

How the Weak Dollar Is Reviving U.S. Manufacturing

A new cost structure sets the stage for expansion.

by **Ron Harbour**
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Gloomy financial news about the Detroit-based automakers keeps coming. But from another standpoint, the foundation of a North American automotive revival is being built on the weak U.S. dollar, a more competitive labor model, and Lean manufacturing fundamentals.

It's a sort of Marshall Plan in reverse, where the winners may include European, Korean, Indian, and Chinese automakers who grasp the opportunity—and it will also include the tens of thousands of North American workers they employ. This shift mimics the “build-where-you-sell” model that has worked for Toyota, Honda, and Nissan for several decades, but it also could open opportunities for exporting, particularly to Europe.

Of course, no one would compare the physical state of American manufacturing today to post-World War II Europe. There are sprawling new factories throughout the U.S., even some owned by Chrysler, Ford, and General Motors. As measured

by *The Harbour Report*[™], a publication of Oliver Wyman, the Detroit 3 have raised their quality and productivity to parity with the Japan 3.

But domestic automakers collectively lost about \$8 billion from their North American operations in 2007, a number that swelled to more than \$40 billion when special accounting charges are included. More broadly, America's industrial landscape has been decimated, with more than 2.3 million manufacturing jobs disappearing since 2000, according to the Alliance for American Manufacturing. Hundreds of thousands of those jobs came from the Detroit 3 and their suppliers.

Certainly, one factor has been the migration of manufacturing jobs to low-wage competitors in parts of South America, Asia, and Eastern Europe. Local demand also played a role; all three regions are experiencing sustained economic growth and millions of upwardly mobile consumers have bought their first cars.

These emerging markets took off just as Detroit-based carmakers have seen their collective market share at home erode to 51% last year from 67% in 2000. Rising gasoline prices have eroded sales of the once-lucrative pickup trucks and sport-utility vehicles (SUVs). Now, fallout from the mortgage meltdown threatens to push U.S. light-vehicle sales to the lowest level since 1998.

The Dollar's Role

Blaming traditional scapegoats such as inefficient unions, laissez-faire government policy, and unfair trade practices is worse than a waste of time; it ignores the sweeping change that has created a new playing field.

Consider that more than 10% of those 2.3 million jobs were lost in the past year. This was a period when the U.S. dollar plummeted more than 30% against the euro, making the cost of European-made goods too expensive for most Americans (Exhibit 1). Conversely, the weak dollar has turned the entire U.S. economy into a giant bargain bin for Europeans.

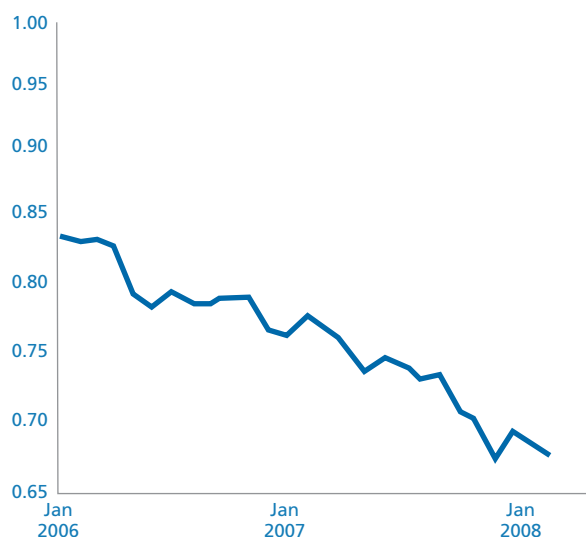
There was a time when global manufacturers could manage currency swings by hedging in foreign exchange markets. But over the past 18 months, we have seen a longer-term structural shift that is forcing many European manufacturers to change their strategies for competing in North America.

"No European executive in his right mind can discount the possibility of the dollar falling to \$1.75 or \$1.80 to the euro," says Sean McAlinden, chief economist at the Center for Automotive Research in Ann Arbor, Mich. "You can't leave a market as big as the U.S. to the Asians."

Several European automakers have already responded to this structural change:

- BMW is expanding capacity at its Spartanburg, S.C., plant from 155,000 to 240,000 vehicles a year by 2012, in order to launch its new X6 crossover utility vehicle and the redesigned X3 compact SUV.
- Volkswagen will soon announce the site of an assembly plant in the southeastern U.S., where it expects to produce at least 200,000 vehicles annually beginning no later than 2011.

