11-2010

Altered Landscape or Arms Race? Making Sense of Military Spending in South America

Bradley S. Porter

Follow this and additional works at: http://digitalcommons.fiu.edu/whemsac

Recommended Citation


http://digitalcommons.fiu.edu/whemsac/15

This work is brought to you for free and open access by the College of Arts, Sciences & Education at FIU Digital Commons. It has been accepted for inclusion in Western Hemisphere Security Analysis Center by an authorized administrator of FIU Digital Commons. For more information, please contact dcc@fiu.edu.
Altered Landscape or Arms Race? Making Sense of Military Spending in South America

Bradley S. Porter
Applied Research Center

November 2010
THE WESTERN HEMISPHERIC SECURITY ANALYSIS CENTER

WHEMSAC brings together a versatile and important Latin American network of traditional and non-traditional security experts from academia, business sectors, government ministries and private organizations. Its research capabilities provide Western Hemispheric leaders with a unique, real-time research and analysis on current issues. WHEMSAC is an innovative institutional model for conducting professional qualitative and quantitative research throughout the Americas at the national, regional and international levels within an open, independent, multi-disciplinary, and collaborative academic environment. The fusion of open source political, economic, and social expertise allows WHEMSAC to provide an exceptional, qualified approach to regional security insight with traditional intra-governmental analysis.

Applied Research Center
Florida International University
10555 W Flagler Street
Miami, FL 33174
whemsac.fiu.edu
Altered Landscape or Arms Race? Making Sense of Military Spending in South America

Bradley S. Porter
Applied Research Center

November 2010

The views expressed in this research paper are those of the author and do not necessarily reflect the official policy or position of the US Government, Department of Defense, US Southern Command or Florida International University
EXECUTIVE SUMMARY

In 2009, South American military spending reached a total of $51.8 billion, a fifty percent increased from 2000 expenditures. The five-year moving average of arms transfers to South America was 150 percent higher from 2005 to 2009 than figures for 2000 to 2004. These figures and others have led some observers to conclude that Latin America is engaged in an arms race. Other reasons, however, account for Latin America’s large military expenditure. Among them:

- Several countries have undertaken long-prolonged modernization efforts, recently made possible by six years of consistent regional growth.²
- A generational shift is at hand. Armed Forces are beginning to shed the stigma and association with past dictatorial regimes.³
- Countries are pursuing specific individual strategies, rather than reacting to purchases made by neighbors. For example, Brazil wants to attain greater control of its Amazon rainforests and offshore territories, Colombia’s spending demonstrates a response to internal threats, and Chile is continuing a modernization process begun in the 1990s.⁴

---

Concerns remain, however: Venezuela continues to demonstrate poor democratic governance and a lack of transparency; neighbor-state relations between Colombia and Venezuela, Peru and Chile, and Bolivia and Paraguay, must all continue to be monitored; and Brazil’s military purchases, although legitimate, will likely result in a large accumulation of equipment.  

These concerns can be best addressed by strengthening and garnering greater participation in transparent procurement mechanisms. The United States can do its part by supporting Latin American efforts to embrace the transparency process.

---

5 Ibid., Guevara, Iñigo, Pg. 22
6 Ibid., Bromley, Mark, Pgs. 18 and 19
THE ONGOING QUESTION

Since the Central American wars of the 1970s and 1980s, Oscar Arias Sánchez, Costa Rica’s two-time president and 1987 Nobel Peace Prize winner, has closely monitored arms acquisitions and military expenditure in Latin America. In 1997 he advocated for an International Code of Conduct on Arms Transfers, designed to place specific restrictions on arms-producing countries. In September of 2009, he regretfully informed the United Nations General Assembly that Latin America was spending approximately “165 million dollars a day on weapons and soldiers.” And in May of 2010, he asserted that, “Despite the euphemisms that are used to conceal it, Latin America has begun a new arms race, fueled by ideological debates and the institutional weakness of our democracies.”

These latest comments have understandably caused concern, and even some confusion, amongst policy circles. After all, Arias’ comments came just weeks after those of Dr. Frank O. Mora, Deputy Assistant Secretary of Defense (DASD) for Western Hemisphere Affairs, who said, “I do not believe that there is an arms race brewing... the region has made strides in increasing transparency and creating mechanisms of defense and security cooperation through the development of regional institutions...” Prior to this, he had explained that Latin American arms purchases were “most likely aimed at

---

10 Mora, Frank O., “The Top 7 Myths of U.S. Defense Policy Toward the Americas,” Pg. 7, University of Miami, April 29th, 2010
modernizing military equipment that [hadn’t] been upgraded over the past 30 or 40 years.”

‘Who then, is correct?’ one is left asking. Is an arms race actually occurring? And if not, what have been the reasons for increased military spending in the region? In May of 2008, The Economist also attributed the region’s military spending to modernization, to “more normal relations between civilian governments and their armies,” and to commodity-driven economic growth. Others claimed that, “very real security concerns [were] being neglected,” and that therefore new spending attempted to address them.

