

Base Realignment and Closure: Guiding Principles for Peru

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Abstract

In this paper, we examine the prospects for base realignment and closure in Peru and develop an initial strategy for the realignment and closure process. While previous research has focused primarily on the realignment and closure process in developed countries, we instead focus on the need for the realignment and closure process to complement the government's objectives of democratic governance and economic growth. Given concerns about the reemergence of internal threats, most notably the Shining Path, and significant constraints on public finances, realignment and closure may have to proceed at a significant pace in the near term. We argue that transparency, accountability, and improved civil-military relations should not be sacrificed for the sake of expediency.

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1. Introduction

Given the current drive by the Peruvian government to privatize public infrastructure and reprioritize public spending away from the defense sector to the social service sector, it is important to ask not only whether military base realignment and closure is necessary, but also **how** the realignment and closure process can proceed in a turbulent socio-economic environment.¹ While there has been ample discussion on the realignment and closure process in the United States, there has been limited discussion on the course of such a process in developing countries. An unanswered question is also how the base realignment and closure process should complement the other ongoing reforms in the Peruvian economy.

In this paper we briefly review the current state of knowledge on the base realignment and closure process; discuss the positive and normative applications of public choice theory; and present guiding principles for base realignment and closure in Peru. As base realignment and closure moves to the forefront of policy options being considered by the developing and transitional countries, an examination of the environment and the development of a framework for this process is quite timely. First, the focus on military infrastructure reduction appears to be fueled by the perceived need to increase social expenditures in response to the emerging preferences of the populace. Second, the move to reduce military infrastructure can also be seen as a reaction to the involvement of the military in the political process over the past decades. Third, the increased focus on the reduction and subsequent privatization of military infrastructure appears to be fueled by the widespread belief that privatization is an effective tool for increasing economic efficiency.² Finally, base realignment and closure has come to be

seen as a way to break the military's influence on the economy by shifting resources to social expenditures and, in some cases, to lower levels of government.³

Base realignment and closure affects not only the military but also those communities in close proximity to the bases subject to realignment and closure. Benefits, in terms of reduced expenditures or gains in economic efficiency, accrue over the long run, leading to a timing problem of concentrated short-term costs and long-term benefits. In such an environment, the closure process may produce sub-optimal outcomes even if institutional constraints are part of the process. Without an adequate understanding of the environment, stakeholders, and the need for transparency, any realignment and closure process is likely to produce unwanted outcomes in Peru and other developing countries.

The rest of the paper is organized as follows. In the next section, we briefly review the Peruvian macroeconomic and political environment as it applies to the potential base realignment and closure process. In the third section, we discuss what economic theory suggests for the base realignment and closure process. In the fourth section, we present guiding principles for decisions concerning military infrastructure reduction. The last section summarizes and offers some concluding thoughts.

2. The Peruvian Environment

To place the base realignment and closure process in the Peruvian context, it is important to first review the macroeconomic and political environment in Peru. First, unlike the United States and other developed countries, Peru does not have an established history of democratic governance. Transparency and accountability remain weak, although progress in these areas is a priority of the current President. Second, while the realignment and closure process in the United States occurred in the midst of the longest

economic expansion on record, the Peruvian macroeconomic environment is characterized by uncertainty and instability.

2.1 The Peruvian Political Environment

With the return to civilian, democratically elected governments in 1980 after twelve years of military rule, democratic governance appeared to take root again in Peru. The emergence of the Shining Path and the increased production of narcotics in Peru, however, led to the election of President Alberto Fujimori in 1990 based upon his promise to defeat the Shining Path and to modernize the Peruvian economy. While the Fujimori administration was able to significantly curtail the activities of the Shining Path by the mid 1990s, Fujimori's increasing reliance on authoritarian methods decreased domestic and international support for his administration. Soon after election to his third term in 2000, allegations of corruption and election fraud, coupled with international pressure, forced President Fujimori from office.

The collapse of President Fujimori's government marked a transition point in the development of Peruvian democracy. While the Shining Path insurgency had been effectively neutralized, the growing corruption and oppressive nature of the Fujimori administration left Peru in a precarious political position. Due to its close ties to the Fujimori administration, the military lacked political and popular support, a problem that was compounded by the military's lack of political acumen and transparency.

