

# **MACROECONOMIC AND SECTOR TRENDS IMPACTING ADHESIVES / WHEN A BILLION ISN'T A BILLION**

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***Adhesives & Sealants Industry (ASI) –  
“Strategic Solutions”***

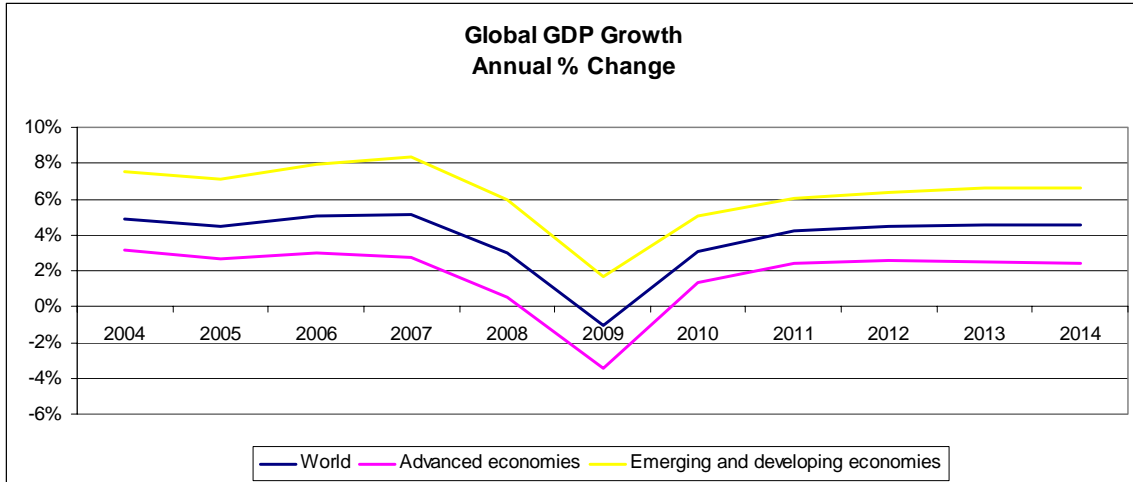
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Adhesives occupy a unique space in the economic value chain. Adhesives are ubiquitous, used extensively in manufacturing and construction applications. Although adhesives and sealants generally make up a very small percentage of the cost of a final product, they are critical to its function. Adhesive failure often translates to product failure and expensive liabilities for a manufacturer. It is this omnipresent quality of adhesives and sealants throughout the production value chain that makes estimating short term fluctuations in demand difficult. They touch so many end uses and all regions of the world.

While ChemQuest is currently updating our global adhesives reports with projected growth trends for the next five year period, we are simultaneously working putting together our annual outlook for the adhesives, sealants and coatings industries. The first step in that process is seeing what macroeconomic changes are affecting regional economies and end use demand.

As of the end of 2009 the global economy had finally emerged from its worst economic recession since WWII. The synchronized economic downturn in 2008 is being followed by positive GDP growth throughout nearly all economies, albeit at vastly different rates. The chart below shows the abrupt downturn in both advanced and emerging economies during 2008 and 2009 and the expectation of continued growth, albeit at slightly lower rates going forward. China and India were able to avoid year over year declines in their GDP in 2009 and along with Brazil, are poised for the strongest growth rates in 2010. The recovery in Europe is the most sluggish, barely emerging with positive growth at the end of 2009.





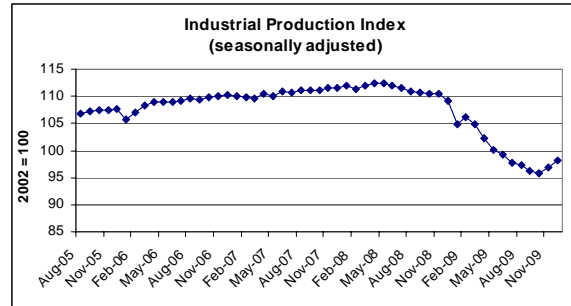
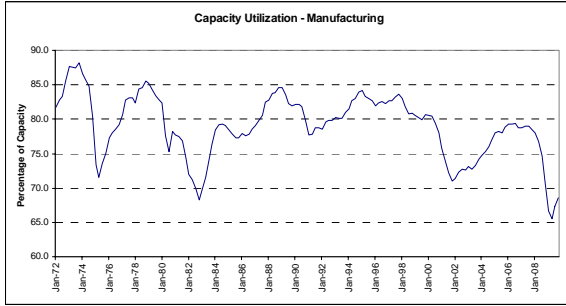
Source: IMF

In between the two is the U.S with GDP growth rates nicely positive heading into 2010. At the time this is being written the Q4 2009 annualized GDP is expected to be 4.5% for the U.S., but there are worries about the sustainability of growth going forward. Much of the rebound in growth is from inventory adjustments as firms that liquidated inventory during the downturn are forced to restock. Another area adding to GDP growth is the large amount of government spending that is expected to begin winding down in the second half of 2010.

