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SPENDING ON national defense has risen substantially during the past several years. Including supplemental appropriations, the budget for national defense this year will exceed \$487 billion. In inflation-adjusted terms, it will surpass its Cold War peak, reached in 1985 (all budget figures refer to fiscal years).

With its high concentration of defense contractors, the New England economy benefited significantly from the buildup during the Carter and Reagan administrations. Is the region likely to see a repeat? We don't think so. To be sure, large defense firms in New England are receiving some impressive, multimillion-dollar

contracts. And the overall dollar amount of contracts awarded to defense contractors headquartered in New England is increasing every year. Nevertheless, there are a number of reasons the total impact of defense spending on the region's economy and jobs will probably fall considerably short of what it was in the 1980s.

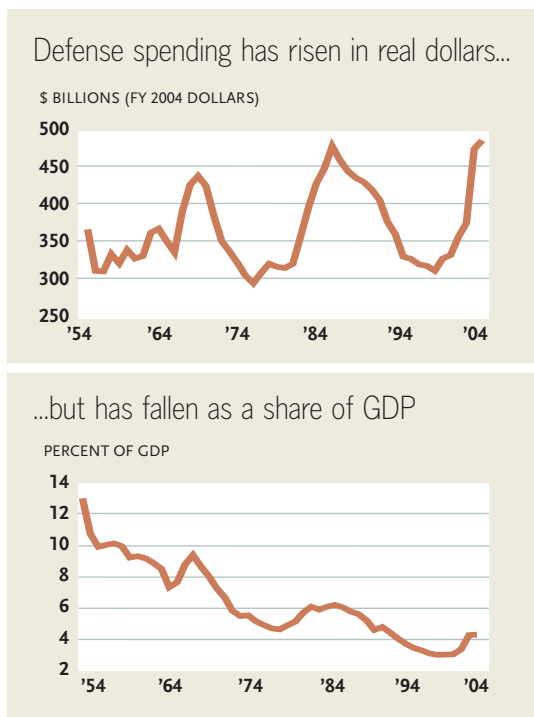
Although national defense spending is high in absolute terms, its share of the total U. S. economy remains far below the Cold War peak. In the mid-1980s, national defense spending rose to 6.2 percent of GDP. This year, we estimate it will be a little over 4 percent.

New England still gets more than its "fair share" of defense prime contract dollars—in 2002 it received 8.2 percent, even though it accounted for only 5 percent of the national population and 6 percent of national production. But the region's share of total contracts has fallen well below its 12 percent average in the 1980s. Connecticut and Massachusetts ranked ninth and tenth in defense contracts in 2002. They were fourth and fifth in 1980. Had New England defense firms continued to grow in line with the national trend, they would be taking in nearly \$17 billion a year, as opposed to the \$11 billion they have averaged since 2000.

New England contractors' sharp loss of share since the 1980s stems from two broad causes: product mix and geographic change. The national composition of defense spending is shifting away from hard goods like missiles, ships, and tanks to other supplies and services like fuel, construction, data processing, and administration and management support. This is significant because New England's defense contractors have tended to specialize in hard goods. Comparing New England defense