However, do these various explanations hold true today? Furthermore, if countries are indeed modernizing their national militaries, “When do those legitimate modernization concerns end and when does the acquisition process constitute a threat?” one observer has asked.

In an attempt to answer these lingering questions, regional experts gathered on June 3rd, 2010, at a Brookings Institution and Center for Hemispheric Defense Studies (CHDS) co-hosted event entitled, “An Arms Race in Our Hemisphere? Discussing the Trends and Implications of Military Expenditures in South America.” Many of their responses are highlighted within this report.

12 “Speak Fraternally But Carry a Stick; South American Defense,” The Economist, May 31st, 2008
CONCERNING FIGURES

According to Mark Bromley, a researcher from Sweden’s Stockholm International Peace Research Institute (SIPRI), South American military spending reached $51.8 billion in 2009. “This was a 7.6 percent increase on the 2008 figure and a 50 percent rise on the 2000 amount,” he says. “The rate of increase that we’ve seen over the past decade is almost double what it was in the previous ten years,” he continues, with Brazil,

Colombia, Chile, Venezuela, Ecuador and Uruguay standing out as the six biggest spenders.15 (See Appendices I and II for individual country expenditure and major arms suppliers). From 2003 to 2008 alone, reports London’s International Institute for Strategic Studies (IISS), Latin America’s overall military spending rose 91 percent.16

---

15 Ibid., Bromley, Mark, Pgs. 12 and 13
As for arms imports, Bromley says, “Transfers of arms to South America were 150 percent higher in the period 2005 to 2009 than they were in 2000 to 2004,” according to a five-year moving average. “This rise in transfers,” he says, “exceeds the rise in transfers to Southeast Asia and North Africa, two other areas where the specter of potential arms races has been raised in recent years. In Southeast Asia, arms imports have risen by nearly 100 percent, while in North Africa, transfers have gone up by 60 percent.”

**Modernization, Economic Growth, and Global Comparisons**

During the aforementioned Brookings Institution/CHDS event, Ifíigo Guevara from Mexico’s Colectivo de Análisis para la Seguridad con Democracia (CASEDE) explained that Latin American countries are indeed continuing to modernize their militaries, and that the high costs described above are simply inherent to the process. For example, “several countries are appraising their front-line conventional infantries” and replacing inventories from the 1970s and 1990s, he said. “[And] conventional weapons,” which he described as jets, tanks, armor, artillery, submarines, and surface ships, “are considerably expensive, especially the new generation of networked fighting machines.” Therefore the high sums of $50 billion and beyond can be attributed to modernization costs, rather than an arms race. Furthermore, an arms race requires an “action-reaction mechanism” that is largely absent in Latin America. In other words, countries would need to be continuously striving to both match and then significantly surpass the spending and acquisitions of their neighbors, and he does not see this happening.

---

18 Ibid., Guevara, Ifíigo, Pgs. 21 and 22
At the 2010 Western Hemisphere Security Colloquium in Miami, Marcos Robledo from Chile’s Fundación Dialoga, affirmed that Latin America’s recent economic success has provided countries with the means to fund modernization aspirations and new defense strategies. Prior to the U.S. financial crisis, he says, the region experienced six years of consistent growth, assisted strongly by nearly a decade of high commodity prices. This granted Venezuela oil-generated growth despite economic mismanagement, and hastened Brazil’s long-term trek to global stardom. As for Chile, it has managed to maintain 5 percent GDP growth for a total of twenty years.  

Beyond these new funding abilities, however, Ray Walser of the Heritage Foundation is wary to dub new spending and acquisitions as an arms race, primarily because “the numbers on a global scale don’t really tend to add up.” For example, when Brazil’s arms expenditures are placed within the global context, it “only makes the top fifteen nations,” he says; and on a per capita basis, it ranks 88th. Robledo makes a similar global comparison, explaining that in 2007, Latin American resources dedicated to military expenditure were equivalent to lower than 1.5 percent of the region’s overall GDP, as opposed to expenditure in the Middle East/North Africa and the United States, which ran at approximately 5 percent and just over 4.5 percent, respectively. While his data does also show that Colombian and Chilean expenditure during the same year ran at roughly 4 percent and 3.5 percent of GDP, respectively, such figures can be attributed to the

---


fact that both countries incorporate their national police forces into their military budgets, Guevara has explained.21

Therefore, neither Walser nor Robledo perceive an abnormality in Latin American defense spending vis-à-vis the rest of the world. And because Robledo believes the region’s communication – i.e. transparency mechanisms – on individual country defense plans has improved, he finds that there is “no evidence of [a] regional rearmament; military acquisitions [have] related to different country rationale, not regional.”22

Overall, Ray Walser attributes spending and acquisitions to a changing Latin America (encompassing both the modernization and economic developments described above, we can assume), less U.S. engagement and influence, and finally, to ideology and leadership approach. However, he also reaffirms Robledo’s assertion: that beyond these general explanations, each country is following an independent, individual logic.23

INDIVIDUAL COUNTRY RATIONALE: BRAZIL, COLOMBIA, AND CHILE

BRAZIL: Brazil has offered several explanations for its own military ambitions. First and foremost, it intends to protect the reaches of its huge Amazon rainforests. Therefore, “the number of border posts where troops will be stationed will be increased,” reports The Economist, “and still more soldiers will be trained in the art of jungle warfare.”

