

Foreign Intervention and Belligerents' Capabilities in Civil War

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Introduction

This paper was inspired by three observations on foreign intervention and civil war. First, most civil wars experience foreign intervention. Indeed, foreign intervention is the rule rather than the exception, with 71 percent of civil wars recording at least one intervention (Hironaka, 2005: 131). Second, only a tiny minority of foreign interventions in civil war have been truly neutral: indeed, only 9 of the 191 cases of foreign intervention in civil wars between 1945 and 1994 (Regan, 2000b). Overwhelmingly, foreign intervention in civil war has been targeted at one side in the conflict, and taken the form of the transfer of money, arms, or foreign troops. Third, the impact of foreign intervention on civil wars has varied considerably across cases. The United States provided the Kuomintang in China and the Contra in Nicaragua with comparable sums of support, yet, the impact on the former seems to have been negligible, while on the latter, considerable. Overall, these three observations suggest that understanding the mechanisms of the transfer of resources from an external power to a belligerent in a civil war is an important, pressing, and puzzling phenomenon. This paper attempts to reflect on the possible mechanisms which are involved in producing foreign intervention's inconsistent impacts on recipients' capabilities.

A broader theoretical understanding of the mechanisms involved with respect to foreign intervention in civil war is valuable for several of reasons. For example, foreign intervention in civil war is not limited to any particular region. The United States has, since the Cold War, intervened in support of governments as geographically disparate as Colombia, the Philippines, and Haiti, as well as the rebels in Iraq and Afghanistan (Tillema, 1989). In addition, although policymakers frequently feel compelled to intervene, they also have a suite of options available regarding the form their intervention may take, ranging from invasion, to providing advisors, or financial assistance. Accordingly, policymakers must be able to gauge the expected impact of the different instruments. They must also be able to accurately judge whether another state's intervention in a civil war will have a marginal or dramatic effect. This calculation usually has a major bearing on the state's reaction to the rival state's intervention and the civil war (Wolf, 1957). Finally, policymakers must frequently calculate

the best point to intervene. Although these are pressing questions, currently there is a paucity of theoretical understanding of the impact of foreign intervention with which to guide policy.

Despite the pressing issues confronting policymakers, most previous research on the foreign intervention on civil wars has only marginally addressed the questions that policymakers, in practice, need to know. In contrast with previous studies, this paper attempts to reflect theoretically on how foreign intervention affects the course of civil war. Foreign intervention is, in essence, the transfer of resources from an external power to one side in the civil war. However, historically the effect of foreign intervention on the recipient's capabilities has varied within and between cases (Byman, et al, 2001). This paper puts forward a theoretical explanation for this variation. As the problem principally arises from similar amounts of foreign assistance having different impacts on the recipient's capabilities, there are two features to this analysis. First, the type of foreign intervention must be considered. For the purposes of analytical simplicity, the paper adopts three broad categories of foreign intervention: direct military, indirect military and economic. Second, the discussion must allow for variation in the general characteristics of the recipient. Clearly, the impact of foreign assistance on a large, stable, central government will differ to the impact on a small, ragged, guerrilla movement. Hence, the belligerent's preexisting capabilities, size, and structure will result in variation in the impact of foreign assistance it receives on its overall capabilities.

This paper is divided into two sections. The first section suggests why military, indirect military and economic assistance have different impacts on the capabilities of the recipient. The second section explores how variation in the recipients themselves can affect the impact of exogenous resources. Specifically, the section argues that a recipient's available resources, its size, and the way its uses its resources, will strongly influence the impact of foreign intervention.

Types of Intervention and the Inconsistent Impact of Exogenous Resources

Foreign powers intervene in civil wars by providing strategically significant military and economic assistance to the side which it perceives will best serve its interests (Elbadawi and Sambanis, 2000). In essence, foreign powers change the course of a civil war by transferring

some of their own resources to one of the belligerents in that civil war. However, rarely will the decrease in the foreign power's arsenal be a perfect equivalent for the increase in the belligerent's capabilities. Indeed, the opposite is usually the case. In most cases, foreign assistance produces inconsistent impacts upon recipients' capabilities. This section will suggest an explanation for this puzzling characteristic of foreign intervention.

Previous studies have reported great variation in the impact of different types of foreign intervention on the capabilities of the recipient. The effectiveness of economic intervention, in particular, has consistently been questioned. In an influential study, Collier, Hoeffler and Söderbom (2004, 267) found that economic interventions were "completely insignificant" in influencing the course of civil wars. In an equally influential study, Odom found that large amounts of U.S. economic aid "do not seem to correlate with improved economic conditions or with better security" (Odom, 1992, 205). These findings found voice in Iraq, where the United States provided the insurgent with \$97 million in economic assistance with little observable effect on the recipient's military capabilities (Byman, 1999, 24). Unsurprisingly, policymakers seem to have intuitively understood economic assistance's lesser effectiveness: one recent study found that although economic intervention carried the least political costs, it represented only 19 percent of all foreign interventions (Khosla, 2004).

Economic intervention performs poorly in comparison with the other types of intervention, particularly when compared with direct military intervention (Dunér, 1985, 14). For instance, it was observed that during the Afghan Civil War, that the incumbent government's position was so precarious that no amount of economic "aid could have substituted for troops in 1979" (Isby, 1992, 206). The United States' intervention in the Chinese Civil War is also illustrative. The United States supplied the Kuomintang with \$338 million worth of economic assistance, which had little observable impact on its overall capabilities (Wolf, 1960). However, reportedly the limited American forces operating in China unintentionally played an important role. Copland observed that the American forces,

in the first few months after the Japanese capitulation inevitably favoured the National Government against the guerrilla forces of the Communists. Many of the key cities of North China were safeguarded for the government by the presence of American marines, and it was American transport that carried the government troops to the North and Manchuria to "take over" from the Japanese...American marines played a considerable part in Tientsin, Peiping, Chinwangtao and Hulutao in 1946 in

establishing the authority of the National Government in these strategic places at a time when they might otherwise have been occupied by the Chinese Communists ...[furthermore] there is little doubt that the Communists would have promptly occupied Tsingtao and the whole of the Shantung Peninsula if the American fleet had not been based there (Copland, 1948, 343-343).

