Lecture 19
Civil Wars

Introduction

Much of the literature of civil war lies outside economics
-measurement difficulties

-importance of non-economic factors such as personalities & leadership
civil wars are intricate social, political and psychological phenomena and each requires its own analysis: difficulty to generalize

Growing interest for civil wars parallels the growing interest for “failing states” since 2000

— poor economic performance
— poor governance quality (failure to provide basic services to their population, to fight against poverty)

Several rationales for this growing interest:
-Modern civil wars are development in reverse
-Security as a public good (civil wars have negative externalities)
-Millennium Development Goals: failure and negative externalities
-Debate on aid effectiveness: these countries are aid orphans

Lecture Outline
Introduction
I-Civil wars
A-Definition and stylized facts
B-Theories explaining wars
II-Empirical results
A-Causes of civil wars
B-Consequences of civil wars
III-Implications for policy
A-Evidence on conflict duration and Post-conflict
B-Implications
Conclusion
I-Civil wars
A-Definition
http://www.correlatesofwar.org/
Armed Conflict Dataset: ACD: Gleditsch et al. (2002). UCDP/PRIO.
http://new.prio.no/CSCW-Datasets/Data-on-Armed-Conflict/
http://www.pcr.uu.se/research/UCDP/our_data1.htm

**Two main datasets**

**COW's definition of a civil war is based on 4 characteristics:**
- Organized military action
- At least 1,000 battle deaths (in total)
- War ≠ genocides, massacres and pogroms => effective resistance, i.e. > 5% of the deaths have been inflicted by the weaker party
- National government is actively involved in the war => excludes wars of liberation from colonialism («extra-systemic wars»): Angola (1961-1975), Mozambique (1964-1975)....

**I-Civil wars**

**A-Definition**

**Two main datasets**

**Armed Conflict Dataset definition of war has 2 dimensions:**

- **According to the participants and location:**
  1. extra-systemic conflicts (essentially colonial or imperialist wars),
  2. inter-state wars
  3. intra-state wars
  4. internationalized intra-state wars.

- **According to the level of violence:**
  1. minor conflicts produce more than 25 battle related deaths/year
  2. intermediate conflicts produce more than 25 battle related deaths per year and a total conflict history of more than 1,000 battle related deaths
  3. wars are conflicts which result in more than 1,000 battle related deaths per year.

![Figure 1: Global Incidence of Civil War: 1946-2004](image)

There is a marked upward trend in the incidence of violent internal conflict during the cold war, with a peak of 35 violent conflicts globally in 1992. Since then the number of violent conflicts has decreased to 21 in 2004/5. The 2 datasets provide different results as they have different definitions
I-Civil wars
A-Definition and stylized facts

Difficulty to date the beginning and the end of wars
Difficulty on criteria to account for the severity of civil wars
- Yearly or total number of deaths?
- Threshold: absolute or relative deaths?
- Human costs based on combatant deaths, battle deaths or war deaths?

I-Civil wars
A-Definition and stylized facts

<table>
<thead>
<tr>
<th>Countries</th>
<th>Year</th>
<th>Death, Total</th>
<th>Battle Deaths</th>
<th>In %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sudan</td>
<td>1963-1973</td>
<td>250,000-750,000</td>
<td>20,000</td>
<td>3-8%</td>
</tr>
<tr>
<td>Nigeria (Biafra)</td>
<td>1967-1970</td>
<td>500,000 – 2 million</td>
<td>75,000</td>
<td>4-15%</td>
</tr>
<tr>
<td>Angola</td>
<td>1975-2002</td>
<td>1.5 million</td>
<td>160,475</td>
<td>11%</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>1976-1991</td>
<td>1-2 million</td>
<td>16,000</td>
<td>&lt; 2%</td>
</tr>
<tr>
<td>Mozambique</td>
<td>1967-1991</td>
<td>500,000 – 1 million</td>
<td>145,400</td>
<td>15-29%</td>
</tr>
<tr>
<td>Somalia</td>
<td>1981-1996</td>
<td>250,000-350,000</td>
<td>66,750</td>
<td>19-27%</td>
</tr>
<tr>
<td>Sudan</td>
<td>1983-2002</td>
<td>2 million</td>
<td>55,000</td>
<td>3%</td>
</tr>
<tr>
<td>Liberia</td>
<td>1989-1996</td>
<td>150,000-200,000</td>
<td>23,500</td>
<td>12-16%</td>
</tr>
<tr>
<td>Congo (DRC)</td>
<td>1998-2001</td>
<td>2.5 million</td>
<td>145,000</td>
<td>6%</td>
</tr>
</tbody>
</table>


I-Civil wars
B-Theories explaining wars

Explanation of civil wars must include both motivation and feasibility
In practice greater focus on motivation but more evidence that the link between legitimate grievance and rebellion has been exaggerated Collier and Hoeffler (2006) highlight that
- Feasibility is key
- Motivation may be opportunity for profit through violence

1-Economic theories on motivation

Typical motives for war correspond to grievance
- Territory, land and sea-borders disputes
- Ethnic, religious or regional autonomy
- Ideology and system conflicts
- National power conflicts,
- Conflicts over the access to and the distribution of resources.

