

Göran Lindgren 2006
 ”The Economic Costs
 of Civil Wars”

<http://www.goranlindgren.se/mina-bocker/the-economic-costs-of-civil-war/>

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Why measure costs of conflicts?

- conflict is a major source of poverty and underdevelopment
- policies for reducing the economic costs of conflicts can only be devised if we know how economies operate during conflict
- because understanding of economic behaviour and motivation during conflict is essential for forming policies to end or reduce war
- better estimates of costs are needed to estimate the economic values of conflict prevention
- an assessment of costs will give knowledge for more cost-effective post-conflict reconstruction.

Selection of studies

This review studies empirical works on the economic effects of internal armed conflicts, sometimes called civil wars. Economic costs are here taken rather narrow, meaning costs expressed in monetary terms and in the studies mostly presented as percentages of GDP.

14 studies

- 9 studies concentrate on one country (5 study Sri Lanka, 2 Nicaragua, 1 Uganda, 1 Basque Country)
- 5 studies look at several countries, from 4 to 78 countries

What are the Economic Costs of Conflicts? 1(2)

Physical equipment

- Physical destruction of production capacity
- Physical destruction of transport vehicles and routes

Agricultural production capacity

- Physical destruction of land
- Non-production because of threat situation
- Taxation by rebel and government troops

Manpower

- Death and injuries on workforce
- Missed education opportunities for combatants
- Emigration of skilled workforce

Capital formation

- Capital flight of domestic capital
- Capital flight of foreign capital
- Discouragement of new foreign investments

What are the Economic Costs of Conflicts? 2(2)

Sectoral composition of production

- Less production of transport and physically limited intensive production
- More production for short term profits, less long term

Regional composition of production

- Less production in conflict areas
- Emigration from conflict areas

Technology level

Less high technology from abroad
 Less domestic investment in hi tech sectors

Military expenditure

Higher military expenditure (mileyx) reduce civilian spending
 Higher milex reduce investment
 Higher milex can have positive/negative effects on regional/sectoral distribution
 Higher milex might increase corruption

Estimating the economic costs of war

- Direct costs (destruction and damage to capital assets and labour, extra miles, refugee care)
 - short-term
 - long-term
- Indirect costs (capital flight, loss of potential foreign investment, tourist evasion, emigration of skilled labour)
 - short-term
 - long-term

Change in growth rate

$$\frac{\text{Actual growth rate} - \text{counterfactual growth rate}}{\text{= loss of economic growth}}$$

Typology of methods

- Accounting methods
- Modelling methods

Accounting method for estimating direct and indirect economic consequences of internal armed conflict

economic level	direct costs	indirect costs
external relations	foreign debt	capital flight of domestic capital capital flight of foreign capital discouragement of new foreign investments emigration of skilled workforce reduction of number of incoming tourists less exports less imports less development aid less humanitarian aid military aid +/-

economic level	direct costs	indirect costs
national economy level	physical destruction of production capacity, infrastructure, factories, machinery physical destruction of transport vehicles and routes agricultural production capacity physical destruction of land death and injuries on workforce higher military expenditure refugee care land mines	non-production because of threat situation taxation by rebel and government troops less investment less developed human resources as less health expenditure, less education expenditure missed education opportunities for combatants less production of transport and physically limited intensive production more production for short term profits, less long term
household level	death, injuries and illness extra legal income +	food scarcity inflation emigration, forced migration

Alternative estimates for same conflict

- Richardson & Samarasinghe 1991
cost 1983-88 US\$ 4.2 billion 68% of 1988 GDP
- Grobar & Gnanaselvam 1993
cost 1983-88 22% of 1988 GDP
- Arunatilake et al. 2001
cost 1984-96 140% / 168% / 205% of 1996 GDP

Present value (*nuvärde*)

An asset is more worth if you have it today than if you get 5 years later. How much more worth it is depends on the interest rate you use. The discounted value today is what the asset is worth today. The example in the article by Arunatilake et al. use interest rates of 0%, 5% and 10%.

Calculating the value of destruction and death

A damaged machine does not provide the output it otherwise would have produced. The discounted present value of that lost output is the cost of the damage.

Similarly an injured or dead person do not produce what that person could have produced during the rest of his/her life. To calculate one estimate an average age and qualification.

Compounded present value of estimated war cost in Sri Lanka 1984-96

	Interest rate	0%	5%	10%
Direct costs				
Gov. millex		32.2	41.2	54.0
LTTE millex		3.2	4.1	5.4
Gov. exp. relief		3.0	3.0	3.0
Lost infrastructure		13.5	13.5	13.5
Indirect costs				
Lost income forgone publ. inv.		6.70	8.61	11.25
Lost income reduced tourists		13.2	17.0	22.3
Lost earnings, lost FDI		60.9	71.2	84.7
Lost income displacement		4.3	5.5	7.1
Lost income dead/injured persons		2.1	2.5	3.0
Output foregone N. Province		1.3	1.3	1.3
Total		140.3	168.0	205.