22 Ibid., Robledo, Slides 9 – 11 and 27
next priority is to guard the country’s prized offshore oil finds, made possible by the purchase of four Scorpene submarines from France, and by plans to develop a nuclear attack submarine.\(^{24}\) And on September 9\(^{th}\), 2010, Deputy Chief of the Army General Staff, Lieutenant General Gerson Menandro García de Freitas, indicated that another “strategic purpose” of the Brazilian army was to safeguard the country during the upcoming FIFA World Cup in 2014, and the Olympic Games in 2016.\(^{25}\)

*The Economist* has questioned the necessity of some of these measures, but not because it opposes Brazilian military modernization. In fact, it says that Brazil’s army “has changed surprisingly little since it ran the country in a dictatorship lasting from 1964 to 1985... [And] with democracy firmly established, it needs to find a new job”. Rather, the magazine states that Brazil’s army would be put to better use by continuing to pursue international peacekeeping missions. This, too, would facilitate modernization, they say, implying that it would be a responsible method of doing so.\(^{26}\)

Finally, it has been suggested that Brazil’s peacekeeping forces are sent across the world as a means to further the country’s image.\(^{27}\) Ray Walser would probably agree with this, as he has suggested that Brazil might be pursuing each of its military strategies — including plans to address local violence and transnational organized crime threats — to gain “greater weight to carry to the international table.”\(^{28}\)

\(^{24}\) Brands, Hal, “Dilemmas of Brazilian Grand Strategy,” Pg. 13, Strategic Studies Institute, August 2010

\(^{25}\) “What is Brazil’s Army For?” The Economist, September 9\(^{th}\), 2010

\(^{26}\) Ibid. See also, “Policy, Not Altruism: How Global Ambitions are Helping to Modernize the Army,” The Economist, September 23\(^{rd}\), 2010

\(^{27}\) Ibid.

COLOMBIA: Walser explains that Colombia’s military doctrine and acquisition system were forged by its response to domestic threats of the two main guerrilla groups – the FARC and ELN – as well as paramilitaries and drug-trafficking cartels. This type of military buildup was widely supported by society – says Adam Isacson, a Senior Associate for the Washington Office for Latin America – and ultimately led to the country’s current defense budget, which is three times that of 2000. More recently, however, Colombia has cast concerned eyes on neighboring Venezuela, explains Isacson. “Chávez’s rhetoric and purchases have had an impact on [Colombian] debate... in the media and in official circles, you do increasingly hear talk about a possible threat from Venezuela against which Colombia must prepare.” For example, after Venezuela attained twenty-four Sukhoi fighters, Colombia’s Air Force wished to respond by obtaining a set of F-16s, says Guevara; yet in the end, the Colombian government decided instead to purchase 13 Kfir fighter jets, to update the 11 Kfir fighters already owned (which dated back to the 1980s), and to employ them in the fight against insurgencies.

CHILE: Julio Soto, a professor at the National Academy of Political and Strategic Studies in Santiago, says his country’s defense policy consists of two elements: “national security achieved mainly by deterrence and international cooperation. Nevertheless, “he continues, “we think that the core of our defense is based on the modernization processes of our defense institutions (in effect since the 1990s); second, in regional cooperation on defense and security issues; and finally, in our contributions to the international environment of peace and security.”

29 Ibid., Pg. 51
30 Ibid., Isacson, Adam, Pgs. 62 and 66
31 Consultation with Íñigo Guevara, October 2010
At the 2010 Western Hemisphere Security Colloquium, Robledo explained that Chile’s defense spending has remained consistent and level from 1990 to 2008; that its long-term military expenditure has actually decreased from the 1970s onward; that its active military has consistently shrunk since 1990; and finally, that within the past nine years, many armed forces materials have been replaced rather than increased.33

ARIAS SÁNCHEZ REVISITED

All of these general and country-specific explanations seem to call Arias’ arms race concerns into question. Also questionable is the following assertion he made before the United Nations in 2009: “In Latin America, and in a substantial portion of the developing world, armies have not served any purpose [other] than to carry out a coup d’état.”34 Within only months of his statement, Latin American militaries were utilized to play key roles in disaster-relief efforts. For example, in the wake of Chile’s 8.8-magnitude earthquake, 10,000 troops were deployed to successfully quell disorder and widespread looting in the country’s Bio-Bio and Maule regions.35 And in the aftermath of Haiti’s massive earthquake, “U.S., Colombian, and Brazilian [military] personnel - in conjunction with many others – worked side-by-side to deliver life-saving relief to the Haitian people,” Mr. Mora has explained.36

