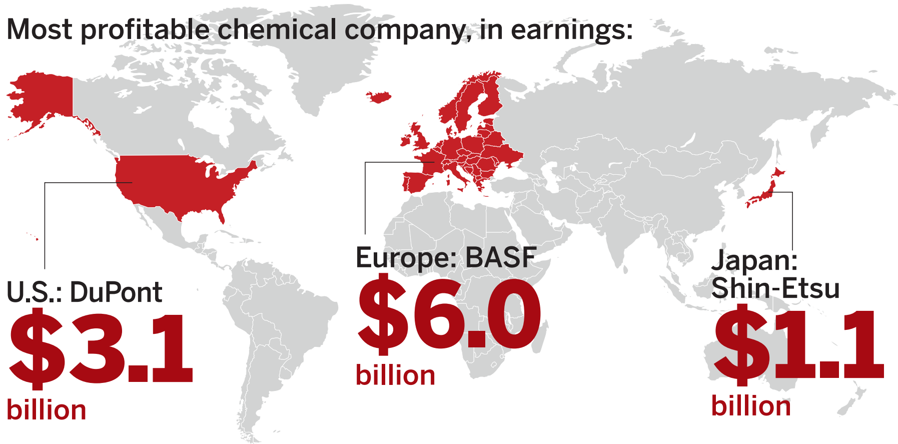
Value of U.S. shipments of agricultural chemicals in 2009:
$35 billion
In 2010:
$51 billion

Annual ethylene production in China, thousands of metric tons in 2000:
4,743
In 2010:
14,188

Most profitable chemical company, in earnings:



R&D spending as percent of sales at 27 U.S. chemical companies:
4 spent more than 5%
1 spent between 4.0 and 4.9%
3 spent between 3.0 and 3.9%
8 spent between 2.0 and 2.9%
8 spent between 1.0 and 1.9%
3 spent 0.9% or less

FACTS & FIGURES OF THE CHEMICAL INDUSTRY

A leaner chemical industry made the most of a **SHALLOW RECOVERY**

THE GLOBAL CHEMICAL industry had a very good year in 2010. The tables in the following pages of this issue are chock-full of large, positive numbers. For executives, the phrase “global economic recovery” replaced the much more frightening words “inventory destocking” that were common in 2008 and 2009.

Those leaders began 2010 knowing that the recession was truly over, but that fact brought them little comfort. They had no way to predict the shape of the recovery, or what would happen to underlying demand for chemicals. Late 2009 saw customers finally starting to put in orders again—mainly because their shelves were empty—but that trend did not offer useful evidence.

So rather than compare their company performance with that of 2009, most firms were tracking sales on a quarter-to-quarter basis during 2010. Selling more electronic and performance materials was a positive sign, but it took the full year before demand picked up for other chemical products.

While they watched the quarterly reports, chemical executives continued to control costs; however, most of the large cost-cutting programs wound down in early 2010. In conference calls with analysts, chief executive officers said that productivity improvements would allow them to increase output without hiring workers or building new plants. Indeed, capital spending and hiring were stagnant at most firms. Many firms did renew funding for research and development, however.

By the end of 2010, chemical production had increased at rates ranging from 3.5% for the U.S. to 11.1% for Taiwan. Still, it was not enough to make up for the significant drop in manufacturing that occurred in 2008–09. For the U.S., Canada, Western Europe, and Japan, meeting or surpassing the boom levels of 2007 will take many years. Meanwhile, chemical firms in South Korea and Taiwan are increasing production—and exports—at comparatively faster rates.

But global trade offered hope for companies in mature economies. The U.S., Europe, and Japan significantly increased chemical exports to developing nations such as China and Brazil in 2010. If U.S. chemical makers had to rely on domestic demand they would have been in a difficult spot. China’s gross domestic product increased by more than 10% in 2010; in contrast, GDP growth in the U.S. was an anemic 2.9%.

C&EN staff members who collected industry data from the major chemical-producing countries and regions are Assistant Managing Editor Michael McCoy, Senior Correspondent Marc S. Reisch, Senior Editor Alexander H. Tullo (all three in C&EN’s Northeast News Bureau), and Senior Correspondent Jean-François Tremblay (Hong Kong). Senior Editor Melody M. Bomgardner (C&EN’s Northeast News Bureau) collected data and coordinated the work. ■

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