Macroeconomic Agenda for Fiscal Policy
and Aid Effectiveness in Post-Conflict Countries

by

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Abstract: This paper first presents a simple game-theoretic framework for thinking about the roles of deterrence and redistribution in peace-keeping. It shows that institutional deficiencies and military weakness may combine to undermine the political will of the incumbent government in favor of peace, and thus result in the outbreak of violence. Both types of policies for buying peace require budgetary resources that are in short supply in post-conflict countries. This remark suggests where the international community should focus the application of foreign aid for preventing a civil war from resuming. Then, the paper reviews the standard institutional response that have been tried to reduce the risk of violent conflict erupting. These include federalism, majority rule and power-sharing. The required conditions for each type of institutional response to be effective are then brought out.
1. Introduction

The key challenge in post-conflict countries is to avoid restoring the pre-conflict situation that led to the outbreak of violence in the first place. There are lots of examples in the past where the international community mistakenly took a temporary respite of violence as the beginning of a new era of peaceful development, without paying due attention to the fundamental determinants of the underlying conflict. During its long civil war, for instance, Ethiopia witnessed many such examples, which are described among others in Alex de Waal’s 1991 book (Africa Watch, 1991). Then, various infrastructure projects were rebuilt time and again with aid money, just to be blown up again by the guerrilla during the next round of fighting. Successful reconstruction is thus resting on a conscious conflict-prevention strategy, which involves some public expenditure whose benefit cannot be measured by standard investment appraisal techniques.

Peace is the key public good that a government must provide for economic development to take place. Without a credible perspective of lasting peace, there is no policy framework that can convince investors to bet on a country’s future development by investing in productive and largely irreversible projects. The latter would be seriously at risk if the conflict happened to resume. A reflection of this dead-end is provided by the well-known fact that civil wars mainly occur in developing countries. Rich countries are those whose political and institutional development has reached a point where civil war can be discarded as a major risk by investors.

The theory of conflict-prevention has brought out the main inputs that must be provided by a peace-minded government. Azam (1995) describes how some redistribution of the resources controlled by the government must in general be combined with military expenditures for buying peace. That paper is motivated by reference to various African countries, including some post-conflict ones like Ethiopia and Uganda in the 1990s, and some
others that had not experienced such conflicts at the time, like Ivory Coast and Senegal. A suggestive econometric analysis by Azam et al. (1996) seems to confirm this theoretical prediction, by showing how public expenditures with a highly redistributive content, like health and education, reduce significantly the occurrence of political violence. The relevance of that framework for fiscal policy in post-conflict countries is highlighted by the following quote, from the first few lines of the former paper:

“The outbreak of a civil war is the worst failure of a peace-keeping policy, or the dreadful result of the lack of it. Most countries in the world are made of a heterogeneous population, divided by ethnicity, religion, language, ideology, etc. It generally takes some conscious effort by the government for a state of peace to be maintained, with some clear impact on public finances” (Azam, 1995, p.173).

However, the success of such a policy is shown in that paper to rest entirely on the ability of the government to commit credibly to such a course of action, i.e., to act as a “Stackelberg leader” in game-theoretic terms. Furthermore, that paper shows that this condition is also required for foreign aid to be used in a social-welfare-enhancing way, rather than for increasing military expenditures. A related point about the link between commitment and peace was made independently by Fearon (1995) in a working paper applied to the war in Croatia in 1991-92. This point is further developed in Azam (2001) which provides a discussion of the various means used by African governments for making their promises credible. Broadly speaking, they can be grouped in two categories. The first one is comprised of the institutional solutions that can be used by the government for “tying its own hands”, by creating various kinds of “checks and balances”, including the so-called “agencies of restraint”. This line of argument thus shows how political and institutional development must go hand-in-hand with economic development. As emphasized by North (1990), the key point in institutional development is the provision of commitment devices that help making
property rights and human security credible. The second one refers to the build-up by the ruler of a credible reputation of faithfulness, based on a rigorous track record of keeping promises. The drawback of this second solution is that this kind of personalized political asset is liable to disappear when the ruler dies. The example of Ivory Coast is illuminating in this respect, where the political capital accumulated by president Houphouet-Boigny during his long stay in power got rapidly eroded after his death by his chosen successor, Henri Konan-Bédié. Hence, the institutional framework is the key ingredient for establishing credibility in the long run, while the ruler’s reputation cannot outlast the latter’s lifetime. Moreover, institutions cannot be built in a vacuum, and recent empirical results suggest that a country’s natural endowment is a key determinant of its ability to develop the appropriate institutional framework for making the government’s promises credible. Fearon (2005) thus shows empirically that oil exporters are facing special challenges that undermine their government’s credibility and tend to make the occurrence of civil war more probable in this case. Azam (2008) offers an interpretation of this phenomenon, based on an analytic narrative of the oil-related conflict in Nigeria. That paper describes the dynamics of violence in Nigeria, and shows how institutional weaknesses, like the governments’ corruption at both the national and the local level, eventually made the current low-intensity conflict a cheaper solution than the previous strategy of indiscriminate violence against civilians.

The present paper first provides a simple theoretical framework for discussing these issues, in the next section. It emphasizes how the government must balance its expenditures in order to produce the right mix of redistribution and deterrence for establishing a lasting and credible peaceful equilibrium. The key contribution of this theoretical exercise is to bring out that high enough levels of administrative and military efficiency are required for making peace credible. Without them, the government’s political will to invest in peace would falter, opening the door to violent conflict. Hence, this model provides a theoretical underpinning for
the recent emphasis put by the Bretton Woods institutions on institutional reconstruction in
post-conflict countries. For example, a joint IMF-World Bank document claimed that their
goal was to assist in rebuilding “the administrative and institutional capacity required to put a
comprehensive economic program in place” (IMF and World Bank, 2001, pp. 8-9). It shows
additionally that this institutional effort can usefully be complemented with a similar effort
invested in the enhancement of military capacity, as a combination of the two is shown to
minimize the cost of buying the peace.