Ironically, therefore, while the economic assistance intended to improve the Kuomintang's fortunes had little positive effect, while the small "neutral" military force "played a considerable part". This phenomenon will be discussed further below.

I argue that in order to understand these observations it is useful to conceptualise the belligerents in a civil war as self-contained systems. At a high level of abstraction, incumbents and insurgents are like units. They extract resources from their endogenous resource base, which they subsequently convert to military capabilities and finally apply to fighting their opponent or reinvest to expand their endogenous resource base.

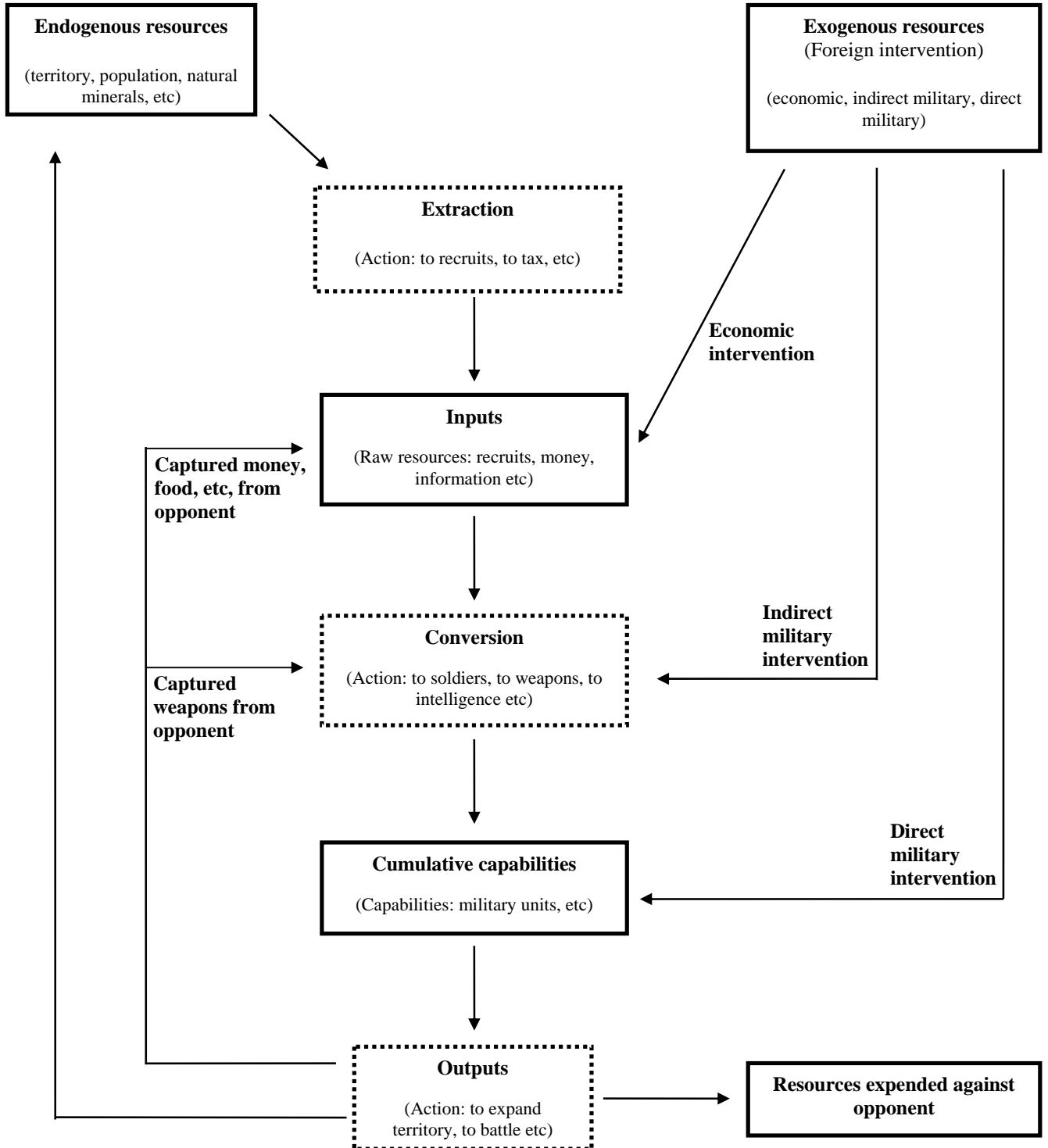
Resource Conversion Process

Resources must first be extracted and converted before they can be used by belligerents. For example, the belligerents must extract recruits from the population, who in turn, must be converted into soldiers. Only after recruits have been trained into soldiers and allocated to military units can they be used to enlarge the belligerents' endogenous resource base or fight the enemy. This resource conversion process can best be understood as a system. Admittedly, conceptualising the functioning of a belligerent as a system – at least one characterised by inputs and outputs – is not novel (Wolf, 1965; Grossman 1999; Grossman, 1991). However, what distinguishes the system model that will be introduced in this section is the concept of "attenuation". As will be seen, the attenuation effect goes some distance toward explaining the inconsistent impact of different types of intervention.

