and artful bargaining techniques among the disputing players themselves will be able to prevent war.

### *Two propositions and a key question*

The bargaining theory of war is built upon two deceptively simple propositions and a key question.

#### Proposition 1: War is costly.

The costs of war include the extra diversion of scarce resources to weapons and soldiering for fighting; the destruction of people and property; the disruption of economic (and other) activities such as international trade, production, and local markets; and the displacement of people in the form of internally displaced persons (IDPs) and refugees. Proposition 1 seems obvious. After all, the purpose of war from the perspectives of the leaders and commanders prosecuting war is to inflict costs on rivals. War is costly because it is intentionally designed to be costly.

#### Proposition 2: Peaceful resolution offers potential mutual gains to the would-be combatants in the avoidance of the costs of war.

Players who could become involved in war, whether they be nations, rebel groups, or other nonstate actors, have the potential to gain from war avoidance by substituting peaceful resolution for war. By avoiding the costs of war, the players would have a “pie” (in the form of avoided war costs), which they could divide among themselves to improve their wellbeing. Peace seems like a bargain!

#### Key question: Given propositions 1 and 2, why does war occur?

### **The economic nature of the theory**

Before addressing the key question of the bargaining theory of war, consider the thoroughgoing economic nature of the theory. It includes the costs of war and the potential mutual gains from peace. Economists are always thinking about costs, but even more so about mutual gains. Economists assiduously seek out opportunities for mutual gains. When mutual gains are not taken advantage of and are, in a sense, left on the table, economists are baffled and demand an explanation. But wars do occur, i.e., the potential mutual gains from peace are sometimes left on the table and they are often left there as a result of the purposeful

**The essay argues that the bargaining theory of war also is a theory of peace. War denotes the failure of bargaining; peace its success. The bargaining theory framework can help us to understand why, despite bargaining, violent conflicts happen and why peace or nonviolent resolutions to conflicts transpire.**

choices of decisionmakers. But sometimes (and actually quite often) the mutual gains from peace are chosen. Hence, the bargaining theory has at its center the notion that both war and peace are *chosen*.

### **Sources of war in bargaining theory**

#### *Rationalist sources of war*

For bargaining theory, what are the sources of war? The first column of Table 1 provides an answer to this question by identifying eight rationalist sources of war. What is meant by a rationalist source of war is that the decisionmaker (or decisionmakers) who initiates war believes s/he will achieve a gain in wellbeing relative to peacefully settling. Of course, ex post, the decisionmaker’s balance sheet may show a loss relative to the outcome that would have occurred under peace. This could occur in the case of the first rationalist source of war listed in column 1 of Table 1, incomplete information. The decisionmaker may simply have erroneous information heading into war and only come to appreciate the true costs of war and the gains that could have accrued under peace through the harsh learning environment of war.

To appreciate the deeper implications for war offered by the bargaining theory, suppose the decisionmakers on two disputing sides (and there could be three or more sides) have complete information. With mistakes ruled out by assumption, it would seem that peace would prevail. After all, the two sides will have complete information about the costs of war and thus they will know that avoidance of the costs of war is a “pie” for them to divide up to achieve a mutual gain from avoiding war. It would seem that there would be no (rational) way for them to miss such a bargain. Unfortunately, this is not necessarily the case. A key principle of the bargaining theory of war is that (for the case of two sides) it takes both sides to achieve peace but only one side to initiate war. This principle serves as a “nail in the coffin” of the oft-heard idea that war must be irrational because whatever the outcome from war is, the players could have done better by avoiding war. This idea is an example of the fallacy of composition. It is true that the aggregate of players would have more “pie” to work with by avoiding war, but it does not follow that each individual player would gain from peace relative to war. It could be that one of the players, in a model in which both players know everything, can gain from war. This is an important and unsettling implication of the

bargaining theory of war.

The next seven items listed in column 1 of Table 1 are additional reasons why a player can gain from war relative to peace, despite the costliness of war. Consider the case of preemptive geography and military technologies. In such a setting, each side perceives (correctly under complete information) that whichever side launches war first will do better than the other side in the war. Assume the preemptive setting is quite “strong,” i.e., whoever launches first will do much better than the other. Formal models in the bargaining theory literature have demonstrated that if the preemptive advantage is sufficiently large relative to the costs of war, a mutually beneficial bargain for peace is not available to the two sides under such conditions. Without a change in these conditions, perhaps fostered by outside help, peace fails. In short, war is “rational.”

Consider next the case of preventive war, again under the assumption of two disputants. Preventive war centers on the question, might a war today be a “price” worth paying in order to prevent the emergence of a draconian future? For example, consider the case of a government (player A) and a rebel group (player B). Assume peaceful settlement between A and B in the present would confer new status and acceptability to B within the nation such that group B’s power would grow relative to A. Given the power shift, potential future bargaining between the two players over a disputed item would be much more favorable to B. Player A could conclude that it is “cheaper” to fight B today and keep it weak than to face a much more costly contest with B in the future. Formal models in the bargaining theory literature have shown that if the future shift in power is sufficiently large relative to the costs of war, the potential gain available under peace is too small to induce player A to prefer peace to the gain that can be achieved from initiating preventive war. Once again, a mutually beneficial bargain for peace is not available to the two sides under such conditions. Without a change in these conditions, perhaps again fostered by outside help, peace fails and, again, war is “rational.”

The other rationalist sources for war listed in column 1 of Table 1 have also been demonstrated in formal models within the bargaining theory literature. Indivisibility pertains when two or more actors have preferences for a disputed item (often sacred territory, but also other “terrains” including identity and ideology) that are inherently incompatible and cannot be compromised across the actors. Political bias covers a potentially wide array of reasons why the key political leader (or leaders) within a state or nonstate group could gain from war even though the war would be a net loss for the people that the leaders claim to represent. The next item in column 1 of Table 1—the incentive to eliminate a persistent rival—is a

distinctly economic rationale for war. Again consider two sides and assume they have a long-standing rivalry. The rivalry is expensive each year as each side develops costly armaments vis-à-vis the other side. It can be “cost effective,” if the opportunity presents itself, for one side to launch war and completely destroy the other side. With the other side eliminated, the yearly savings from not having to contest the rival can be substantial. The next item—concern for reputation—has been a long-recognized source of war. As just one example, a government (player A) may choose to initiate a costly war against rebel group B, even if a mutual gain from peace within the dyad itself is feasible. Why? Such a “price” might be worth paying by A in order to deter the emergence of potential rebel groups C, D, and E. The last item in column 1 of Table 1—war as means of national unification—would occur, for example, when a key leader of a state initiates interstate war in order to reduce costly internal disunity within the state and thus make the state (and leader) better off, on net.

The first column of Table 1 lists eight “rationalist” sources of war. Much more could be said about the eight, but let me instead make five general remarks about them. First, the eight have been formally modeled. This is important because the models demonstrate in a rigorous and disturbingly inescapable manner how the potential gain from peace will be missed and war chosen instead. Second, new formally substantiated rationalist sources of violent conflict will be discovered in the years ahead (indeed, there are likely others already that I have neglected to include in Table 1). Such work is analogous to the discovery of new subatomic particles in theoretical physics. Third, within some of the eight, there are further variants that could be classified as distinct rationalist sources of war. For example, “political bias” covers discrepancies between the interests of one or a small group of leaders that make the decision for war or peace and the interests of the broader population that the leaders claim to represent. Hence, war as political diversion and war as an opportunity for private gain are just two subcomponents of “political bias.” Fourth, any one of the eight sources of violence acting alone has the potential to lead to war, but most wars likely have multiple such elements in play. Hence, there are, unfortunately, many paths to war implied by column 1 of Table 1. Finally, numerous empirical and case studies have emerged in the last two decades in which bargaining theory has been leveraged to generate interesting, insightful, empirically supported, and policy-relevant hypotheses about war and peace.

#### *Nonrationalist sources of war*

In addition to the rationalist aspects of war, scholars focused on war and peace also consider so-called nonrational sources of

war. Column 2 of Table 1 provides two examples of nonrationalist sources of war. First, at the intersection of economics and psychology, the field of behavioral economics has provided evidence from laboratory and field experiments that people's decisions are often affected in significant ways by reference dependence and loss aversion. Reference dependence is the idea that one's current holding of an item, say land, wealth, or political power, causes one to become accustomed to such a holding. Such an accustoming means that one's loss in utility from suddenly having less of the item will be doubly painful: Not only will the person have less of the item (which is a utility loss), but the person's holding will now fall short of the accustomed level (another utility loss). Given losses in an item relative to a reference point, laboratory and field evidence in behavioral economics has also discovered that people tend to magnify the value of a loss of an item relative to the increase in value accruing from an equivalent gain in the item.

It seems reasonable to believe that reference dependence and loss aversion would be relevant in political leaders' calculations regarding war and peace. Such a prospect is probably not good news regarding the risk of violent conflict and hopes for peace. Consider, for example, a potential shift in power in favor of player B and against player A and the risk of preventive war. Presumably A has become accustomed to the current balance of power, i.e., it is A's reference point. A shift in power against A is a loss, which loss aversion would tend to magnify in importance in A's evaluations of war and peace. If the potential shift in power is moderate and insufficient to lead A to rationally initiate preventive war, the magnification of loss suggested by reference dependence and loss aversion might be sufficient to kick the case over the line into war. Hence, the combination of a rationalist source of war and a psychological inflammation of that source can cause the bargain of peace to fail.

A second nonrationalist source of war is shown in column 2 of Table 1. It occurs at the intersection of economics and sociology in regard to the field of the economics of identity. It is obvious that people care about (gain utility and disutility) from the groups that they belong to and do not belong to and the social contexts in which they live. It is also clear that the twenty-first century is shaping up as a period in which identity and ideological "terrain" will be much contested across and within states, perhaps as much as classic, geographic territory and its resources (land, oil, borders, etc.) are contested. The economics of identity field demonstrates that actors, including of course political leaders, invest resources to strengthen group identity and ideology and, at times, to undermine and even destroy the identity of other groups. Such ideas connect to the notion of malevolent preferences in the bargaining theory of

war as a potential source of war. "Us vs. Them" investments in identity by, say, two groups, will lead to preferences in which each side gains utility when they acquire more of a disputed item, but they will also gain utility when their rival obtains less of the disputed item. An example of a malevolent preference would be me being happier if I gained \$1 and you lost a \$1 than if I just gained \$1 myself. Within the bargaining theory of war, malevolence has been formally shown to narrow and sometimes eliminate the mutual gain available to the players under peace.