An interim government oversaw the administration of the government until the election of President Alejandro Toledo in the spring of 2001. As we will discuss in the next subsection, President Toledo faced a series of economic, as well as political, challenges. Economic growth stagnated in the last years of the Fujimori administration

as domestic and foreign investment declined in response to the destabilization of the political environment. President Toledo promised to continue the privatization of the Peruvian economy; fiscal restraint and a reorientation of public resources to social expenditures; reinvigorating tourism; and promoting economic development through investment in the industrial and construction sectors of the economy. In hindsight, this broad-based agenda may have raised expectations to the point where they could not be realistically fulfilled by the Toledo administration.

Shortly after President Toledo took office in August 2001, polls of public opinion noted a sixty-percent approval rating with only fifteen-percent of those surveyed disapproving of the President's performance.⁴ By March 2002, President's Toledo's popularity declined significantly, with only 25% of those surveyed approving his performance as President. More telling, however, is the significant increase in his disapproval ratings to 65% in March 2002. Many analysts attribute this sharp decline in popularity to three factors, two of which are political: (1) the President's inability to deliver on his wide-ranging set of campaign promises; (2) his perceived inconsistent behavior; and (3) the failure of the economy to rebound from the Fujimori recession.⁵ While President Toledo's popularity has fallen, he remains politically strong, thanks, in part, to the primacy of the President in the Peruvian constitution.

While the President's approval ratings have plummeted during the first third of his administration, we believe that the political environment in Peru has improved significantly. First, while opposition to the continued privatization of public enterprises has increased, the process has continued to move forward. More importantly, there is a viable political opposition that has put forward its own economic plan for Peru,

contributing to the overall level of debate on the pace and breadth of economic reform. Second, in March 2002, Congress passed the second reading of the amendment to the Constitution designed to start the process of fiscal decentralization and creating a new series of regional governments.⁶ Politically, the creation of new, autonomous governments should promote democratic governance and transparency over the long run.⁷ We argue that these, and other, political developments illustrate Peru's positive transition to a more democratic society.

2.2 The Peruvian Economic Environment

The election of President Fujimori in 1990 marked a turning point for the Peruvian economy. Over the next decade, significant privatizations were conducted in the telecommunications, mining, and utilities industries. Foreign direct investment increased significantly in response to improvements in the security environment and the market-oriented policies of the Fujimori administration. The period of 1994 to 1997 marked the high point of the Peruvian economy during the Fujimori administration with low inflation and strong economic growth. After 1997, however, economic growth stagnated. First, in 1997, the financial crisis in Brazil and an El Niño had a dramatic impact on economic growth. In 1998, the Asian financial crisis adversely affected external trade and foreign direct investment. In 1999 and early 2000, political instability contributed to the relatively poor performance of the Peruvian economy.

With the collapse of the Fujimori administration, economic performance increased from an annual rate of 0.9 percent of real GDP in 1999 to 3.1 percent in 2000. Inflation remained under control at an annual rate of 3.7 percent in 1999 and 2000.⁸ With the election of President Toledo in 2001, expectations were high that economic growth

would continue. The recession in the United States and other OECD countries, however, quickly dampened these expectations. Economic growth in 2001 was anemic, with a growth rate of less than 1% in real terms. It is hoped that economic growth will rebound in 2002, with forecasted growth rates between 3 and 4 percent of GDP.⁹

We believe that the macroeconomic environment and fiscal position of the Peruvian government is inferior to that of the United States at the beginning of its realignment and closure process. While inflation remains under control and growth is forecast for 2002, the fiscal position of the central government remains uncertain. First, one of the primary objectives of the government is the reduction of the fiscal deficit, from 3.2 percent of GDP in 2000, 2.5 percent of GDP in 2001, to 1.9% of GDP in 2002. We believe that this objective will limit any potential additional resources that could be utilized for base realignment and closure. Second, the central government's revenue stream remains unstable. Congress, for example, recently lowered the penalty on tax arrears from 15% to 6% or the inflation rate, whichever is lower.¹⁰ We believe that this creates moral hazard as the penalty rate is now significantly below the commercial bank rate for business and individual loans, creating an incentive for taxpayers to accrue tax arrears as a substitute for bank debt. Suggestions of a tax amnesty have also contributed to a decline in real tax revenues. Uncertainty over what revenue instruments will be devolved to the new regional governments adds to the overall instability in central government revenues.