Exhibit 1 The dollar's decline versus the euro



Source: Yahoo! Finance

European and some Asian automakers are expanding or building greenfield factories to meet local demand and to export.

- Fiat CEO Sergio Marchionne has said a North American plant is necessary if Fiat is serious about reintroducing its Alfa Romeo brand to the U.S. in 2009.

Asian manufacturers are making substantial investments as well:

- Kia Motors will launch production later this year at its new assembly plant in West Point, Ga. Total production will eventually reach 300,000 vehicles annually.
- Mahindra & Mahindra, India's largest maker of SUVs and tractors, will launch production in 2009 of a diesel-powered compact pickup truck, the Appalachian, at a plant in Ohio. The trucks will be sold through about 300 dealers, with a first-year sales target of 45,000 units. Eventually, Mahindra wants to offer two pickup models and an SUV, all powered by diesel engines or a diesel-hybrid powertrain that could be available as early as 2010.

In Mexico, meanwhile, two Chinese automakers have announced large investments:

- FAW Group, China's largest automaker, is selling cars imported from China to Mexico this year through a joint venture with Mexico City-based retailer Grupo Elektra. By 2010, FAW plans to begin production at an assembly plant in the western state of Michoacan, turning out 100,000 vehicles a year. Initially, the cars will be sold in Mexico and Central America.
- Geely Holding Group recently announced a partnership through which the Chinese auto-

maker will invest \$500 million for a new assembly plant in Mexico to produce U.S.-specific models. Initial capacity will be 50,000, but Geely intends to expand that to 300,000 cars annually.

These investments will ripple through each company's supply chain. As BMW, Volkswagen, and Kia expand, they will increase the percentage of components, engineering support, and ancillary services they buy in the U.S. McAlinden estimates that European-sourced parts alone add at least \$3,000 to the cost of a Volkswagen Passat. Volkswagen (including its Audi and Bentley brands) wants to triple its U.S. sales to 1 million units by 2018. To get there, it will have to become competitive with Toyota and GM, the productivity leaders in the North American market. Importing from Germany won't work.

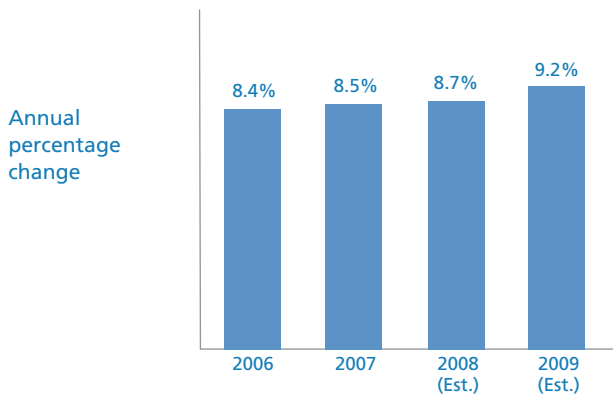
Playing the Healthcare Card

Why is this happening when Honda and Toyota are building new assembly plants in Indiana, Ontario, and Mississippi, and when auto sales in the U.S. are expected to fall to their lowest level in a decade?

The short answer is that the cost structure of manufacturing vehicles in either the U.S. or Mexico is much more competitive than it was two years ago. Besides the dollar's collapse, what made the difference was the contract breakthrough last fall with the United Auto Workers. The UAW agreed to take financial responsibility in 2010 for about \$87 billion in retiree health-care obligations, lifting an enormous burden from the balance sheets of Chrysler, Ford, and General Motors. Neutralize the crushing burden of health care—as the UAW's bold move begins to do—and suddenly there's a business case for building cars in the U.S. or Mexico and shipping them to Europe or South America.

“With a lower dollar, you're getting U.S. assets at a fire sale and you gain the flexibility to export,” says Cliff Waldman, economist with the Manufacturers Alliance/MAPI, a leadership and information exchange forum for manufacturing companies.

Exhibit 2 Moderate but accelerating U.S. export growth



Source: MAPI forecast.

Exports are helping to fuel this revival. In 2007, exports of U.S.-produced goods grew 8.5% to \$1.6 trillion, according to the Commerce Department's Bureau of Economic Analysis. Waldman estimates that U.S. exports will grow by 8.7% in 2008 and 9.2% in 2009 (Exhibit 2).