In essence, the functioning of belligerents' resource conversion process is similar to that of an endothermic system (i.e. a system that absorbs energy). It costs money to maintain untrained recruits in the barracks and soldiers in the field; however, the heaviest costs are associated with extracting recruits from the civilian population, converting recruits to soldiers, and assembling soldiers into military units. This process is similar to the fact that it takes more energy to increase the temperature of water from 99 degrees to 101 degrees than from 97 degrees to 99 degrees. In other words, while maintaining resources at a constant

level of development requires expenditure, changing their form incurs much greater costs. This effect is also reminiscent of attenuation in an electrical circuit where current diminishes between the input and output stage. Within a belligerent's resource conversion process, attenuation is the expense required to move resources to the next stage. Therefore, as resources progress through the resource conversion process, attenuation occurs at each stage, eroding the total value of the resources. As such, one dollar of taxation extracted from the population will not produce one dollar's worth of output, since a percentage of the initial sum will have been expended in facilitating the dollar's conversion into an output. The resource conversion process, and the place of foreign intervention within the process, is depicted in Figure 1.1.

Figure 1.1: Resource conversion process and foreign intervention



Inspired by Nathan Leites and Charles Wolf, Jr., *Rebellion and Authority: Analytical Essay on Insurgent Conflicts*, (Chicago: Markham Publishing Company, 1970), 35.

Extraction

Extraction is the process through which belligerents take possession of resources from their endogenous resource base. Thus, it is the first stage in the resource conversion process. In order to have any ability to contest the civil war, all belligerents must have access to, and be able to extract, endogenous resources, including people, food, information, and a source of finance. Without extracting resources, the belligerent cannot feasibly put up any resistance. Hence, the extraction process involves the belligerent taking physical possession of resources from its endogenous base and transferring these into its resource conversion process.

Generally, belligerents will be required to invest time and money in extraction. In Vietnam, for example, a potential recruit was worried about the wellbeing of his grandmother if he joined the Viet Cong, saying that: “[I] brought these apprehensions up with the cadres and they said that they were certain that the village authorities would take care of my grandmother. After I left, my grandmother was given 0.6 hectare of rice field” (Popkin, 1979, 240). Reportedly, many of Hezbollah’s recruits joined because they would then receive “\$150-200 a month, along with free education and medical care” (Byman, 2005, 89). Even forced recruitment requires the belligerent to outlay time and capabilities to coerce civilians into their organisation. In Burundi, for instance, “rebel groups purchased Kenyan street children at the price of \$500 for 150 boys” (Sambanis, 2004, 267). Thus, belligerents will incur a cost when extracting resources.

Although attenuation is inescapable, in practice, the action of extraction can take many different forms, from plundering, to collecting, through to voluntary donations. Hence, structural differences between belligerents will result in considerable variation in the cost of extraction. Hence, attenuation at the extraction stage will differ between locations, markets, time, and belligerents. For example, a belligerent can usually reduce attenuation at the extraction stage by increasing its popularity. Belligerents experience reduced attenuation if, for instance, individuals volunteer taxes, eagerly become recruits, and work willingly and enthusiastically in industry. In other words, popular support reduces attenuation during the extraction process as the additional costs associated with surveillance, propaganda, and coercion are not needed. However, the prevalent pattern of belief that popular support is

necessary to successfully wage a guerrilla campaign, or to combat against it, is not strictly correct. As Wolf argued,

From an operational point of view, what an insurgent movement [or any belligerent] requires for successful and expanding operations is not popular support, the sense of attitudes of identification and allegiance, but rather a supply of certain inputs (e.g. food, recruits, information) at reasonable cost, interpreting cost to include expenditure of coercion as well as money (Wolf, 1965, 5).

“Reasonable cost” can be achieved with or without popular support. Minter observed “guerrillas are just as capable of imposing themselves on civilians as is a conventional force” (Minter, 1994, 204). It is likely that popular support is commonly observed because of the benefit it offers in suppressing the attenuation effect. This is particularly true for weak belligerents, such as guerrilla movements. For example, in Indonesia, at first “GAM used force to conscript new members. Over time, however, it began to recruit the children of people who had been killed or tortured by security forces...offering them the opportunity to avenge their parents” (Ross, 2005, 48). For GAM, the result of decreasing attenuation at the extraction stage was that it began to grow rapidly, expanding from only 800 men in 1999 to 2,000-3,000 regular and 13,000-24,000 guerrilla fighters by 2001 (Ross, 2005, 47).

Inputs

Following extraction, resources become “inputs” in the resource conversion process. At the inputs stage, raw resources have no immediate coercive value for belligerents; however, the resources have advanced from simply being within the belligerent’s sphere of territorial control to being in its physical possession. For example, resources such as population and forests become inputs after being extracted into recruits and timber; yet, at this stage these materials will not directly contribute to a belligerent’s cumulative capabilities.

A continual flow of inputs is necessary to sustain a belligerent’s ability to contest a civil war (Schelling, 1958, 440-441). However, the flow of inputs will be a function of dynamic variables and so will fluctuate. As such, inputs vary across time and between actors. In South Vietnam, the incumbent “lost more and more of its tax base to the Viet Cong as the war went on, dropping to an estimated 10 percent in 1970” (Odom, 1992, 59). In another example, during the Laotian Civil War, the “steady drain of casualties” began to exhaust the insurgent’s endogenous resource base which forced the “Vang Pao to call up thirteen- or

fourteen-year olds” (Blaufarb, 1977, 164). Hence, the size of the endogenous resource base will place restrictions on the amount on inputs that can be extracted, and thus cap growth.