35 “Counting the Cost; Chile’s Earthquake,” The Economist, March 6th, 2010
36 Mora, Frank O., “The Top 7 Myths of U.S. Defense Policy Toward the Americas,” Pg. 7, University of Miami, April 29th, 2010
Yet one of the primary drivers behind most of Arias’ statements is the belief that the region’s resources would be put to better use if military spending was re-directed towards poverty alleviation, education and vaccination provision, environmental rehabilitation, etc., particularly in a region where he says one-third of population faces poverty. And on this front, he has recently received strong support from Dr. Kevin Casas-Zamora, a Brookings Institution fellow and former Vice President of Costa Rica, who says that Latin America’s current levels of military expenditure are detrimental to the region’s economic development. It may not be apparent when we compare Latin America’s military expenditure to that of the rest of the world; but when other comparisons are made, he says, such as military spending to levels of taxation, and military spending to investment in education, the story is different. “It turns out that military expenditure in South America is a higher proportion of tax revenue and education expenditure than anywhere else in the world,” he says, “with the predictable exception of North Africa and the Middle East. Even sub-Saharan Africa fares better when we place military spending under this light. Simply put, in the low taxation context that is pervasive in Latin America, military expenditure does compete with the scarce resources for development.” Economics laureate Lawrence Kline has corroborated these findings, demonstrating that reductions in Guatemalan military expenditure from 1968 to 1994 resulted in not only greater overall GDP, but also improved household consumption.

Finally, to gain even greater insight into both, Arias’ comments and the overall expenditures phenomenon at large,

Arias' individual experience and generation must be juxtaposed with that of the shift in perception that has recently occurred in Latin America. For example, Arias acted as the key negotiator in Central America's 1987 peace accord, and his generation was witness to decades of South American military dictatorship. Yet increases in regional military expenditure today, says Chilean academic and former ambassador Boris Yopo, have occurred "above all, [because Latin America] is beginning to shed the stigma and association of the Armed Forces with past dictatorial regimes, causing policy and societal constraints to disappear, and providing these [military] institutions with the necessary resources to carry out the duties of national defense." 39 Bearing these changes in mind, statements by Arias appear to demonstrate a clash between his own historical perspective, and that of a new Latin American outlook and landscape.

**AREAS TO MONITOR**

Regardless of this paradigm shift, and the reassuring explanations offered above, Latin America contains its own set of "red flags." Venezuela has displayed questionable governance and military strategy; individual country security considerations demonstrate a vulnerability to old competition and disputes between neighbors; and Brazilian modernization efforts and plans, while legitimate, hold the long-term potential to amass large amounts of military equipment. While none of these areas currently portend a Latin American arms race, they do hold the potential for one, Ifiigo Guevara has warned, and should therefore be closely monitored. 40


VENEZUELA: Like the country plans mentioned prior, Venezuelan military strategy follows its own individual country rationale. It is acquiring arms, says Walser, because of Hugo Chavez’s ideology, his approach to governance, and his perceived threat of a U.S. invasion. Robledo sees this last area as an “explicit anti-U.S./Colombia strategic narrative,” including Colombia because of Mr. Chavez’s claims that a U.S. invasion could come through this neighboring country.

However, additional factors are at work, explains The Economist; purchases made in 2005-2008 – twenty-four Sukhoi-30 fighter aircraft, 100,000 Kalashnikov assault rifles, and fifty military helicopters from Russia – “may have been presented as a show of strength to the imperialists in Washington, but it was also designed to shore up support from the generals at home.” Mr. Chavez wants to maintain support from the institution where he has historical ties, the magazine conveys.

What concerns Marcos Robledo most about Venezuela is its poor ranking in the area of democratic governance and its lack of transparency, making it what he calls the region’s “most complex case.” (Indeed, as Arias once stated, “The combination of strong armies with weak democracies has proved to be harmful in every corner of the planet”). Some

41 Ibid., Walser, Ray, Pgs. 56 and 61
43 “Speak Fraternally But Carry a Stick; South American Defense,” The Economist, May 31st, 2008
assert that Chavez is using weapons as "instruments of social control." Others, such as former legislator Teodoro Petkoff, of Venezuela's newspaper Tal Cual, go further, saying, "This isn't a conventional dictatorship... It's an authoritarian government with a strong military element that doesn't hide its intentions to control society behind a democratic façade."  

As for transparency, many defense purchases are indeed known. "Since 2006," says Guevara, "the Venezuelan armed forces have acquired 2 dozen Sukhoi fighter jets that have replaced its aging inventory of F-5 and Mirage 50s; [they have] acquired 18 Chinese armed jet trainers that effectively attend a requirement first laid out by their Air Force in the early 1980s; 10 combat helicopters; 8 patrol vessels; and a couple of hundred short-range air defense missiles." Other purchases - which he lists as tanks, armor, artillery, submarines, strategic transport aircraft, tankers, additional advance jet fighters, and strategic air defense systems - have been discussed, but not yet authenticated. Still, despite "overexcitement, exaggeration, and rhetoric," he says, "most of Venezuela's conventional acquisitions [have] remained under normal historical levels and are replacing or restoring, rather than increasing, combat capabilities."

