War and Development
Lecture for course ‘The global economy – environment, development and globalization’

Håvard Hegre
Department of Peace and Conflict Research
Uppsala University

24. oktober 2019
Overview of lecture

- War is declining
  - The time we live in is more peaceful than any points in human existence
- Development reduces the risk and magnitude of war
  - Our time’s peacefulness is related to the unprecedented welfare most of humanity enjoys
- War hampers development
  - War remains one of the primary obstacles to future welfare improvement
The decline of war

- Growing literature documenting a decline of war
- ... at least after WW II, but also over a longer period
- Steven Pinker, Azar Gat, Lawrence Keeley
The decline of war: violent mortality rates in pre-historical vs. historical societies (Pinker, 2011)
The decline of war: war counts (Pinker, 2011)

**FIGURE 5-17.**

Figure 5–17. Conflicts per year in greater Europe, 1400–2000

Source: Conflict Catalog, Brecke, 1999; Long & Brecke, 2003. The conflicts are aggregated over 25-year periods and include interstate and civil wars, genocides, insurrections, and riots. “Western Europe”
War? What is it good for?

War is declining

Some documentation

The decline of war: per-capita deaths, state-based (Pinker, 2011)

**Figure 6-1.** Rate of battle deaths in state-based armed conflicts, 1900–2005

Source: Graph from Russett, 2008, based on Lacina, Gleditsch, & Russett, 2006.
The decline of war: per-capita deaths by war type

Source: Allansson, Melander and Themnér (2017); Lacina and Gleditsch (2005); Hegre and Kristiansen (2016).
War? What is it good for?

War is declining

Some documentation

The decline of war: per-capita deaths in genocides (Pinker, 2011)

Figure 6–7.

Death tolls for the latter were geometric means of the ranges in Table 8.1 in Harff, 2005, distributed across years according to the proportions in the Excel database.
Share of wars that result in redistribution of territory (Pinker, 2011)
What has changed?

Five historical developments (Pinker, 2011, 680)

- ‘The Leviathan’ – a state that uses a monopoly of force to protect its citizens from one another
- Commerce – turning exchange into a positive-sum game
- Feminization – most violence is committed by men
- The expanding circle of empathy (normative change)
- Reason – the ability to weigh short-term and long-term consequences, and proximate and distant effects

Increasing benefits of peace due to development (Gat, 2006)

- Democracy
- Trade (international and domestic)
- International organizations
War? What is it good for?

- Development reduces the risk and magnitude of war
- What is development?

What changes with socio-economic development?

Socio-economic development is a multi-dimensional concept:

1. Economic production in the form of manufactures, services
2. Economic diversification, specialization of skills and tasks
3. Human capital: high education levels
4. Demography: low fertility rates, few young people
5. Finance: Lots of mobile capital, low dependence on natural resources
6. Organization and rights
War? What is it good for?

- Development reduces the risk and magnitude of war
- Development and war: the correlation

War and development: The correlation (civil wars)
Why development leads to peace

- Are poor countries war-prone because poor populations are frustrated and angry?
  - Most rebel groups state revolution, democratization, or poverty reduction as their goal – e.g., Sierra Leone’s ‘Revolutionary United Front’

- Absence of socio-economic development facilitates greed-driven rebellions (Collier, 2000; Collier and Hoeffler, 2004)

- The dense network of interactions in developed societies stimulates peaceful positive-sum interactions more than violent zero-sum interactions (Gat, 2006)
Grievance and the collective action problem for rebel recruitment

- Potential rational rebel group recruits: Whether the government gets overthrown is not dependent only on my participation, but on many others’
- The best would be that someone else fights and overthrows the government, since I benefit as much from that as when I would participate myself (free-riding)
- Overthrow requires a large rebellion
- Few people are willing to join when the rebellion is small based on grievances alone
War? What is it good for?
- Development reduces the risk and magnitude of war
- Explanations

Compounding the problem: the time-inconsistency/commitment problem

- Overthrow of the government must be achieved before justice can be served
- Upon victory, the rebel leadership will be in a position to replace the former government
- Can the rebel leadership be trusted to reform the system, or will it leave the rebel soldiers no better off than before?
- A time-consistency/commitment problem
Greed and the collective action problem for rebel recruitment

To solve these problems, a rebel leader must rely on private incentives (greed) rather than public incentives (justice).

- Private incentives: salary, loot, forced recruitment, opportunities for violent behavior
- Confines the goods to the members (private) rather than everyone (public)
- We cannot observe true motivations of rebel group leaders, but greed-based rebellions are more likely than grievance-based ones

These strategies are most feasible when the economy is dominated by natural resource extraction and an abundance of non-skilled, unemployed young males.
Gat (2005): Industrialization and peace

All countries became more peaceful with the industrial revolution

- ‘it was mainly the benefits of peace that increased dramatically ..., tilting the overall balance between war and peace for economically ever-growing ... societies, for which wealth acquisition ceased to be a zero-sum game’ (p. 85)
- ‘Contrary to earlier times, the economic ruin of the enemy was a detriment to one’s own prosperity’ (p. 84)
War? What is it good for?

- Development reduces the risk and magnitude of war
- Industrialization, capitalism, and peace

Gat (2005): Industrialization and the democratic peace

- A problem with the democratic peace: it presupposes that the people is more pacific than the rulers
- What drives ‘pacific inclinations’:
  - Resource competition as a positive-sum game
  - Weakening of militant ethos (led from above) deeply embedded in the national culture
  - Better living conditions and fewer wars weaken the acceptance of ‘the suffering of death associated with war ... as just another nature-like affliction’
  - The sexual revolution
  - Women’s franchise
War? What is it good for?

