

Demography and the Changing Global Geography of Internal Armed Conflict

1. Introduction

By 2050, the world will have undergone a dramatic shift in the age structure of the adult population compared to 1950 (see Figure 1). During the 1950-1990 period, youth between 15 and 24 years made up more than 25% of the adult population in Asia, Africa and America. By 2050, however, the United Nations Population Division (UN, 2007) predicts that only Sub-Saharan Africa still has young adult shares above 25%, while most other world regions are below 15%. The main reason for this shift is the global decline in fertility that began in the 1960s and which has gained increasing momentum over the last decades.

Will this ageing world also become a more peaceful world? Recent scholarship has suggested that extraordinarily large youth cohorts, or ‘youth bulges’,¹ increase the risk that countries experience outbreak of internal armed conflict (Goldstone, 1991; 2001; Fuller, 1995; Huntington, 1996; Cincotta et al., 2003; Urdal, 2006; Sachs, 2008). But youth bulges only represent one risk factor among many, and countries with large youth cohorts are by no means predestined to experience political violence. Contextual factors largely determine the risk potential, and youth bulges arguably are a concern primarily in the context of limited economic and education opportunities, rapid urbanization, and closed political recruitment (Goldstone, 1991; Collier, 2000).

The historically large youth bulges that have been observed in the latter half of the twentieth century are a product of an unprecedented period of global demographic change. Rapidly declining infant mortality in the post-war period has led to a boom in the number of surviving children. As the boom cohorts have become adults, growth in the young adult population has, in many cases, outpaced the growth of older adult groups, giving rise to an adult age structure dominated by young people. Declining fertility has then reversed this trend.

The very strong increase in younger cohorts has placed a considerable financial burden on many developing country governments in terms of demands for health care, education and job creation, with an accompanying risk of social and political instability. But large youth bulges also represent a considerable resource, a labor force reserve that, well spent, could be a blessing rather than a curse. According to recent empirical studies in economic demography, the economic potential of large youth cohorts is most likely to be released when fertility rates and growth in younger cohorts (aged 0-14) are declining, meaning that more private and public financial resources can be shifted from spending on the youngest to investing in economically productive sectors (e.g. Pool, 2007). Economic growth driven by combined increases in the young segments of the labor force and declining dependency ratios is generally referred to as ‘demographic dividend’, and has been observed in several countries, most spectacularly in the Asian ‘tiger economies’ (Bloom et al., 2003; Lindh & Malmberg, 2007; Bloom & Canning, 2008).

It has been claimed that as fertility rates are declining significantly in most parts of the world, and will continue to fall further, the potential for instability and armed conflict will be declining as well (Steinberger, 2001; Cincotta et al., 2003; Todd & Courbage, 2007). However, objections to the notion of a ‘demographic peace’ have been raised, most notably concerning instances of stalled fertility transitions, demographic momentum or ‘echo-booms’, the inability of many countries to realize demographic dividends, and increasing disparities in fertility rates, and hence eventually age structures, between ethnic groups (Jackson & Howe, 2008: 133-159). This

¹ Commonly measured as the size of cohorts aged 15-24 relative to the total adult population.

article addresses age structure transitions and studies their relationship with armed conflict in order to try to answer whether countries towards the end of the demographic transitions may experience ‘peace dividends’. We further describe how expected demographic developments are likely to influence future conflict risk in different regions.

We run a cross-national multivariate survey of youth bulges and armed conflict using updated demographic and conflict data, covering the 1950-2007 period. We move beyond existing empirical studies by specifically looking at the effect of youth bulges under different phases of the demographic transition, distinguishing between groups of countries that experience very high and very low growth rates in the 0-14 cohorts. The differences are quite stunning. In countries where growth in the 0-14 population is high, large youth bulges are strongly associated with the onset of armed conflict. But where fertility has been rapidly declining, producing low or even negative growth in the 0-14 age segment, youth bulges are negatively associated with armed conflict onset, albeit not statistically significant. One possible interpretation of the latter finding is that this category contains both countries that succeed and fail to take advantage of their ‘demographic window of opportunity’, and that large youth bulges in this group of countries have a more mixed influence on conflict propensity.