We argue that the continued instability in the central government's revenue stream, coupled with the President's promises of a shift towards social expenditures, will continue to constrain resources available to the Ministry of Defense. Given the

uncertainties in the strategic environment with the potential reemergence of the Shining Path, we believe that operational requirements may also increase over the short-term.¹¹ If operational requirements do increase, closing unneeded bases and realigning activities and resources will increase in importance.¹² The need for operational expenditures, however, may further limit public resources available for realignment and closure in the near-term. Any process that fails to recognize the potential resource and political constraints is likely to fail.

3. What does theory suggest about the realignment and closure process?

We must first note that there is a paucity of theoretical models of the base realignment and closure process. Public choice theory, however, suggests that the decision on the level of public expenditures needed to operate a specific level of public infrastructure and employment will be subject to political influence and the ability of the government to credibly commit to a policy. Given that realignment and closure of military bases directly affects military infrastructure and employment, we argue in this section that the realignment and closure process can be discussed within a public choice framework.

The challenge facing the President, the Congress, and other interested stakeholders is to create a system of incentives to solicit the timely and accurate submittal of cost and output data which can then be used in the base realignment and closure decision process. The Ministry of Defense (MOD), on the other hand, may be focused on objectives other than cost minimization or output maximization. The MOD may instead be focused on the objective of obtaining budgets that provide as much residual

funding as possible in excess of the true cost of providing a given level of output.¹³ Given the uncertainty in the government's revenue stream and corresponding instability in the expenditure stream to the MOD, the MOD may overstate its costs as a means of addressing the risky nature of its expenditure stream.

Providing the stakeholders in the process with accurate information on costs and outputs may pose a threat to the MOD, especially if the MOD is involved in entrepreneurial activities such as building roads, running hotels, and operating airlines. Given the unique nature of each of the Services' missions, it is likely that only the Services and the MOD knows the true cost of the output in question. The President's administration and Congress, in this case, may be dependent on the MOD for the provision of cost and output data. Given the asymmetric nature of cost-output data and that the MOD is a monopsonist, public choice theory suggests that the MOD may be able to secure a budget that is greater than that desired by the stakeholders.¹⁴

One of the challenges of the realignment and closure process is to explicitly link resources to outputs (and outcomes, if necessary) so military facilities can be evaluated objectively. The President and Congress can not, however, enter into a task the MOD to produce a specific level of a non-quantifiable outcome called "national security" and subsequently reduce military personnel and infrastructure to an amount necessary to achieve this objective. As national security is a non-quantifiable outcome, public choice theory suggests that the principals (Congress and the President) would have to use some quantifiable criteria (maneuver space, number of ranges, aircraft facilities, etc) as a means of ranking bases for the purposes of realignment and closure. Theory suggests, however, that performance measures may not always provide agents (in this case, the

MOD and the Services) the necessary incentives and the agent may thus engage in activities that the principal, if they had the agent's information, would consider suboptimal.¹⁵

In order to solicit accurate information from the Services and the MOD in support of the realignment and closure process, the President and Congress could consider altering the incentives that influence the behavior of the Services and the MOD. The incentives-contracts literature is replete with examples of agents modifying their behavior in response to new incentive schemes.¹⁶ The current system in Peru inadvertently creates a perverse incentive that rewards agents for budget-maximizing behavior (through static or increased funding levels in the next fiscal year) and penalizes agents engaging in cost-saving behaviors. This behavior is exacerbated by the drive to shift resources away from the MOD and the instability in the public revenue stream.¹⁷ We are concerned that this underlying incentive creates a significant obstacle to the MOD's active participation in the realignment and closure process. We believe that this type of behavior could be attenuated by allowing agents to keep a portion of non-expended resources for discretionary activities and to transfer a portion of the savings realized from infrastructure reduction to their operational budgets.

Using cost and performance data to determine which bases should be realigned or closed would also require that the President and Congress move towards a process that emphasizes clear, concise objectives, and methodology. Ideally, the principals, through the budget, can contract with each Service on the quantity of output and the price per unit of output. However, in the presence of asymmetric information on costs, monopolistic supply, and the principal contracting on output and unit cost, the welfare-maximizing unit

price will be above the agent's true marginal cost per unit of output.¹⁸ The contracting process would also have to consider uncertainty in the demand for and production of national security. The principal, in order to provide the agent with incentives to accurately report their cost information, may have to pay a subsidy to elicit accurate information.

