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"Power and Plenty": The Relationship between Economic and Military Power

As part of our week-long examination of the changing relationship between economics, politics and war in the international system, we begin today by looking at the relationship between economic and military power.

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Today we begin our week-long examination of the changing relationship between economics, politics and war in the international system. Common wisdom has it that economically prominent countries inevitably become militarily and politically powerful too, much like the British did in the 19th century, the United States did after World War II, and a rising China – at least in some eyes – is doing today, with its [construction of 'blue water' aircraft carriers](#) and stealth-configured fighter aircraft. But despite the allegedly inevitable cross-pollination one might expect from these forms of power, history begs to differ. Japan, for example, did not become a military first-leaguer as a result of the Yoshida Doctrine. And despite its non-existent economy, North Korea's jerry-rigged nuclear weapons program continues to cause consternation internationally. These counter-examples compel us to ask an unavoidable question: what are the factors that mutually promote the growth of economic, political and military power? Moreover, within the changing international system we live in today, what power dynamics can we expect to see in the future, both in terms of their form and function? To set the stage for our consideration of these questions over the following days, let's look primarily at Michael Beckley's findings in "[Economic Development and Military Effectiveness](#)," which first appeared in the *Journal of Strategic Studies*.

Determinants of military power

Beckley asserts there are two prevailing ways we characterize military power. The first and most common one defines this form of power in strictly material terms, which can be measured in several ways. Most typically, a nation's military strength is measured by the size of its military forces and/or defense budget, with the latter being determined either in absolute terms or as a percentage of Gross Domestic Product (GDP). Second, military power can be characterized by the most widely used measure of this type in quantitative studies – the [Composite Indicator of National Capability](#) (CINC). This index aggregates six exclusively material variables together in order to determine a nation's potential military might – its 1) military spending, 2) available manpower, 3) energy consumption, 4) iron and steel production, 5) urban population, and 6) total population. Finally, materialist conceptions

are also dominant in policy and operational analyses, where, Beckley tells us, “the most common rule of thumb is that a successful attack requires at least a 3:1 local superiority of troops [as influentially argued by Napoleon] or a 1.5:1 theater-wide advantage.” While all three of these materialist approaches, Beckley concedes, have a great deal of theoretical and empirical support, they ultimately are “no better than coin flips at predicting real military outcomes.”

The alternative, of course, is to stress social and political factors. In recent years a number of studies have traced what they see as a working relationship between democratic institutions, culture, human capital and amicable civil-military relations with military power and effectiveness. In this vein, Dan Reiter and Allan Stam have argued that [democratic institutions confer a military advantage](#) because democracies produce better leaders and inspire greater commitment and initiative from individual soldiers. Kenneth Pollack, in turn, has argued that [“Arab cultural pathologies” explain](#) the intelligence failures and tactical incompetence frequently demonstrated by Arab militaries, as well as their “systematic displays of individual bravery.” Finally, Stephen Biddle and Stephen Long have suggested that [human capital plays a critical role on the battlefield](#) because better educated soldiers are more receptive to training, more capable of executing tactical maneuvers, and better able to operate and maintain sophisticated machinery.

The above attempts to provide social and political explanations for actual military strength gamely try to plug some of the explanatory gaps in the conventional materialist account. For Beckley, however, both approaches are inadequate. Military power is neither significantly influenced by social and political factors nor primarily dependent on an array of material resources. In the latter case, “Simplistic bean counts of weapons and troops” are inadequate measures of military power because they say nothing about the intangibles responsible for military effectiveness. At the same time, politically stable, Western democracies with high levels of human capital tend to be economically prosperous. This makes it distinctly possible that the correlations that have been found between military effectiveness and political and social variables actually reflect a more general connection between military effectiveness and economic development. From a statistical standpoint, the empirically-minded Beckley therefore concludes, the best predictor of military effectiveness is a country’s level of economic development measured in terms of per capita income.

Indeed, in the hundreds of battles and numerous wars between 1898 and 1987 that make up Beckley’s data set, “states with higher level of economic development consistently outfought less developed opponents” soldier for soldier. (See [Section 3 of Beckley’s paper](#) for a full breakdown of these findings.) It’s as if when economic development is taken into account almost nothing else seems to matter. Military effectiveness is not about institutions, culture, human capital, or civil-military relations; it’s about wealth. This means that a conception of military power that accounts for both the quantity of a state’s resources and its level of economic development helps provide a sound basis for developing effective defense capabilities, as [SIPRI’s latest top 100 arms-producing countries report](#) suggests.

But why is this indeed the case? Beckley speculates that efficiency may provide one answer. “The essence of economic development is efficiency of production.” Though there is a tendency to view civilian and military realms separately, countries that excel in producing civilian goods and services also tend to excel at producing military force. Developed economies possess the financial capacity to fund technological innovation, and sustained innovation means better equipment for both civilian and military purposes. Moreover, greater economic efficiency means that a state can support an effective military with a smaller fraction of its national income than a state with a less efficient economy. This capacity, in turn, “lowers the unit costs of weapons and supplies, thereby providing soldiers more opportunities to train with them, and more opportunities for administrators to test them” – both at cheaper costs. These cumulative advantages, Beckley concludes, translates into an empirically-based

formula: high levels of economic efficiency (i.e., of per capita income and economic development) mean better equipment, better soldiers, and better military outcomes.

As we continue to investigate the complex relationship between economics, politics and war this week, we ask that you keep Beckley's analysis in mind. It implies, for example, that North Korea's extreme poverty makes it a much smaller threat than is often imagined and that Japan's military weakness, when looked at closely, is not as 'real' as it seems. Perhaps most pertinently, it suggests that China, for all its immense aggregate capabilities, still has a long way to go to become a world-leading military power. According to the IMF, its GDP per capita was less than \$9,000 in 2011 - good enough for a rating of 90th in the world, and therefore not good enough (at least not yet) to pose a true military threat beyond its immediate neighborhood.

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