Based on United Nations population projections of age structure, total population and infant mortality, we describe how future conflict risk is likely to develop up to 2050 for different world regions. According to our prediction, conflict risk is steadily declining in all regions, but that the process is considerably slower in Sub-Saharan Africa. Some exceptional countries in the Middle East and Asia are likely to experience future risk patterns more similar to that of Sub-Saharan Africa.

- Figure 1 here -

2. Literature Review: Age Structure Transitions and Armed Conflict

Armed conflicts are fought almost exclusively by young men,² and in the civil war literature there has been a longstanding issue whether demographic transitions resulting in growing youth shares, popularly referred to as *youth bulges*, increase the risk of violent rebellion. The claim that age structure matters for conflict is rooted in two different traditions in conflict research. First, youth bulges arguably produce increasing grievances and thus *motives* for young people to engage in violent conflict, due to social, economic, and political exclusion. Second, large youth cohorts provide *opportunities* for rebel organizations, representing a huge reservoir of potential rebel soldiers with low opportunity cost. But there is clearly no deterministic relationship between age structure and political violence. Although the challenges with providing opportunities for burgeoning young populations may be considerable, youth bulges may also be an important asset. Recent studies in economic demography suggest that youth bulges may indeed be a blessing rather than a curse. Large increases in the younger working-age segments represent a tremendous potential for economic productivity for economies that are able to take advantage of such resource. In particular, large youth cohorts that precede significantly smaller cohorts represent a possibility for economic growth. Economic growth is generally seen as a pacifying factor (e.g. Collier et al., 2003; Hegre & Sambanis, 2006), and age-structure driven

² This does not imply, of course, that young men are inherently violent. Most young men who live in conflict theaters in poor countries do not engage in armed conflict.

economic progress could thus in principle curb violent conflict. However, the realization of demographic opportunities is not given (Pool, 2007).

According to what may be referred to as the motive-oriented tradition, youth bulges face increasing risks of experiencing economic, social and political exclusion, hence providing increasing motivations for political violence. In particular, much emphasis has been put on the role of low income earning prospects and unemployment as motivation (Goldstone, 1991; 2001; Cincotta et al., 2003; Sachs, 2008). If the labor market cannot absorb a sudden surplus of young job seekers, a large pool of unemployed youths will lead to increasing levels of frustration. Labor markets differ substantially with regard to flexibility, but empirical evidence does suggest that overall, large youth cohorts are more likely to experience higher unemployment rates and pressures on male wages (Easterlin 1987; Machunovich, 2000). Furthermore, macro-economic developments greatly determine the opportunities of young people, and youth belonging to large cohorts will be especially vulnerable to unemployment if their entry into the labor force coincides with periods of serious economic decline.

Other contextual factors may also determine the conflict potential of youth bulges. In particular, it has been suggested that when large youth groups aspiring to political positions are excluded from participation in the political processes, they may engage in violent conflict behavior in an attempt to force political reform (e.g. Goldstone, 2001). Finally, geographical concentrations of large youth groups, particularly in political centers, could have a destabilizing effect. Goldstone (1991; 2002) observes that historically, the coincidence of youth bulges with rapid urbanization, especially in the context of unemployment and poverty, has been an important contributor to political violence. Homer-Dixon (1999: 58) also link the issue of urban youth bulges to rural resource scarcity, arguing that disproportionately high levels of youth in urban centers in many developing countries represent a significant risk of political instability. It has further been suggested that conflict is likely to occur when age structure transitions take place at different points in time for different ethnic groups, changing inter-group balances (Huntington, 1996; Toft, 2007). However, great levels of grievances are likely to lead to conflict only when opportunities arise from the availability of financial means, low costs of conflict, or a weak, restricted, or manipulative state.