The greatest concern is that there might possibly be a weekly or bi-weekly flight traversing between Caracas and Tehran, carrying unidentified materials. However, no one is quite sure whether this is happening or not. Similarly, former U.S. ambassador Roger Noriega has recently claimed that

47 "Feeling the Heat; Hugo Chavez's Venezuela," The Economist, May 15th, 2010
Chavez is carrying out a “secret nuclear program;” that Iran is helping Venezuela mine its uranium, and that Venezuela is providing Iran access to the international financial sector. Both activities run contrary to mandates made by the U.N. Security Council, he says.49

NEIGHBOR STATES: Beyond Venezuela itself exist the sometimes-reactive relationships between Colombia and Venezuela, Peru and Chile, and Bolivia and Paraguay, among other potential border conflicts.

Colombia contemplated buying tanks in response to Venezuelan purchase proposals (described above) – a move that would have indeed been indicative of an arms race – but for the time being at least, wisely decided against it. Peru, cognizant of Chilean military capacity, nearly did likewise. After all, “Chile has just gone through a long-term cycle of defense upgrade that has seen its equipment and its forces updated to the highest standards in its history,” says Guevara. Peru halted its planned purchases, however, and instead began to advocate for preventative safeguards against potential arms races. And “Chile has shown restraint,” says Guevara, “by acquiring secondhand equipment from NATO sources rather than buying brand new weapons and further escalating the imbalance.” And finally, while Bolivian-Russian arms negotiations initially caused a panic in Paraguay, fears subsided when Bolivia reassured its neighbor and strengthened its own transparency efforts.50

BRAZIL REVISITED: Brazil accounts for approximately half of Latin America’s overall defense spending, says Guevara,

making steady observation of Brazilian military activity a long-term requisite. While there appears no reason to sound any alarms, Brazil is clearly the largest actor in the region. “[It] is acquiring a new generation of jet fighters, armor, submarines, destroyers, frigates, helicopters, along with the capabilities to indigenously produce, service, and support them,” Guevara explains; “We will [therefore] have to wait to see what effects this or its longer term ambitions of fielding a two-carrier Navy, a space-based presence, and a cyber warfare capability produces in the region.”

**TRANSPARENCY MECHANISMS, UNASUR, AND U.S./LATIN AMERICAN PARTNERSHIP**

Despite the more concerning areas described above, “States in South America, as in all parts of the world, have the legitimate right to defend themselves and extend control over their territory,” says Mark Bromley. “Nonetheless,” he continues, “as events in South America have demonstrated in recent years, certain acquisitions have the potential to alter the balance of power in the region and, if not carried out in an open and accountable way, can provoke mistrust and instability. What this points to is the need for transparent procurement mechanisms that allow for both governments in the region and the wider public to see what is being purchased and why.”

Others might suggest putting pressure on arms producers to decrease military expenditures, but it probably won’t work, says Adam Isacson, primarily because there are so many producers. “Ten years ago, fifteen years ago,” he says, “the United States was not only the largest seller of weapons to the region, it accounted for more than half of sales.” It now accounts for only a third. The U.S. can do its part, he says,

---

51 Ibid., Pg. 25
52 Ibid., Bromley, Mark, Pg. 18
by abstaining from sales that demonstrate fiscal irresponsibility, or sales that look likely to fuel regional tensions; but it, too, should "[make] transparency a key foreign policy goal," he says, seconding Bromley's conclusion. 53

To achieve greater hemispheric participation in transparency mechanisms, however, governments will have to navigate the three independently operating regional and international systems:

1. The United Nations Register of Conventional Arms. "[It] was established in 1991," explains Bromley, "and creates a political commitment for all states in the world to share information on their imports, exports, and holdings of major conventional weapons systems. Now, every state in South America has submitted information to the UN Register on at least one occasion over the last 10 years," he continues. "However, the overall number of submissions has fallen in recent years to about half of what it was at the beginning of the 2000s. Meanwhile, only two states in the region – Brazil and Chile – have consistently submitted information to the UN Register since 1998." 54

2. Organization of American States’ Transparency Convention (the Inter-American Convention on Transparency in Conventional Weapons Acquisitions), explains Bromley, which although established as early as 1999, has only been signed by 20 of the 34 member countries, and ratified by just 13. 55

53 Ibid., Isacson, Adam, Pgs. 70 and 71
54 Ibid., Bromley, Mark, Pgs. 18 and 19
55 Ibid.
3. Union of South American Nations' (UNASUR) new creation, the South American Defense Consulate, which just recently garnered commitments from each UNASUR member country to share information on spending and acquisitions. Robledo sees particular promise in UNASUR, even calling for a “U.S.-UNASUR security dialogue.” At the very least, UNASUR should be supported, he says, because “If successful, [it] may address [the] most critical sub-regional security issues, even concerns about Venezuela.”