All figures in estimated percentage of 1996 GDP

Arunatilake et al. 2001 table 3, p. 1496

Difference in yearly percent reduction of GDP according to methods of estimation

	All	Accounting	Modeling
Average	3.7	10.0	2.1
Median	1.0	11.1	0.3
Max	15.8	15.8	15.4
Min	+0.3	2.2	+0.3

9 studies, 30 estimates

How do we explain different results?

Unclear or contradictory research results often have several different causes:

1. Models
2. Research design
3. Estimation method
4. Model specifications
5. Operationalisation
6. Data
7. Time period
8. Case selection

Conclusion

The comparison between the different methods for estimating the economic costs of conflict did show that modelling methods tended to give almost the same estimates than accounting methods if all studies were included. If the two outlying studies were not included the accounting methods gave higher estimates. The conclusion is that the problem of credible results gives a clear advantage to the accounting methods since it is hard to judge the validity of a model consisting of econometric equations. This is especially significant for non-economists and since decisions on conflicts seldom are taken by economists this is crucial.

The post-war public health effects of civil conflict

Hazem Adam Ghobarah, Paul Huth, Bruce Russett

Extract from abstract:

Civilian suffering from civil war extends well beyond the period of active warfare. We estimate that the additional burden of death and disability incurred in 1999 alone, from the indirect and lingering effects of civil wars in the years 1991-1997, was nearly double the number incurred directly and immediately from all wars in 1999. This impact works its way through specific diseases and conditions, and disproportionately affects women and children.

Health Adjusted Life Expectancy (HALE)

- discounts the total life expectancy at birth in each country by the number of years the average individual spends with a major disability as the burden of disease or injury — the gap between total life expectation and expected years without disability
- the average number of years of healthy life that a newborn member of the population could expect to live.

Major influences of civil war on public health

1. Civil wars substantially increase the exposure of the civilian populations to conditions that increase the risk of disease, injury, and death.
2. Civil wars reduce the pool of available resources for expenditures on the health care system.
3. Civil wars constrain the level of resources allocated to the public health care system in their aftermath.
4. Civil wars reduce the efficient use of resources that are allocated to public health, and those reductions in efficiency extend into the post-civil war period.

From conclusion (Ghobarah et al.)

“[W]e found that ... civil wars greatly raise the subsequent risk of death and disability from many infectious diseases, including malaria, tuberculosis, and other infectious respiratory diseases. We have evidence, though weaker, that civil wars may increase the risk of death and disability through the breakdown of norms and practices of social order, with increases in homicide, transportation accidents, other injuries, and cervical cancer. Most of these war-induced deaths and disabilities followed both wars in one's own country and civil wars in contiguous countries. Women and children are the most common long-term victims.”

Att läsa vidare:

Ghobarah, Hazem Adam; Paul Huth & Bruce Russett, 2004. "The post-war public health effects of civil conflict", *Social Science & Medicine*. 59(4): 869-884.

Ghobarah, Hazem Adam; Paul Huth & Bruce Russett, 2003. "Civil wars kill and maim people - Long after the shooting stops", *American Political Science Review*. 97(2): 189-202.

Ghobarah, Hazem Adam; Paul Huth & Bruce Russett, 2004. "Comparative public health: The political economy of human misery and well-being", *International Studies Quarterly*. 48(1): 73-94.

Krigets orsaker och fredens förutsättningar, hösten 2008

<http://www.goranlindgren.se/akademiska-kurser/krigets-orsaker-och-fredens-forutsattningar/> särskilt

Humphreys, Macartan & Weinstein, Jeremy M. 2008. "Who fights? The determinants of participation in civil war". *American Journal of Political Science*. 52(2): 436-455

Humphreys, Macartan. 2003. *Economics and Violent Conflict*. Program on Humanitarian Policy and Conflict Research, Harvard College

Stewart, Frances. 2004. *Development and Security*. Centre for Research on Inequality, Human Security and Ethnicity, CRISE, Queen Elizabeth House, University of Oxford.

Woodward, Susan L. 2002. *Economic Priorities for Peace Implementation* Ipa Policy Paper Series on Peace Implementation.

Görans statistiklänkar

Internationell statistik

- ekonomi
- konflikter
- demokrati
- hälsa

<http://www.goranlindgren.se/akademiska-kurser/gorans-statistiklänkar>

Testa egna samband!

Hämta min Excel/OpenOffice-fil med data om Ekonomisk tillväxt, Mänsklig utveckling, Inkomstfördelning, Export och import, Genuint sparande, Ekologiska fotavtryck och Hållbart samhälle. Uppgifter finns för som mest 177 länder och kommer från olika pålitliga källor. Hela appendixet finns att hämta på min webbplats:
<http://www.goranlindgren.se/appendix.xls>