# Factors Affecting Increasing Military Expenditures in Latin America, 1996-2006

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This research primarily covers quantitative data on military expenditures by Latin American countries. Data collected by diverse international centers demonstrates that in a part of the world where serious confrontations have not taken place during the 20<sup>th</sup> century, there was an acquisition of materials and a technological jump in recent years that could lead to a dangerous armament race. Grabendorff's typology (1982) and the potential for conflict in Latin America can help to explain why some states – such as Venezuela and Brazil – are increasing their military expenditures. Other factors, such as gross domestic product (GDP) and domestic conflicts, can explain these expenditures in Argentina, Chile, Colombia, Ecuador, and Peru.

The purpose of this article is not to estimate military strength of Latin American countries or test an arms race theory. Instead, I have explored the question of whether or not there is an arms race within this region of the world and the factors that have affected the military expenditures within these nation-states. The article, which is supported by reported defense budgets, attempts to attract the attention of other scholars to the arms buildup in Latin America, and assesses the possibilities for further research in this area. It is important that all measurements in the social sciences are theoretically supported; therefore I will briefly review the seminal research written about this complex phenomenon.

The history of Latin America has shown us that this region has been wrought with both military uprisings and/or the active participation of the military in political affairs or the governance of the nations-states. This can be considered a reflection of the democratic fragility in the Latin American nations. We must remember that the renaissance of democracy in many states in the southern hemisphere is a relatively recent phenomenon. Consequently, the fracturing of democracy in any Latin American nation-state can have a domino effect in the region, thus creating tensions and instability in other nation-states of this region.

In view of this, political scientists in the latter part of the eighties and early nineties, used to think of events such as the peace process in Central America, the redemocratization of several Latin American states, the crumbling of the Soviet Union, and the end of the Cold War as a good omen for political stability within the region. During that time, military expenditures tended to experience a reduction, going from three percent of the gross domestic product (GDP) in the mid-eighties, to 1.6 percent in 1991, and 1.7 percent in 1995 (Bromley & Perdomo, 2005). This process, however, has unfortunately been reversed. AT the time this article was written, several Latin American nations

have significantly increased their defense expenditures. This leads us to the following questions: Is there arms race today in Latin America? If so, what are the factors influencing it?

#### **THEORY**

The basic definition of an *arms race* is that it is the competitive, resource constrained, dynamic process of interaction between two states or coalitions of states in their acquisition of weapons (Intriligator & Brito, 2000). The classic *Richardson model* of an arms race has dominated the theoretical work on this topic. In this research, however, I argue that the Richardson paradigm may no longer be appropriate since it pays scant attention to domestic politics and decision making processes. The approach used in this article is more focused on the relative potency of external and internal factors than on the reliance on rigid interpretation of statistical measures.

It is not my goal to attempt a comprehensive literature review since many excellent works in this sense already exist. Some reviews (see, for example, Moll & Luebert, 1980; Russett, 1983; Isard & Anderson, 1985; Isard, 1988; and Etcheson, 1989) are very comprehensive, whereas others (see, for example, Luterbacher, 1975; Rattingert, 1976; Schrodt, 1978; and Stoll 1982) focus on the methodological contributions of previous researchers. Other groups (Moll & Luebbert, 1980) found that in most cases, domestic factors overshadow external ones in their analysis of arms races. Likewise, three additional analytic models have been contributed to this field of research: the Budgetary Process Model (Ostrom, 1977, 1978), the Policymaker's Expectation Model (Majeski & Jones, 1981), and the Toy Model (McGinnis, 1991). These models make important contributions to the study of arms races phenomena by applying differential equations in order to establish a linear relationship between a pair of nations or organizations.

In this article, I stake out the position that a "mini arms race" (Kim, 1984) is underway in some Latin American countries and that the origins of this process may be both *external* (as a reaction of other nations military expenditure) and *internal* (based on bureaucratic, economic, political, or other factors).

To be able to explore in this issue and formulate an approximate answer to the questions previously stated, it is imperative that we initially make the following observation. Even though the nations within the Latin American region have similar cultural and historic characteristics, this region is not a "homogeneous unit." As a result, some Latin American scholars, among them Bromley and Perdomo (2005) and Romero (2007), state that this region is divided geo-politically, geo-culturally and geo-economically into the following groups:

- Mexico and Central America. Even though they each have distinctive elements, this group has a strong nexus with the United States of America.
- The Andean Community. This community includes Bolivia, Colombia, Ecuador and Peru. Venezuela separated from the community in 2006. The integration of this sub-regional grouping has been disintegrating over the last few years as a result of, among other factors, the foreign policy of the Venezuelan president Hugo Chavez and the electoral triumph of left wing governments in Bolivia, Ecuador and Nicaragua.
- Chile and Mercosur The Southern Market. Argentina, Brazil, Paraguay and Uruguay are full members. Venezuela has been granted access. The Southern Market has presented problems of a fundamentally geo-economic nature, as a result of the economic asymmetry of its member states.