Then, the subsequent section discusses various institutional solutions that have been
tried in poor countries for overcoming the special challenges that they face for implementing
such a policy mix. In particular, it discusses the issues of power-sharing and of federalism,
which have been tried in the past for mitigating the war-inducing properties of majority rule in
ethnically divided societies. The case studies briefly discussed in this section vindicate the
theoretical prediction mentioned above that weak administrative efficiency might prevent the
best intentioned political reforms from delivering the peace. This provides also some support
to the idea advocated by Paris (2004) that strengthening administrative capacity should be
given priority over democratization or other forms of political liberalization. This section thus
sets the stage for a discussion of the key objectives to be pursued for making foreign aid
effective in post-conflict countries. The key warning brought out here is that there is a delicate
balance to be found between deterrence and credible redistribution for buying the peace, and
that donors must be extremely cautious in handling this trade-off. While institutional
development of the post-conflict country is the priority for building a lasting peace, donors are
facing the temptation to interfere in this process using their superior organizational skills or
their seemingly more effective NGOs or private contractors. A recent collection of case
studies edited by Boyce and O’Donnell (2007) illustrates the challenges faced by the donor
community for addressing these concerns.
2. The Optimal Policy-Mix for Conflict Prevention: A Theoretical Framework

Let us take a very simple model to capture the stakes of conflict prevention. Two players 1 and 2 are trying to share a prize worth $P$. If they choose to fight for it, they incur a cost $c_1$ and $c_2$, respectively, which gives them a probability $\pi$ and $1-\pi$, respectively, to get $P$. Their expected gains are then:

\[ B_1 = \pi P - c_1, \quad (1) \]

and:

\[ B_2 = (1-\pi) P - c_2. \quad (2) \]

Assume $B_1 \geq 0$ and $B_2 \geq 0$. Each player can choose to leave the prize to the other one without fighting, and there would thus be no point in allowing for negative values of $B_1$ or $B_2$. Then, the Utilitarian social cost of the conflict may be written as:

\[ P - (B_1 + B_2) = c_1 + c_2 > 0. \quad (3) \]

Denote $U_1$ and $U_2$ the two players’ payoffs in case of peace. Then there always exist peaceful allocations that are Pareto-preferred to fighting, and such that:

\[ U_1 + U_2 = P, \quad \text{with } U_1 \geq B_1 \text{ and } U_2 \geq B_2. \quad (4) \]

The key question in conflict theory is thus why these socially preferable outcomes are not necessarily implemented. A simple answer can be found in a Coasian framework by pointing to a plausible reason why the two players’ property rights are incomplete or ill defined. This is what the theoretical literature on the failure of conflict prevention has done, by bringing out two main causes of open conflict. The inability to commit credibly to give to day part of one’s wealth at a future date is an important conflict-conducive limitation on property rights, which Azam (1995) and Fearon (1995) have brought out independently. Similarly, asymmetric information is a restriction that prevents the players from conditioning
a transfer on some unobservable event without incurring some additional cost\(^1\). Azam and Mesnard (2003) discuss how these two problems can trigger an open conflict, and provide some solutions for overcoming them. In the following, we develop a third potential explanation, aimed at capturing how weak institutions may increase the cost of conflict prevention, and might thus trigger an open conflict.

### 2.1. The Expenditure-Mix for Conflict Prevention

For the sake of simplicity assume that the endowment \( P \) entirely belongs initially to player 1 but with a fairly weak property right such that the other player can take it over with probability \( 1 - \pi \) by triggering the conflict. Player 1 may use two instruments for preventing this. First she can give a share \( g \) of her endowment to the other player. This way of “paying for the peace” has been widely discussed in the literature since Azam (1995), and the main problem raised in this case is how to make the following promise: “I will give you \( g \) if you don’t get armed and attack me” credible. The problem raised is that \( ex \ post \), if the second player is not threatening anymore, player 1 has not much incentive to keep her promise. This is a classic example of the time-consistency problem. Within a repeated-game framework, Acemoglu and Robinson (2006) base their theory of the economic origins of dictatorship and democracy on this question. Democracy is then viewed as a method for making the promise made by the rich to redistribute some wealth to the poor credible by giving the latter universal franchise, given that there are more of them. Majority rule gives them the power to tax the rich, and hence to manage redistribution in their favor. This solution is not necessarily workable in developing countries, where ethnic or religious divisions are in some cases more salient than income inequality. Then, majority rule might result in the unfettered domination by one ethnic group, whose promises to the minority groups might loose any kind of credibility. This issue is further discussed below, while the present theoretical exercise puts

\(^{1}\) Contract theory is precisely aimed at analyzing the least-cost way of getting the required information revealed, by trading off rent-extraction with some loss of efficiency (see Salanié, 1997).
the emphasis on another kind of institutional problem. Hence, we assume for the sake of the argument that player 1 can credibly promise to give \( g \) to player 2. Azam and Mesnard (2003) use a more flexible specification, by assuming an imperfect ability to commit, such that the leading player’s promise is kept with a given probability. Acemoglu and Robinson (2006) show how such a specification can be derived from an infinite-horizon repeated game. Here, we focus instead on institutional inefficiency as a potential cause of open conflict.

The second tool that player 1 can use for preventing the conflict is deterrence. We assume that she can invest irreversibly an amount \( a \) for increasing the cost that player 2 would have to face were she to choose to get armed and fight. This hypothetical cost of conflict is modeled as:

\[
    c_2 = \theta f(a), f(0) > 0, f'(a) > 0, f''(a) < 0.
\]

(5)

Hence, \( a \) may capture some investment in weaponry that would make fighting more dangerous for player 2, or any other means of deterring rebellion. For example, Azam and Hoeffler (2002) show how the incumbent government can terrorize the civilian population in order to push it to flee and thus to reduce the capacity of potential rebels to find any support in its midst. They show how a “pure terror equilibrium” can exist in their model, where violence against civilians is sufficient for deterring potential rebels from taking up arms. This idea is applied in Azam (2008) for explaining the indiscriminate violence that was inflicted on civilians in the Niger Delta states of Nigeria during the military regime. The \( \theta \) parameter captures player 1’s efficiency at deterrence, i.e. her military power. We assume decreasing returns in deterrence, captured here by the concavity of the \( f(a) \) function. We further assume for the sake of simplicity that player 1 has no incentive to use these weapons \textit{ex post} for attacking player 2 if the latter is not armed. This might be the case, for example, if player 2 was in a position to consume instantly the whole of her share of the cake were player 1 to launch an attack \textit{ex post}. The latter would thus fail to catch anything valuable. Azam and
Saadi-Sedik (2004) offer a deeper discussion of such an issue, in a model where the self-enforcing threat of sanctions only leads to their implementation in case of challenge, for endogenous reasons. This issue is neglected here, for the sake of simplicity.

