Supply Chain News: A Deeper Look at 2008 Inventory Numbers

Over Past Two Years, Life Science Areas Show Major Improvements; Progress in Consumer Goods to Retail Mostly Stalled

SCDigest Editorial Staff

Last week, SCDigest Editor Dan Gilmore gave an overview of the annual Working Capital report from CFO magazine and REL, specifically focusing on the Days Inventory Outstanding (DIO) component of the overall Working Capital numbers. (See **Analysis of the Inventory Numbers for 2008**.)

Today, we take a deeper look at some of the numbers. The detailed tables, including individual company data, are available at the CFO web site: **2008 CFO/REL Working Capital Report**.

One of the three components of working capital performance is inventory efficiency (the other two are concerned with how fast you get paid by customers – Days Sales Outstanding - and how fast you pay your vendors – Days Payable Outstanding). If you are really good at all three, you have reduced your working capital requirements, which frees up more cash for the business – sometimes a lot more.

The measure CFO uses for inventory performance is Days Inventory Outstanding (DIO) – it measures how many days of sales (i.e., the average day) a company holds in inventory. It is, in a sense, the mirror opposite of the familiar "inventory turns" metric. High DIO is bad, in general, while high turns are good, and vice-versa.

In the CFO/REL analysis, DIO is based on year-end inventory numbers and, as such, is subject to some manipulation. Still, it is a reasonable approach to use for analysis, especially over time. The specific formula is: Inventory/(total revenue/365), or year-end inventory divided by one day of average revenue, to put it into words.

It stands out to us that companies in the medical/pharmaceutical/personal care industries seem to have put a great emphasis on inventory management, as several sectors in that area are near the top of the improvement list.

Some argue that DIO should be calculated by using ***cost of goods*** sold rather than revenue to calculate DIO, but CFO/REL does it this way in part for consistency across its three measures related to working capital, which are also based on an average day's revenue.

In addition, note that the sector numbers are based on the ***median DIO*** for the companies in that sector, as oppose to the average. There are both pluses and minuses to using the median number.

On page 2, we have charted the DIO, using the CFO formula, for select industries, focusing only on those that have a physical product supply chain, as opposed to banking and other non-physical product service sectors.

Changes Across Sectors

We also thought it would be interesting to look at changes in DIO over the past three years, as

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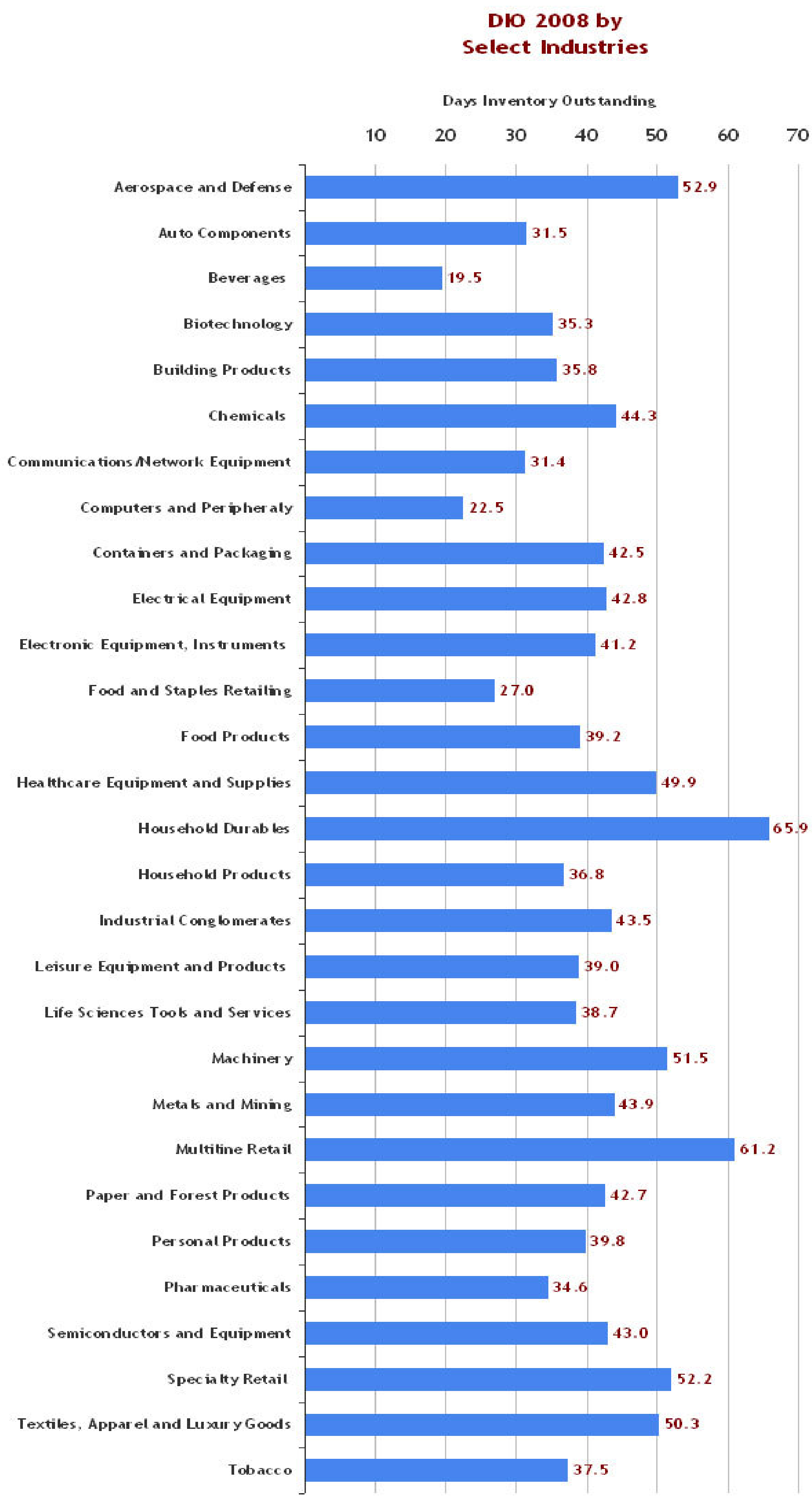

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charted on page 4. The change was calculated by subtracting the 2008 number from the 2006 number. Therefore, positive numbers are good (lower DIO), and negative numbers indicate declining performance.

The tobacco industry number is an outlier, as in a sector with a relatively few number of companies, a major improvement by one company, Altria, really moved the median number lower between 2006 and 2008.

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The Biotech sector (e.g., Amgen, Gilead) was especially impressive, as the approximate decrease in DIO by 11 days represents about a 25% improvement over the two years.

Specialty retail, which includes a wide range of types of retailers that as a group was known as often having perhaps excessive inventory levels, made great strides as well, moving from a DIO of about 59 in 2006 to around 52 in 2008, for an improvement of 12%.

We were surprised in a sense that consumer packaged/household products, food manufacturing, and broad line retail (mass merchants and department stores), were all in slightly negative over that period.

Those are the numbers. You can compare the change in the second chart to the 2008 numbers in the first chart to get a sense of percentage changes as well.

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