Before moving to the peace side of bargaining theory, two final points should be noted about the so-called rationalist and nonrationalist sources of war in columns 1 and 2 of Table 1. First, both sources of war can be theoretically integrated within the bargaining model. Hence, the two categories are not in competition with one another for "allegiance" by social and behavioral scientists. We have a both/and, not an either/or, dichotomy. Both matter, and future work should press forward with their integration in formal theoretical models. Second, even if cognitive and identity-related "glitches" are not in play, there are still numerous rationalist reasons why wars will occur. And if somehow all the rationalist sources of war could be inoculated against, there are psychological and social issues associated with the human mind that could still cause wars to break out. These are disconcerting results!

### The bargaining theory of peace: Essential foundations

#### *The drama of peace*

Disconcerting, yes, but certainly not hopeless. One of the great prospects of bargaining theory is its other side: peace. An underdeveloped feature of the bargaining theory of war is that war (or, more generally, violent conflict) and peace are not separate silos. This is why the title of this essay is "The Bargaining Theory of War and Peace" and not the title used virtually everywhere else in the literature, namely, "The Bargaining Theory of War." The two-sided drama of whether disputes between parties will turn violent or be managed with nonviolent means is integrated in the bargaining theory of war. This "integral-ness" of war and peace is quite clear in Thomas Schelling's classic work, *The Strategy of Conflict* (1960). Schelling first indicates the essential bargaining nature of potential or actual violent conflict: "To study the strategy of conflict is to take the view that most conflict situations are essentially *bargaining* situations" (p. 5, his emphasis). Then Schelling indicates that in the bargaining over war and peace, "the possibility of mutual accommodation is as important and dramatic as the element of conflict" (p. 5). This is a remarkable statement. Choosing peace is just as dramatic as choosing war! The potentials for war and peace are coupled in the bargaining

**Table 1: Selected sources of war and peace in bargaining theory**

<i>Sources of war</i>		<i>Sources of peace</i>	
<i>Rationalist</i>	<i>Nonrationalist</i>	<i>Rationalist</i>	<i>Nonrationalist</i>
Incomplete information	Reference dependence and loss aversion	More complete information (e.g., mediation to close expectations gap)	Mediation to provide security guarantees and "slow thinking"
Preemptive geography and military technology	Malevolent preferences rooted in identity, culture, and history	Reconfigurations of weaponry to reduce first-strike advantages (e.g., qualitative arms control)	Cultural and educational exchanges; trade and FDI; diverse hiring practices of firms; counters to hate radio and other forms of anti-group propaganda
Preventive war		Prevention of or security guarantees leading into substantial power shifts	
Indivisibilities		Intertemporal sharing arrangements; arbitration with third-party enforcement	
Political bias		Democratization	
Incentive to eliminate a persistent rival		Third-party incentives (carrots and sticks) to create net gain for peace; de-escalation of enduring rivalry among the players	
Reputation		Third-party incentives (carrots and sticks) to create a net gain for peace	
War as means of national unification		Third-party incentives (carrots and sticks) to create a net gain for peace	

theory (like space-time in theoretical physics). To study and understand war will require the study and understanding of peace and to study and understand peace will require the study and understanding of war. Schelling's comments compel us to take another look at the bargaining theory of war and consider its wide and general nature including how it can serve, not just as a theory of war, but also as a theory of peace.

*Two propositions and a key question (once again)*

Propositions 1 and 2 of the bargaining theory of war (i.e., war is costly and peace offers potential mutual gains) can be invoked when applying the bargaining model to peace. This leads to the "peace version" of the key question of bargaining theory: Given propositions 1 and 2, how can the bargain of

peace be missed? Although this approach to bargaining theory has received much less attention in the literature relative to the model's developments regarding sources of war, the approach leads to so-called rationalist and nonrationalist sources of peace.

**Sources of peace in bargaining theory**

Working off of the rationalist and nonrationalist sources of war in columns 1 and 2 of Table 1, columns 3 and 4 of Table 1 provide analogs in which peace could be fostered. Bargaining theory is like an intellectual X-ray; it reveals eight rationalist and two nonrationalist sources of violent conflict (in this essay). The sources of violence identified by the theory are hard (in a formal, theoretical sense) and real (they lead to

actual wars in the world). The “seeing” provided by the theory points to what policies and programs designed to foster peace need to do: They need to overcome or inoculate against the rationalist and nonrationalist sources of war. Examples of such inoculations for peace are provided in columns 3 and 4 of Table 1. In addition to diminishing specific rationalist and nonrationalist sources of war, formal bargaining models point to general conditions that foster peace including productive economies, which raise settlement opportunities and the opportunity cost of war; neutral or even benevolent preferences, which create or expand the range of feasible peaceful settlements; and proactive and early third-party help, which can, potentially, lead to many benefits including overcoming commitment problems, subsidizing peaceful settlement opportunities, and (as already noted) dampening inflamed rationalist and nonrationalist sources of violence.

### Conclusions

Peace economists can use the bargaining theory of war and peace as a diagnostic tool, an intellectual X-ray. The theory allows us to diagnose why wars begin (war onset), why wars fail to end (war termination), why wars restart (war recurrence), why wars spread (geographically, and to other players), why wars get more serious (war intensity), and what policies and programs can help substitute peace for such outcomes. The bargaining theory of war and peace can also be used to model and theorize about degrees of peace that emerge (and can be cultivated) well short of war including durable peace and stable peace and how such outcomes can be invested in and maintained over time and geographic space (and maybe even over identity and ideological space). Furthermore, just like bargaining theory is used to generate empirically testable hypotheses about war, the theory can be used to generate empirically testable hypotheses about peace (much empirical work has occurred for the former, but very little for the latter). In addition, bargaining theory has the potential to generate a rich menu of policy ideas and tools for maintaining peace where it is present and creating peace where it is absent. Finally, and related to the points already made, there are substantial future opportunities to leverage bargaining theory to study, theoretically, empirically, and with case studies, why peace happens (the “causes” of peace).

### Suggestions for further reading

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## Peace economics and peaceful economic policies

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### Abstract

This article outlines pillars of peace economics and peaceful economics policies. It first highlights Kenneth Boulding's contribution to peace economics. In particular, substantial attention is paid to his conception of three systems that govern social life, namely the exchange system, the threat system, and the integrative system. Examples are produced to describe the differences between and among them. Second, in light of Boulding's views, a workable definition of peace is proposed and associated suggestions for peaceful economic policy are made. Three aspects are underlined: The establishment of consensual democracies, the setting of a novel economic policy target—namely the ratio of public education expenditure to military expenditure—and the pursuit of stricter regulations on the international arms trade.

Current geopolitics and related economic aspects are generating a growing interest among economists in the definition, nature, and scope of peace economics. Along with a definition of peace economics, this article provides its conceptual underpinnings based on the work of Kenneth Boulding.

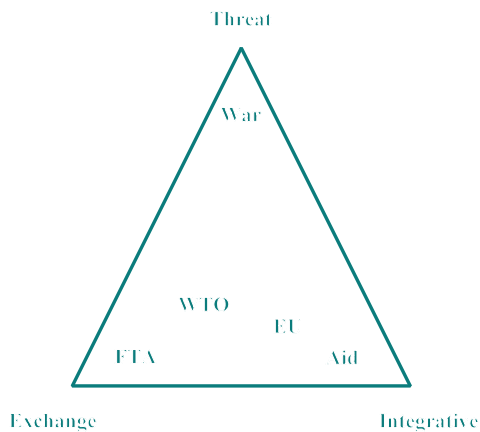
### Peace and peace economics

To understand properly the nature of peace and peace economics, refer to the seminal work of Kenneth Boulding, published in 1963. He highlighted the theoretical pillars of peace economics by pointing to the interdependence of three systems: the exchange system, the threat system, and the integrative system, named after the dominant character of the interactions between individuals or organizations. All have a clear-cut economic shape. The *exchange system* is the classic domain of economics. It is the realm of economic interactions characterized by the free, voluntary, and mutually beneficial exchange of goods and services. The price system and the market are expected to generate efficient outcomes for both, individuals and organizations. As predicted by the classic script, exchange can drive welfare improvements for all parties involved. Indeed, the exchange system is productive of overall wealth by definition because it triggers the allocation of resources toward their most efficient uses. The *threat system*, in contrast, is defined as interactions between rational agents which are characterized by the existence of credible threats. Threat systems have remarkable effects on economic development. They influence the allocation of resources and so affect the development path in the long-run. They can be interpreted as the roots of institutions and thereby shape social outcomes. An *integrative system* is characterized by unilateral

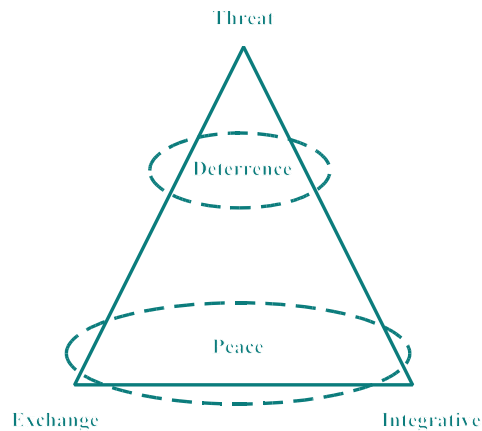
transfers between rational agents (grants). For what they may give, agents do not receive anything directly in return. Instead, benefits accrue indirectly, enhancing the advantages of interaction and trade within the framework of institutional sets of rules. For example, if a country gains access to an international organization (say, the World Trade Organization, WTO), it can expect to harvest not just a one-time, immediate benefit as in the exchange system but a continuous stream of benefits over the long run. In practice, it gains access at a certain point in time by means of a unilateral commitment and it will be rewarded in the future with positive income gains. In terms of nation-states, the integrative systems overlaps with cooperative and generally friendly relations.

