Originally appeared in:
HYDROCARBON PROCESSING®
Yokogawa Conference daily
November 2006
Used with permission.
www.HydrocarbonProcessing.com

Demand-side conditions bode well for 2007 automation market growth

LARRY O'BRIEN, ARC Advisory Group, Dedham, Massachusetts

The global market for automation is still in a growth phase that is expected to last through the next several years. China, India and the rest of Asia are still hitting on all cylinders with large infrastructural and grassroots projects continuing to be booked. The Middle East continues its capital investment boom as well, with opportunities not just limited to the oil and gas and refining industries. North America and Western Europe, the most developed economies when it comes to automation and manufacturing, are experiencing less growth, but are driven significantly by the need to modernize a rapidly aging automation infrastructure that has exceeded $65 billion.

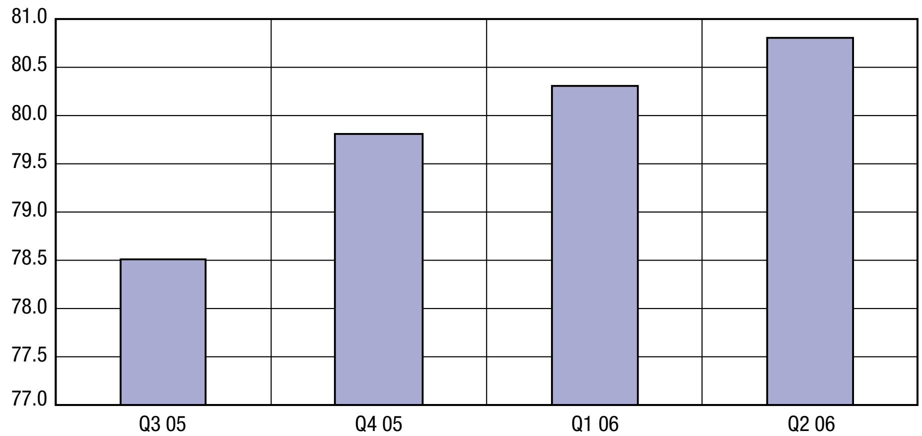

Fig. 1. US manufacturing capacity utilization (source: US Federal Reserve).

US opportunities for automation

The US economy experienced slower than expected economic growth of around 2.6% for the spring of 2006. On the manufacturing side of the equation there is still room for much growth, although the true potential of North American manufacturing is not being realized. Manufacturing productivity continues on its upswing, increasing by 3% in the second quarter, while output increased by 5.4%. The National Association of Manufacturers estimates that manufacturing has boosted its level of productivity by 50% over the past decade, and automation continues to have a significant impact on productivity, particularly in industries that have not traditionally used more sophisticated levels of automation such as food and beverage and pharmaceuticals.

US manufacturing output was flat in August, with a rise in durable goods production offset by a decrease in output for nondurables. Capacity utilization for the manufacturing industries declined slightly to 81%, but this still places it over two percentage compared to the same time last year (Fig. 1). ARC expects that capacity utilization in the US will continue to creep upward, although utilization rates in the refining industry are already very high. Production of motor vehicles and parts actually increased compared to the first quarter of 2006, but was down 2.7% compared to the same period in 2005.

In Canada, the focus for manufacturing and automation rests squarely on the tar sands and its vast potential to add to the world's supply of oil. While the investment in Canada's oil sands is substantial, overall Canadian manufacturing continues to perform below expectations. Overall manufacturing shipments rose by less than 1% in July, with gains almost fully attributable to higher prices.

Eastern Europe, Middle East provide continued growth

The environment for manufacturing in the EU 25 and Euro area is experiencing slower growth. Industrial output for the EU 25 member countries was down in July of 2006 by 0.2% compared to the previous month. New orders for manufacturers fell by 1% between May and June of 2006 (Fig. 2), but the long-term trend for both industrial production and new orders remains positive. In Eastern Europe and Russia, the outlook remains quite positive, particularly for the heavy process industries. Eastern European nations continue to make significant investments to meet EU environmental regulations.

Russia continues to put increased pressure on foreign oil firms doing business there, as we saw with the recent difficulties surrounding the Sakhalin oil project and Gazprom's recent decision to go solo on the Shtokman field, which is the world's largest offshore gas field. The growing power of Russian companies like Gazprom is a concern for competitors in big oil and may cause further headaches for multinational energy firms attempting to expand their presence in the Russian marketplace.

The Middle East continues to enjoy an oil boom, and capital investment remains at very high levels not just for the refining and oil and gas industries, but for a broad spectrum of new manufacturing projects. The Middle East is taking its energy profits from higher prices and using them to develop other areas of the economy to reduce dependence on oil.