Furthermore, we assume that player 1 is facing some transaction costs for collecting these sums $g$ and $a$, similar to the “social cost of public funds” that plays a key part in the modern theory of economic policy (e.g., Laffont and Tirole, 1993). This might capture some transport costs for bringing $g$ to player 2, or a payment to a third party in charge of making the promise to pay this sum credible in case of peace, e.g., a Weberian bureaucracy bent on applying “rational-legal” rules, made credible by their rigidity. Similarly, there might be some transaction costs for investing $a$ in deterrence. There might be some cost for creating the buildings where the weapons are kept, or for advertising credibly their quantity. In the real world, it is not always easy to disentangle deterrence and redistribution expenditures. For example, Howe (2001) shows how armament contracts are often used in Africa for hidden redistribution purposes, e.g., when high-ranking generals purchase some out-of-order military equipment for maximizing kickbacks, in Nigeria in particular. Governments then turn a blind eye on such transactions, for the sake of buying off these officers, while potential rebels might believe that these military equipments might be suitable for defense purposes.

For the sake of simplicity, we assume that these two kinds of expenditures imply the same unit transaction cost $\gamma$. If player 1 is understood as the government and player 2 as a potential rebel, then $\gamma$ measures institutional inefficiency, i.e., the fraction of budgetary resources that is lost between their collection and the actual expenditures. This might describe the running cost of public administration, the result of corruption, or the social costs of inefficient taxation, etc. The part played by such a “melting ice” assumption as an obstacle to peace is discussed in Azam (2006 b), using a fairly different model. Under these assumptions, player 1 would solve the following problem, were she to choose peace:
\[ U_1^* = \max_{g,a} P - (1 + \gamma)(g + a), \quad (6) \]

subject to player 2’s participation constraint, for convincing the latter not to choose war:

\[ U_2 = g \geq B_2 = (1 - \pi)P - \theta f(a), \quad (7) \]

player 1’s budget constraint, beyond which player 1 cannot make a credible promise:

\[ P \geq (1 + \gamma)(g + a), \quad (8) \]

and player 1’s own participation constraint:

\[ U_1^* \geq B_1. \quad (9) \]

Combining (8) and (9) shows that the budget constraint cannot be the binding one that prevents player 1 from choosing peace, because in this case:

\[ U_1^* \geq B_1 \geq 0. \quad (10) \]

Therefore, the steps to follow are first to find \( U_1^* \) subject to (6) and (7), and then to check whether or not (9) holds too. Player 1 has no reason to leave any positive rent to player 2, so that the latter’s participation constraint (7) will be binding. Then, writing the latter as a binding equality allows us to establish proposition 1:

**Proposition 1**: The level of deterrence expenditure \( a^* \) chosen by player 1 is strictly positive if the following inequality holds:

\[ \theta f'(0) > 1. \quad (11) \]

**Proof**: Substitute constraint (7) into the objective function (6). Then player 1’s problem boils down to:

\[ \min_a (1 + \gamma)((1 - \pi)P - \theta f(a) + a). \quad (12) \]

The first-order condition for an interior solution is thus:

\[ \theta f'(a^*) = 1. \quad (13) \]
The second-order condition requires that \( f(a) \) be concave, so that \( f'(a^*) < f'(0) \) if \( a^* > 0 \). If the interior solution does not exist, with \( \theta f'(a) > 1, \forall a \geq 0 \), then player 1 chooses \( a^* = f^{-1}\left((1-\pi)P/\theta\right) > 0 \). QED

Figure 1: The Choice of Redistribution and Deterrence

Figure 1 illustrates the combination of redistribution and deterrence expenditures chosen by player 1 for minimizing her private cost of maintaining peace. For constructing this diagram, we define:

\[
g^*(a^*) = (1-\pi)P - \theta f(a^*) \quad \text{and} \quad g(0) = (1-\pi)P - \theta f(0). \quad (14)
\]

Figure 1 clearly shows why deterrence is chosen by player 1 when \( \theta f'(0) > 1 \), as we have in this case \( g^*(a^*) + a^* < g(0) \). Hence, the sum of her optimal redistribution and deterrence expenditures is lower than the redistribution expenditures required for maintaining peace without any deterrence. If we interpret player 1 as being the government, then the policy-mix described at figure 1 is the one that minimizes the use of public funds for buying the peace. This entails that this is the policy-mix that maximizes the amount of public
resources left for other use, e.g., for productive investment if that government has true developmental objectives. However, we show now that it does not minimize the social cost of peace, understood in a broader sense.

2.2. The Social Cost of Peace

Peace in this model is socially costly in two different ways. First, one can show easily that it is not Pareto-preferred to war. This can be seen by remarking that the difference \( g(0) - g^*(a^*) \) is equivalent to a tax levied under threat by player 1 on player 2. The level \( g(0) \) of the transfer is equal to the expected gain that player 2 would get in case of war, if player 1 was not investing any resource in deterrence, while \( g^*(a^*) \) is her gain in case of peace, given the level of deterrence expenditures invested by player 1. Therefore, peace entails a net gain for player 1, otherwise she would choose war and give up deterrence, while it entails a net loss for player 2 worth \( g(0) - g^*(a^*) \). Hence, peace is not Pareto-preferred to war, \textit{ex ante}, as soon as there is a strictly positive level of deterrence expenditures. In other words, peace is imposed by player 1. The latter proposition may be viewed as a simple variant of Hobbes’ theory of the Leviathan (Hobbes, 1651). However, the present model adds the redistribution dimension, which mitigates the seemingly illiberal overtone of that result.

