

Recent Movements in the Baltic Dry Index

The Baltic Dry Index (BDI) is an index published daily by the Baltic Exchange in London, the leading global marketplace for brokering shipping contracts. Exchange members include companies from the international bulk-shipping industry, shipbrokers, freight derivative brokers, trading houses, shipowners, and other cargo interests.¹ Every day, the Baltic Exchange asks brokers around the world the cost of booking cargo of various sizes to move raw materials across various ocean routes. The exchange uses this information to compute the BDI—an indicator of maritime transportation costs for major raw materials.

The BDI has generated interest as a leading indicator of economic activity because manufacturers increase their demand for raw materials to meet expected increases in the demand for finished products.² Likewise, a slowdown in economic activity reduces the demand for raw materials when manufacturers detect increases in unsold inventory. The BDI can be viewed as the equilibrium price of shipping raw materials, determined by the supply of cargo ships and the demand for transporting raw materials by ship. First, the supply of cargo ships is inelastic relative to demand because cargo ships are costly and time-consuming to build. In contrast, companies can simply stop booking cargo ships when demand drops. Second, the index is sensitive to changes in the price of crude oil. Fuel and port-related charges are significantly large components of the total cost of maritime shipping.³ Although port-related expenses such as dockage charges are relatively stable, oil prices are notoriously volatile. As a result, the BDI is sensitive to changes in the demand for raw materials and oil price changes.

Movements in the BDI can be traced to changes in global demand for manufactured goods. In addition, this demand affects the price of crude oil, which in turn affects the cost of maritime shipping. Between January 2006 and October 2007, the BDI increased more than 400 percent, from 2,081 to 10,656 points (see chart). This steady rise was largely due to the significant growth in the global economy for manufactured products. The growth rate of total industrial production (excluding construction) for member countries of the Organisation for Economic Co-operation and Development (OECD) and six major non-members (Brazil, China, India, Indonesia, Russia, and South Africa) was more than 6 percent per annum from March 2006 to October 2007. Movements in this data series closely mirror the (lower) growth rate of industrial production of manufactured goods in the United States. Such high growth rates of industrial production around the world are likely to have also contributed

to a surge in crude oil prices, which increased from \$67 per barrel to \$95 per barrel during the same period, thereby exacerbating the rise in the BDI.

However, the index declined sharply to 6,052 points by late January 2008, only to rise again, this time reaching an all-time high of 11,440 points in June 2008. The growth in industrial production had slowed only marginally over this period. The increase in the BDI could be attributed to the surge in crude oil prices, which had increased by more than 52 percent in the first five months of 2008 to \$140 per barrel at the end of June. However, a sharp slowdown in the growth rate of industrial production worldwide, and the consequent decline in oil prices, contributed to a precipitous decline in the BDI. As of November 31, 2008, the index was at 715 points, its lowest level since January 1987.

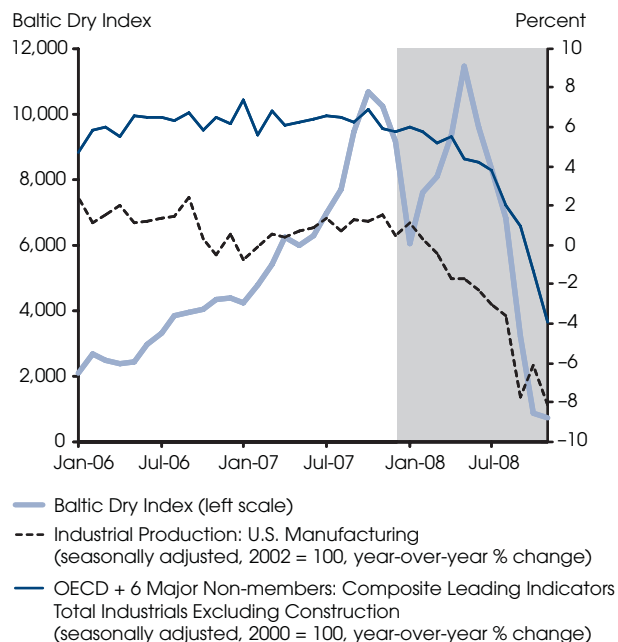
—Rajdeep Sengupta and Yu Man Tam

¹ From the Baltic Exchange; www.balticexchange.com.

² Gross, Daniel. "The Best Economic Indicator You've Never Heard Of." *Slate*, October 24, 2003; www.slate.com/id/2090303/.

³ Rodrigue, Jean-Paul; Corntois, Claude and Slack, Brian. *The Geography of Transport Systems*. New York: Routledge, 2006.

BDI and Global Demand for Manufactured Goods



Views expressed do not necessarily reflect official positions of the Federal Reserve System.