

The Relative Gain Problem in Multipolarity:  
A Theoretical Discussion and an Empirical Test of the American dual-use export  
control post Cold War

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## Introduction

The central argument of this paper is that, in multipolarity, relative gain seeking is not an effective strategy to maximize security. Therefore, states' cooperative behaviors, which are in a large part influenced by the problem of relative gain, can no longer be fully explained by security concern. In order to make this argument, the paper is structured as follows. Section A will address some key theoretical problems in the relative gain debate that prevent both sides from fully describing international cooperation. Section B will present my proposed theory, which seeks to rectify the aforementioned problems as well as to explain the causal mechanism behind my main hypothesis. Section C will subject my hypothesis to an empirical test, examining the case study of American post-Cold War dual-use export control in general, and its policies toward China in particular. Section D will summarize the theoretical and empirical findings, as well as discuss remaining issues.

### A. Theoretical problems in the relative gain debate

#### I. Anarchy, the primacy of survival, and relative gain—how does international anarchy induce states' concern with relative gain?

According to realists, states are worried about relative gain because, in anarchy, "there is no overarching authority to prevent others from using violence, or the threat of violence, to destroy or enslave them."<sup>1</sup> Or, as Waltz describes it, wars can occur "because there is nothing to prevent them."<sup>2</sup> Therefore, always uncertain about others' intentions, states can only preserve their survival by maintaining their *relative capabilities*, which are "the ultimate basis for their security and independence in an anarchical, self-help international context."<sup>3</sup> As Robert Jervis notes, "Minds can be changed, new leaders can come to power, values can shift, new opportunities and dangers can arise"—thus, the only foolproof survival strategy is to bolster one's relative capability.<sup>4</sup>

Based on this argument, realists proceed to claim that, in cooperation, states do not seek to maximize individual absolute benefits, but to prevent others from achieving relative gains. In other words, states are not atomistic, or "rational egoist" in character—they are, instead, defensively positional.<sup>5</sup> This realist assumption about states' goal dictates that, even when states benefit absolutely from a deal, they

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<sup>1</sup> Joseph M. Grieco, *Cooperation among Nations: Europe, America, and Non-Tariff Barriers to Trade*, (Ithaca: Cornell University Press, 1990), p. 126.

<sup>2</sup> Kenneth N. Waltz, *Man, the state, and war: a theoretical analysis*, (New York: Columbia University Press, 1959), p. 232.

<sup>3</sup> Grieco, "Anarchy and the Limits of Cooperation: A Realist Critique of the Newest Liberal Institutionalism," *International Organization*, 42.3 (1988), p. 498.

<sup>4</sup> Robert Jervis, "Cooperation under the Security Dilemma," *World Politics*, 30.2 (1978), p. 168.

<sup>5</sup> This formulation of the relative gain problem stays in line with the specific school of defensive realism. According to Grieco, being relativists does not motivate states to maximize their relative gain against others, but only to prevent others from achieving gap in gains against them. See Grieco, *Cooperation among Nations*, p. 49.

will not agree to cooperate as long as each fears that the other may enjoy a better share. Therefore, as Waltz puts it, “the condition of insecurity—at the least, the uncertainty of each about the other’s future intentions and actions—works against their cooperation.”<sup>6</sup>

For these reasons, realists have pessimistic predictions regarding the prospect of international cooperation. I would argue that such conclusion is unwarranted. Even if it is true that “the fundamental goal of states in any relationship is to prevent others from achieving advantages in their relative capabilities,”<sup>7</sup> it does not mean that states would forgo absolute gain, no matter how large, in order to prevent relative loss, no matter how small. How inimical a relative loss is to a state’s security is dependent on not only the size of the loss, but also on how easily such gaps in gain can be transferred into gaps in capabilities, and on how likely and effectively such gaps in capabilities will be used against the state. Even then, this deterioration in security must also be weighed against the improvement in welfare gained from cooperation. Using an economic analogy, Waltz himself describes this balancing act as, “*a compromise* [emphasis added] between maximizing their profits and minimizing the danger of their own demise.”<sup>8</sup> Since relative gain concern does not precede absolute gain concern, but is balanced against it, the key question is not whether relative gain concern hinders cooperation (it does), but how much. This is a question that no amount of theoretical debate can resolve. Yet, despite the dearth of empirical research to measure states’ concern with relative gain, realists are prone to declare pessimism about the prospect of international cooperation.<sup>9</sup>

I would also argue that “how large” is no longer the satisfactory question. To say that states have a large concern with relative gain is to imply that there is a scale against which states’ concern is judged. But what is that scale? Is the benchmark a world in which states are completely secure and thus unconcerned with relative gain? How large must the relative gain concern be to warrant a pessimistic view of international cooperation? Of course, these are fruitless questions whose answers yield little insight about how cooperation is achieved or refused. For example, Grieco’s study of the EC-US negotiation during the Tokyo Round shows that the E.C. was “highly” sensitive to relative gain.<sup>10</sup> Even though this finding is valuable in proving that relative gain concern is a real impediment even between allies, it leaves us with little understanding about how other cooperative arrangements, under different conditions, may unfold. Such insight is currently in short supply and should be what international relations theories aim to produce.

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<sup>6</sup> Kenneth N. Waltz, *Theory of international politics*, (New York: Random House, 1979), p. 105.

<sup>7</sup> Grieco, “Anarchy and the Limits,” p. 498.

<sup>8</sup> Waltz, *Theory of International politics*, p. 106.

<sup>9</sup> Indeed, if one carefully assesses all of these intervening variables, it becomes evident that, under many situations, gaps in gain do not transfer neatly into non-cooperation. See Charles L. Glaser, “Realists as Optimists: Cooperation as Self-Help,” *International Security*, 19.3 (1994).

<sup>10</sup> Grieco, *Cooperation among Nations*, Ch. 7.

For these reasons, I hope that the relative gain debate does not stall at asking whether states' sensitivity to relative gain is large or small, but proceed to investigate how it varies. It is not necessary to belabor this point, because, if they go back to their core assumptions and hypotheses, realists themselves can recognize the conditionality of relative gain concern. This is simply a humble attempt to alert participants in the discussion, hoping that they will steer away from the futile debate over how much cooperation there is in the international glass.

## II. The standard Prisoner's Dilemma—a defective model of international cooperation

The Prisoner's Dilemma has been used extensively in the neoliberalist literature as a model for international cooperation.<sup>11</sup> In its simplest form, the Prisoner's Dilemma game involves two self-interested, self-reliant players, who have to decide whether to enter cooperation. Each prisoner faces two simple choices: to cooperate (C) or to defect (D). If both cooperate, their welfare level will increase.<sup>12</sup> On the other hand, if they defect, both players will receive nothing.

Cooperation would seem to be the obvious strategy if not for the fact that, if a player successfully cheats by defecting while the other cooperates, he will reap a disproportionate share of gain, which is, most importantly, larger than what he receives under cooperation.<sup>13</sup> With this condition introduced, it is always a better strategy for each player to defect, *regardless of the other's decision*. Therefore, the players reach a stable, but Pareto-suboptimal equilibrium of DD. Despite the prospect of mutual gain, the fear of cheating results in a lower welfare level for the players, both individually and collectively, than if they decide to choose CC.<sup>14</sup>

		Player B	
		Cooperate	Defect
Player A	Cooperate	$R_a = 3, R_b = 3$	$S_a = 1, T_b = 4$
	Defect	$T_a = 4, S_b = 1$	$P_a = 2, P_b = 2$

$T > R > P > S$ ;  $R > T + S/2$

T = temptation to defect

R = reward for mutual cooperation

<sup>11</sup> See Robert O. Keohane, *After Hegemony: Cooperation and Discord in the World Political Economy*, (Princeton, N.J.: Princeton University Press, 1984), p. 66-69; Robert M. Axelrod and Robert O. Keohane, "Achieving Cooperation under Anarchy," *World Politics*, 38.1 (1985), p. 231; Charles Lipson, "International Cooperation," *World Politics*, 37.1 (1984), p. 2.

<sup>12</sup> A real world example is of two states agreeing to mutually lower import tariff. Thanks to free trade, each state can specialize on the few goods that it produces more cheaply and purchase the rest from the other state. Since each good is now being produced where the cost is lowest and where the efficiency is highest, the total welfare of both states increases.

<sup>13</sup> To extend the real world example, a CD situation occurs when a state cheats by raising tariff while the other state unilaterally abandons its own.

<sup>14</sup> A Pareto optimum is achieved when no player's welfare can be increased without lowering the other's. In this case, DD is Pareto-suboptimal because both players' welfare can be increased if they agree on CC.

P = punishment for mutual defection

S = sucker's payoff for unreciprocated cooperation<sup>15</sup>

Using the Prisoner's Dilemma to simulate international cooperation is appropriate in several aspects. First, the players are unitary, rational, self-reliant, and self-maximizing actors, which conforms to realism's basic assumptions about states. Second, there is no overarching mechanism or higher authority to enforce promises or prevent cheating, which approximates the anarchy of international politics. Third, players cannot know what the other will do in any given game, which satisfies the realist emphasis on uncertainty regarding motives and intentions.<sup>16</sup>

Based on this model, neoliberalists identify cheating as the major obstacle to cooperation. From this premise, they correctly argue for a role of international institutions, which can facilitate cooperation by increasing transparency about states' actions and by coordinating effective punishment if cheating does occur.<sup>17</sup> The strategy is, simply put, to make cheating difficult and ineffective. To extend the Prisoner's Dilemma analogy, in this way, international institutions can goad states to cooperate just as the Omerta code can discourage prisoners from betraying their partners in crime.