This is not to suggest that America's voracious appetite for imports is shrinking. Exports of motor vehicles and components from the U.S. jumped 13% to roughly \$121 billion in 2007, but American consumers and businesses spent more than twice as much—almost \$257 billion—on imported vehicles and parts. For commodity parts such as fuel pumps, air pumps, bearings, and the like, Asia and Eastern Europe will remain lower-cost options.

Nevertheless, the U.S. trade deficit (the amount by which foreign-produced imports exceed domestically made exports) fell in 2007 for the first time since 2001, dropping 6.2% to \$712 billion.

Moderating Labor Costs

The dollar can't fall forever. Yet even when it starts to turn up, the U.S. auto industry now has a stronger foundation on which to compete, because of recent changes to labor costs. In last fall's contract negotiation, the UAW allowed the Detroit 3 to hire new workers at about \$14.50 an hour, roughly half the rate they pay veteran workers. By February, all three firms announced

new rounds of early-retirement buyouts, creating openings the new lower-wage workers will fill. No longer will the domestic companies be paying thousands of workers on temporary layoff. Newly hired workers will be paying about the same out-of-pocket cost for their health care as their counterparts at any non-union manufacturer.

Both management and organized labor have committed to shrink and eventually erase the gap between the Detroit-based manufacturers and their Asia-based rivals, who built almost one-third of all light vehicles produced in North America in 2007. Morgan Stanley auto analyst Jonathan Steinmetz estimates that by 2010, the new contracts could enable GM to save \$3.8 billion a year, Ford \$2.4 billion, and Chrysler \$2 billion.

Reinforcing the labor-rate trend is the state of logistics. It may make economic sense to source wiring harnesses or door trim modules from a low-wage supplier in China or India if the vehicles they go into are assembled in Asia. But the lure of cheap labor loses its luster if those same parts must be shipped across oceans to an assembly plant; you have to consider transportation costs, the risks of damage in shipping, and weather-related delays that could disrupt production continents away.

Similarly for European automakers and suppliers, investing in new North American capacity goes beyond a currency play; it is an opportunity to hire and train a new workforce, and to establish a set of Lean processes that can drive a disciplined approach to quality and productivity. Greenfield sites in the U.S. allow the same "clean-sheet-of-paper" approach to tooling, sourcing, hiring, and training as European manufacturers have enjoyed in Eastern Europe and Asia.

The Lean Revolution

Lean processes in these areas involve many small incremental decisions that cumulatively can save millions of dollars. For example, how is the factory's equipment laid out? Does the flow of a car body or engine through the plant allow the most efficient use of automation and

labor? How are parts presented to the workers? Must they walk extra distances and repeatedly bend and reach for parts, or are jobs designed to minimize movement?

As *The Harbour Report* has found, the consistent teaching, implementation and refinement of Lean practices have enabled Chrysler, Ford, and GM to narrow the gap between themselves and the North American plants of their Japan-based rivals (Exhibit 3). In 1998, the assembly productivity gap between the most and least efficient automakers was 14.7 hours per vehicle. By 2006, that had shrunk to 2.9. GM effectively caught Toyota (22.15 versus 22.05 hours per vehicle).

A decade ago, you could walk along the trim and final assembly line of an American plant and have a difficult time seeing the body of the vehicle coming together because the large quantity of inventory stacked along the line would block your view.

Today, inventories are delivered as needed and presented to the worker's fingertips, minimizing walking, reaching, and other wasted effort. Workers are organized into teams of between six and 12, responsible to a team leader who may step in when a colleague is absent or when a problem develops that requires assistance. Team members often can do each other's jobs and rotate tasks during a shift to relieve monotony.

Moreover, Lean teams resolve quality issues within the workstation, rather than passing the problem downstream to resolve later and at higher cost. There's been a substantial reduction among the majority of North American automotive plants in the number of people and hours spent inspecting and repairing defects.