This heterogeneity, together with the fragility of the democracies within the subcontinent, makes us look with a worried eye at the increase in military expenditures in some nation-states.

Before attempting to answer the two research questions listed at the beginning of this article, it is imperative that I point out some considerations of a methodological nature:

 The availability of trustworthy information on military expenditures in Latin America is very limited despite the efforts made by the United Nations Economic Commission for Latin America and the Caribbean (ECLAC). Among other factors, this difficulty is due to the deliberate manipulation by various governments in reporting their military expenditures. On occasion, military expenditures are not only registered in and executed by the Defense and Finance Ministries of the nation-state, but also within a number of other government agencies.

- 2. No state is obliged to give out information on its military expenditures. As a consequence, the international institutions that gather and analyze this data are forced to believe in the "goodwill" of the domestic institutions to report this information.
- 3. Some countries, such as Colombia, include monies destined to the police forces within their military expenditure funds whereas other countries do not. This is because their governments believe that some threats to National Security are domestic problems such as guerrilla warfare and drug trafficking.
- 4. The total amount of resources destined for military expenditures does not come exclusively from the national budget, but also from the financial resources generated directly by the decentralized entities of the nation-state.
- 5. The quantitative indicators usually used to measure military expenditures, such the relationship of military expenditures to the GDP or the national budget cannot be interpreted as signs of military power. That is, the military strength of a nation cannot be measured exclusively by its military expenditures. Even though we can assume that there exists a positive correlation between military expenditures and military power within the nation, we cannot presume that this correlation is high or low or even uniform in all cases.
- 6. Furthermore, military expenditures do not measure the direction of the foreign policy of a nation-state. High military expenditures do not imply that the foreign policy of a nation towards other nations is of a bellicose nature. In the same manner, a reduced military expenditure does not imply that the foreign policy of a particular nation can be considered a pacifist.

Some military behavior analysts suggest that special attention should be given to sudden changes in military expenditures—more so than to the specific aspects of the size. Based on the typology and "potential for conflict in Latin America" (Grabendorff, 1982), we can see that the increase in military expenditures observed in some nation-states will also increase the possibility of the following types of interstate conflict, taking into account that certain conflicts may simultaneously belong to more than one category:

• Conflicts among systems. This is based on ideological differences between two nation-states. According to Monty and Jaggers (2007), within Latin America there are some democratic nation-states, while others are considered authoritarian regimes. These ideological differences have increased in Latin America with the triumph of left wing governments in countries such as Venezuela, Bolivia, Ecuador and Nicaragua. As a result,

relationships have worsened between some nationstates such as: Colombia and Venezuela; Costa Rica and Nicaragua; Nicaragua and Colombia; Ecuador and Colombia; and Bolivia and Peru.

- **Hegemonic conflicts.** There is a pretentiousness of regional hegemony among some nation-states in the subcontinent. At present, two evident examples of this are Brazil and Venezuela.
- Territorial conflicts. There are numerous territorial disputes within Latin America. The following are the most well known: Chile and Argentina; Chile and Bolivia; Colombia and Venezuela; Honduras and El Salvador; Honduras and Nicaragua; Nicaragua and Colombia; Peru and Chile; Peru and Ecuador; and Venezuela and Guyana.

Migratory conflicts may also increase the likelihood of interstate conflict between Latin American nations. It is not my intention to discuss all of the causes of interstate conflict present in Latin America. For this reason, the typological classifications listed above have been presented merely to illustrate the latent risk threatening the peace within this region of the world. Due to the fact that an elevated military capacity tends to heighten the disposition towards conflict, rising military expenditures increases this risk.

In view of these explanations and despite the previously mentioned limitations, it is hoped that this article will contribute to the interpretation of the military expenditures within some Latin American nation-states, and will lead to the future development of an econometric model that will allow us to measure the impact of each intervening variable on expenditures.