Assuming that there virtually always exists some level of grievances and exogenous organizational structures, the opportunity literature (e.g. Collier, 2000) focuses on structural conditions that provide potential rebel groups with greater possibilities to launch an insurgency. These are conditions that either finance rebel groups, or that reduce the cost of rebellion. Large youth cohorts may reduce recruitment costs through the abundant supply of potential rebel labor with low opportunity cost (Collier, 2000: 94). The opportunity for rebellion is also determined by the strength and form of government, determining the capability and willingness to inflict losses on the rebels.

In the context of limited income-earning opportunities for young people, large youth cohorts are one factor that could facilitate rebel recruitment (Collier, 2000: 94). Not only do youth bulges provide an unusually high supply of individuals with low opportunity cost, an individual belonging to a relatively large youth cohort generally also has a lower opportunity cost relative to a young person born into a smaller cohort. The significance of large youth cohorts for the cost of rebel recruitment is further determined by the level of education, as more highly educated individuals have a higher alternative cost (Collier, 2000; Brett & Specht, 2004). Weinstein (2005) and Oyefusi (2008) show that rebel organizations with access to valuable natural resources more easily can recruit soldiers with low opportunity cost. Several quantitative

empirical studies have found support for the youth bulge hypothesis (Esty et al., 1998; Cincotta et al., 2003; Urdal, 2006).

But youth bulges may also represent a potential for development related to ‘demographic dividends’. Recent studies have shown that while growth in the non-productive age segments have a negative impact on per capita economic growth, increases in the working age population have an overall positive effect on the economy (Lindh & Malmberg, 1999; 2007; Bloom et al., 2003; 2007). As illustrated by the East Asian ‘tiger economies’, countries that make their way through the demographic transition moving from high to low fertility experience a potential for significant economic growth. Lower dependency rates result in lower demands for investment in education and health care for younger cohorts. This again can increase investment in productive sectors and infrastructure, and facilitate greater levels of labor force participation, particularly among women (Bloom et al., 2007; Pool, 2007). Lee & Mason (2007) further find that children and youth benefit the most from demographic dividends.

Hence, we propose an amendment to the youth bulge argument. In countries where population growth in the dependent cohorts (aged 0-14) is high, resources that otherwise could have been used for productive investment and infrastructure are diverted to spending on health care and education for younger cohorts. In these early-transition countries, youth bulges are likely to increase the risk of conflict. In countries experiencing declining dependency ratios, on the other hand, youth bulges may reduce the risk of armed conflict given the pacifying effect of income growth and level of wealth (Collier et al., 2003; Hegre & Sambanis, 2006). There is, however, an important caveat. Age structure transitions represent a potential that not all states are able to realize (Pool, 2007; Jackson & Howe, 2008). In states that experience declining fertility and an increase in the young labor force, but fail to create employment opportunities and realize the dividend, youth bulges may still be a source of instability and armed conflict. Hence, we expect that among countries that are demographically positioned to receive an economic dividend, youth bulges are neither clearly associated with conflict, nor with peace.

3. Empirical Model

We investigate the relationship between youth bulges, demographic dividends and armed conflict in a cross-national time series study covering all sovereign states with an estimated total population of minimum 250,000 in 2007. We use the latest demographic data from the UN Population Division (UN, 2007) and conflict data up to 2007. A logistic regression model is used to study the correlates of domestic armed conflict onset, measured by a dichotomous variable (1 – conflict onset in a given country-year, 0 – no conflict onset).³ The conflict data originate from the Uppsala/PRIO dataset (Gleditsch et al., 2002; Harbom et al., 2008), covering conflicts with a minimum of 25 battle-related deaths per year. An armed conflict is defined as a contested incompatibility concerning government and/or territory, between at least two parties, of which one is the government of a state, involving the use of armed force (ibid.).

Youth bulges are measured as the percentage of the population aged 15–24 years of all adults aged 15 years and above. The data are drawn from the *World Population Prospects 2006* (UN, 2007). We further control for level of development using infant mortality rates (IMR) from UN (2007), defined as the fraction of live-born children who die before the age of one, and for total population (log-transformed), also originating from UN (2007). Both level of development and total population are among the most robust predictors of armed conflict (Hegre & Sambanis,

³ Subsequent years in conflict are censored from the model, so conflicts can only break out from a state of peace. Conflicts that restart after at least two consecutive years of inactivity (less than 25 battledeaths) are considered new conflict onsets.