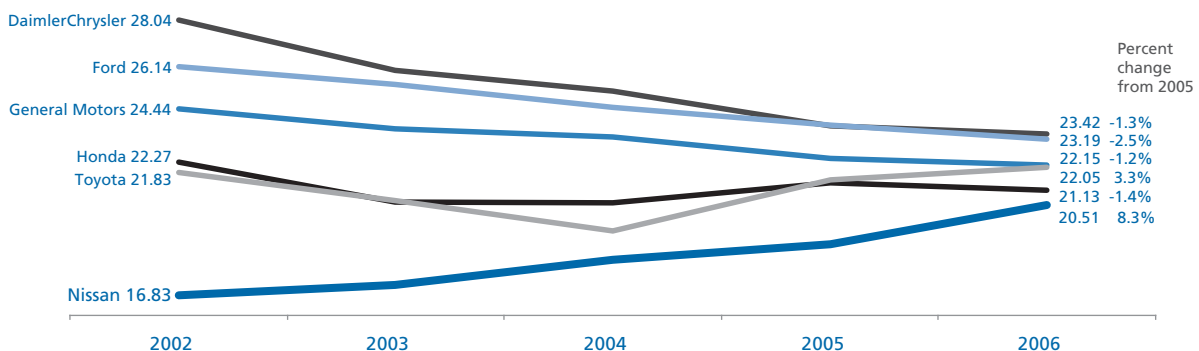
This same trend is playing out in Europe, stimulated in part by the proliferation of newer, low-cost operations in Poland, Hungary, the Czech Republic, and Russia. These leaner factories have enabled automakers to find the optimal balance of automation and flexible workers who are producing profitably the small, basic cars that suit emerging economies.

Management and unions in Western Europe can look at the new manufacturing migration to North America and blame globalization. Or they can engage the economic challenge and take their operations to a more competitive level, just as Detroit-based automakers have been responding to the success of Toyota, Honda, and Nissan in North America.

Partnerships such as Fiat-Ford in Tychy, Poland, with Fiat assembling the Fiat 500 and Ford Ka models on the same line, represent one viable strategy. Another promising approach is Ford's Cologne factory, which relies heavily on components and modules pre-assembled by suppli-

Exhibit 3 History of vehicle assembly - HPV

Hours per vehicle: body, paint, trim, chassis, and final assembly



GM excludes medium-duty plants. Honda and Toyota data include partial reporting of North American plants.
Nissan data estimated with publicly available data.
Source: *The Harbour Report*.

ers and has become one of the most efficient plants in Europe.

The Broader Manufacturing Landscape

Beyond the auto industry, the falling dollar, lower wages, and more efficient manufacturing systems are relevant to any global producer of consumer or capital goods.

Compact Power, a manufacturer of landscaping and construction equipment based in Fort Mill, S.C., has doubled its export sales in the last year, and expects to double them again in 2008. “We’ve accelerated our international growth because of the exchange rate,” Compact Power Chief Financial Officer Norman Boling told *CFO Magazine*. “The falling dollar has made us more competitive in markets where we’re up against established competition.”

Technology-intensive sectors also are showing signs of growth in the U.S. Consider the renewable energy sector. In the past year, two solar thermal power plants opened near Las Vegas. Ten more are scheduled to open soon in California, Arizona, and elsewhere in Nevada. This technology entails covering acres of land with mirrors that reflect sunlight with enough intensity to convert a fluid to steam that turns a turbine and generates electricity. Those new plants alone equal the generating capacity of three nuclear plants and they can be built in less than half the time required to construct a nuclear plant.

In some cases, especially those involving commodity products, the business case for sourcing from emerging markets will prevail. But the total cost analysis entails so much more than labor. Where’s the business case for making car seats in China, when the cost of shipping them

The assembly productivity gap between the Detroit 3 and Japan-based firms has narrowed.

12,000 miles and the redundant cost of storing and sequencing them for an assembly plant in Indiana will far exceed the savings in labor? Factor in additional savings from leaner inventories, more robust assembly processes, and the agility to more quickly respond to changes in market demand and the case for shifting most of your footprint from North America to China or India become dubious. That’s why two of China’s largest indigenous automakers are setting up shop in Mexico, and why India’s Mahindra & Mahindra plans on building small pickups in Ohio. Just as Honda and Toyota proved to Detroit 20 years ago that it was possible to build small and mid-size cars profitably with American workers, there is a new wave of companies from China and India ready to teach that lesson all over again with even smaller, more fuel-efficient vehicles.

As any clear-eyed value investor can attest, there comes a point where undervalued assets, a supposedly mature market, and an under-rated workforce present a bargain that can’t be ignored. The challenge is to look past the headlines and political rhetoric about the repercussions of free trade, and see that manufacturing in North America is poised to rebound. ❖

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