The relation between economic growth and military resource allocations is complex. On the one hand, more rapid growth and a larger gross domestic product (GDP) increases resources available for military spending. On the other hand, larger allocations for military purposes may slow economic growth, to the extent that such allocations reduce non-military capital formation. Moreover, the scale of military resource allocations usually depends on the existence of security threats or uncertainties, and this influence on military spending may be unrelated to economic growth.

Over the past decade, and prior to the financial turmoil in Asia since the middle of 1997, RAND has engaged in several studies of long-term economic and military trends, focusing on four salient indicators of these trends: namely, GDP; per capita GDP; military spending; and military capital (the latter defined as procurement of new weapons systems, either from domestic production or through imports of military equipment, minus the depreciation of the previously accumulated military capital stock). The forecasting model used in this work explicitly linked growth of GDP to military spending, and military spending to military capital through the proportion of military spending devoted to procurement of military equipment, as distinct from current operations and maintenance costs.

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The results of these calculations are summarized in Figure 19.1. Several important cautionary observations should be made about these estimates. As noted on the vertical axis, the dollar estimates of military capital are expressed in purchasing power parity (ppp) dollars rather than nominal FX rates. It may be less appropriate to use ppp exchange rates rather than nominal FX rates in making comparisons of military capital across countries, than, for example, in making inter-country comparisons of GDP, or per capita GDP. To the extent that acquisitions of military capital are procured at world market prices, clearly the FX rates would represent the appropriate conversion metric, rather than the ppp rate. On the other hand, a counter argument can also be made: for example, to the extent that China acquires new military equipment from its own defense indus-

Figure 19.1—Military Capital Estimates, 1997–2015
tries at RMB-based prices, or through quasi-barter transactions with Russia, the ppp rate would still retain validity.

Moreover, military capital itself—even if the estimates shown in the bar chart are accurate—is a highly imperfect and incomplete indicator of military capabilities, let alone of intentions relating to their use. Even if our estimates were accurate, military capital is only one of the many inputs affecting military capabilities, and the effect of capital on military capabilities depends heavily on these other inputs. They include, for example, training and morale; command, communications, control, and intelligence; military leadership and doctrine; and maintenance and logistics support. These other ingredients are not readily inferred from the estimates of military capital accumulations, and they are also ones in which the effectiveness and competitive position of China and most of the other Asian countries are relatively weak. The pace at which these other ingredients will be upgraded in the coming years, and hence will be able to complement military capital accumulations in the development of effective military power, is a key issue which is not addressed in our calculations.

Notwithstanding the limitations that I’ve noted, some interesting inferences can be drawn from the data shown in the chart:

- Between 1997 and 2015, the military capital stocks of China and Japan will approximately double, while India’s military capital will nearly quadruple over the same period.

- While the U.S. military capital stock still predominates in the global balance, its relevant weight decreases for two reasons: first, the U.S. military capital estimate for 2015 is actually about 25 percent less than the current level, because annual depreciation of its large existing military capital stocks exceeds new military procurement in the intervening years; and second, the build-up of military capital by the other countries shown in the chart increases their absolute and hence their relative stocks of military capital. (Of course, the estimates that we’ve made are based on an estimating methodology that begs the crucial question of technology and quality embodied in the dollar figures. Whether the so-called “revolution in military affairs” will enable the United States to maintain or even enhance its qualitative advantage over other countries, notwithstanding a smaller relative
dollar value, is an important matter that is not adequately reflected in the estimating methodology we used.)

As previously noted, the estimates shown in the chart preceded the massive financial turmoil that has occurred throughout the Asia-Pacific region since the middle of 1997. These financial shocks will strongly, as well as differentially, affect military spending, procurement, research and development, defense production and imports in Japan, China, Korea, Taiwan, Indonesia, Southeast Asia, and India. In turn, these differences will affect military procurement and modernization, military capabilities, and the balance of military forces within the region. There also may be significant effects on the willingness and ability of Japan and Korea to continue to pay the large share of current stationing costs of U.S. forces based in Japan. Currently, over 75 percent of these costs are borne by Japan, and 64 percent of the costs of U.S. forces based in Korea are borne by Korea, compared to much smaller proportions of the stationing costs paid by U.S. allies in NATO. Whether a change in this burden-sharing with Japan and Korea may occur and, if it does, whether it might in turn affect the size of U.S. forward-based forces in these countries are key issues that could have a major impact on the balance of military forces in the region, on stability in the Korean peninsula, and on the circumstances surrounding other possible contingencies in the region.

In reflecting on the relation between the financial turmoil in Asia and the military outlook in the region, one striking fact is worth noting. Among the set of Asian economies, the two countries that have weathered the shocks with relative success are China and Taiwan. China’s restricted Shanghai and Shenzhen stock markets have actually risen in market value calculated in China’s own currency, and Taiwan’s market capitalizations have actually risen. The Chinese currency, which is convertible only on current account and not on capital account, has been stable, and Taiwan’s dollar has depreciated only about 15 percent (compared with 30 percent depreciation of the Japanese yen, and 70–80 percent depreciation of the Southeast Asian currencies). China’s relative stability in the face of the Asian shocks has been preserved by allowing only limited convertibility of the RMB, restricting foreign access to its securities markets, maintaining a large current account surplus, and enormously increasing its reserves (from about $88 billion to about $140 billion on a year-over-
year basis). Taiwan, on the other hand, has managed to reconcile a relatively open economy with economic stability in the face of the regional financial shocks by a set of very different measures: a prudent and restrained monetary policy (M-2 increased only 10 percent on a year-over-year basis versus 127 percent in China), near-zero inflation, flexible foreign exchange rates, and a high ratio of foreign direct investment to foreign portfolio investment.

Although China and Taiwan have thus followed very different policies and used very different instruments in maintaining their stability in the face of enormous volatility among their neighbors, the result is that both of them are in a better position to sustain, modernize, and enhance their military capabilities and their military capital stocks than are their neighbors. Whether this fact will exert a stabilizing or destabilizing influence is a key issue for assessing the region’s future security environment.

Postaudit

Reliable estimates of military capital are harder to make, but no less important than, estimates of downstream military spending as indicators of the military capabilities of different countries. These military capital forecasts still seem reasonable, although post 9/11 they underestimate the relative U.S. standing.