Yet another way institutions can discourage cheating is to turn the single-play Prisoner's Dilemma into an iterated game, which allows states to pursue a strategy of reciprocity. More specifically, each state will always start out "nice" by cooperating and, in the next move, copy the other state's action in the previous move. As demonstrated in the tournament hosted by Axelrod, in which computer programs were paired with one another to play 200 iterations of the Prisoner's Dilemma, this simple strategy of TIT-for-TAT proved to be the unambiguous winner over much more complex and aggressive strategies.<sup>18</sup> The crucial implication is that, if the Prisoner's Dilemma can be iterated, "this strategy of cooperation based on reciprocity (TIT-for-TAT) can foster the emergence of stable cooperation among egoists."<sup>19</sup> In the context of international relations, this result implies that cooperation becomes states' best strategy if they can expect interaction to last. Since the time horizon of the interaction is determined not solely by the objective attributes of the situation but also by the expectations of states, once again, international institutions have a role to play. They can facilitate cooperation by altering "the extent to which governments expect their present actions to affect the behavior of others on future issues," thus effectively linking the future with the present and lengthening the time horizon of states' calculation.<sup>20</sup>

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<sup>15</sup> The numbers are ordinal numbers that signifies ranking of states' preferences, not states' actual welfare level.

<sup>16</sup> Lipson, "International Cooperation," p. 3-4.

<sup>17</sup> Axelrod and Keohane, "Achieving Cooperation Under Anarchy," p. 232-238.

<sup>18</sup> Robert M. Axelrod, *The evolution of cooperation*, (New York: Basic Books, 1984), p. 27-54.

<sup>19</sup> Lipson, "International Cooperation," p. 6.

<sup>20</sup> Axelrod and Keohane, "Achieving Cooperation Under Anarchy," p. 234.

Despite these merits, the Prisoner's Dilemma model—upon which the neoliberalist argument is built—suffers from two fundamental defects. First, the standard model does not make room for relative gain concern. It is evident that players in the standard game make decisions based solely on their absolute utility level and are oblivious to the other player's gain. Therefore, the neoliberalist conclusion is distorted. Indeed, if the model is amended to include gaps in gain in states' utility function, as Grieco suggests, it will reach very different conclusions about the role of institutions. The author successfully shows that, if gaps in gain are large enough, the Prisoner's Dilemma will transform into a Deadlock, in which no amount of collective action can induce cooperation.<sup>21</sup> In such situation, deterring cheaters and ensuring that partners adhere strictly to the agreement do nothing to alleviate states' fear about relative gain. Quite the contrary, it can only make the unfavorable outcome more certain, and thus further dissuade states from cooperating.

Second, the iterated model—the prerequisite for states to pursue a strategy of reciprocity and for cooperation to emerge—is also flawed in assuming an immutable payoff structure. In Axelrod's experiment, the payoff structure of the game remained constant throughout 200 iterations, regardless of the change in relative capabilities between partners.<sup>22</sup> Realizing the crucial roles of iterativeness and immutability in the experiment, neoliberalists formulate two corresponding factors in their theory:<sup>23</sup>

1. Long time horizon
2. Regularity of stakes

These two factors are of particular relevance to the issue of relative gain. States care about relative gain today only because an imbalance in capability can alter the "stakes" of tomorrow. Indeed, after a period of accumulated relative gain, a state's industry can achieve economy of scale or market monopoly, both of which allow it to drive its competitors bankrupt in an extreme case or, more realistically, to set price that maximizes its profit at the expense of others. Therefore, relative gain can lead to a change in the payoff matrix, thus shortening the time horizon as well as disrupting the regularity of stakes. It is important to note that, when neoliberalists recognize how important it is to have an enduring game structure in international cooperation, they are well equipped to incorporate relative gain concern in their theory. However, they unfortunately fall short by thinking that only defection and cheating, such as a successful preemptive war, can change the nature of the game and disrupt the infinite series of games. For better or for worse, this is a shortcoming of the theorists, not of the theory. Therefore, the criticism above, while severe, is not fatal. As I will demonstrate in my proposed theory, relative gain

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<sup>21</sup> Joseph M. Grieco, "Realist Theory and the Problem of International Cooperation: Analysis with an Amended Prisoner's Dilemma Model," *The Journal of Politics*, 50.3 (1988), p. 610.

<sup>22</sup> Axelrod, *The Evolution of Cooperation*, p. 30-31.

<sup>23</sup> Axelrod and Keohane, "Achieving Cooperation Under Anarchy," p. 232.

concern can be incorporated along with the neoliberalist key concept of “the shadow of the future.”

### III. The fixation on security-driven relative gain concern

After an arduous debate, Keohane and Grieco agree that states are sensitive to relative gains, and that this sensitivity is conditional. In Grieco’s formulation of state’s utility, this sensitivity is incarnated in the coefficient  $k$ , which, he claims, “will vary, but it will always be greater than zero.”<sup>24</sup> While agreeing with Grieco on the conditionality of  $k$ , Keohane differs in arguing that, “this coefficient [ $k$ ] can be positive, negative, or zero. It can be negative, contrary to Grieco’s statement, in the case of stable alliances, where one ally seeks to reinforce the other’s strength.”<sup>25</sup>

Their disagreement over the sign and magnitude of  $k$  aside, both sides’ recognition of the conditionality of relative gain sensitivity is a welcome improvement. However, they still fall short due to a fixation on the notion that the coefficient  $k$  only varies according to states’ security concern, e.g. whether war is imminent, or whether the partner is a security ally or enemy. Quite the contrary, as alluded to above, states balk at an imbalance in economic gains not only because they may jeopardize states’ security. Gaps in gain also matter because they can alter the structure of the economic game by creating monopoly or economy of scale.<sup>26</sup>

This negligence is especially unfortunate because a welfare-driven concern with relative gain is not at all incongruous with either theory. Indeed, the fifth conditionality identified by Grieco (i.e.  $k$  will increase if payoffs in the particular issue areas are more rather than less easily converted into capabilities within that issue area) can be applied so naturally to the issue of market power in the economic realm.<sup>27</sup> Furthermore, as discussed above, despite their putative fixation on security issues, realism at its core is comfortable with the notion of states’ utility function being a balance between economic welfare and security concern.

This failure to distinguish two types of relative gain concern (welfare-driven and security-driven) is theoretically damaging. It leads authors to confuse the independent variables that affect one kind of concern with those that affect the

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<sup>24</sup> Grieco, *Cooperation Among Nations*, p. 45.

<sup>25</sup> Robert O. Keohane, “Institutionalist Theory and the Realist Challenge After the Cold War,” in David A. Baldwin, ed., *Neorealism and Neoliberalism: The Contemporary Debate* (New York: Columbia University Press, 1993), p. 279.

<sup>26</sup> Whereas Powell’s model in “Absolute and Relative Gains” only includes the possibility of war disrupting the current game structure, there is nothing to prevent the same to be replicated in the realm of economics. As he himself remarks, “If, for example, the nature of an oligopolistic market is such that a firm can use a relative gain in market share to increase its long-run profits at the expense of other firms, then this system will also induce a concern for relative gains that may make cooperation difficult. *The concern for relative gains may characterize many domains*, and a more refined understanding of the origins of this concern helps to identify them.” See Robert Powell, “Absolute and Relative Gains in International Relations Theory,” *The American Political Science Review*, 85.4 (1991), p. 1306.

<sup>27</sup> Grieco, “Anarchy and the Limits of Cooperation,” p. 501.



other, and thus drawing the wrong causal connection. For example, in Grieco's analysis of the E.C.'s refusal to cooperate with the U.S. on industry standards, he claims that this is an easy test for neoliberalism.<sup>28</sup> This is because, he argues, the value of the independent variable, which is the US-EC allied relationship, would lead us to predict wholehearted cooperation between partners. However, in making this argument, Grieco shows his unawareness of the fact that the E.C.'s concern with relative gain can be motivated by welfare-maximizing concern as well. Indeed, even though the U.S. and the E.C. are security allies, they are also economic rivals—thus, Grieco's finding of discord in this arena is hardly surprising at all.<sup>29</sup> For this reason, the thrust of his critique against neoliberalism diminishes greatly, and the causal connection he draws between security relationship and relative gain seeking behavior is erroneous as well.

## B. My proposed theory

Based on the above critique of existing literature, I would propose a framework that is not blemished by those defects. Like both sides in this debate, I would start from the basic realist assumptions about international politics, namely that the international system is anarchic, that states are unitary and rational actor,<sup>30</sup> that states are uncertain about others' motives, and that states possess the offensive capability to damage others. I also agree that survival is the most important goal of states, yet want to stress that this does not mean any loss in security, no matter how small, is enough to forgo any gain in welfare, no matter how large.

This paper will focus on economic cooperation, which is defined as economic agreements that are expected to increase the welfare of both parties, such as open trade, tariff reduction, elimination of non-tariff technical barriers to trade, or the universalization of industrial standards. Non-cooperation is defined as the refusal to enter such agreements.

My paper's main contribution is hypotheses about "*When* security concern affects states' relative gain concern." This is different from "*How* security concern affects states' relative gain concern," which realists and neoliberals have explored effectively. I endorse their findings on this matter: states will become more sensitive when the threat of war is imminent, when it is dealing with a security enemy rather than with an ally, and when the economic sector in question is militarily significant.

On the other hand, the question "*When* security concern matters" has been left unstudied—indeed, there are even evidences of realists being mistaken on this

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<sup>28</sup> Grieco, *Cooperation among Nations*, p. 14.

<sup>29</sup> The concept of economic "rivalry" differs from its security counterpart. Indeed, economic interdependence leads to the peculiar consequence that a state actually has an interest in maintaining the well being of a rival's economy. See Section B-V for a more detailed discussion on the concept of "economic rivalry" in international trade.

<sup>30</sup> A relevant extension of this assumption is that, I assume, states do not make wrong calculations. When the system changes, states will be able to adapt and find the best strategy to maximize their security.

issue.<sup>31</sup> I would argue that, as the world transitions into multipolarity, relative thinking and non-cooperation are no longer the best strategy for states to maximize their security. Therefore, compared to its role in the bipolar world, security concern in multipolarity no longer motivates states as strongly to pursue relative gain and to resolve on non-cooperation. Unfortunately, multipolarity in the security realm does not coincide with a perfectly competitive market in the economic realm. Therefore, states in the post-Cold War era will still be prone to relative gain concern—however, this concern is more economically driven, and has less correlation with the security relationship between partners.

My proposed framework also try to rectify the aforementioned theoretical problems in the current debate by acknowledging that gaps in gain can change the game structure in both the security and economic realm. My argument also focuses explicitly on the variation in states' economic policies as bipolarity transitions into multipolarity—or, more specifically, on how the weight of security concern decreases in states' economic cooperative decisions.<sup>32</sup>

#### I. Why is relative thinking less effective in multipolarity?

How can a state maximize its security by not pursuing relative gain calculation? This argument seems so antithetical to prevalent realist arguments that it is necessary first to understand why relative gain concern is, according to realist, so central to states' strategy. The next step is to question whether such argument is justifiable.

