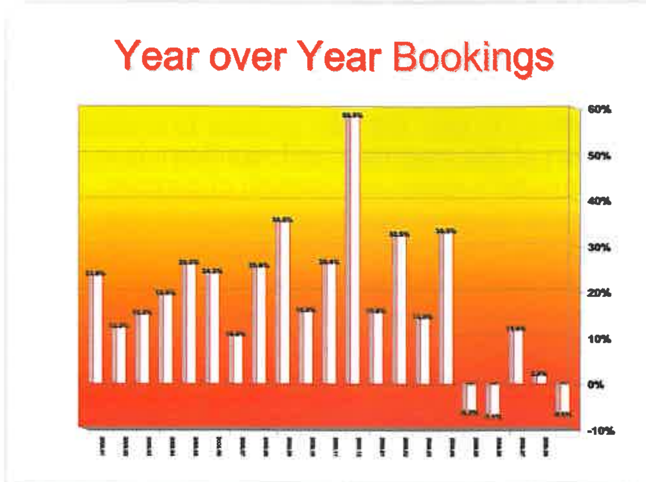
Tracking Economic Conditions During a Time of Transition

From outward appearances, 2006 has been another great year for the gear market. The three year market expansion seems to just keep rolling along. Discussions with gear manufacturers revolve around terms like "backlogs," "capacity limits," and "considering buying new equipment." It is not unusual to hear a gear manufacturer remark that his shipments for 2006 are up twenty to twenty-five percent and some manufacturers are so busy that they can't promise delivery until late 2007. The market data support this anecdotal evidence. AGMA's Index of Shipments of gears and drives (including both domestic consumption and exports) was up sixteen percent through the first three quarters of 2006, with a particularly strong performance for open gears. Shipments of open gears were up over twenty percent in 2006. And this follows double-digit growth in 2004 and 2005.

We have now had three years of strong gear market expansion and domestic shipments have not only completely recovered from the 2001-2002 gear market recession but also have grown enough to exceeded their long-term trend. The market hasn't seen three successive years this strong in over twenty-five years. But, of course, all of this good news eventually leads to the inevitable question: how long will it last?

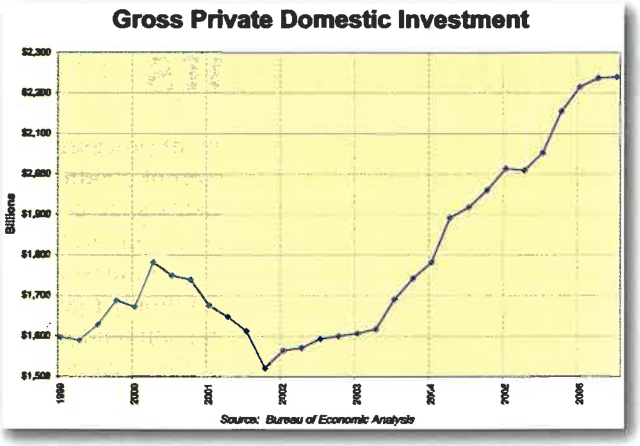
There are some signs that, unfortunately, that we have not entered a "new reality," in which gear shipments grow 15 to 20 percent every year. Recent performance in gear bookings, which gives us some insight into future gear shipments, suggests that next year's market growth will not match this year's growth. Through the first three quarters of 2006, bookings have grown only 1.7 percent and in the May through September period, three of the months posted year-over-year declines in bookings. This softness in bookings alone makes it difficult to project double-digit growth in shipments for 2007 Looking a bit more broadly, we can see a similar slowdown in the manufacturing sector. There has very little growth in new orders for manufactured goods since the beginning of 2006 and growth in orders for non-defense capital goods as come to a virtual standstill.

By Dr. Mike Bradley



As is typically the case at this stage of the expansion, the economy is sending mixed signals. To keep track of economic conditions during a time of transition, it is important for identify and focus on the key factors that are influencing gear market performance. Identifying a tracking the right factors helps extract the signal from the noise. Currently, there are four key factors influencing the gear market and leading the dissipation of energy in the manufacturing sector and the gear market. These factors are acting like drag chutes—they are not enough to completely stop the expansion but enough to slow its growth.

