Although the United States spends 10 times more on defense than does France, the two nations' defense industries share some basic similarities that make recent French experience in defense-industrial restructuring relevant for U.S. policymakers. In considering the lessons that might be learned from France, however, Americans should keep in mind the differences between the two nations. First, whereas the U.S. defense industry is mainly in private hands and the U.S. Government emphasizes market mechanisms, nearly four-fifths of the French defense industry is controlled by the state and broadly managed by the government. Second, the French Parliament has much less power over defense decisions than does the U.S. Congress.

France has sought to remain a leading military power by acquiring a small-scale version of a superpower arsenal with three distinct elements: an independent nuclear deterrent, conventional forces for air and land combat, and a Rapid Action Force and blue-water Navy for intervening in overseas crises of limited scope and duration. In building up its forces, France has pursued three partially competing objectives:

- giving first priority to developing and maintaining its strategic nuclear capability;
- maintaining an autonomous defense-industrial base capable of furnishing the full range of materiel required by the French armed forces; and
- procuring military systems at affordable cost.

The goal of national autonomy in defense procurement has resulted in the acquisition of nearly all French weapons from domestic sources or joint ventures involving French companies, even when superior or less expensive alternatives were available from abroad. Because of the small size of the French domestic arms market, concentration at the prime-contractor level has led to a group of sole-source "national champion" firms that are national repositories of design and manufacturing know-how for entire sectors of defense equipment. The French defense industry also relies heavily on export sales to amortize overhead costs and permit the economic production of weapons for France's own use.

Since 1989, however, France's traditional approach to arms procurement has been shaken by cuts

in defense spending and three geopolitical changes that have transformed the international security environment: the dissolution of the Warsaw Pact and the disappearance of the Soviet military threat; the unification of Germany; and the emergence of out-of-area threats to Western security, such as Saddam Hussein's Iraq. This convergence of economic, political, and military factors is forcing a major restructuring of French military forces and the defense industrial base that supports them.

Weapon acquisition programs and arms exports are the responsibility of the General Delegation for Armaments (DGA), a centralized procurement agency within the Ministry of Defense. In addition to supplying the armed forces and safeguarding the autonomy of the national defense industry, the DGA adapts the industry to France's overall industrial needs and negotiates collaborative weapon development and production programs with other countries. DGA officials believe that in the state-dominated defense field, administrative controls on quality and cost are superior to relying on market mechanisms such as competition. But a drawback of the French procurement system is that decisions tend to be made in a secretive, top-down manner, with limited accountability to Parliament or the public.

Currently, the French defense industry is restructuring in response to budget cuts, shrinking export sales, and rapid technological advances, many of them driven by commercial applications. In an effort to manage the transition and mitigate its adverse effects on employment and regional economies, the DGA is pursuing an active defense-industrial policy focused around two axes. The first policy axis seeks to preserve and promote the technological competencies of the defense industry. To this end, the DGA is converting national arsenals into state-owned companies, encouraging defense contractors to diversify into the civil sector, investing in defense R&D at the expense of current production, urging firms to concentrate on areas of excellence to improve their competitive advantage, and promoting greater reliance on dual-use technologies. The second policy axis aims to enable French defense firms to play a leading role in the restructuring of defense production on the European scale. This goal is being pursued through collaborative research and development programs, strategic alliances, acquisitions of foreign fins, and cross-border mergers.

Because France has been forced to confront the problems of industrial overcapacity and budget constraints since the late 1980s, it began to restructure its defense industry sooner than the United States and thus may offer some useful lessons for U.S. policymakers. Positive lessons include the value of a professional acquisition corps-provided there are adequate checks and balances between government and industrial power, and accountability to the legislature and the public. France has also had some success in diversifying its defense industry into commercial markets, promoting the integration of civil and military production (by eschewing regulatory barriers and placing greater reliance on dual-use technologies), and pursuing strategic alliances and other forms of international collaboration in defense R&D and procurement.

The French experience offers some cautionary lessons as well. Overreliance on profits from arms

exports to subsidize defense research and development has created pressures to sell arms that have adversely affected French foreign policy. Shrinking export markets in recent years have also reduced the ability of French defense contractors to remain at the technological leading edge. Overall, France has managed defense R&D and procurement to preserve abroad-based defense industry for the future, but at some cost to its current military capabilities-as evidenced by the shortcomings of French weapon systems during the Gulf War. In contrast, the United States has managed defense R&D and procurement to maximize its current military capability, but at some cost to the future health of the defenseindustrial base. As the U.S. defense industry restructures, policymakers will need to find an optimal balance between these two strategies.