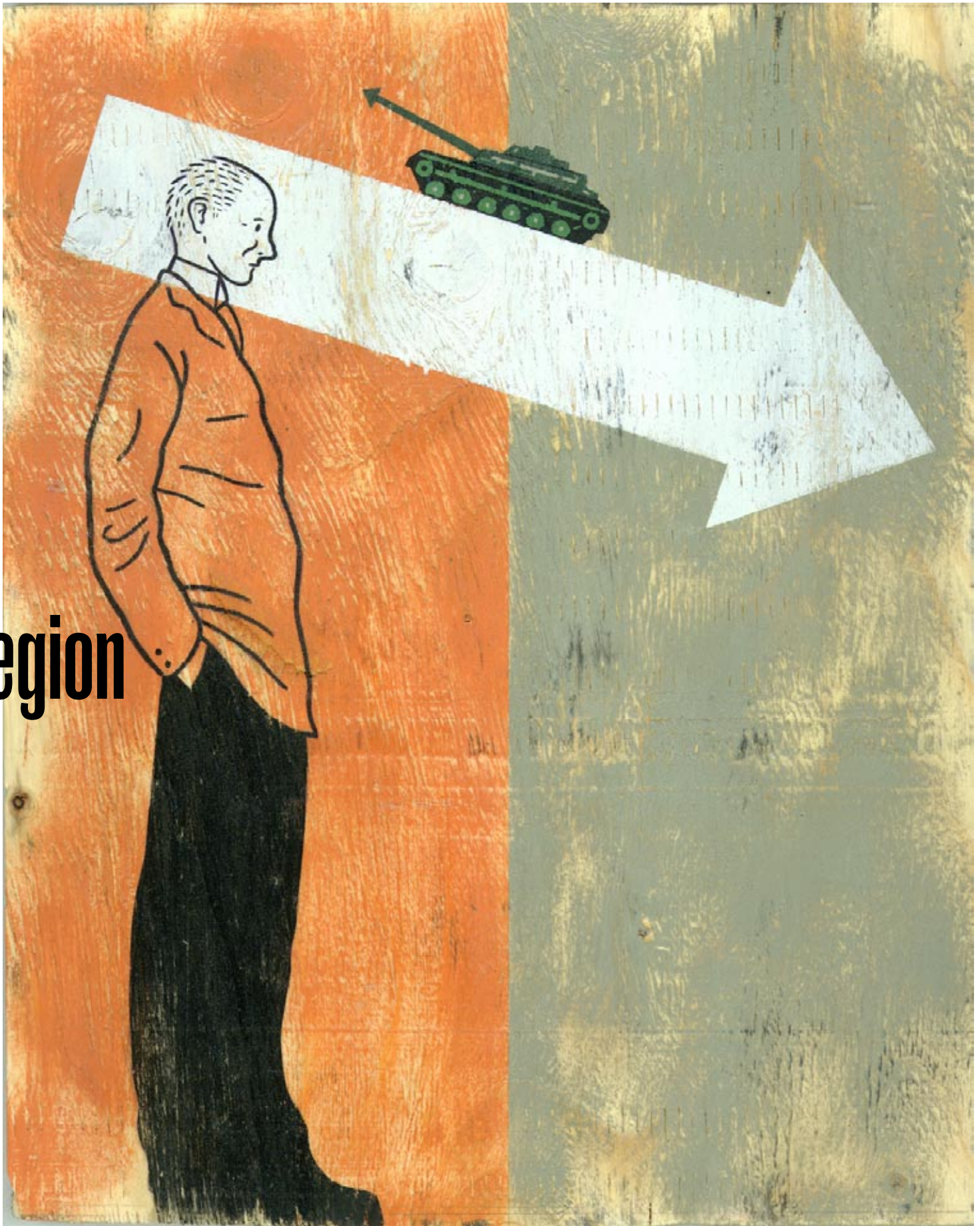
focus on the

Defense windfall for New England?



NOTES: Defense spending in real dollars is fiscal year budget authority (allocated money), including supplemental appropriations. Defense spending as a share of GDP is actual fiscal year outlays (money spent); 2003 and 2004 figures are authors' estimates. GDP value for fiscal year 2004 is based on CBO estimates; all other values are actual fiscal year GDP. SOURCES: OMB, CBO, and DoD data reported by the Center for Strategic and Budgetary Assessments; GDP data reported by Haver Analytics

region



prime contracts in 2000–02 with 1988–90, this shift in the product mix has caused the region a \$3.3 billion loss in hard goods contracts while yielding only a \$1.6 billion increase in services contracts. Within hard goods, the changes in product mix since the Cold War have favored only New England’s aircraft sector.