Other less positive factors in GDP going forward are the continued struggles in construction, both residential and commercial. In 2009, total construction looks to be down 15% compared to 2008 for the U.S. However, although new home sales appear to have bottomed out in January 2009, they have yet to break out from the bottom. With uncertainty surrounding the labor market and the Federal Reserve expected to end its support for the mortgage bond market it is unlikely construction will substantially rebound in 2010, but it is unlikely to deteriorate further and any surprise is likely to be to the upside.

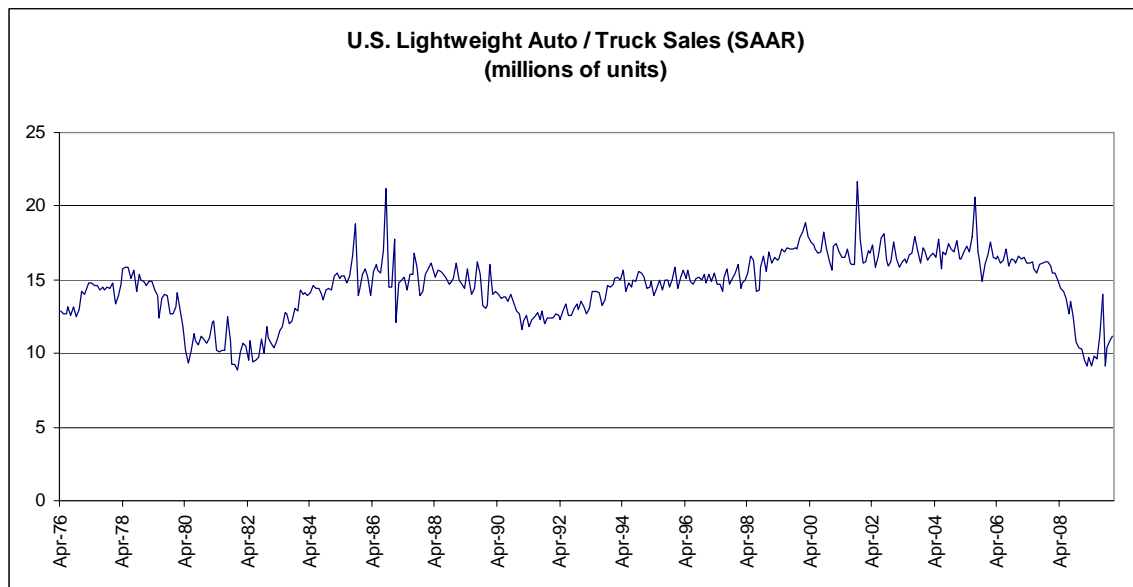
As seen in the charts below, capacity utilization and industrial production both have recovered from their recessionary lows. In the case of capacity utilization, it reached a record low since the series began in 1972.





Source: Federal Reserve

Thanks to the cash for clunkers deal U.S. motor vehicle sales surged to a seasonally adjusted annual rate (SAAR) of 14.1 million in August only to drop off to less than 10 million after the conclusion of the government program. Before the crisis, annual sales in the U.S. market had been >15 million since 2000. The question is what number will this be going forward, best guess is about 12 million units in 2010 and 14 million in 2011, but that represents a CAGR of 17%. As for adhesives themselves, ChemQuest estimates overall volume declines of 20% peak to troth for the recession.



Source: Federal Reserve



*When a billion isn't a billion...*

On a lighter note, it may come as a surprise that there is more than one large scale numbering system used in the world. The two most widely used are the long scale and the short scale and it can become a point of confusion if persons are referring to a large number using different systems. In fact it was during a conference call with a Dutch firm that I became aware of this variance. America and most other English speaking nations use the short scale numbering system when referring to large numbers, while continental European nations continue to use the long scale system. Until it changed in 1974, the UK also used the long scale. The table below shows where the two systems diverge, beginning with a "billion." Because of the possibility of a misunderstanding it's a good idea to clarify the meaning of these numbers in international conversations when they come up.

Value	Short Scale	Long Scale
1,000	thousand	thousand
1,000,000	million	million
1,000,000,000	billion	thousand million
1,000,000,000,000	trillion	billion



## About The Author



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an international strategic management consulting  
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Todd joined The ChemQuest Group, Inc. in 1998 after receiving his MBA from Miami University in Oxford, Ohio. As Manager of Strategic Planning, he maintains up-to-date profiles on major industry participants as well as targeted value chains in the Coatings, Adhesives, and Sealants industries. He also holds a B.B.A. degree in Finance and Management from the University of Cincinnati.

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