The three systems do not exist in pure form. They coexist and interact. All real-world scenarios are hybrid scenarios. For example, relations between nation-states can be fairly friendly (integrative) on some issues and hostile (characterized by threats) on other issues or simply led by trade interests. The triangle in Figure 1 represents Boulding's line of reasoning. The coordinates of each point within the triangle capture the relative intensity of each system. Relations between any two or more nation-states can be defined by accounting for the different intensities of the three systems. Thus, the existence of a Free Trade Area (FTA) suggests trade-oriented, and mostly friendly, relations among states. Consequently, in Figure 1, the point FTA lies close to the vertex where the exchange system is dominant. Economic integration can take shape under a set of rules that make cooperation sustainable over the long run. Exchange relations are enriched by an integrative system. So, for example, both the European Union (EU) and the WTO exhibit deeper integrative relationships than does a mere FTA. In addition, because the EU is an organization far more





**Figure 1:** Boulding's three systems.  
 Notes: FTA: Free Trade Area; WTO: World Trade Organization; EU: European Union; Aid: Humanitarian aid, for example.



**Figure 2:** Deterrence and peace.

structured than is the WTO, we say that the EU's integrative component is more intense than that of the WTO. Therefore, within Boulding's triangle, the EU point lies closer to the integrative vertex. Note that the threat component does not disappear; it just gets close to zero. Other illustrative cases are easy to generate. For instance, humanitarian aid flows largely are characterized by unilateral transfers, pointing toward a non-threat, integrative relation.

In this vein, it is easy to highlight the structural difference between deterrence and peace. Deterrence, arms races, and continuing conflicts all fall into the general category of threat systems. Despite the absence of armed conflict, deterrence is

not equivalent to peace. Peace is the scenario in which exchange and integrative systems dominate threat relationships between countries, as illustrated in Figure 2. Viewed this way, the EU is a relative success story in terms of peace: Exchange and integrative relationships dominate over threat interactions.

The dominance of one system over the others is associated with remarkable effects on long-run economic development. Threat systems influence the allocation of resources toward issuing or defending from threat. Consequences of deterrence, conflict, and threat systems include instability and long-run economic decline because of excessive unproductive and destructive activities. Although not necessarily descending into war, threat systems imply heavy investment in weapons and other military equipment, thereby inflating the expenditure into unproductive activities of societies. To understand this, refer to Paul Samuelson's classic resource diversion argument. In economics, he popularized the notions of unproductive and productive activities with a guns versus butter analogy.<sup>1</sup> Samuelson had Nazi Germany in mind, where the government was committed to increasing military expenditure (guns) at the expense of civilian production (butter). The tradeoff between butter and guns was considered a matter of economic policy.

The distinction between productive and unproductive activities dates back to the Physiocrats, and the concept is still valid today: Some profitable economic activities are not inherently productive and thus do not contribute to an increase of the general welfare of the whole of society. A definition of unproductive activities was provided by Jagdish Bhagwati in 1982. They "... represent ways of making a profit (i.e., income) by undertaking activities which are directly unproductive; that is, they yield pecuniary returns but do not produce goods or services that enter a utility function directly or indirectly via increased production or availability to the economy of goods that enter a utility function. Insofar as such activities use real resources, they result in a contraction of the availability set open to the economy ..." In 1990, William Baumol generalized the argument, explaining how societies' historical development depends on the balance between productive and unproductive activities. He mentions the Middle Ages as an era in which the creation of income and wealth was managed essentially by means of military activities and how economic development and human welfare were undermined by that. In this respect, he remarks that any innovation in military means and in warfare do not contribute more to economic development than would innovations developed in the traditional manufacturing sector.<sup>2</sup>

The ideas posited by Bhagwati and Baumol highlight the tradeoff between civilian and military activities. Both consider a set of unproductive activities that is larger than the subset that includes military expenditure only. For instance, take rent-

seeking activities, pervasive in many arenas of economic life and often a crucial component of productive sectors. Albeit not directly destructive, rent-seeking is detrimental to economic development in the long run. Albeit competitive, rent-seeking activities are not subject to the free play of market forces. Instead, the market is contested by rational actors who exert irreversible effort or undertake irreversible (licit or illicit) monetary outlays. As the burden of rent-seeking activities increases, the adverse effect on development gets heavier.<sup>3</sup>

Within this context, one can advance a workable definition of peace: Peace is an integrative institutional setting that favors productive at the expense of unproductive activities due to democratic governance, balanced economic interdependence, and long-lasting productivity growth in the long-run. This, in turn, leads to a workable definition of peace *economics* as in Brauer and Caruso (2013): “Peace economics concerns the economic study and design of political, economic, and cultural institutions, their interrelations, and their policies to prevent, mitigate, or resolve any type of latent or actual violence or other destructive conflict within and between societies.”<sup>4</sup>

### Suggestions for economic policy

As the definition indicates, peace economics takes a normative approach. This aligns with Boulding’s view: “One could perfectly well suppose a discipline of polemology as a positive science studying conflict in all its aspects, which had no normative implications. Peace research, however, has always been normative, in the sense that it has been practiced by people who are deeply conscious of the pathologies of conflict and who want to make it as cheap and productive as possible.” The normative view is also maintained by Walter Isard (1994), Kenneth Arrow (1995), and by Coloumb, Hartley, and Intriligator (2008) who write: “Denouncing war and its economic consequences is not enough. In most economic research, peace remains a result or a pre-condition for economic efficiency. It does not attain the status of a full economic issue. This situation cannot be considered as satisfactory for two main reasons. First, history demonstrates that, in particular, having a market economy is a necessary condition for peace, but is not sufficient ... Second, peace cannot be considered only as a result or an exogenous factor. It is very unsatisfactory to define it as the absence of conflicts or war: this is how defence policy can be defined, not peace. This latter requires an active policy, for it is far from certain that peace will always emerge from given economic conditions. If we truly want peace, then we cannot escape from investing in it!”<sup>5</sup>

Accordingly, I highlight three crucial lines for potential policymaking: the establishment of consensual democracy, the

setting a novel economic policy target, and the pursuit of stricter regulations in the international arms trade.<sup>6</sup> Democracy comes first. It is an integrative system, but it is not necessarily the case that democracies are less prone to intra- or interstate conflicts than are nondemocracies. Democracies are not all equally successful in preventing conflict. In fact, *majoritarian* democracies often are divisive. For fragmented and post-war societies especially, it is necessary to design and establish a form of democracy suited to prevent the exploitation of recent, and a relapse into renewed, violence (violence recurrence). The political economy to be adopted to secure peace has to depart from classic majoritarian democracy because it does not guarantee that causes of, and opportunities for, conflict can be removed. This is why *consensus* democracies, as envisioned by Lijphart, would appear to be better suited to secure peace in pluralist and divided societies. Based on power-sharing and decentralization, they fit particularly well to the context of post-conflict or war-torn societies. Decentralized societies can be stable and peaceful. Decentralization can be crucial to manage natural resources and common goods and has been proved to be conflict-abating. In brief, peace economists would start by suggesting decentralization as a pillar of a broader consensus-based democracy.<sup>7</sup>

The second suggestion relates to the target variables commonly used in economic policy. Aware of the long-run detrimental impact of threat systems, I propose a novel policy variable to highlight the balance between the detrimental factor of military expenditure and a long-run driver of development, namely investment in education. As military expenditure undermines development (because of its unproductive nature) there must be a countervailing force which activates productive activities. Thus, I suggest the use of the ratio of public education expenditure to military expenditure (*educ/milex*) as the relevant policy variable. Table 1 shows the values for this ratio for selected countries.

What emerges, at first glance, is that countries with ratios of about one or less than one are or were involved in acute conflicts (China, Colombia, India, Israel, Russia, the U.K., and the United States) and the other countries much less so, if at all. In the long run, this could be detrimental for social welfare and put at risk the stability of the affected polities, too. Figure 3 links the *educ/milex* ratio (in 2000) to per capita GDP (in 2013). Again, at first glance, the correlation appears to be strong enough: The higher the past value of the *educ/milex* ratio (i.e., in 2000), the higher is current GDP per capita (in 2013). Further research will have to be conducted but it may well turn out to be the case that the *educ/milex* ratio is an adequate measure to capture the potentially detrimental impact of the threat system, descending from excessive spending on

**Table 1: Ratios of public education to military expenditures**

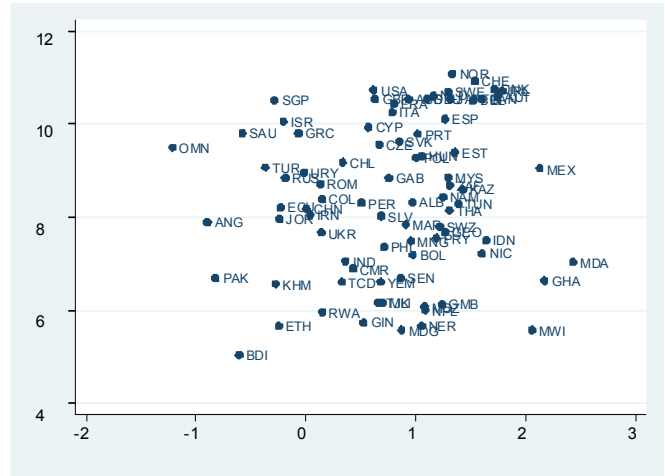
	2000	2011		2000	2011
Australia	2.54	2.79	Japan	3.72	3.69
Brazil	2.28	3.67**	India	1.43	1.33
Canada	4.96	4.69	Israel	0.82	0.94
China	1.01	n/a	Italy	2.19	2.47
Colombia	1.16	1.45	Mexico	8.40	9.39
France	2.23	2.44	U.K.	1.87	2.46**
Germany	3.01§	3.63**	Russia	0.83	1.21***
Spain	3.55	4.68**	USA	1.85*	1.16**

Source: World Bank, *World Development Indicators*.  
 Notes: § 1998; \* 2001; \*\* 2010; \*\*\* 2008.

the relatively unproductive military sector.