China, India continue expansion

The manufacturing environment in China continues to experience robust growth. In September, the China manufacturing sector

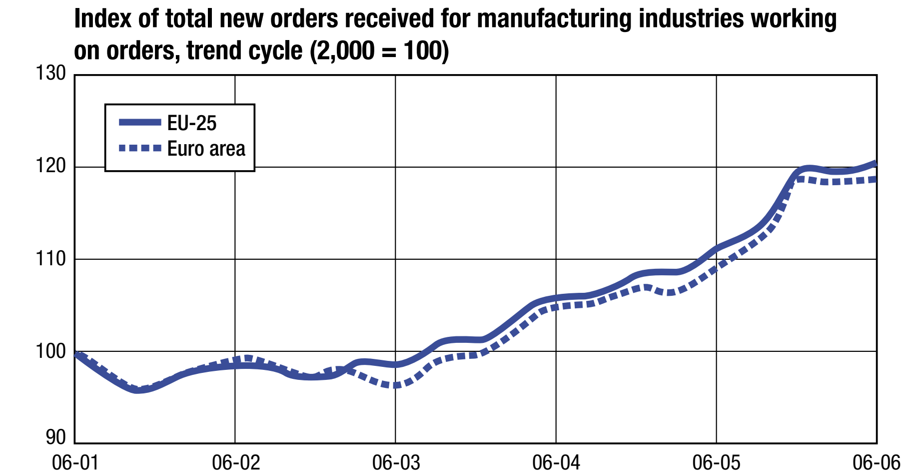

Fig. 2. New orders received for manufacturing in Europe declined slightly in June (source: Eurostat).

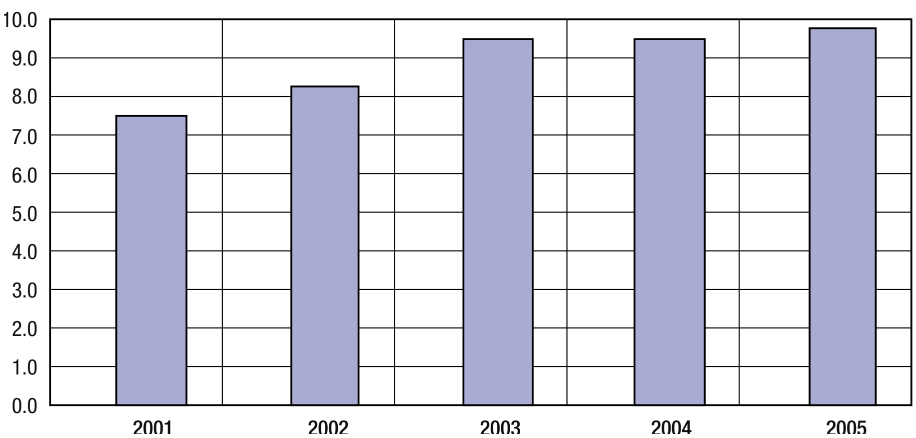

Fig. 2. New orders received for manufacturing in Europe declined slightly in June (source: Eurostat).

experienced its fastest growth in five months according to the China Federation of Logistics and Purchasing and the National Bureau of Statistics, which jointly released a survey of purchasing managers (Fig. 3). Many manufacturers in China, however, are concerned about rising costs and increased regulatory pressure on the economy to prevent overheating, but this will not have a meaningful impact on automation market conditions toward the end of this year and into next year, as many new projects continue to be booked. If anything, the growing backlog of projects in Asia and the ability to meet the demand is of concern to suppliers.

The Purchasing Manager's Index survey in India shows that the manufacturing sector there has been expanding at its strongest rate in 18 months. The Indian economy attracted a record $2.9 billion in foreign direct investment (FDI) in the first four months of the fiscal year, marking an increase in FDI inflows of 92% compared to the same period last year. The total Indian economy expanded by close to 9% in the first quarter, and ARC expects growth in automation will well exceed overall GDP growth.

Japan continues rebound

Japan continues to experience a recovery in manufacturing. Overall manufacturing capacity utilization in Japan has increased for the first six consecutive months this year. According to the International Monetary Fund (IMF), the recovery in domestic demand is leading the overall recovery of the domestic Japanese economy, and GDP growth is expected to reach 3% for 2006.

Latin America has bright spots

Latin America has experienced mixed performance within different countries and industries, but overall the region will remain a promising growth prospect. The total Latin American economy will grow by 3.8% in 2006 according to the IMF, which is a slowdown compared to the 4.1% GDP growth in 2005. Bright spots in Latin America include the oil and gas and mining industries.

Conclusions, recommendations

Demand for automation products and services will continue to be strong worldwide for 2006 and 2007, despite some soft spots regionally and by industry. Overall, rising energy costs have had a positive impact on capital spending for automation. Old refineries must strive to become as efficient as possible and there is a renewed focus on areas such as custody transfer for the oil and gas industry.

While we have seen a temporary reprieve in energy prices in the past couple of months, prices are going to rise again in the long term and the gap between demand and available supply remains tight. Any disruption in supply at this point will have an impact on prices, as was witnessed with the Alaska pipeline leak. By using tools to prolong the life of assets and implement a predictive maintenance strategy, end users can avoid potentially disastrous events.

While the addition of manufacturing capacity in Asia and developing economies is providing much of the impetus for revenue growth in the automation industry, the developed markets in North America and Europe yield higher profits for automation suppliers. The installed base of automation systems on both the process and discrete sides in North America and Europe is aging rapidly and much of it is in dire need of replacement and upgrade. Both suppliers and end users need to turn their attention to their installed base as a business opportunity and to ensure future competitiveness. ◆

Larry O'Brien is part of the automation consulting team at ARC covering the process industries. He is responsible for tracking the market for process automation systems (PASs) and has authored the PAS market studies for ARC since 1998. Mr. O'Brien has also authored many other market research, strategy and custom research reports on topics including process fieldbus, collaborative partnerships, total automation market trends and others. He has been with ARC since January 1993, and started his career with market research in the field instrumentation markets.