2006). We further control for *political regime* type, using democracy scores from the Polity IV dataset (Marshall & Jaggers, 2000), ranging from -10 (most autocratic) to 10 (most democratic), and include a squared term to account for the ‘inverted u’-relationship (e.g. Hegre et al., 2001); semi-democracies are more conflictual than democracies or strong dictatorships. We also use a dummy control for countries lacking regime information.⁴ We also account for conflict history by including an indicator, *brevity of peace*, assuming a decaying effect of past conflict on the risk of a new onset according to the function $\exp\{(-\text{years in peace})/4\}$. The results from the empirical analysis are shown in Table 1.

- Table 1 here -

Model 1 replicates the basic model from Urdal (2006) with the extended data series. In this model, as in the original, youth bulges are positively associated with armed conflict, as are total population size, low development, semi-democracy, and recent conflict history. To assess the impact of transitions from high to low fertility, we further split the sample into three roughly equal parts based on the growth rates in the 0-14 cohorts from one five-year period to the next, defining 3.6% growth or less as low growth, and 14% and above as high growth.⁵ The stratification of the sample yield results that strongly support our expectation that youth bulges matter more in early-transition societies.⁶ In low-growth countries (Model 2), where dependency rates are declining and demographic dividends are possible (but not given), youth bulges are negatively associated (albeit clearly statistically insignificant) with armed conflict onset. This result was expected, given that not all countries are able to realize their potential for demographic dividends, hence potentially still experiencing a higher risk. In the high growth segment, countries are less well positioned for economic growth, and resources are presumably diverted to the very youngest cohorts. Here, economic and job opportunities are generally assumed to be weaker, and in this segment youth bulges clearly increase the risk of armed conflict onset.

Furthermore, conflict history is strongly significant in Model 2. This may suggest that this segment is dominated by ‘old’ conflicts reappearing. In the high-growth segment (Model 3), conflict history does not have a significant effect, and the explanatory power of the model is about half that of Model 2. This may indicate that countries in this category are generally less stable, with a higher risk that any one could fall into conflict. And although age structure explains some of the variation in this category, the model does not provide an answer to why certain countries with large youth bulges experience conflict and others not.

4. Comparing Demographic and Conflict Developments, Predicting Future Risks

If demographic factors, as suggested by the estimation results presented above, can influence the risk for internal armed conflict, then differences in demographic trends can contribute to explain variation in conflict risk between world regions. Figure 2 shows the relative share of conflict

⁴ These countries have been assigned the sample median value, ‘0’.

⁵ These should not, however, be understood as ‘threshold values’, in the sense that countries that pass them suddenly shift their risk profiles upwards or downwards. It also does not imply that countries in the low-growth segment cannot be high risk countries. If countries for other reasons fail to benefit from a demographically favorable position and provide opportunities for young people, large youth cohorts may still present a significant risk factor. The results are also not

⁶ These results are not sensitive to the sample size; we get very similar results by using either the first and fourth quartile, or by splitting the sample in two.

onset for different world regions 1965-2007.⁷ In this period, America's share of conflicts has declined significantly, from a third of all onsets in 1985-89 to less than 10% after 1990. Since 1995, most conflict onsets have happened in Sub-Saharan Africa (SSA) (nearly 50%) and in Asia (27%). In the Middle East and North Africa (Mena), the relative share of conflicts has declined since the peak in the late 1970s, while Europe has experienced low shares except for the eruption of conflicts in the Balkans and other parts of Eastern Europe after the end of the Cold War.⁸

- Figure 2 here -

These trends can be compared to how the predicted average conflict risks have changed in five world regions (Figure 3). The conflict risks in this figure are based on demographic trends and projections only, and include all countries with at least one million inhabitants. The trends are based on Model 3 for high growth countries, Model 2 for low growth countries, and Model 1 for all in between. Countries in all regions are assumed to have the same regime type and conflict history.⁹ Differences between regions and over time, thus, reflect only demographic variance in the share of 15-24 year-olds in the adult (15+) population, population size, infant mortality, and growth in the population aged 0-14.