- Development reduces the risk and magnitude of war
- Industrialization, capitalism, and peace

Gartzke (2007): The ‘Capitalist Peace’

- Development reduces incentives for wars of conquest
  - Developed markets render war obsolete
  - Difficult to ‘cheaply subdue and to profitably manage modern societies through force’
  - ‘Financial interdependence ensures that damage inflicted on one economy travels through the global system’
- But does not affect other less tangible motivations for war
- Increases the capacity for long-distance war
Gartzke (2007): The ‘Capitalist Peace’

Empirical findings:

1. Development leads neighboring countries to be less likely to experience conflict.
2. Development leads non-neighbors to be more likely to experience conflict.
3. Similar state policy interests lead country pairs to be less likely to experience conflict.
4. Financial or monetary integration leads country pairs to be less likely to experience conflict.
Effect of war on income: Burundi vs Burkina Faso

Figure 1. Conflict and growth in Burundi and Burkina Faso.
War? What is it good for?
— War hampers development

War countries fail to improve living conditions
Paul Collier (1999): An economic model of war effects

- A country’s production is a multiplicative function of the amount/stock of mobile capital, immobile capital, and factor productivity
  - Land where maize is grown is more productive if there is investment in irrigation, fertilizers, machinery
  - Manufacturing requires investment to build factories as well as available natural resources
  - Immobile capital in the form of land yields better return when ample mobile capital is invested, and mobile capital requires something to invest in
- Mobile capital will be moved out of the country if more profitable abroad
Collier (1999): Economic consequences

Collier (1999): The processes by which the economy is damaged during war

- Destruction (deaths, physical capital) – increases depreciation rate, reduces returns on investment
- Disruption (unsafe roads, social disorder)
- Diversion of public expenditure from output-enhancing activities (police → military, contracts not enforced, property rights less secure)
- Disruption and diversion reduces factor productivity
- Dissaving (shifting assets out of the country; human, financial, physical)
Collier (1999): Dissaving

Dissaving (shifting assets out of the country; human, financial, physical)

- Differences in dissaving and movement rates leads to a restructuring of the economy
- Even though mobile capital is not easily destroyed by war, disruption and diversion effects reduce returns (profits) from the capital
- Threat of destruction to immobile capital creates incentives to sell such and shift to mobile capital (increasing $r$)

War shift mobile capital out of countries, and the deviation from the equilibrium level of capital hampers economic growth
War? What is it good for?
War hampers development
The economic consequences of civil war

Collier (1999): Empirical evidence

- During civil war annual growth rate 2.2% lower than if there was no war
- After a one-year war, annual growth rate 2.1% lower
- After a 15-year war, annual growth rate 5.9% higher

The effect of the 1972–1986 Uganda war:

- War-vulnerable sectors: construction, transportation, distribution, finance, manufacturing: 42.5% in 1971, 24.0% in 1986
- War-invulnerable: subsistence agriculture: 20.5% in 1971, 36.0% in 1986
War? What is it good for?
- War hampers development
- The economic consequences of civil war

Other effects of war: (Gates et al., 2012)

A conflict of median severity (2500 battle-related deaths per year over five years) in a median-sized country leads to:

- a 3.3% increase in undernourishment (about 300,000 people)
- on average one year shorter life expectancy for everyone
- 15% decline in GDP per capita
- a 10% increase in infant mortality rates, corresponding to 10,000 surplus deaths
- cuts off 1.8% of the population from access to safe water
- weak effects on schooling, sanitation, poverty
- similar impact on males and females
Ghobarah, Huth and Russett (2003): How civil war affects health conditions

- The extent to which populations are exposed to conditions that increase the risk of death, disease, and disability
  - Displacement of populations; crowding, poor water and sanitation (epidemic diseases)
  - Transmission of such diseases to non-displaced local populations
  - Weakened prevention programs
  - Post-conflict violence and suicide

- The financial and human resources available for addressing the public health needs of populations
  - Reduced economic growth, lower taxes
  - Depletion and exodus of human and fixed capital resources needed for health care
War? What is it good for?
  - War hampers development
  - Health consequences

Ghobarah, Huth and Russett (2003): How civil war affects health conditions

- The level of resources actually allocated to public health needs by the private and public sectors
  - Diversion of public funds to reconstruction of infrastructure and the state administrative system
  - Diversion of public funds to military spending, remaining high after war or increased due to neighboring war

- The degree to which resources allocated actually allocate to public health are efficiently utilized
  - Wartime destruction of transportation, sanitation, and health infrastructure
How many disability-adjusted life years (DALYs) were lost in 1999 due to civil wars 1990–97?

Controlling for effects of public health spending, education, urbanization, income inequality, effects in 1999 were:

- 12 million DALYs lost to previous decade’s civil wars in same countries, 3 million to wars in neighboring countries
- Bosnia; 6.8 direct deaths per 100 people: loss of 28.5 DALYs per 100 girls under 5
- Contiguous wars also negative for age groups 15–59 years
- Effects somewhat stronger on females in age groups 15–44
Sources of surplus mortality induced by war in country

- Malaria for all age/gender groups up to 44 years
- Tuberculosis for age/gender groups 5–44 years
- Infectious respiratory diseases, all age/gender groups 5–59 years
- Other infectious diseases, all age/gender groups 5–59 years
- Transportation accidents, all age/gender groups 15–59 years
- Also effects through homicide and suicide rates, other injuries, some types of cancers, etc.
Take-away points:

- **War is declining**
  - The time we live in is more peaceful than any points in human existence

- **Development reduces the risk and magnitude of war**
  - Our time’s peacefulness is related to the unprecedented welfare most of humanity enjoys

- **War hampers development**
  - War remains one of the primary obstacles to future welfare improvements
Bibliography


URL: https://doi.org/10.1016/j.worlddev.2012.04.031