It is likely, given the literature on incentives and public sector performance, that the principals would have to offer pricing terms in excess of the true marginal cost of the MOD to effectively solicit cost and performance information to support the realignment and closure process. This will be difficult given the apparent reluctance of the MOD to release detailed budget information to the President's administration and Congress. If the MOD fails to participate, however, the objectives of improved civil-military relations and efficiency in the use of public resources will be difficult to achieve. The question is two-fold: how can the MOD be swayed to actively participate in the realignment and closure process and what metrics should be used in the process?

The MOD may, in fact, propose metrics (maneuver acreage, tank miles, runway lengths, number of hospital beds) with which it is most comfortable. Public choice theory suggests, given the conditions we have previously discussed, that agents are likely to take action to improve their performance in terms of familiar metrics, even if such actions may be detrimental to those outcomes that are of interest to their stakeholders.¹⁹ Excessive quantities of goods and services whose characteristics are quantifiable and easily monitored may be produced as agents exploit principals who lack the knowledge on the true demand for public goods and services and the costs of producing them. These behaviors favor programs for which metrics are readily available over those whose

outcomes are more difficult to quantify. Moreover, in the presence of asymmetric information, the MOD and its subordinate Services may also have the incentive to produce highly differentiated goods and services with characteristics that do not lend themselves to being measured or monitored. Whatever metrics are proposed must be quantifiable and highly correlated with the objectives of the national government. This discussion suggests that effort must be initially directed to develop “consensus-oriented” metrics, that is, metrics which can be quantified and managed by the MOD and are acceptable to the President’s administration and Congress in support of their objectives of improved transparency and civil-military relations. More importantly, as we discuss below, once the metrics are agreed upon, the MOD and the stakeholders must credibly commit to their use in support of the government’s objectives.

Deborah Bielling, for example, constructs a two-sector model of labor force adjustment that examines labor force adjustment after a favorable external shock to the security environment.²⁰ The favorable external shock, in effect, lowers the marginal benefit to national security provided by military personnel and thus induces a reallocation of resources from the military sector to the civilian sector. Adjustment, however, is costly. Given adjustment costs, sufficient incentives must exist for military employees to move to the civilian sector. It is only possible to achieve the second-best equilibrium if the government can credibly commit to a reduction in military operations. In the absence of credible commitment, expectations will form that the actual level of post-shock military employment will exceed that announced by the government. These expectations are fulfilled in the resulting equilibrium where the government provides a level of protection to military employees that exceeds the second-best level. If the Peruvian

government fails to credibly commit to the realignment and closure process, then the outcome of the process is likely to be sub-optimal with respect to the government's objectives of reallocating resources from the military to other sectors while maintaining the current level of domestic security.

Our survey of the economics literature suggests that credible commitment is an important facet in the realignment and closure process. By institutionalizing credible commitment, the possibility of achieving an outcome that is superior to that in the absence of credible commitment is enhanced. In the United States, credible commitment was institutionalized in the form of the independent Base Realignment and Closure Commission. Commitment was also enhanced by the stipulation that Congress could only accept or reject the Commission's closure and realignment list; partial acceptance or modifications of the list were not allowed. We also believe that economic theory suggests that without the proper incentives, MOD participation in the realignment and closure process will be limited. Also of concern is the perceived relative strength of the Services to the MOD. It may be that the MOD must offer incentives to the Services to encourage their participation similar to the incentives we propose the President and Congress offer to the MOD. Incentivization could be in the form of tracking and transferring a portion of the long-term savings.²¹ Given the current instability in the macroeconomic environment and uncertainty with respect to resources, we argue that if the President and Congress would credibly commit to a level of expenditures for national defense after the completion of the realignment and closure process, this would provide a positive incentive for the participation of the MOD and the Services. We believe that such a commitment should be conditional on the active participation of the MOD and

Services in the process, starting with release of budget information to support transparency and the negotiation on what metrics will be used in the decision making process.