- Figure 3 here -

Are the demographic trends consistent with the changes in the geographical pattern of conflicts? Yes to some extent. Given a relatively constant demographic conflict risk in Sub-Saharan Africa (SSA) (Figure 2), and the downward trends in America and Mena, SSA's share of conflict onset should be rising over time. This is also the long-term trend what we see in the data. Since the mid-1990s, the continent's share of all onsets increased to nearly 50 percent. Asia's share of conflict was high in the 1970s, reflecting the very high demographic risk. The share of onsets has been high in the following decades, despite strong decline in demographic risk factors, although recent developments (2005-07) are more promising. Europe's risk pattern has been stable over time, and, apart from the Balkan wars, match the low share of conflicts. The decline in conflict in Mena has perhaps been less pronounced than its demographic risk profile would suggest, especially compared to America.

Because we only take demographic projections into account, comparisons between regions fail to fully take account of systematic differences in regime type and conflict history, as well as other omitted variables, between regions over time (for a country-specific risk estimation

⁷ The figure only shows regional conflict patterns starting in 1965, since the analysis only includes sovereign countries. After 1965, more than half of the countries in Sub-Sahara Africa had become sovereign states.

⁸ The 'system shock' represented by the end of the Cold War caused the number of conflict onsets to increase strongly. Such shocks are obviously poorly explained by demographic factors, although demographic and other structural variables may contribute to explain the geographic distribution of new conflicts.

⁹ This procedure simplifies the projection of future risks and enables comparison of the risk factors of concern to this analysis. It does, however, mean that conflict risks are overestimated for regions and periods with many stable democracies and limited recent conflict history.

of conflict onset in 2005, see Appendix A). Keeping this in mind, it is still instructive to see how demographically driven risks vary over time between the different regions. Europe is the continent with the lowest demographically induced risk. In 2005, the average risk of conflict onset was 1.3 %, down from 2.3% in 1950. In 2005, the highest risk level was in SSA, at 4.7%, almost four times that of Europe. SSA has been above 4% since 1950, with the current level being the maximum. The second highest average risk of conflict onset in 2005 was found in Asia, at 3.7 %, a much lower level than in 1975 (5.8 %). Asia, thus, has experienced a large reduction (-42%) in the demographically induced risk. An even larger reduction has (-52%) has taken place in the in America. In 1975, the average risk level of countries in America was at the same level as Asian countries experience today, while the current average risk level in America is close the European level (1.7%). In 1950, the average risk level in Mena was 4.7 %, declining to 2.4% in 2005. This is still twice as high as Europe, and since the mid-1990s, Mena has also experienced an increase in risk level.

Looking ahead, it can be noted that the three world regions with the highest current risks – SSA, Asia, and Mena – can expect relatively rapid declines in the demographically determined risk levels after 2010. The most rapid decline will, according to the model, take place in SSA where the risk level can be reduced by 40%, provided that the UN projections come true. The model also predicts a dramatic reduction in Mena, where risk levels can become almost as low as in Europe.

5. Conclusion

The purpose of this article was to address how youth bulges affect the risk of armed conflict onset under different phases of the demographic transition. Our expectation was that youth bulges would be most important as a driver of conflict in countries in the early phases of the demographic transition, with high growth in the under-15 cohorts that lead to high fiscal burdens on governments and divert funding from investment, leading to low opportunities for young people.

The results that we obtain from the empirical model are in agreement with our expectation that early-transition countries are more prone to youth bulge-generated conflict, while countries with lower under-15 growth rates may achieve demographic dividends from large youth cohorts, rather than conflict. Our study does not, however, answer how certain countries positioned for demographic dividends, succeed in reducing conflict risk. In order to answer that, it would be necessary to conduct a more detailed study of transition countries.