As explained earlier, realists argue that states always assess relationships—including cooperative arrangements based on common interests—in terms of their impact on relative capabilities. As Gilpin observes, "The essential fact of politics is that power is always relative; one state's gain in power is by necessity another's loss."<sup>33</sup> For these reasons, relative gain concern is woven inextricably into the realist formulation of states' utility function.

However, it is doubtful that relative gain must be built into states' utility function. First, gaps in gain matters only insofar as it is capable of altering the game structure. States' ultimate concern is not with its immediate relative gain, but with its absolute gain in the future.<sup>34</sup> Therefore, it is possible to formulate an amended

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<sup>31</sup> As discussed above, Grieco seems unaware of the possibility that security concern may not matter in the E.C.'s relative gain concern. Similarly, in Mastanduno's study, the U.S.' growing relative gain concern in dealing with Japan is attributed solely to a diminished security tie between two nations. See Grieco, *Cooperation among Nations*; Michael Mastanduno, "Do Relative Gains Matter? America's Response to Japanese Industrial Policy," *International Security*, 16.1 (1991).

<sup>32</sup> Whether the post-Cold War world is bipolar has been a matter of dispute. In Section C, I will explain why this period is a suitable case to test my proposed theory despite this debate.

<sup>33</sup> Gilpin, *U.S. Power and the Multinational Corporation: The Political Economy of Foreign Direct Investment*, (New York: Basic Books, 1975), p. 34.

<sup>34</sup> This claim would surely make many realists raise their eyebrows—they do not have to. Despite the claims of structural realists that states are *inherently* concerned with relative gain, a closer look into the realist assumption reveals that this concern has a cause of its own, which is the fear of being

Prisoner's Dilemma in which there are two time periods, and in which the gain from the period 1 can be transferred into force in the period 2. States may choose not to cooperate in period 1 if their absolute gain is jeopardized in period 2. In this way, the full range of states' cooperative behaviors can be explained by a theoretical model based on absolute concern alone.<sup>35</sup>

Second, as the system structure changes from bipolarity to multipolarity, relative gain calculation in economic cooperation will become less effective as a strategy to maximize one's security. Indeed, relative consideration only makes much sense in a two-player system. In such a bipolar world, two superpowers are locked in a stable rivalry—the threat is clear and unidirectional. They become highly sensitive to gaps in gain, for any relative gain in favor of the direct rival translates almost linearly into a reduction in security.

Furthermore, both superpowers do not have to worry about other states in the system, which are not only too weak to challenge them, but also locked into stable alliances. These conditions have two effects on the superpowers' cooperative behaviors. First, a superpower is willing to cooperate with countries in its own bloc even if the arrangement heavily favors its weaker partners—the superpower is assured that these disproportionate gains would strengthen its alliance and while could not be used to challenge its dominance in any way. Second, two superpowers yet have another reason not to cooperate with each other—indeed, even though non-cooperation does result in a loss of potential gain for both, such deficit is not sufficient to jeopardize the superpowers' positions vis-à-vis those of the weaker states.

A perfect example of this bipolar logic is American economic policy during the Cold War. While pursuing strategic embargo against the Soviet bloc, the U.S. did not worry about the lost economic gain because the impoverished and dilapidated post-war Europe could hardly posed a challenge. Indeed, in order to strengthen the Western bloc, the U.S. even assisted to Europe to the detriment of its own relative standing. This example clearly demonstrates how heavily security concern influences states' relative calculation in bipolarity.<sup>36</sup>

By contrast, in a multipolar system, the absence of a clear and unidirectional threat confounds any attempt at relative gain calculation. First, the concept of

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invaded or enslaved. (See Grieco, *Cooperation among Nations*, p. 126; or Section A1 of my paper for a summary of the structural realists stance on this issue). Therefore, gaps in gain matter only in so far as their effect on states' survival, which is an absolute attribute. On the other hand, classical realists base their argument on the assumption that power seeking is in the nature of man, and that power can only be defined in relational term. In this case, states do care about relative gain as the ultimate end in and of itself. See Hans J. Morgenthau and Kenneth W. Thompson, *Politics among nations: the struggle for power and peace*, (New York: McGraw-Hill), 1993, p. 4-12. I acknowledge this fundamental difference in assumption between classical realism and my theory.

<sup>35</sup> See Powell, "Absolute and Relative Gains," for an attempt to formulate such a model.

<sup>36</sup> See Michael Mastanduno, *Economic Containment: CoCom and the Politics of East-West Trade*, (Ithaca, N.Y.: Cornell University Press), 1992.

“relative gain” becomes much less meaningful: to whom is a state comparing itself? Bilateral consideration is no longer useful, because in a multipolar system, where “there are too many powers to permit any of them to draw clear and fixed lines between allies and adversaries,” threat can come from everywhere.<sup>37</sup> It is impolitic to respond to this situation with non-cooperation in all bilateral relations to prevent all possible gaps in gain. If state A decides not to cooperate with state B for fear of disproportionate gains, it will be able to preserve the status quo and does not fall behind relatively in this A-B bilateral relationship. However, by doing so, state A forgoes potential absolute gain, and thus falls behind relatively in other bilateral relationships with state C, D, or E. Which relationship counts? Unlike the superpowers of a bipolar system, which are so far ahead of weaker states, nations in a multipolar world must consider all of these relations, and thus cannot afford non-cooperation. Stuck in complex web of interactions, states find relative gain pursuit in bilateral relationships less effective in maximizing security. In addition, the need to guard one’s relative standing is further diminished thanks to the option of mobilization when threat arises to compensate for any gaps in the immediate capability. Unless states spend all of their gain from trade on the military, and unless any temporary gaps in gain can be readily turned into military advantage, “the relative gain problem in peacetime is not large enough to give states a reason to break off mutually profitable trade.”<sup>38</sup>

It is noteworthy that the state discussed here is still the realist prototype: rational, self-help, and driven to defend its security. However, as argued above, under the systemic constraint of multipolarity, its better survival strategy turns out to be cooperation. Despite its roots in fundamental realist assumptions, this conclusion sharply contradicts prevalent realist hypotheses about international politics.

## II. Does it mean multipolarity lower states’ sensitivity to relative gain?

So far, I have argued that, in multipolarity, security concern no longer motivates states to pursue relative gain as much. Is this simply an attempted use of verbiage to obfuscate the more straightforward statement that, in multipolarity, states are less sensitive to relative gain, or in other words, that  $k$  decreases? After all, Grieco himself has hypothesized that, “as the number of states in an agreement increases, relative gain concerns between any two partners should go down.”<sup>39</sup> Would he be justified to claim that I am offering nothing that realists have not already known?

I would be glad to defend the novelty of my hypothesis. First, there is not any reason to believe that multipolarity would reduce states’ concern with relative gain. As mentioned, realists believe that states are sensitive to relative gain because they

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<sup>37</sup> Waltz, *Theory of International Politics*, p. 168.

<sup>38</sup> Morrow, “When Do “Relative Gains” Impede Trade?” *The Journal of Conflict Resolution*, 41.1 (1997), p. 28.

<sup>39</sup> Joseph Grieco, Robert Powell, and Duncan Snidal, “The Relative-Gains Problem for International Cooperation,” *The American Political Science Review*, 87.3 (1993), p. 731.

are uncertain about their survival. Thus, to claim that states are less sensitive to relative gain under multipolarity implies that they are somehow more secure – yet there is nothing about multipolarity that suggests this is true. If one dissects the realist argument even more intimately, there are three sources of states' concern with relative gain: 1) the probability of partners' using force against them (as a function of the cost of using force), 2) the uncertainty about the partners' intentions, and 3) the uncertainty about the efficacy of force.<sup>40</sup> Multipolarity does not assuage any of these chronic fears and uncertainty of states. Indeed, as the number of states increases linearly, uncertainty increases exponentially.<sup>41</sup> For this very reason, realists have predicted instability after the Cold War.<sup>42</sup> Thus, it is not true that multipolarity reduces states' sensitivity to relative gain. It is also not the argument that I attempt to make.

What I do propose, however, is that security-driven concern with relative gain becomes less important in states' economic cooperation. In other words, when studying the multipolar era, one can no longer fully explain states' cooperative behaviors by looking at security-driven concern, such as whether the partner is an ally or an enemy. By contrast, to claim that multipolarity simply reduces  $k$  is to imply that the pattern of international cooperation can still be explained according to a variation of  $k$ .

In sum, security-driven deliberation still affects states' economic decisions in multipolarity to a limited extent; however, their influence has become dampened in competition with welfare-driven concern. Once again, with a focus on variation, I do not claim that the security-driven concern in multipolarity is large or small, but only that it has become smaller compared to what it was in the bipolar era.

### III. What did realists say about a multiple-player system?

As mentioned above, realists, in fact, have offered their own hypothesis about relative gain concern in a system with multiple players. Thus, they have accused competing theories of having nothing new to present. Since a central theme of the relative gain debate has been whether the "findings" of competing theories truly fall outside the explanatory power of realism, I would dedicate this section to argue that, despite superficial similarities, the realist proposition on this issue is distinct from and inferior to my proposed hypothesis.

To make it convenient for the reader to judge the accuracy of my critique and to bar any biased presentation of the realist position, I would quote it at length. In response to Snidal's model of a multiple-player, or large- $n$ , system, Grieco has this to say:

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<sup>40</sup> *Ibid.*, p. 733, 743.

<sup>41</sup> Waltz, *Theory of International Politics*, p. 136.

<sup>42</sup> See John J. Mearsheimer, "Back to the Future: Instability in Europe After the Cold War," *International Security* 15.1 (1990); Kenneth N. Waltz, "The Emerging Structure of International Politics," *International Security* 18.2 (1993).