### **COMPARATIVE INDICATORS**

This article will follow the methodology commonly used by the Stockholm International Peace Research Institute (SIPRI). Therefore, this study is based on the gathering and analysis of data corresponding to the following indicators: (1) military expenditures in constant dollars; (2) military expenditures as a percentage of the GDP; and (3) military expenditures as expenditures by inhabitant (ME/per capita).

The sample used in this study consists of the following nation-states: Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay and Venezuela. Some countries were not used if they lacked criteria necessary for the purpose of this study. In these circumstances, countries were omitted: (1) if the information pertaining to their military expenditures was untrustworthy or unavailable; (2) if their military expenditures were so small that it was irrelevant; or (3) if the territories were ascribed to other countries external to the region, therefore their expenditures are covered by that nation.

Table 1 shows the military expenditures of each Latin American state, in millions of U.S. dollars. As can be observed, the highest proportion of the military expenditures within Latin America for the period of 1996 through 2006, is concentrated within the following nation-states: Argentina, Brazil, Chile, Colombia, Mexico, Peru, and Venezuela. This could lead some scholars to think that there is not a general arms race underway in this region. However, the fact that the military expenditures are concentrated within just a few countries is not a reason to ignore these increases. Some nation-states, such as Chile, have increased military spending in constant dollars during this time period by 114.5 percent. Venezuela increased its spending by 76 percent followed by Columbia with 64.7 percent. Even a mini-arms race may exacerbate tensions between Latin American nations, making it easier for minor disputes to escalate to war. On other hand, if increasing military expenses never result in war, this expense constitutes a waste of resources that these nation-states could redirect to problems such as poverty and starvation.

There are differing opinions about whether or not the percentage of GDP within Latin American states wasted on weapons is meaningful. Some researchers tend to belittle the importance of military expenditures within this region. Obviously, it is relatively small in comparison to the world's spending for military purposes. Table 2 illustrates the economic effort spent for building military capacity. This indicator is better than the first because it measures the nation's economic effort in military expenditures as a proportion of its total economic capability. Nonetheless, we must keep in mind that differences exist between the development levels within the Latin American nation-states. By focusing on the group of nation-states in Table 1 that have the biggest military expenditures, note that the Venezuelan military expenditures, as a percentage of its GDP, has increased 80 percent while this indicator remains almost constant by the other countries.

The third indicator, shown in Table 3, measures the military expenditures related to these Latin American countries based on population size. Some nation-states have decreased their ratio during this time period: Argentina, 73 percent, Paraguay, 50 percent; and Uruguay, 30 percent. Other nation-states, however, have increased their spending per capita during the same time period: Chile, 111 percent; Colombia, 47.7 percent; Ecuador, 85 percent; and Venezuela, 79 percent.

Please note that all tables have been included in the Appendix to this article.

### **ANALYSIS**

By jointly analyzing the three indicators of military growth (expenditures in constant dollars, expenditures as a percentage of the GDP, and expenditures per capita), we see that a group of Latin American states have indeed increased their military expenditures during the ten year timeframe outlined in this study. To illustrate this point, I refer to the "Ranking of Military Power in South America 2005-2006," published by *Military Power Review* (2007), in which, this Brazilian research institute argues that in a short term both Venezuela and Chile could be closer to the Brazilian military leadership in the region.

Based on my analysis, I have reached the following conclusions:

<u>Venezuela</u>. Since 2001, different reports indicate that the Venezuelan government has signed significant contracts or agreements related to arms imports. Some examples of these include: (1) 170 million (U.S.) dollars for 24 Super Tucano combat airplanes from Brazil; (2) 200 million (U.S.) dollars for 15 helicopters from Brazil; (3) 100 thousand Kalashnikov rifles from Russia; and (4) the licensed production of additional rifles in Venezuela (Bromley & Perdomo, 2005; Logan, 2006; Kleph, 2007).

The Venezuelan military expenditures can be linked to a number of different factors, but how the Venezuelan president, Hugo Chavez, explains this is most interesting. He says, "... the Venezuelan revolution is vulnerable to attack from the U.S." and that "Venezuela thus must be prepared to defend itself, just as Cuba defended itself in the Bay of Pigs in 1961" (Bromley & Perdomo, 2005; 13). According to Venezuela's head of the National Defense Council, the new Venezuelan military doctrine, adopted in 2004, must be focused on an "asymmetric war based on the use of guerrilla tactics and the involvement of the population at large." (Bromley & Perdomo, 2005; 14). The new doctrine calls for "an asymmetric, low intensity response against invading U.S. forces" (Bromely & Perdomo, 2005; 14).