Puzzle 1: why no pre-emptive indemnity? redistribution instead of war would be
Pareto-improving for both sides
- asymmetric information on military capabilities of the other
hatred: utility from hurting the other
-constraints upon the ability to make preemptive redistribution

Puzzle 2: Mobilization: each party to a civil war is comprised of a large group of actors: How is the typical free-rider problem (in collective action) solved?

A way out is to think of rebellion as supplying a joint product, partly public good and partly private good which accrues only to participants. This means allowing greed (opportunities for profit) to enter the story

2-Economic theories on opportunities

An alternative approach is to see civil war as the result of unusual conditions that enable a business organization - the rebel group - to be viable: if viable it will develop irrespective to its motivations.

Viability can be defined as:
-ability to equip and finance an army
-ability to survive against a government army

So need to finance specific inputs (people, guns)
Also for fighters requirement of securization of higher revenues in war than in peace time (opportunity cost)

2-Economic theories on opportunities

Typical features:

Opportunities for profit and rebel recruitment:
Circular causation: opportunities for large profits induce the composition of the rebel group to gradually shift towards those with an intrinsic motivation for private gain (greed rather than grievances):

War as an intrinsic objective?
- Rebel as an occupation
- Power through violence
  “Rebellion may therefore simply require the combination of child poverty, an initial supply of arms, and opportunities for continuing finance whether through predation or donations” (Collier and Hoeffler, 2006)

Three points to note about mobilization
-Complementarity feature; joining is more attractive if rebellion is big.
- Political system plays a dual role on frustration and opportunities:
Totalitarian & repressive state: high cost and low success probability
Democratic & weak state: negotiation benefits outweigh those of conflict so is the prevalence of war higher in semi-democracies?
- ‘Bandwagon’ effect is most likely to result in strong rebel support if preferences (for revolution) are uniformly distributed.

II-Empirical evidence
A-Causes of civil wars Opportunities
a-Availability of profit and rebellion financing
-Primary commodity exports: Timber (Cambodia)
-Diamonds (West Africa)
-Drugs (Colombia, Afghanistan)
-Donations from diasporas
-Subventions from hostile governments
-Aid

Results evidence that countries with greater “rent” potential are more prone to conflict

Note on primary commodity exports:
- relation is non-linear
- could be an indicator of motivations (grievances) as resource rich countries suffer from resource curse (weaker institutions and growth)

Note on aid as rent: Some evidence of an unintended consequence: aid promotes arms races

Especially bad as military spending (by the gvt) is not effective in reducing risk of war; it does not deter rebellion.

Source: Collier, P. and A. Hoeffler, 2006, Unintended Consequences: Does Aid Promote Arms Races?

b-Other elements of opportunities

1-Opportunities

Foregone revenues (opportunity costs) enter significantly – on war
- proxied by income per capita, growth rate and schooling
- but could also proxy grievances
- in fact typical grievance is not low income but unequal repartition and we will see that is does not seem to be significant
**Availability of conflict-specific capital** (guns, experience) enters +
-proxied by time since last conflict (duration of peace)
-but also proxy for hatred associated with past war (grievances)

**Military advantages of rebels** enter with positive impact on war
-proxied by
  - favorable terrain (mountains, forest)
  - unequal population dispersion
  - weak gvt military capability
  - social cohesion: ethno linguistic fragmentation (ELF)

-negat**ive** impact of ELF on war ≠ perception of ethnicity difference as a cause: there seems to be a non linear relationship: inverted U.