... I have argued that neoliberals, believing that cheating is easier to prevent if there are fewer partners, would expect that "states with a choice would tend to prefer a smaller number of partners."<sup>43</sup> I then offer a competing realist hypothesis: "If it is uncertain about which partners would do relatively better, the state will prefer more partners, for larger numbers would enhance the likelihood that relative gains advantaging (what turn out to be) better-positioned partners could be offset by more favorable sharings arising from interactions with (as matters develop) weaker partners." My argument is that as the number of states in an agreement increases, relative gain concerns between any two partners should go down.<sup>44</sup>

Based on this argument, Grieco proceeds to claim that realists are aware of the relationship between the number of states in a system and states' sensitivity to relative gain.

Unfortunately, this argument is suspicious in three ways. First, in his original quote, Grieco claims that states' uncertainty about relative gain leads them to prefer more partners in an arrangement. He then re-interprets his original argument to claim that having more partners in an arrangement assuages states' fear about bilateral relative gain. Grieco has reversed the direction of causality in his argument to accommodate new findings. Without adequate elucidation, such logical jump is hardly warranted.

Second, there are reasons to believe that Grieco's proposition is more problematic than just a convoluted argument that more explanation can fix. In Grieco's original quote, the number of partners included in an arrangement is a choice that states can make. However, in my proposed framework, the number of relevant states in the system is a structural constraint, decided not by states' preferences, but by the distribution of capabilities across units in that system.<sup>45</sup> Furthermore, Grieco makes no insinuation that the multiple partners in his argument are of comparable sizes—which would, indeed, turn his argument into one about multipolarity. In fact, states in Snidal's model, to which Grieco is responding in the quote above, are of various sizes.<sup>46</sup> Therefore, despite the seemingly obvious application, Grieco's argument is incapable of explaining cooperation in the multipolar world.

An empirical example would further demonstrate this point. In the Cold War bipolar system, the U.S. and the Soviet Union were highly attuned to relative thinking, eschewing cooperation for fear of gaps in gain favoring the other. Grieco's argument seems to suggest that, if feeling uncertain about the distribution of gains, the U.S. and the Soviet Union could somehow alleviate this unease by simply including more partners in any arrangement.

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<sup>43</sup> Grieco, *Cooperation among Nations*, p. 228.

<sup>44</sup> Grieco, Powell, and Snidal, "The Relative-Gains Problem for International Cooperation," p. 731.

<sup>45</sup> Waltz, *Theory of International Politics*, p. 97-99.

<sup>46</sup> Snidal, "Relative Gains and the Pattern of International Cooperation," p. 714.

How can this conclusion be justified? Perhaps Grieco could defend himself by saying that, even though relative gain concern between the U.S. and the Soviet Union does decrease when more partners are involved, this minuscule reduction is more than offset by the fact that the two states are stable enemies, which greatly heightens relative gain concern between them.

I would argue that even this defense is false: including other partners in an arrangement should have no impact whatsoever on the relative gain concern between any two states. This is the third weakness of Grieco's argument, also the most damning. According to him, having more partners increases the chance of a state gaining advantage over those "(as matter develops) weaker partners," which compensates for its loss compared to "(what turns out to be) better-positioned partners." "Compensate" here is a tricky word. Indeed, as the number of partners increase, interactions with weaker states, which yield better relative gain, become more likely—but so do interactions with stronger states. Adding more players cannot change the odds of being exploited versus being able to exploit, and thus, does not compensate for anything. Furthermore, if we adamantly adhere to the lens of relative thinking and zoom into a bilateral relationship (as Grieco does), it is evident that the relative standing between two states cannot be affected by how one of these two interacts with other states. If, after a round of cooperation, state A gains more than state B, but is disadvantaged compared to state C, the bilateral imbalance between state A and state C is skewed in the favor of state C regardless of the A-B interaction.

Therefore, I have shown that Grieco's argument regarding the relationship between the number of states and relative gain concern is different from and inferior to my proposed framework. At this point, the illuminating question to ask is: Why do these seemingly obvious gaps in logic go unnoticed? I would conjecture that Grieco founders on this issue because he adheres too dogmatically to a relative gain framework and a bilateral lens while analyzing a large-n system. By contrast, I argued above that, in multipolarity, states' cooperative behaviors can no longer be effectively explained by security-driven relative gain concern.

#### IV. Corroborating empirical evidences by other authors

Is there empirical evidence to support my proposed theory? Mastanduno's study of the American economic behavior towards Japan in the late 1980s provides an illuminating case. The author argues that, as the structural conditions changed—that is, as America's relative economic power declined, and as the Soviet military threat diminished—the American economic policies toward its allies would reflect a greater sensitivity to relative gains. Empirical findings seem to confirm this hypothesis. Even though the U.S. had provided extensive technology sharing and economic assistance to Japan during the Cold War, by the end of the 1980s, the U.S. started showing signs of relative gain concern, seeking to limiting gaps in gain in

favor of Japan, especially in the cases of the 'FSX' fighter aircraft and commercial satellites.<sup>47</sup>

If my argument were that states become less sensitive to relative gain as the world transitions into multipolarity, it would be utterly incapable of explaining how countries became more disinclined to cooperate. However, my theory is rather that, in multipolarity, security is not the prime motivation of relative gain concern. In addition, non-cooperation can only be fully explained by taking into account welfare-driven relative gain concern. Empirical evidences of the American non-cooperation fit in with this hypothesis. When the U.S. confronted industrial Japan, at once a security ally and an economic rival, its economic concern prevailed, thus leading to more antagonistic policies.

Similarly, evidence produced by other empirical studies also corroborate my hypothesis. In his article, Liberman sets out to investigate the trading relationship between two security rivals in a multipolar system. The cases chosen are Britain-Germany from 1890 to 1914, and US-Japan from 1930 to 1941. In both cases, the author finds a continuation of free trade despite the increasing hostility between the two traders. This evidence suggests that security rivalry, which should have heightened relative gain concern and impeded cooperation as realists predict, did not have much influence over states' economic decisions in the multipolar systems that preceded World War I and World War II.<sup>48</sup>

Another study by Gowa, which also investigates the relationship between polarity and free trade, is directly relevant to my hypothesis. Gowa argues that trade allows nations to engage in their most efficient activities and thus frees up domestic resources that can be used to military ends.<sup>49</sup> Due to this "security externalities" of trade, states have an incentive to open trade with other members in their alliance in order to bolster their collective strength. Furthermore, the author also hypothesizes that "a bipolar . . . system has an advantage relative to its multipolar counterpart with respect to the opening of markets among states," due to a higher exit cost and a hegemon with less incentive to exploit weaker states.<sup>50</sup> In sum, albeit going through a different route, her theory shares with mine the prediction that economic cooperation between allies will deteriorate in multipolarity. As discussed above, using the relative gain framework, I am also able to add another half to this picture, hypothesizing the increase in economic cooperation between rivals in multipolarity.

#### V. What is an "economic rival"?

The term "economic rival" has been used rather liberally above without adequate clarification. Indeed, unlike the security realm, the economic arena is

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<sup>47</sup> See Mastanduno, "Does Relative Gain Matter?"

<sup>48</sup> See Peter Liberman, "Trading with the Enemy: Security and Relative Economic Gains," *International Security*, 21.1 (1996).

<sup>49</sup> Joanne Gowa, "Bipolarity, Multipolarity, and Free Trade," *The American Political Science Review*, 83.4 (1989), p. 1246.

<sup>50</sup> *Ibid.*, p. 1245.



characterized by interdependence. This peculiarity leads to the curious consequence that, whereas states do compete to gain more at the expense of their competitors, they hardly wish others' economies to collapse. What, then, is "economic rivalry"? Even though this paper does not focus on studying the independent variables that give rise to intense economic competition or the tactics that governments may employ, it is important to clarify what economic rivalry means and why it does not necessarily coincide with from security competition. The theoretical explanation provided by this section will add generalizability to the earlier observation of Japan and Europe as, at once, security partner and economic rival of the U.S.

Economic rivalry arises when states pursue strategic trade policy in an attempt to "change the international strategic environment in ways that give advantage to the home country's oligopolistic firms."<sup>51</sup> There are several tactics to achieve this aim: high tariff, subsidization, and other forms of market protection, such as technical barriers, excessive bureaucracy, or quota. With these available strategies, states strive to secure for its domestic firms a disproportionate share of the market and the concomitant economic rents that exist in an oligopolistic market.<sup>52</sup>

Under what circumstances is this relative gain seeking strategy effective? If the international market is the perfectly competitive world of orthodox liberal economics, populated by numerous small firms without enough market power to dictate the economic outcomes, market decisions will be determined solely by prices, quality, and characteristics of goods. In such a system, strategic trade policy is not only ineffective, but also detrimental to its pursuer, because states' redirection of resources into one sector does not provide it with additional market power while depriving other more efficient sectors of their resources. However, the international market has more resemblance to an oligopolistic market, comprising a few large actors, whose actions can influence market outcomes. In such a system, strategic trade policy can be effective.

In fact, the oligopolistic characteristic of international trade is nothing new—the field has always been dominated by a handful of economic powerhouses. The novelty that gave rise to economic rivalry after World War II, and especially in the 1970s and 1980s, is the emergence of multinational corporations and the growing importance of technology in production.<sup>53</sup> Many economic sectors become dominated by a few powerful companies, which wield unprecedented market leverage to coordinate tactics such as price setting, resources shifting across border, and even lobbying for favorable legislation. States can also assist their corporations more effectively in winning market share because technological breakthrough has

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<sup>51</sup> Robert Gilpin and Jean M. Gilpin, *The Political Economy of International Relations* (Princeton, N.J.: Princeton University Press, 1987), p. 215.

<sup>52</sup> James Brander, "Rationales for Strategic Trade and Industrial Policy," in Paul R. Krugman, ed., *Strategic trade policy and the new international economics* (Cambridge, Mass.: MIT Press, 1986).

<sup>53</sup> Gene M. Grossman and David J. Richardson, *Strategic trade policy: A Survey of Issues and Early Analysis* (Princeton, N.J.: International Finance Section, Dept. of Economics, Princeton University, 1985), p. 6.

become much more resource consuming, oftentimes beyond the capacity of individual firms, and yields immense advantages once acquired. Long gone are the days when comparative advantages were some objective attributes such as natural endowment or available labor force. When competitiveness can be “manufactured,” and when knowledge can spill over from one sector to another, states have both the opportunities and incentives to assist their industries.<sup>54</sup> In this context, relative gain in economic cooperation becomes a source of intense contention, because states are actively seeking these gaps in gain to benefit their multinationals at the expense of competing firms and other economies.