The research provided by Real Instituto Elcano (2005; 15) asserts that the Venezuelan president, Lt. Hugo Chavez, " is trying to acquire military power in order to sustain his ideological project... a false perception of superiority could help Chavez in his search of a more aggressive foreign policy." In this way, the continuous incremental rise in oil prices over the last few years has allowed the Venezuelan government to enjoy financial resources to expand its military expenditures. This leads us to believe that this increase in military expenditures is due to reasons of a hegemonic nature. In comparison to other Latin American nation-states, the asymmetric behavior of the Venezuelan government suggests Venezuela seems to be the only nation which is becoming stronger within the arms race.

<u>Brazil</u>. The leading South American nation-state in economic and industrial sectors is Brazil. It has a foreign policy that has always attempted to dominate the region. This policy, nonetheless, is being compromised by the foreign policy of the Venezuelan government.

In relation to this issue, former president of Brazil Jose Sarnev has stated:

[W]hen President Hugo Chavez decided to transform Venezuela into a political power, he did Latin America great damage; which was to attempt to set off an arms race, something that he is achieving, because all the countries of the region are now buying weapons. Even Brazil has entered the arms race because when one country decides to become a military power, the others have to be prepared to defend themselves. (El Universal.com, February, 2008)

The Military Power Review, a Brazilian think-tank, has expressed its concern regarding this matter and has stated that over the next few years the Chileans and the Venezuelans could "be attempting [a plot] against our leadership" (2007, 4). It is possible that Brazil views the increase in Venezuela's military expenditures as a threat against its hegemony in the southern hemisphere.

<u>Colombia</u>. Colombia's military expenditures are directed towards domestic conflicts such as guerilla warfare and drug trafficking. This endeavor is aided by the United States. Regarding this matter, the Latin American Security and Defense Network, considers that "military expenditure by Colombia is motivated by its internal conflict" (RESDAL, 2008).

Argentina and Chile. Argentina's military expenditures did not show great variation in absolute terms, and according to the indicators, actually decreased slightly from 2005 to 2006. Chile's high military expenditures may be due to the increasing prices of copper on the international market. By law, 10 percent of the income from copper exports is required to be used for military purchases.

## CONCLUSIONS

In conclusion, the military expenditures of nearly all of the observed states (with the exception of Brazil which is reacting to the Venezuelan arms buildup) were found to be independent each of other. It seems hasty to affirm that Latin America is presently in an arms race, taking into account that on average, the military expenditures of the region are still at customary historical levels. Nonetheless, if the military expenditures of countries such as Chile, Venezuela, Colombia and Brazil continue at their present rate, these countries could certainly become a threat to the peace of the region. This threat is based, on the one hand, on the amount of power that the military sector has in some Latin American nations and, on the other, on the hypothesis of conflict that every government has formulated.

In this sense, what is more worrisome is the bellicose attitude of the Venezuelan president, especially when

taken together with the Venezuelan military's idea of a potential asymmetric war against the US or its main ally in South America: Colombia. In addition to this, the Venezuelan government can offer military aid to its allies, such as Cuba, Bolivia and Nicaragua, in its attempt to export its ideology of the Bolivarian Revolution.

At the beginning of March 2008, the Andean political crisis between Colombia, Ecuador and Venezuela allows us to see the risk that the Venezuelan government's attitude represents against the democratic stability in Latin America. The Venezuelan military expenditures, jointly with its foreign policy, seem to have a domino effect in military expenditure into other nations of Latin America.

We must keep in mind that a high military capacity would undoubtedly have an effect on the disposition towards conflict (Grabendorff, 1982). The point is not just about the weapons themselves, but about the nature of the government who is acquiring the weapons. The sharp aggravation of the political confrontation process joined by the current arms buildup is turning into the most dangerous reality of nowadays in the Latin American region.