Third, and not least, peace economists pay much attention to the international rules governing the arms trade. Currently, the global arms market appears to be—*de facto*—unregulated. The market is characterized by monopolistic competition. This leads to an increasing variety of weapons and to continuous outlays on military R&D so as to retain the capacity for product differentiation. While perhaps acceptable with regard to civilian markets, in the military market this increases the global level of insecurity. There is a compelling need to cooperate to effectively regulate the arms market. The first step in this respect is to implement a set of rules and constraints on the arms trade, for instance by implementing the Arms Trade Treaty (ATT). Approved by the UN General Assembly on 2 April 2013 it has, so far, been signed by 130 countries and ratified by 91. Unfortunately, certain major countries have not signed the ATT (China and Russia) and the United States has signed but not ratified it. Despite that, the ATT has the merit of establishing a principle which is extremely relevant in the eyes of economists: Weapons are unlike any other goods, and peace—as a global public good—should be considered a focal point for policymakers.

In sum, the aim of this article has been to offer workable definitions of peace and of peace economics, both within Kenneth Boulding’s general framework of exchange, threat, and integrative economies and also in line with the classic, Physiocratic distinction between productive and unproductive economic activities. Given the inherently normative character of peace economics, suggestions for three types of policies have been made, the pursuit of which may enhance peace.



**Figure 3:** Log of per capita GDP (vertical axis; USD in 2013) as against log of the ratio of education to military expenditure (horizontal axis; USD in 2000).

**Notes**

1. Before Samuelson popularized the guns and butter analogy in this *Foundations of Economic Analysis* textbook (1947), it was used, e.g., by J.P. Wernette in a piece entitled “Guns and Butter” (reprinted from *Harvard Business Review*, and cited in Mendershausen, 1943 [1940], p. 20, note 16).
2. Quote: Bhagwati (1982, p. 989). Baumol: Baumol (1990).
3. On the impact of rent-seeking by powerful groups on growth see, e.g., Tornell and Lane (1999).
4. Quote: Brauer and Caruso (2013, pp. 151–152).
5. Quotes: Boulding (1978, p. 343); Coulomb, Hartley, and Intriligator (2008, p. 383).
6. The following is based on my recent book, Caruso (2017).
7. Lijphart (1969; 2004). Stable and peaceful: Myerson (2006); Weingast (2014). Natural resource management: Agrawal and Ostrom (2001). Conflict-abating: Murshed, Tadjoeiddin, and Chowdury (2009).

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## War, peace, and development

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### Abstract

Historically, peace and security have been important issues in economics. Yet for contemporary economics, issues of peace and security are marginal, and economists are conspicuous by their absence in debates to a degree that rivals the importance of the problems. Strikingly, economics textbooks in general, and development economics textbooks in particular, seldom give consideration to violent conflicts despite the dreadful impact they have on populations in the very poorest of countries. Similarly, they seldom deal with issues of peace and post-war reconstruction despite their importance for successful development. This article reviews some achievements within the economics of peace and security field and considers how our understanding of the preparation for violent conflict and the determinants and costs of conflict has been improved by research and what this might entail for some of the challenges ahead. In particular, the article identifies the challenge of constructing a peace economics that will allow for the design of economic systems that embed peace and overcome many of the conditions that continue to maintain the prevalence of violent conflict around the world.

Historically, peace and security have been important issues, both in economics and in other scholarly disciplines. For example, scholars of international relations debate *mercantilist* perspectives—where economic benefits arise through conflict and control, making war inherent in interstate relations, and peace is an unusual state requiring a hegemonic power to maintain it—and contrast it with both, the *liberal* belief that war is an aberration, as free trade and free markets create wealth and war damages these relations, and a *Marxist* position that focuses on economic power. Add in *realist* arguments, according to which countries act in their self-interest and conflict is an extension of politics, and oppose that to *idealist* arguments that nation-states can act selflessly as reflected in international bodies such as the United Nations. Positions such as these generate continued debate.<sup>1</sup>

Yet for contemporary economics, issues of peace and security are marginal, and in the relevant scholarly and policy debates economists are conspicuous by their absence to a degree that rivals the importance of the problems. Strikingly, economics textbooks in general—and development economics textbooks in particular—hardly mention peace and seldom give consideration to violent conflict, despite the dreadful impact it can have, both on populations in the very poorest of countries and on the importance of maintaining property rights to allow markets to work. This is odd as considerable economics research has made important contributions to understanding security but often this has not been tied together or influenced mainstream economics and policy.<sup>2</sup>

One important failure concerns the lack of integration of

the international relations and political economy theoretical perspectives to economics. True, some overlap exists. Political scientists and economists debate and cross-publishing occurs: Economists publish in political scientist's journals and vice versa. But the more foundational theoretical discussion remains outside the domain of economics discourse. Partial equilibrium analyses dominate and there is little recognition that security issues are fundamental to market economies. Indeed, want of security presents considerable challenges to their existence and efficient functioning. This lack of comprehension and integration is unfortunate as it means that when economists provide policy advice regarding conflict and post-war environments it is almost inevitably wrong. In some influential cases, it is even ignorant of the limited work that has done in peace and security economics itself.<sup>3</sup>

Some effort has been made to elevate the field, with limited success. This includes associations such as Economists Against the Arms Race (ECAAR), now called Economists for Peace and Security (EPS), which help provide professional profile and an important network. Publishing in the scholarly journals *Defence and Peace Economics*, *Peace Science*, *Peace Economics and Public Policy*, and *The Economics of Peace and Security Journal*, and economists publishing in other outlets, e.g., in the *Journal of Conflict Resolution* and *Journal of Peace Research* as well as over 20 years of the European-based International Conference on Economics and Security, show coverage of a growing range of topics. Every now and again a topic will fire the imagination of the general economics profession and some nonspecialist economists will “parachute”

in, at times in ignorance of the extant literature. But the field, such as it is, remains a subarea in economics.

Yet peace and security are central, not marginal. Resources devoted to the military sector are historically high. The Stockholm International Peace Research Institute (SIPRI) estimates world military expenditure at USD1.8 trillion in 2014, or around 2.3 percent of world GDP. Given reporting and categorization issues, this is a lower bound estimate. (As a rule, veterans' care and homeland security, for example, are not included.) Measured as it is, the United States accounts for around 40 percent of world military expenditure. Following the second world war a brief period of disarmament commenced. It quickly ended when the outbreak of the Korean war led to a big hike in world military expenditure, never to come down to their 1950s level again. Thawing cold war enmities in the mid-1980s markedly reduced military spending—and halved the value of the global arms trade in major conventional weaponry by the mid-1990s—but post-2001 (i.e., post-9/11) such spending increased again. The world financial crisis of 2008 arrested military expenditure—in fact, it declined in absolute, real terms—but as a share of GDP it remains, today, very high by historical standards. Beyond spending, even low estimates suggest that civil war—the most prevalent form of war today—reduces GDP growth by an average of two to three percentage points per war year and, as contemporary Syria shows, such wars can last for extended periods of time. In addition, they have damaging effects on neighboring states so that the total cost of war can be four times the cost to the country in which it takes place. All this is very concerning given that most wars take place in the poorest countries.<sup>4</sup>

This essay reviews the developments in the field, briefly and of necessity selectively. It identifies achievements but also failures and future challenges. It considers, first, what has been learned about the preparation for war, which comprises the dynamics and effects of military spending, the arms industry, and the global arms trade; second, the causes and consequences of violent conflict; and, third, the economics of post-war reconstruction. In the process, it emphasizes the need to develop a field of peace economics, separate from war or conflict economics. This journal has been championing peace and security economics so it is not surprising that this essay references many of the journal's pieces. By design they provide useful summaries and a range of further readings for the interested scholar, policymaker, and the general public.

## Preparation for violent conflict

### *Military expenditure*

Characterized by a belief that peace equals the absence of war, much of the focus of research has been on the provision of

**Even as violent conflict remains central to human affairs, the economics discipline treats the subject matter of peace and security in a marginal way. This article identifies achievements the field of peace and security economics has made, but also failures and future challenges. It considers, first, what has been learned about the preparation for violent conflict, which comprises the dynamics and effects of military expenditure, the arms industry, and the global arms trade; second, the causes and consequences of violent conflict; and, third, the economics of post-war reconstruction and peace. The article emphasizes the need to more fully develop the emerging field of peace economics as separate from—or at least markedly distinct from—war and conflict economics.**

security and the preparation for war. In this vein, developing an understanding of the determinants and effects of military expenditure is important. A number of achievements can be recounted. Unsurprisingly, empirical work confirms that the security environment, especially external shocks, threats, and most obviously wars, go some way to explain changes in military spending. But the spending *level* or spending *burden* (the share of military spending in GDP) are not just linked to security considerations. Important economic and political drivers have to be taken into account as well. While the perceived security environment helps determine the objectives to be met, budget constraints do influence the level and growth of military expenditure, whatever the security situation. This will not surprise economists but needed to be established empirically to convince researchers from other subject areas as well as commentators and policymakers. Other factors that influence the levels and growth of world military spending include cold war-era inertial effects (e.g., in regard to the nature of weapons systems), the nature and entrenched structure of decisionmaking organs, and decisionmaker precepts and attitudes. Thus, former army general and U.S. President Eisenhower famously warned against the influence of a Military Industrial Complex, highlighting its vested interests, pork-barrel politics, revolving door employment, political deals, and the pushing of military solutions to diplomatic problems. To this day, indeed, spurious arguments continue to surface regarding the supposedly economically beneficial nature and importance of military spending to national economies.<sup>5</sup>