The efficacy of strategic trade policy remains a matter of continuing debate—economists continue to dispute when and how governments can accurately pick the national champions.<sup>55</sup> The determinants of strategic trade policies must also involve domestic politics, which mediates the conflict of interest between exporting manufacturers and importing firms. Despite these unresolved questions, the key point to take from this discussion is that economic and security rivalry need not coincide. Multipolarity may characterize the security realm while oligopoly marks the economic arena. Since each type of competition has its own set of independent variables, security-driven relative gain seeking can subside in multipolarity while economic-driven concern does not. Therefore, it is not surprising that states continue to pursue relative gain in the post-Cold War era. This competitive posture, however, can no longer be satisfactorily explained by security concern alone.

### **C. Designing an empirical test**

Applying my proposed theory to study the American post-Cold War trade policies, one would expect to see the U.S. give less weight to security concerns when making economic cooperative decisions. The observable implication of this hypothesis is a smaller variation in the American trade policies towards its allies and rivals. In order to examine this claim, I would analyze the American policies of dual-use export control after the Cold War in general, and with regard to China in particular.

*Why China?* Even though there are studies that show the erosion of the American economic support for its allies after the Cold War, these researches only touch on half of the picture that I present above. Indeed, both my proposed theory and the prevalent realist argument are capable of explaining why the U.S. has become increasingly sensitive to gaps in gain with allies. My theory, however, also predicts that the U.S. will be less concerned with relative gain while dealing with its security rivals. This observable implication is the crucial point that distinguishes the two arguments. Judging which theory is more persuasive requires us to test this retrodiction empirically.

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<sup>54</sup> Gilpin and Gilpin, *The Political Economy of International Relations*, p. 219.

<sup>55</sup> Paul R. Krugman, *Strategic Trade Policy and the New International Economics* (Cambridge, Mass.: MIT Press, 1986), Ch. 1.

*Why dual-use export control?* Dual-use export is defined as “items that have both commercial and military or proliferation applications.”<sup>56</sup> Therefore, inherent in the American dual-use export policies is a direct conflict between security and welfare concern. A strict export control regime that emphasizes protecting these items can cause economic damage beyond the immediately lost contracts and markets. It also raises transaction costs for exporters, and thus deterring qualified ones from even attempting to apply for a license. Furthermore, the unpredictability inherent in any excessive bureaucratic process adds another hurdle to businesses, for which reliability is just as crucial a resource. Even more insidiously, if American export items become too difficult to acquire, or if American businesses frequently fail to honor their contracts due to the complicated licensing process, foreign manufacturers will gradually “design-out” American parts from their systems and replace with European or Japanese technologies. For these reasons, even though the absolute value of dual-use export does not constitute a substantial part of the American GDP, the true economic loss is more grievous and long-term than such figures can encompass. Therefore, studying the U.S. post-Cold War policies on dual-use export control would provide us with insightful looks into how much it weighs military and economic concern in a multipolar world.

*Is the post-Cold War world truly multipolar?* The end of bipolarity is dramatic and incontrovertible—which international order will stand in its place, however, is much more ambiguous. Is the new world order unipolar, multipolar, or a hybrid? How durable is the current international system? How will it evolve? Since my presented hypothesis implies that the post-Cold War era possesses the structural constraints of a multipolar system, it behooves me to explain why such proposition is appropriate despite the raging debate among scholars on the issue.

First, it is necessary to acknowledge that the U.S. remained, undoubtedly, the only superpower in terms of economic, military, and technological prowess at the time. In 1990, the U.S. singlehandedly commanded 25% of world GDP, with closest runner-ups trailing in the single-digit zone.<sup>57</sup> Similarly, military spending of the U.S. was larger than that of all the other great powers combined, occupying 40% of world total in 1990, and, despite subsequent reductions, remained within the 35-40% range in following years.<sup>58</sup> These facts were lost neither on academics nor on government officials. Krauthammer announced plainly: “The immediate post-Cold War world is not multipolar. It is unipolar,” and that “[The U.S.] is the only country with the military, diplomatic, political and economic assets to be a decisive player in any conflict in whatever part of the world it chooses to involve itself.”<sup>59</sup> Similarly, the first draft of the Pentagon’s Defense Planning Guidance in 1992 showed that the

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<sup>56</sup> Bureau of Industry and Security, “Exporting Basics,” August 2010, 22 July 2011 <<http://www.bis.doc.gov/licensing/exportingbasics.htm>>.

<sup>57</sup> Econstats, “National GDP as percentage of world share,” 22 July 2011 <<http://www.econstats.com/weo/CUSA.htm>>.

<sup>58</sup> World Bank, “World Development Indicators,” 3 August 2011 <<http://data.worldbank.org/data-catalog/world-development-indicators>>.

<sup>59</sup> Charles Krauthammer, “The Unipolar Moment,” *Foreign Affairs*, 70.1 (1990), p. 1, 24.

U.S. was not only aware of its preponderant power but also determined to perpetuate it. "We must maintain the mechanisms for deterring potential competitors from even aspiring to a larger regional or global role," the document stated.<sup>60</sup>

One possible retort to this claim of unipolarity is that this was nothing but a transient phase as the world moved from bipolarity to multipolarity. Realist theory suggests that, due to balancing and uneven growth rates, the hegemon will eventually become unable to assert its predominance over other states.<sup>61</sup> However convincing this argument may be, it does not challenge the claim that the world immediately after the collapse of the Soviet Union was a unipolar system, dominated by the U.S.

Despite this fact, I would argue that my proposed theory is still applicable to the post-Cold War era. As stressed above, my hypothesis focuses on analyzing how the weight of security concern varies as polarity changes. Therefore, it does not require a radical, qualitative shift, but only a gradual yet discernible change in the system structure to be operative. The two causal mechanisms that explain the effect of multipolarity on states' relative gain concern are, 1) threat becomes less clear and more multidirectional, and 2) due to rising challenge from other states and to its own declining capability, the superpower no longer feels unchallenged, and thus becomes unable to afford non-cooperation. Both conditions are fulfilled as the world progressed into the 1990s, regardless of whether it was unipolar or multipolar. Indeed, serious concerns that were raised in response to the industrial might of Japan and the brisk rise of China showed that the U.S. might be powerful but not invincible.<sup>62</sup> Furthermore, scholars have also pointed out that China, for example, needs not even reach the American level of development in order to cause damage to the American international interest and influence.<sup>63</sup>

For these reasons, even though the system might not yet fully transform into multipolarity, I would argue that the systemic constraint has changed enough to produce a variation in the American cooperative behaviors.

#### **D. The case study**

##### **I. A brief history of the U.S. export control system**

The U.S. export control system has its origins in wartime regulations on munitions equipments and services, tracing back to the period spanning World War I and World War II. However, the legislative basis of the current system did not

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<sup>60</sup> Department of Defense, "Defense Planning Guidance," quoted in Christopher Layne, "The Unipolar Illusion: Why New Great Power Will Rise," *International Security*, 17.4 (1993), p. 6.

<sup>61</sup> See Layne, "The Unipolar Illusion," and Waltz, "The Emerging World Structure."

<sup>62</sup> See Richard Bernstein and Ross H. Munro, "The Coming Conflict with America," *Foreign Affairs*, 76.2 (1997); Mastanduno, "Does Relative Gain Matter?" p. 1-2, 75.

<sup>63</sup> See Thomas J. Christensen, "Posing Problems without Catching Up: China's Rise and Challenges for U.S. Security Policy," *International Security*, 25.4 (2001).

come into being until the Export Control Act of 1949, and, since then, has been continually updated as the international context demanded.<sup>64</sup> Three departments, State, Commerce, and Energy, are directly involved in the export control system, each with its own oversight office and control list.<sup>65</sup> As mentioned, this paper will focus on the Commodity Control List, commonly referred to as the dual-use list, which is under the control of the Bureau of Export Administration in the Commerce Department.<sup>66</sup>

Prior to the period examined in this paper, the U.S. export control had already attracted a growing crowd of critics. For example, in its 1987 study, the National Academy of Science criticized the system as, *inter alia*, an impediment to the ability of U.S. companies to compete in world market.<sup>67</sup> Similarly, the Business Roundtable, an association of more than 200 leading companies that were frequently active in public policy debate, declared that “the system has failed . . . to keep pace with dynamic economic, political, and technological developments.”<sup>68</sup>

Adding to domestic criticism was the slow but steady demise of the Coordinating Committee (COCOM) in the international realm. This organization, founded in 1949 by Western countries and led by the United States, aimed to maintain a multilateral export control against the Soviet bloc.<sup>69</sup> As the Cold War was nearing its end, disagreements about the role of COCOM flared up, and eventually led to its quiet death on March 31, 1994 with no successor. Even the American modest proposal for control measures against a handful of rogue regimes was also rejected. “Such controls should be left to “national discretion,” its allies declared, reminding the U.S. that the era of stable alliances and unquestioned American leadership would soon be a thing of the past.<sup>70</sup>

Facing harsh criticism at home and the disappearance of the only multilateral framework abroad, the U.S. export control system sorely needed an overhaul. In the next section, I would first present the security grand strategy of the Clinton administration, which served as the guiding principles of subsequent changes in the export control regime.

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<sup>64</sup> John Heinz, *U.S. Strategic Trade: An Export Control System for the 1990s* (Boulder, Colo.: Westview Press, 1991), Ch.1.

<sup>65</sup> The system includes other agencies. In the State Department, the Office of Munitions Control has authority over the U.S. Munitions List. In the Energy Department, the Nuclear Regulatory Commission controls the Nuclear Referral List. The Defense Department is also involved in the system, albeit with a less extensive and official role. Its authority is generally limited to providing technical and intelligence recommendations. See U.S. General Accounting Office, *Export Controls: Extent of DOD Influence on Licensing Decisions* (Washington: GPO, 1989).

<sup>66</sup> The Bureau of Export Administration was renamed the Bureau of Industry and Security in 2002.

<sup>67</sup> National Academy of Sciences, *Balancing the National Interest* (Washington DC: National Academy Press, 1987), p. 167-177.