On the other hand, conflict prevention maximizes \textit{ex post} social welfare if one chooses the Rawlsian maximin as a social-choice criterion. This is because war implies that either one or the other player will loose everything with some probability, whereas peace guarantees a positive gain to each one of them. Therefore, deterrence works in this model like a system of compulsory insurance, which prevents the players from loosing everything on a bet. Hence, this model shows that one can justify a pacifist position as an application of Rawls’ (1971) liberal theory of justice, as it implies that each player would be better off in case of peace than in the worst case, were she to lose the war. Investing in peace may then be described as a
kind of “safety first” approach to social risk management. Similarly, one can see this position
as an application of Sen’s idea of “the impossibility of a Paretian liberal” (Sen, 1970), which
implies that some values must prevail in some cases over Paretian efficiency\(^2\). The views of
the classical liberals on this subject can be summarized by the following quote from Paine
(1791): “Government […] promotes peace, as the true means of enriching a nation” (cited by
Howard, 2008, p. 20).

Furthermore, one can also show that peace is socially costly in Utilitarian terms. Given
the constraints presented above, and that player 1 has no reasons to leave any positive rent to
player 2, so that \(U_2 = B_2\), we can define the Utilitarian social cost of peace as:

\[
P - (U_1^* + U_2) = \gamma g + (1 + \gamma) a .
\]

Therefore, in this model, peace is not a gift from heaven, and must be produced
by investing some resources in conflict prevention. Notice that the social unit cost of
redistribution is generically lower than the cost of deterrence. Therefore, the Utilitarian social
cost of peace would be minimized if the latter was purchased exclusively by a transfer,
without any deterrence expenditures. Hence, player 1’s privately optimal choice does not
minimize the Utilitarian social cost of peace, which would require bringing the level of
deterrence to zero. Moreover, one can easily check that \(a^*\) is an increasing function of \(\theta\), in
the interior solution, so that player 1 will spend more on it, the more effective it is at
increasing player 2’s hypothetical cost of conflict. In other words, the Utilitarian social cost of
deterrence increases with its effectiveness. This prediction is not valid anymore in a corner
solution, when player 1 only uses deterrence for buying peace.

Proposition 1 and figure 1 describe the peaceful equilibrium, if the latter happens to be
chosen by player 1. What remains to be determined is the condition under which the latter will
make this choice, i.e., to find the parameters that ensure that (9) holds.

\(^2\) Sen writes in the conclusion of that article: “…if someone does have certain liberal values, then he may have
to eschew his adherence to Pareto optimality” (p.132 in Hahn and Hollis, 1979).
2.3. Conflict Prevention Faced with Transaction Costs

The model presented above allows us to bring out how the institutional inefficiency captured by $\gamma$ can reach such a level that the peace becomes too expensive to keep for player 1. This is expressed in proposition 2:

**Proposition 2:** Peace will not be kept by player 1 if:

$$\gamma > \frac{c_1 + \theta f(a^*) - a^*}{(1-\pi)P - (\theta f(a^*) - a^*)}.$$  \hfill (16)

**Proof:** We can write:

$$U_1^* = \pi P - \gamma (1-\pi)P + (1+\gamma)(\theta f(a^*) - a^*).$$  \hfill (17)

and thus, $U_1^* < B_1$ if inequality (16) holds. QED

![Figure 2: The Choice between War and Peace](image)

Figure 2: The Choice between War and Peace

Proposition 2 shows that the minimum level of institutional efficiency required for player 1 to choose peace is higher, (i) the higher is the required transfer for buying off player 2 and convince her not to go for the war, with high values of $(1-\pi)P$ and low values of $\theta$, ...
and (ii) the lower is the direct cost of war, with low values of $c_i$. Notice as well that proposition 2 brings out the social gain produced by deterrence, _ceteris paribus_, despite its cost described above. Given $\gamma$, peace is generically chosen by player 1 if $\theta$ is high enough. In that case, deterrence is effective enough for compensating the transaction cost entailed by this investment. Figure 2 enables us to see this result better. The upward sloping curve in the $\{\gamma, \theta\}$ space represents the locus of the parameter values such that (16) holds with equality. All the points located above this locus have a too high level of institutional inefficiency for peace to be chosen by player 1, while all the points located to the right show a high enough level of efficiency at deterrence for compensating the transaction costs and making peace attractive for her. Figure 2 depicts the case where $c_i > a^*$, but the opposite case would be equally acceptable too.

Let us emphasize a property that the present model shares with most conflict models of this kind. The choice between war and peace here belongs to player 1, i.e., the “Stackelberg leader”. In most applications of this kind of models, this will represent the government. Hence, this property of most conflict models is in direct opposition to a widespread view, which is fairly tautological, and that the World Bank in particular has recently defended (World Bank, 2003). According to that view, the cause of civil wars is the presence of rebels. This is tautological, as the proposition can be as convincingly reversed, as the cause of the rebels’ presence can be said to be the civil war. In fact, the responsibility for the conflict always rests on the government in this kind of models. Rocco and Ballo (2008) have developed this point for making it a theory of provocation, with an application to the recent civil war in Côte d’Ivoire. They show how the government can trigger the uprising by choosing a policy that violates the potential rebels’ participation constraint. This theoretical insight meets a common sense idea that is well captured by the following quote: “Political will: a fundamental precondition” (Colletta _et al._, 1996, p.6), which basically means that no
government can ever be coerced into choosing peace. The additional contribution of conflict-theory is to show that such political will is itself endogenous, depending on some deeper parameters. Figure 2 helps us to understand how such a political will can be brought about, by improving simultaneously institutional and military efficiency.