Economic intervention

Economic aid provided by a foreign power will increase the recipient’s inputs. Economic intervention is the transfer of all non-military resources to the belligerents, such as money and food. Thus, there is no practical difference between the raw resources extracted from endogenous sources and those provided by economic intervention. For example, finance and food will enter the resource conversion process at the same point regardless of whether they were endogenously extracted or provided by a third party. Therefore, economic aid “supplements the resources otherwise available to recipients” (Wolf, 1957, 94).

Endogenous and exogenous resources at the input stage must still pass through a number of stages in the resource conversion process before contributing to the belligerent’s cumulative capabilities. There are two implications of this observation. First, resources supplied by economic intervention remain to be converted into capabilities. Thus, attenuation will take a greater toll on economic intervention than on other types of intervention. To illustrate this point, consider giving a gift to two separate people. The first recipient is provided with a car while the second is given the equivalent price of the car as money. The second recipient must convert the money to a car by taking time off work, investing the cost of travelling to visit car dealers, and then transporting the car home. Perhaps, after incidental costs are deducted, the second recipient will only be able to afford a less expensive car. Therefore, the impact of providing a recipient with money is not as great as simply providing the finished product. Because of attenuation, the further along the resource conversion process the exogenous resources enter the resource conversion process the greater impact they will have on the recipient’s cumulative capabilities.

The second implication is that the efficiency of the belligerent’s resource conversion process plays a greater role in determining the impact of economic intervention than other types of intervention (Sinno, 2008). For example, the corruption and inefficiency of the Kuomintang led President Truman, on 7 March 1947, to tell cabinet that it “would be pouring sand in a rat hole [to give aid] under present conditions” (MacDonald, 1992, 108). Similarly, the collapse of the Afghan government’s resource conversion process explains the earlier observation that

no amount of economic “aid could have substituted for troops in 1979” (Isby, 1992, 206). In contrast, however, economic assistance directed to a well organised and efficient belligerent can have a significant impact. For instance, by 1951 the Filipino Government had restructured and greatly improved its efficiency. Thus, in “response to these improvements, the [American] embassy recommended [an additional] \$10 million for a further expansion of...[the] Battalion Combat Teams” (MacDonald, 1992, 151). In recent times, Iran has provided Hezbollah with substantial financial assistance, regularly topping \$100 million a year, which it uses to sustain its large militia force and fund its social welfare program (Byman, 2005, 88). Saad-Ghorayeb (2002, 97) reported that “without Iran’s political, financial, and logistical support, [Hezbollah’s] military capability and organisational development would have been greatly retarded. Even by [Hezbollah’s]’s reckoning, it would have taken an additional 50 years for the movement to score the same achievements in the absence of Iranian backing.”

Conversion

Raw resources, once extracted, must be converted into capabilities that can be directly applied in the pursuit of objectives. Recruits must be trained into soldiers, information translated into intelligence and natural minerals traded for weapons. At first, particularly on the insurgent’s side, there may not be much difference between the extraction and conversion stages. Training may be basic and the small number of weapons required may simply be stolen from government stores. However, over time, the two processes will tend to become more distinct. As a National Resistance Army commander in Uganda explained: “as the army grew, we wanted not only numbers, but discipline. Our new soldiers needed to know how we wanted the country to run. If we had taken Kampala without properly politicizing the soldiers, they would have behaved like our old soldiers” (Weinstein, 2007, 269).

There are many incidental costs associated with converting inputs into capabilities. Consider, for example, the investment required to convert money into arms. Money will not be transferred into the equivalent volume of weapons as the buyers will need to invest time, the supplier will take profit, and the weapons will need to be transported back to the belligerent’s forces. During the American Civil War, for example, given “that the North depended on profit-taking contractors for most of its supplies throughout” the war, the role of “middlemen” became a heated topic in Washington (Wilson, 2006, 148). It was felt by many citizens

and politicians that the middle-men were making too much profit from the North's war effort. In effect, people were angry that Treasury monies (inputs) were not being converted efficiently enough to weapons and war materials (cumulative capabilities) because the middle-men's profits were too high (attenuation).

Although attenuation is an inescapable feature of the resource conversion process, different actors are more efficient at conversion than others, and as such, can reduce its effect. For instance, in Burma, insurgent groups generally purchased weapons and munitions directly from corrupt elements in the Royal Thai Army. However, certain enterprising groups established trade routes from Thailand's eastern border with Laos and Cambodia where "prices were considerably cheaper than those offered by the middle-men" in the Royal Thai Army (South, 2003, 128). In contrast, when civil war broke out in Nigeria and the Biafran insurgent's arms buyers flocked to Europe, "they reportedly were duped into squandering huge sums on faulty and inappropriate equipment" (Stremlau, 1977, 220 and 360; Wilson, 2006). The insurgent was increasingly unable to pay the "exorbitant transportation costs" of "\$25,000 payable in advance and in cash, for the round trip" to Lisbon (de St. Jorre, 1972, 322; Stremlau, 1977, 320). Although the insurgent – at least initially – had access to a large and lucrative endogenous resource base, high attenuation at the conversion stage predictably had a major detrimental impact upon Biafra's cumulative capabilities. Thus, in time, only those troops in Biafra's 20,000 strong army "with front-line duty were given ammunition, and at the paltry rate of four rounds per rifle" (Stremlau, 1977, 238; Thayer 1969). For the Biafrans, the outlay required for converting revenue to arms and ammunition was an extremely costly process.