**II-Empirical evidence**

**A-Causes of civil wars**

**2-Grievances**

Apparent lack of significance of proxies of objective grievances
- NS of degree of political rights
- NS of Inequality indicators
- Religious fractionalization and polarization have wrong sign

But some evidence that violent conflicts are positively explained by

-abuses of civil rights as monitored by Amnesty International
- ethnic dominance: largest ethnic group=45-90% of the population

### Table 2: Deterrence Effects of Military Expenditure on Rebellion

<table>
<thead>
<tr>
<th>Estimation Method</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ln GDP per capita</td>
<td>-0.950</td>
<td>-0.460</td>
<td>-0.649</td>
<td>-0.622</td>
</tr>
<tr>
<td>(GDP growth),</td>
<td>(0.245)**</td>
<td>(0.124)**</td>
<td>(0.166)**</td>
<td>(0.149)**</td>
</tr>
<tr>
<td>Primary commodity</td>
<td>-0.098</td>
<td>-0.051</td>
<td>-0.030</td>
<td>-0.027</td>
</tr>
<tr>
<td>(0.041)**</td>
<td>(0.022)**</td>
<td>(0.027)</td>
<td>(0.025)</td>
<td></td>
</tr>
<tr>
<td>(2.506)**</td>
<td>(2.426)**</td>
<td>(3.353)**</td>
<td>(3.226)**</td>
<td></td>
</tr>
<tr>
<td>Social fractionalization</td>
<td>-0.0002</td>
<td>-0.0001</td>
<td>-0.0002</td>
<td>-0.0001</td>
</tr>
<tr>
<td>(0.0001)**</td>
<td>(0.0001)**</td>
<td>(0.0001)**</td>
<td>(0.0001)**</td>
<td></td>
</tr>
<tr>
<td>Ethnic dominance</td>
<td>0.480</td>
<td>0.257</td>
<td>0.365</td>
<td>0.345</td>
</tr>
<tr>
<td>(45-90%)</td>
<td>(0.328)</td>
<td>(0.168)</td>
<td>(0.219)*</td>
<td>(0.195)*</td>
</tr>
<tr>
<td>Peace duration</td>
<td>-0.004</td>
<td>-0.002</td>
<td>-0.002</td>
<td>-0.002</td>
</tr>
<tr>
<td>(0.001)**</td>
<td>(0.001)**</td>
<td>(0.001)**</td>
<td>(0.001)**</td>
<td></td>
</tr>
<tr>
<td>In Population</td>
<td>0.510</td>
<td>0.247</td>
<td>0.245</td>
<td>0.277</td>
</tr>
<tr>
<td>(0.128)**</td>
<td>(0.063)**</td>
<td>(0.040)**</td>
<td>(0.085)**</td>
<td></td>
</tr>
<tr>
<td>Geographical</td>
<td>-0.992</td>
<td>-0.428</td>
<td>-0.972</td>
<td>-1.256</td>
</tr>
<tr>
<td>Concentration</td>
<td>(0.909)</td>
<td>(0.450)</td>
<td>(0.569)*</td>
<td>(0.547)**</td>
</tr>
<tr>
<td>Military expenditure</td>
<td>0.338</td>
<td>0.452</td>
<td>(0.233)</td>
<td>(0.248)*</td>
</tr>
<tr>
<td>N</td>
<td>750</td>
<td>750</td>
<td>482</td>
<td>570</td>
</tr>
<tr>
<td>Pseudo R^2</td>
<td>0.22</td>
<td>0.23</td>
<td>0.27</td>
<td>0.26</td>
</tr>
<tr>
<td>Log likelihood</td>
<td>-147.84</td>
<td>-147.48</td>
<td>-96.53</td>
<td>-115.33</td>
</tr>
</tbody>
</table>

**Notes**

Opportunity cost of rebel or grievance? (ln GDP)
Rent-seeking or resource curse (though control for economic performance? (Primary commodity)
Social cohesion of the rebels and not ethnic diversity as a driver of conflict (social fractionalization)
Except if there is a dominant group(Ethnic Dominance)
Fading of hatred or depreciation of war-specific capital? (Peace Duration)
Grievances increase with population due to heterogeneity. Here it is controlled for, so size may proxy more increased opportunities (pool of soldiers, resources...) [ln Population]
II-Empirical evidence
A-Causes of civil wars

3-Conclusion on causes of civil wars
It appears that opportunity provides more explanatory power than grievance. Economic viability appears to be the predominant systematic explanation for rebellion

Policy implications
Economic development as critical to peace
- increases the opportunity costs of rebellion and reduces grievances through higher income and growth
- reduces the availability of easy financing through increased economic diversification (away from natural resources)
Aid can be captured as rents and can (through fungibility) increase military expenses
- need to focus on technical assistance
- no program assistance but projects assistance (on education/health)

II-Empirical evidence
B-Consequences of civil wars
Modern civil war has been development in reverse

1-Economic consequences
Huge costs for the country at war:
During conflict: reduction of GDP growth rate by 2.2% each year (as average duration is 7 years: shrinking by 15%)
After conflict: overall 21 years needed to recover
Present value of GDP loss = 105% initial GDP
Origin of these costs:
- Direct destruction of infrastructure and other capital.
- Diversion of public resources from productive activities to violence
- Dissavings
- Disruption: suppression of liberties, increase in insecurity
- Shift away from vulnerable economic activities towards those that are less vulnerable such as arable subsistence agriculture.
- Flight of capital (financial and human) from the country
Illustration of the shift away from vulnerable economic activities towards those that are less vulnerable such as arable subsistence agriculture.