<sup>68</sup> Business Roundtable, “Focus on the Future,” quoted in Heinz, *U.S. Strategic Trade*, p.33.

<sup>69</sup> Mastanduno, *Economic Containment*, p. 120.

<sup>70</sup> U.S. Senate, *Export Administration and Enhancement Act of 1994* (Washington: GPO, 1994).

## II. Economic interest in the Clinton's national security grand strategy

Declaring bluntly that the Cold War "is gone," the Clinton administration was determined to propose a new national security strategy. In the White House's vision, "economic security" featured prominently: listed among the three concise objectives of the grand strategy was the goal "to bolster America's prosperity."<sup>71</sup> The White House recognized that in the post-Cold War era, where threats were more diffused, and where economic influence could be more easily deployed than military pressure, an essential core of national security was to have a strong and vibrant economic base. As the document itself declared, "Our economic and security interests are increasingly inseparable . . . The strength of our diplomacy, our ability to maintain an unrivaled military, the attractiveness of our values abroad – all these depend in large part on the strength of our economy."<sup>72</sup>

Trade and economic cooperation were central to not only the administration's goal but also its dual strategy of "enlargement and engagement." By enlargement, the administration meant a strategy to strengthen, expand, and protect "the community of major market democracies."<sup>73</sup> This, in turn, could only be accomplished via "engagement," or America's active leadership in the international theater and its willingness to rely on international cooperation as a foundation to resolve conflicts. For example, regarding the relationships between established market democracies, Anthony Lake, then National Security Advisor, stressed that these states must "act together" to update international economic institutions, coordinate macroeconomic policy, and strive for fair and open trade. After the Soviet's demise, this economic interest would serve as a new "common purpose" for this community.<sup>74</sup> On the other hand, regarding the development of new democracies and market economies, the key strategy was, once again, to integrate these nations into the global economy, which was why "NAFTA and the GATT rank so high on [the American] security agenda."<sup>75</sup> Furthermore, in order to pursue these economic strategies effectively, the administration also put in place a supporting organizational structure, including the National Economic Council, a very strong Treasury and Commerce Department, and the U.S. Trade Representative.<sup>76</sup>

What all of this evidence point to is a remarkably different security vision, in which economic interest has attained an unprecedented priority.<sup>77</sup> As we will see in the case of American policies towards China, when there is a conflict between

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<sup>71</sup> United States, *A National Strategy of Enlargement and Engagement* (Washington: GPO, 1995), p. iii.

<sup>72</sup> *Ibid.*, p. 19.

<sup>73</sup> Anthony Lake, "From Containment to Enlargement," U.S. Department of State Dispatch, Vol. 4, No. 39 (September 27, 1993), p. 71.

<sup>74</sup> *Ibid.*, p. 72.

<sup>75</sup> *Ibid.*, p. 72, 73.

<sup>76</sup> Don M. Snider, *The National Security Strategy: Documenting Strategic Vision* (Carlisle Barracks, PA: Strategic Studies Institute, U.S. Army War College, 1995), p. 11.

<sup>77</sup> See Douglas Brinkley, "Democratic Enlargement: The Clinton Doctrine," *Foreign Policy* 106 (1997), p. 113; Barry R. Posen and Andrew L. Ross, "Competing Visions for U.S. Grand Strategy," *International Security* 21.3 (1996), p. 45.

economic and security considerations (which is frequently the case in the area of export control), the former often carries a heavier weight. If this is true, it will support my hypothesis that security concern has become less useful in explaining the American behaviors in cooperation.

### III. Engaging with China

The new emphasis placed on economic interest shifted the American policies towards engagement with China. This, however, was by no means an obvious or uncontested choice. On the one hand, China's increasingly open market of more than one billion people promised to be a fertile ground for the U.S. merchandises and investments. On the other hand, China's quickly growing economy and modernizing military also presented a potential infringement on the American international influence. This dilemma is, in fact, irresolvable. The U.S. cannot have a China that is open to trade without also enduring one that is increasingly powerful, because, due to the difference in the level of economic development between the two states, China will always benefit more from trade than the U.S.<sup>78</sup> Statistics demonstrate this point vividly: while the American export to China rose steadily throughout the 1990s with only a slight decrease in 1999, China's export to the U.S. rose much faster, as reflected in the ever-widening trade deficit. For these reasons, the China conundrum is such an important case in understanding the American calculus: in its eyes, does a rising China present an opportunity for absolute gain, or a threat of relative loss?

	Export	Import	Balance
1990	4,806.4	15,237.4	-10,431.0
1991	6,278.2	18,969.2	-12,691.0
1992	7,418.5	25,727.5	-18,309.0
1993	8,762.9	31,539.9	-22,777.0
1994	9,281.7	38,786.8	-29,505.1
1995	11,753.7	45,543.2	-33,789.5
1996	11,992.6	51,512.8	-39,520.2

Source: U.S. Census Bureau, *Foreign Trade – U.S. Trade with China*, Accessed 5 August 2011 <<http://www.census.gov/foreign-trade/balance/c5700.html>>.

Perhaps few would disagree that the rise of China brought both. What was much more contentious, however, was how to strike the delicate balance between the two concerns. Certainly, many pundits and academics had clamored for a “containment” policy against China. Bernstein and Munro, for example, warned that integration would help promote China's economic influence, which “are already giving it the power to . . . expand its power and prestige abroad in ways hostile to

<sup>78</sup> Albert O. Hirschman, *National Power and the Structure of Foreign Trade* (Berkeley and Los Angeles: University of California Press, 1945), Ch. 2.

American interests.”<sup>79</sup> Even more scathingly, Professor Mearsheimer directly decried the Clinton administration’s belief in economic engagement.<sup>80</sup> Restively worried about the modernization of China as a severe security threat, these authors argued that containment was the only sensible policy to prevent China from becoming an even greater threat.<sup>81</sup>

The administration took the exact opposite course. On 19 November 1992, within 15 days of winning his presidency, President-elect Clinton declared that the U.S. had “a big stake in not isolating China.”<sup>82</sup> Similarly, on 26 May 1994, despite China’s blemished human rights record, the administration extended the most-favored-nation (MFN) status to China. To do otherwise would effectively sever the extensive trade linkages between the two states, and thus imposed an economic cost deemed unacceptable by the administration. In making this decision, the administration had to contradict its own executive order, which linked the continuation of the MFN status with human rights issue.<sup>83</sup> Therefore, this incidence clearly demonstrated an especially strong commitment to economic interest. Indeed, the priority that the President assigned to economic engagement over other concerns was displayed with remarkable clarity in his announcement:

The Chinese did not achieve overall significant progress in all the areas outlined in the executive order relating to human rights,

[However], the question now for us is . . . how can we best advance the cause of human rights and *the other profound interests* [emphasis added] the United States has in our relationship with China.

. . . I believe the question, therefore, is not whether we continue to support human rights in China, but how we can best support human rights in China and advance *our other very significant issues and interests* [emphasis added]. I believe we can do it by engaging the Chinese . . . We will have more contacts. We will have more trade. We will have more international cooperation. We will have more intense and constant dialogue on human rights issues.<sup>84</sup>

All of this evidence shed light onto the significance of economic interest in the American foreign policy post-Cold War. However, the question of our direct interest remains: how does the U.S. balance economic and security considerations when there is a conflict? Can security concern continue to be useful in explaining the American cooperative behaviors? These questions will be addressed in the following

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<sup>79</sup> Bernstein and Munro, “The Coming Conflict with America,” p. 22.

<sup>80</sup> Mearsheimer, “The False Promise of International Institutions,” p. 5.

<sup>81</sup> John J. Mearsheimer, *The Tragedy of Great Power Politics* (New York: Norton, 2001), p. 65-67.

<sup>82</sup> David M. Lampton, “America’s China Policy in the Age of the Finance Minister: Clinton Ends Linkage,” *China Quarterly* 139 (1994), p. 601.

<sup>83</sup> White House, *Executive Order No. 128590* (Washington: GPO, 1993).

<sup>84</sup> White House, *Press conference of the President*, 26 May 1994 (Washington: GPO, 1994).



sections, which give a detailed account of changes in the U.S. dual-use export control system in general and with regard to China in particular.

#### IV. The U.S. liberalized export control regime

Consistent with the high priority assigned to economic interest, the U.S. significantly liberalized its export control regime. This trend is reflected in both the overall regime and in its policies toward China.

##### 1. Overall liberalization

Convinced that the existing export control system was stifled by too much security concern, the administration was determined to pursue substantial liberalization. Despite hurdles in Congress, these measures were successfully pushed forward via executive order. As Lynn Davis, the then Under Secretary of State for International Security Affairs, pointed out, these unprecedented reforms sought to achieve, *inter alia*, two important goals:<sup>85</sup>

- i. Liberalize export controls . . . in light of the dramatic changes in the world, and keep controls focused only on weapons of mass destruction, missiles, dangerous conventional arms, and other threatening military capabilities.

This approach set the new export control regime apart from its predecessors by explicitly demarcating a limited authority, covering only WMD, missiles, and dangerous conventional arms. Dual-use technology, which had been frequently on the ban list in the past, was deemed less subject to control—now, only the highest technology required a license from the Commerce Department.<sup>86</sup> Sending the same message, in 1993, Deputy Defense Secretary William Perry bluntly commented that controlling dual use technology was “a hopeless task” and that “it only interferes with our companies’ ability to succeed internationally.”<sup>87</sup> Similarly, limiting controls in dual-use export had become a personal mission of President Clinton. In response to a chief executive officer of the computer maker Silicon Graphics, he wrote: “One reason I ran for President was to tailor export controls to the realization of a post-cold war world.”<sup>88</sup>

- ii. Reserve the right to impose unilateral controls in *those limited and extreme circumstances that may require them* (emphasis added).

The reservation that the administration expressed towards unilateral control reflected its belief that large economic loss could no longer be justified by security gain. Indeed, to continue unilateral control is to deny American manufacturers entire potential markets, paving the way for their direct competitors in Europe or in Japan to enter. Given the high-tech nature of dual-use export, this loss does not only

<sup>85</sup> Lynn Davis, *Export Controls and Non-proliferation Regimes in the Post-Cold War World*. Ed.