Indirect military intervention

Indirect military intervention provides the recipient with weapons, materiel, training, advisors, and intelligence, which are used to convert inputs into military units. Thus, indirect military intervention skips the input stage and enters the resource conversion process at the conversion stage. Recruits into the "Army of Liberation" in Guatemala, for example, were converted into effective soldiers with the assistance of the CIA. It was reported that "CIA agents established training centres in both Honduras and Nicaragua...[where] the troops learned to march in single file and similar rudimentary manoeuvres. In these camps flowed shipments of rifles and other small arms, machine guns, and ammunition from the agency

storehouse in France's Field" (Immerman, 1982, 162-163). In Rhodesia, the Soviet Union and Cuba provided training and weapons to the ZANU guerrillas. Reportedly the result was that "[c]learly the 'scruffy lot' have been transformed by communist aid" (Hancock, 1980, 160). In these cases, the recruits (inputs) were converted to capabilities with the assistance of the foreign power's training, weapons and safe havens.

Cumulative capabilities

Cumulative capabilities are the sum of all the belligerent's coercive instruments. As a concept, cumulative capabilities are the aggregate of all military elements such as the number and quality of military personnel, quantity and sophistication of weapons, size and integrity of the police force, and the volume and accuracy of intelligence. Generally, the greater a belligerent's cumulative capabilities, the better its offensive and defensive potential.

After passing through the conversion stage, resources must be assembled. In essence, this process involves the merging of the converted resources into military units. For instance, trained soldiers must be combined with purchased or looted weapons, vehicles, uniforms, and other logistics before being assembled into military units. Like other stages in the resource conversion process, there will be an attenuation cost associated with this process. Also like other stages, the efficiency with which this process is performed will vary across time and between belligerents. Clearly, for example, the costs associated with assembling a locally recruited, trained, and equipped village militia will be considerably less than transporting vast numbers of soldiers from a single national training centre to military units scattered across the country. During the Ethiopian Civil War, for instance, at any one time, and at great expense, the incumbent was reportedly transporting up to 15,000 new recruits to centralised training facilities. However, at the training camps the recruits were ill-fed, had insufficient drinking water, few medicines and were allocated only one uniform each (Lulseged, 1994, 666-667; de Waal, 1991, 305). In Afghanistan, following the Soviet withdrawal, the Najibullah regime increasingly found it difficult to meet the costs associated with transporting recruits from rural areas to training facilities located in Kabul, which contributed to the disintegration of the regular army (Giustozzi, 2004, 5).

Direct military intervention

Direct military intervention contributes directly to the recipient's cumulative capabilities without passing through any part of the resource conversion process. As the foreign power has shouldered the cost of recruiting, training, arming, and deploying the military units, direct military intervention bypasses the extraction, inputs and conversion stages, resulting in decreased attenuation. As foreign powers ultimately seek to enlarge the recipient's cumulative capabilities, direct military intervention is the more efficient form of assistance (Barrett and Maxwell, 2005; Mavrotas, 2003; Mavrotas, 2002; White, 1992).

By avoiding attenuation, direct military intervention has a greater impact, per unit of resources, than economic or indirect military intervention. As such, direct military intervention is at times resorted to when economic or indirect military interventions have failed (Heraclides, 1990). In East Pakistan, for instance, India, after previously supplying weapons and sanctuary to the Bengali guerrillas, resorted to deploying two brigades and a tank regiment (Cooper and Berdal, 1993). "This reflected a departure from [India's] policy of indirect military intervention," that, according to Rizvi (1981, 199-200), was triggered by New Delhi's waning "confidence in the ability of the Mukti Bahini to liberate Bangladesh without direct physical intervention". Direct military intervention becomes even more crucial when a belligerent is experiencing severe structural collapse. For economic and indirect military intervention to contribute to the recipient's cumulative capabilities, its resource conversion process must be functional. If it is not, no longer functioning, no amount of economic or indirect military intervention will effectively contribute to that recipient's cumulative capabilities. In 1965, for example, as the Dominican Armed Forces, "plagued by defection, exhaustion, low morale, and poor communications...continued to disintegrate...it was beginning to appear the U.S. troops would have to be ordered into the city to combat the rebel" (Lowenthal, 1972). In sum, holding all else equal, direct military intervention has the greatest impact, per unit of resources, of any form of intervention.

Outputs

The outputs stage of the resource conversion process represents the application of the belligerent's cumulative capabilities. Generally, outputs can be divided into two categories: those expended against the enemy and those used to enlarge the endogenous resource base.

First, cumulative capabilities can be employed against the enemy to either inflict costs or defend assets. Although violent action against the opposition is a necessary precondition for the survival of a belligerent, the resources that are applied to fighting the enemy are expended in the process. That is, in using resources against an enemy, a belligerent's own soldiers will be killed and bullets will be fired, which are resources that cease to contribute to its cumulative capabilities. Yet, due to structural, tactical, and logistical differences, there will be considerable variation in the percentage of casualties, munitions, and time that belligerents regularly lose while fighting the enemy. For instance, the Biafran armed forces were able to halt the federal government's dual offensives at the pitched battles at Aba and Owerri for a cost of no more than half a million dollars (Stremlau, 1977, 238). Then, for the even smaller sum of \$51,600, the Biafrans went on the offensive by purchasing five minicon aircraft and successfully attacking the incumbent's oil refining installations (Stremlau, 1977, 226). The Biafra's military effectiveness allowed it to continue to resist the incumbent for a further three years. On the other hand, a seemingly large and well supplied force can be ineffective. For example, in spring 1947, although the Greek National Army (GNA) stood at 120,000 men, it was "relatively ineffective...[because among] the army's rank and file, there was a noticeable unwillingness to fight. Often this was based on distrust for the Athens government or on a simple desire for survival...[as such,] British intelligence reported that 25 percent of the GNA was considered unreliable" (Wittner, 1982, 224). As such, during the output process, attenuation will continue to affect the different belligerents at different rates. The more effectively a belligerent can apply coercion, the less cumulative capabilities that will be consumed by the process.