4. Principles for base realignment and closure in Peru

Having briefly surveyed the economics literature and noting that credible commitment and incentives can play an important role in the military infrastructure reduction process, we now turn to a discussion of what should be the guiding principles for the process in Peru. While the principles discussed in this section do not exhaust the potential guidelines, we believe that these are the most important and should form the foundation of the realignment and closure process.

4.1 Expectations, costs, and the process of infrastructure reduction

Managing Expectations: The reduction and privatization of military infrastructure, we argue, is often mistakenly thought to result in a short-term reduction in operations and maintenance expenditures. Experience in the United States and other countries has shown that, in fact, the realignment and closure process results in substantial short-term costs and significant shortfalls in expected revenues from privatization and land sales.²² We thus argue that, even before the parties start to discuss the objectives and metrics of the process, they must develop realistic expectations on potential short-term savings.²³ When tax revenues are not rising in response to an improving macroeconomic environment and popular expectations have been shaped by promises of increased social protection expenditures, unrealistic expectations can seriously jeopardize the conduct of the realignment and closure process.

Estimating and Managing Costs: If short-term savings in terms of reduced operational and maintenance expenditures are likely to be less than expected, what can we say about realignment and closure costs? With pre-announced expectations that a reduction in military infrastructure will realize sufficient savings to fuel an increase in social expenditures, the task of accurately estimating and managing realignment and closure costs is likely to be the most contentious part of the process. Assuming the Peruvian military cannot simply “lock the gates and walk away,” we can realistically expect that realignment and closure costs will exist and, in some cases, will be substantial.²⁴ Military personnel and equipment will need to be transferred to receiving bases; receiving bases will, in some cases, require additional capital for expansion; bases tapped for closure will require some amount of preparation for transfer to the civilian sector; and so on. Given the absence of local governments and the relative strength of the central government in Peru to regional governments, many of the legal issues surrounding the closure and transfer process in the United States will not appear in the Peruvian context. On the other hand, the issues of retraining of civilian and military personnel and the economic impact on local communities will undoubtedly pose some of the same challenges for the Peruvian government.

Of concern are the potential costs for environmental remediation. Given the current commitment of the Toledo administration to enhancing social welfare, we can realistically expect that the defense establishment will be unable to abandon unused or unneeded infrastructure without remediation. The removal of unexploded ordinance, contaminated soil, and other hazardous materials will require the commitment of resources -- resources that we have already argued will not be readily forthcoming in the

short-term from the closure of military bases. We believe that Peru can learn from the experience of the United States and explicitly include environmental remediation costs as one of the criteria for determining which infrastructure should be realigned or closed. We also argue that the Peruvian government should explicitly recognize that the presence of these costs will further dampen the prospects for savings in the short-term. To do otherwise is to jeopardize the potential of achieving an efficient outcome from the realignment and closure process.

Process Framework: While we can draw upon the experience of the United States and other NATO countries with respect to the military infrastructure reduction process, we must also be cognizant of Peru's limitations in terms of resources and analytical infrastructure. Simply importing the methodology and process framework used in the United States' base realignment and closure process is not feasible given the resource and analytical constraints. Civilian officials, for example, currently have no means of independently confirming military expenditure - the number of soldiers, for instance, is reported only by the military itself, and the numbers offered to Congress vary widely. This environment is further exacerbated by the weakness of the legislative branch relative to the executive branch. In some cases, Congress must communicate through the President's administration to officials in the MOD and security agencies. Care must also be taken to complement the ongoing efforts in the restructuring and reform of the armed forces and to bolster the government's efforts in the areas of transparency and accountability.

Ideally, Peru would exploit institutions already involved in the restructuring and reform of the military. One option is the creation of a committee within the Comisión de

Reestructuración de las Fuerzas Armadas (Commission for the Restructuring of the Armed Forces) for the specific purpose of base realignment and closure. Exercising this option would bolster the standing and efforts of the Comisión with respect to the restructuring of the Peruvian armed forces and integrate the base realignment and closure effort with the overall effort to transform the Peruvian military. A second option is to create a separate, independent Comisión for the express purpose of realigning, closing, and in some cases, opening military bases in response to the shifting security and resource environment. While an independent Comisión would increase the transaction costs associated with the infrastructure reduction process in that it would need to coordinate its activities with the restructuring Comisión, it is possible that an independent base Comisión would increase the likelihood of independent and transparent analysis.