Countries may wish to streamline these diverse transparency systems, but most important is that they continue to participate and effectuate systems of openness, active communication, and accountability. While “participating in [transparency mechanisms] means yielding some secrecy, yielding some sovereignty,” concedes Mr. Isacson, “the payoff for all of those involved is probably greater.”

Finally, the United States can do its part by conscientiously supporting Latin American countries that take on the process. Ideally, this will allow the United States to make manifest the broad “equal partners” approach described by President Obama at the Summit of the Americas in Trinidad (April 2009), and by Mr. Mora days later. As Mr. Mora then explained, current U.S. engagement and commitment with Latin America should be judged “by how successful the U.S. is in partnering with regional neighbors to build their

56 Ibid.
59 Ibid., Isacson, Adam, Pg. 73
expertise and competence to provide for their own security and the security of the region as a whole." Supporting the maturation of Latin America's transparency mechanisms is a specific opportunity for enacting this approach today.

60 Mora, Frank O., "The Top 7 Myths of U.S. Defense Policy Toward the Americas," Pgs. 2 and 3, University of Miami, April 29th, 2010
ABOUT THE AUTHOR

Bradley S. Porter is a Research Analyst for the Applied Research Center. He received his MA in Latin American and Caribbean Studies from Florida International University, where he conducted research on traditional and alternative energy developments in the Western Hemisphere, with a particular focus on the Brazilian oil company Petrobras. He has studied in Costa Rica and Brazil, worked in East Africa, and completed internships with the U.S. Southern Command and AES Panamá, a hydro-electric power generator and subsidiary of AES Corporation.
WHEMSAC PUBLICATIONS

PHASE II

Iñigo Guevara Moyano, “Defense Expenditure: Andean and Amazon Regions.” November 2010

Ambassador Peter DeShazo, “Consolidating Security and Development in Colombia: Lessons for Peru and Panama.” November 2010


Erich de la Fuente, “Cuba’s Role in Venezuela’s Control of the Internet and Online Social Networks.” October 2010

Marifeli Perez-Stable, “Raul Castro’s Government Recent Economic Reforms and Some Political Considerations.” October 2010

Iñigo Guevara Moyano, “Defense Expenditures: Central America and Dominican Republic.” September 2010


Kristina Mani, “Military Entrepreneurship in Latin America: A Brief Overview.” June 2010


**Phase I**


# APPENDIX I


Convention: US$ m. = Million US dollars; = Data not available or not applicable, () = Uncertain figure, [] = SIPRI estimate.

th. = thousand; m. = million; b. = billion. Figures in constant US dollars and as a share of GDP are presented by calendar year.

## In constant (2008) US$ m.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td></td>
<td>[17,855]</td>
<td>[17,673]</td>
<td>[12,161]</td>
<td>[7,185]</td>
<td>[7,450]</td>
<td>[10,799]</td>
<td>[12,762]</td>
<td>17,747</td>
<td>16,504</td>
<td>16,391</td>
<td>17,618</td>
<td>18,049</td>
<td>19,550</td>
<td>22,531</td>
<td>22,947</td>
<td>18,306</td>
<td>19,021</td>
<td>20,581</td>
<td>21,310</td>
<td>22,983</td>
<td>23,302</td>
<td>27,124</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td></td>
<td>[2,756]</td>
<td>[2,442]</td>
<td>[2,508]</td>
<td>[2,585]</td>
<td>[2,676]</td>
<td>[2,742]</td>
<td>[2,773]</td>
<td>[2,841]</td>
<td>[2,948]</td>
<td>[3,209]</td>
<td>3,420</td>
<td>3,623</td>
<td>3,835</td>
<td>4,246</td>
<td>4,310</td>
<td>4,998</td>
<td>5,154</td>
<td>6,282</td>
<td>6,116</td>
<td>5,982</td>
<td>5,683</td>
<td></td>
</tr>
</tbody>
</table>

Notes: (1) The figures for Chile include direct transfers from the state-owned copper company Corporación Nacional del Cobre (CODELCO) for military purchases. These transfers increased rapidly between 2005 and 2008 owing to rising copper prices, then fell in 2009, also along with copper prices. (2) Figures for these countries are for the adopted budget, rather than actual expenditure.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td></td>
<td>[2,291]</td>
<td>[2,562]</td>
<td>[2,633]</td>
<td>[2,237]</td>
<td>[2,714]</td>
<td>[3,288]</td>
<td>[3,143]</td>
<td>[3,560]</td>
<td>[4,150]</td>
<td>4,731</td>
<td>3,671</td>
<td>3,777</td>
<td>4,766</td>
<td>5,259</td>
<td>5,588</td>
<td>6,511</td>
<td>6,419</td>
<td>6,643</td>
<td>7,533</td>
<td>7,742</td>
<td>9,056</td>
<td></td>
</tr>
</tbody>
</table>