Second, a central concern for belligerents will be expanding their endogenous resource base. As has been explained, a belligerent relies upon its endogenous resource base as a source for its military capabilities. By expanding its endogenous resource base, a belligerent increases the pool of resources that are available to be converted into military capabilities. Hence, much of the violence in a civil war will be concentrated in areas that are rich in endogenous resources, such as population centres, diamond mines, and trade routes. In Bosnia, for instance, intense "violence tended to occur in areas that were of strategic or economic importance" (Kalyvas and Sambanis, 2005, 217) while other areas, with less endogenous resources, "remained relatively untouched by the war, loosely defended by local militias" (Burg and Shoup, 1999). Therefore, in terms of a belligerent's conversion process, using

resources to expand the endogenous resource base will be a more valuable use of resources than fighting the enemy. This point will be discussed further as the “feedback loop” in the next section of the paper.

Foreign intervention and belligerents’ resource conversion process

Two puzzles were posed at the outset of this section. The first asked why economic assistance seems to have different impacts on different recipients. The second questioned why economic intervention has historically had less of an impact on the cumulative capabilities of belligerents than direct military intervention. This section used a systems approach to suggest an explanation for these observations. It suggested that belligerents’ efficiency at converting inputs to outputs will vary, which causes the impact of foreign intervention, and economic assistance in particular, to fluctuate greatly between recipients. Indeed, due to corruption, ill-discipline, and ineptitude, some belligerents’ resource conversion process can virtually collapse, resulting in no quantity of economic or indirect military aid contributing to those belligerents’ cumulative capabilities. As Organski and Kugler (1980, 97) concluded, the “reason the south Vietnamese could not resist the pressure from the North was not a lower level of economic resources in the south but rather a political system there that performed below average in extracting such resources”. Finally, attenuation was suggested as a possible explanation for why direct military intervention will generally make a greater contribution to recipients’ cumulative capabilities than economic intervention. By entering the resource conversion process at a later stage, direct military intervention contributes more to the recipient’s cumulative capabilities.

The Characteristics of the Recipient and Inconsistent Effects

In addition to the type of resources being transferred, the characteristics of the recipient will cause variation in the impact of foreign assistance. The resources the recipient already possesses, along with its size, structure, and tactics will influence the impact that exogenous resources have on the recipient’s cumulative capabilities. The fact that foreign intervention has different effects on different belligerents appears repeatedly in the literature (Collier, Hoeffler and Söderbom, 2004, 267). This section argues that, in particular, there are three important characteristics of belligerents that will influence the effect of foreign intervention. The first consideration is how well the exogenous resources complement and supplement the

recipient's endogenous resources and existing capabilities. A second factor will be the size of the belligerent's cumulative capabilities compared to the amount of foreign intervention. Finally, the activities to which the belligerent applies the exogenous resources will also have a bearing on their impact.

Interaction effects and binding restraints

Exogenous resources have two values. The first is the resources' real value. For example, the real value of indirect military intervention can be estimated by the resource's market price, sophistication, and technical data (such as range, calibre, and weight). The second value is the exogenous resources' interaction value, or how valuable the resources are to the recipient. In most cases, exogenous resources will increase a belligerent's cumulative capabilities; however, rarely will a single unit of exogenous resources increase the cumulative capabilities of the belligerent by exactly that amount. The contribution that exogenous resources make to the cumulative capabilities of the recipient can either be greater or lesser than the real value of that aid. In other words, one unit of exogenous resources that supplements or complements the belligerent's endogenous resource base, existing capabilities, and physical geography of the battlefield, can have an interaction value greater than its real value. On the other hand, one unit of inappropriate or incompatible assistance can potentially increase the recipient's cumulative capabilities by less than the aid's real value.

There are two means through which exogenous resources may achieve an interaction value greater than its real value. The first is by relieving binding constraints on a belligerent's resource conversion process. The second is by triggering an interaction effect with the belligerent's pre-existing capabilities.

Foreign intervention can have a positive and disproportionate impact on a recipient's cumulative capabilities by relieving binding constraints in that recipient's resource conversion process. A binding constraint is a bottleneck that emerges in the resource conversion process due to insufficient inputs of a particular resource (Goldratt and Coz, 1992; Goldratt, 1990; William 1997; Plenert, 1993). At times, for instance, a belligerent may have plentiful supplies of recruits, food, and trainers, but not enough weapons. Therefore, the lack of weapons becomes a binding restraint that restricts the flow of inputs to cumulative capabilities and therefore prevents the belligerent from reaching its full military potential. In

this instance, by providing weapons, a foreign power relieves the binding restraint, thereby allowing a greater volume of inputs to flow more efficiently into cumulative capabilities. Binding restraints can emerge at any stage in the resource conversion process. For example, at the extraction stage, these constraints could include a lack of recruits, food, money, or informants. In 1864, for instance, General Lee wrote that “insufficient food and non-payment of the troops have more to do with the dissatisfaction than anything else” (Ball, 1991, 251). Binding restraints are also prevalent at the conversion stage. For example, during the Nigerian Civil War, the “greatest constraint facing Biafran military planners during the summer of 1967 was not...a shortage of arms, but the lack of trained manpower” (Stremlau, 1977, 220). The opposite was true in Indonesia, where “GAM has been hindered by a shortage of weapons. Although in 2001-2002 it had between 15,000 and 27,000 regular and irregular soldiers, they were thought to have only 1,000-2,500 modern firearms” (Ross, 2005, 48-49). Therefore, in these cases, an exogenous supply of food, trainers, or weapons would have relaxing the binding constraint and thus allowed the further growth of the belligerent’s cumulative capabilities.