The first factor is the persistent trade deficit which is currently at about $800 billion a year. Actually, it is a bit worse than that for manufacturers. The regularly quoted, cited above, figure is the trade deficit for goods and services. Since the U.S. runs a trade surplus on services (yes, we do inflict some of our lawyers on the rest of the world!), the deficit for just goods is larger at about $900 billion a year. Moreover, that over 60 percent of the economy is devoted to producing services, the $900 billion is an even larger figure relative to the production of goods. A large deficit in the trade of goods hurts domestic gear shipments in two ways. First, imports of gears directly substitute for domestic manufacture of gears. Second, imports of equipment and machinery embodying gears indirectly substitute imported gears for domestic gears. As the trade deficit gets larger, more and more positive demand pressure is diverted from domes-



tic producers as the needs are filled by imports.

The second factor, the level of interest rates, has long been an important economic variable for gear manufacturers, as equipment and machinery are "interest-sensitive" goods. Companies compare the expected rate of return from a potential investment project with the cost of borrowing to finance that project. When interest rates rise, fewer and fewer projects "make the cut," and plant and equipment spending softens. This means fewer capital goods are purchased and, ultimately, fewer gears are sold. Over the last two years, the Federal Reserve has been very concerned about the reemergence of inflation and has been putting upward pressure on rates. Since July 2004, the prime rate has more than doubled, from 4 percent to its current 8.25 percent. Companies whose borrowing is linked to the prime have thus seen their cost of borrowing double. Clearly some investment projects that looked good at 4 percent rates look less attractive at 8 percent rates.

The effect of higher rates is uneven, however. The impact of Federal Reserve policy has been felt far more on "short term" interest rates, those on borrowing for three years or less. Long term rates have been more stable. The ten-year Treasury bond rate, for example, has increase less that half a percent since July 2004. This means that the impact of higher interest rates on gear manufacturers depends, in part, on the end-use market that they serve. For example, the stability of long rates is one reason that the construction sector was able to stay strong until very recently. But the real story for the construction sector is the tremendous amount of liquidity created by the Federal Reserve between 2001 and 2004. This liquidity inevitably finds its way to other assets and this time it showed up in rapidly rising real estate prices. The excess liquidity took the form of easy mortgage credit and low interest rates and created a temporary balloon in real estate prices, which in turn stimulated substantial growth in home construction. Once the Fed turned off the spigot, the balloon deflated and the construction sector has had serious troubles as of late.

The construction slowdown is the third economic factor that bears tracing. Not only are housing prices falling sharply many areas, but also for the first time since 1991, the level of residential construction activity has fallen. This has two implications for the gear market. First, consumers have been depending upon the growing wealth embodied in their houses to sustain there spending levels. As that wealth level falls, consumers cut back on their purchases and the overall level of economic activity falls. Second, construction machinery has been a sizeable market for the gear industry. A reasonable estimate, based upon Department of Commerce data, is that there is over $300 million a year of gearing is sold to construction machinery producers in the U.S. Thus, a slowdown in the production of construction equipment would clearly be felt by the gear market.

The last factor is the dissipation of the investment boom of the last three years. The manufacturing sector was already in recession prior to the attack on 9/11, so the attack, and the recession in 2001, just made things worse and further reduced manufacturing firms' already shaky confidence in future economic conditions. This lack of confidence caused these firms to defer investment in new plant and the equipment. Then, as the economy recovered in 2002, the manufacturing sector went into a second recession, which really didn't end until the very end of 2003. Thus, for three years firms were delaying and deferring new capital spending and when the manufacturing sector recovered in 2004 there was a lot of "pent up demand" for new equipment and machinery. This pent up demand, in combination with low interest rates and strong profits, caused and investment boom and investment grew by 12 percent in 2004 and nearly 10 percent in 2005. However, the pent up demand appears to have been spent and is no longer driving extraordinary investment rates. As with other indicators, investment has slowed in recent months averaging only 2 percent growth over the second and third quarters of 2006.

In sum, there are a variety of economic indicators suggesting that 2007 will not match 2006 for the gear market. But economic forecasting is particularly difficult in times of transition when the economic data is producing mixed messages. Thus, a prudent course is to track the four economic factors influencing current gear market conditions in order to keep an eye on where the market headed.