Notes: The figures for Colombia in 2002 – 2007 include special allocations totaling 2.5 billion pesos from a war tax decree of 12 August 2002. Most of these allocations were spent between 2002-2004.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td></td>
<td>385</td>
<td>411</td>
<td>437</td>
<td>444</td>
<td>410</td>
<td>510</td>
<td>464</td>
<td>680</td>
<td>570</td>
<td>651</td>
<td>717</td>
<td>549</td>
<td>534</td>
<td>560</td>
<td>655</td>
<td>888</td>
<td>831</td>
<td>1,090</td>
<td>1,053</td>
<td>1,420</td>
<td>1,548</td>
<td>1,821</td>
</tr>
</tbody>
</table>

Note: Ecuador changed its currency from the sucro to the US dollars on 13 March 2000, at a rate of one dollar to 25 000 sucros. The current price figures for each year represent the dollar value of military expenditure at the market exchange rate for that year.
Uruguay

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>[584]</td>
<td>[636]</td>
<td>[611]</td>
<td>[471]</td>
<td>[626]</td>
<td>[487]</td>
<td>[720]</td>
<td>[441]</td>
<td>[422]</td>
<td>[417]</td>
<td>[466]</td>
<td>[420]</td>
<td>[352]</td>
<td>404</td>
<td>350</td>
<td>336</td>
<td>326</td>
<td>337</td>
<td>343</td>
<td>351</td>
<td>401</td>
<td>496</td>
</tr>
</tbody>
</table>

Venezuela

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>..</td>
<td>..</td>
<td>..</td>
<td>[3,217]</td>
<td>[2,973]</td>
<td>[3,709]</td>
<td>2,720</td>
<td>2,613</td>
<td>1,887</td>
<td>3,095</td>
<td>2,405</td>
<td>2,563</td>
<td>2,591</td>
<td>1,913</td>
<td>1,893</td>
<td>2,673</td>
<td>3,548</td>
<td>4,681</td>
<td>3,908</td>
<td>4,329</td>
<td>3,254</td>
<td></td>
</tr>
</tbody>
</table>

Notes: (1) The figure for Venezuela for 2009 is for the initial budget. In recent years, Venezuela's actual military spending has been consistently and significantly higher than the initial budget, by 44% in 2006, 15% in 2007 and 30% in 2008. Figures for Venezuela for the years 1991-1997 and for the most recent year, are for the adopted budget rather than for the actual expenditure. Figures for Venezuela do not include substantial extra-budgetary expenditure on arms imports. (2) This country changed or redenominated its currency during the period; all current price local currency figures have been converted to the latest currency.

As percentage of gross domestic product

Brazil

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>[2.1]</td>
<td>[2.6]</td>
<td>[1.9]</td>
<td>[1.2]</td>
<td>[1.2]</td>
<td>[1.6]</td>
<td>[1.6]</td>
<td>[1.9]</td>
<td>[1.7]</td>
<td>[1.6]</td>
<td>[1.7]</td>
<td>[1.8]</td>
<td>2</td>
<td>1.9</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Chile

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>[5]</td>
<td>[4.2]</td>
<td>[4.3]</td>
<td>[3.9]</td>
<td>[3.7]</td>
<td>[3.6]</td>
<td>[3.3]</td>
<td>[3.1]</td>
<td>[3.1]</td>
<td>[3.2]</td>
<td>3.4</td>
<td>3.7</td>
<td>3.7</td>
<td>3.7</td>
<td>3.8</td>
<td>3.6</td>
<td>3.7</td>
<td>3.6</td>
<td>3.7</td>
<td>3.4</td>
<td>3.5</td>
</tr>
</tbody>
</table>

Colombia

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>[2.4]</td>
<td>[2.6]</td>
<td>[2.2]</td>
<td>[1.8]</td>
<td>[2.2]</td>
<td>[2.5]</td>
<td>[2.3]</td>
<td>[2.5]</td>
<td>[3]</td>
<td>3.3</td>
<td>2.6</td>
<td>2.8</td>
<td>3</td>
<td>3.2</td>
<td>3.4</td>
<td>3.7</td>
<td>3.4</td>
<td>3.3</td>
<td>3.4</td>
<td>3.3</td>
<td>3.7</td>
</tr>
</tbody>
</table>