Debate over the economic effects of military expenditure continues but a consensus finding is emerging due to the most recent studies, which include long data series spanning both the cold war and post-cold war eras. The information increase in the datasets (a better signal-to-noise ratio) makes it easier than before to identify causal relationships, if any, from military expenditure to economic growth. Findings thus have moved

from generally negative but often statistically insignificant to generally negative and usually statistically significant effects. This does not mean that military spending can never result in positive short-run economic effects for particular countries at particular times (a simple Keynesian multiplier will increase short-run growth). But the long-run effects tend to be negative, and this does suggest that policy should justify military expenditure by security concerns, not economic reason.<sup>6</sup>

### *The global arms industry and arms trade*

Recognition of the role that the Military Industrial Complex can play in determining levels of military expenditure is linked to important research on the nature, structure, and development of the global arms industry and its associated trade. Without understanding its cold war origins, and its vested interests, it is not possible to understand the arms industry as it exists today.<sup>7</sup>

Careful research has built up a clear picture of the cold war origin of today's industry, with its move away from civilian-oriented products and services and its particular state-oriented characteristics and links toward structural changes that feature internationalization, increased links to the civilian sector, and changing technologies. Importantly, it has become clear that relative to the non-arms industrial sector the arms industry is not all that important to the domestic economies of the producing states. For most states, an arms industry can be justified in terms of national security strategy only, not in economic terms. But because of the far-reaching tentacles of its vested interests, new concerns about the changing nature and visibility of this sector have arisen. Increasingly, the industry takes over what once were activities of the armed forces. One consequence is that the private sector is increasingly involved in violent conflict, making skewed incentives and transparency growing concerns as well: Rather than profiting just from producing and supplying arms, companies are directly profiting from violent conflict itself. In particular, incentives are created to push military solutions to problems, both those directly linked to security threats and those not.<sup>8</sup>

Justifications in favor of domestic arms industries continue to be made, for instance, as providing innovations to the civilian, non-arms sector. But statements are not arguments and evidence. Those who argue these benefits should show they would not, and could not, have arisen otherwise. Evidence is generally absent. The justifications also ignore that the nature of the companies has changed. No longer massive production companies, they are dominated today by R&D and systems integration with considerable subcontracting and development of international supply chains. Civilian-led technology dominates in a number of seemingly military areas to such an extent that "commercial off the shelf" product use is now

routine. Indeed, to gain civilian-inspired new technological expertise, military contractors purchase and take over civilian contractors, a far cry from the still prevailing image of dominant arms companies spinning off technologies beneficial to the non-arms sector. This false image also ignores findings of the conversion literature. This showed how difficult it is to move from military to civilian economic activity as the anachronistic development of military technology, production, and market structure during the cold war period had led to a marked divergence of civilian and military technology, production, and marketing and made it difficult to move from one to the other.<sup>9</sup>

The continued belief that military industries are particularly important to economies is rendered impotent simply because they do not represent particularly large parts of production or trade in most countries. As a means of justifying continued high spending, arguments that military industry is good for the economy at large resurface every now and again, but research has shown that this is at best debatable and at worst a myth.<sup>10</sup>

Understanding the changing nature of the industry also allows us to understand better the dynamics of the global arms trade and the prevalence of corruption in it. Countries still wish to maintain domestic defense industry capability, of course, and, certainly since the end of the cold war, at lowest possible cost. The dominance of the United States and the size of its armed forces mean that weapons systems will receive orders far beyond what any other country's domestic arms industry could garner. Such are the economies of scale and scope that they lead to unassailably low unit costs. Even as other countries produce weapons for the export market to reduce unit costs, still they cannot compete with the United States on price and so have to use other means. This has led to direct and indirect subsidies and arms trade offset policies that hide corruption in the trade. Commissions and bribes now make up a large component of arms deals.<sup>11</sup>

For the duration of the cold war years a clear ideological bias to research on the arms industry and trade could be seen, and in some ways this seems to be returning. But there has also been a marked change in the focus of the industry itself, exemplified by a rapid shift to information technologies, the use of unmanned aircraft (drones), and electronic (cyber) conflict. All of these are further undermining the traditional focus on large integrated, platform-based weapons systems that dominated the industry in the past.

In this field of research—military expenditure and the arms industry—concerns over data remain. Incompletely measured as it is, military spending captures budget inputs not security outputs. Just what does a military dollar buy? And regarding the industry, while some data is available through the SIPRI

database and is of value, a number of issues have to be dealt with. As the industry restructures, it becomes increasingly difficult to compare data over time. The composition of the firms involved has changed. This, in turn, affects their behavior and carries policy implications which differ from those of the past. Even as the Military Industrial Complex *per se* is maintained, these changes in composition and character make the industry look rather different and make continued analysis a major challenge.<sup>12</sup>

### Causes and consequences of violent conflict

As discussed, although a recent major review in the *Journal of Economic Literature* takes an economic perspective on an influential international relations textbook, the analysis of interstate conflict has mainly been the domain of international relations. As Jurgen Brauer shows, the relative absence of economics from international relations was not always the case: A range of exceedingly prominent past economists—from Adam Smith to John Maynard Keynes—routinely saw potential and actual conflict as an important economic concern. An edited collection of papers by Michelle Garfinkel and Stergios Skaperdas provides an indication of the contributions contemporary economists have made to the understanding of potential and actual interstate violent conflict, for instance through its links with trade and power, and its economic costs. In addition, however, their collection also makes clear that a major area of recent research has been the empirical analysis of the determinants of intrastate, or civil, war. So far, though, there has been relatively little overlap with the debates over the preparation for war (military spending and arms industry) discussed in the prior section.<sup>13</sup>

Research on intrastate conflict and war has been dominated by noneconomists. Initially, the generally accepted view was that violent conflict results from political grievances. Economists' involvement received a boost when the World Bank set up a Conflict and Development project. The focus moved to the material basis of violence, and cross-country research studies found that economic factors indeed were important in determining war onset, duration, and the probability of war recurrence. The resulting “greed versus grievance” debate was strong. Early statements of civil wars resulting from greed, with insurgents only as good as bandits, eventually led to more moderate research positions recognizing the likely importance of grievance while acknowledging the need for economic opportunities to exist before wars can occur. To be able to maintain conflict, insurgents do need some form of income, such as from lootable natural resources or overseas remittances. A burgeoning literature from both, politics and

economics resulted. Much of the debate concerned the measurement of proxy variables used in the various studies and the expansion of the set of potential conflict-causing factors considered. Consensus findings suggest that economic factors are important in providing the opportunity for civil wars to arise, with natural resources of particular importance. Rather than greed *or* grievance, it is greed *and* grievance. This led to policies such as the Kimberley process to deal with the issue of “blood” diamonds whereby (mostly) Western consumers helped finance civil wars in faraway places.<sup>14</sup>

Focus on civil war stems, in part, from its (usually) asymmetric nature. Force structures and the security apparatus developed during the cold war and its immediate aftermath are no longer necessarily relevant. This does not mean that no work on other types of war have been done, but the civil war literature has tended to dominate in recent years.<sup>15</sup>

A somewhat less considered area regards the economic cost of war. This belies its importance both, in understanding the types of the negative impacts of those costs and also in policy to justify peacekeeping and peacemaking. The costs of prevention and intervention would seem to be dwarfed by the costs of war, particularly when spillover costs on neighboring countries or regions are considered. Paul Collier famously estimated that civil war leads to a GDP reduction of around two percent per war year, wiping out development gains in the affected economies. Although some think tank-based researchers consider the costs of conflict to be either overstated (Human Security Report) or understated (Institute for Economics and Peace), recent academic research estimates have not been inconsistent with Collier's findings. Either way, the costs of war are high and thus important in motivating continuing research both, on the cost of war and on the benefits of peace. As an indication, recent work has shown the health legacy effects of war to be pronounced and long lasting: Civil wars of twenty years ago still register an impact on a range of indicators today. Indeed, research points to even longer adverse effects in the case of genocides. Certainly, this literature allows strong economic arguments to be made for war prevention and post-war reconstruction and to make the case for economic policies aimed at preventing war recurrence.<sup>16</sup>

Another challenge concerns changes in the geopolitical environment and in the nature of conflict. As mentioned, some contributions are made by economists who, who account of some geopolitical event, unhelpfully “parachute” into a literature they are otherwise unfamiliar with. The changing nature of violent conflict also carries policy implications. For instance, the distinctions among civil war protagonists, transnational organized crime, and terror groups are becoming less clear, such as in the case of Boko Haram in Nigeria. Links



to organized crime, for instance through human trafficking and the illicit narcotics trade, and to terror organizations exist across a number of such cases so that distinctions among crime, terror, and war become blurred. It is also plausible that some amount of violent conflict results from the continuous evolution of capitalism itself, giving rise to a potentially important area of research.<sup>17</sup>

### Post-war reconstruction and peace

By far the main limitation of research has been the failure to develop what might be called a peace economics. The focus on conflict and war has gone in tandem with a relative paucity of work on post-war reconstruction as a major concern, leading to generic policy prescriptions, associated policy failures, and war recurrence. This is surprising, given that, as mentioned, peace economics was a major concern for economists in the past. In failing to attempt to understand the transition from war to peace, the default position has been to assume a blank slate and introduce generic structural adjustment and similar free market-oriented policies. The general failure of this approach is now widely recognized. Although more nuanced today, policies still are based on a partial understanding of the issues that arise in post-war security and economic environments.<sup>18</sup>

This suggests that more research is needed on the nature and inertial effects of war economies. This includes not merely the role that antagonists play in war but also the roles of civil society and the informal economy and of the legacies of violent conflict. As the case of Afghanistan shows, many policymakers have not heeded lessons from the experience of the past, creating a potentially important role for economists versed in peace and security, even as there are very few of them. Attempts are made to better understand the issues but many who work in the area are trained in orthodox economics which gives little thought to the development of policy in post-war environments.<sup>19</sup>