### Table 3: The Composition of Ugandan GDP by War-Vulnerability

<table>
<thead>
<tr>
<th></th>
<th>1971</th>
<th>1986</th>
<th>1993/94</th>
</tr>
</thead>
<tbody>
<tr>
<td>War-Vulnerable Sectors</td>
<td>42.5</td>
<td>24.0</td>
<td>28.7</td>
</tr>
<tr>
<td>High transaction and asset intensity</td>
<td>8.8</td>
<td>4.4</td>
<td>6.0</td>
</tr>
<tr>
<td>transaction-providing asset-providing</td>
<td>21.2</td>
<td>16.1</td>
<td>17.2</td>
</tr>
<tr>
<td>War-Invulnerable Sector low transaction and asset intensity supplying neither transactions nor assets</td>
<td>20.5</td>
<td>36.0</td>
<td>32.1</td>
</tr>
<tr>
<td>Unassigned Activities</td>
<td>37.0</td>
<td>40.0</td>
<td>39.2</td>
</tr>
</tbody>
</table>

Note: The National Accounts provide data at 1966 prices for 1966-85 and at 1991 prices from 1982-93/94. 1982 was selected as the year to be used for conversion from 1966 to 1991 prices. Since output changes 1971-82 are only measured at 1966 prices, the conversion of 1971 output to 1991 prices is only approximate. Sector I in 1971 at 1991 prices is approximated as (sector I in 1971 at 1991 prices)/(sector I in 1982 at 1966 prices)]. Sector shares in 1971 at 1991 prices are then sector output/GDP.

### II-Empirical evidence

#### B-Consequences of civil wars

Modern civil war has been development in reverse

#### 1-Economic consequences

Even greater costs: negative externalities (spatial and time)

**Loss of income for region:** Present value of GDP loss = 115% initial GDP

Plus costs of arm races (so most of the costs is borne by the neighbors)

**Temporal externalities:** “conflict trap” greater probability of war in the future: half of civil wars are due to post-conflict relapses

“Typical” civil war costs $50 billion w/o valorization of non-eco costs

#### 2-Non-economic consequences

- **Social consequences:** Health (AIDS, malaria...)
- **Psychological costs:** orphans, forced migration

- **Political consequences:**
  - Loss of social capital (trust, honesty...)
  - Deterioration in political institutions
III-Policy implications

A-Evidence on conflict duration and Post-conflict

3 strong explanations of civil wars long duration and repetition (weak incentives for peace)

-Absence of lock-in of peace settlements:
  *no enforcement through international treaties (≠ international war)
  *rebellion army disintegrates (so time inconsistency problem for the gvt: once rebellion is weakened: incentives for vengeance)

-Presence of finance for rebel groups
  *typically Diaspora (more extreme as do not bear cost of new conflict)
  *subventions from hostile governments

-Legacy of hatred and war-specific capital (weapons and skills)

III-Policy implications

B-Implications

Typical categorization into prevention, ending conflict and maintaining post-conflict peace

But securing credible end to conflict is the best prevention to war.

More promising policies (for governments and external actors)

*Reduction of military spending (just diversion of financing w/o deterrence effects). International actors (US, UK, F, and China) have a considerable scope to reduce the feasibility of rebellion through curtailing finance and armaments
*Reintegration of rebels in society: increase in their opportunity costs and depreciation of war-specific expertise
*Favoring post-conflict recovery:
  - external military stabilization: record is mixed
  - coordinated international intervention on economic and political assistance: technical assistance and aid

But beware *limited absorption capacity*: optimum timing is 5 years after.

**Conclusion**

**Scope for far more economic work, both theoretical and empirical on civil wars**
Necessary to guard against excessive generalization from econometric results as what applies on average does not apply to all cases.

However results evidence that economic factors matter for start, duration and end of civil wars
**This has implications for policy**
Especially as
  - costs of civil war are typically very high
  - and most are external to the active participants, borne either by neighbors or the next generation.

**Promising policies are just beginning to filter into international policy: coordinated approach to failing states**
It will be key to ensure feedback and accountability in order to assess what works and learn from failures