The second means through which foreign intervention can produce a disproportionate impact is through the interaction effect. The interaction effect is the process through which two capabilities combine to produce an impact greater than the component parts. For example, in Malaya, the British recognised that “[a]dditional troops [would] certainly not pay full dividend” (Nagl, 2005, 73) and so supplied a number of helicopters “which allowed units to be transported between their base and the area of operations...and [thus] allowed a more efficient deployment of troops” (Stubbs, 1989, 159). The pre-existing Malay troops complemented the British contribution. Hence, when combined the two contributions had an impact greater than the mere helicopters or troops alone (Bolloten, 1991, 97-98; Gibbs, 1991, 156; Weissman, 1979, 271). In essence, that is, an interaction effect is when one unit of exogenous resources is combined with one unit of existing capabilities to contribute more than two units to the recipient’s overall cumulative capabilities.

However, poorly chosen exogenous resources frequently have an interaction value less than the resources’ real value. For example, during the Ethiopian Civil War, East Germany supplied the Mengistu regime with 6-tonne trucks that became notorious for breakdowns in the dry, hot and dusty conditions of Ethiopia (Gupte, 1980). In Mozambique, it was reported

that South Africa provided RENAMO with man-portable anti-aircraft missiles, but not with any training in the use of the weapon, and therefore the guerrillas “did not know how to use them” (Moorecraft, 1987, 114). Clearly, inappropriate foreign assistance can contribute to the cumulative capabilities of the belligerent to a degree which may be far less than that assistance’s real value.

Diminishing marginal returns on foreign intervention

The second variable influencing the impact of foreign intervention will be the relative size of the exogenous resources compared to the size of the recipient’s pre-existing cumulative capabilities. In other words, all things being equal, a unit of exogenous resources will have a greater impact on the cumulative capabilities of a weaker belligerent than a stronger one. Clearly, for example, it would take less aid to double the size of a small economy than a large economy (Lucas, 1988). As such, the provision of exogenous resources to weak belligerents will be significant, and certainly of greater importance to overall fighting capacity, than to larger and more sophisticated actors (Byman, 2001). For instance, during the mid-1980s, at a time when the PIRA numbered less than 500 full-time fighters, Libya provided a relative modest contribution of a few hundred rifles and handguns and roughly 2,500 kg of Semtex explosive, which reportedly “gave the organization the ability to sustain its terrorist campaign on a virtually indefinite basis” (Byman, 2001, 93). Clearly, providing the British government with the same quantity of exogenous resources would not have had as great an impact upon its overall military capacity.

An implication of this observation is that there will be diminishing marginal returns on foreign intervention. As discussed previously, although it occurs at inconsistent rates, generally, the provision of exogenous resources will increase the recipient’s cumulative capabilities. As such, the recipient’s cumulative capabilities will increase after each delivery of exogenous resources and thus diminish the impact of subsequent deliveries. Hence, unless the foreign power augments its assistance in relation to the growth in the belligerent’s cumulative capabilities, the sponsor will receive decreasing returns on its investment.

Diminishing returns contains two implications for the timing of interventions. First, foreign intervention will usually have a greater impact during the early stages of a civil war, while belligerents’ cumulative capabilities are not fully developed (Regan, 2002a; Byman, 2001).

Sensi's (1991) study thus supported assertion, finding that "the likelihood that an intervener will achieve its goals is less a function of the amount of resources it employs than of its choice of time and place to intervene." Early in a civil war, fewer exogenous resources are required to have a dramatic impact on the course of a conflict. For example, "during the eight months from December 1917 to July 1918" in the Russian Civil War, "the Bolshevik regime was extremely weak and even a small intervening force could probably have overthrown it with little difficulty" (Somin, 1996, 179-180). Similarly, in the early stages of the Angolan Civil War, a CIA officer reported that "[g]iven the weakness of the contending armies, one modern weapons system such as [an AC-47 gunship] could make a dramatic difference, completely dominating a battlefield" (Stockwell, 1978, 134). In December 1936, the German ambassador to Franco wrote that in order to defeat the Republicans "one strong German and one strong Italian division would be required, [whose] superior training and leadership can still gain a quick and decisive victory, which may longer be possible a few months later, even with stronger forces" (Bolloten, 1991, 103).

The second implication is that a belligerent will find foreign intervention more valuable after it experiences serious setbacks. If, due to defeat at the hands of its opponent or internal fractional splits, a belligerent's cumulative capabilities were to decrease, the impact of exogenous resources would correspondingly increase. This mechanism is supported by Leites and Wolf's observation that while insurgent actors "may win without external support; [the "authority"] is unlikely to win if [the insurgent] continues to receive it" (Leites and Wolf, 1970, 24). That is, that when an insurgent suffers military setbacks its structure will require lower volumes of inputs. The elastic nature of belligerents' resource conversion process – i.e. the more their cumulative capabilities contract, the less inputs are needed to sustain them – make the belligerents' organisational structure extremely resilient.

Positive feedback loop

The third mechanism through which foreign intervention produces inconsistent impacts on the cumulative capabilities of recipients is through the "feedback loop". The feedback loop operates when belligerents effectively use their existing cumulative capabilities to enlarge their endogenous resource base or capture resources from the opposition. This action, in turn, increases the belligerent's cumulative capabilities, which restarts the process (Ney, 1962, 32). The feedback loop is not unusual and is, in practice, how most belligerents experience growth

(the feedback loop is represented in Figure 1.1 on the left of the diagram). However, although, foreign intervention is not essential for the existence of feedback loop, additional exogenous resources do inject an additional impetus and momentum into the loop.