Our findings generally support the notion of a more mature and peaceful world as fertility is declining and youth bulges propagate through the age pyramids in all world regions. An important caveat, however, is that conflict risk will also be determined by other, and potentially more important, risk factors that we are unable to fully account for. Although we find that there is good reason to assume a generally positive trend over time, and hence disagree with Richards & Howe (2008), we consent with their criticism that this trend need not be linear. Nor can we rule out that failures to achieve dividends, stalled fertility transitions, ‘echo-booms’, or differential fertility between ethnic groups may lead to persistent, or even increased, risks of armed conflict in certain countries or regions. However, the global demographic trends towards lower fertility and more balanced population age structures suggest that more countries are likely to achieve a ‘peace dividend’, and that states thus, on average, will become increasingly peaceful over the coming decades.

References:

- Bloom, David E. & David Canning, 2008. 'Global Demographic Change: Dimensions and Economic Significance', *Population and Development Review* 34(1): 17-51.
- Bloom, David E.; David Canning, Günther Fink, and Jocelyn E. Finlay, 2007. 'Does Age Structure Forecast Economic Growth?', *International Journal of Forecasting* 23(4): 569–585.
- Bloom, David E.; David Canning, and Jaypee Sevilla, 2003. *The Demographic Dividend: A New Perspective on the Economic Consequences of Population Change*. Santa Monica, CA: Rand.
- Brett, Rachel & Irma Specht, 2004. *Young Soldiers: Why They Choose to Fight*. Boulder, CO & London: Lynne Rienner.
- Cincotta, Richard P.; Robert Engelman & Daniele Anastasion, 2003. *The Security Demographic: Population and Civil Conflict After the Cold War*. Washington, DC: Population Action International.
- Collier, Paul, 2000. 'Doing Well Out of War: An Economic Perspective', in Mats Berdal & David M. Malone, eds, *Greed & Grievance: Economic Agendas in Civil Wars*. Boulder, CO & London: Lynne Rienner (91–111).
- Collier, Paul; Lani Elliott, Håvard Hegre, Anke Hoeffler, Marta Reynal-Querol & Nicholas Sambanis, 2003. *Breaking the Conflict Trap: Civil War and Development Policy*. Oxford: Oxford University Press.
- Easterlin, Richard A., 1987. 'Easterlin Hypothesis', in John Eatwell, Murray Millgate & Peter Newman, eds, *The New Palgrave: A Dictionary of Economics*, Vol 2. New York: Stockton (1–4).
- Esty, Daniel C.; Jack A. Goldstone, Ted Robert Gurr, Barbara Harff, Marc Levy, Geoffrey D. Dabelko, Pamela Surko & Alan N. Unger, 1998. *State Failure Task Force Report: Phase II Findings*. McLean, VA: Science Applications International, for State Failure Task Force.
- Fuller, Gary, 1995. 'The Demographic Backdrop to Ethnic Conflict: A Geographic Overview', in *The Challenge of Ethnic Conflict to National and International Order in the 1990s, Geographic Perspectives: A Conference Report*. Central Intelligence Agency.
- Gleditsch, Nils Petter; Petter Wallensteen, Mikael Eriksson, Margareta Sollenberg & Håvard Strand, 2002. 'Armed Conflict 1946–2001: A New Dataset', *Journal of Peace Research* 39(5): 615–637.
- Goldstone, Jack A., 1991. *Revolution and Rebellion in the Early Modern World*. Berkely, CA: University of California Press.
- Goldstone, Jack A., 2001. 'Demography, Environment, and Security', in Paul F. Diehl & Nils Petter Gleditsch, eds, *Environmental Conflict*. Boulder, CO: Westview (84–108).