While an independent realignment and closure Comisión would closely mirror the methodology of the United States, we do not believe that an independent Comisión is required in the Peruvian context. First, the transactions costs of an independent commission may be significant given the potential impact of realignment and closure decisions on the final force structure and resources of the Peruvian armed forces. We believe that this requires close coordination between those working on issues related to the restructuring of the armed forces and the reduction of military infrastructure. Second, unlike the United States, the Congress is weak relative to the President's administration. The President can thus pre-commit to accept and enforce the recommendations of the realignment and closure staff. As previously discussed, pre-commitment is necessary (but not sufficient) to achieve the most efficient outcome from the infrastructure reduction process. Finally, given the government's objectives of increasing transparency

and accountability, we believe that integrating the realignment and closure process within the existing institutional framework supports these objectives. While an independent Comisión would also support these objectives, it may be best, given the nature of the political environment, to have fewer rather than more agents involved in the realignment and closure process. We now turn to the specific issues of transparency, accountability, and independence with respect to military infrastructure process.

4.2 Transparency, accountability, and independence

As previously noted, our discussion is rooted in the Peruvian government's objectives of improving transparency and accountability in support of its overarching goal of improving democratic governance. Improving transparency implies that decisions related to military infrastructure are not only viewed by the public but that the public takes part in the process. Improving accountability implies that decisions reached during the process can be independently replicated if a reasonable person had access to the same data and methodology. We must also remain cognizant of the current lack of popular support for the Peruvian military and the absence of credible information flows from the Peruvian military to other parts of the government and the public. As we have argued before, the macroeconomic and political environment in Peru is much different from that in the United States during its infrastructure reduction process.

Simple, concise, objective criteria: While there are several potential areas for the Peruvian government to improve its performance in the area of transparency, we believe that the most significant gains exist in the area of civil-military relations. Anecdotal evidence suggests that distrust pervades the civil-military relationship and that much work remains to be done before the defense establishment is an integral part of the

government's decision making process. This being said, the development of simple, concise, and objective criteria in support of the base realignment and closure process is another necessary step in support of the government's objective of improving transparency.

Rather than developing criteria for each type of major facility as was done in the United States, we believe that it would be more economical to develop a single set of criteria for each Service. First, the number of bases and other facilities to be analyzed is substantially less than that considered in each round of base realignment and closure in the United States. Second, the amount of resources available to support the analysis of military reduction in support of the realignment and closure process is again substantially less than that of the United States and other countries. Developing the criteria and gathering the data necessary to accurately rank military facilities will require resources; and the amount of resources required is, at a minimum, proportional to the complexity of the criteria. Finally, criteria which can be easily understood by the President's administration, the Congress, and the public, supports the objective of improving transparency. In Table 1, we present a stylized set of criteria that could be used as a starting point for the discussion of criteria for the Peruvian infrastructure reduction process.

Decision making transparency and accountability: As we have discussed throughout this paper, improving transparency and accountability will reap not only economic benefits but also support the Peruvian government's goal of improving democratic governance. Following this argument, the subjective weights applied to the final criteria should be made publicly available. Furthermore, alternative weighting

schemes should be considered and also made available to the public to test the sensitivity of the base realignment and closure rankings. If the criteria are simple, concise, and objective and the data, criteria, and weights are made publicly available, then we could reasonably expect that the base rankings could be replicated by a reasonable individual.

To enhance the transparency and accountability of the process, we believe that the Peruvian government should pre-commit to either accept or reject the realignment and closure list in its entirety. The committee should also be independently appointed by the President and Congress and should contain subject matter experts from the Ministry of Defense, Ministry of Finance and Economy, and institutions not affiliated with the Peruvian government. Given the current interaction of the Peruvian government with the World Bank, International Monetary Fund, and other international donor agencies, the government should also consider providing non-voting memberships to these institutions. Oversight by these organizations, we believe, can only help to enhance the accountability and transparency of the process. The participation of international organizations may result in the provision of resources to support the realignment and closure process.

