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The Chinese Sputnik

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Fifty years ago, America panicked upon learning of the Soviet Union's launch of the Sputnik. The Communist spacecraft orbiting the Earth was a stern wake-up call, shaking the collective sense of American invincibility and bringing Americans to realize that they were no longer the masters of missile and space technology. Indeed, it was a national humiliation: The Russians are ahead of us. We are behind. As historian Michael Beschloss said, Sputnik was "the first big moment of national self-doubt after World War II." Today, with plummeting currency, heavily in debt, deadlocked in Iraq and facing growing international antipathy, we are at a new moment of self doubt, unaware that another Sputnik is in the making. This time the surprise, also coming from a Communist country, will not be in the sky but on the ground. Our next Sputnik is the Chinese automobile soon to roll onto America's roads.

With an economy growing at a sustained rate of 10 percent a year and millions of Chinese with growing disposable income now abandoning their bicycles in favor of family cars, China's auto market is growing by leaps and bounds. China is already the world's third-largest car market and it is projected to overtake Japan by 2010. Not long after that it is likely to pass the United States.

Exhibiting the same hubris that our leaders showed 50 years ago, American automakers still believe that the quality and appeal of their products will defend them against China. To be sure, China still has a way to go before it can produce cars of quality comparable to that of the Big Three. But the quality gap is closing rapidly. China trains four times more engineers than the United States while systematically violating patent laws and replicating technologies. The Chinese allow foreign automakers to operate in their country only through joint ventures with domestic manufacturers. This allows them to learn new manufacturing techniques and to gradually improve the appeal of their products. Chinese cars like Geely and Chery that until recently failed to pass the strict U.S. safety and environmental standards now are close to doing so. It could take as little as a decade for China's auto industry to become competitive with Western manufacturers. Once this happens, ailing Detroit could be on the ropes.

China auto industry's cost advantage enables it to commercialize the gasoline-sipping, no-compromise cars that consumers desire. Due to the low cost of their basic platform - a Chinese

full-size family sedan could sell for as little as $10,000 - Chinese automakers will be able to add fuel choice and advanced vehicle technologies that Detroit is slow to adopt because of the extra cost involved. Take, for example, plug-in hybrid electric vehicles that allow motorists a 20-to-40 mile drive on grid electricity stored in an on-board battery, after which the car lapses into a normal hybrid driving mode. The main barrier to their market penetration is a cost differential of some $12,000 compared with today's gasoline engine cars. Such a cost difference is a problem for American manufacturers. But for the Chinese, adding a plug-in capability would still keep the sticker price lower than that of a non-hybrid U.S. made car. A car capable of achieving over 100 miles per gallon of gasoline, and a per mile cost saving of 80 percent, at the price of a gasoline-only car could be China's Sputnik - and it's coming soon to the showroom near you.

Fifty years ago, it was the space race that determined America's security and posture in the world. Today, it is the race for energy resources. The Sputnik anniversary is a reminder that our technological superiority is facing constant challenge and without proper investment in technological education, innovation and research and development, our edge will forever be eroded. But the Sputnik experience also had a silver lining. It unleashed an unprecedented boost of investment in science and engineering education and research. It brought to the creation of the Defense Advanced Research Projects Agency (DARPA), NASA and scores of other government programs designed to restore America's technological superiority. Commanding space and closing the missile gap became top national priorities. Twelve years later, Neil Armstrong took his first steps on the Moon.

China is now on track to provide our auto and energy sectors with what the Soviets provided our weapons and space industries - a jolt. If a Chinese Sputnik is what's needed to awaken Detroit and Congress to boost investment and speed up the commercialization of vehicles that run on clean and cheap nonpetroleum fuels, then so be it.

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