Then there is the shifting geography of defense spending. Within most product categories, contracts are increasingly being awarded to firms in other parts of the country. This has cost the region \$4.1 billion in defense contracts relative to what it received in the late 1980s, with the largest losses in aircraft, missiles, ships, and the “other supplies and services” category. The shift away from New England might have resulted from a number of different factors—changes in military technology, costs of production, mergers among defense firms, or the loss of political clout useful in obtaining military contracts—although our calculations cannot determine the role that each factor might have played. Overall, about 30 percent of New England defense contractors’ loss of prime contracts since the late 1980s is due to the changing product mix of national defense spending, and the remaining 70 percent to the changing geography of purchases.

In the end, New Englanders probably care more about the effect on local employment and incomes than on prime contract dollars—which, after all, partially end up flowing to subcontractors and vendors located elsewhere. It is difficult to calculate this impact. But it is clear that the region’s defense contractors are subject to the same forces as other local manufacturing and services employers. Defense firms are reducing costs through restructuring their operations, adopting labor-saving technologies, and shifting jobs to lower-cost locations, including foreign countries.

PRIME CONTRACT awards (measured in dollars) are the most commonly used data for analyzing how defense purchases from business firms and research establishments affect state and regional economies. But they also have well-known limitations. Prime contracts convey the location of only the final stages of production; they do not include the value of work performed by subcontractors and other vendors. For example, an aircraft assembly plant in the Midwest may use prototypes developed in California and instruments produced in New England, but the prime contract dollars will all be attributed to the Midwest. In addition, prime contracts can sometimes be allotted to a company’s primary facility rather than to its actual production sites. In New England, for example, General Dynamics Electric Boat contracts are allocated exclusively to Connecticut, even though the company also operates a large submarine fabrication facility in Rhode Island.

The Pentagon has sponsored an alternative modeling approach to measuring and forecasting the geographic allocation of military spending. This model traces defense purchases from various industries—including the industries that supply inputs—and then figures the share of national production of these industries located in each state. Using this approach, we calculate that New England’s overall share of defense industry purchases drops a little, and individual state rankings for 2002 differ: Massachusetts moves up from tenth to ninth place; Connecticut drops from ninth place to twentieth.

Looking ahead for the next year or so, defense spending will likely continue to increase—but mostly because of postwar operations in the Middle East and the continuing overseas war on terrorism rather than because of any increases in military procurement that might bring additional jobs to the region. And while federal government spending on homeland security offers another source of stimulus, the total homeland security budget is less than one-tenth the size of the defense budget and is not slated to grow as rapidly in percentage terms. Thus, additional increases in defense and related spending are likely to have only a muted impact on the New England economy for the foreseeable future.*

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US DoD Prime Cuts

Although national defense spending is on the rise, changes in product mix and geographic location have left New England with a leaner stake.

(\$ billions)	Annual average 2000–2002	CHANGE FROM 1988–1990 AVERAGE DUE TO:			
		All factors	Trend in national defense spending	Changing mix of defense spending	Geographic shift
Total New England Defense Prime Contracts	11.0	-3.8	2.0	-1.7	-4.1
Major Hard Goods	7.9	-4.5	1.7	-3.3	-2.9
Aircraft	3.2	-0.3	0.5	0.4	-1.2
Missile and space systems	0.5	-2.3	0.4	-1.8	-1.0
Ships	2.1	-0.3	0.3	-0.5	-0.1
Tank-automotive	0.0	-0.5	0.1	-0.2	-0.4
Weapons	0.1	-0.2	0.0	0.0	-0.3
Ammunition	0.3	0.3	0.0	-0.1	0.3
Electronics and communications equipment	1.6	-1.2	0.4	-1.2	-0.4
Other Supplies and Services*	3.1	0.7	0.3	1.6	-1.2

*Includes items such as fuel, construction and building supplies, data processing, and other services.

NOTES: (1) Factors may not sum exactly due to rounding. (2) All figures in current dollars; an analysis with constant dollar values produced qualitatively similar results.

SOURCE: U.S. Department of Defense, Prime Contract Awards by Region and State