<sup>86</sup> Wisconsin Project, *U.S. Exports to China 1988-1998*, Sec. 1.1.

<sup>87</sup> Gerth and Schmitt, “The Technology Trade: A Special Report,” *The New York Times*, October 19, 1998.

<sup>88</sup> *Ibid.*

mean an immediate reduction in profits but also long-term erosion in the ability to re-invest and bolster competitiveness. In addition, facing the United States' unilateral re-export control policy, which forbade receiving countries from re-exporting machines with American parts to proscribed markets, foreign manufacturers around the world also started "designing around" American technology.<sup>89</sup> For these reasons, while unilateral control could limit the availability of military significant items to proscribed states, it would also result in substantial economic loss. Once the U.S. deemed these costs unacceptable and started limiting the use of unilateral control, it effectively brought its export control regime much more in line with those of other states, which were remarkably more liberal.<sup>90</sup>

Did changes in rules also lead to changes in results? The answer is yes. These liberalization efforts successfully led to an overall reduction in dual-use export license applications, especially from 1993 to 1994 (Table below). This change was largely credited to relaxed controls in telecommunications, supercomputers, and a diminished military concern after the fall of the Soviet Union.<sup>91</sup> Similarly, in his statistical study, Fuhrmann also finds that, in the period of 1991-2001, whether the receiving states had dissimilar foreign policies was not a significant determinant of how much dual-use export it received from the U.S.<sup>92</sup>

Year	Applications Received	Approvals	Denied or Suspended	Returned without action*
1993	26,126	NA	NA	2,610
1994	12,609	11,038	290	3,038
1995	9,982	8,479	110	1,446
1996	8,075	7,102	256	1,337

Source: BXA annual reports, quoted in Cupitt, *Reluctant Champions*, p.192.

\* In most case, an application is returned without action due to insufficient information or applicant's self-withdrawal.

## 2. Liberalization of export policies towards China

The American export policy towards China was not an exception to this larger trend of liberalization. As a quickly growing market, a potential rival, but not yet an enemy, China was the exemplifying case that demonstrated the delicate balance between plenty and power that the Clinton administration had to maintain.

<sup>89</sup> Derrel de Passe, Vice President of Varian Associates, Inc., *Testimony before Senate Subcommittee of International Finance and Money Policy*, February 3, 1994.

<sup>90</sup> Thomas Connelly, Treasurer of Hardinge, *Testimony before the Senate Subcommittee of Banking, Housing, and Urban Affairs*, July 31, 1996.

<sup>91</sup> Richard T. Cupitt, *Reluctant Champions: Truman, Eisenhower, Bush, and Clinton: U.S. Presidential Policy and Strategic Export Controls* (New York: Routledge, 2000), p. 192.

<sup>92</sup> Matthew Fuhrmann, "Exporting Mass Destruction? The Determinants of Dual-Use Trade," *Journal of Peace Research* 45.5 (2008), p. 647.

Evidence shows that the weight had shifted towards plenty: for China, lower barriers to trade and relaxed export controls resulted in a sharp reduction in required licenses applications – from 2,392 in 1993 to just 789 in 1996.<sup>93</sup> Commerce Department internal documents showed that China had been a major beneficiary of this policy. According to a 1995 estimate, more than \$1.9 billion in annual trade with China had been removed from Federal scrutiny. "China has benefited more than any other country from U.S. decontrols on certain dual-use commodities enacted in late 1993 and early 1994," one Commerce Department document said, "There has been a 60 percent decrease in the number of individual export licenses required for trade with China (from 2,229 in 1993 to only 925 in 1994)."<sup>94</sup>

Standing by themselves, these figures mean little: it is plausible to interpret them as the result of a change in the business environment and not in the American policies. I would remedy this problem via three case studies in US-China export control policy, i.e. commercial satellite, supercomputer, and missile controversy. With this detailed look, one can see that the preponderance of economic interest was also reflected in the rebalancing of authority among Departments and in the administration's embracement of economic gain even in the face of direct security loss.

a. Commercial satellite: rebalancing departmental authority

Cooperation in satellite launch between the United States and China started in 1988, when U.S. satellite manufacturers came to China for the launch capability that was much cheaper than the service at home. Because the technology used to integrate U.S. satellites to Chinese launch vehicles could also be used to improve the launch system of ballistic missiles, these commercial satellites were listed as dual-use items. In 1990, pursuant to an executive order of President George H. W. Bush, an interagency committee considered which dual-use satellites could be removed from State's munitions list and put under Commerce's jurisdiction. Some authority transfer was achieved—however, Commerce noted, "this limited transfer only partially fulfilled the President's 1990 directive."<sup>95</sup>

In 1993, the issue of jurisdiction over commercial satellites was broached once again, leading to the formation of an interagency review.<sup>96</sup> In 1995, based on the committee's findings, the Secretary of State agreed to narrow its jurisdiction but refused to allow Commerce's full authority over satellites.

This time, however, the Clinton Administration intervened to tip the balance. Consistent with its focus on economic gain, especially in the high-technology sector,

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<sup>93</sup> Clarke and Johnston, "U.S. Dual-Use Exports to China," p. 194.

<sup>94</sup> Gerth and Schmitt, "The Technology Trade: A Special Report."

<sup>95</sup> U.S. General Accounting Office, *Export Controls: Issues Related to Commercial Communications Satellites*.

<sup>96</sup> The review was conducted in an interagency committee, which included representatives from State, Defense, Commerce, the National Security Agency, the National Aeronautics and Space Agency, and the intelligence community.

the White House removed commercial satellite from the jurisdiction of the restrictive, security-conscious State and put it under the purview of the business-friendly Commerce. In a compromise, Commerce was required to refer all licenses to an interagency that included State, Defense, Energy, and the Arms Control and Disarmament Agency. Commerce also agreed to have Defense's monitors on site to oversee technological transfer.

Despite these added restrictions, the rebalancing of departmental authority did insulate the export of satellite from intrusive military concern. A GAO report found that Defense's influence was diluted as a result: before the change in jurisdiction, State would frequently defer to recommendations of Defense; now, with Commerce at the helm, Defense had the burden of persuading a majority of other agencies to support its position.<sup>97</sup> Furthermore, unlike State, Commerce did not require a separate license specifically for technical transfer – thus, notwithstanding the provision for Defense's monitors on site, Defense did not have full information about what technology was being transferred, or whether any transfer was intended at all.<sup>98</sup> Finally, despite having missile-related components, once commercial satellites were removed from State's Munitions List, they were no longer subject to all missile-related sanctions.<sup>99</sup> All of these changes culminated into a streamlined, business-friendly process with fewer checkpoints for State and Defense to interdict.

b. High-performance computers (HPC): when clear security gain is not enough

Under an old agreement with COCOM members, the U.S. forbade export of supercomputers—defined as computers that are able to process 12.5 Million Theoretical Operations per Second (MTOPS, a standard measure of computer performance)—to the former Soviet Union, Eastern Europe, and China. The U.S. computer manufacturers were, unsurprisingly, disgruntled about these restrictions. At a dinner with the President in 1993, they “complained bitterly” about hindered sales of computers and other cutting-edge technologies overseas. President Clinton reportedly “took copious notes and promised relief.”<sup>100</sup>

The sweeping liberalization that ensued shocked the industrialists themselves. In September 1993, President Clinton announced the immediate removal of export controls over computers with a capacity up to 194 MTOPS (up from the previous cut-off level of 12.5 MTOPS). “Supercomputer,” which was subject to more stringent re-export controls, also underwent radical liberalization: its definition was changed from being 194-MTOPS to 1,500-MTOPS machines. Restrictions were substantially dismantled yet again in October 1995, when manufacturers could export computers up to 2,000 MTOPS to China with only a

<sup>97</sup> Gerth and Schmitt, “The Technology Trade: A Special Report.”

<sup>98</sup> U.S. General Accounting Office, *Export Controls: Issues Related*.

<sup>99</sup> Bill Gertz, “Clinton rescinded Bush's policy on exports,” *The Washington Times*, June 15, 1998, pg. A1.

<sup>100</sup> Gerth and Schmitt, “The Technology Trade: A Special Report.”

general license, meaning that the exporters no longer needed to acquire Commerce's approval before shipment.<sup>101</sup> With these liberalization measures, "the administration abandoned any pretense of controlling most computers."<sup>102</sup> As a result, soon after the enactment of these rules in 1996, China quickly bought 77 HPCs, the kind of which it had never had access to.<sup>103</sup>

Compared with the case of commercial satellites, the liberalization of HPC export control took place in the face of much more tangible security loss, and thus demonstrated an even stronger commitment to economic interest over security concern. First, in this case, the oft-invoked argument of "foreign availability," (i.e., if the U.S. does not sell these computers, other countries will), did not hold as in other areas. Indeed, reports showed that the U.S. was still the sole and dominant producer in HPC industry.<sup>104</sup> The only other player in the business was Japan, which not only trailed behind the U.S. technologically, but was also already in an agreement with the U.S. to jointly limit HPC export.<sup>105</sup> Therefore, a stringent export control could substantially restrict China's ability to acquire advanced computer technology. However, the U.S. decided to forgo these tangible opportunities in favor of economic gain.

Second, despite the putative civilian end use of these exported computers, the U.S. had no means to verify their uses once they left the border. Indeed, out of 286 HPCs exported to China from 1996 to 1998, only 3 could be located and verified.<sup>106</sup> The risk of these computers contributing to the modernization of China's military was not imaginary. The CIA and other federal agencies were able to conclude that some of these computers were used by the Chinese military, whereas the details of their use remained unclear. In addition, due to the prevalence of military-owned enterprises in China, there was "no difference between civilian and military buyers," thus making end use verification much less effective.<sup>107</sup> Yet once again, when facing these gray areas, the administration chose to give more weight to the concerns of high-tech industries and approved export liberalization despite real and significant security risk.

If looked via the lens of security-driven relative thinking and within the framework of bilateral relationship, it is indeed incomprehensible why the U.S. gave China the invaluable opportunity to upgrade its army while the U.S. received

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<sup>101</sup> Validated individual licenses, which Commerce granted on a case-by-case basis, were still required for computers with a capacity between 2,000 to 7,000 MTOPS. Export of computers with a capacity over 10,000 MTOPS might require additional safeguards measures, such as on-site monitors or post-shipment verification.

