economic development and transformation can also trigger competition for scarce or declining resources that may lead to violent conflict (primarily internal).¹⁵

But systematic empirical evidence to support any of these linkages has proved difficult to find. Crosssectional (many country) studies that attempted to prove that military expenditures exerted a generally negative impact on economic growth have been inconclusive. One early (and much criticized) study even seemed to indicate that defence spending exerted a positive effect on economic growth, although a careful analysis of the data seems to indicate this correlation was spurious.¹⁶ Likewise, military expenditures and/or arms imports do not appear to have contributed to the dramatic increases in Third World debt in the 1970s and 1980s, despite the simultaneous increase in both.¹⁷

The internal consequences of military spending and development also proved difficult to pin down, with some studies suggesting that militarization had a positive effect on social development, while others found otherwise.¹⁸ Evidence is equally inconclusive with respect to the inter-state conflict consequences of military spending or arms racing. There appears to be no general and necessary causal relationship between military spending, arms races and conflict or wars.¹⁹ When such relationships do appear to exist

¹⁶ The original study was Emile Benoit, *Defense and Economic Growth in Developing Economies* (Boston: D.C. Heath, 1973). See also Emile Benoit, "Growth and Defense in Developing Countries," *Economic Development and Cultural Change*, 26 (January 1978), 271-290. For two (of many) critiques, see Nicole Ball, "Defense and Development: A Critique of the Benoit Study," *Economic Development and Cultural Change* 31 (April 1983), 507-524; Lim "Another Look," 377-384. See also Peter Frederiksen and Robert Looney, "Defense Expenditure and Economic Growth in Developing Countries," *Journal of Economic Development*, 7 (1982), 113-125; Steve Chan, "The Impact of Defense Spending on Economic Performance: A Survey of Evidence and Problems," *Orbis*, 29 (Summer 1985), 403-434; Saadet Deger and Ron Smith, "Military Expenditures and Growth in Less Developed Countries," *Journal of Conflict Resolution*, 27 (June 1983), 335-353.

¹⁷ Robert Looney, *Third World Military Expenditure and Arms Production* (London; Macmillan, 1988), 49; Louis Pilandon, "Influence des relations économique Nord-Sud sur les dépenses militaires des pays en voie de développement," *Revue Études Internationales*, 16 (1985), 75-86. Looney concludes, however, that resource constrained LDCs did in part use external public debt to increase military spending. See, for a more nuanced discussion and conclusion, Michael Brzoska, "Military Trade, Aid and Developing Country Debt," in Lamb with Kallab, *Military Expenditures and Economic Development*, 79-111.

¹⁸ On the "positive effect" side see N.E. Babin, "Military Expenditures and Education: Allies or Adversaries in Third World Development?" *Journal of Political and Military Sociology*, 18 (1990), 267-283; on the other side, Francis Adeola, "Military Expenditures, Heath, and Education: Bedfellows or Antagonists in Third World Development?" *Armed Forces and Society*, 22:3 (Spring 1996), 441-467.

¹⁵ This has been the emphasis of the projects on Environmental Change and Acute Conflict and Environment, Population and Security that have been led by Thomas Homer-Dixon. See, for an overview, Thomas Homer-Dixon, "Environmental Scarcities and Violent Conflict: Evidence from Cases," *International Security* 19 (1994), 5-40.

¹⁹ See David Kinsella, "Conflict in Context: Arms Transfers and Third World Rivalries during the Cold War," American Journal of Political Science, 38:3 (August 1994, 557-581; Ronald Sherwin, "Controlling Instability and Conflict through Arms Transfers: Testing a Policy Assumption," International Interactions, 10 (1983), 65-99; Michael Wallace, "Armaments