Public accountability and input: Throughout this paper, we have stressed the importance of improving public participation in the decision making process through increased transparency and accountability. We strongly believe that the meetings related to the topic of military infrastructure reduction should not only be open to the public but that the public should be allowed to participate in the process. Given the drive by the Peruvian government to decentralize revenues and expenditures, the base realignment and closure process could be a forum for enhancing public participation in the governance process. Clearly, much work remains to be done in this area, and there is

anecdotal evidence on the reluctance of the military to engage their civilian counterparts, but we fear that without public participation, the outcome will be suboptimal. Base realignment and closure can succeed without public participation but the government's goal of improving democratic governance will not be achieved if the public is excluded from the process.

5. Summary and Concluding Thoughts

Given the drive of the President to reorient fiscal resources from national defense to social protection, base realignment and closure will happen in Peru. Whether the military actively participates in the realignment and closure process may determine whether the outcomes from the process are satisfactory from the military's perspective. In other words, to maintain a level of resources and infrastructure necessary to support operational requirements, the military may finally have to let go of their desire to remain apart from the budget and governance process in Peru.

As we have discussed in this paper, the process suffers from an incentive compatibility problem: benefits, in terms of reduced expenditures or gains in economic efficiency, accrue over the long run, leading to a timing problem of concentrated short-term costs and long-term benefits. Without institutional constraints on the independence of the process, the objectivity of the criteria, and the pre-commitment on the part of the President, we believe that the closure process will produce sub-optimal outcomes in terms of resource availability and economic efficiency. The task before Peru is to develop these institutions to support a transparent, accountable, and democratically-oriented base closure process.

Table 1
Criteria for Discussion

Criteria	Sub-Criteria
Mission Requirements	<ul style="list-style-type: none"> Maneuver acreage Firing ranges Impact areas Border coverage
Facilities and Environment	<ul style="list-style-type: none"> Environmental capacity Environmental encroachment Percent permanent facilities Capacity for new facilities Barracks space and other housing Average age of facilities
Cost	<ul style="list-style-type: none"> Environmental remediation estimate Annual operating cost / Personnel Military construction costs / Personnel Allowances and other pay Closure cost estimate

End Notes

¹ Discussions with Peruvian officials occurred during the Institute for Defense Acquisition and Resource Management (IDARM) mission to Lima, Peru 1-13 April 2002. The views expressed in this paper are the sole responsibility of the author and do not represent those of IDARM, the Naval Postgraduate School, the Department of the Navy, the United States Government, or the Peruvian Government.

² Nellis, John, "External Advisors and Privatization in Transition Economies," *Center for Global Development Working Paper 3*, (February, 2002).

³ In some ways, the arguments for the reduction of military infrastructure echo those for fiscal decentralization. See Brennan, Geoffrey. and James. M. Buchanan, *The Power to Tax: Analytical Foundations of a Fiscal Constitution* (Cambridge, UK: Cambridge University Press, 1980) for how decentralization can control the Leviathan.

⁴ Latin Source, "Peru Economic Review," (February 27, 2002), 2-4 and Latin Source, "Peru Economic Review," (March 11, 2002), 1-3.

⁵ Latin Source, "Peru Economic Review," (February 27, 2002), 3-5, Latin Source, "Peru Economic Review," (March 11, 2002), 2-4, and ABN-AMRO, "Peru: Economic and Political Prospects," in ABN-AMRO, *Emerging Markets Fortnightly*, (Washington, DC: ABN-AMRO, 20 March 2002), 2-5.

⁶ See Latin Source, "Peru Economic Review," (February 27, 2002) and Latin Source, "Peru Economic Review," (March 11, 2002).

⁷ Martinez-Vazquez, Jorge and Robert McNab, "Fiscal Decentralization and Economic Growth," Currently under review at *World Development* (2002) and Martinez-Vazquez, Jorge and Robert McNab, "Fiscal Decentralization, Economic Growth, and Democratic

Governance.” *International Studies Program Working Paper Series #5* (Andrew Young School of Policy Studies, Georgia State University, 1998).

⁸ International Monetary Fund, *Peru: 2000 Article IV Consultation and Request for Stand-By Arrangement--Staff Report; Staff Statement; Public Information Notice; and Statement by the Authorities of Peru*, (Washington, DC: International Monetary Fund, 2000).

⁹ Latin Source, “Peru Economic Review,” (March 11, 2002).

¹⁰ Another example is the continuation of the tax incentives in Peru’s Amazon region. It is estimated that government receives 1% of GDP less in revenues due to these tax incentives. ABN-AMRO, “Peru: Economic and Political Prospects,” 2-5.