Greater cumulative capabilities may allow belligerents to increase the inputs into their resource conversion process. For instance, Deger and Smith (1983, 338) argued that increased coercive capabilities “may enable the state to increase the rate of exploitation of available resources. Surplus labor may be mobilized, raw materials production developed in the face of opposition, agrarian surplus allocated to industry, consumption restricted, industrial disputes suppressed, and the rate of work increased”. In Malaya, as the insurgent’s capabilities grew, so did its need to enlarge its endogenous resource base, yet, the “Malayan Communists found a solution ready at hand in the presence of some 500,000 Chinese squatters who lived along the edge of the jungle” and who the guerrillas proceeded to mobilise (Dougherty, 1962, 302). Similarly, in Guatemala, “during the initial contact with the community the rebels would seek out the village leaders...[where often] the rebels would win over the local government official to their cause” (Gott, 1970, 54). At this point, the village became an additional source of food, recruits, information and finance for the insurgent. Yet, in order to expand its endogenous resource base, guerrilla fighters had to be deviated away from engaging the incumbent’s forces.

At times, however, belligerents can simultaneously increase the resources being injected into the resource conversion process while also fighting their opponent. Insurgent actors, in particular, are frequently effective at employing cumulative capabilities to capture weapons from the incumbent. Byman observed, for instance, that insurgents are commonly able to acquire most of their military requirements “through theft; raids on police, paramilitary, and army outposts; from corrupt members of the security forces or sympathizers within their ranks; or from adversaries who simply leave their weapons behind after an attack” (Byman, 2001, 94). In China, “the Communists avoided pitched battles, used hit-and-run tactics, and captured large amounts of equipment from the government” (MacDonald, 1992, 107). In South Vietnam, the Viet Cong captured some 30,000 weapon from the government (Coldfelter, 2002, 741); and in Georgia, the rebels were mostly armed with hunting rifles and vintage weapons from the Second World War, before they used these weapons to capture modern small arms from Russian stocks (Demetriou, 2002, 8-10). Indeed, in some instances,

the insurgent will value the captured endogenous resources more than the exogenous resources. It has been observed, for example, that as “a rule, guerrillas prefer the conventional infantry weapons gained from the enemy because such weapons use ammunition which can also be stolen or won from the enemy” (Zawodny, 1962, 13). As such, at times, the real advantage of foreign assistance will be in their ability to be used to capture resources off the opponent.

As the efficiency of different belligerents’ feedback loops will be uneven, the impact of foreign intervention will be inconsistent. That is, some recipients will more effectively apply exogenous resources to capture large amounts of territory, population and weapons than others. For instance, when South Africa increased the volume of exogenous inputs going to the RENAMO, “the group grew rapidly in size” (Weinstein and Francisco, 2005, 171). However, other belligerents might use the exogenous resources ineffectively, or solely to combat the opposition, which will expend resources without creating a feedback loop. In Greece, for instance, most of the incumbent’s exogenous resources were expended on fighting the insurgent, rather than enlarging its endogenous resource base. General Marshall stated, on 12 January 1948, that the “destruction [of the] guerrilla forces and [the] establishment of internal security...now have clearly assumed a paramount importance” (Wittner, 1982, 187-188). Thus, instead of using its newly acquired economic aid to develop industry, agricultural production and infrastructure (to which 48.5 percent was supposed to be directed), 80 percent of all the incumbent’s financial inputs were expended on fighting the insurgent. Thus, the growth of the incumbent’s cumulative capabilities was largely due to the generosity of the United States Congress rather than its own ability to expand its endogenous resource base. Similarly, in Venezuela, the insurgent allocated too many resources to fighting the incumbent instead of expanding its endogenous resource base. As the leader of the FALN, Douglas Bravo, later explained: “We wanted to overthrow Betancourt in a few hours, in one or two battles. This resulted in very far-reaching defeats, and prevented us from getting down to building a guerrilla army. We were throwing far too many forces into a hopeless struggle” (Gott, 1970, 115).

Conclusion

The transfer of resources from a foreign power to one side in a conflict is the most common form of foreign intervention in civil wars. However, historically there has been great variation in the impact of foreign assistance on the recipients' cumulative capabilities. For example, the United States, for the "relatively low cost...of less than a third of a billion dollars (\$322 million)" was able to sustain the Contras in Nicaragua for nearly a decade, while in 1949, \$338 million was "ineffective in arresting the rapidly deteriorating military and political situation in China" (Sobel, 1995, 303). The reflections contained in this paper sought to propose possible theoretical explanations for this variation. The paper postulated that four mechanisms caused there to be inconsistent impacts on foreign intervention: the attenuation effect, interaction effect, diminishing returns and the belligerent's feedback loop.

The theoretical reflections contained in this paper were intended to abstract, but also deductive and logically coherent. They do, however, remain to be evaluated empirically. As such, before firm conclusions and policy implications can be formulated, further testing and research is required. Nevertheless, I will make two tentative observations on the opportunities and risks that the reflections in this paper hold for policymakers considering intervention in a civil war. First, the opening stages of a civil war will frequently represent an opportunity for foreign powers to have a disproportionate impact on the course of the conflict (Rasler, 1983). Generally, early in a civil war, the belligerents' cumulative capabilities will not be fully mobilized; hence, foreign powers can significantly shape the course of the civil war with considerably fewer resources. Second, for a foreign power, there are advantages to supporting an insurgent that employs a guerrilla strategy. An insurgent that use a guerrilla strategy will generally have low attenuation in its resource conversion process, have more limited cumulative capabilities, and more effectively use its military capabilities to expand its endogenous resource base. Thus, the quantity and quality of resources required to significantly improve the fighting capacity of an insurgent using a guerrilla strategy will be considerably less than those needed to bolster other belligerents.

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