2.4. The Scope for Peace-Inducing Foreign Aid

Proposition 2, represented at figure 2, also shows that war is in this model the result of a dual inefficiency of the government. As mentioned above, even a high level of administrative inefficiency, implying a high transaction cost, could be consistent with peace if the level of military efficiency was high enough. However, peace is also consistent with other combinations of efficiency levels. Even with a low level of military efficiency, i.e., with a low value of \( \theta \), player 1 might very well choose peace if her level of administrative efficiency was sufficiently high, with a low value of \( \gamma \). This analysis clearly suggests that increasing the efficiency of public funds management for public administration and deterrence is more important than trying to increase the size of the pie over which people have conflicting claims. Based on survey data on Uganda, a typical post-conflict African country, Reinikka and Svensson (2004) have shown how to increase the share of the public money reaching its target in education, one of the most redistributive type of public expenditure. Their results show that disclosing the information about these flows more transparently can help significantly to mobilize the parents for exercising an effective pressure on this sector’s public administration. This provides a very cheap way of enhancing administrative capacity, which seems especially appropriate at the local level. More generally, all kinds of policies aimed at improving public service delivery to the population may also be understood as a way of reducing \( \gamma \), and thus as a means to strengthen the government’s political will to build peace.

Hence, this diagram illustrates vividly how the donor community can help the post-conflict country to create a peaceful environment for attracting investors and boosting growth.
The importance of supporting the reconstruction of government institutions and of the rule of law has been recognized by the World Bank for a long time (e.g., World Bank, 1998). The additional insight brought out by the foregoing theoretical analysis is that the peace can be bought more efficiently by combining this institutional reconstruction with a concurrent effort at improving the government’s military capabilities. The aim is to move south-easterly in that space, as illustrated on figure 2 by the thick arrow, by reducing institutional inefficiency and increasing simultaneously the level of effective deterrence. The upward slope of the cut-off locus means that a peace-minded intervention involves some complementarity, such that the effort needed on either front is less demanding, the higher is the effort made on the other front. The type of support that can be given to help a post-conflict government increase the professionalism of its armed forces is illustrated by the ACRI (African Crisis Response Initiative) program launched by the U.S. government in Africa (Bierman, 1999). The latter involved the training and reinforcement of the armed forces of various African countries selected according to their commitment to some democratic values. Howe (2001) provides a thorough discussion of its achievements and its limitations. Another example is given by the British intervention in Sierra Leone, which resulted in the retraining of 8 500 troops. The latter rather effective program is criticized by Paris (2004) precisely for its narrow focus: “What the peacebuilders did, in effect, was to focus on one vital institution of the Sierra Leone government – the army – and make it more effective in order to deter and suppress violent challenges to the electoral process or its results” (Paris, 2004, p.223). The other institutions of the Sierra Leone government were given much less attention.

3. Institutions for Conflict Prevention: Some Lessons from Experience

The need for setting up a credible institutional framework for peace as a prerequisite for development is strikingly illustrated by the case of Chad. There, sizable oil reserves were discovered in the wake of the 1974 oil shock, but they were only exploited in 2003. In the
words of Azam and Djimtoïngar (2008): “It is only after peace was secured, and institutions were put in place to make it credible, that foreign oil companies ventured into exploiting oil” (Azam and Djimtoïngar, 2008, p.87). Hence, the oil reserves remained in the ground for nearly three decades while the oil companies were waiting for the Chadians to sort out their political problem. The technical problems were solved very quickly as soon as the oil companies decided that the time was ripe for exploiting the oil, and the pipe-line across Cameroon was built in a few months. The kind of wait-and-see attitude that this example epitomizes is a characteristic of many other potential investors in Africa, and more generally in developing countries. The key issue then is to identify what kind of institutional framework can convince the potential investors to cross the line and start building up some productive capacity in the country.

This issue has been discussed intensively in the historical literature devoted to European development. The famous paper by North and Weingast (1989) demonstrates how the constitution that emerged from the “Glorious Revolution” (1688) in England imposed enough restraint on the subsequent kings to provide a fairly safe environment for investors, which led eventually to the so-called “Industrial Revolution”. However, Stasavage (2003) shows that this constitutional framework provides only one side of the story, while the balance of forces within the resulting parliament was in fact the mainstay of the subsequent investor-friendly environment. Similarly, in developing countries nowadays, constitutional or other institutional frameworks are just empty shells unless they are a reflection of a balance of forces between the main interest groups. This is why the Neo-Conservative agenda of democratizing across the board has led to many political disasters: institutions are largely endogenous, and reflect the peaceful or violent interaction between well-defined groups. Acemoglu and Robinson (2006) have provided the fundamental analysis of the determinants of dictatorship and democracy in an economy where income distribution is the main issue.
However, in Africa and many other developing countries, groups are defined along ethnic or religious lines, and different solutions have to be devised. Then, majority rule does not necessarily create the right environment, as it might result in a dictatorship of the majority, entailing a potential exclusion of minority groups, which are then cornered into violent rebellion. Fearon (1998) shows how the prospect of majority rule might trigger a violent conflict in an ethnically divided country. An illuminating linguistic analysis by Shaffer (1998) of the word “democracy” in the Wolof language in Senegal strongly suggests that majority rule is not an aim in itself for the African population. The latter seem to adhere spontaneously to the view held by Classical Liberalism of democracy as government by discussion, whose aim is really to build consensus rather than to exclude minority viewpoints. Azam (2006 a) provides a different analysis of endogenous political regimes aimed at capturing better the stakes of the political game in African society. That model brings out the fundamental determinants of the choice between war and peace, on the one hand, and in case of peace, the choice between a redistributive regime and a military dictatorship, on the other hand. In particular, it shows how the relative endowments of the ethnic groups interact with the government’s credibility for determining the equilibrium political regime.

Two main types of institutional frameworks have been tried in Africa for creating the required “checks and balances” for enhancing the credibility of the government’s promises to redistribute across ethnic groups, namely federalism and power-sharing agreements. However, the examples discussed below suggest that such schemes might not deliver the required credibility when other forms of institutional weaknesses interfere with the smooth working of the redistribution scheme in such a way that the money does not reach the target population.
3.1. Power-Sharing and Credibility: Some African Examples