Ecuador

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>2</td>
<td>1.9</td>
<td>1.9</td>
<td>1.8</td>
<td>1.7</td>
<td>1.8</td>
<td>1.6</td>
<td>2.4</td>
<td>2</td>
<td>2.1</td>
<td>2.4</td>
<td>1.8</td>
<td>1.7</td>
<td>1.8</td>
<td>2</td>
<td>2.6</td>
<td>2.2</td>
<td>2.6</td>
<td>2.3</td>
<td>2.9</td>
<td>2.8</td>
</tr>
<tr>
<td>Year</td>
<td>Uruguay</td>
<td>Value</td>
<td>Venezuela</td>
<td>Year</td>
<td>Value</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>---------</td>
<td>--------</td>
<td>-----------</td>
<td>------</td>
<td>--------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>[2.6]</td>
<td>[2.1]</td>
<td></td>
<td>[1.8]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1991</td>
<td></td>
<td>[2.8]</td>
<td>[1.8]</td>
<td>1993</td>
<td>[1.5]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1993</td>
<td></td>
<td>[3.2]</td>
<td>[1.7]</td>
<td>1995</td>
<td>1.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td></td>
<td>[1.8]</td>
<td>[1.8]</td>
<td>1997</td>
<td>1.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td></td>
<td>[1.7]</td>
<td>[2.8]</td>
<td>1998</td>
<td>1.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td></td>
<td>[1.6]</td>
<td>[2.2]</td>
<td>1999</td>
<td>1.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td></td>
<td>[1.8]</td>
<td>[3.2]</td>
<td>2000</td>
<td>1.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td></td>
<td>[2.8]</td>
<td>[1.8]</td>
<td>2002</td>
<td>1.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td></td>
<td>[3.2]</td>
<td>[1.8]</td>
<td>2004</td>
<td>1.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td></td>
<td>[1.8]</td>
<td>[1.6]</td>
<td>2006</td>
<td>1.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td></td>
<td>[1.7]</td>
<td>[2.2]</td>
<td>2007</td>
<td>1.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td></td>
<td>[1.6]</td>
<td>[3.2]</td>
<td>2008</td>
<td>1.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td></td>
<td>[1.8]</td>
<td>[2]</td>
<td></td>
<td>[1.8]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td></td>
<td>[2.1]</td>
<td>[1.8]</td>
<td></td>
<td>[1.6]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:** SIPRI military expenditure database, <http://www.sipri.org/research/armaments/milex/milex_database>, accessed October 22nd, 2010

Figures are SIPRI Trend Indicator Values (TIVs) expressed in US$ m. at constant (1990) prices. For more information, see http://www.sipri.org/contexts/armsTrad/output_types_TIV.html

<table>
<thead>
<tr>
<th>Recipient</th>
<th>Suppliers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>France (673), USA (329), Sweden (175), Germany (174), Italy and Spain (156 each)</td>
</tr>
<tr>
<td>Chile</td>
<td>Netherlands (1021), UK (667), Germany (422), USA (396), France (320)</td>
</tr>
<tr>
<td>Colombia</td>
<td>USA (795), Spain (113), Russia (103), Israel (90), Brazil (60)</td>
</tr>
<tr>
<td>Ecuador</td>
<td>Chile (135), Spain (33), Israel (32), India (22), Venezuela (17)</td>
</tr>
<tr>
<td>Uruguay</td>
<td>Portugal (63), Germany and Spain (29), Russia (6), Sweden (5), Canada (4)</td>
</tr>
<tr>
<td>Venezuela</td>
<td>Russia (1996), China (122), Netherlands (72), Israel (51), South Korea (45)</td>
</tr>
</tbody>
</table>

Source: SIPRI Arms Transfers Database
The Applied Research Center advances the research and academic mission of Florida International University. ARC's focus is to solve real-world problems through multi-disciplinary research collaborations within the University's increasingly talented applied and basic research units. It is uniquely structured and staffed to allow for free-flowing exchange of ideas between the University's applied researchers, academia, government, private sector and industry partners. The ARC's vision is to be the leading international university-based applied research institution providing value-driven, real-world solutions, which will enable FIU to acquire, manage, and execute educationally relevant and economically sound research programs. That vision is based on the Center's core values of respect for the environment, health and safety of all individuals, creativity and innovation, service excellence, and leadership and accountability. The Applied Research Center is organized into three core research units: Environment; Energy, and Security and Development. Under the leadership of its Executive Director, the Center reports to FIU's Office of Sponsored Research Administration. An External Advisory Board, encompassing leaders from the private and public sectors, participates actively in the Center's growth and development. The Florida International University Applied Research Council, a team of University deans, executives and faculty guide the development of the Center's programs.

Florida International University is Miami's first and only four-year public research university with a student body of more than 40,000. It is one of the 25 largest universities in the nation. FIU's colleges and schools offer nearly 200 bachelor's, master's and doctoral programs in fields such as international relations, law and engineering. As one of South Florida's anchor institutions, FIU has been locally and globally engaged for more than four decades finding solutions to the most challenging problems of our time. FIU emphasizes research as a major component of its mission. The opening of the Herbert Wertheim College of Medicine in August 2009 has enhanced the university's ability to create lasting change through its research initiatives. Overall, sponsored research funding for the university (grants and contracts) from external sources for the year 2008-2009 totaled approximately $101 million.

The United States Southern Command (USSOUTHCOM) is one of ten unified Combatant Commands (COCOMs) in the Department of Defense. It is responsible for providing contingency planning, operations, and security cooperation for Central and South America, the Caribbean, and their territorial waters; as well as for the force protection of U.S. military resources at these locations.

The National Defense Center for Energy and the Environment (NDCEE) provides reliable and sustainable solutions to the US Department of Defense in areas ranging from contingency operations to global climate change and greenhouse gas reduction to safety and occupational health. These solutions increase mission readiness and improve the health and safety of our Armed Forces both at home and abroad. The NDCEE provides project management and technical support to the WHEMSAC Program.