¹¹ It was the consensus of the Ministry of Defense officials interviewed that operational requirements will increase due to the increasing conflict between the FARC and Columbian government and the potential reemergence of the Shining Path.

¹² One of the primary questions of Peruvian officials interviewed was how to use the realignment and closure process to “free up” resources that could then be committed to the expansion of outposts along the Peru-Colombia border. A concern was that savings from the realignment and closure process would be used for social rather than defense expenditures.

¹³ See Migue, Jean Luc and Gerard Belanger, “Toward a General Theory of Managerial Discretion,” *Public Choice* 17, (Spring 1974): 27-47. For a behavioral analysis of budget-surplus maximizing agencies, see Wyckoff, Paul, “The Simple Analytics of Slack-Maximizing Bureaucracy,” *Public Choice* 67, (October, 1990): 35-47.

¹⁴ Niskanen, William, *Bureaucracy and Representative Government*, (Chicago: Aldine-Atherton, 1971) and Miller, Gary, "Bureaucratic Compliance as a Game on the Unit Square," *Public Choice* 29 (Spring, 1977): 37-51 impose an additional constraint where the department's sponsor presents a take-it-or-leave-it budget proposal. Mueller, Dennis, *Public Choice II*, (Cambridge: Cambridge University Press, 1989) and Claar, Victor, "An Incentive-Compatibility Approach to the Problem of Monitoring a Bureau," *Public Finance Review* 26, 6, (November, 1998): 599-610 are among those that have relaxed this assumption.

¹⁵ Baker, George, "Incentive Contracts and Performance Measurement," *Journal of Political Economy*, 100, 3, (June, 1992): 598-614.

¹⁶ See Holmstrom, Bengt and Paul Milgrom, "Multitask Principal-Agent Analyses: Incentive Contracts, Asset Ownership, and Job Design," *Journal of Law, Economics and Organization* 7, 0, (Special Issue, 1991): 24-52 for an analysis of multitask principal agent incentives and contracts. See Wintrobe, Robert, "Modern Bureaucracy Theory," in *Perspectives in Public Choice: A Handbook*, ed. Dennis Mueller (Cambridge: Cambridge University Press, 1997), 429-454 for a review of the literature on bargaining games between government agencies and their sponsors and Prendergast, Canice, "The Provision of Incentives in Firms," *Journal of Economic Literature* 37, 1, (March, 1999): 7-63 for a review of the literature on the provision of incentives in firms. Prendergast, Canice, "What Trade-Off of Risk and Incentives?" *American Economic Review* 90, 2, (May, 2000): 421-25 examines the tradeoffs between risk and incentives.

¹⁷ Anecdotal evidence suggests that while the MOD constructs annual budgets, its actual spending is dependent upon monthly revenue collections, shortening the planning horizon from an annual to monthly basis.

¹⁸ Claar, “An Incentive-Compatibility Approach,” 605-610.

¹⁹ Osborne, David and Ted Gaebler, *Reinventing Government* (Reading, Massachusetts: Addison Wesley, 1992): 25-75.

²⁰ Bielling, Deborah, *Three Essays: Military Base Closure and Federal Spending*, (Irvine: University of California, Irvine, Ph.D. Dissertation, 1996).

²¹ We recognize that public expenditure systems typically do not track savings over time, however, we believe that this could be accomplished if this task was in the interest of the stakeholders in the realignment and closure process.

²² See General Accounting Office, *GAO-01-1054T Military Base Closures: Overview of Economic Recovery, Property Transfer, and Environmental Cleanup*. (Washington, DC: General Accounting Office, 2001), 5-10. Only recently have net savings been realized, and these are lower than expected due to environmental remediation costs.

²³ The parties should also explicitly recognize that public expenditure systems are not designed to track savings over time and that savings projections should be treated as estimates, subject to change in response to the macroeconomic and security environment.

²⁴ See General Accounting Office, *Military Base Closures: Overview of Economic Recovery, Property Transfer, and Environmental Cleanup*, 3-15 and General Accounting Office, *GAO-02-433 Military Base Closures: Progress in Completing Actions from Prior Realignments and Closures*, (Washington, DC: General Accounting Office, 2002), 2-8.