To develop a peace economics that provides guidance on how to create economies that are peaceful, and to keep them that way, means recognizing that all economic relations reflect the logic of an underlying structure and that each phase of post-war development can entail different challenges and opportunities. The first concerns just how fighting ends. Wars end in different ways—some end abruptly and some peter out—and it can take time to negotiate and put into practice any peace agreement which may or may not include provisions in regard to post-war economies. The end of different wars creates different dynamics and path-dependencies, meaning uniform post-war policies are unlikely to succeed. Second is rehabilitation and restoration. This will include the removal of limitations on civilian economic activity, reestablishing civilian

law and institutions, disarming ex-combatants, demining roads, and returning displaced persons. Since economies differ prior to war, it is unlikely that a standard post-war package will suffice, nor is it always appropriate to return an economy to its pre-war state if, for instance, the pre-war economy was a major cause of war to begin with. Third comes reconstruction and/or replacement: This entails gaining financial resources for reconstruction, replacing and repairing physical capital and infrastructure, demobilization and resettlement, rehabilitating victims, introducing or reintroducing democratic structures, redeveloping and/or restructuring civilian institutions, and beginning societal reconciliation. While the tasks at hand are likely to be similar across cases so that reconstruction check lists can be useful, it is unlikely that the details will be similar. Fourth is development and transformation. Here the need lies in adopting and implementing a new vision, undertaking structural changes, establishing new institutions, and continuing reconciliation.<sup>20</sup>

Each stage presents its own challenges and carries different implications for international agencies that move in to support countries emerging from violence. It is also the case that state and nonstate agencies have their own interests and/or are restricted in how involved they can get and what contribution they can make, depending on structures and processes that already are in place. A war economy champions a logic that is very far from a peace economy. Vested interests that make money out of violence may not coincide with those that benefit from peace, so that moving away from conflict is difficult and peace accords are fraught with the possibility of war-recurrence. Indeed, peace is often declared even as violence continues under the guise of “peace.” A striking example is given by the first “end” of the war in Colombia which did not lead to peace as commonly understood but led to further murders, drug-related violence, and the continued operation of the FARC. As Jurgen Brauer and J. Paul Dunne argue, to be serious about peace means creating structures that reflect the logic of peaceful relations, that make conflict unlikely, and that make peace irreversible. This means creating social contracts that embed peace through institutional design, by designing the necessary incentives, and determining the necessary roles of civil society. There will need to be recognition that processes of post-war development will go through stages that require changes in these incentives and structures. Major immediate concerns are policies for demobilization, reintegration, and reconciliation as the post-war processes take shape.<sup>21</sup>

In their book, Brauer and Dunne discuss principles for the design of contracts that do embed peace. Adhering to these principles will not guarantee peace but not adhering to them may well endanger it. Examples include changing payoffs to

induce cooperative actions, creating vested interests and leadership in favor of peace, forming society-wide common values, creating an authentic governmental authority to make all segments of society feel that they participate in decisionmaking, establishing reasonably rapid, impartial, and effective conflict resolution mechanisms to deal with disputes as they occur, providing for independent avenues of information access, transparency, and monitoring to reduce uncertainty and misinformation and to hold leaders accountable. Certainly, a role exists for careful and considered external interventions to encourage peace and to support social and economic healing but “careful and considered” is not always what past experiences have been.<sup>22</sup>

Unsurprisingly, in any such research a major challenge concerns *data*. Given secrecy, issues of data availability, transparency, and quality arise, and these are considerably worse in countries affected by instability and war. Data reliability or accuracy are difficult to determine. Even conflict *measures* themselves leave a lot to be desired and, beyond that, much work remains to be done to improve *measurement* even if the measures were clear. Moreover, the very *meaning* of conflict and peace are not settled. As mentioned, war’s end does not necessarily imply peace. Rather than to imply accuracy by using the number of battle deaths as a measure of war or peace for instance, in some cases it might be better to go with simple binary measures such as “conflict” and “no conflict.” That said, the relatively recent development of geocoded and household-level data in war and post-war areas is providing valuable insights at disaggregated levels.

An important development has been the construction of the Global Peace Index (GPI) by the Institute for Economics and Peace. The intention was to move the focus away from what causes violent conflict to what causes peace and, with its high profile internationally, the Institute has had success. The GPI has been used in some empirical research but the index still suffers from a limited number of observations (10 years of data) and some index components are not replicable as they rely on opinion measures that cannot be extended backward in time. It also measures the absence of violence rather than the presence of peace. In contrast, the analogous construction of a Positive Peace Index (PPI), also by the Institute for Economics and Peace, is open to similar data critiques but at least tries to measure the conditions that make for peace in the future.<sup>23</sup>

Research on peacekeeping and its efficacy and efficiency is surprisingly limited. While the United Nations and other groupings such as the African Union have played important roles in maintaining peace in post-war environments, there also have been failures. Obviously, the prosecution of peace needs peacekeeping and peacemaking forces and related equipment,

but the need is much different from what is made available. Developing the relevant forces and equipment could carry important implications for the nature and extent of the defense industrial base and its related vested interests. In addition, the development of international governance structures that operate considerably better than those at present will be required as well as the recognition of wider concepts of security. Following from the previous discussion, to develop successful policies and support for post-war reconstruction, a better understanding of the economics of violent conflict and war is needed, in part to make a better job of designing and maintaining peace accords and designing reconstruction packages that make the incentives for peace greater than those for a return to war.<sup>24</sup>

The cold war era saw considerable debate regarding the economic effect of reducing military expenditure and how to reconvert resources back to civilian use. Those who argued against military expenditure cuts in anticipation of significant economic problems faced, in fact, booming post-cold war economies in the 1990s. Of course, transition costs occur but these are no longer seen as significant. Swords to ploughshares is no longer considered sensible, but the macro, and meso, conversion policies of industrial restructuring are relevant. It is an interesting, if strange, debate to look back to and there are some useful analyses. Peace does not necessarily mean demilitarization and massively reduced military spending, but even if it did the evidence suggests that improved economic performance is possible if resources are moved from defense to civilian sectors of the economy. Resource shifts imply increased demand for civilian industry, stoking investment in plant upgrades and (alternative) technologies there. This can lead to knock-on effects such as policies to reduce inequalities, support sustainable development, and to improve the economic situation for all countries. Conversion also allows one’s focus to transition from military to alternative concepts of security, such as human and environmental security, improving the situation of the population of developing countries in particular. Improved global trade—and the foreign exchange savings from not importing weapons systems—should reduce the likelihood of violent conflict as well, although the experience of this century thus far does make one wary of issuing such statements with confidence. Nevertheless, it is difficult to see anything but net economic benefits resulting from peace, and the peace and prosperity goal on which the United Nations is founded should be accepted by the vast majority of economists. The problem, in a word, is that the profession has become so focused on prosperity that it has overlooked peace as a necessary precondition.<sup>25</sup>

## Conclusion

It should be easy to conclude from this review that economists have made important contributions to understanding causes, mechanisms, and consequences of the peace and security sectors. Although the subject area has grown in status as a field of research in economics, it remains a minority interest within the profession even as peace is a precondition for prosperity. And while we have gained a better understanding of the preparation for and the dynamics of conflict and war, the field nonetheless has failed to develop an understanding of how to embed peace in economic development—particularly in post-war reconstruction environments to help prevent war recurrence—and how to develop a peace economics separate from war, defense, conflict, or security economics.

Countries, even countries in conflict, can move toward a peace economy with defensive defense force structures. In addition, economists can make useful contributions as countries reconsider how best to create international governance structures aimed at the peaceful resolution of conflict and how to control the global flow of arms. Although some steps have been taken, these remain important challenges. This can complement the call from Patrick Regan to bring peace back into conflict studies, political science, and international relations, with a move to bring peace back into conflict and post-war economics.<sup>26</sup>

## Notes

I am grateful to Jurgen Brauer, Efi Nikolaidou, and Ron Smith for comments. The usual disclaimer applies.

1. Dunne and Coulomb (2008).
2. Textbooks: For example, Thirwall's seventh edition (2003) had no discussion at all of conflict, war, and peace, and what has been added since then is insubstantial. Similarly, Todaro and Smith's eighth edition (2003) carried a section on military expenditure and development and more recently (twelfth edition, 2014) added a bit on the challenge of violent conflict, but again in a remarkably insubstantial way.
3. For example, Martin Feldstein (Harvard University professor, former chairman of the Council of Economic Advisers, former president of the American Economic Association, president emeritus of the National Bureau of Economic Research, and member of the President's Foreign Intelligence Advisory Board) argues for military Keynesianism without realizing this has been debated over many years and its simple arguments destroyed and discredited. See *The Wall Street Journal* (24 December 2008), "Defense Spending Would Be Great Stimulus." Robert Higgs provided a critical response on 2 January 2009 in "Military Keynesianism to the Rescue?" (<http://www.independent.org/newsroom/article.asp?id=2399>).