The recent experience of Kenya, in March and April 2008, illustrates vividly the dead-end where a narrow-minded application of the Neo-Conservative doctrine can lead a country. While the minority government ran by Daniel Arap Moi since the late 1970s had managed to keep the country together, with limited violence, a blunt application of majority rule resulted predictably in the eruption of widespread violence. Moi was a Kalenjin, from a very small ethnic group renown for the numerous gold medals it won for Kenya at the Olympic games. He was thus missing the kind of popular mass-support that rulers from large ethnic groups enjoy. His ability to stay in power thus rested on his strategy of keeping a fair balance in the distribution of the spoils between the larger ethnic groups, mainly via their elites. In the words of Kimenyi and Ndung’u (2005): “The multiethnic ruling class did not break ranks, so we did not see a strong elite movement to forge an ethnically based rebel group” (Kimenyi and Ndung’u, 2005, p. 154). Moi’s weakness as an ethnic leader was thus a key ingredient for making his promises credible. Under the intrusive influence of the US administration, represented in that case by Colin Powell, a majority government was put in place in the early 2000s. The latter government was entirely dominated by the largest ethnic group, the Kikuyu. Unfortunately, majority rule was then interpreted as a license to exclude from power the other large ethnic group, the Luo. The latter remained relatively calm during the first term of the Kikuyu regime, waiting for “their turn at the trough”. However, the 2008 elections brought the incumbent coalition back to power, raising the prospect of another term of exclusion for the Luo. This led to a popular uprising, leaving a long trail of innocent victims behind. The ensuing popular violence could only be stopped by over-ruling the election results, and organizing a power-sharing scheme including representatives of the Luo minority. Sheer common sense thus managed to beat the Neo-Conservative dogma and to bring peace back.
Chad provides a more dramatic example where power-sharing succeeded in ending decades of violence and to convince investors as mentioned above. Because the resulting political equilibrium has been in place for nearly two decades, its analysis is liable to provide some additional insight on the conditions for such a scheme to succeed. A closely related analysis could be made of the case of post-conflict Uganda, where Museveni’s NRM established a controversial form of inclusive “democracy”, which presided over an economic recovery that was regarded as an example for the whole continent by the international community (Mutibwa, 1992). Most ethnic groups were then represented in government, with the exception of a small northern rebellion.

In Chad, the Southerners ruled the country from Independence to the civil war, under a single-party regime. Ever since 1965, a low intensity insurrection had been going on in the north, structured by the Frolinat (Front de Libération Nationale du Tchad), a rebellion led by the two Toubou rivals Goukouni Oueddeï and Hissein Habré. Goukouni is the son of the Gedrè, the highest traditional authority of his group, while Habré is from a lower caste of the same group, the Goranne. Habré was in turn the last prime minister before the civil war, after a coup had toppled François Tombalbaye’s dictatorial government, and the second president of the post-war period, until 1990. This occurred when the victorious northerners began to rule the country, after a short interim leadership of Goukouni. The latter had developed some very close relationships with the Libyan ruler Khadafi, while the former was an inflexible nationalist, who always fought hard to keep Khadafi out of Chad. This got him at times a serious US support, providing France with a competitive pressure to adopt a firm stance over these matters. The latter provided him with the required military support, delivering arms and a discrete help with ‘technical advisors’, when it came to push the Libyan army out of the country. Habré lost the French support by selling the captured high-tech Soviet military hardware to the US in 1987, without letting the French have a look at it. He was thus dumped
by Paris when his former ally Idriss Déby launched an attack from the Sudanese territory, and seized N’Djamena very quickly in 1990.

The latter comes from the Zarghawa group, whose territory lies on both sides of the Sudanese border, with only about 30 to 40% of its population living inside Chad, and the rest in the Darfur region of neighboring Sudan. His presidential guard has thus been staffed up to now with a large proportion of Sudanese Arab-speaking elite soldiers. The Zarghawa are Muslim Arab speakers, with natural relations with the Goranne. After the civil war, the country was not immediately peaceful. Beside the Libyan failed invasion mentioned above, this period saw a lot of military activity. The “codos” rebellion movements emerged in the south, from 1983 to 1986, and then from 1992 to 1999. This triggered two massive waves of very harsh repression by the Habré government first, and then by the Idriss Déby one. This involved a lot of massacre of innocent civilians, many villages being burnt to ashes and deleted from the map. Buijtenhuijs (1998) does not hesitate to characterize these massacres as “genocidal”. He estimates that more than 1000 southerners have been killed every year during those two episodes. Moreover, over-armed herdsmen from the north, where most of the fighting took place for more than a decade, started to cross the Chari river in order to feed their cattle in the cotton fields, shooting dead with impunity the resisting farmers. Neither the administration, nor the judicial authority, now dominated by the northerners, would take any action against this type of roving banditry, because quite a lot of these cattle are in fact owned by high-ranking officials. Thus, crime became “the continuation of war by other means” in the south. There are no precise estimates of the number of southern peasants who have emigrated to neighboring Cameroon, Central African Republic, and Nigeria. However, to the surprise of most observers, the northerners got the majority in the electoral *census* prior to the 1996 elections (see Buijtenhuijs, 1998). Some claim that many farmers have deserted their fields because of this threat, and that this is the root cause of the ending of the post-
devaluation cotton-led boom. No data is available to examine statistically the exact significance of these claims, as most of these assaults are left unreported.

Nevertheless, the Déby regime is rightly regarded as a more satisfactory regime, which lives on since 1990. The key to its relative success is that it has established some regional balance at the head of the state. Déby chose Kamougué, the General who organized the resistance in the south, during the civil war and the subsequent massacres, as the president of the national assembly. This is formally the second position in the state hierarchy. Moreover, all the military units of the southern rebellion were not dismantled, but were instead enrolled in the Chadian army. Thus, Kamougué represented a genuine personal power, as he could mobilize several military units in case of need. This ability to strike back that Déby left to the Southerners is a key commitment device for convincing the latter that he would leave them a fair share of the oil revenues, as they could thus punish him for defaulting, in the off-equilibrium path. Azam (2006 b) provides a theoretical analysis of this kind of strategy. In addition, some decentralization was adopted with the new constitution approved by referendum on March 31, 1996. Three levels of local governments were created on the French pattern, with communes (both rural and urban) at the bottom, departments at the intermediate level, and regions. Hence, Déby based his peace-keeping strategy partly on credible power-sharing with the southerners, and succeeded thus in halting the downward spiral that characterized this economy before the civil war. The economy recovered partly, with some positive growth of per capita GDP at local constant prices in the 1990s. In the oil sector at least, investors then recovered enough confidence to launch the exploitation of the oil fields, more than 25 years after their discovery. This strategy of regional balance was reinforced in April 2001 by the selection as prime minister of Nagoum Yamassoum, a southerner, while Déby was re-elected in May 2001, with 67.35 % of the votes. The irruption of the oil money in the public coffers starting in 2003 did not trigger a new round of political violence for
determining the shares of the spoils going to each group. The Chadian national assembly had passed a law on December 30, 1998, aiming at providing various guarantees about the use of the oil money. It allocated the various direct or indirect revenues from oil to different accounts in the government budget, in an attempt to avoid sneaky diversions of this money and created a watchdog committee, called the “Collège de Contrôle et de Surveillance des Ressources Pétrolières” for monitoring the use of this oil money. A law passed on June 21, 2000, reinforced the presence of civil society in this supervision committee, beside the representatives of the parliament, the central bank and the treasury, the Supreme Court, etc.