- Harbom, Lotta; Erik Melander, & Peter Wallensteen, 2008. 'Dyadic Dimensions of Armed Conflict, 1946—2007', *Journal of Peace Research* 45(5): 697–710.
- Hegre, Håvard; Tanja Ellingsen, Scott Gates & Nils Petter Gleditsch, 2001. 'Toward a Democratic Civil Peace? Democracy, Political Change, and Civil War, 1816–1992', *American Political Science Review* 95(1): 33–48.
- Hegre, Håvard & Nicholas Sambanis, 2006. 'Sensitivity Analysis of Empirical Results on Civil War Onset', *Journal of Conflict Resolution* 50(4): 508–535.
- Homer-Dixon, Thomas F. 1999. *Environment, Scarcity, and Violence*. Princeton, NJ: Princeton University Press.
- Huntington, Samuel P., 1996. *The Clash of Civilizations and the Remaking of World Order*. New York: Simon & Schuster.
- Jackson, Richard, & Neil Howe, 2008. *The Graying of the Great Powers: Demography and Geopolitics in the 21st Century*. Washington, DC: Center for Strategic and International Studies.
- Lee, Sang-Hyop & Andrew Mason, 2007. 'Who Gains from the Demographic Dividend? Forecasting Income by Age', *International Journal of Forecasting* 23(4): 603–619.
- Lindh, Thomas & Bo Malmberg, 1999. 'Age Structure Effects and Growth in the OECD, 1950–1990', *Journal of Population Economics* 12(3): 431–449.
- Lindh, Thomas & Bo Malmberg, 2007. 'Demographically Based Global Income Forecasts up to the Year 2050', *International Journal of Forecasting* 23(4): 553–567.
- Machunovich, Diane J., 2000. 'Relative Cohort Size: Source of a Unifying Theory of Global Fertility Transition?', *Population and Development Review* 26(2): 235–261.
- Marshall, Monty G. & Keith Jagers, 2000. *Polity IV Project: Political Regime Characteristics and Transitions, 1800–1999*. University of Maryland, MD: CIDCM.
- Oyefusi, Aderoju, 2008. 'Oil and the Probability of Rebel Participation Among Youths in the Niger Delta of Nigeria', *Journal of Peace Research* 45(4): 539–555.
- Pool, Ian, 2007. 'Demographic Dividends: Determinants of Development or Merely Windows of Opportunity?', *Ageing Horizons* 7: 28–35.
- Sachs, Jeffrey D., 2008. *Common Wealth: Economics for a Crowded Planet*. New York, NY: Penguin Press.
- Steinberger, Michael, 2001. 'So, are Civilizations at War?', Interview with Samuel P. Huntington, *The Observer*, Sunday October 21.
- Todd, Emmanuel, & Youssef Courbage, 2007. *Le rendez-vous des civilisations*. Paris: Seuil.

Toft, Monica D., 2007. 'Population Shifts and Civil War: A Test of Power Transition Theory', *International Interactions* 33(3): 243–269.

UN, 2007. *World Population Prospects: The 2006 Revision*. New York: United Nations.

Urdal, Henrik, 2006. 'A Clash of Generations? Youth Bulges and Political Violence', *International Studies Quarterly* 50(3): 607–630.

Weinstein, Jeremy M., 2005. 'Resources and the Information Problem in Rebel Recruitment', *Journal of Conflict Resolution* 49(4): 598–624.

Table 1 *Risk of Armed Conflict, 1950–2007*

Explanatory Variables	Model 1	Model 2 Low growth, Ages 0-14	Model 3 High growth, Ages 0-14
Youth Bulges β z	0.036* (2.26)	-0.003 (-0.008)	0.117*** (2.77)
Control Variables			
Total Population (ln)	0.279*** (5.79)	0.385*** (3.27)	0.259*** (2.84)
Infant Mortality Rate	0.005*** (3.11)	0.013* (2.41)	0.010*** (3.05)
Regime Type	-0.002 (-0.13)	-0.015 (-0.47)	0.009 (0.36)
Regime Type Squared	-0.013*** (-4.91)	-0.007 (-0.86)	-0.009 (-1.86)
Missing Regime Data	-0.821 (-1.51)	-0.552 (0.58)	-0.163 (-0.15)
Brevity of Peace	1.331*** (4.81)	2.406*** (3.29)	0.723 (1.49)
Constant	-7.07*** (-9.31)	-8.13*** (-4.87)	-10.17*** (-5.30)
N	7,033	2,181	1,985
Log Likelihood	-827.15	-140.73	-307.25
Pseudo R ²	0.090	0.135	0.066