<sup>102</sup> Cupitt, *Reluctant Champions*, p. 191.

<sup>103</sup> Gerth and Schmitt, "The Technology Trade: A Special Report."

<sup>104</sup> *Ibid.*

<sup>105</sup> Gary Milhollin, "Japan Should Refuse American Pressure to Decontrol Supercomputers," *Yomiuri Shimbun*, September 28, 1995.

<sup>106</sup> Aylan Broadbent, "U.S. Export Controls on Dual-use Goods and Technologies: Is the High Tech Industry Suffering?" *Currents International Trade Law Journal* 8.49 (1999).

<sup>107</sup> Gary Milhollin, "Fire Sale," *The New York Times*, September 18, 1995, A15.

disproportionately less benefits in the form of only a few private contracts. Even more bewildering is how strongly determined the administration was in pursuing this decisions despite major obstacles, including scathing critics in the media and in Congress, as well as the resentment of Japanese officials over the broken bilateral export control.<sup>108</sup> Taken together, these evidences suggest that the administration no longer let security concern be the preponderant principle in guiding economic decisions.

c. Missile controversy: economic and security considerations in direct clash

In the previous two cases, the balance between military and economic concerns involves many surmises and unknowns about cost and benefit in the future. In the missile controversy regarding China's sale of M-11 missiles to Pakistan, however, the conflict of interests became much more heightened and direct.

In 1991, the U.S. announced that it had spotted evidence of China's missile-related sales to Pakistan and proceeded to impose sanctions despite China's denial.<sup>109</sup> In March 1992, the punishment was lifted in exchange for China's verbal agreement to abide by "the guidelines and parameters of the Missile Technology Control Regime (MTCR)."<sup>110</sup> However, controversy flared up once again in 1993, when intelligence suggested that China had continued to transfer 34 completed M-11 missiles to Pakistan in violation of its 1991 verbal pledge.<sup>111</sup> Pursuant to the Arms Export Control Act (AECA) and the Export Administration Act (EAA), sanctions were required. Therefore, the administration once again faced a thorny dilemma: imposing sanctions meant denying many exports to China at huge economic loss, yet to do otherwise would indicate a lax commitment to the goal of non-proliferation. How would the administration handle this direct confrontation between military and economic interests?

One contentious issue was whether China's transfer to Pakistan involved M-11 related technology (Category II of the MTCR) or complete missiles (Category I of the MTCR). The gravity of this question did not lie so much in a desire to adhere to the letter of the law but in its economic consequence. To accuse China of a Category I transfer is to deny exports of all controlled items to China, including supercomputers, satellites, and missile technology.

Finally, on August 24, 1993, the Clinton administration determined that China had transferred only parts of M-11 missiles to Pakistan, which amounted to a

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<sup>108</sup> Milholin, "Japan Should Refuse American Pressure to Decontrol Supercomputers"; Gerth and Schmitt, "The Technology Trade: A Special Report."

<sup>109</sup> Jeffrey R. Smith, "Chinese Missile Launchers Sighted in Pakistan," *The Washington Post*, 6 April 1991, A17.

<sup>110</sup> Jeffrey R. Smith, "U.S. lifts sanctions against Chinese firms," *The Washington Post*, 22 February 1992, A15.

<sup>111</sup> Gordon Oehler, *Testimony before the Senate Foreign Relations Committee*, 11 June 1998.

violation of MTCR Category II.<sup>112</sup> This decision meant less severe penalties, which only affected the export of several missile-related items. There are reasons to believe that this finding was motivated more by economic concern than by accurate intelligence. With its vast network of informants in Asia and based on spy-satellite photos, the CIA soon concluded that China had not only delivered missiles parts but also more than 30 ready-to-launch M-11s. And yet this “first-class piece of spying,” as a senior agency official proclaimed, did not alter the administration’s decision.<sup>113</sup> Critics in Congress also accused the Clinton administration of dilatory tactics, such as re-writing reports and setting high evidentiary standards, to avoid imposing sanctions. Similarly, a report by the Senate Foreign Relations Committee, issued in September 2000, criticized the “bureaucratic maneuvers” used by the administration to delay the draft of findings from the intelligence community as well as to postpone interagency meeting to consider these evidences.<sup>114</sup>

In addition to the relatively benign Category II sanction, the Clinton administration also issued a waiver in July 1994, which permitted the exports of three U.S. satellites to China despite the sanctions in place.<sup>115</sup> The administration offered a few justifications that tried to paint this decision as a continuation of established procedure. For one, the administration claimed that it was merely continuing a precedent set by President Bush, who waived Tiananmen-related sanctions and authorized satellite exports to China. In addition, in January 1994, the administration argued that its decision complied with established legislation, because only satellites under State’s jurisdiction, and not those controlled by Commerce, were covered by the sanctions.

However, under scrutiny, these arguments belie a clear break in the policy focus of the Clinton administration from those of its predecessors. First, President Bush only waived sanctions related to the Tiananmen Square incident, and not those related to earlier sales of M-11 missiles. Herein lies a crucial difference: the Clinton administration was willing to compromise on security concern while its predecessor was not. Second, as Senator Helms, chairman of the Senate Foreign Relations Committee, also the author of the AECA missile sanction, confirmed, the previous administration “agreed that all satellites were covered by U.S. missile sanctions laws regardless of how they were licensed.”<sup>116</sup> Finally, the justification that these satellites were exempted because they belonged to Commerce’s jurisdiction did not show the administration’s law-abidingness as much as it exposed the administration’s attempt to change the law. Indeed, as discussed above, it was the White House who, in 1996, forced the shift of authority over satellite export from State to Commerce. As demonstrated in this missile controversy, the

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<sup>112</sup> Douglas, “The Secret Missile Deal,” *Time*, Jun. 30, 1997.

<sup>113</sup> *Ibid.*

<sup>114</sup> Shirley A. Kan, Congressional Research Service, *China and Proliferation of Weapons of Mass Destruction and Missiles: Policy Issues* (Washington: Library of Congress, 2002), p. 12; Douglas, “The Secret Missile Deal,” p. 2.

<sup>115</sup> Cupitt, *Reluctant Champions*, p. 173.

<sup>116</sup> Gertz, “Clinton rescinded Bush’s policy.”

administration's attempt to sever satellite export from security concern proved to be very successful.

### **E. Conclusions and remaining problems**

What little has this paper contributed to the relative gain debate? In a few dozen pages, I first pointed out some theoretical problems with the prevalent arguments on both sides, including a fixation on security-driven concern and an iterated, immutable Prisoner's Dilemma model. Subsequently, I attempted to rectify these defects by proposing a framework in which relative gain can alter both the security and the economic game structures, thus also bringing attention to the possibility of welfare-driven concern—an oft-neglected component of states' calculation. I then offered and explained the causal mechanism behind the hypothesis that in multipolarity, relative gain seeking in economic cooperation becomes less useful as a strategy to maximize security. For this reason, states will give less weight to security-driven concern while making decisions in economic cooperation.

In the empirical section, I attempted to show that, as the world transitioned into multipolarity, the U.S. showed a greater concern with economic interest in its foreign policy in general and in its liberalized export policies with China—a security rival—in particular. Previous studies have shown the American increasingly competitive posture vis-à-vis its allies—when these findings are put together with mine, a fuller picture emerges to show a convergence in the American economic policies. No longer does the U.S. treat its allies and rivals so discriminately as it did in the Cold War era. As the system moves away from bipolarity and gradually towards multipolarity, security concern seems increasingly incapable of explaining the American cooperative behaviors.

The more important question is, of course, what this paper has not accomplished. The first remaining issue is one of scope, which is obvious but also rather tractable. Instead of relying on previous studies of American economic policies towards allies, this paper can benefit from an investigation of the American export control policies towards not only China but also a full range of its allies and rivals. In this way, with the time period and the sector kept constant, the *ceteris paribus* requirement is more satisfactorily met.

Furthermore, this paper studies only a short period of the American post-Cold War history, from 1992 to 1998. This period also falls within a presidency of the Democratic Party, which had been in opposition in the previous twelve years. This shortcoming of scope may lead to the legitimate objection that the shift in American cooperative behaviors is not due to a change in the polarity of the international system, but to a change in the domestic policy paradigm. This concern is valid, and thus demands an expansion of my study.

Other, and more, grievous problems remain. The main theoretical thrust of my paper is that security-driven and welfare-driven concerns are distinct and have



different sets of independent variables. How to distinguish these two types of concerns empirically is both difficult and necessary. Indeed, if one dreams of drawing any causal relationship between the weight of security concern with a state's cooperative behaviors, he must first be able to determine which type of concern motivates such observable behavior.

There are two possible solutions. First, one can focus on a sector that approximates a perfectly competitive market. If one accepts the argument that relative gain matters only insofar as it is capable of altering the game structure, then in such a sector, where no player is powerful enough to influence the market, pursuing relative gain is a doomed strategy to maximize one's welfare. Hence, in this case, welfare-driven concern can be ruled out as the cause of a state's decisions in economic cooperation. The variation in the state's observable policies can, therefore, be causally connected to the variation in the weight of security-driven concern.

Second, one can also study the evolution of states' cooperation in one sector, if the economic structure of this sector remains constant while the polarity of the security world varies. In this way, even though welfare-driven concern is not eliminated, it is kept constant. Therefore, once again, welfare-driven concern cannot be mistaken as the cause of the variation in states' policies. The challenge is, of course, to find a sector in which players and their relative economic strengths remain relatively constant throughout and after the Cold War period. Therefore, this solution, while theoretically plausible, seems less practically useful.

Having discussed these requirements for a definitive test, I must admit that my analysis presented here falls far short. By choosing the U.S. dual-use export control as a subject, this paper into, at best, a plausibility probe. It looks at the crossroads of the American economic and security interests to see if there is any evidence of a growing weight assigned to economic concern. Evidences are indeed found, and thus provide encouraging signs of my hypothesis' plausibility. However, since economic interest is also intricately woven into security strategy in the dual-use export era, this paper has done poorly in distinguishing the two types of relative gain concerns. With these limitations in mind, I hope that the theoretical discussion can compensate somewhat by providing a convincing causal explanation and a possible, more definitive research design.

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