Nevertheless, peace and the enforceability of this legal device are jointly determined. So far, the peace between the former two enemies, the Muslim Northerners and the Christian Southerners has survived. However, some sporadic violence remained in some parts of the country, epitomized by the killing of the chief of staff of the Chadian army in an ambush in the north of the country in early 2001. More recently, a new kind of military activity has erupted, as some members of Déby’s family, two of his nephews in particular, have tried to topple him with some support from Sudan’s president Al Bachir. Then, the World Bank rightly allowed Idriss Déby to use some of the oil money that was kept in store for the future generations to be used for stepping up military expenditures and to defeat the rebels. This is a different kind of political violence, which erupted inside the ruling group and is based on a disagreement over the credible redistribution policy that bought peace for nearly two decades.

3.2. The Limits of Federalism

Power-Sharing seems to reach its limits when a peaceful institutional framework must be put in place in a large country, with many ethnic groups to care for. Federalism then provides an attractive solution, which was applied successfully in post-war Ethiopia. There, the victorious Tigrayans subdivided the country into a large number of ethnically homogenous provinces, after about three decades of civil war that ended in 1991. Moreover,
the victorious Tigrayan army did not dismantle and demobilize the whole defeated Amhara dominated one. On the contrary, many units of it were kept and merged with some units from the Tigrayan guerilla to build the new Ethiopian army, while some of the victors were asked simply to go back to their mountains. Like the Chadian example mentioned above, the Ethiopian experience supports the view that disarming the defeated side is not a clever thing to do for establishing a long-lasting peace. A more balanced outcome, where the new army is comprised of units from the two sides, seems preferable. For nearly two decades now, civil peace has prevailed, while a short war against Eritrea broke out in the mean time. Similarly, the Malian government gave a lot of autonomy to the northern people after the low-intensity civil war that took place in the first half of the 1990s. Like in the Chadian and the Ethiopian cases, the Malian government enrolled many former Tuareg rebels in its regular army. The attraction of federalism or regional autonomy comes from the fact that it gives local elites some power for dealing with a large part of their ethnic group’s affairs. This is supposed to ease tensions, by mediating the relationships between the local ethnic group and the central government’s administration, which is often perceived as alien by the local people. Moreover, it keeps the local elites busy, detracting their attention away from the central government and the potentially disrupting competition for its control. This reduces mechanically the stakes involved in nation-wide politics and thus reduces the risk of a major intra-state conflict.

However, the Nigerian example suggests that there are additional institutional conditions for the federal solution to buy peace. From independence to the civil war, Nigeria was divided administratively into three regions, each relying mainly on its own resources. The North had cotton and groundnuts; the West had cocoa, rubber, timber, palm oil, as well as the services of the port of Lagos. Finally the East had palm oil and petroleum. The Biafra war prompted the government to nationalize the oil, by the 1969 Petroleum Act, with a view to manage centrally the redistribution of oil revenues between regions. A presidential decree of
1975 further increased the central government’s share, in the midst of the oil boom, from 50 % to 80 %. A further step in the appropriation of oil resources by the central government was taken in 1978 by the Land Use Decree, which essentially gave the right to the local governors, then military appointees, to expropriate any local community of their land in order to ease the job of oil- or mining companies (Ghazvinian, 2007). At the same time, the military government aimed at weakening the regional powers by subdividing the regions into twelve states with very limited powers. By 1991, there were thirty states in Nigeria, while popular violence was rising in many places, demanding the creation of additional states (Gboyega, 1997). Most of the time, these popular uprisings were triggered by a sense of unfairness by some minority ethnic groups, which were looking for the creation of new states where they would become dominant. These demands were in fact largely ignored by the military government. Rustad (2008) remarks: “… many states borders are not drawn along ethnic lines, but are rather creating multiethnic states” (p.24). The current number of states, i.e., 36, was reached in 1996. Moreover, quite a lot of the political debate got crystallized on the allocation formula for allocating revenues to the states and the different levels of government. As emphasized by Gboyega (1997), violence grew steadily all along the period of military government, with a particular concentration in the Niger Delta states, where oil production is located. The military government mainly relied on repression and indiscriminate violence against civilians for containing the popular discontent. Azam (2008) provides an analytic narrative of this violence and its consequences.

In fact, federalism does not seem to have reduced the tensions in Nigeria. Its key drawback was dramatically brought out after the 1999 elections, which started the return to civilian rule. A former general and hero of the Biafran war, Olusegun Obasanjo, won these elections and benefited initially from a very favorable popular opinion. Despite his Yoruba origin, Obasanjo has acquired a truly national reputation, and he is rejected by the most
radical members of his own ethnic group. He first ruled the country from 1976 to 1979, as a military president, and organized a first handover to a civilian government in 1979. This gave him a credible democratic legitimacy, reinforced by the few months that he spent in jail under General Abacha’s dictatorship. He started to signal his drive for solving the main political problem of Nigeria, namely the violence going on in the oil-producing states, by reducing the use of violence and relying more on redistribution. He fired many generals of the previous period, and took various measures for curbing the power of the military. Then, he tried to increase the role of redistribution by increasing the share of oil revenues going back to the oil-producing states through the so-called derivation fund from 3% to 13%. Unfortunately, the level of corruption prevailing at the state government’s level, where this revenue flow is going, is such that very little of that money trickles down to the local population. Hence, this move failed to buy the peace in the oil-producing states, not because Obasanjo was not trustworthy, but because he turned out to be unable to overcome the corruption barrier that prevented the money from reaching its targets. This example highlights the need for a relatively “clean” institutional framework for federalism to work as a peace-buying device.