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#### APPENDIX. MILITARY EXPENDITURES, TABLES 1-3

TABLE 1. Military Expenditures in Constant 2005 US Dollars (Millions)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	
Argentina	2151	2074	2062	2125	2082	2048	1692	1748	1813	1912	[1847]	
Bolivia	110	133	155	128	126	157	150	158	153	[153]	[155]	
Brazil	[10250]	[12569]	[11845]	[10928]	11583	13428	15369	11979	11250	12510	[13446	
Chile	[2343]	2551	2719	2879	3048	3164	3374	3241	4077	4397	4858	
Colombia	[2797]	2997	3111	3460	3500	3948	3803	[4229]	[4431]	[4562]	[4609]	
Ecuador	678	696	688	353	317	439	578	778	727	887	[908]	
El Salvador	125	121	117	121	132	124	122	116	111	108	105	
Guatemala	190	178	186	181	229	269	199	217	130	105	137	
Mexico	3048	3160	3120	3298	3409	3388	3246	3336	3119	3193	3136	
Nicaragua	33.9	33.4	28.7	29.5	32.5	30.2	37.4	38.1	33	33.8	33.5	
Paraguay	[74.6]	[90]	[83.5]	[70.8]	[69.1]	64.7	61	62.2	53.6	55.2	[63.5]	
Peru	1012	855	958	961	1078	1141	885	980	980	1088	1086	
Uruguay	[314]	[310]	[302]	313	266	278	241	222	214	219	210	
Venezuela	1092	1791	1254	1314	1257	1654	1229	1152	1427	1606	1924	

**Source:** Stockholm International Peace Research Institute (SIPRI) - Military Expenditure and Arms Production 1988-2006

TABLE 2. Military expenditure as percentage of gross domestic product

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Argentina	1.4	1.3	1.3	1.4	1.3	1.4	1.2	1.2	1.1	1.0	1.4	1.3
Bolivia	1.7	1.9	2.1	1.8	1.7	2.1	1.9	1.9	1.7	[1.6]	1.7	1.9
Brazil	[1.7]	[2.0]	[1.9]	[1.7]	1.7	1.9	2.1	1.6	1.5	1.6	[1.7]	[2.0]
Chile	[3.1]	3.2	3.4	3.7	3.7	3.7	3.8	3.4	3.8	3.8	[3.1]	3.2
Colombia	[2.8]	2.9	3.1	3.5	3.4	3.8	3.6	[3.9]	[3.8]	[3.7]	[2.8]	2.9
Ecuador	2.0	2.1	2.4	1.8	1.7	1.8	2.1	2.7	2.3	2.6	2,0	2.1
El Salvador	0.9	0.9	0.8	0.8	0.9	0.8	0.8	0.7	0.7	0.6	0.9	0.9
Guatemala	0.8	0.7	0.7	0.7	0.8	0.9	0.7	0.7	0.4	0.3	0.8	0.7
Mexico	0.6	0.6	0.5	0.6	0.5	0.5	0.5	0.5	0.4	0.4	0.6	0.6
Nicaragua	0.9	0.9	0.7	0.7	0.8	0.7	0.9	0.9	0.7	0.7	0.9	0.9
Paraguay	[1.1]	[1.4]	[1.3]	[1.1]	[1.1]	1.0	0.9	0.9	0.7	0.7	[1.1]	[1.4]
Peru	1.8	1.4	1.6	1.6	1.7	1.9	1.4	1.4	1.3	1.4	1.8	1.4
Uruguay	[2.0]	[1.9]	[1.8]	1.9	1.6	1.8	1.7	1.5	1.3	1.3	[2.0]	[1.9]
Venezuela	1.0	1.8	1.4	1.6	1.3	1.7	1.3	1.3	1.2	1.2	1.0	1.8

**Source:** Stockholm International Peace Research Institute (SIPRI) - Military Expenditure and Arms Production 1988-2006

TABLE 3. Military expenditure per capita (US\$)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Argentina	123	99	99	118	56	55	45	46	47	49	46
Bolivia	19	19	22	18	15	18	17	18	16	16	16
Brazil	57	57	61	58	66	76	85	66	61	67	72
Chile	138	166	160	133	205	208	219	207	258	275	292
Colombia	67	77	75	68	83	93	88	96	99	100	99
Ecuador	35	46	52	38	27	34	44	59	54	65	65
El Salvador	19	19	19	18	21	19	19	17	16	15	15
Guatemala	16	11	11	10	21	23	17	18	10	7	9
Mexico	25	27	26	27	34	34	32	32	30	30	29
Nicaragua	6	6	7	5	7	5	7	7	6	6	5
Paraguay	20	20	21	15	12	11	10	10	8	9	10
Peru	34	45	44	45	41	43	33	36	36	39	38
Uruguay	85	83	83	83	90	85	71	65	62	63	60
Venezuela	39	54	63	61	52	68	49	45	55	61	70

**Sources:** World Bank (2007), World Development Indicators - Population Dynamics; US Department of State – Secretary for Arms Control and International Security - WMEAT (2003)