4. Historical standards: SIPRI Yearbook 2015, chapter 9. Four times the cost: See Dunne (2013a). Poorest countries: Collier (2007). Acemoglu and Robinson (2012) have resurrected an institutionalist perspective to growth and development economics that does allow for the importance of conflict and colonialism. Interestingly the authors are an economist and a political scientist.
5. Security environment and budget constraints: Smith (2009). Eisenhower: Eisenhower, a Republican, used his end of term speech in 1961 to warn of the dangers of the MIC. See <https://www.youtube.com/watch?v=8y06NSBBRtY>. Military solutions: Dunne, Perlo-Freeman, and Smith (2008).
6. Effects: d'Agostino, Dunne, and Pieroni (2012) review the approaches in the literature. Generally negative: Dunne and Tian (2013) showed that studies including cold war-era data were more likely to find adverse effects. Until 2016, studies were restricted to SIPRI data consistent back to 1988 only. Longer, backward-extended series have now become available. Dunne and Tian (2016b) and d'Agostino, Dunne, and Pieroni (2017) find that the backward extension still gives negative effects. Not good policy: See Dunne (2013b).
7. See Dunne and Sköns (2008; 2010).
8. Changing technologies: Dunne (2009); Dunne and Smith (2016). Transparency: See, e.g., Wulf (2005).
9. Justifications: See Brauer's reviews (2007a; 2007b) of Vernon Ruttan's 2006 book, *Is War Necessary for Economic Growth? Military Procurement and Technology Development*. For example, the technology underlying today's internet was a civilian research project before being taken over by a research arm of the U.S. Department of Defense. Also see the set of rather skeptical symposium papers, organized by Renaud Bellais, on innovation in the arms and military space industries in Europe, published in 2017 in *The Economics of Peace and Security Journal* (vol. 12, no.1). Conversion literature: See Dunne and Braddon (2008).
10. Myth: See Holden (2017).
11. Commissions and bribes: See Feinstein (2012). On offsets, see Brauer and Dunne (2004; 2011a).
12. Changing composition: Dunne, *et al.* (2007a; 2007b), Dunne and Smith (2016). Major challenge: As the industry further meshes with civilian industry, especially in regard to electronics, it could well become less visible and thus more difficult to control, nationally and internationally.
13. Major review: Morelli and Sonno (2017). Past economists: Brauer (2017). Economists' contribution: Garfinkel and Skaperdas (2012). Determinants of civil war: For an influential survey see Blattman and Miguel (2010).
14. Economic opportunities: See the debate sparked by Collier and Hoeffler (2004). Natural resources: See Sambanis (2002); Hoeffler (2012); Dunne and Tian (2017b). Kimberley process: Gold (2006). Also see Rigterink (2010) who considers the limitations of the methods used to measure the commercial flow of diamonds.

15. Tended to dominate: As just one example of a non-civil war focus, see Polachek and Seiglie (2007).

16. Costs of violent conflict: Collier (1999); Smith (2014) provides a valuable overview of what has been achieved in the area. More recent estimates: See Dunne and Tian (2016a); HSR (2009/10); IEP (2016; 2017). Range of indicators: Dunne and Tian (2017a). Genocides: Soudis, Inklaar, and Maseland (2016).

17. Nigeria: Nwankpa (2015). Organized crime: Napoleoni (2007). Terror: Enders and Sandler (2012); Llusca and Tavares (2007). Capitalism: See Cramer (2006) for a perspective that warns that civil wars can be important for economic development, for example if they represent primitive accumulation.

18. Development of the peace economics field: For surveys, see, e.g., Coulomb (2004); Dunne and Coulomb (2008); and Brauer (2017). Failure of policies: See recent research reported in the World Bank's *World Development Report 2011* and a chapter on Security and Governance in the *World Development Report 2017*. Related research concerns work on demobilization and reintegration strategies. See, e.g., <http://www.un.org/en/peacekeeping/> [accessed 28 September 2017].

19. Afghanistan: See, e.g., Child (2014) and a set of symposium papers published in *The Economics of Peace and Security Journal*, Vol. 10, No. 2 (2015).

20. Underlying structure: Attempts have been made to understand economic conditions of lasting peace (e.g., Jha, 2007) and conditions needed for successful nonviolent social movements (Bhavnani and Jha, 2014). Phases of post-war development: Harris (1999).

21. Colombia: It is worth recalling Keynes' prescient book, *The Economic Consequences of the Peace* (1919) which, in analyzing the conditions that the Versailles Treaty imposed on post-war Germany, predicted the coming of a second world war. Logic of peaceful relations: Brauer and Dunne (2011b); Brauer and Dunne (2012); Smith and Tasiran (2012). Designing incentives: Anderton and Brauer (2016) argue in their collection that developing policies to prevent mass atrocities such as genocides will need to draw (at least) on behavioral economics and the economics of international and constitutional law which lie far outside the usual purview of conflict economists. Post-war development: Also see Murshed (2009) and the *World Development Report 2011*.

22. Brauer and Dunne: Brauer and Dunne (2012).

23. GPI: Also see PRIO data at <http://grid.prio.org/#/> and Households in Conflict Network <http://www.hicn.org/>. Extended backward: Huang and Throsby (2011).

24. Incentives for peace: On the economics of peacekeeping and peacemaking, see the articles in the symposium of papers in *The Economics of Peace and Security Journal* (Vol. 1, No. 2, 2006). Also see Bove (2011) and Sheehan (2011).

25. Conversion: See Brauer and Tepper Marlin (1992) for a U.S. study; Moller and Voronkov (1996) for various country studies; Gleditsch, *et al.* (1996) for an international study. Foreign exchange and national debt: Terhal (1982); Brzoska (1983); Dunne, Perlo-Freeman, and Soydan (2004).

26. Regan (2014).

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## Peace economics in a changing world

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### Abstract

Even though the global economy continues to grow and technological advancements expand horizons, over half of the world's population experiences profound want and fear on a daily basis. The global poor are predominantly found in countries that are underdeveloped and/or conflict-affected. Traditional economics has failed to provide an analytical framework that is both appropriate and transferrable, particularly in contexts where Westphalian assumptions of statehood do not hold true. Globalization, the rise of nonstate actors, and the existence of persistent low-intensity conflict have reconfigured the geostrategic landscape. By emphasizing the use of economic principles to promote peace through the design and implementation of strategies that foster efficiency and inclusion, peace economics could provide a viable framework for the development and security of fragile states and regions. This article examines the evolution of the discipline, analyzes potential challenges posed by fragile states, and proposes six recommendations for contemporary peace economists.

Ever since Adam Smith laid the discipline's intellectual foundations, economists have wrestled with the welfare implications of diverse approaches to the production, consumption, and distribution of wealth. After the first world war, economists such as John Maynard Keynes turned their attention to the relationship between government spending and the promotion of peaceful societal outcomes. A new discipline, dubbed peace economics, sought to distinguish itself from prevailing approaches that pursued peace by preventing violent conflict (the negative peace paradigm). By contrast, peace economics focuses on investments and relationships that promote lasting peace within and among nations (positive peace). The discipline has evolved over the decades. So has conflict. States, for instance, are no longer the main perpetrators of violence. Today, most violence-affected states are fragile and nonstate actors play a central role in twenty-first century conflicts. Globalized threats and transnational crime are prominent in triggering and sustaining violent conflict. These developments challenge our thinking about the role and application of peace economics, particularly in fragile environments. In 2003, Fischer and Brauer posed twenty questions for peace economists to address in the post-Berlin Wall era. Just as scholars and practitioners struggled to make sense of the relevance of this discipline at that strategic juncture, so global realities today force us to revisit and rethink the role of peace economics in a changing world. This article views the challenge through the prism of developing and conflict-affected countries.<sup>1</sup>

### Revisiting definitions

Although many point to the classical economists of the eighteenth and nineteenth centuries who theorized that free trade is peace-enhancing, there is some consensus that the work of Kenneth Boulding, Johan Galtung, Walter Isard, and Jan Tinbergen laid the foundation for peace economics as we know it today. By distinguishing positive from negative peace, Galtung differentiated the nascent field from war or defense economics. He pointed out the need for countries to make strategic investments that promote peace, equity, and welfare rather than focusing on prosecuting and stopping wars (negative peace). In this vein, peace economics may be viewed as the study of strategic investments by the state that further and promote positive peace. Extensions of this view include the distinction between productive and unproductive expenditures. Isard's work focused on the use of economic instruments to forestall violent conflict and the impact of economic policy (by governments) and economic activity (by firms) on the prospects for violent conflict. Nobel Laureate Tinbergen also belongs to this "behaviorist" school of thought, defining peace economics as a science that seeks to understand how global and interstate conflict may be resolved using economic principles and instruments. Boulding's systems approach represents a third category of definitions. He viewed the discipline as a set of complex interrelationships that yield positive peace. Looking beyond the classification of productive expenditures or activities, he sought a more integrated set of actions and policies that establish the conditions for more peaceful societies. With traditional peace economists the emphasis is less



on analyzing existing and emerging complexities and more on hypothesizing what a peaceful world should look like. Using their hypothesized peaceful world, they outline how state expenditure could invest toward that end.<sup>2</sup>

The 1990s witnessed the genesis of an evolution in peace economics. Building on existing normative frameworks, scholars highlighted the importance of an applied approach that seeks to build institutions and establish policies that promote peace and stability. Brauer and Caruso defined the subject matter as follows: “Peace economics concerns the economic study and design of political, economic, and cultural institutions, their interrelations, and their policies to prevent, mitigate, or resolve any type of latent or actual destructive conflict within and between societies.” In their view, “peace economics is not primarily about the prevention of (state or communal) failure ... but about the creation of stable structures of peace. It is about invulnerability, irreversibility and about the foolproof, unconditional viability of peaceful social systems.” In a separate piece, Caruso goes further and discusses how peace economics could be pivotal in the design of governance, trade, and social investment policies that are peace-promoting. The post-1990s evolution of peace economics shifted the focus away from what was essentially a binary “guns versus butter” debate to a more complex consideration of elements of an enabling framework for sustained peace.<sup>3</sup>

### Recalibrating in conditions of fragility

A fundamental ethos of traditional peace economics was the ability of the state or state institutions to invest in peaceful outcomes. Post-1990s thinking went beyond this and analyzed systems (institutions and policies) that act jointly to promote peace. At a national level, the state is still a central actor. The state’s ability to support peace-promoting investments, infrastructure, and institutions is crucial. States that fail to meet this litmus test are broadly described as fragile.