Then, a highly revealing event clearly illustrates Obasanjo’s conciliatory strategy. During the 2000s, the most dangerous rebellion going on in Nigeria was due to the Ijaws, the most important ethnic group of the Niger Delta states. Although it is a fairly small group by its size, it is the fourth largest one in Nigeria, after the Hausa, the Yoruba and the Igbo. During the summer 2004, an Ijaw youth movement had turned into an armed rebellion comprised of about 2000 men, under Dokubo Asari’s leadership. His financial resources were mainly coming from “bunkering”, i.e., the theft of kerosene from the pipe-lines for smuggling the resulting fuel out to the world market, through some well-organized illegal networks. The rebellion had managed to take over Port Harcourt in August 2004, despite the intervention of the Nigerian army’s helicopters, which led to the death of several hundred people. In order to
solve speedily this problem, under the discrete pressure of the US government, Obasanjo invited Asari at Aso Rock, the presidential palace in Abuja. The two men found an agreement while an American official was present in the room as a witness, according to which Asari was “selling” to Obasanjo his movement’s weapons (mainly a few AK 47s) for a given sum of money, amounting to one million US $ according to the International Crisis Group (ICG, 2006). Asari committed to stop his rebellion in return for a general amnesty and the promise not to be attacked by the Nigerian army (Ghazvinian, 2007). This seems to stretch credulity, at least for a Western economist, but this agreement succeeded in stopping this episode of violence, and permitted the resumption of oil production.

This genuinely African approach proved to be more effective than the increase in the derivation fund mentioned above. The country’s federal structure had been devised by the military governments as a way to buy off the local elites for diverting their political ambition away from the central government. This entails that the bulk of the money flowing to the states’ governments is diverted by the governors in favor of their close clientele (Ghazvinian, 2007). Hence, the social cost of redistribution in favor of the rebels or their supporters, which is captured by $\gamma$ in the theoretical model presented in the previous section, turns out to be very high in Nigeria. Obasanjo probably had underestimated this parameter at the beginning of his term in office. Finally, Asari ended up in jail, suggesting that the limits of the conciliatory approach have been reached (ICG, 2006). Consequently, the respite was short-lived, and violence resumed its build-up in the course of 2005-2006. Ghazvinian cites an estimate of 1000 death per year, a figure which cannot be verified. Eventually, then, the conflict in the Niger Delta states saw its intensity rise over that period, as deterrence had been rolled back by the civilian government, while redistribution turned out to be out of reach. This conflict can be analyzed as a reciprocal-looting one of the type described by Azam (2002). The rebels are stealing a lot of fuel that is sold on the black market to some well-organized
networks, which dispatch it all over West Africa and further, and they top up their financial resources by kidnapping some of the oil-firms’ employees for a ransom. The government and the oil firms are destroying more and more the environment in the Niger Delta states, for saving money on the required investments for reducing oil spills and gas flaring. This reduces the local population’s ability to make a living in legal activities like agriculture and fishing, strengthening their incentive to steal fuel from the pipe-lines. This phenomenon is described in game-theoretic terms as “strategic complementarity”, as the looting performed by one side is reinforcing the incentive to loot faced by the other side, which creates a multiplier effect (see Azam, 2002). Then, the oil firms have not much incentive to invest resources in pollution control, and they have in fact reduced their activity in the most exposed areas. The shortfall of Nigerian oil production below the trend is estimated at about 25 %, with a potential impact on the world market price. The oil firms have responded by relocating an increasing fraction of their African oil production, thanks to the recent developments in the deep-water offshore extraction technology. As a result, Angola is now about to become the largest African oil producer, a place that Nigeria had for decades. This brings out strikingly how institutional deficiencies, like the widespread corruption that plagues the Nigerian federal system, can hamper economic development by maintaining a costly level of violent conflict.

4. Conclusion

This paper has first developed a theoretical framework for explaining how institutional weaknesses and low military power can combine to prevent peace from prevailing in a country. This game-theoretic model shows how a peace-seeking government would combine deterrence and redistribution for producing the most basic public good for development, namely peace. Moreover, it shows that a low level of institutional efficiency may be an incentive for the government to give up conflict prevention, unless its efficiency at deterrence is high enough. Hence, this model shows that the government is ultimately responsible for the
choice between war and peace, while the rebellion that it will face in case of war is just the predictable response to its strategic decisions. The model also suggests that the international community can help the government choose peace instead of war, if it directs its aid policy at reducing institutional inefficiency and at strengthening its military capacity to deter rebellion. These are the two inputs required for imposing peace, which might be in short supply in a post-conflict country.

Then, the paper has discussed the two main institutional solutions which have been tried for making peace durable in post-conflict countries, namely power-sharing and federalism. The discussion has centered on the cases of Chad and Nigeria, two oil-producing countries. Chad came out of about three decades of civil war, and enjoyed a lasting peace for nearly two decades when Idriss Déby took over and offered a credible power-sharing agreement to the southern rebels’ leader. What made that agreement credible was that a balance of forces was kept behind the institutional arrangement. The rebels’ army was not entirely dismantled, and some of its units were merged in the national army. This gave the former rebel general Kamougué the power to strike back in case of cheating, which made Idriss Déby’s promises to redistribute some of the oil money credible. By contrast, in Nigeria, the federal system implemented by the military governments turned out to be unable to buy the peace. With the return of civilian rule under Obasanjo, there were hopes that a less violent regime would emerge. Obasanjo’s good reputation and democratic credentials turned out to be unable to overcome the institutional weaknesses of the Nigerian federal system. Corruption being rampant at each level of government, Obasanjo’s attempt at implementing a redistribution strategy turned out to be impotent, and violence built up relative to the military governments’ era. In the end, the country is affected by widespread violence, and its development prospects are threatened.
References