What happens, however, when the state is unable or unwilling to perform this function? Inability is caused by weak institutions, ineffective regulatory and legislative frameworks, endemic poverty, and significant capacity gaps. The vast majority of developing countries and conflict-affected states fall into this category. They lack the capacity to invest in socioeconomic services, infrastructure, and human capital that would not only make communities and states more resilient but could also promote peace. This inability reinforces fragility and weakens the state further. Fragile states are particularly susceptible to continued outbreaks of civil unrest and violent conflict. In other cases, fragility manifests itself in the unwillingness of states to make the necessary peace-promoting

**Just as scholars and practitioners struggled to make sense of the relevance of peace economics in the post-cold war era, so new global realities today force one to revisit and rethink its role. From a peace practitioner’s point of view, this article revisits and challenges extant definitions of peace economics and makes recommendations on how to broaden its scope to make it more relevant for today’s changing world.**

investments. Such states might have the capacity but are unwilling to invest in transformational change. This unwillingness could stem from political considerations, where illegitimate regimes invest in their own security and longevity and not in the broader society. Leaders of such states sit at the apex of a neo-patrimonial network that defines governance, economics, and security in the state. For them, public sector investments are viewed as zero-sum propositions that must always favor their own interests and longevity. Apartheid South Africa and Mobutu’s Zaire are examples. In either case (inability or unwillingness) the result is similar. State fragility becomes entrenched and countries end up spending more on fomenting or addressing violent conflict rather than on investing in peace. Marshall describes the far-reaching implications of fragility. The potential demise of peace economics, as originally construed, should be added to Marshall’s list.<sup>4</sup>

The concept of fragility has evolved since the Fragile States Index was first published in *Foreign Policy* magazine in 2005. The initial focus on fragile states has given way to a more appropriate investigation of the states or conditions of fragility as reported in the 2016 edition of the Organization for Economic Cooperation and Development’s annual report on state fragility. The focus has shifted from exclusively national institutions to subnational and transnational conditions and institutions. Major implications include the notions that non-fragile states can also harbor fragile regions and host fragile communities, that fragility could straddle one or more national boundaries, and that remediating and mitigating policy and programs should focus on the nature of fragility and not just on nation-building. This poses challenges for peace economics, if the discipline were to remain state-centric. The complexities of contemporary statehood, coupled with the transnational nature of violent conflict, demand a serious rethinking of the sources, nature, and focus of peace-promoting expenditure. It also poses questions about the reliability and efficacy of public sector institutions in fragile states to make the necessary investments.<sup>5</sup>

### Challenges for practitioners

Adjusting for fragility is necessary but by no means sufficient. Peace economists face complex and persistent challenges, including incorporating into their analyses (1) persistent

low-intensity conflicts, (2) the peacebuilding-industrial complex, (3) pervasive Potemkin institutions, and (4) the role of nonstate actors.

War and peace no longer are two sides of the same coin. Today, they coexist of an ever-mutating, multi-sided structure. Since the mid-1990s, violent conflict does not just disappear. Instead, it recedes. This leaves communities and countries in a seemingly endless state of low-intensity conflict. Very few contemporary violent conflicts have had clear winners and losers. The vast majority of peace deals are about forging compromise with actors who do not usually have a stake in building peaceful and stable states. In many cases, such as in post-war Liberia from 2003 to 2005 and in post-invasion Afghanistan, the key actors appear to have little interest in peace-promoting investments. The consequent persistent low-intensity conflict causes at least two problems. First, nations (and their international partners) tend to focus most of their energies on preventing the recurrence of war rather than on building peace. Second, these states have problems defining effective peacebuilding strategies and consequently anemic domestic economies struggle to keep pace with the demand for public expenditures.<sup>6</sup>

Peacebuilding has become a global industry that commandeers entire economies and reshapes the security environment in many countries. In some cases United Nations deployments become dominant ecosystems in host countries. For instance, the UN deployment in the Democratic Republic of the Congo (known by its French acronym, MONUC) has existed for sixteen years, at an estimated cost of over USD10 billion. Planned MONUC spending for the 2016/17 fiscal year was USD1.2 billion, corresponding to about 20 percent of the host nation's annual budget spending. Analysts have questioned the impact that such deployments could have on domestic counterpart funding (crowding out such spending) and on the perpetuation of the peacekeeping enterprise. Similarly, the United States defense department created the Task Force for Business and Stability Operations in 2006 to kick-start peacebuilding efforts initially in Iraq and subsequently in Afghanistan. Multimillion dollar initiatives like these were known more for their "burn rate" (i.e., how much money they could spend in a given period) than for their effectiveness and impact. Peace prospects are further complicated in that conflict-affected states suffer from a war-economy overhang (when warlords capture the post-war economy). Therefore, rapid, and often unfocused, spending ends up in the coffers of potential spoilers who use these resources to strengthen and sustain perverse neo-patrimonial networks.<sup>7</sup>

External partners and institutions play a crucial role in

conflict-affected states, leading to overly aid-dependent states. By relying on development assistance for most fiscal outlays, conflict-affected countries effectively cede sovereignty to their external partners. They lose the ability to prioritize expenditures, determine the timing and quantum of inflows, develop alternative domestic revenue sources, and develop much-needed, credible multi-year investment strategies. Commercial entities also feature in this context since most developing and conflict-affected states are resource-endowed. International firms investing in these countries also play a role in determining the extent to which states are willing or able to make peace-enhancing investments. Investors engage the domestic political economy in order to maximize profits, ensure the long-term viability of their capital investments, and to accelerate the onset of the break-even point as a risk mitigation strategy. In many cases, this dynamic is itself conflict-inducing.<sup>8</sup>

Peace economists also have to consider the proliferation of nongovernmental organizations (NGOs) in developing and conflict-affected states. Proliferation can create duplication, undermine coordination, introduce conflicting agendas, and add confusion to an already weakened policy environment. More perniciously, it can weaken the public sector by crowding-out the labor market, reinforcing neo-patrimonial networks, and promoting niche projects at the expense of a more comprehensive effort to invest in peace. There is an urgent need to incorporate the nature, character, scope, and objectives of nonstate actors (like NGOs) when considering how best to develop a framework of institutions and relationships that could advance a peace-promoting agenda in developing and conflict-affected states.<sup>9</sup>

### Some recommendations

Contemporary peace economics could play an important role in shaping governance and economic development outcomes in fragile regions and nations. The following recommendations outline aspects of what may be described as an unfinished agenda for peace economists.

First, Boulding's comment that "all economics is peace economics and all economists are peace economists" is not particularly useful. The discipline needs more definitional specificity if it is going to have normative or functional utility. Reconceptualizing peace economics in the light of contemporary statehood, transnational phenomena, and the growing influence of nonstate actors is both, urgent and necessary.

Second, reconceptualizing peace economics is not an easy task. It is going to require both, a transition from a normative to a more functional focus as well as significant empirical research

into the relationships between peace-promoting investments and corresponding peaceful outcomes. The 2011 *World Development Report* helped bridge the gap between economic outcomes and persistent violent conflict. It also mainstreamed the issue in policy circles. Peace economics needs a similar catalyst.

Third, very few tertiary educational institutions offer courses in peace economics. Consequently, the profession is left floundering and forced to borrow extensively from related disciplines when designing policy and operational initiatives aimed at supporting peace-promoting programs. Efforts should be made to introduce courses and degree-awarding programs to build capacity in this area. This should also be done in professional military institutions since uniformed personnel are often the first responders who get assigned the development and implementation of peace-promoting initiatives in conflict-affected regions.

Fourth, investing in peace involves much more than the state. More attention should thus be paid to the role of nonstate actors, including nongovernmental organizations, local firms, and multinational corporations. Ensuring coordination, alignment, and sustainability should be prioritized to ensure lasting positive impact. Relevant programs and activities should be nested within an overarching theory of how strategically sequenced investments by all actors could ensure equitable economic progress, effective and accountable political institutions, and lasting peace.

Fifth, external partners (commercial, bilateral, multilateral, and sociocultural) play an important role in developing and conflict-affected states. Peace economics could incorporate these actors into a cogent theoretical framework in a much more deliberate fashion. The notion that states alone should take the lead in the initial phases of recovery and rebuilding is not borne out by the available evidence. In addition, external partners should have a clear exit strategy that involves weaning states off the dependency syndrome.

Sixth, domestic revenue generation is a vital, although frequently neglected, aspect of the social contract. Taxation binds the governed and their governments in terms of expectations and accountability. Aid-dependent states are much less likely to be accountable to their citizens. Rebuilding or establishing a social contract could start by enhancing the tax effort and, in turn, strengthening accountability.

## Conclusion

Peace economics could deepen our understanding of the development–security nexus and help refocus economic policy on the promotion of positive peace. A peace-promoting agenda could strengthen institutions and advance policies that address

inequality, foster accountability, and reduce the factors that trigger and sustain violent conflict. This is especially true in developing and conflict-affected states. To accomplish this, the discipline should continue to adapt and evolve. Recent developments in theory should be driven by an increase in empirical research, educational courses and curricula could be expanded, and customized training opportunities should be made available to a broad array of practitioners. Failure to make progress in these areas could condemn millions of people to protracted deprivation and misery, and could confine peace economics to the pages of history in some distant ivory tower.

## Notes

Disclaimer: The views expressed in this paper are those of the author and are not an official policy or position of the National Defense University, the Department of Defense, or the U.S. Government.

1. State no longer main perpetrator: Data from the Uppsala Conflict Data Program (UCDP) shows the reduction in the number of state-based, battle-related deaths relative to nonstate and one-sided violence deaths between 1980 and 2016. See <http://ucdp.uu.se/>. Likewise, data from the Armed Conflict Location and Event Data project (ACLED) paints a similar picture for 1997 to 2016. See <http://www.acleddata.com/data/acled-version-7-1997-2016/>. Post-Berlin Wall: Fischer and Brauer (2003).

2. Boulding (1970); Galtung (1982); Tinbergen (1990); Isard (1994).

3. Quotes: Brauer and Caruso (2013, pp. 151–152; 153). In a separate piece: Caruso (2015).

4. Neo-patrimonial: The nature and characteristics of such networks are discussed in Gilpin (2015). Implications of fragility: Marshall (2008).

5. *Foreign Policy* (2005). OECD (2016).

6. Liberia, Afghanistan: See, e.g., Del Castillo (2008).

7. MONUC: See <http://www.un.org/en/peacekeeping/missions/past/monuc>. U.S. Task Force: See Zimmerman, Engel, and Blum (2016).

8. External partners: This is well-documented in Del Castillo (2008).

9. NGO proliferation: By way of example, Klarreich and Polman (2012) and Baptiste (2015) examine the NGO proliferation phenomenon in Haiti after the 2010 earthquake there.

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